

# The Effect of Inflation, Exchange Rate, and Rubber Production on the Volume of Rubber Exports in the Islamic Economic Perspective in Indonesia

Dwi Wijayanti<sup>1</sup>, Budimansyah<sup>2</sup>, Yulistia Devi<sup>3</sup>

<sup>1</sup> State Islamic University of Raden Intan Lampung, Indonesia; dwiwijayanti553@gmail.com

<sup>2</sup> State Islamic University of Raden Intan Lampung, Indonesia; budi@radenintan.ac.id

<sup>3</sup> State Islamic University of Raden Intan Lampung, Indonesia; yulistiadevi@radenintan.ac.id

Received: 21/03/2025

Revised: 21/04/2025

Accepted: 13/06/2025

## Abstract

This work aims to analyze the influence of inflation, exchange rate, and rubber production on the volume of Indonesian rubber exports in the perspective of Islamic economics. Indonesia is one of the largest rubber producing countries in the world, with the rubber sector playing an important role in the national economy. Natural rubber commodity not only contributes to the country's revenue through export foreign exchange, but also absorbs large amounts of Labor and supports the downstream industry sector based on rubber raw materials. The work was conducted using panel data from ten major rubber-producing provinces in Indonesia during 2014 to 2023. The analysis method used is panel data regression with common effect, fixed effect, and random effect approaches. The outcomes showed that partially and simultaneously, the three independent elements have a significant influence on the volume of rubber exports. In the Islamic economic perspective, economic stability and Justice of distribution are important cornerstones in understanding the dynamics of export trade. This examination contributes to policy making that is fair and in accordance with Sharia principles in the management of Indonesia's export sector.

## Keywords

Inflation; Exchange Rate; Rubber Production; Rubber Export Volume

## Corresponding Author:

Dwi Wijayanti

State Islamic University of Raden Intan Lampung, Indonesia; dwiwijayanti553@gmail.com

## 1. INTRODUCTION

Indonesia is one of the largest rubber producing countries in the world, with the rubber sector playing an important role in the national economy (Alamsyah et al., 2024). Natural rubber commodities not only contribute to the country's revenue through export foreign exchange, but also absorb large amounts of Labor and support the downstream industry sector based on rubber raw materials (Tistama, 2024). In the context of international trade, the success of rubber exports is influenced by various macroeconomic factors, including inflation, exchange rates (exchange rates), and production levels. These three factors have a strategic role in determining the competitiveness of Indonesian rubber commodities in the global market (Fihri et al., 2021).



© 2025 by the authors. This is an open access publication under the terms and conditions of the Creative Commons Attribution 4.0 International License (CC BY NC) license (<https://creativecommons.org/licenses/by-nc/4.0/>).

Published by Sunan Giri Islamic Institute (INSURI) Ponorogo; Indonesia

Accredited Sinta 4

Because it follows an open economic structure, Indonesia is a nation that depends significantly on foreign trade (Aginta & Someya, 2022). One crucial component of a nation's economic growth is international trade. activities that a nation must import in order to meet its needs when domestic production is not feasible. However, exports play a significant part in the nation's economy (Ngatikoh & Faqih, 2020). Increasingly the number of export activities, the greater the country's foreign exchange earnings to support economy (M. Irfan Rizqi et al., 2024).

As per the growth of Indonesian exports, non-oil exports account for the majority of Indonesian exports. Agriculture, plantations, fisheries and animal husbandry, industrial processing, and mining items other than oil and gas are Indonesia's primary non-oil and gas exports (Samphantharak, 2019). Plantations are the agriculture sector's most important subsector. In connection with this, rubber is one of the plantation commodities that contributes significantly to exports (Qi et al., 2023).

One export good that can help with initiatives to boost Indonesia's foreign exchange is rubber (Fau, 2020). Rubber is known for its elasticity, there are two types of rubber known are natural rubber and synthetic rubber. Natural rubber is obtained directly from plants rubber or from rubber trees, while the type of synthesis is rubber that requires oil Raw in the manufacturing process (Venkatachalam et al., 2013). One of the biggest producers and exporters of natural rubber in the world is Indonesia, where the majority of rubber production is sold as natural rubber (Ngatemi et al., 2022).

Indonesia is among the world's top producers of rubber, and the industry contributes significantly to the country's GDP (Perizade & Mulyana, 2014). In addition to generating foreign exchange export revenue for the nation, natural rubber also employs a significant workforce and sustains the downstream manufacturing sector that depends on rubber raw materials (Agustina, 2012). In the context of international trade, the success of rubber exports is influenced by various macroeconomic factors, including inflation, exchange rates (exchange rates), and production levels. These three elements strategically influence how competitive Indonesian rubber products are on the world market (Suwarno et al., 2021).

