



Analysis of the Influence of Rice Commodity Prices and Inflation on Mark Import Province Sumatra North

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ABSTRACT

One measures of progress for a country is marked by increased economic growth, this is calculated from the increase in the amount of production of goods or services in the economy so that it increases the per capita income of the population in a country. economics growth can be achieved by specializing in the production of goods and services. Specialization can occur if there is a large market to accommodate production, a market exists if a country conducts international trade. The purpose of this study is to determine the effect of rice commodity prices and inflation on the import value of NorthSumatra Province. This study uses a quantitative approach. The data used is the number of exports, imports and commodity prices in North Sumatra Province. Methods of data analysis using data analysis techniques used are descriptive techniques and path analysis(path analysis) with the application of multiple linear regression models with the help ofthe SPSS program. the results of multiple linear regression tests in the term theregression coefficient is positive indicating that an increase in rice commodity prices will increase the value of imports. The regression coefficient is negative indicating that an increase in inflation will reduce the value of imports.

INTRODUCTION

Mark import commodity is indicator consumption as well as expenditure Public on something area and period certain. Consumption Public specifically Public Indonesia itself still depends on agricultural staples, one of which is rice. Price commodity rice is price which Very vital compared to price commodity other. Matter this background by rice as ingredient tree consumption main Public Indonesia no except Public on every districts in Province Sumatra North. In addition, imports are also affected by inflation variables, such as the general theory, increases inflation resulted mark export down. Matter this occur consequence power buy Public which the more reduce because the value of the currency which decrease. Rice commodity prices over the last 3 years have been relatively stable, even though the economy is experiencing a contraction in 2020 due to the pandemic. Unlike the price commodity rice, level inflation in a manner national nor regional if be measured index price consumers through constant 2018 prices experienced significant fluctuations. Because stability as well as the fluctuation occur on intervariable Becomes background behind writer examines the effect of commodity prices of rice and the inflation rate on the value of imports. By because that's data third variable this can be described on the following table.

Table 1. Rice Commodity Prices, Inflation Rates, and Provincial Import Values Sumatra North January 2019 - September 2021

Month	Price Commodity Rice	Inflation= CPI General	Mark Import (Thousand US\$)
Jan-19	11,000	0.20	457,690
Feb-19	11050	-0.32	296,903
Mar-19	11100	0.30	383,510
Apr-19	11,000	1.23	417,410
May-19	11,000	1.19	410,980
Jun-19	11050	1.63	256,320
Jul-19	11100	0.88	437,210
Aug-19	11100	0.18	343,021
Sep-19	11100	-1.81	398,914
Oct-19	11050	-0.28	336,963
Nov-19	11050	-0.66	404,872
Dec-19	11,000	-0.19	382,112
Jan-20	11050	0.57	322,496
Feb-20	11,000	0.13	317,885
Mar-20	11,000	-0.16	336,014
Apr-20	10,950	-0.29	351,588
May-20	10,950	0.43	267,160
Jun-20	10,950	-0.07	312,157
Jul-20	11,000	-0.25	306,627
Aug-20	11050	0.06	304,682
Sep-20	11,000	-0.01	331,883
Oct-20	11,000	0.47	362,171

Nov-20	11,000	0.33	310,027
Dec-20	11,000	0.75	388,355
Jan-21	10,950	0.45	322,496
Feb-21	10,950	-0.35	425,899
Mar-21	11,250	-0.08	434,959
Apr-21	11,250	0.08	398,010
May-21	11,250	0.22	423,430
Jun-21	11,200	0.03	480,227
Jul-21	11.150	0.29	420,407
Aug-21	11,200	-0.08	464,230
Sep-21	11,200	0.29	401,459

THEORETICAL REVIEW

Price Main Production

The cost of production according to Mulyadi (2007:10), is a treatment of sources economic events that are measured in units of money that have occurred or are likely to occur for obtain income. Wijaksono (2006:10), define price production principal is a number mark assets, however if year walk assets the used to help generate income. From various opinions experts can be concluded that the cost of production is all that sacrifice done company to manufacture a product.

Price Commodity

Commodity prices in each country have a specialization of export commodities in the sector primarily dependent on natural resources. Next, the lack of funds investment could hinder prospect growth future economy. Besides In addition, fluctuating commodity price movements can also disrupt several sectors commodity-dependent economy. Uncertainty of macroeconomic conditions affect the movement of commodity prices, which this also has an impact on cycle business global which related with price commodity, eg market oil world, agriculture, and industry . Besides that's shock offer and Request Traditionally, macroeconomic uncertainty is a factor influencing prices commodity.

