

Affecting Factors Farmer Exchange Rate (NTP) of Food Crops South Kalimantan Province

Taufik Akbar¹, Muhammad Fauzi², Hairin Fajeri³

Agriculture Faculty, Lambung Mangkurat University, Banjarbaru, South Kalimantan, Indonesia

Corresponding Author: Taufik Akbar

Abstract. *This study aims to analyze the development of farmer exchange rate and what factors influence the farmer exchange rate, especially food crops in the Province of South Kalimantan. The data used is monthly time series data from 2014 to 2017 which are mixed with the Central Statistics Agency (BPS). The development of the exchange rate of farmers in South Kalimantan is described using descriptive analysis, while the analysis of the factors that affect the NTP of food crops is done using multiple linear regression models. The results of the F test indicate that the estimated regression model is suitable for use. The results of the test show that the variable US dollar exchange rate, average grain price at the farmer (GKP), and wage of harvesting laborers have a significant effect on variable tied to food crop NTP. In addition, inflation, export value and economic growth have no significant effect on food crop NTP. The coefficient of determination (R^2) shows the number 0.918 which means that the proportion of the six independent variables influence amounted to 91.8 percent and the remainder by other variables.*

Keyword: *Factors that influence, the exchange rate of farmers in South Kalimantan, food crops*

Date of Submission: 06-07-2019

Date of acceptance: 22-07-2019

I. Preliminary

The economic structure of South Kalimantan seen from its GDP distribution shows that the economic pattern of South Kalimantan is still agrarian. This can be seen from the percentage distribution of the Gross Regional Domestic Product of South Kalimantan Province in the category of agriculture, forestry and fisheries which reached 14,59 percent in 2017. With this percentage, the categories of agriculture, forestry and fisheries were the second largest contributor category after mining and excavation the total GDP of the province of South Kalimantan. This is because the majority of the population of South Kalimantan works in the agricultural sector which consists of the food crops subsector, the horticulture subsector, the fisheries subsector, the livestock subsector and the forestry subsector.

In aggregate, South Kalimantan's economy has slowed down since 2012, namely from 5.97% in 2012 to 5.33% in the following period, South Kalimantan's economic growth rate continued to slow to 3.82% in 2015. In 2016, the economy South Kalimantan experienced improvements shown by the increase in economic growth to 4.40% and in 2017 it increased to 5.29%.

The success of the development that has been carried out can be seen not only with data on economic growth, but it is also necessary to support data, especially in the agricultural sector. The welfare of farmer workers in South Kalimantan is reflected in the increase in Farmer Exchange Rates (NTP), which is driven by a higher index of farmers received prices (It) compared to the price index paid by farmers (Ib).

Rising levels of rice productivity are followed by rising farmers' exchange rates, the rate of increase in NTP numbers will also increase farmers' welfare and vice versa. The tendency of low NTP values can also reduce the power of interest of farmers to increase their productivity optimally in the long run to produce rice. If the price of agricultural goods/products increases with the assumption that the production volume does not decrease, then the farmers' income from their crops will also increase. The price development shown by (It) that is an indicator of the level of welfare of producer farmers in terms of income.

The development of Farmer Exchange Rates is one of the determinants of farmers real income level which is also often referred to as an indicator of the level of farmer's welfare, so that by decreasing Farmers Exchange Rates can negatively affect farmer's real income. Research conducted by the team Padjadjaran (Supriyati, 2005) states that the decline in the exchange rate of agricultural production can affect the purchasing power of farmers, on the contrary the better the exchange rate of agricultural commodities, the better the position of agriculture to industry and good influence on farmers to increase productivity.

South Kalimantan's Farmer Exchange Rate (NTP) in December 2017 was 96.35, while in November of the same year was 96.26. For the average in 2017, South Kalimantan's NTP is 96.69 which is lower compared to 2016, which was 97.52 with the base year of 2012. If you look again according to the subsector, NTP below 100

are in the food subsector (NTP-P) which is equal to 94.47 in November 2018 and 94.30 in December 2018. The average NTP-P in 2017 is 95.72 which has decreased compared to the previous year which was 99.44. At certain times NTP decrease and at certain times NTP also increase. The decline in NTP was due to a decrease in the price index received by farmers and an increase in the price index paid by farmers.

