

# Trade Dynamics and Export Growth: Examining the ASEAN-China Free Trade Area's Influence on Indonesia

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**Abstract.** The ASEAN-China Free Trade Area (ACFTA), established in 2002, seeks to facilitate trade in goods, services, and investments between ASEAN and China. Studies indicate varied effects, with some sectors experiencing increased exports, like textiles and manufacturing, while others, such as cocoa and corn, witness declines. China benefits from ACFTA with a surge in trade surplus, worker wages, and comparative advantages. Conversely, Indonesia faces challenges like reduced import volume and a worsening trade balance. Further exploration of ACFTA's implications, particularly in potential collaborative sectors, is needed. Additionally, GDP growth in both origin and destination countries positively influences Indonesia's exports, aligning with economic theory predicting heightened demand with rising income. Moreover, an appreciation of Indonesia's exchange rate with destination countries correlates with increased export volume. Policymakers should prioritize enhancing ACFTA cooperation to boost Indonesia's export performance, expanding global market access, and stimulating domestic production of export goods.

**Keywords:** ASEAN, ACFTA, Trade Volume, Economic Convergence.

## 1. Introduction

As a country with an open economy, Indonesia has several bilateral, regional and multilateral cooperative agreements. The Association of Southeast Asian Nations (ASEAN), established in 1967, serves as regional cooperation between Indonesia and other countries. To date, ASEAN has formed various Dialogue Partnerships with 11 countries including China. In 2002, the ASEAN-China Free Trade Area (ACFTA) was formed with the signing of the Framework Agreement on Comprehensive Economic Cooperation. The ACFTA is an ongoing agreement between the ASEAN and China that covers goods, services, and investments.

The benefits of the ACFTA are still widely debated in terms of both the countries and their commodities. Some studies indicate significant export growth after the implementation of the ACFTA, particularly in textile commodities (Ahda, 2019; Fuadi, 2018); crops such as coffee, rubber, and coconut oil (Darmanto et al., 2021); various product codes, including 15 (animal and vegetable fats and oils), 87 (vehicles), 29 (organic chemicals), and 40 (rubber and

derivatives) (Nurulwulandari et al., 2019); and manufacturing and chemical products (Yang and Zarzoso, 2014). However, exports have declined for commodities such as cocoa (Darmanto et al., 2021), corn (Ferrianta et al., 2012), and code 26 (ores) (Nurulwulandari et al., 2019).

In terms of countries, China has benefited from ACFTA through increased trade surpluses, worker wages, and comparative advantages over other countries; and Singapore has also benefited, particularly in financial services (Chiang, 2019). Additionally, Brunei, Laos, and Malaysia have significant trading potential under ACFTA (Tran et al., 2020). Indonesia's import volume has suffered losses under the ACFTA (Dewi et al., 2020a), similar to that of other ASEAN countries (Tran et al., 2020). However, Indonesia has not benefited from trade with FTA (Yusuf & Nugroho, 2022).

A country's trade benefits are realized under surplus trade conditions. Under trade surplus conditions, the net export condition is positive (Mankiw, 2016, ch. 6, p.143), indicating that export performance exceeds import performance. Export performance can be proxied by export volume (Yusuf and Nugroho 2022; Darmanto et al. 2021; (Andarini, 2019); Fuadi 2018) or export value (Dewi et. al 2020; Ahda 2019). Export performance is influenced by a country's economic conditions such as its Gross Domestic Product (GDP) (Dewi, 2020; Indriyani, 2016), exchange rate (Yusuf & Nugroho, 2022; Fuadi, 2018), and prices or inflation (Fuadi, 2018; Indriyani, 2016). The variance in previous research findings regarding the aggregate impact of FTAs, specifically the ACFTA, based on traded commodities or the gains or losses incurred by the countries within it, raises the question of whether the ACFTA benefits or harms export performance or volume in Indonesia.

