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ANALYSIS OF DETERMINANTS AND FACTORS AFFECTING INDONESIAN SOYBEAN IMPORTS

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ABSTRACT

Soybeans are the main food commodity for Indonesian people after rice and corn. Indonesia's population growth every year shows an increase in the need for food, which results in an increase in demand for soybeans. On the other hand, Indonesia's soybean production is experiencing a decline, which has a negative impact on the industry and forces the government to import soybeans from abroad. The objectives of this study are: (1) to scrutinize in part the effects of import prices, land area, production, consumption, and exchange rates on Indonesian soybean imports, (2) The Role of Pricing in Moderating the Impact of Consumption on Indonesian Soybean Imports. analysis in this study, secondary data from BPS, the World Bank, UN Comtrade, and pertinent publications were combined with multiple linear regression. Multiple linear regression and moderation were used in the data analysis process with the software used Eviews 12. The analysis method for this research uses descriptive analysis, validity and reliability. The research results show that in Indonesia, partially the quantity of imported soybeans has a significant influence on the exchange rate variables, household consumption, import prices and consumption interactions. In the meanwhile, the variables related to production and land area do not significantly affect the amount of soybeans imported into Indonesia. The study's findings demonstrate that import prices have a major impact on Indonesia's imports of soybeans.

Keywords: consumption; exchange rate; import; soybean.

INTRODUCTION

One of the primary global sources of both vegetable oil and protein is soybeans. Soybeans are vital to the Indonesian economy since they are the primary source of raw materials for the tempe, tofu, soy sauce, and other industries. Nevertheless, native soybean production cannot keep up with the enormous demand for soybeans. Along with developments in per capita consumption and population growth, there is an ongoing demand for domestic agricultural products. Nonetheless, there is a discrepancy between the supply and demand of domestic agricultural products since local soybean output is not increasing to keep up with the growing demand for agricultural products The government's way of meeting agricultural needs is by importing agricultural commodities.

Indonesia experienced a fairly high soybean trade deficit with the value of soybean imports throughout 1989-2020, an average of 681.69 million US$, which was much greater than the value of soybean exports which only reached 1.34 million US$. The value of soybean imports also shows an increasing trend from year to year (Uncomtrade, 2020). According to the Ministry of Agriculture, the highest local soybean production reached 1.70 million tons in 1992. However, after that until 2014, local soybean production showed a continuing downward growth trend. The decline in soybean production causes a deficit in soybean production. Indonesia tends to experience an increase in soybean production deficit. This encourages the government to import soybeans to Indonesia (Kementerian Pertanian, 2020). The decline in farmers' interest in planting soybeans is also one of the factors that causes soybean production to decline, because farmers consider soybean farming to not provide adequate profits (Zakaria, 2010).

Based on (Kementerian Pertanian, 2020), it shows that in 2014-2019 there was an increase in soybean production along with an increase in planted area, harvested area and scattered (5% of production). The increase in soybean production in 2019 reached 1540000 tons and soybean imports amounted to 2725087, meaning that the percentage of soybean imports was greater than domestic production. If we look at the use of soybeans, in 2019 Direct Consumption (population * consumption rate) was 2004508, and the balance sheet in 2019 was 1691324. On average, local soybean production per year is only able to meet around 30 percent of domestic soybean needs, and the remaining 70 percent is met by imported soybeans. The largest countries that supply imported soybeans to Indonesia are the United States, Brazil and Argentina, which are the world's main soybean producing countries (Zhao et al., 2010).

Indonesia's population growth every year shows an increase in the need for food, which results in an increase in demand for soybeans. On the other hand, Indonesia's soybean production has experienced fluctuations, which has had a negative impact on the industry and forced the government to import soybeans from abroad. Importing soybeans from abroad will result in the domestic market being flooded with imported soybean products which will replace local soybeans, because Imported soybeans are significantly less expensive. An rise over the previous year saw the volume of soybean imports reach 7913018 tons in 2021. In 2021, The impor volume will rise in tandem with an increase in the impor's value. Over the previous five years, Indonesia's imports of soybeans have climbed by about 4.81% (2017-2021). The largest increase in import volume occurred in 2021, where actual imports reached more than 7 million tons of soybeans. This increase occurred because in 2021 local soybean production experienced a decline. Around 90% of soybean imports entering Indonesia come from the United States, and the remainder comes from other countries, namely Argentina, Brazil and Canada (Kementerian Pertanian, 2020).