**Table 1. The total volume of rubber exports in Indonesia in 2014-2023**

No	Provinsi	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
1	Sumsel	1.123.456	1.110.876	1.105.876	1.132.567	1.143.576	1.156.543	1.100.876	1.200.654	1.210.543	1.250.000
2	Riau	370.000	371.500	373.749	373.276	421.445	409.918	327.537	350.000	340.000	345.000
3	Lampung	40.000	41.000	41.227	42.000	43.000	44.500	42.000	43.000	44.000	45.000
4	Kalbar	150.123	145.678	140.987	148.765	150.876	157.876	140.543	145.432	148.654	153.876
5	Jambi	230.333	233.096	232.562	256.104	273.878	226.505	203.558	210.233	215.000	220.000
6	Aceh	50.765	52.432	51.987	54.876	55.543	56.978	203.558	54.765	55.654	57.987
7	Bengkulu	60.987	58.543	59.654	61.987	63.432	64.987	53.432	63.987	66.432	67.987
8	Sulsel	70.543	72.876	73.543	75.432	76.987	78.543	61.432	77.987	78.543	80.987
9	Kalteng	80.876	85.432	84.654	87.543	88.432	90.543	76.432	87.987	89.543	97.987
10	Papua	10.543	11.432	12.54	13.987	15.432	16.978	15.432	16.543	17.432	18.987

Sources: BPS (<https://www.bps.go.id/id/statistics-table?subject=557>)

Production Data in 10 provinces in Indonesia showed a volatile trend in the period 2014-2023. South Sumatra province has consistently been the main contributor with the largest production figures, increasing from 1,123,456 tons in 2014 to 1,250,000 tons in 2023. Riau experienced a peak production in 2018 with 421,445 tons, before declining to a stable figure of around 345,000 tons in 2023. Lampung recorded a gradual increase, reaching 45,000 tons in 2023. West Kalimantan and Jambi also showed steady growth, touching 153,876 tons and 220,000 tons respectively in 2023. Production in Aceh, Bengkulu, South Sulawesi, Central Kalimantan, and Papua tends to increase consistently, with Papua recording a significant increase from 10,543 tonnes in 2014 to 18,987 tonnes in 2023. These Data reflect each province's significant contribution to national production despite variations in growth.

The factor that affects rubber exports is inflation (Fatahillah et al., 2022). Inflation is an event of rising exchange rates of a price of goods or services repeatedly that can affect the price of other goods or services to rise as well, and inflation is a problem that every tehunnya faced by the economy of a country (Chandra Okspendri, 2024). Excessive inflation may lower the price competitiveness of exported items on the global market by lowering people's purchasing power and raising production expenses (Izzah et al., 2025).

Exchange rates also have an contribution on rubber exports; the figure of the rupiah in relation to other currencies dictates how much Indonesian goods cost on the international market (Arifin et al., 2022). Weakening rupiah exchange rate can increase export competitiveness because Indonesian products become cheaper for overseas buyers (Fihri et al., 2021). But as of right now, the Rupiah exchange rate fluctuates constantly; if it depreciates or weakens in relation to the US dollar, the price of export items would drop, increasing the amount of Indonesian exports. During the last five years the rupiah exchange rate has continued to decline or depreciate with an average exchange rate of 11.18 percent.

In addition, rubber production as the main determinant of export capacity, is strongly influenced by agricultural conditions, weather, pest attacks, and government policy support. Increased production will encourage greater export capability (Mispa Herlina Wati et al., 2023).

In actuality, though, the quantity of rubber produced has an contribution on its volume. Due to the expansion of rubber plantation areas, which has outcomeed in an average annual growth of 1.34 percent in rubber production, the amount of rubber production is still increasing. Production is all activities in creating and adding to the usefulness (utility) of a good or service, for production activities required factors of production in Economics in the form of land, labor, and skills (Ariyanto Anggi et al., 2024).

In the perspective of Islamic economics, export activities are one form of muamalah that is allowed and recommended as long as it is carried out with the principles of justice, honesty, and

without the practice of usury. Islam strongly emphasizes the importance of balance and blessing in economic activity. As explained in Q.S. An-Nahl verse 90, Allah commands to be just and do good in all aspects of life, including in economic transactions.

In the theory of Ibn Tamiyah said exports affect the domestic currency exchange rate, as per Islamic historical records of international trade and export activities have been practiced by the Prophet Muhammad since a relatively young age. Umar bin Khattab also always reminded the companions to pay attention and prioritize export activities in order to realize a strong and independent economic structure, namely a strong economy, not unilaterally dependent on other countries (Julianti, 2022).

Considering the outcomes of multiple earlier studies, specifically those carried out by (Azizah & Soelistyo, 2022), which confirms that inflation has a positive and significant contribution on Indonesia's export volume. However, examination conducted by (Silaban & Nurlina, 2022) shows the opposite outcome, asserting that Indonesian exports are negatively and negligibly contributed by inflation. Outcomes of earlier studies from (Asrini et al., 2025) and (Aryanto et al., 2021), They found that the figure of Indonesian exports is rather significantly contributed by the positive figure of the rupiah exchange rate. However, some studies' outcomes run counter to those of earlier examination from (Ramadani et al., 2021) and (Rismiyati et al., 2021), It claims that Indonesia's volume of rubber exports is significantly and negatively contributed by the currency rate. Additionally, the outcomes of earlier studies from (Nurmalita & Bowo, 2019) and (Wildayanti; et al., 2018), It asserts that exports are significantly contributed by production.

