



## The Role of Domestic Prices and International Prices in Indonesian Cocoa Bean Exports 2019-2023

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### **Abstract**

Cocoa Beans are one of the promising agricultural commodities. The purpose of this study is to determine the relationship between domestic prices and international prices in influencing Cocoa Bean Exports in 2019-2023. The methodology of this study is causal comparative with a quantitative approach using secondary data from the Indonesian Central Statistics Agency (BPS) and the International Cocoa Organization (ICO). The data analysis method in this study uses Ordinary Least Squares (OLS). The results of the study are as follows: 1). Domestic cocoa bean prices have a significant effect on Indonesian cocoa bean exports, 2). International prices have a negative and insignificant effect on Indonesian cocoa bean exports, 3). Domestic prices and international prices together affect Indonesian cocoa bean exports by 58.7% and 41.3% is influenced by other variables not included in the research.

**Keywords:** *Domestic Price; International Price; Cocoa Bean Export*

### **Introduction**

Export activities are economic activities in a country that are very important to support economic development (Pakhucha et al, 2021; Serhat 2017). By exporting, the government carried out international trade (Baxter, 1995). According to Feni et al (2022) in export matters in the world market, Indonesia plays a fairly important role, because Indonesia produces various export products from multiple sectors. One of them is the producer of Indonesian exports from the plantation sector, the plantation sector is one of the most important considering its significant contribution to macroeconomic stability, economic growth, foreign exchange earnings from exports, and sources of raw materials for downstream agricultural industries

The progress of a country's economy in international trade if the export value is higher than the import value, and vice versa if the export value is lower than the import value indicates a low contribution of a country's economy to international trade (Khizbullah, 2019). Indonesia is one of the developing countries that adheres to an open economic system, namely being able to trade between countries. Trade between countries or often referred to as international trade is a trade activity carried out by the people of a country with the people of another country on the basis of mutual agreement. Trade activities are activities related to transactions of goods and services domestically and between countries with the aim of

making a profit. With the advancement and development of technology, in the future, economic activities and international trade will also increase (Hamdani & Wirawan, 2021; Hill, 2007).

In general, Indonesia exports goods with two types of commodities, namely oil and gas and non-oil and gas. Goods that include oil and gas include kerosene, gasoline, diesel and others. As for goods that include non-oil and gas include agricultural and plantation products such as cocoa, rubber, rice and others. All sectors that develop in Indonesia have their respective important roles in maintaining the stability of the country's economy. One of the potential plantation commodities for export is cocoa. Cocoa or what is often called chocolate is one of Indonesia's leading plantation commodities that plays an important role in the Indonesian economy, namely as a source of foreign exchange for the country, a source of income for farmers, job creation, encouraging agribusiness and agro-industry and regional development (Reza & Hermawan, 2024; Feni et al, 2022; Yudyanto & Hastiadi, 2019; Rosita, 2017; Tambunan, 2009)

Indonesian cocoa bean exports are also required to increase competitiveness in order to compete with other cocoa bean exporting countries. Increasing cocoa bean exports can be done by focusing on factors that influence exports. Several factors that can affect Indonesian cocoa exports include the rupiah exchange rate, international cocoa prices, and cocoa production;

Table 1.1 Development of Export Volume, International Prices, and Domestic Prices 2019- 2023

No	Years	Cocoa Export Volume (Tons)	International Price Tons/US\$	Domestic Prices Ton/US\$
1	2019	358.481	2.341,2	2.341
2	2020	377.849	2.367,0	2.474
3	2021	382.712	2.427,2	2.392
4	2022	385.981	2.368,4	2.596
5	2023	340.190	3.294,1	3.627

Source: World Bank dan International Cocoa Organization (2023)

Based on Table 1.1, it is known that the volume of cocoa bean exports fluctuates. Human desires are fulfilled and supported by purchasing power, so demand and supply will be balanced with the price variable. If there is an increase in the price of a product, the availability of goods will be increased by the producer. However, if the price of goods is getting more expensive, it can cause the level of consumption to decrease (*ceteris paribus*). With the increase in international cocoa prices, Indonesia can export more cocoa to destination countries. One of the factors that cause the price of cocoa in Indonesia to fluctuate unstably is the level of world cocoa consumption, where prices will increase due to high levels of consumption (Medina-Orjuela et al, 2024; Vázquez-deCastro et al, 2024).

Where it can also be understood that international prices and domestic prices affect the export activities of a country, for example Indonesia (Feni et al., 2022). In other studies, domestic prices significantly affect cocoa bean exports (Nickyta & Alfisyahr, 2017; Lubis, 2017). While other studies found that international prices have a positive and significant effect on cocoa bean exports (Abaningrum 2021; Puspita 2015).