The study's goals include: (1) to scrutinize in part the effects of import prices, land area, production, consumption, and exchange rates on Indonesian soybean imports, (2) The Role of Pricing in Moderating the Impact of Consumption on Indonesian Soybean Imports. The main source of turmoil commonly faced by the economy is the rise and fall of domestic demand for imported goods. Instability in demand for imported goods causes domestic demand to become high and an inflexible exchange rate cannot reduce the volatility in increasing demand for imports. Import policy has a negative side for a country's economic development. The existence of an import policy kills similar domestic products and services and, most importantly, can drain the income of the country concerned. If Indonesia does not immediately improve its food security situation, which requires special attention, this will have a negative impact on its future growth. Dependence on imports, even food insecurity, is one of the consequences that will occur. The government must make regulations that are profitable and prevent dependence on imports, such as self-sufficiency in soybeans. With soybean self-sufficiency, the country can meet domestic food needs but can also stop the growth of the domestic agricultural industry. In his study, (Yoga & Saskara, 2013) investigated the effects of domestic soybean prices, production levels, and US dollar exchange rates on the volume of imported soybeans from Indonesia. (Ningrum et al., 2018) examined Indonesian import trends, import determinants, and soybean production. The novelty of this research is analyzing the determinants and factors affecting imports of soybeans in Indonesia from internal and external factors and using the moderated price variable for Indonesian soybeans.

MATERIALS AND METHODS

The study is carried out in the Indonesian region, which encompasses the whole country and has been modified by the Central Statistics Agency (BPS) to include new provinces as well as decrease existing ones. The independent variables used are exchange rate (X_1), soybean production (X_2), land area (X_3), soybean consumption (X_4) and price (Z). Meanwhile, the Dependent Variable used is import volume Indonesian soybeans (Y).

This research uses data collection techniques from several relevant sources in the form of data on Import of soybeans, exchange rate, Indonesian soybean production, soybean land area in Indonesia, household consumption, and price of import soybeans. This study employed secondary data as its data type. The research uses annual time series data sourced from the Indonesian Central Statistics Agency, PIHPS, UN Comtrade, World Bank, Bank Indonesia and related articles.

The first objective of this research was addressed through data analysis using multiple linear regression. To achieve the second goal, secondary data from 1990 to 2019 were utilised along with multiple linear regression and moderation. The software used in data processing is Eviews 12. Classic assumption tests, which include the tests for normality, heteroscedasticity, autocorrelation, multicollinearity, descriptive analysis, validity, and reliability, are used in the analytical process of this

study.The resulting regression equation is guaranteed to be unbiased, consistent and accurate in its estimation so it is necessary to carry out analysis using classical assumption test analysis. For the years 1990–2019, the Indonesian government's policy on soybean imports, the amount of soybeans imported, and the evolution of domestic soybean output are all summarized using descriptive analysis. Validity and reliability are used to measure whether the instruments prepared to collect research data can actually measure a research objective. A measuring device's validity indicates how well it can capture the targets it is intended to measure. An index number known as reliability indicates how consistently a measuring tool measures the same phenomena. Next, an interaction test or Moderated Regression Analysis (MRA) is used for evaluating hypotheses when interactions are included in the regression equation (Ghozali, 2016). The regression equation for this investigation is as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 Z + \beta_6 X_4 Z + \mu_i \quad (1)$$

Predicted parameters:

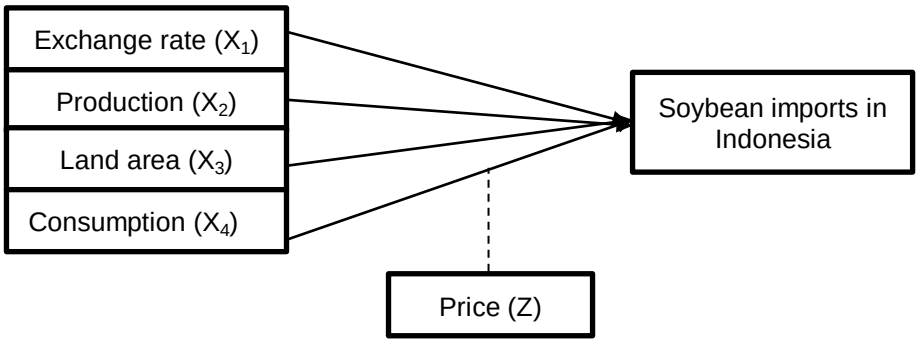
$$\beta_1 < 0;\ \beta_2 < 0;\ \beta_3 < 0;\ \beta_4 > .0.;\beta_5 < .0;0 < \beta_6 < 1 \quad (2)$$

Where: α = Constant, Y = Import of soybeans (Tons), X_1 = The rupiah's exchange rate with the US currency (IDR/US$), X_2 = Indonesian soybean production (Tons), X_3 = Soybean land area in Indonesia (Ha), X_4 = Household consumption (Kg/Capital/Year), Z = Soybean Import Price (IDR), β_1 = The rupiah's regression coefficient in relation to the US currency (X_1), β_2 = Regression coefficient of Indonesian soybean production (X_2), β_3 = Regression coefficient of soybean land area in Indonesia (X_3), β_4 = Coefficient of regression for household consumption (X_4), β_5 = Price regression coefficient (P), β_6 = Regression coefficient for interaction between consumption and price ($X_4 Z$), μ_i = Error rate

Import is an activity that involves entering or distributing goods into the customs area. Individuals or businesses that engage in import activities are referred to as importers. According to (Tri Sugiarti Ramadhan, Nanik Wahyuningtiyas, 2023), imports are putting domestic commodities into the Republic of Indonesia's circulation, and the goods that are bought have to be reported to the Ministry of Finance's Directorate General of Customs and Excise. Customs is defined as the state agency in charge of overseeing the implementation of administration, state revenues, value-added tax, commodities tax, and customs taxes.

According to (Hasyim & Rina, 2015) defines price as the sum of money or numerous objects required to perform a good or service. (Sukirno, 2012) illustrates how the interplay between sellers and buyers establishes a price by mixing supply and demand. This can be understood to mean that supply and demand in the market affect both high and low prices.

According to (Destasari et al., 2015), a product is something offered to the market with the aim of satisfying needs and desires. Production refers to the transformation of various inputs or resources into the output of several goods or services (Salvatore, 2008). Output can be in the form of final commodities, products or services.



Explanation:
→ = Variables X_1, X_2, X_3, X_4 directly affect Y
- - - - - → = Influence of variable Z on X_4 on Y

Figure 1. Conceptual framework

According to (Sukirno, 2012), a country's currency's value will fluctuate in response to shifts in supply and demand, which will impact the volume of exports and imports. (Salvatore, 2008), if the domestic currency appreciates against foreign currency then imports for the domestic population become cheaper, but if the value of the domestic currency depreciates then the value of the foreign currency becomes more expensive which results in imports for the domestic population becoming more expensive.

According to (Sukirno, 2012), the consumption expenditure pattern of a person or household is basically grouped into two parts, namely: food consumption (food) and non-food consumption (not food). The use of income for this consumption determines the level of community welfare. The increase in public consumption that occurs in a country can encourage imports of goods (Lilis Hendri Purwanti & I. K. G. Bendesa, 2018).

RESULTS AND DISCUSSION

Classic Assumption Test

1. Normality test

To ascertain whether the residuals and confounding variables in the regression model have a normal distribution, the normality test is performed. Considering the data processing that was done, the Jarque-Bera significance value was 2.141421 with a probability value of 0.3427 > alpha 5 percent, consequently, the data was disseminated normally.