This study investigates the influence of the ASEAN-China Free Trade Agreement (ACFTA) on Indonesia's export volume, while also considering the impact of GDP, inflation, and exchange rates on this metric, based on the problem formulation derived from previous studies. This research focuses on the trade dynamics between Indonesia and ASEAN countries, as well as China, from 2000 to 2020, with a specific focus on the ACFTA's implementation from 2010 onwards. The objectives of this study are to analyze changes in Indonesia's export volume before and after the ACFTA, and to determine the correlation between economic indicators such as GDP, inflation, exchange rates, and export volumes. This study aims to shed light on the role of the ACFTA in Indonesia's trade landscape and promote greater collaboration within the agreement if its impact on Indonesia's trade is proven. The scope of this study was clearly defined and the objectives were well-defined, making it easier to achieve the desired outcomes.

## **2. Literature Review**

### **2.1. The International Trade Theory**

Classical international trade theories such as Ricardo's comparative advantage (Sen, 2010) and the Heckscher-Ohlin model provide conceptual foundations for understanding trade patterns between countries and (Gandolfo, 2013). However, trade dynamics are also influenced by other factors such as relative prices (Pindyck, R. S., 2018), real exchange rates (Rosenberg, 2003), and economic policies (Pindyck, R. S., 2018). Previous research highlights the importance of these factors in driving Indonesia's export performance. The results of the latest research add insight into the impact of ACFTA, macroeconomic factors, and the importance of export diversification. A deep understanding of the interaction between trade theory, economic policies, and market conditions is essential for policymakers in devising effective strategies to improve

Indonesia's export competitiveness in the global arena. A comprehensive and adaptive approach is needed to optimize the benefits of international trade agreements such as ACFTA as well as address challenges that arise in a dynamic trade environment.

## **2.2. Previous Study**

### **The impact of Asean-China FTA on Indonesia's export trade performance**

The ACFTA, a trade agreement between ASEAN member countries and China, aims to promote trade and economic co-operation. Various studies have focused on the impact of this agreement on Indonesia's export-trade performance. The positive impacts of trade cooperation include increased investment, development, job creation, product diversification, and economic growth, whereas negative impacts may include increased unemployment, inequality in human resources, and non-tariff barriers. Indonesia's economic growth with its trading partners including China, Japan, and Korea has been significant. The development of the global value chain, driven by China and Korea, has contributed to Indonesia's export value growth and regional economic growth in the Asian region (Dewi et al., 2020).

Economic integration in the ASEAN region has been the topic of several studies. (Sharma & Chua, 2000) and (Thornton, 2014) found that AFTA had no significant impact on intra-ASEAN trade, but significantly impacted ASEAN countries' export competitiveness with other countries. (Elliott & Ikemoto, 2004) evaluated AFTA's impact of the AFTA on trade between ASEAN countries using data from 1982 to 1990 and found that the AFTA had a greater trade impact between ASEAN countries than with non-ASEAN countries. Roberts (2004) researched the impact of the ASEAN-China Free Trade Area (ACFTA) on trade creation and diversion and found that the ACFTA significantly impacted trade creation for ASEAN countries, as well as the production and tariffs of sensitive products. To enhance regional cooperation, the ACFTA should focus on improving production efficiency, production, and the production structure.

The ASEAN–China Free Trade Agreement (ACFTA) was designed to foster commercial activity and economic cooperation between the ASEAN member states and China. This agreement has the potential to drive economic growth and development in both regions by boosting trade and investment; (Chirathivat, 2002);(Donghyun Park, Innwon Park, 2008); (Aslam, 2011). The ACFTA aims to facilitate the entry of natural resource-based and agro-products, as well as manufactured commodities, from ASEAN to China, thereby leveraging the latter's economic expansion and fostering collaboration, (Riswati, Fatimah; Indro, 2010). The agreement emphasizes competitiveness and trade integration, with experts proposing policy measures to optimize benefits by enhancing strong sectors, revealing RCA, and addressing potential issues arising from the ASEAN-China Free Trade Area (Widyastutik & Ashiqin, 2011).

It is essential to thoroughly assess policy implications to optimize the benefits of the ASEAN-China Free Trade Agreement (ACFTA) and mitigate potential losses. Governments should carefully review trade agreements based on their national economic needs, rather than solely responding to external pressures.