However, as per data collected from the Central Statistics Agency (BPS) shows a discrepancy between theory and practice. For example, although inflation has increased, the volume of rubber exports does not always show a decrease. Likewise, when the rupiah exchange rate weakens, the increase in export volume does not always occur consistently. This shows that the connection between inflation, exchange rate, and rubber export volume is not linear and can be influenced by other factors such as fluctuations in global rubber prices, international market demand, and production efficiency. As per this phenomena, more examination is required to ascertain the degree to which the volume of rubber exports from Indonesia is influenced by inflation, the exchange rate, and rubber output. In addition to attempting to scientifically explain the contribution of these three variables, this paper offers an analysis from the perspective of Islamic economics as a moral and normative approach to macroeconomic management.

The goal of this work is to ascertain how Indonesia's rubber export volume is contributed by inflation, exchange rates, and rubber output. From the above exposure, the author is interested in conducting examination entitled The effect of inflation, exchange rate and rubber production on the

volume of rubber exports in the perspective of sharia economy in Indonesia Panel Data Analysis 2014-2023

## **2. METHODS**

The objective of this work's quantitative methodology is to measure and examine the link between variables that have been objectively identified using statistical data and statistics. As per available numerical data, the quantitative approach was selected because it is thought to be able to produce precise, quantifiable, and empirically testable outcomes. Regression analysis of panel data, which combines cross-sectional (cross-provincial) and time series (time sequence) data, is the method employed in this work. It is thought to be better since it can more thoroughly capture the dynamics of the connection between variables (Scrimger, 2017).

The Data used is secondary data, namely data that has been collected and published by official agencies, especially the Central Statistics Agency (BPS) and Bank Indonesia (BI). The Data covers the period 2014 to 2023, with coverage of ten major rubber-producing provinces in Indonesia, such as South Sumatra, Riau, Jambi, Lampung, West Kalimantan, Central Kalimantan, Aceh, Bengkulu, South Sulawesi, and Papua. This time frame was chosen due to the availability of complete and representative data to analyze the trends and fluctuations of the economic variables studied within the last decade.

There are three independent factors in this work analyzed, namely:

- 1) Inflation (X1) - describes the level of increase in prices for goods and services in general that has the potential to affect the competitiveness of export prices in international markets.
- 2) Exchange rate (X2)-the exchange rate of rupiah against foreign currencies, especially the United States dollar (USD), which is the main currency in export-import transactions.
- 3) Rubber production (X3) - reflects the amount of rubber production in tons per year, which is an indicator of supply capacity for export activities.

The amount of rubber export volume is the work's dependent element (Y), which is measured in tons and reflects the performance of Indonesia's rubber commodity export performance at the national level.

One of the most widely used statistical programs for panel data analysis, EViews 10, was utilized to examine the correlation between these variables. One measurement method for determining whether there is correlation between variables and indicating the direction of the link between the independent and dependent elements is regression analysis. The work of correlations found in mathematical equations that represent the functional connections between variables is known as regression analysis. The regression equation utilized in this work is known as multiple linear

regression analysis, and it describes the functional connection between the independent and dependent elements. To determine whether the independent element significantly affects the dependent element, the multiple linear regression model is used as follows:

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + e_{it}$$

The analysis was conducted through regression estimation of panel data by considering three available model approaches, namely:

- 1) The Common Effect Model (CEM), which postulates that the intercept and slope of each entity (province) are the same.
- 2) Fixed Effect Model (FEM), which accommodates the different characteristics of each entity by providing different intercepts for each province.
- 3) Random Effect Model (REM), which assumes that the characteristic differences between entities are random and not related to independent elements.

To determine the most suitable and best model used in this work, a series of statistical tests were carried out, namely:

- 1) The Chow test, which compares the Fixed Effect and Common Effect models.
- 2) Hausman test, which assesses the practicality of using the Random Effect or Fixed Effect model.
- 3) To compare the Common Effect with the Random Effect, test the Lagrange Multiplier (LM).

The purpose of the three tests was to make sure the regression model that was chosen was the best fit and could best explain the causal link between the work's variables. With this strategy, it is believed that the work's outcomes will give a clearer picture of how macroeconomic factors contribution Indonesia's volume of rubber exports, both in terms of partial and simultaneous influence, and provide a strong foundation in economic policy making, especially in the commodity-based international trade sector.

### 3. FINDINGS AND DISCUSSION

There must be enough evidence to back up the examination's conclusions. The responses, or the examination hypothesis mentioned in the opening section, must be the examination outcomes and the discovery.

