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Original Article

Determinants of Soybean Production and Imports in Indonesia

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Abstract: *Soybeans have emerged as a principal constituent of Indonesia's dietary consumption. However, the indigenous soybean production has hitherto proven insufficient to satiate the aggregate demand, thereby necessitating recourse to prolonged soybean imports. Consequently, the present investigation endeavours to scrutinize a panoply of determinants influencing soybean production and imports in Indonesia, as well as delineate the policy ramifications thereof. The study harnesses secondary data in the temporal domain, manifested in time series format, spanning the temporal gamut from 1990 to 2021. The methodological framework of this inquiry employs the Generalized Least Squares (GLS) and Ordinary Least Squares (OLS) approaches as a corroboration of analytical robustness. The findings proffered by this investigation reveal that pivotal factors influencing the escalation of soybean production in Indonesia encompass the augmentation of soybean cultivation acreage, the elevation of soybean market prices, and the depreciation of corn prices. Concurrently, the variables precipitating a decrement in soybean imports within the Indonesian context include the expansion of domestic soybean cultivation acreage, the augmentation of domestic soybean production, and the amplification of domestic soybean consumption. Furthermore, an array of governmental interventions designed to augment soybean production in Indonesia encompasses the enlargement of cultivation acreage and the preservation of price stability. Simultaneously, to alleviate dependence on imports, the government is advised to foster increased soybean production and domestic soybean consumption.*

Keywords: *Soybean; Self-Sufficiency; General Least Square.*

I. INTRODUCTION

The growth rate of the economy in developing countries has implications for the occurrence of prosperity escalation. This is evidenced by the acceleration of food demand and the transformation of the form and quality of food from energy-producing sources to protein-producing products (Hasan and Azis, 2018). The need for protein is escalating in tandem with population and income growth; however, on the other hand, the availability of protein sources in Indonesia is insufficient (Setyawan dan Huda, 2022). Soybeans emerge as a potential primary protein source. As an affordable protein source, soybeans have been acknowledged for an extended period and employed as a primary raw material in various food products such as tofu, tempeh, and soy sauce (Setyawan and Huda). Furthermore, soybeans serve as a fundamental raw material in the industrial sector, particularly in the livestock feed industry (Department of Food Security, 2012). Consequently, soybeans constitute a pivotal commodity with a high demand level.

Fundamentally, Indonesia is the country with the largest soybean consumption rate globally after China (Ministry of Agriculture, 2020). The majority of domestic soybean demand is utilized as raw material for tofu and tempeh production. In its evolution, domestic soybean production can only meet 20% of the domestic soybean demand, with the remaining 80% fulfilled through soybean imports. Based on data compiled by the Central Statistics Agency (BPS) in 2021, efforts in soybean commodity development have been underway since 1962, encompassing the expansion of cultivation areas (extensification) and productivity enhancement (intensification). Within the period of 2000-2015, national soybean production fluctuated but generally experienced an increase. However, in recent years, soybean production has tended to decline. A similar trend is observed in the fluctuating and decreasing development of harvested areas. This phenomenon is attributed to the real price decline of soybean commodities and competition for land use with other crops, such as corn, which commands a higher real price than soybeans (Hafni et al., 2022). The drastic decrease in soybean harvested areas can also be traced to market price competition, driven by the considerably more affordable price of imported soybeans compared to local soybeans. Consequently, this has led to a surge in imports and culminated in a decline in local soybean prices. This situation has dissuaded farmers from cultivating soybeans (Ramadhani and Sumanjaya, 2015).

Meanwhile, on the other hand, the escalating population and the proliferation of soy-based processing industries, such as tofu, soy sauce, tempeh, tauco, and others, result in an unmet demand for soybeans by domestic production (Center for Food Crops Research and Development, 2005). Consequently, Indonesia has become dependent on soybean imports. The government has augmented the value and quantity of soybean imports annually. The upsurge in import volume imposes losses

on farmers. This decision leads to the displacement of local soybeans by imported ones. Despite meeting domestic consumption through imports, the well-being of soybean farmers must still be considered (Department of Agriculture, 2005).

Considering the aforementioned background, a study is required to delve into the factors influencing the production and import of soybeans in Indonesia. This endeavour aims to identify the pivotal factors in production and import and discern the necessary measures to enhance domestic soybean production and limit the dependency on soybean imports in Indonesia.