Regarding the ASEAN-China Free Trade Agreement (ACFTA), we can conclude that some experts propose enhancing the competitiveness of domestic companies' exports and increasing value-added processes for natural resources and manufactured goods to achieve prosperity in the global market. The ASEAN-China–China FTA covers a diverse trading environment, thus requiring careful policy consideration and strategic adaptation to ensure

### **The impact of Indonesia's foreign trade economic policies on Indonesia's export trade performance**

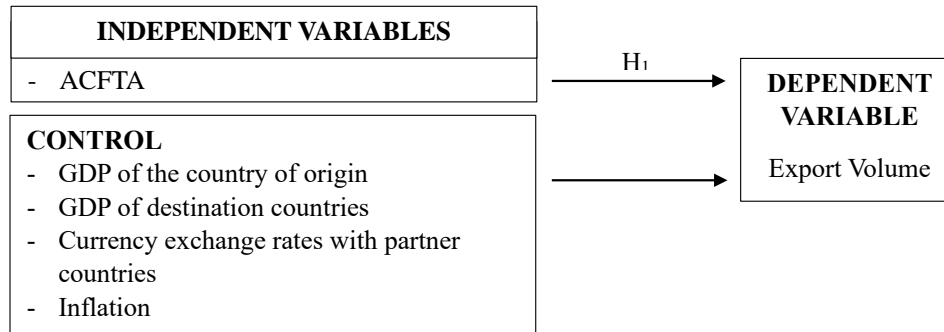
Price and exchange rate policies are critical factors affecting export performance and promoting sustainable export growth in Indonesia. Several studies have investigated Indonesia's trade dynamics and various elements that influence its export performance. These studies provide valuable insights into the complex relationship among currency exchange rate fluctuations, macroeconomic policies, and Indonesia's ability to export goods and services. They also cover topics such as the implementation of exchange rate policies and their impact on a country's trade performance. Research conducted by (Siregar, 2019) (Tamimi et al., 2003) and (Sugiharti et al., 2020) highlight the significant influence of currency exchange rate fluctuations on Indonesia's export performance. They find that these fluctuations can negatively impact trade performance and affect export patterns with major trading partners such as India, Japan, South Korea, and the United States.

According to Athukorala (2006), post-crisis Indonesia's export performance was influenced primarily by supply side factors. Maintaining sustainable export growth requires addressing setbacks in macroeconomic policy changes and promptly implementing incomplete reform programs, as Athukorala emphasizes. This perspective aligns with the views of (Adam & Negara, 2017), who recommend Indonesian government policies aimed at enhancing industrial productivity and maintaining currency exchange rate stability to strengthen exports. Sugema (2005) highlights the connection between depreciation of the real exchange rate and trade balance. The depreciation of the real exchange rate has a positive impact on the trade balance due to increased exports and decreased imports. Import compression highlights the idea that the import response to real exchange rate fluctuations exceeds the export response, resulting in a favorable trade balance. Sugema agreed that Indonesia's export performance is negatively affected by banking issues and socio-political turmoil.

A study conducted by (Rahmaddi & Ichihashi, 2012) focused on the determinants of export competitiveness, specifically looking at the impact of export diversification. Numerous studies have examined the relationship between monetary indicators and export performance. Anggraeni and Prakoso (2022) examined the effects of fluctuating monetary indicators, such as currency exchange rates, interest rates, and inflation, on Indonesia's export performance.

The authors emphasize the significant role of exchange rate fluctuations in shaping export dynamics and suggest that strengthening the rupiah's exchange rate can enhance export performance. These findings offer practical and implementable knowledge to policymakers and economic actors, highlighting the importance of maintaining a stable exchange rate, implementing successful reforms, and developing methods to enhance competitiveness for sustainable export expansion in Indonesia.

