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Contribution To Food Commodity Prices Against Inflation In Kupang City

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ABSTRACT

The aim of this research is to find out how food commodity prices influence inflation in the short and long term in Kupang City and the influence of previous inflation on inflation in Kupang City. The data used in this research is time series data in the form of monthly data on the prices of food commodities such as rice, red chilies, shallots, chicken eggs and chicken meat as well as monthly data on inflation in Kupang City. The research method used is the Partial Adjustment Model (PAM). The research results show that (1) Rice prices have a negative and insignificant effect on inflation in the short and long term (2) Red chili prices have a positive and significant effect on inflation in the short and long term. (3) The price of shallots has a positive and insignificant effect on inflation in Kupang City in the short and long term. (4) The price of chicken eggs has a negative and insignificant effect on inflation in Kupang City (5) The price of chicken meat has a positive and insignificant effect on inflation in Kupang City (6) Previous inflation had a negative and insignificant effect on inflation in Kupang City.

1. Introduction

The indicators used to evaluate the development performance of the agricultural sector can be seen from several important roles. According to Risnawati (2016), there are five important roles of the agricultural sector, namely, playing a direct role in providing food needs of the community, playing a role in forming Gross Domestic Product (GDP) income, absorbing labor, playing a role in earning foreign exchange and/or saving foreign exchange and playing a role in controlling inflation. . In this way, the agricultural sector can play a role in creating a consumerist climate for the development of other economic sectors.

The province that has the largest agriculture, forestry and fisheries sectors in Indonesia is East Nusa Tenggara Province which consists of several cities or districts including Kupang City. Kupang City has income from the agriculture, forestry and fisheries sectors which contributed to the development of Kupang City's GRDP from 2016 to 2020 which can be seen in Table 1.

Table 1. Kupang City GRDP by Business Field Based on Constant Prices 2016-2020 (Millions of Rupiah)

No	2016	2017	2018	2019	2020
1	308,259.7	321,908.2	341,566.7	352,436.9	356,375.9
2	14,475.7	15,033.2	15,303.0	15,855.0	15,995.2
3	212,463.8	228,925.4	246,873.1	274,608.9	255,380.4
4	19,679.0	19,720.5	21,365.7	21,499.5	23,272.0
5	20,439.5	20,567.2	20,908.2	22,004.3	23,202.5
6	2,223,612.9	2,379,795.6	2,531,040.6	2,620,744.6	2,356,734.3

7	2,116,941.9	2,246,605.2	2,430,541.1	2,632,200.2	2,493,219.4
8	1,058,699.2	1,187,968.1	1,309,034.4	1,358,013.8	1,105,672.0
9	243,926.3	283,934.5	324,521.4	349,862.4	251,490.3
10	2,021,740.7	2,149,494.3	2,290,545.9	2,466,096.8	2,804,340.0
11	963,907.6	1,020,891.2	1,062,240.5	1,096,029.3	1,177,842.3
12	452,584.3	475,292.7	498,315.6	495,480.7	490,499.8
13	91,711.8	94,806.8	96,554.6	101,492.4	56,423.5
14	1,133,431.4	1,170,877.5	1,268,770.4	1,385,994.3	1,443,967.2
15	1,888,521.0	2,019,266.7	2,060,933.8	2,178,269.7	2,220,474.4
16	549,241.3	590,804.9	642,698.9	694,001.1	726,675.9
17	506,458.4	544,242.4	582,471.6	629,030.3	549,461.2
GRDP	13,826,094.4	14,770,134.3	15,743,685.4	16,693,620.2	16,351,026.2

[a.] Source: Kupang City Central Statistics Agency (BPS).

Information :
1. Agriculture, Forestry and Fisheries
2. Mining and Quarrying
3. Processing Industry
4. Procurement of Electricity and Gas
5. Water Supply, Waste Management, Waste and Recycling
6. Construction
7. Wholesale and Retail Trade; Car and Motorcycle Repair
8. Transportation and Warehousing
9. Provision of accommodation and food and drink
10. Information and Communication
11. Financial Services and Insurance
12. Real Estate
13. Company Services
14. Government Administration, Defense and Mandatory Social Security
15. Education Services
16. Health Services and Social Activities
17. Other services

Table 1 shows that the GDP growth rate for all economic business fields tends to experience good growth over the last five years. The agriculture, forestry and fisheries sectors experienced the most growth and the company services sector experienced the lowest growth. Looking at the economic growth of Kupang City which is calculated from the total GRDP from all economic business fields, it can be seen in table 2 below.