Simatupang and Maulana (2008) suggest that welfare indicators for farm households are practically non-existent, so that NTP is the only choice for observers of agricultural development in assessing the level of welfare of farmers. Thus, NTP is one indicator of relative welfare of farmers. The higher NTP will improve the welfare of farmers.

The general objective of this study is to analyze the development of Farmer Exchange Rates (NTP) in the Province of South Kalimantan. The specific purpose of this study is to analyze the factors that influence Farmer Exchange Rate, especially Food Crop Farmer Exchange Rates (NTP-P) in South Kalimantan Province.

II. Method

Time and place

This research was conducted in 2018. The location taken in this study was the province of South Kalimantan.

Types and Data Sources

This study uses secondary data, namely data series Farmer Exchange Rate (NTP), series inflation data, rupiah series data against the dollar, grain price series data, export value series data, farm labor wage data series, and South Kalimantan economic growth data series all of which are derived from the results of the monthly release of the Central Statistics Agency of the Province of South Kalimantan from 2014 - 2017.

Data Analysis

Methods of data analysis used to answer the first goal is by using descriptive statistics. Descriptive analysis is used to describe the conditions of farmer exchange rates in South Kalimantan with monthly data for the period 2014 to 2017. In addition, this analysis aims to describe the development of exchange rates of farmers in South Kalimantan, especially NTP for food crops.

To answer the second objective is to know the factors that influence the exchange rate of farmers in South Kalimantan, then used a multiple regression analysis (multiple regression).

Regression method is a method used to analyze the relationship between independent variables (dependent variables) with independent variables (independent variables). If more than one independent variable is used, the model obtained is called a multiple linear regression model. The estimation of the relationship between non-free variables (Food Crop Farmers Exchange Rate) and the independent variables can be written as follow :

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_6 + e_i$$

Information :

- Y = NTP of Food Crops
- a = Constant
- b_1, b_2, \dots, b_n = Regression Coefficient
- X_1 = Inflation (percent)
- X_2 = US Dollar Exchange Rate (000 rupiah)
- X_3 = Average price grain in farmers(GKP) (000 rupiah/Kg)
- X_4 = Export Value (Billion US\$)
- X_5 = Labor wages harvest (000 rupiah/day)
- X_6 = Economic Growth (percent)

F-Test (Over All Test)

F test statistics are used to find out whether the independent variables together (simultaneous) have a significant effect on non-independent variables.

T-Test (Partial Test)

This test is conducted to determine whether the independent variables partially have a significant influence on the non-independent variables.

The coefficient of determination (R^2)

The coefficient of determination is used to determine the proportion or percentage of the total variation of non-dependent variables that can be explained by independent variables in the regression model.

Non Multicollinearity Assumptions

Multicollinearity is a linear relationship between independent variables in the regression equation. This linear relationship can occur in perfect linear relationships and can also be in imperfect linear relationships. If the

model is found to be a multicollinearity problem then the corrective action that can be taken is a priori information, eliminating one or more independent variables, adding new data, transforming variables.

Assumption of Non Autocorrelation

Autocorrelation explains the existence of a close correlation between bullies. Possible autocorrelation occurs in regression models that use times series data. If there is autocorrelation, the estimator value is still an unbiased and consistent estimator. The method used in this study to detect the presence of autocorrelation is the Durbin Watson method. If the results of the Durbin Watson method cannot be concluded, then the Run Test is then carried out.

Examination of Homoscedasticity

Homoskedasticity is a case where errors (ϵ_i) have the same variance (σ^2). This assumption violation is called heteroscedasticity, where intruder errors have different variances. Testing is done by making a scatterplot between the residuals and the predictive value of the standardized dependent variable.

Normal Assumption Check

Normal data testing is the most basic assumption in multiple regression analysis. Data normality test can be done by testing the data normal plot. Sisaan is said to spread normally when it spreads in a straight line with one slope.