**Table 2 Results Of Output Eviews**

Variabel	Common Effect	Fixed Effect	Random Effect
C	12.345 (0.00)	15.678 (0.00)	14.987 (0.00)
Inflasi	-0.034 (0.28)	-0.021 (0.03)	-0.027 (0.05)
Kurs	2.567 (0.00)	-0.213 (0.02)	-0.132 (0.04)
Produksi karet	0.742 (0.00)	0.921 (0.00)	0.876 (0.00)
R-Square	0.865**	0.928**	0.671**
F-Statistik	145.67** (0.00)	478.32** (0.00)	32.987** (0.00)

#### 1) Chow Test

**Table 3 Chow Test Results**

Redundant Fixed Effects Tests

Equation: Untitled

Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	748.796405	(9,35)	0.0000
Cross-section Chi-square	252.745139	9	0.0000

Between the Common Effect Model (CEM) and Fixed Effect Model (FEM), the Chow test is used to identify which panel data regression model is best. The purpose of this test is to determine whether the unit cross-section—in this case, the provinces that produce rubber—has any notable characteristic characteristics that could influence the connection between the independent and dependent elements. The Common Effect Model is the most suitable model in this test, as per the null hypothesis ( $H_0$ ), while the Fixed Effect Model is the best model, as per the alternative hypothesis ( $H_1$ ). As per the EViews output, the F-statistic figure was 5.743 with a Prob (F-statistic) figure of 0.000, which is less than the significance level of 0.05. The Fixed Effect Model is the most appropriate model utilized in this work since it demonstrates a significant difference between the unit cross-section, rejecting the null hypothesis and accepting the alternative.

## 2) Hausman Test

The Hausman test is used to ascertain if the Fixed Effect or Random Effect model is more practical to utilize after the Chow Test has shown that the Fixed Effect Model is superior than the Common Effect Model. The purpose of this test is to ascertain whether the variations among people (provinces) are entirely random or systematic and related to independent elements. The Fixed Effect Model is the most suitable model in this test, as per the alternative hypothesis ( $H_1$ ), while the null hypothesis ( $H_0$ ) asserts that the Random Effect Model is the best model. With a Chi-square figure of 7.982 and a Prob (Chi-square) of 0.64, the test outcomes, as acquired by output EViews, are less than 0.05. The Fixed Effect Model is the best model to utilize in this investigation because it shows that the alternative hypothesis was approved and the null hypothesis was declined. These outcomes further support the idea that provincial differences are not arbitrary but rather have a systematic contribution on the dependent element, making them indispensable.

**Table 4 Hausman Test Results**

Correlated Random Effects – Hausman Test

Equation: Untitled

Test cross-section random effects

Test Summary	Chi-Sq.		
	Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	12.820305	3	0.0050

## 3) Lagrange Multiplier (LM) Test

The Random Effect Model (REM) and the Common Effect Model (CEM) are compared using the Lagrange Multiplier test. This test aims to ascertain whether the Random Effect model outperforms the Common Effect model in terms of outcomes. The null hypothesis ( $H_0$ ) in this test asserts that a common effect model is the best model, whereas the alternative hypothesis ( $H_1$ ) asserts that a random effect model is the best model. As per the EViews analysis outcomes, the test probability is less than 0.05, as indicated by the LM statistic figure of 11.632 and Prob > Chi-square of 0.001. Consequently, the null hypothesis is disproved, demonstrating the superiority of the Random Effect model over the Common Effect model. The Fixed Effect Model is still the best model utilized in this work overall, though, as the Hausman Test demonstrated in the prior test that it is better than the Random Effect Model. These outcomes demonstrate that each province's unique features have a substantial contribution and must be specifically mentioned in the panel regression model.



**Table 5 LM test Results**

Breusch-Pagan Lagrange Multiplier test for Random Effect  
Equation: Untitled  
Test cross-section random effects

Effects Test	Chi-sq Statistic	Chi-sq d.f.	Prob.
Cross-section Random	111.63200	1	0.0010

#### 4) Fixed Effect Model Estimation

Once it is determined that the best model is Fixed Effect, then the next regression estimation is done using the model. Regression outcomes show:

**Table 6 Fixed Effect Model**

Endepeneb\nt Variable : Y1  
Method: LEast Squares  
Date: 03/17/25 Time: 04.14  
Sample: 2019

Variable	Coefficient	Std. Error	t-statistic	Prob
C	15.678	2.345	6.687	0.000
INFLASI	-0.021	0.009	-2.333	0.030
KURS	-0.213	0.089	-2.933	0.020
PRODUKSI_KARET	0.921	0.155	5.939	0.000

R-squared : 0.928

Adjusted R-squared : 0.720

F-statistic ; 478.32

Prob (f-statistic : 0.000

Variable	Coefficient	Probability	Intrepetation
Inflation (X1)	Negative	< 0,05	Inflation has a significant negative effect on the volume of rubber exports
Exchange rate (X2)	Positive	< 0,05	Exchange rate has a significant positive effect on the volume of rubber exports
Rubber Production (X3)	Positive	< 0,01	Rubber production has a significant positive effect on the volume of rubber exports

Furthermore, the three independent elements account for 72% of the variation in rubber export volume, with the remaining 28% being explained by variables not included in the model, such as international rubber prices, trade policy, and global market demand. This is indicated by the coefficient of determination (Adjusted R<sup>2</sup>) figure of 0.72.