Inflation

Inflation is a process of increasing prices in general in a country economy. Percentage of the speed of increase in prices in a certain period named level inflation (Sukirno, 1999). There is type inflation this usually occur on moment economy in circumstances full employment accompanied with growth economy which fast. Inflation insistence cost is something phenomenon in where occur increase in prices caused by an increase in production costs. Cost increase production will encourage producers to increase prices, even if they face possible decline Request to product which they earn .

Import

According to Fauziah (2018), Import is process income goods or service foreign from outside country for entered to in country. If a company imports the product in the country, then company the get product with better quality and lower price than the product in country .

METHODOLOGY

Data that used on study this use data secondary which is obtained through website (Body Center statistics) BPS as well as Center Information Price Food Strategic (PIHPS) National. The data processed is monthly time series data from January 2019- September 2021. The design of this study uses a quantitative method, selection the inflation variable is taken from the average consumer price index (CPI) of the population of Sumatra North., Price commodity rice obtained from average price rice which for sale in Province North Sumatra, while the value of imports is the accumulation of imports for each district in North Sumatra. Data collection methods used in research namely by means of non-participant observation. The data analysis technique used is technique descriptive and analysis track with test application assumption classic and model regression multiple linear with the help of the SPSS program. Descriptive statistics used for give object image study which becomes sample object.

RESULTS AND DISCUSSIONS

Test Classic Assumption

1. Test Normality

The regression model is said to be normally distributed if the data is plotted by dots follow the diagonal line. In data processing, researchers obtained that result dots follow the diagonal line. So the data is distributed data normal.

2. Test Multicollinearity

No occur multicollinearity if mark tolerance > 0.1 and mark VIF < 10 .

3. Test Heteroscedasticity Scatter plots

Heteroscedasticity does not occur if there is no clear pattern in the image scatterplot as well as point point spread above and under number 0 on Y axis

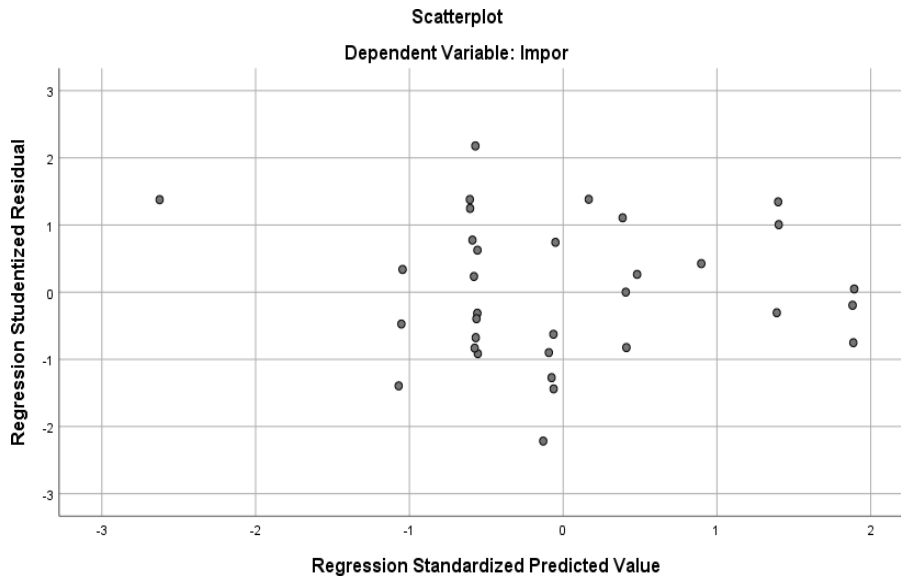


Figure 1. Import Dependent Variable Scatterplot

From picture on, could seen that dot, dot, dot spread and is at under number 0 on the Y axis. Therefore, it can be concluded that no symptoms occur heteroscedasticity on variable data which researched.

4. Test Autocorrelation

No any symptoms autocorrelation if mark Durbin Watsons located Among du until 4-du.

Table 2. Models Summary

Model R	R Square	Adjusted Square	Rstd. Error of the Estimates	Durbin-Watson
1	.565 a	.319	.273	50093056 2,130

From processing data, obtained durbin Watsons as big 2,130, whereas mark du based on K(2) and N(33) with 5% significance is 1.577 so the 4-du result is 2.423. So it can be concluded that $(1.577 < 2.130 < 2.423)$ research data no have symptoms of autocorrelation .