III. Results And Discussion

Comparison of South Kalimantan NTP and National NTP

Based on the comparison with the national farmer exchange rate, the South Kalimantan farmers' exchange rate is still low. Although South Kalimantan is one of the national food contributors, it turns out the farmer exchange rate is still below the national figure, even before the close of 2017 there is an increasingly widening gap between the national NTP and the South Kalimantan NTP.

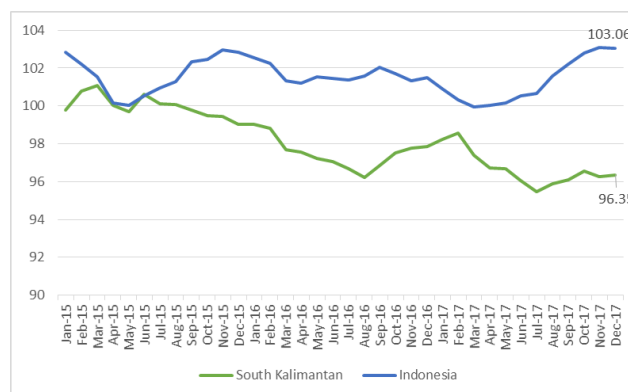


Figure 1. Development of South Kalimantan and National NTP

This imbalance, of course, if left unchecked, will continue to other macro problems, especially social problems, the end of which is welfare and lead to poverty.

The exchange rate of farmers in South Kalimantan for the past 3 (three) years did not move at intervals of 96-101. The interval is quite short and at a level not far from the number 100 indicates that the magnitude of the increase in farmers' income is not so far with the increase in expenditure that must be spent on production costs and fulfilling their consumption needs or can be said to break even between the development of income and expenditure.

The Prosperity of Food Crop Farmers that is Increasingly Decreased

The number of agricultural households is based on the results of the 2013 Agriculture Census (ST2013) of 432,328 households. Households working on food crops in the Province of South Kalimantan are 318,130 households. From several subsectors observed in the implementation of ST2013, it was found that most of the households that tried food crops were cultivating rice. This is not too surprising because until now rice is still the staple food of most people, including in the Province of South Kalimantan. The number of households that cultivate rice is 309,792 households.

The results of the National Labor Force Survey (SAKERNAS) in August 2017 showed that 34.05 percent (672,550 people) of South Kalimantan's population aged 15 years and over worked in the agricultural sector. It can be seen that the capacity of this sector in absorbing labor is still high and its role in supporting the economy is quite large. However, farmers as the main actors (stakeholders) in the field of agriculture, still have not moved from the shackles of poverty, which is due to the low land tenure by farmers which results in not optimal production.

Judging from the data of Farmers Exchange Rate, it is known that the average Farmer Exchange Rate Index (NTP) of South Kalimantan in 2017 was 96.69 percent. This means that in 2017, the average rate of increase in prices of consumer goods and the average rate of increase in prices of goods used as production costs is faster than the average rate of increase in prices of agricultural products of farmers. The development of NTP from January to December tends to decrease. Compared to the base year of 2012, there was a decrease in Farmer Exchange Rates by 3.31 percent.

Table 1. South Kalimantan NTP According to Month of 2017

Month	It	Ib	NTP
(1)	(2)	(3)	(4)
January	119,27	121,41	98,24
February	119,86	121,61	98,56
March	118,57	121,76	97,38
April	117,83	121,82	96,73
May	117,96	122,02	96,67
June	118,08	122,93	96,06
July	117,68	123,27	95,47
August	117,91	122,97	95,89
September	117,85	122,65	96,09
October	117,96	122,16	96,56
November	117,75	122,33	96,26
December	118,48	122,96	96,35
Average	118,27	122,32	96,69

If traced deeper, the South Kalimantan farmers' exchange rate sub-sector attracted to the bottom is the food crop subsector and the smallholder plantation sub-sector. This fact can be seen in figure 2 below.