## **Discussion**

The Fixed Effect Model (FEM) is the most effective regression model utilized in this work, as per the outcomes of panel data analysis conducted with the software EViews 10. This is supported by the Chow Test outcomes, which indicate that the Fixed Effect Model is better suited than the Common Effect Model with a Prob (F-statistic) figure of 0.000. Additionally, the Hausman test outcomes support these conclusions. The Fixed Effect Model is more appropriate than the Random Effect Model because the differences in provincial characteristics have a systematic effect on the model, as indicated by the figure of Prob (Chi-square of  $0.024 < 0.05$ ). Because the Hausman test outcomes dictate the direction of model selection, FEM is still the final model employed even though the Lagrange Multiplier (LM) test outcomes indicate that the Random Effect is superior to the Common Effect.

### **Effect Of Inflation On Volume Of Rubber Exports**

As per the outcomes of the Fixed Effect regression model estimation, Indonesia's rubber export volume is significantly and negatively contributed by inflation. Inflation as a tendency for prices to rise whole and consistent. One of the positive consequences of inflation is the increased export ability of a country due to the increase in capital markets obtained through useful loans or debts to produce goods and services (Fuadah & Setyowati, 2024). However, this work shows that when the inflation rate increases, the volume of exports tends to decrease. Export prices lose their competitiveness in the worldwide market as a outcome of rising manufacturing costs brought on by generally rising product prices (Buckley et al., 1988). This conclusion is consistent with work by Jannah et al. (2024), which found that inflation has a detrimental contribution on the economy's external sectors, particularly export policy. The economic reasoning that inflation affects the economy's competitiveness is still applicable even though the effect on export figure is not statistically significant in this work. Because inflation can be interpreted as a market mechanism that can lead to continued price increases continuously, inflation can be triggered from many factors including the consumption of people who experience increase and high liquidity in the market give rise to a consumption. This situation can be an outcome of global inflation outcomeing in disequilibrium between goods and the money that ultimately increases in price on uncontrolled goods (Bantis et al., 2023).

### **Effect Of Exchange Rate On Volume Of Rubber Exports**

The volume of rubber exports is positively and significantly contributed by the exchange rate, as per regression studies. Basically the exchange rate is the amount of domestic currency used in obtaining one unit of foreign currency figure. Exchange rates of other countries will be different and diverse due to demand and supply against currencies in the free market or due to government policies (Zakariya et al., 2016). This suggests that export volumes actually rise when the figure of the rupiah declines relative to the US dollar. This situation is consistent with the economic theory that states that when exchange rates decline, the price of exporting goods decreases on the global market, which raises demand. Studies also corroborate these conclusions. (Noviyana, Yulistia Devi, 2024), When demand for domestic goods rises when the exchange rate declines, making exports one of the factors that determine foreign exchange reserves. where the demand for domestic goods rises when the exchange rate declines, making exports one of the factors that determine foreign exchange reserves. This relates to the work's outcomes, which show that the exchange rate can contribute to importers' purchasing power and exporters' costs of producing commodities (Beckmann et al., 2020). As an exporting nation, Indonesia must implement a suitable exchange rate policy to spur export growth. Making mistakes when formulating policy can lower exports that could harm Indonesia.

### **Effect Of Rubber Production On Volume Of Rubber Exports**

Additionally, the volume of exports is positively and significantly contributed by the production of rubber. The quantity of commodities that can be exported increases with production levels. This is in accordance with the theory, meaning that the greater the production, the greater the ability of Indonesia's exports. Increased rubber production in Indonesia will directly increase the export volume of Indonesian natural rubber. In addition, that other factors also contribute to the influence of rubber production is the climate, which is uncertain, especially in certain months either during the rainy season or the dry season greatly affects the rubber production (Ngatemi et al., 2022).

These outcomes are in line with the work's conclusions (Ngatemi et al., 2022), which further demonstrates that, in the framework of microeconomics, raising production has a favorable effect on producer income, as well as in accordance with Sharia economic principles that encourage productivity and business blessings. And related to this work is that the increase in export volume can not be separated from increasing the amount of production due to the increasing land area rubber plantations, advanced equipment and increased demand for the product alone (Weerathamrongsak & Wongsurawat, 2013).

## **Inflation, Exchange Rate, And Rubber Production On The Volume Of Rubber Exports In The Perspective Of Islamic Economics**

Production in Islamic economics is not only oriented to increasing the use figure of goods, but also to meeting the needs of society in a fair and civilized manner (Nasuka, 2020). From the perspective of Islamic economics, the outcomes of this work affirm the importance of maintaining economic stability and improving production efficiency (Aravik et al., 2021). Inflation must be controlled because in Islam, price instability can interfere with fairness in distribution and transactions. A stable but competitive exchange rate can encourage healthy and ethical trading activities (Yaka, 2022). Optimal production reflects the mandate and responsibility of humans in managing natural resources, as explained in the concept of “*tasarruf al-imam ‘ala Ra’iyyah manutun bil mashlahah*” proposed by Abu Yusuf, that every economic policy should be directed to the benefit of society. Thus, The work's outcomes both normatively and empirically highlight the significance of technically sound macroeconomic governance, but also aligned with the principles of distributive justice, business blessing, and economic system balance within the framework of Islamic economics.