Table 3. Coefficients

Model	Unstandardized Coefficients		standardized Coefficients	t	Sig.	Collinearity Statistics		
	B	std. Error	Betas			tolerance	VIF	
1	(Constant)	-3231345.316	1043636.591		-3,096	.004		
	Commodity Prices Rice	325,688	94,364	.520	3,451	.002	.998	1,002
	Inflation	-1157602	878,697	-.199	-1,317	.198	.998	1,002

On column B table coefficient on could is known constant as big -3,231,345,316 and rice commodity price coefficient of 325.688 and the inflation rate of -1157.602. So the regression equation of this study is

$$Y = -3.231.345,316 + 325,688X_1 - 1.157,602X_2 + s \dots\dots\dots(1)$$

Mean equality regression :

1. Constant constant equal to $-3.231.345,316$ That is, if the commodity price rice and level inflation in Sumatra North is 0, so mark import as big 3,231,345,316 .
2. Coefficient regression variable price commodity rice as big 325,688. It means, everyan increase in the price of rice commodity by 1 unit will increase the value import sebesar 325,688
3. Coefficient regression worth positive show that enhancement price commodity rice will raise the indigo import
4. Coefficient regression variable inflation as big $-1.157,602$. it means, every increaseinflation by 1 unit will reduce the value of imports as big -1,157,602.
5. Coefficient regression worth negative show that enhancementinflation will lower value import

Test Significance (Test Hypothesis Partial)

1. Hypothesis 1: Influence price commodity rice to mark import with control variable inflation could obtained with mark t_{hitung} as big 3,451 and t_{tabel} (0.025;30) as big 2,042 on $\alpha = 0.025$ ($\alpha/2$) so that obtained $t_{hitung} > t_{tabel}$ or if use mark significance so obtained sig 0.002 < 0.05. It means, H_0 rejected
2. Hypothesis 2: Influence level inflation to mark import with control variable price commodity rice could obtained with mark t_{hitung} as big -1.317 and t_{tabel} (0.025;30) as big 2,042 on $\alpha = 0.025$ ($\alpha/2$) so that obtained $t_{hitung} < t_{tabel}$ or if use mark significance then obtained sig 0.198 > 0.05. It means, H_0 accepted.

Table 4. Anova

Model		Sum of Squares	df	Means Square	F	Sig.
1	Regression	35240287081.202	2	17620143540.601	7,022	.003 b
	residual	75279427458.859	30	2509314248.629		
	Total	110519714540.061	32			

The ANOVA table above explains that the significance test of the multiple linear regression coefficients or test simultaneous gain value F_{hitung} as big 7,002 and F_{tabel} as big 3.30 for $\alpha = 0.05$ so that $F_{hitung} (7.002) > F_{tabel} (3.30)$ or based on significance value, value the significance obtained is $0.003 < 0.05$, then H_0 rejected. That is, variables independent (X) in a manner simultaneous influential to variables dependent (Y).

CONCLUSIONS AND RECOMMENDATIONS

Based on results study, price commodity rice have influence positive significant to mark import. It means, enhancement price commodity rice lead to an increase in the value of imports. Meanwhile, the inflation rate has no effect significantly to the import value variable. However, the influence of the two variables independent good price commodity rice and level inflation in a manner simultaneous could give contribution by 31.9% to import value variable.

1. Hypothesis 1: The partial effect of X1 (rice commodity prices) on Y (Mark import) . Mark $t_{hitung} (3,451) > t_{tabel} (2.042)$, so H_0 rejected. It means, in a manner partially there is a positive and significant influence of commodity price variables rice to the value of imports in Sumatra North on $\alpha = 0.025$.
2. Hypothesis 2 influence Partial X2 to Y. Value $t_{hitung} (-1.317) < t_{tabel} (2.042)$, then H_0 accepted. That is, by partially there is no significant influence and variable inflation on mark import in Sumatra North on $\alpha = 0.025$.
3. Hypothesis 3 influence Simultaneous X1 and X2 to Y. Value $F_{hitung} (7,002) > F_{tabel} (3.30)$, so H_0 rejected. It means, in a manner simultaneous there is influence and significant rice commodity prices and level inflation against import value in Sumatra North on $\alpha = 0.05$.

FURTHER STUDY

Price commodity rice is price which Very vital compared to price commodity other. Matter this background by rice as ingredient tree consumption main Public Indonesia no except Public on every districts in Province Sumatra North. In addition, imports are also affected by inflation variables, such as the general theory, increases inflation resulted mark export down. Matter this occur consequence power buy Public which the more reduce because the value of the currency which decrease.

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