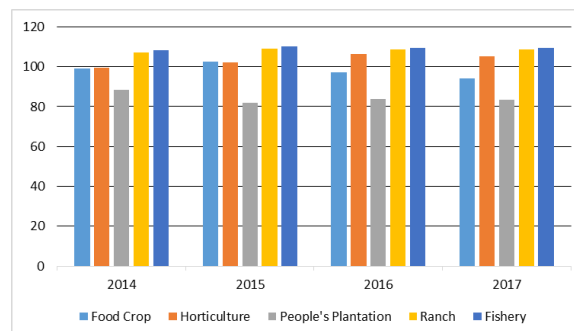


Figure 2. South Kalimantan NTP according to the Subsector

The very low achievement of food crop NTP and plantation NTP makes South Kalimantan's NTP always below the 100 mark for the past two years. Whereas in macro terms, in 2017 the food crop subsector and plantation subsector each contributed 30.85 percent and 26.19 percent to the South Kalimantan agricultural sector GRDP in general.

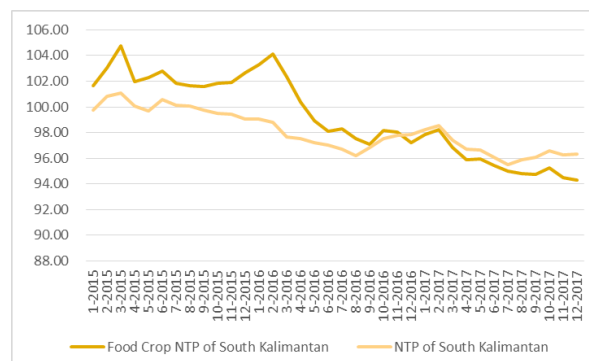


Figure 3. Development of NTP and Food Crop NTP in South Kalimantan

Based on Figure 3 above, the 2015 South Kalimantan food crop NTP is still above 100 and always above the South Kalimantan NTP. However, gradually the food crop NTP has decreased since mid-2016 to finally below 100. At the time of this condition, the South Kalimantan food crop NTP was finally below the

South Kalimantan NTP until the end of 2017. The food crop FTT condition was getting worse at the end of 2017 with a widening gap compared to the South Kalimantan NTP. This needs to be a serious concern considering that the food crop sub-sector is a sub-sector that has a very important role in realizing national food security.

Effect of Rice Production Patterns on Farmer Exchange Rates in South Kalimantan

Most rice farmers in South Kalimantan use local varieties which harvest only once a year and the majority occur in the May-August period or subround II. The harvest peak concentrated in subround II or the inverse U pattern usually causes the price of this commodity to be relatively lower than the period other than subround II.

Apart from only one harvest, the productivity produced is not as high as the productivity of high-yielding rice. However, this did not dampen the motivation of South Kalimantan farmers to grow local rice, related to the local market share of rice that was in accordance with the taste of the people of South Kalimantan itself. Harvest patterns that are only once a year certainly affect farmers' income, or in other words local rice farmers only earn once a year income from their agricultural products .

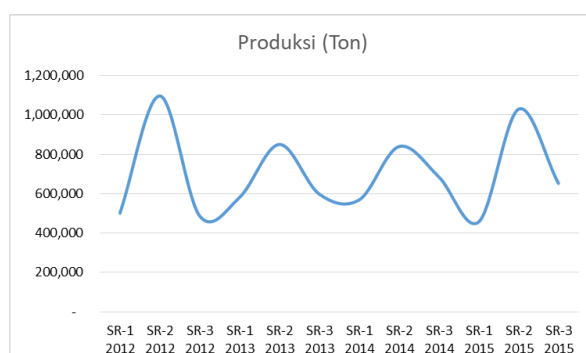


Figure 4. Rice Production Pattern in South Kalimantan for each subround (ton)

Factors Affecting Food Crop Farmers' Exchange Rates South Kalimantan Province

Non Multicollinearity Assumptions

Multicollinearity test results can be seen in the following table.

Table 2. Parametric Test Results of the Regression Model

Variabel/Model	Coefissient (B)	t	Sig	VIF
Konstanta	104.356	26.513	.000	1.115
X1 (Inflation (percent))	-0.253	-0.809	.423	3.908
X2 (US Dollar Exchange Rate (000 rupiah))	1.089	3.324	.002	1.989
X3 (Average price of grain in farmers (GKP)(000 rupiah/Kg))	3.885	11.462	.000	2.273
X4 (Export Value (Billion US\$))	0.322	0.205	.838	3.080
X5 (Labor wages harvest (000 rupiah/day))	-1.034	-8.131	.000	1.233
X6 (Economic Growth (percent))	0.036	1.380	.175	1.115

VIF value (variance inflation factor) for Variables X 1 , X 2, X 3, X 4, X 5, X 6 there is no greater than 5 so that it can be said that there is no multicollinearity on all the independent variables.