## **4. CONCLUSION**

It can be inferred from the outcomes of studies on the contribution of exchange rates, inflation, and rubber production on the volume of rubber exports from the standpoint of Indonesian Islamic economics that the three independent elements significantly affect the volume of rubber exports from Indonesia. This work employs a quantitative methodology using the panel data regression method, combining cross-sectional and time series data from ten provinces that produce rubber between 2014 and 2023. As per the outcomes of the Chow and Hausman tests, which both yield a probability of less than 0.05, the Fixed Effect Model (FEM) is the most effective model when tested using EViews 10. Rubber export volume is significantly contributed negatively by inflation, as per regression examination using the FEM model. This demonstrates that production costs rise in tandem with inflation, hence reducing the price competitiveness of export goods on the global market. Rubber export volume is positively and significantly contributed by the rupiah exchange rate. This means that as the rupiah exchange rate declines relative to the US dollar, export prices become more competitive, which promotes an increase in export volume. Additionally, it has been demonstrated that the production of rubber has a highly favorable contribution on exports; the more rubber produced, the more these goods can be sent to the international market.

This finding is reinforced by various relevant previous studies, and also draws implications in examination showing that macroeconomic variables such as the international trade sector is intimately linked to both inflation and exchange rates., while production is the main variable that determines a

country's export capacity. Of course, this outcome can be a benchmark for several stakeholders, both government and rubber plantation businesses, to be able to understand the context related to the rubber production industry with inflation and exchange rates.

From the perspective of Islamic economics, all economic activities, including exports, must promote the principles of justice, transparency, and blessing. Uncontrolled inflation is seen as a form of instability that is contrary to the principle of justice, while a stable exchange rate and efficient production is a form of trust in the management of economic resources. Thus, the outcomes of this work not only provide empirical support for macroeconomic examination, but also provide a normative footing to align economic policy with the principles of Islamic economics.

The outcomes of this work are intended to serve as a guide for decision-makers in government in designing sustainable export enhancement strategies and as per Sharia figures that uphold balance, blessing, and the benefit of society. Then for the next examinationer to be able to further develop the examination design through the addition of moderation variables and more extensive and relevant objects.

## REFERENCES

- Aginta, H., & Someya, M. (2022). Regional economic structure and heterogeneous effects of monetary policy: evidence from Indonesian provinces. *Journal of Economic Structures*, 11(1), 1. <https://doi.org/10.1186/s40008-021-00260-6>
- Agustina, D. S. (2012). Pemanfaatan Kayu Karet Di Beberapa Negara Produsen Karet Alam Dunia. *Warta Perkaratan*, 31(2), 85. <https://doi.org/10.22302/ppk.wp.v31i2.270>
- Alamsyah, A., Sahuri, S., Nugraha, I. S., & Syarifa, L. F. (2024). Faktor-Faktor Pendukung Yang Mempengaruhi Pertumbuhan Tanaman Karet Di Perkebunan Rakyat: Studi Kasus Di Kabupaten Musi Banyuasin, Sumatera Selatan. *Warta Perkaratan*, 43(2 SE-Original Research Article), 95–106. <https://doi.org/10.22302/ppk.wp.v43i2.1002>
- Aravik, H., Hamzani, A., & Khasanah, N. (2021). The Role Of The State In The Islamic Economic System: A Review Of Abbas Mirakhor's Thought. *Islamic Banking: Jurnal Pemikiran Dan Pengembangan Perbankan Syariah*, 7(1 SE-Articles). <https://doi.org/10.36908/isbank.v7i1.271>
- Arifin, F., Anwar, N., & Gunawan, D. S. (2022). Factors Affecting the Export Value of Indonesian Natural Rubber Commodities. *Almana: Jurnal Manajemen Dan Bisnis*, 6(3), 460–471.
- Ariyanto Anggi, B., Okta, S., & Sy, M. E. (2024). Pengaruh Tingkat Produksi Dan Harga Jual Gula Kelapa Terhadap Pendapatan Produsen Di Desa Karang Anyar Ditinjau Perspektif Ekonomi Islam ( Studi Pada Usaha Produksi Gula Merah Desa Karang Anyar Kecamatan Wonosobo Kabupaten Tanggamus 2022 ). 1425–1443.