II. LITERATURE REVIEW

In the execution of research, scholars refer to antecedent studies, presenting several prior research endeavours in the form of articles that bear relevance to the researcher's intended discourse. Fauziyah (2007), employing the Ordinary Least Squares (OLS) method, delineated the average impact of several independent variables on soybean production. Notably, land area exhibited a statistically significant influence on production, whereas labour exhibited no significant impact. The augmentation of seed and fertilizer quantities demonstrated no statistically significant effect on soybean production. This stands in contrast to the theory posited by Putong (2003), asserting that production entails augmenting the utility (value) of a commodity. Production function represents the technical relationship between production factors (inputs) and production outcomes (outputs). The technical relationship posited here is that production is only feasible through the utilization of the specified production factors. In the absence of said factors, production ceases to exist.

Adetama's (2011) analysis of national soybean demand and the repercussions of import tariff policies, utilizing the Two-Stage Least Squares (2SLS) method, reveals that the domestic soybean price significantly influences soybean demand. In the soybean import equation, it is discerned that the independent variables significantly affecting soybean imports are soybean demand variables. Handayani et al. (2011), in their exploration of local soybean competitiveness in the domestic market, concluded that the harvested area is positively influenced by local soybean prices and negatively affected by input prices and substitute product prices. Productivity, on the other hand, is positively influenced by soybean prices and technology but negatively affected by fertilizer prices. This indicates that soybean productivity will increase if local soybean prices at the farmer level rise and technological levels remain high.

Zakiah's (2010) and (2011) simulations of the impact of production policies on soybean food security, utilizing the simultaneous 2SLS method, aim to identify determinants of soybean production and demand. The harvested area is positively influenced by soybean prices and negatively affected by input and substitute product prices. Productivity is positively influenced by soybean prices and technology, with a negative impact from fertilizer prices. This suggests that soybean productivity will increase with rising soybean prices at the farmer level and advanced technology.

In accordance with Hermawan and Prawoto's (2018) research, which posits that all independent variables—soybean consumption, soybean production, exchange rates, and GDP—have significant long-term and short-term effects on soybean imports in Indonesia. Consistent with Hermawan and Prawoto's (2018) study, Sagala et al. (2020) assert that the number of livestock feed industries, soybean prices, income, the number of consumption industries, the population, and corn prices significantly influence soybean demand in the North Sumatra Province. Corn, being a substitute for soybeans, exhibits a negative relationship with soybean imports in North Sumatra.

Mahdi and Suharno's (2019) gravity model analysis identifies several significant independent variables influencing Indonesia's soybean import volume, including domestic soybean prices, Indonesia's per capita GDP, the importing country's per capita GDP, domestic corn prices, economic distance, domestic soybean production, and soybean import tariffs. Conversely, imported soybean prices and exchange rates insignificantly affect soybean imports in Indonesia. This is supported by Putri's (2017) research, which elucidates that soybean production and consumption quantities exert a significant negative influence on soybean import volume in Indonesia in the long and short terms. Meanwhile, domestic prices exhibit a positive and significant impact on soybean import volume in the long and short terms. Finally, Salman and Rahma's (2018) long-term analysis reveals a significantly negative impact on domestic prices, while GDP and exchange rates exhibit a significantly positive impact in the long term. In the short term, domestic soybean prices and international prices significantly and negatively affect Indonesian soybean imports.

III. RESEARCH METHOD

Research of a similar nature that delves into soybean production and imports in Indonesia predominantly employs econometric approaches, with subsequent analysis conducted descriptively. The econometric approach is utilized to capture the phenomena of factors influencing soybean imports into Indonesia within an econometric model. This approach is facilitated by analyzing empirical data.

A) Type and Source of Data

This study employs secondary data in the form of a time series, covering the period from 1990 to 2021 and

encompassing national soybean data in Indonesia. The soybeans referred to in this research are Soya Beans, Whether or Not Broken, under the HS 4-digit tariff code, namely 1201. The use of the HS 4-digit code is intended to comprehensively portray the overall demand for soybean imports in Indonesia. The data and sources utilized in this research are outlined in Table 1.