Based on previous theories and journals, the theoretical framework for this study is as follows:



**Chart 1. Theoretical Framework**

Source: processed by author

This framework illustrates the relationship between the ASEAN-China Free Trade Agreement (ACFTA) as the independent variable and export volume as the dependent variable. Grounded in free trade theory, ACFTA aims to reduce tariff and non-tariff barriers among member countries, thereby enhancing trade efficiency, expanding market access, and boosting export competitiveness. According to the theory of comparative advantage, trade liberalization enables member countries to capitalize on their relative strengths, which is expected to drive an increase in export volumes. In this context, the hypothesis (H1) posits that ACFTA has a positive impact on export volume.

To ensure that this relationship is not influenced by external factors, control variables such as the GDP of the origin and destination countries, currency exchange rates, and inflation are incorporated. The GDP of the origin country reflects domestic production capacity, while the GDP of destination countries indicates purchasing power and demand levels. Exchange rates affect the price competitiveness of exports, as explained by the purchasing power parity theory, whereas inflation impacts production costs and product competitiveness in international markets. Thus, this framework not only draws on free trade theory but also integrates the gravity trade model, highlighting key economic factors to analyze export volume under the influence of ACFTA.

### Research Hypotheses

According to trade theory, the volume of commodity exports may vary depending on the level of trade cooperation between countries. This is because trade between two countries may result in absolute or comparative advantages for a commodity in one country (Sen 2010). Consequently, a cooperative agreement such as the ACFTA may impact the value of Indonesia's exports and imports, leading to the following hypotheses:

Ha<sub>0</sub>: ACFTA does not significantly affect the volume of Indonesian exports.

Ha<sub>1</sub>: ACFTA has a significant impact on the volume of exports from Indonesia.

Moreover, according to the demand theory of trade goods, the value of a commodity's exports may be influenced by consumer income and prices of the commodity (Sen, 2010). In this study, consumer income was proxied by GDP, whereas commodity prices were proxied by inflation. The hypotheses for income were as follows:

Hb<sub>0</sub>: GDP does not significantly affect the volume of Indonesia's exports

Hb<sub>1</sub>: GDP has a significant impact on the volume of Indonesia's exports.

This study uses nominal GDP; therefore, the exchange rate is necessary to determine the influence of real GDP on exports.

Hc<sub>0</sub>: Exchange rates do not significantly affect Indonesia's export volume.

Hc<sub>1</sub>: Exchange rate has a significant impact on the volume of exports from Indonesia.

Hypotheses for price as a proxy for inflation rate are as follows:

Hd<sub>0</sub>: Inflation has no significant effect on the volume of exports from Indonesia.

Hd<sub>1</sub>: Inflation has a significant effect on the volume of Indonesia's exports

### 3. Methodology

#### 3.1. Research Methods

A quantitative analysis approach with multiple regression was used to investigate the influence of ACFTA implementation on Indonesia's export volume. Panel data regression analysis was executed using STATA software, which involves numerous individuals and time periods (Gujarati 2004). The panel data regression approach comprises common, fixed, and random effects models (Nachrowi & Usman, 2006). Among these, the appropriate model was selected using Hausman, Chow, and LM tests. Additionally, the regression model employed adheres to the Gauss-Markov theorem criteria, thus qualifying as the Best Linear Unbiased Estimator (BLUE) (Gujarati, 2004). Gujarati (2004) also highlighted several assumptions that should be met through various statistical tests, including normality, multicollinearity, autocorrelation, and heteroscedasticity.

#### 3.2. Type and Source of Data

This study employs a sample of 11 countries, consisting of all 10 ASEAN nations and China, as trading partners. These countries include Thailand, Singapore, Philippines, Malaysia, Myanmar, Cambodia, Brunei Darussalam, Laos, Vietnam, and Indonesia. The data used in this analysis span 2000 to 2020 and include Indonesia's export volume with trading partners, GDP, Indonesia's exchange rate with trading partners, and inflation. The data for exports and distance were obtained from the WITS, GDP data were sourced from the World Bank, and Indonesia's inflation data were obtained from the BPS.