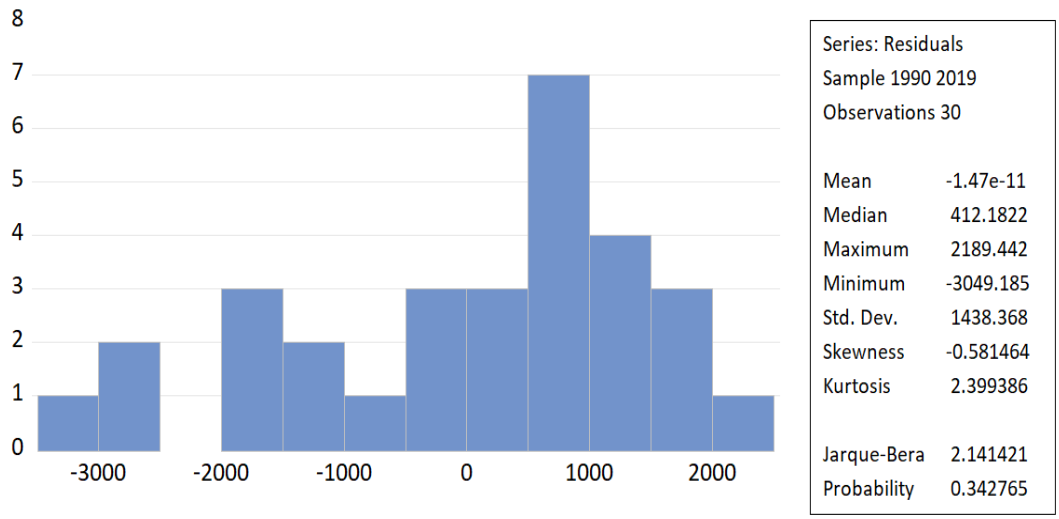


Figure 2. Normality test (Source: Processed data, 2024)

Considering the outcomes ₚof the completed data processing, the Jarque-Bera significance value was 2.141421 with a probability value of 0.3427 > alpha 5 percent, thus, the data had a normal distribution.

2. Heteroscedasticity test

The heteroscedasticity $t_w$est table shows an F-Statistic value of 1.771 with Obs*R-squared of 9.4837. The F probability value (6.23) is 0.1495 and the Chi-Square Prob is 0.6902 > alpha 5 percent, which means that there are no symptoms of heteroscedasticity (homoscedasticity).

Table 1. Heteroscedasticity test result

F-statistic	1.771982	Prob. F(6,23)	0.1495
Obs*R-squared	9.483760	Prob. Chi-Square (6)	0.1481
Scaled explained SS	3.900330	Prob. Chi-Square (6)	0.6902
Test Equation:			
Dependent Variable:	RESID^2		
Method:	Least Squares		
Sample:	1990 2019		
Included observations:	30		

Table 1. Heteroscedasticity test result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1954272	7965842	-0.245331	0.8084
X1	19.00337	170.2936	0.105990	0.9165
X2	-22103.14	10143.97	-2.178943	0.0398
X3	21903.27	11785.25	1.858533	0.0759
X4	336333.1	1032696.	0.325684	0.7476
X4_Z	400.9841	4104.416	0.097696	0.9230
Z	12177.33	28815.02	0.422604	0.6765
R-squared	0.316125	Mean dependent var		1999938
Adjusted R-squared 0.137723 S.D. dependent var 2.406284				
S.E. of regression 2234448. Alaike info criterion 32,27785				
Sum squared resid 1.15 E+14 Schwarz criterion 32.60480				
Log likeihood -477.1678 Hannan-Quinn criter 32.38244				
F-statistic 1.771982 Durbin-Watson stat 1.957473				
Prob (F-statistic) 0.149549				

3. Autocorrelation Test

The autocorrelation test is used to monitor whether autocorrelation exists or whether data from earlier observations has an impact on the regression model.

Table 2. Autocorrelation test result

F-statistic	1.312111	Prob. F(2,21)	0.2904
Obs*R-squared	3.332456	Prob. Chi-Square(2)	0.1890