Based on the classical assumption terms of linear regression with OLS, a good linear regression model is free from multicollinearity. Thus the model has been free from multicollinearity.

Assumption of Non Autocorrelation

The data used to estimate the linear regression model is time series data , it is necessary to test the assumption free from autocorrelation. The test results can be seen in the following figure..

Table 3. Model Summary Tables

Detail	Nilai
R	0.958
R Square	0.918
Adjusted R Square	0.906
Durbin-Watson	1.282

The Durbin-Watson value listed in table 3 above is a calculated DW , which is equal to 1,282. The DW value of the table with a significance of 5% ($\alpha = 0,05$) with the number of independent variables as much as 6 and the number of samples as much as 48 is $dL = 1.2709$ and $dU = 1.8265$. The DW value calculated which is

between the DW values of the dL and dU tables indicates that the results cannot be concluded. Therefore, the test is continued using the Run Test with the following results.

Table 4 . The test results assume autocorrelation with Run Test

Rincian	Unstandardized Residual
Test Value	-0.09630
Cases < Test Value	24
Cases >= Test Value	24
Total Cases	48
Number of Runs	18
Z	-0.1897
Asymp. Sig. (2-tailed)	0.058

Based on the above output, the Asymp value is obtained. Sig. (2-tailed) of 0.058. The basis of decision making from the results of the Run Test is if the value is less than 0.05, there are symptoms of autocorrelation. Thus, based on the results of the calculation above, it can be concluded that the model that has been built has no autocorrelation.

Examination of Homoscedasticity

The assumption of homoscedasticity assays is done by making scatterplots between the residuals and the predicted values of the standardized dependent variables. The results of the homoskedasticity test can be seen in the following figure.

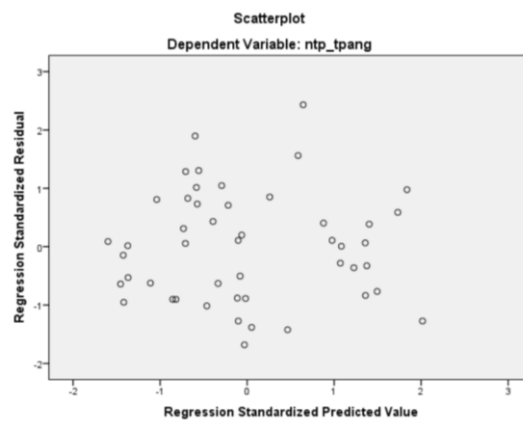


Figure 5. Scatterplot

From figure 5 below, it can be seen that the distribution of points does not form a particular pattern / path, so it can be concluded that heteroscedasticity does not occur or in other words homoscedasticity occurs. The classic assumption about homoskedasticity in this model is fulfilled, which is free from heteroscedasticity.

Normal Assumption Check

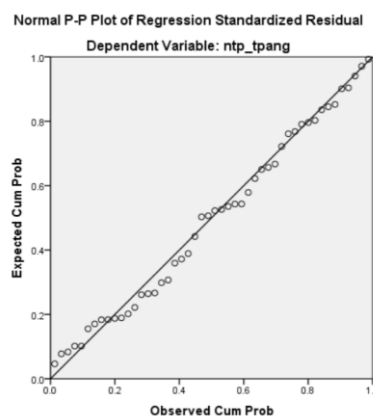


Figure 6. Normal PP Plot

The results of the normality test can be seen in the Normal PP Plot image in figure 6 above. The assumption of normality referred to in the classic assumption of the OLS approach is residual data which is formed by a normally distributed linear regression model, not an independent variable or a dependent variable.

Criteria for a residual data that is normally distributed or not, can be done by looking at the distribution of points that have images. If the distribution of these points approaches or is in a straight line (diagonal), it can be said that the residual data is normally distributed. But if the distribution of these points is away from the line, then it is not normally distributed. Based on Figure 6, it can be concluded that the residual data has been normally distributed.