#### 3.3. Types of Variables and Research Model

This study used Indonesia's export volume to other ASEAN countries and China as a proxy for the dependent variable. The primary independent variable utilizes dummy data of ACFTA commencement, while the control variables comprise origin and destination country GDP, exchange rate, and inflation data. Additionally, the research model adopted in this study is based on Dewi et al. (2020), with a focus on cooperation, specifically, the ACFTA. Inflation is included as a proxy for price based on demand theory proposed by (Indriyani, 2016), who posits that export demand is influenced by income and price. Consequently, the research model is as follows.

$$\ln EX_{ijt} = \beta_0 + \beta_1 \ln PDB_{it} + \beta_2 \ln PDB_{jt} + \beta_3 \ln RER_{ijt} + \beta_4 \ln I_{it} + \beta_5 D\_ACFTA_t + \varepsilon_{it}$$

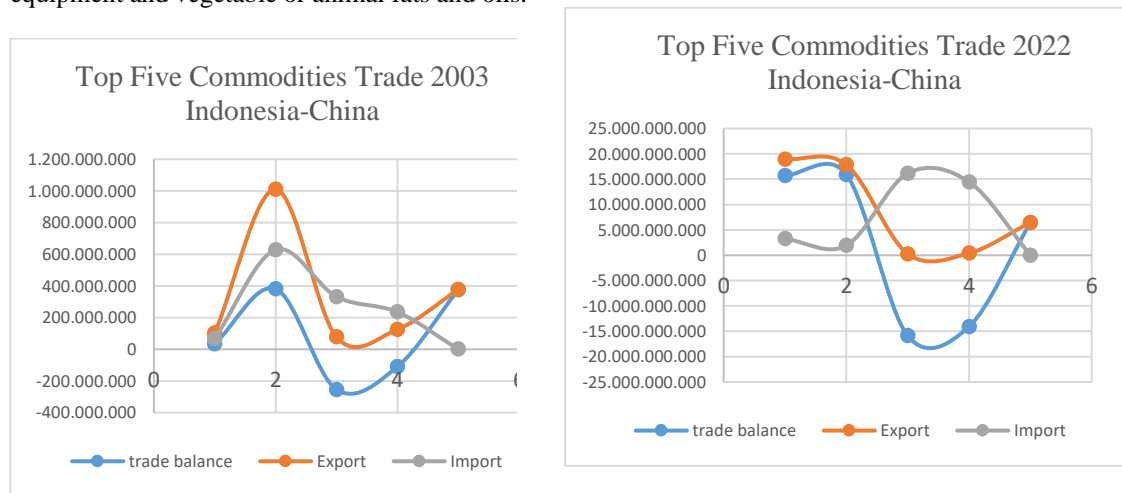
Explanation of Variables:

i	= country Indonesia
j	= 11 countries that are members of ACFTA
t	= time
EX <sub>ijt</sub>	= export value from country j to country i in year t
Ln GDB <sub>it</sub>	= gross domestic product of country i in year t
Ln GDP <sub>jt</sub>	= gross domestic product of country j in year t
Ln RER <sub>ijt</sub>	= real exchange rate of country i against country j in year t, = real exchange rate = (nominal exchange rate of country i/country j) <sub>t</sub> × (CPI <sub>i</sub> /CPI <sub>j</sub> ) <sub>t</sub>
D_ACFTA <sub>t</sub>	= ACFTA dummy variable (1 for the t-year after 2010 in which the ACFTA was enforced and 0 for 2010 and earlier)
Ln Infit	= inflation rate of country i in year t
Ln	= Logarithm natural
β <sub>0</sub>	= Constant
β <sub>1</sub> – β <sub>5</sub>	= Coefficient
ε	= Error term