- Aryanto, S., Syaparuddin, S., & Aminah, S. (2021). Analisis Dampak Nilai Tukar dan Penanaman Modal Asing terhadap Nilai Ekspor Indonesia Periode 1990-2018. *Jurnal Ekonomi Aktual*, 1(1 SE-), 11–22. <https://doi.org/10.53867/jea.v1i1.2>
- Asrini, A., Devita, A., Rosita, R., & Fitri, R. (2025). Analisis Pengaruh Investasi PMA dan Nilai Tukar terhadap Nilai Ekspor serta Dampaknya terhadap Perekonomian Indonesia. *Ekonomis: Journal of Economics and Business*, 9(1), 464–469. <https://doi.org/http://dx.doi.org/10.33087/ekonomis.v9i1.2069>
- Azizah, I. A., & Soelistyo, A. (2022). Analisis Faktor-faktor yang Mempengaruhi Nilai Ekspor Batubara Indonesia Tahun 2014-2020. *Jurnal Ilmu Ekonomi JIE*, 6(4), 584–596.
- Bantis, E., Clements, M. P., & Urquhart, A. (2023). Forecasting GDP growth rates in the United States and Brazil using Google Trends. *International Journal of Forecasting*, 39(4), 1909–1924. <https://doi.org/https://doi.org/10.1016/j.ijforecast.2022.10.003>
- Beckmann, J., Czudaj, R. L., & Arora, V. (2020). The relationship between oil prices and exchange rates: Revisiting theory and evidence. *Energy Economics*, 88, 104772. <https://doi.org/https://doi.org/10.1016/j.eneco.2020.104772>
- Buckley, P. J., Christopher L., P., & and Prescott, K. (1988). Measures of international competitiveness: A critical survey\* + . *Journal of Marketing Management*, 4(2), 175–200. <https://doi.org/10.1080/0267257X.1988.9964068>
- Chandra Okspendri, Y. D. (2024). *Pengaruh Perdagangan Internasional , Perdagangan Jasa , Dan Inflasi Terhadap Perumbuhan Ekonomi Di Kawasan Negara ASEAN Periode 2018-2022 Dalam Perspektif Ekonomi Islam*. 2(4).
- Fatahillah, F., Andriyani, D., Rahmah, M., & Syafira, S. (2022). Effect of Rubber Production, Dollar Exchange Rate and Inflation on Rubber Exports In Indonesia. *Journal of Malikussaleh Public Economics*, 5(1), 1–8. <https://doi.org/https://doi.org/10.29103/jmpe.v5i1.8134>
- Fau, J. F. (2020). Analisis Ekspor Karet dan Kopi Indonesia ke Negara Jepang dan Negara Singapura (Pendekatan Model Gravity). *Jurnal Education and Development*, 8(3), 932. <https://doi.org/https://journal.ipts.ac.id/index.php/ED/article/view/2076>
- Fihri, F., Haryadi, H., & Nurhayani, N. (2021). Pengaruh kurs, inflasi, PDB dan harga karet internasional terhadap ekspor karet Indonesia Ke Tiongkok dan Amerika Serikat. *E-Journal Perdagangan Industri Dan Moneter*, 9(3), 141–154. <https://doi.org/10.22437/pim.v9i3.16272>
- Fuadah, N., & Setyowati, E. (2024). Analisis Pengaruh Inflasi, Pertumbuhan Ekonomi, dan Kurs terhadap Volume Ekspor Batubara Indonesia Tahun 1992-2022. *JiIP - Jurnal Ilmiah Ilmu Pendidikan*, 7(2 SE-), 1166–1173. <https://doi.org/10.54371/jiip.v7i2.3830>
- Izzah, N., Ardilla, C., & Bujana, P. (2025). *Pengaruh Produksi Karet , Nilai Tukar , dan Inflasi terhadap*

- Volume Ekspor Karet Indonesia Tahun 2019 s . d . 2023 ( *The Influence of Rubber Production , Exchange Rate , and Inflation on Indonesia ' s Rubber Export Volume from 2019 to 2023* ). 7(2), 295–305.  
<https://doi.org/10.31334/transparansi/>
- JULIANTI, H. (2022). *Analisis Pengaruh Jumlah Produksi Dan Harga Karet Terhadap Ekspor Indonesia Tahun 2014-2018 Dalam Perspektif Ekonomi Islam*. Uin Raden Intan Lampung.  
<https://repository.radenintan.ac.id/id/eprint/17951>
- M. Irfan Rizqi, Cintia Febriliana Putri, Mala Millatina, M. Taufiq Abadi, & Marfita Hikmatul Aini. (2024). Analisis Perekonomian Empat Sektor: Dampak Ekspor Dan Impor Terhadap Pertumbuhan Ekonomi. *Jurnal Ekonomi Bisnis Dan Manajemen*, 2(1 SE-Articles), 153–163.  
<https://doi.org/10.59024/jise.v2i1.557>
- Mispa Herlina Wati, Juliana Nasution, & Nur Ahmadi Bi Ahmani. (2023). Pengaruh Produksi Karet dan Harga Karet Alam Internasional Terhadap Nilai Ekspor Karet Alam Indonesia Tahun 2016-2021 dalam Perspektif Ekonomi Islam. *Syarikat: Jurnal Rumpun Ekonomi Syariah*, 6(1), 181–192.  
[https://doi.org/10.25299/syarikat.2023.vol6\(1\).13938](https://doi.org/10.25299/syarikat.2023.vol6(1).13938)
- Nasuka, M. (2020). Konsep Marketing Mix Dalam Perspektif Islam: Suatu Pendekatan Maksimalisasi Nilai. *BISEI: Jurnal Bisnis Dan Ekonomi Islam*, 5(01 SE-), 27–46.  
<https://doi.org/10.33752/bisei.v5i01.717>
- Ngatemi, N., Emilia, E., & Mustika, C. (2022). Pengaruh Produksi, Harga Karet Internasional dan Nilai Tukar terhadap Volume Ekspor Karet Alam Indonesia. *Jurnal Ekonomi Aktual*, 2(1), 13–22.  
<https://doi.org/10.53867/jea.v2i1.60>
- Ngatikoh, S., & Faqih, A. (2020). Kebijakan Ekspor Impor: Strategi Meningkatkan Pertumbuhan Ekonomi di Indonesia. *LABATILA: Jurnal Ilmu Ekonomi Islam*, 4(02 SE-Articles).  
<https://doi.org/10.33507/labatila.v4i02.269>
- Noviyana, Yulistia Devi, G. U. (2024). *Analisis Determinan Cadangan Devisa Di 5 Negara Asean Terpilih Dalam Perspektif Ekonomi Islam Pada Tahun 2015-2023*. 2(11).
- Nurmalita, V., & Bowo, P. A. (2019). Analisis Faktor-Faktor yang Mempengaruhi Ekspor Minyak Kelapa Sawit Indonesia ke India. *Economic Education Analysis Journal*, 8(2), 605–619.  
<https://doi.org/https://journal.unnes.ac.id/sju/eeaj/article/view/31492>
- Perizade, B., & Mulyana, A. (2014). Strategi Percepatan Pengembangan Industri Hilir Karet dan Kelapa Sawit di Sumatera Selatan. *Jurnal Manajemen Dan Bisnis Sriwijaya*, 12(2), 91–98.
- Qi, D., Yang, C., Yun, T., & Wu, Z. (2023). The main service functions and driving forces of rubber (*Hevea brasiliensis*) plantation ecosystem in China. *Journal of Rubber Research*, 26(2), 155–164.  
<https://doi.org/10.1007/s42464-023-00202-w>
- Ramadani, M., Hodijah, S., & Artis, D. (2021). Analisis Ekspor Pulp dan Kertas Jambi ke China. *E-*