Table 1: Data Description

Data	Unit	Data Source
Soybean Production	Ton	Faostat
Soybean Productivity	Ton/Ha	Faostat
Soybean Harvest Area	Ha	Faostat
Volume of Soybean Commodity Imports in Indonesia	Ton	UN Comtrade
Domestic Soybean Price	IDR	BPS
Imported Soybean Price	IDR	BPS
Corn Price	IDR	BPS
GDP per Capita of Indonesia	LCU	World Bank
GDP per Capita of Soybean Importing Country	LCU	World Bank
Soybean Consumption	Ton	BPS
Exchange Rate	IDR/USD	World Bank

B) Method of Analysis and Data Processing

The analytical method used in this research is quantitative analysis. This study's approach to quantitative analysis is approached through time series data regression analysis using the General Least Square (GLS) method to scrutinize the variables affecting the production of soybeans and imports in Indonesia. Analysis of time series data in modern econometrics produces inferences that have the ability to predict, interpret and test hypotheses in economic data (Wardhono *et al*., 2019). Data processing is executed through the utilization of Microsoft Office Excel and E-Views 10 software.

C) Model Formulation

Time series data regression models can be employed to estimate the factors influencing soybean production and imports in Indonesia. The model formulation is the preliminary step preceding the regression model estimation. In this study, the formulation of the time series regression model commences with specifying the model by determining dependent (tied) and independent (free) variables. The tied variables in this regression model are the magnitude of domestic soybean production and the volume of soybean commodity imports in Indonesia. Meanwhile, the free variables are obtained from various references, including research findings and theoretical foundations. Each predetermined variable is then subject to initial model estimation. Mathematically, the model equations are as follows:

a. Soybean Production

Production = f (harvested area, domestic soybean price, soybean import quantity, corn price)

b. Soybean Imports

Imports = f (harvested area, domestic soybean production, domestic soybean consumption, and the real exchange rate of the rupiah against the US dollar)

D) General Least Square (GLS)

Drawing conclusions based on least squares is significantly influenced by heteroskedasticity, which is a serious and potential issue. If one of the tests establishes that the model contains heteroskedasticity, the model must be refined first for effective utilization. Several methods can be employed to rectify heteroskedasticity issues. For instance, White's test (White method), Godfel-Quandt test, and Breusch-Pagan Test.

Through the utilization of the generalized least squares (GLS) method, the classic assumption issues can be overcome. In other words, the research no longer relies on classic assumption tests because the GLS method already incorporates the White test or Weighted Least Squares (WLS) method and the Durbin-Watson (Durbin-Watson test for autocorrelation).

The WLS method is one of the remedies for heteroskedasticity. For example, consider the following model :

$$Y_i = \beta_o + \beta i\, X_{it} + e_i$$

$$\text{Dengan var(ei)} = \sigma_i^2$$

If the model exhibits unequal residual variance, the efficiency of the variance estimator is compromised, and the anticipated variance of estimator B becomes:

$$\text{Var}(\hat{\beta}_1) = \frac{\sum x_i^2 \sigma_i^2}{(\sum x_i^2)^2}$$

As ρ_i^2 cannot be directly obtained, White takes the squared residuals from equation (3.7) as a proxy (ρ_i^2 = e_i^2), resulting in the anticipated variance of estimator B:

$$\text{Var}(\hat{\beta}_1) = \frac{\sum x_i^2 e_i^2}{(\sum x_i^2)^2}$$

IV. RESULTS AND DISCUSSION

A) Determinants of Soybean Production in Indonesia

The outcomes of estimating the elements affecting Indonesia's soybean output will be elucidated in this subsection, wherein the estimation results can reveal the factors affecting soybean production in Indonesia (Table 2). These factors may emanate from the cultivated area, soybean prices, corn prices, and the quantity of soybean imports, subsequently influencing the magnitude of soybean production in Indonesia. Therefore, it is imperative to identify and analyze whether these factors significantly exert positive or negative effects on the volume of soybean production in Indonesia.