## 4. Results and Discussion

### 4.1. Description of the Object of the Study

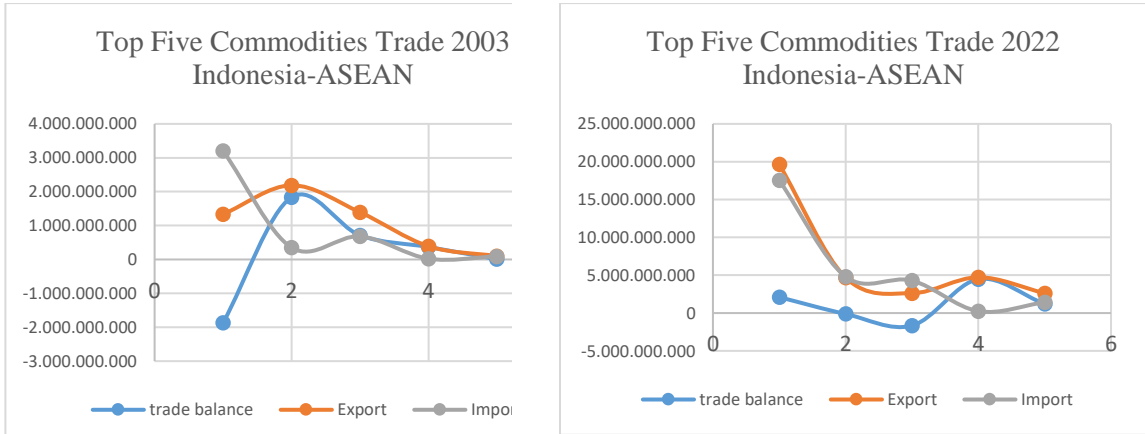
This study analyzes trade data between Indonesia and China and ASEAN from 2003 and 2022. The five main commodities that are important components of bilateral trade between Indonesia and China are iron and steel, mineral fuels, mineral oil, refinery products, bituminous materials, nuclear reactors, boilers, machinery, mechanical equipment, electrical machinery and equipment and vegetable or animal fats and oils.



**Figure 1 The Five Largest Commodities of Indonesia-China in 2003 & 2022**

Source: <https://data.aseanstats.org/>

In 2003 and 2022, Indonesia experienced trade surpluses with China in iron and steel, mineral fuels, and vegetable or animal fats and oils. However, there is a deficit in machinery and mechanical equipment and electrical machinery and equipment.



**Figure 2. Five Largest Indonesia-ASEAN Commodities in 2003 & 2022**

Source: <https://data.aseanstats.org/>

For Indonesia-ASEAN trade, the five main commodities traded include mineral fuels, electrical machinery and equipment, nuclear reactors, vegetable or animal fats and oils, and iron and steel. In 2003, Indonesia experienced a trade surplus for all commodities except mineral fuels. While in 2022, there was a surplus for mineral fuels, vegetable or animal fats and oils, and iron and steel, a balance for machinery and electrical equipment, and a deficit for nuclear reactors.







**Figure 3 Trade Balance of Indonesia's Five Major Commodities in 2003 & 2022**

Source: <https://data.aseanstats.org/>

A comparison of trade conditions for one commodity between Indonesia-China and Indonesia-ASEAN implies that an increase in trade quota with China may be followed by a decrease in trade quota with ASEAN, and vice versa. A panel data regression analysis of trade between Indonesia, ASEAN, and China from 2000 to 2020 was conducted to further study these trade dynamics.

#### 4.2. Panel Data Regression Test

The outcomes of the regression model selection for panel data regression using STATA software, based on the results of the Chow test, Lagrange Multiplier test, and Hausman test, are summarized as follows:

The Chow test was used to evaluate the superiority of the common effect model (CEM) and the fixed effect model (FEM), with the STATA test results yielding a value of (Prob>F) as 0.0000, which is smaller than the alpha level (0.05). Thus, it can be concluded that the recommended panel data regression model based on the Chow test is a fixed effects model (FEM).

The Lagrange Multiplier test was conducted to determine the superior regression model between the common effect model (CEM) and random effect model (REM). The STATA test results showed a value of 0.0000 (Prob>chibar2), which was lower than the alpha level (0.05). Hence, it can be inferred that the recommended panel data regression model based on the Lagrange Multiplier test is the random effects model (REM).

The Hausman test was performed to determine a better regression model between the fixed effect model (FEM) and random effect model (REM). The STATA test results displayed a value of 1.0000 (Prob>chibar2), which was greater than the alpha level (0.05). Consequently, it can be concluded that the recommended panel data regression model based on the Hausman test is a random effects model (REM).