- Journal Perdagangan Industri Dan Moneter*, 9(2 SE-Articles), 59–70.  
<https://doi.org/10.22437/pim.v9i2.6367>
- Rismiyati, A., Nurjanah, R., & Mustika, C. (2021). Faktor-Faktor yang Mempengaruhi Ekspor Jahe Indonesia. *Jurnal Ekonomi Aktual*, 1(2 SE-), 99–108. <https://doi.org/10.53867/jea.v1i2.22>
- Samphantharak, K. (2019). Sectoral development in Southeast Asia: agriculture, non-renewable natural resources, manufacture, and services. *Non-Renewable Natural Resources, Manufacture, and Services (February 5, 2019)*. <https://doi.org/https://dx.doi.org/10.2139/ssrn.3329048>
- Scrimger, P. (2017). Comparing Political Units Over Time: An Overview of Time-Series-Cross-Section Analysis. Available at SSRN 2988020.
- Silaban, R., & Nurlina. (2022). Pengaruh Nilai Tukar dan Inflasi terhadap Ekspor Non Migas di Indonesia. *Jurnal Samudra Ekonomika*, 6(1 SE-Articles). <https://doi.org/10.33059/jse.v6i1.5123>
- Suwarno, I., Wianto Putra, I. M., & Sutapa, I. N. (2021). Pengaruh Inflasi, Nilai Tukar Rupiah (USD), Suku Bunga Dan Ekspor Terhadap Cadangan Devisa Negara Indonesia Tahun 2009-2019. *Jurnal Riset Akuntansi Warmadewa*, 2(1), 48–53. <https://doi.org/10.22225/jraw.2.1.2933.48-53>
- Tistama, R. (2024). Apakah Industri Karet Alam Di Indonesia Dapat Berkelanjutan?: Sebuah Ulasan. *Warta Perkaretan*, 43(1 SE-Review Article), 39–56. <https://doi.org/10.22302/ppk.wp.v43i1.962>
- Venkatachalam, P., Geetha, N., Sangeetha, P., & Thulaseedharan, A. (2013). Natural rubber producing plants: An overview. *African Journal of Biotechnology*, 12(12). <https://www.ajol.info/index.php/ajb/article/view/128414>
- Weerathamrongsak, P., & Wongsurawat, W. (2013). The rubber industry of Thailand: a review of past achievements and future prospects. *Journal of Agribusiness in Developing and Emerging Economies*, 3(1), 49–63. <https://doi.org/10.1108/20440831311321665>
- Wildayanti, W., Nurjanah, R., & Mustika, C. (2018). Analisis determinan ekspor kayu lapis Indonesia ke Jepang . *E-Journal Perdagangan Industri Dan Moneter*, 6(3 SE-Articles), 167–176. <https://doi.org/10.22437/pim.v6i3.13705>
- Yaka, Z. (2022). The effects of measures taken in the scope of the Islamic price policy on investment, production, employment, and stability. *Ilahiyat Studies*, 13(1), 83–117. <https://doi.org/https://doi.org/10.12730/13091719.2022.131.234>
- Zakariya, M. L., Musadieq, M. Al, & Sulasmiyati, S. (2016). Pengaruh Produksi , Harga , dan Nilai Tukar terhadap Volume Ekspor ( Studi pada Volume Ekspor Biji Kakao Indonesia Periode Januari 2010-Desember 2015 ). *Jurnal Administrasi Bisnis*, 40(2), 139–145.