Based on the known phenomena and findings, domestic prices and international prices have a relationship with cocoa bean exports. So the purpose of this study is to determine the relationship between domestic prices and international prices on cocoa bean exports. So that it contributes to science both boldly and attractively and policy making in order to achieve economic growth and balance, especially in poverty alleviation in Indonesia (Efendi et al., 2024). Based on various theoretical explanations, research findings, domestic prices, and world prices on cocoa bean exports. So the research framework in (Figure 1) is as follows:

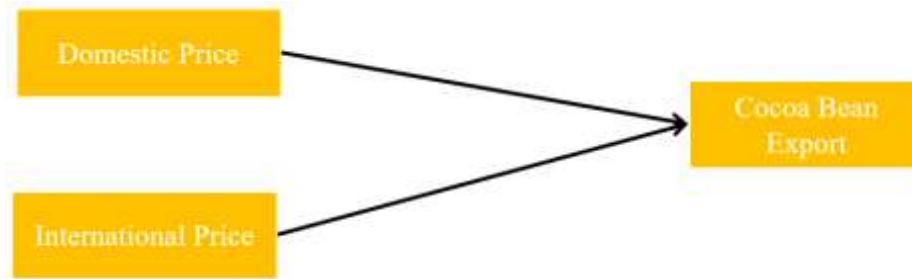


Figure 1. Research Framework

### Methodology

This research is a comparative causal research with a quantitative approach. Comparative causal research is a type of research with problem characteristics in the form of a causal relationship between two or more variables. The purpose of comparative causal research is to investigate the possibility of a causal relationship based on observations of existing effects and to find out facts that may be the cause through certain data. The type of data in this study is quantitative, namely data in the form of numbers or qualitative data that is numbered (Sugiyono, 2015). This study uses secondary data sourced from the Indonesian Central Statistics Agency (BPS) and the International Cocoa Organization (ICO) from 2019-2023. The data analysis method in this study uses Ordinary Least Squares (OLS).

### Findings and Discussions

Table 1 below is the results of the regression analysis of the research data, with the results of the research as follows:

Table 1. Results of Regression Analysis

Variable	Koef. Regression (B)	T Statistic	Sig
Domestic Price	0.139	1.316	0.174
International Price	-0.054	-0.167	0.535
Constant		14.887	
R		0.789	
R <sup>2</sup>		0.587	
F Statistic		9.724	
Sig		0.000	

Source: Processed Secondary Data

### The Relationship of Domestic Prices to Cocoa Bean Exports

Based on the results of the research that has been analyzed, there is a positive and significant influence that domestic prices have on cocoa bean exports. This is indicated by the regression coefficient value of 0.139. At a significance level of 5%, the t-value is 1.319 with a significance of 0.174. So it can be concluded that the higher the domestic price, the higher the cocoa bean exports. Conversely, the lower the domestic price, the lower the cocoa bean exports.

Based on the results of the study, it is supported by research conducted by Feni et al (2022) that domestic prices have a positive and significant effect on cocoa bean exports. Research conducted by

Nickyta and Alfisyahr (2017) that domestic prices have a positive and significant effect on cocoa bean exports. Research conducted by Lubis (2017) shows that domestic prices have a positive and significant effect on cocoa bean exports, and the same thing is shown by research conducted by Al Ghozy et al (2017) who found that domestic prices have a positive and significant effect on cocoa bean exports. A similar thing was also found that domestic prices significantly affect domestic prices (Abdul-Karim & Damba, 2024; Kusuma et al, 2024; Reza & Hermawan; 2024).

### **The Relationship of International Prices to Cocoa Bean Exports**

Based on the results of the research that has been analyzed, there is a negative and insignificant influence that international prices have on cocoa bean exports. This shows a regression coefficient value of -0.054. At a significance level of 5%, the t-count value is known to be -0.167 with a significance of 0.535. So it can be concluded that international prices do not have a positive and significant effect on cocoa bean exports.

The results of this study do not support the results of the study conducted by Albaningrum (2021) who found that international prices have a positive and significant effect on cocoa bean exports. Research conducted by Lubis (2017) international prices have a positive effect on cocoa bean exports. A similar thing was also found by Puspita (2015) that international prices have a significant effect on cocoa bean exports. However, this study supports the results of research conducted by Feni et al. (2022) that international prices have a negative and insignificant effect on the value of cocoa bean exports.

### **Coefficient of Determination R Square (R<sup>2</sup>)**

The results of the study indicate that there is a significant influence of cocoa bean exports in Indonesia influenced by domestic prices and international prices. This is indicated by the results of the F test which obtained a calculated F value of 9,724 with a significance value of F of 0.000 or  $F < 0.05$ . The determination coefficient R Square is used to show how much percentage of the total domestic price variable and international price together influence cocoa bean exports. The results of the analysis show that the determination coefficient R<sup>2</sup> has a value of 0.587 or it can be said that 58.7% of cocoa bean exports are influenced by domestic prices and international prices. While the remaining 41.3% is influenced by other variable factors that are not included in this study.

Based on the results of this study, it can be concluded that cocoa bean exports in Indonesia play a fairly important role in economic growth. Where in this cocoa bean export activity can also reveal the problem of poverty in Indonesia with increasing commodity export figures will increase the value of economic growth and reduce poverty rates (Djeunankan et al., 2024; Gnanon, 2024; Yan et al., 2024; Efendi et al., 2019).

### **Conclusion**

Based on the results and discussions in the study, we can conclude that; 1). Domestic cocoa bean prices have a positive and significant influence on Indonesian cocoa bean exports, 2). International prices have a negative and insignificant influence on Indonesian cocoa bean exports, 3). Domestic cocoa bean prices and world prices together affect Indonesian cocoa bean exports by 58.7% and 41.3% are influenced by variables outside the study. Together with the limitations in this study, it can be a reference material for further research in the future.

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