Based on the results of all three tests, the most suitable model for this study was the random-effects model.

Table 1. Panel Data Regression Model Selection Test Results

Types of Testing	CEM	FEM	REM
<i>Chow Test</i>	--	✓	
<i>Lagrange Multiplier Test</i>	--		✓
<i>Hausman Test</i>		--	✓
Selected Models			✓

Source: processed by author

Furthermore, based on classical assumption tests, this model passes the multicollinearity test with an average VIF of 7.96, and the heteroskedasticity test with a result of 0.2510 (Prob>chi2). However, the other two tests did not pass, where the normality test result (Prob>chi2) was 0.0000, and the autocorrelation test result (Prob>chi2) was 0.0016. Therefore, the random-effects model regression was improved using a random coefficient model.

Based on the selection of the panel data regression model, the results of the random-effects coefficient model equation were examined using hypothesis testing, including both the F-test and t-test (Nachrowi, 2006). The two tests in this study were as follows: F-statistic test: The F-statistic test is used to indicate whether all independent and control variables included in the regression model simultaneously affect the dependent variable (Ghozali, 2016). 96). The results of the F-test indicate that Prob>Chi2 = 0.0000, which is smaller than the alpha of 0.05 (5%). Therefore, it can be stated that all independent variables collectively have a significant impact on the dependent variable. t-statistic test: According to Ghozali (2016, p. 97), a t-statistic test indicates the extent to which an independent variable individually explains the variation in the dependent variable. The results of the t-statistic test were determined by observing the  $P>|Z|$  values for each variable and then comparing them at a 5% alpha significance level. The results of the individual parameter significance test (t-statistic test) are shown in Table 2.

Table 2. T-test Results from the *Random Effect Model*

Variable	Coefficient	Standart Error	$P> Z $	The statistical significance level
Ln GDPcap_o	0,4296087	0,2389409	0,072	***
Ln GDPcap_d	0,6418277	0,1653728	0,000	***
Ln ER	0,6646105	0,3268585	0,042	***
Ln inf	0,6980271	0,2036217	0,001	***
ACFTA	-1,065938	0,0876158	0,000	***

Note: \*\*\* with a significance level of 1%.

Source: processed by author

As Table 2, all independent variables have a significant impact on export volume, with a significance level of 1%.

a. ACFTA Hypothesis

H<sub>0</sub>: ACFTA does not possess a significant effect on Indonesia's export volume

H<sub>1</sub>: ACFTA exhibits a significant effect on Indonesia's export volume

When  $p>|Z| = 0.000$ , H<sub>0</sub> was not rejected. This signifies that ACFTA does not have a significant influence on Indonesia's export volume at the 1% significance level.

b. GDP Hypothesis

H<sub>b0</sub>: GDP does not exhibit a significant effect on export volume

Hb<sub>1</sub>: GDP demonstrates a significant effect on export volume

With the results of  $p > |Z| = 0.072$  and  $0.000$ , Hb<sub>0</sub> is dismissed for both the origin and destination countries' GDP. This can be interpreted as indicating that both the origin country GDP and destination country GDP have a significant impact on Indonesia's export volume, with significance levels of 10% and 1%, respectively.

c. Exchange Rate Hypothesis

Hc<sub>0</sub>: Exchange rate does not display a significant effect on export volume

Hc<sub>1</sub>: Exchange rate showcases a significant effect on export volume

When  $p > |Z| = 0.000$ , Hc<sub>0</sub> is refuted, implying that the exchange rate has a significant impact on Indonesia's export volume at the 1% alpha level.

d. Inflation Hypothesis

Hd<sub>0</sub>: Inflation does not exhibit a significant effect on export volume

Hd<sub>1</sub>: Inflation showcases a significant effect on export volume

With the result  $p > |Z| = 0.001$ , Hd<sub>0</sub> is refuted, suggesting that inflation has a significant impact on Indonesia's export volume at a significance level of 1%.