Test Equation:
Dependent Variable: RESID
Method: Least Squares

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1848.272	5936.382	-0.311347	0.7586
X1	-0.060421	0.134112	-0.450525	0.6569
X2	0.069833	7.518812	0.009288	0.9927
X3	0.244488	8.878913	0.027536	0.9783
X4	434.1132	809.2959	0.536409	0.5973
X4_Z	-2.740760	3.680738	-0.744622	0.4648
Z	17.85462	25.22456	0.707827	0.4868
RESID(-1)	0.362504	0.241672	1.499985	0.1485
RESID(-2)	0.164989	0.295249	0.558813	0.5822
R-squared	0.111082	Mean dependent var		
Adjusted R-squared	-0.227554	S.D.dependent var		1438.368
S.E. of regression	1593.640	Alaike info criterion		17.82875
Sum squared resid	53333434	Schwarz criterion		18.24911
Log-likelihood	258.4313	Hannan Quinn criter		17.96323
F-statistic	0.328028	Durbin Watson stat		1.843747
Prob (F-statistic)	0.945697			

The autocorrelation test table shows that the value of Prob. Chi-Square is 0.1890 > alpha 5 percent, thus accept H_0 or, which suggests that there are no autocorrelation symptoms.

4. Multicollinearity Test

Do the multicollinearity test to see if there is a correlation between the independent variables and the regression model. The variance inflating factor (VIF) value and the tolerance value both display the findings of the regression analysis's multicollinearity test. If the tolerance value is at least 0.10 and the VIF value is not more than 10, the regression model is considered multicollinearity-free (Ghozali, 2016).

The Centered VIF value is obtained based on the following data processing results: X_1= 3.5887, X_2 = 95.2017, X_3 = 123.8185, X_4 = 36.3019, X_4Z = 43.4162, and Z = 88.3896. In light of the Centered VIF value being greater than 10, it may be said that multicollinearity occurs.

Table 3. Multicollinearity test result

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	33153750	381.2799	NA
X1	0.016796	18.14098	3.588749
X2	53.76323	755.9229	95.20179
X3	72.56826	695.2764	123.8185
X4	557204.2	546.2815	36.30190
X4_Z	8.801812	922.9759	43.41624
Z	433.8177	719.466	88.38960

The Influence of Exchange Rates, Production, Land Area, Consumption, Import Prices on Soybean Imports In Indonesia

To determine the extent to which the independent variables influence each other, namely the exchange rate variable (X_1), production (X_2), land area (X_3), household consumption (X_4), price (Z), and the interaction variable between household consumption and price (X_4Z), for the dependent variable, namely the volume of Indonesian soybean imports (Y), moderated multiple linear regression analysis was used.

Table 4. Results of moderated regression analysis with absolute differences in the impact of exchange rates, production, land area, consumption and prices on soybean imports in Indonesia for the 1990-2019 period

Variable	Coefficient	Std. Error	t-Statistic	Prob
C	7299.158	5757.929	1.267671	0.2176
X1	0.314312	0.129598	2.425280	0.0236
X2	2.330490	7.332342	0.317837	0.7535
X3	-0.200373	8.518701	-0.023522	0.9814
X4	-2287.896	746.4611	-3.064991	0.0055
X4_Z	13.91679	2.966785	4.690868	0.0001
Z	-80.68629	20.82829	-3.873880	0.0008
R-squared	0.712317	Mean dependent var		4186.902
Adjusted R-squared	0.637269	S.D. dependent var		2681.714
S.E. of regression	1615.121	Alaika info criterion		17.81317
Sum squared resid	59998139	Schwarz criterion		18.14012
Log-likelihood	-260.1976	Hannan-Quinn criter		17.91776
F-statistic	9.491497	Durbin-Watson stat		1.363856
Prob (F-statistic)	0.000027			

Source: Processed Data, 2024

The analysis presented in Table 4 reveals an Adjusted R-Squared value of 0.6372, indicating that the dependent variable (Indonesian soybean imports) can be explained by the independent variables (rupiah exchange rate, production, land area, household consumption, import prices, and consumption-price interaction variables) at the same time. This accounts for 63.72% of the remaining amount, with the remaining factors not included in the model explaining 36.28%. Finding the simultaneous impact of the independent and dependent variables is the goal of the simultaneous or joint regression test, as demonstrated by the F test. The F-statistic value of 9.491 and Prob (F-statistic) value of 0.000027 < 5 percent show that the independent variables (rupiah exchange rate, production, land area, household consumption, soybean import prices, and the interaction variable price consumption) all have an impact on the dependent variable (Indonesian soybean imports) at the same time. The results of this study align with the findings of (Nur Mahdi & Suharno, 2019), who argued that a number of independent variables, when using the gravity model, are significant in influencing the volume of Indonesian soybean imports. These variables include domestic soybean prices, GDP per capita in Indonesia, GDP per capita in the importer country, economic distance, domestic soybean production, and soybean import tariffs.