Table 2: Results of OLS and GLS Estimation for Soybean Production Model

OLS PREDICTOR				GLS PREDICTOR		
Variable	**Coefficient**	**t-statistic**	**Prob.**	**Coefficient**	**t-statistic**	**Prob.**
Soybean Harvest Area	0,9906813	37,63	0,000***	0,9664394	51,96	0,000***
Domestic Soybean Prices	0,1506614	1,69	0,102	0,1101547	1,71	0,002**
Soybean Import Quantity	0,043191	1,40	0,173	0,0636998	1,75	0,093*
Domestic Corn Prices	-0,054361	-0,68	0,505	-0,044831	-0,73	0,074*
R-Squared	0,9932			0,9989		
Adjusted R-Squared	0,9922			0,9987		
F-Statistic	982,52			4866,43		
Prob > F	0,0000			0,0000		

) significant at α=10%,) significant at $\alpha = 5\%$, ***) significant at $\alpha = 1\%$*

Based on the estimation results presented in the table, the harvested area of soybeans significantly influences soybean production. This is evidenced by the probability values in both OLS and GLS estimations, each falling below the α threshold levels of 1%, 5%, and 10%. The regression coefficient with OLS estimation is 0.9906813, and with GLS estimation, it is 0.9664394. Consequently, it can be construed that a one-unit increase in the harvested area of soybeans will augment soybean production by 0.9906813 (with OLS estimation) or 0.9664394 (with GLS estimation), assuming other variables remain constant. The regression coefficient for the domestic soybean price variable is 0.1506614 with OLS estimation and 0.1101547 with GLS estimation. The coefficient in the GLS estimation is statistically significant at the 5% and 10% α levels. This implies that a one-unit increase in the domestic soybean price will elevate local soybean production by 0.1101547.

Furthermore, the regression coefficient for the quantity of soybean imports variable is 0.043191 with OLS estimation and 0.0636998 with GLS estimation. However, this coefficient is statistically significant only at the 10% α level. Finally, the regression coefficient for the domestic corn price variable is -0.054361 with OLS estimation and -0.044831 with GLS estimation. The GLS coefficient is statistically significant at the 10% α level. This indicates that an increase in the domestic corn price leads to a tendency for a decrease in domestic soybean production. Farmers prefer to cultivate corn over soybeans due to the lower price of soybeans compared to corn.

Overall, the independent variables can explain 99.32% (with OLS estimation) and 99.89% (with GLS estimation) of the variation in soybean production. Looking at the F-statistic, OLS estimation yields values of 982.52, and GLS estimation yields 4866.43. These values indicate the joint significance of the independent variables in explaining the variation in soybean production, supported by probability values of 0.0000 for both estimations. When comparing OLS and GLS estimations, GLS estimation has higher R-squared, adjusted R-squared, and F-statistic values than OLS estimation, making GLS estimation more adept at elucidating variations in soybean production.

B) Determinants of Soybean Imports in Indonesia

The outcomes of the estimation of factors influencing soybean imports in Indonesia will be expounded upon in this subsection. The estimation results can shed light on the factors affecting soybean imports in Indonesia. These factors may originate from the exporting country or the destination country, impacting the volume of traded soybean imports. Therefore, it is essential to identify and analyze whether these factors significantly exert positive or negative effects on the volume of soybean imports in Indonesia.

Moving on to Table 3, the estimation results for the soybean import model reveal that the harvested area of soybeans significantly influences soybean imports with OLS estimation but is not significant in GLS estimation. This is substantiated by

the α values in OLS estimation, which are below 1%, 5%, and 10%. In OLS estimation, the regression coefficient for the soybean land area variable can be interpreted as each one-unit increase in soybean land area will decrease soybean imports by -3.683269. The regression coefficient for soybean production also significantly influences soybean imports with OLS estimation but is not significant in GLS estimation. This is evidenced by the α values in OLS estimation, which are below 1%, 5%, and 10%. In OLS estimation, the regression coefficient for soybean production can be interpreted as each one-unit increase in soybean production will decrease soybean imports by 3.704832.

Table 3: OLS and GLS Estimation Results for Soybean Import Models

OLS Predictor				GLS Predictor		
Variable	**Coefficient**	**t-statistic**	**Prob.**	**Coefficient**	**t-statistic**	**Prob.**
Soybean Harvested Area	-3,683269	-2,52	0,018***	-1,672229	-0,89	0,384
Soybean Production	-3,704832	-2,51	0,018***	-1,640685	-0,87	0,391
Soybean Consumption	0,2057375	1,09	0,285	1,293719	3,60	0,001***
Exchange Rate	0,9860833	1,72	0,097*	0,2230865	0,37	0,718
R-Squared	0,7824			0,8767		
Adjusted R-Squared	0,7501			0,8570		
F-Statistic	24,26			44.45		
Prob > F	0,0000			0,0000		

) significant at $\alpha = 10\%$, **) significant at $\alpha = 5\%$, *) significant at pada $\alpha = 1\%$*