F-Test (Over All Test)

The F test follows the F distribution whose testing criteria are like One Way Anova. The results of the F test for the model can be seen in the following figure.

Table 5. Over All Test Test Table

Detail	Value
F	76.428
Sig	0.000

The calculated F value (sig.) In the picture above is 0,000 which is smaller than the 0.05 significance level so it can be concluded that the estimated linear regression model is used to explain the effect of inflation, the American dollar exchange rate, the average grain price, the value exports, workers' wages to harvest, and economic growth towards the dependent variable of the exchange rate of food crop farmers (NTP-P).

T-Test (Partial Test)

The t test is focused only on the slope parameter (regression coefficient). So the t test in question is a regression coefficient test. The test results can be seen in table 2 above. These results indicate that variable X₂ (American dollar exchange rate), X₃ (average price of grain in farmers (GKP)), and X₅ (harvesting wages) have a significant effect on the dependent variable of food crop NTP because the value of t count is smaller than 0.05. In other words, the three variables significantly influence the NTP of South Kalimantan food crops at a 95% confidence level.

Variable X₁ (inflation), X₄ (export value), and X₆ (economic growth) does not significantly influence the dependent variable of food crop NTP. This is because the change in the value of each variable does not directly affect farmers.

The coefficient of determination (R²)

The coefficient of determination (R²) for a model that has been formed can be seen in Table 3 above. In this figure, seen the value of R² is equal to 0.918 which shows that the proportion of the influence of the six independent variables by 91.8 percent. While the remaining 8.2 percent is influenced by other variables that are not in the linear regression model.

The analysis of Multiple Linear Regression Model

After several tests that have been mentioned before, where the results obtained are all conditions fulfilled (classic assumption test) and the formed model has been considered feasible, then further interpretation of the formed model is carried out. Based on table 2 above, the model formed can be written as follows.

$$Y = 104,356 - 0,253X_1 + 1,089X_2 + 3,885X_3 + 0,322X_4 - 1,034X_5 + 0,036X_6$$

Keterangan :

- Y = NTP of food crops
- X₁ = Inflation (percent)
- X₂ = US Dollar Exchange Rate (000 rupiah)
- X₃ = Average price grain in farmers(GKP) (000 rupiah/Kg)
- X₄ = Export Value(Billion US\$)
- X₅ = Labor wages harvest (000 rupiah/day)
- X₆ = Economic Growth (percent)

Based on the model formed above, it can be seen that the regression coefficient for the inflation variable (X₁), and the wage of harvesting labor (X₅) shows a negative value. From the inflation rate in the above model, it can be interpreted that if inflation increases by 1 percent, the exchange rate of food crop farmers will decrease by 0.046. Inflation affects the NTP-P through two ways, namely the accepted index (It) and the paid index (Ib). The coefficient of inflation variable which shows a negative value indicates that the influence of inflation is greater on the index paid by farmers compared to the index received by farmers so that it will automatically reduce the rate of exchange of food crop farmers.

Likewise, the wage variable for workers harvesting (X_5) which increases by 1000 rupiah will reduce the NTP-P by 1.034. These variables indicate that the greater the value of labor to harvest issued it will affect the index paid by farmers growing that crop farmers exchange rate will decline.

In addition, the regression coefficient for the US dollar exchange rate variable (X_2), the average price of grain in the farmerGKP (X_3), export value (X_4) and economic growth (X_6) is positive, so that every increase in each variable is then the exchange rate of food crop farmers will also increase.

From the above model it can be explained also that if the rupiah exchange rate against the US dollar weakens by 1000 rupiah, it will increase the exchange rate of food crops farmers by 1.089. The rupiah exchange rate will affect the index of prices received by farmers (It), namely the prices of agricultural production and also the price index paid by farmers (Ib), namely the prices of living necessities and their production costs.