The study's findings support the first goal, namely that partially the IDR/US$ exchange rate (X1) has a positive influence on soybean imports in Indonesia for the 1990-2019 period. This is evident from the t-statistic value of 2.425 with a coefficient value of 0.3143 and a prob value of 0.02 < 0.05, meaning that if there is an increase in the exchange rate of 1 IDR US$ then Imports of soybeans will rise by 0.314 tons and conversely, if the rupiah exchange rate weakens by 1 IDR US$, Indonesian

soybean imports will decrease by 0.314 tonnes. This means that the exchange rate variable is not in accordance with the hypothesis and is not in line theoretically. According to (Jiranyakul, 2013), the exchange rate has a negative influence on imports of goods. According to (Aditya and Saskara, 2013) who state that In a floating exchange rate system, a fall in exports and an increase in imports will follow a depreciation or appreciation of the currency's value. The typical trend is for exports to increase and imports to decrease when there is a dip in the exchange rate, or when the value of the foreign currency rises in relation to the value of the local currency. According to (Fikri, 2022) The correlation between the Rupiah and USD exchange rate is negative. This is in accordance with the purchasing power parity theory introduced by (Gustav Bassel, 1921), according to which the comparison of the value of a currency determines how strong the purchasing power of that money is in each country. This shows that the rupiah exchange rate weakens against the USD, while soybean import activities continue, causing importers to incur additional costs. This has the impact of reducing the volume of soybean imports.

Partially (t test) variable X_2 (Indonesian soybean production) has a t-statistic value of 0.317 with a coefficient value of 2.330 and a prob value of 0.753 > 5 percent which shows that It doesn't really have a big impact on Indonesian soybean imports. Also supported by Putri (2017) which explains that the amount of soybean production and consumption has a negative and significant influence in the long and short term on the volume of soybean imports in Indonesia.

This study supports the findings of another study (Malik & Nainggolan, 2020) that shows there is no discernible direct relationship between imports and soybean production (VPOK). (Ningrum et al., 2018), Imports of soybeans are negatively impacted by output; a fall in imports is predicted following an increase in production. Given a given increase in production, the share of imports will decrease dramatically, as shown by equation I, because the percentage change in imports will be greater than the percentage increase in soybean production. This occurs as a result of the government's goal of making soybeans self-sufficient. Reducing the degree of import dependence is the desired outcome. In the meanwhile, the amount of soybean imports is positively and significantly impacted by domestic pricing both over the long and short terms.

Partially (t test) variable X_3 (land area) includes a t-statistic value of -0.023 with a coefficient value of -0.2003 and a prob value of 0.981 > 0.05 which shows that land area has no real significant effect on Indonesian soybean imports. Partially (t test) variable X_4 (household consumption) has a t-statistic value of -3.064 with a coefficient value of -2287.89 and a prob value of 0.005 < 5 percent, this indicates that household consumption significantly and negatively affects Indonesian soybean imports. This means that if household consumption increases by 1 kg, Indonesian soybean imports will decrease by 2287 kg, and vice versa. Theoretically, consumption has a positive relationship or positive influence on soybean imports in Indonesia. This means that if domestic consumption increases, imports of a good will increase, assuming that domestic production cannot meet domestic demand. in this research, variable X_4 (household consumption), not in line with the hypothesis and theoretically. According to (Yanti et al., 2022), this is because the level of consumption carried out by the community is not the main factor in determining import activities carried out by the government. Regardless of whether public consumption is increasing or decreasing, the government will continue to carry out import activities in an effort to provide domestic soybean reserves. This is also supported by research (Mellynia et al., 2024), short-term and long-term consumption has no effect on imports, because people's consumption patterns tend to be unpredictable.