Meanwhile, the regression coefficient of the soybean consumption variable indicates an insignificant influence on soybean imports in the OLS estimation, but it is significant in the GLS estimation. This is substantiated by the α values in the GLS estimation, which are below 1%, 5%, and 10%. The regression coefficient for soybean consumption in the GLS estimation can be interpreted as each one-unit increase in soybean consumption will increase soybean imports by 1.293719. Lastly, the regression coefficient of the exchange rate variable shows a significant influence at an α level of less than 10% on soybean imports in the OLS estimation. However, it is not significant in the GLS estimation. The positive sign of the exchange rate coefficient indicates that the depreciation of the rupiah against the dollar can stimulate an increase in soybean imports in Indonesia. This is underpinned by the condition where imported soybean prices seem cheaper compared to domestic soybean prices.

Overall, the independent variables can explain the variation in soybean imports by 78.24% (with OLS estimation) and 87.67% (with GLS estimation). Examining the F-statistic, the OLS estimation yields a value of 24.26, and the GLS estimation yields 44.45. These values indicate the simultaneous significance of the independent variables in explaining the variation in soybean imports, supported by a probability value of 0.0000 for each estimation. When comparing the OLS and GLS estimation results, the GLS estimation has higher R-squared, adjusted R-squared, and F-statistic, demonstrating that the GLS estimation is more adept at explaining the variation in soybean imports.

C) Discussion of Research Results

a. The Influence of Cultivated Areas on Soybean Production

The expanse of land, a pivotal input in agricultural endeavours, can significantly influence soybean production in Indonesia. Endeavors to extend cultivation areas are poised to augment agricultural output. The amplification of land area, coupled with the application of cultivation technologies, has the potential to enhance farmers' productivity. Consequently, the utilization of larger farming plots correlates positively with increased soybean production, aligning with Soekartawi's (2003) theory that a broader cultivated land area leads to greater yields for farmers. This underscores the pivotal role of land in the agricultural sector as the primary determinant of farmers' income levels.

Regression analysis results in this research indicate that the expansion of harvested land area can provide additional contributions to soybean production in the current year. This demonstrates that extensification or expanding planting areas are useful strategies for raising output (Nasir et al. 2021). Therefore, the area of soybean harvested land can influence fluctuations in rice production. Increasing the area of soybean harvested can increase soybean production during the research year. It will reduce soybean production if, during that period, there is a decrease in the area of soybean harvested.

b. The Influence of Domestic Soybean Prices on Soybean Production

The pricing of soybeans plays a pivotal role in augmenting farmers' production. An escalation in local soybean prices has the potential to boost soybean farmers' production. This phenomenon arises from the fact that local soybean prices can incentivize farmers to opt for soybean cultivation over other crops. Improvements in the soybean supply chain are able to maintain the stability of soybeans in Indonesia (Qoria'ah et al., 2023). As with other commodities, such as chillies in Indonesia, the availability of chilli supplies is important to mitigate chilli price fluctuations (Wardhono et al. 2020). If the price of domestic soybeans can compete with imported soybeans, it can encourage farmers' production to increase.

c. The Influence of Soybean Imports on Soybean Production

Imports from the previous year exhibit no impact on production, as evidenced by the insignificance of this variable. Results indicate that previous-year soybean imports do not affect fluctuations in soybean production. Importation outside the harvest season maintains soybean prices at a relatively stable level between seasons. Government-initiated soybean import policies (by BULOG) serve to stabilize price levels, consequently affecting production.

d. The Effect of Corn Prices on Soybean Production

The potential hindrance to increased soybean production is that farmers' interests are declining due to less competitive prices. Solving that necessitates creating conditions influencing farmers' decisions to contribute to enhanced soybean production. Farmers' actions are inherently tied to self-capacity and cost-benefit calculations. In normal circumstances, farmers refrain from engaging in activities beyond their capabilities or those detrimental to themselves. The stability of corn prices, compared to the highly fluctuating soybean prices, leads farmers to prefer cultivating corn over soybeans. Consequently, price fluctuations in the corn commodity cause shifts in soybean production in Indonesia.

e. The Impact of Soybean Production on Soybean Imports

Indonesia's soybean production significantly influences soybean imports despite being considerably lower than the production levels in the United States. Rising soybean demand, coupled with population growth and increased goods demand, heightens per capita consumption. Therefore, the government must engage in soybean imports to meet domestic demand and prevent a surge in domestic soybean prices. The government must also maintain the stability of the rupiah's exchange rate to prevent price increases in imported soybeans due to a weakened rupiah against the U.S. dollar. Aimon and Satrianto (2015) elucidate that soybean imports in Indonesia occur when local soybean production cannot meet the consumption needs of the Indonesian populace. The findings of this research align with Yunitasari et al.'s (2019) study, asserting that soybean production significantly influences soybean imports.