The value of the depreciating rupiah (US dollar exchange rate strengthens) will benefit South Kalimantan's agricultural product exports, so that it has a positive impact on the index received by farmers (It), namely the increase in agricultural income. In addition, the strengthening of the dollar against the rupiah would also have an impact negative for farmers which will shortly ingkatnya retail prices of goods/services consumed or purchased by the farmer to meet the needs of households and for the purposes of the cost of factors of production, non-production and replenishment of goods capital. The negative impacts will certainly affect the farmers paid index numbers (Ib).

Rupiah exchange rate, international rice prices and rice production in the country is the same ama- bers affect the volume of imports b eras in Indonesia (Riska, 2016). The weakening rupiah value has reduced the volume of rice imports so that domestic rice production can be increased to meet domestic needs. Furthermore, increased production will certainly have an influence on rice prices and domestic productivity so that it can increase farmer's income. Therefore, it can be concluded that if the rupiah exchange rate depreciates (the dollar exchange rate strengthens) then rice production will increase and will benefit farmers in South Kalimantan (positive for It, negative for Ib), and vice versa if the rupiah exchange rate ter a presiasi (negative for It, positive for Ib).

The Government through Presidential Instruction number 5 of 2015 has set the Government Purchase Price (HPP) which came into effect on March 17, 2015. This policy regulates the transaction pricing mechanism at both the farmer and mill level which is closely related to efforts to stabilize prices in the market and to protect income levels the farmer. Monitoring prices through HPP instruments is expected to provide anticipatory information so as not to harm the interests of farmers. During 2017, both at the farmer level and at the mill level, there is no grain price in South Kalimantan that is below the Government Purchase Price (HPP). The increased price of grain at the farmer level will certainly greatly affect the welfare of farmers as indicated by the increase in farmers' income. The increase in income will ultimately have an impact on the increase in the index received by farmers (It).

Labor wages to harvest in the growing food subsector will result in increased costs that must be incurred by farmers in agricultural production. This certainly will have a negative impact on the exchange rate of farmers of crops which will increase the index paid by farmers (Ib).

Regression coefficient for the average variable price of GKP grain in farmers (X_3) which has a positive value indicates that every increase in grain prices by 1000 rupiahs will increase the exchange rate of food crop farmers by 3.885. The increase in grain prices at the farmer level will certainly greatly affect the welfare of farmers as indicated by the increase in the price index received by farmers and a positive effect on the exchange rate of farmers of food crops.

The export variable shows a positive sign which means that every increase in export value of 1 billion US \$ will increase the NTP of food crops by 0.322. This positive relationship can be explained from the import value of South Kalimantan, which mostly comes from the group resulting from exploration of natural resources, especially mining products and some superior commodities in the agricultural and forestry sectors. Even so, based on the test results, the ex por value variable does not show a significant effect on the exchange rate of South Kalimantan food crop farmers.

Based on the tests that have been carried out above, economic growth does not show a significant effect on the exchange rate of South Kalimantan food crop farmers. When viewed from the model formed, the variable economic growth shows a positive value. If there is an increase in economic growth of 1 percent it will increase the exchange rate of food crop farmers by 0.036.

IV. Conclusions And Recommendations

Conclusion

1. Development of Farmer Exchange Rates in South Kalimantan can be described as follows:

- a. The exchange rate of farmers in South Kalimantan is still below the national figure, even before the close of 2017 there is an increasingly widening gap between the national NTP and the South Kalimantan NTP.

- b. South Kalimantan's NTP has always been below the 100 mark for the past two years. This achievement is inseparable from the role of food crop NTP and plantation NTP which are still very low.
 - c. Gradually, food crop NTP have declined since mid of 2016 until finally below 100. The condition of food crops NTP has worsened by the end of 2017 with a widening gap compared to the South Kalimantan NTP.
2. Analysis of factors that affect the exchange rate of food crop farmers in South Kalimantan Province is carried out by multiple linear regression models with the following results:
- a. The test results show that all classical assumptions have been fulfilled, that there is no autocorrelation, there is no heteroscedasticity, there is no multicollinearity and the residual data has been normally distributed.
 - b. The results of the F test (over all test) show that the estimated linear regression model is used to explain the effect of inflation, the US dollar exchange rate, the average grain price, export value, labor wage harvesting, and economic growth on the dependent variable exchange rate of food crop farmers (NTP-P).
 - c. The t-test results (partial test) show that variable X_2 (American dollar exchange rate), X_3 (average price of grain in farmers (GKP)), and X_5 (harvesting wages) have a significant effect on the dependent variable of food crop NTP. Conversely, the variables X_1 (inflation), X_4 (export value), and X_6 (economic growth) do not significantly influence the dependent variable of food crop NTP.
 - d. The coefficient of determination (R^2) shows the number 0.918 which means that the proportion of the six independent variables is 91.8 percent. While the remaining 8.2 percent is influenced by other variables that are not in the regression model.