The Role of Pricing in Moderating the Impact of Consumption on Indonesian Soybean Imports

Partially (t test) variable Z (import price of soybeans) has a t-statistic value of -3.873 with a coefficient value of -80.686 and a prob value of 0.0008 < 5 percent, it indicates that Indonesian soybean imports are significantly impacted by the price of soybean imports in this study (Table 4). This means, If the import price of soybeans increases by IDR 1, it will reduce Indonesian soybean imports by 80.68 tons, and vice versa. This is in line with the research hypothesis and theoretically, where the price of soybean imports and soybean imports have a negative relationship. According to (Assifah, 2022), an increase in the price level will reduce demand for these goods. Partially (t test) the variable Indonesian soybean imports. Using the outcomes of the data processing, the moderated regression equation that follows can be made:

$$\hat{Y} = -7299{,}15 + 0{,}314\ X_1 + 2{,}330\ X_2 - 0{,}2003\ X_3 - 2287{,}89\ X_4 - 80{,}686\ Z + 13{,}916\ X_4 Z \qquad (3)$$

Based on the equation above, there are positive and negative coefficient values. The positive coefficient variables are exchange rate, production and price-consumption interactions. Meanwhile, land area, consumption and price variables have negative coefficients. The supply of imported food

rises as a result of the uneven expansion in domestic soybean production capacity and demand. Dependence on imported materials is a form the state's lack of independence in providing the country's food supply (Setyawan & Huda, 2022). (Baroh et al., 2022) at the 90% confidence level, the domestic soybean price variable has no discernible impact on the demand model. This can be seen from the magnitude of the t-test results for the domestic soybean price variable, which obtained a t-count of 0.555, where this value is smaller than the t-tab le of 2.015. From the calculated t value, it can be seen that the influence of soybean prices is not significant on Indonesian soybean consumption. This shows that changes in soybean prices in Indonesia do not have much influence on the size of soybean consumption in Indonesia. This is quite natural because soybeans are a commodity that is a basic food requirement, so changes in demand are smaller than changes in prices. (Dwi Yuzaria, 2017) The national soybean price coefficient of determination is 0.953. This indicates that the exogenous variables in the model of imported soybean prices, rupiah exchange rate, and 95.3 percent of soybean imports can account for the diversity of endogenous variables. Nevertheless, factors left out of the model account for the remaining 4.7%. The coefficient of determination for the soybean consumption equation is 0.356. This indicates that in the national model of soybean prices, exogenous variables can account for 35.6% of the variability of endogenous variables. Meanwhile, 64.4% of the total is made up of Variables that are not included in the model.

(Supadi, 2009) Indonesia's soybean problem in the future must be directed to self-sufficient. Self-sufficiency steps must be taken. Dependency Increasing imports is very dangerous because it is very debilitating national resilience and can disrupt social, economic and political stability, especially because world soybeans are very expensive due to declining stocks like that experienced by Indonesia today. (Ningrum et al., 2018), the current importers of soybeans are Producer Importers (IP) and Registered Importers (IT). BUMN has also joined the list of soybean importers taking part in the Soybean Price Stabilization Program, which creates opportunities for other nations. Other than BULOG Companies, state-owned enterprises are eligible to take part.

CONCLUSIONS AND SUGGESTION

A conclusion drawn from research aims is that the variables exchange rate, price, consumption, and the relationship between price and consumption have a somewhat significant impact on the amount of soybean imports from Indonesia. The amount of soybeans imported into Indonesia, however, is not significantly impacted by land area or output. The variables exchange rate, production and interaction between consumption and price have positive coefficients, while land area, consumption and price have negative coefficients. A positive coefficient means that the volume of Indonesian soybean imports will increase by the coefficient's value if the exchange rate, production, and the interaction factors between price and consumption all rise by one unit. The negative coefficient means that the volume of soybean imports into Indonesia will drop by the coefficient value of each independent variable if land area, consumption, and price all rise together. The price of imported soybeans in this study has a significant influence on Indonesian soybean imports. This is because an increase in the price of a product will reduce demand for that product. Taking into account the findings of the conducted research, government efforts are needed to support food security in Indonesia which requires special attention. The government must adopt policies that benefit farmers as producers and consumers and prevent dependence on imports, such as self-sufficiency in soybeans.

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