Based on FAO data (2018), over the past 16 years, the domestic soybean production facet has exhibited a trend or tendency towards incremental growth, albeit in relatively modest quantities. This phenomenon stems from the escalating volume of domestic soybean production, which, however, falls short of satisfying the domestic soybean consumption demands. Consequently, imports persist in increasing quantities each year.

f. The Influence of Soybean Consumption on Soybean Imports

Soybean consumption significantly affects soybean imports in Indonesia. Annual increases in soybean consumption drive up import volumes as Indonesians continue to consume soybeans and their derivatives, irrespective of soybean price fluctuations. Soybeans remain a healthy and affordable food source, making them a staple for all demographics. Despite being the world's largest consumer of soybeans, Indonesia still relies on imports, even with available land for soybean cultivation. This aligns with Wiranata's (2014) study, demonstrating that consumption significantly influences Indonesia's soybean imports.

g. The Effect of Exchange Rates on Soybean Imports

According to Mankiw (2008: 135), a theory positing that the principal distinction between international transactions and domestic transactions pertains to currency exchange exists. When individuals in different countries engage in buying and selling activities, currency exchange occurs. The exchange rate, or value, represents the price or value of a country's currency expressed in the currency of another country. Economists categorize exchange rates into two types: nominal exchange rates and real exchange rates. Real exchange rates are defined as the relative prices of goods between two countries. More broadly, the real exchange rate can be computed as follows: Real exchange rate = nominal exchange rate × domestic price of goods / foreign price of goods. If the real exchange rate or real value is high, foreign goods tend to be cheaper, while domestic goods tend to be more expensive.

Based on the aforementioned theory, the real exchange rate has a positive relationship with imports, implying that the higher the real exchange rate, the greater the quantity or increase in soybean imports to Indonesia. However, contrary to the findings of this study, the processing of data reveals that changes in the real exchange rate do not have a significant impact on soybean imports. This can occur because processed food products made from soybeans, dominated by tofu and tempeh, constitute one of the staple foods consumed daily by the public, thus providing affordable protein. Nevertheless, if the prices of these commodities rise, it will result in changes in the exchange rate, inevitably reducing the purchasing power of the population (Dini, 2012).

Furthermore, the elevated demand for soybeans remains unaffected by the fluctuation of the rupiah exchange rate, as society deems soybeans a cost-effective nutritional staple accessible to all. Consequently, the demand for this commodity is poised to ascend even in the face of a weakened rupiah persistently. Consequently, when soybean prices surge due to a

depreciating rupiah, soybean imports are not anticipated to be significantly impacted. Moreover, domestic soybean production falls short of meeting substantial domestic demands, notwithstanding an increase in the rupiah and a decrease in imported soybean prices. This discrepancy arises from the profound influence of domestic income levels and foreign exchange rates on the heightened demand for imports (Hermawan and Prawoto, 2018). Earlier investigations by Singgih and Sudirman (2014) established that exchange rates exert negligible influence on imports. Feryanto's research (2015) aligns with these findings, demonstrating that the costs incurred by consumers due to the depreciation of the rupiah against the USD are inconsequential to this factor.

IV. CONCLUSION

The analysis employing GLS reveals that the factors influencing the augmentation of soybean production in Indonesia encompass the expansion of soybean cultivation acreage, escalation in soybean selling prices, and a reduction in corn prices. Concurrently, the determinants contributing to the decline in soybean imports in Indonesia involve the enlargement of domestic soybean cultivation acreage, amplification of domestic soybean production, and an upswing in domestic soybean consumption.

On the other hand, governmental interventions can manifest through policy implementations aimed at bolstering soybean production in Indonesia. Such measures may include the augmentation of cultivation acreage and the preservation of price stability. In order to alleviate dependence on imports, the government must enhance both soybean production and domestic soybean consumption.

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