After conducting a panel data regression test, the models obtained in this study were as follows:

$$\ln IX_{ijt} = 15,2836 + 0,4296087 * \ln PDB_{it} + 0,6418277 * \ln PDB_{jt} + 0,6646105 * \ln RER_{ijt} + 0,6980271 * \ln Inf_{it} - 1,065938 * D\_ACFTA_t$$

The equation indicates that changes in each independent variable are associated with the dependent variable, except for ACFTA. First, if the origin country's GDP grows by 1%, ceteris paribus, Indonesia's export volume increases by 0.43%. Second, if the destination country's GDP increases by 1%, ceteris paribus, Indonesia's export volume will increase by 0.64%. Third, if the real exchange rate increases by 1%, ceteris paribus, Indonesia's export volume will increase by 0.66%. Fourth, if inflation increases by 1%, ceteris paribus, Indonesia's export volume will increase by 0.70%. Fifth and most importantly, with the ACFTA agreement in place, Indonesia's export volume was 1.07% lower than before the ACFTA agreement.

## 5. Discussion

The findings suggest that all control variables had a positive and significant impact on the volume of Indonesia's exports. The Gross Domestic Product (GDP) is critical. An increase in both origin and destination countries' GDP has a positive effect on Indonesia's export volume. A country's GDP reflects its capacity to produce goods and services, and an increase in Indonesia's GDP implies a surplus of goods and services, leading to a greater inclination to sell these products to other countries, including the ASEAN and China. Similarly, if the destination country's GDP rises, it signifies increased production of goods and services. These goods, which are usually raw materials, may require basic materials from Indonesia, thereby increasing Indonesia's export volume. This is supported by the data on Indonesia's top five commodities, which are primarily raw materials.

Second, exchange rates also play a crucial role. Exchange rates between countries significantly affect the volume of traded goods and services. The findings indicate that an increase in Indonesia's exchange rate with its destination country can boost its export volume. An increase in the exchange rate implies depreciation of the rupiah, making Indonesian goods and services cheaper than those of its trading partners.

Inflation was also a significant factor. These results suggest that an increase in inflation can increase Indonesia's export volumes. High inflation, when the prices of goods become more expensive, may lead to a decline in domestic consumption. Consequently, Indonesian-produced goods and services are offered for export, leading to an increase in export volume. However, this situation may also arise because of the influx of cheaper imported goods into Indonesia.

## **6. Conclusion**

### **6.1. Conclusion**

Based on the above data analysis and discussion, the following conclusions can be drawn.

1. The ACFTA had a considerable impact on Indonesia's export volume, with a significance level of 1%. This finding contradicts prior research, which suggests that Indonesia does not generally benefit from ACFTA. The effect of the ACFTA on Indonesia's export volume warrants further exploration and expansion, particularly in areas with the potential for collaboration.
2. The Gross Domestic Product (GDP) of both origin and destination countries positively affects Indonesia's export volume. This aligns with the economic theory that an increase in a country's income leads to increased demand for goods and services, including those from abroad. An increase in Indonesia's exchange rate with its destination country increases its export volume. This is because a stronger exchange rate strengthens purchasing power, both domestically and internationally. Therefore, maintaining stable exchange rates for both domestic and foreign currencies is crucial to increasing Indonesia's export volumes. Inflation significantly influences Indonesia's export performance at a significance level of 1%. Indonesia's main international trade commodities are goods with no substitutes, resulting in inelastic demand for these commodities. As a result, even though prices rise, Indonesia's export volume increases because of growing foreign demand for these commodities. The domestic price increase may have been caused by rising production costs.

### **6.2. Recommendations**

The recommendations of this study are as follows:

1. The government ought to persist in enhancing the ACFTA cooperation to boost Indonesia's export volume and value. This initiative aimed to widen the reach of foreign markets globally, thereby facilitating the expansion of domestic production to export goods.
2. It is essential for the government to maintain the stability of the rupiah exchange rate through monetary authorities to support Indonesia's export volumes. The current managed floating monetary policy can be sustained to encourage an increase in export volume.

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