Suggestion

As for suggestions, based on the results of the analysis of this study:

1. The Regional Government of South Kalimantan Province must pay more attention to the welfare of farmers by increasing the rate of exchange of farmers, especially in the agricultural food subsector. One way is to maintain the stability of the price of rice and rice at the farmer level so that it remains above the government's purchase price (HPP). The Central Government should also be able to play an active role by providing regulatory support to smooth the distribution chain of grain and rice.
2. Central and Regional Governments must be able to guarantee and strive for the availability of factors of production at a more affordable price during the planting season. In addition, there is a need to subsidize production factors to assist farmers in conducting farming. Increasing productivity will be less meaningful to farmers if the selling price is less profitable, agricultural income will be lower than household expenditure.
3. The exchange rate of the US dollar against the rupiah has a significant effect on the NTP of food crops. Therefore, the central government should be able to make regulations related to restrictions on spending on imported goods. This can help maintain the stability of the rupiah exchange rate against the US dollar so that prices, especially for household consumption, can be better maintained.
4. Increasing farm business productivity, especially the food subsector, is one of the opportunities to increase farmer's income. Increased productivity and selling value need to be supported through increased access to technology with guidance and counseling. In addition, access to agricultural business services and infrastructure needs to be improved to get facilities for production facilities and increase market access.

References

- [1]. Bantilan N.K., Made AntaraWahyuningsih, RustamAbdRauf. 2018. Improved Exchange Rate Farmers through Rice Falied Crop Intensification in Tolitoli, Indonesia. Sustainable Agriculture Research, Vol. 7 No. 1. Canadian Center of Science and Education.
- [2]. Fajri, Mohammad Romdhoni, Sri Marwanti, WiwitRahayu. 2016. Analysis of Factors Affecting Farmer Exchange Rates as Indicators of Rice Farmers' Welfare in Sragen Regency. Faculty of Agriculture, SebelasMaret University. Surakarta.
- [3]. Kristinek, Jennifer J, David P. Anderson. 2002. Exchange Rates and Agriculture: A Literature Review. Agricultural and Food Policy Center Texas A&M University.
- [4]. Mazwan, Muhammad Zul, Masyhuri. 2018. Factors Affecting Farmer Exchange Rate of Sugarcane Farmer Plasma in PTPN XI. Agro Ekonomi Vol. 29/Issue. 2, Dec, Page. 323-334
- [5]. Helmi, Akhmad. 2006. Analysis of Factors Affecting Farmer Exchange Rates. Indonesia University Depok.
- [6]. Riyadh, Muhammad Ilham. 2015. Analysis of Food Crop Commodity Exchange Rate Analysis in North Sumatera. Faculty of Agriculture, Islamic University of North Sumatera. Medan.
- [7]. SimatupangandMaulana. 2008. Review of the Concept and Development of Farmer Exchange Rates 2003-2006. Journal of Economics and Development. LIPI.
- [8]. Walpole, Ronald E. 2017. Probability & Statistics for Engineers & Scientists. Pearson Prentice Hall.
- [9]. YudiFerianta, Muhammad FauziMakki. 2015. Risk Analysis and strategy of rice farmers in swampland in the face of climate change impact (case in South Kalimantan Province Indonesia). International Journal of Agriculture Management and Development. Islamic Azad University.

Taufik Akbar. " Affecting Factors Farmer Exchange Rate (NTP) of Food Crops South Kalimantan Province. "IOSR Journal of Agriculture and Veterinary Science (IOSR-JAVS) 12.7 (2019): PP- 83-91.