Table 2. GRDP Growth at Constant Prices Kupang City 2016-2020.

Year	GDP at Constant Prices (Million Rupiah)	Economic Growth (percent)
2016	13,826,094.37	6.74
2017	14,770,134.29	6.83
2018	15,743,685.40	6.59
2019	16,693,620.24	6.03
2020	16,351,026.24	-2.05

Table 2 shows that the economic growth rate of Kupang City at constant prices continues to decline, while the economic growth of Kupang City shows fluctuating figures from year to year. The increase in the GDP value of Kupang City cannot be separated from the contribution of all business sectors in Kupang City, including the agriculture, forestry and fisheries sectors.

Apart from GRDP, inflation indicators must also be of special concern to local governments, especially East Nusa Tenggara. East Nusa Tenggara's inflation rate according to the latest data for December 2021 is 0.89 percent, where there are three regions included in the inflation zone. The cities of Kupang and Waingapu had the highest inflation at 0.96 percent, followed by Maumere Regency with 0.34 percent, which can be seen in table 3.

Table 3. East Nusa Tenggara Inflation July-December 2021.

Inflation Region	Inflation					
	2021					
	July	August	September	October	November	December
East Nusa Tenggara	0.08	-0.58	-0.30	-0.13	0.49	0.89
Kupang City	0.14	-0.56	-0.39	-0.20	0.60	0.96
Maumere	-0.01	-0.89	-0.05	0.32	048	0.34
Waingapu	-0.40	-0.45	0.27	-0.04	-0.34	0.96

[b.] Source: BPS East Nusa Tenggara, 2022

Based on the information from the GRDP and inflation data above, it is necessary to know the extent of the contribution of the agriculture, forestry and fisheries sectors to the increase in GRDP in Kupang City during the 2016-2020 period and how food commodity prices influence inflation in the 2020 and 2021 inflation zone areas of Kupang City becomes interesting to analyze with the title "Analysis of the Contribution of the Agricultural Sector and Food Commodity Prices to Inflation in Kupang City"

2. Theoretical Basis

Inflation

According to Sukirno (2011), regarding the meaning of inflation, he states that inflation is a general and continuous increase in the prices of goods. Meanwhile, according to Julius (2011), the definition of inflation is the tendency of prices to increase continuously.

Furthermore, according to Murni (2013), the definition of inflation is as follows: "Inflation is an event that shows a general and continuous increase in price levels." M. Natsir (2014) states that the definition of inflation is the tendency to increase the prices of goods and services in general and continuously.

In simple terms, inflation can be defined as a general and continuous increase in prices over a certain period of time. An increase in the price of just one or two goods cannot be called inflation unless the increase extends (or results in an increase in prices) for other goods. The opposite of inflation is called deflation.

The indicator that is often used to measure the level of inflation is the Consumer Price Index (CPI). Changes in the CPI from time to time show price movements of goods and services consumed by the public. Determination of goods and services in the CPI is carried out on the basis of the Cost of Living Survey (SBH) carried out by the Central Statistics Agency (BPS). Then, BPS will monitor price developments for these goods and services on a monthly basis in several districts, in traditional and modern markets for several types of goods/services in each district.

Other inflation indicators based on International Best Practice include:

1. Wholesale Price Index (IHPB).

The Wholesale Price of a commodity is the transaction price that occurs between the first seller or wholesaler and the next buyer or wholesaler in large quantities in the first market for a commodity.

2. Producer Price Index (PPI)

This indicator is useful for measuring changes in the average price received by domestic producers for the goods they produce.

3. Gross Domestic Product (GDP) Deflator

Shows the magnitude of changes in prices of all new goods, locally produced goods, finished goods and services. The GDP deflator is generated by dividing GDP at nominal prices by GDP at constant prices.

4. Asset Price Index

This index is used to measure asset price movements, including property and shares, which can be used as an indicator of pressure on prices as a whole.

Inflation Grouping:

Inflation as measured by the CPI in Indonesia is grouped into 7 expenditure groups (based on the Classification of Individual Consumption By Purpose - COICOP), namely:

1. Food Ingredient Group
2. Prepared Food, Beverages, Cigarettes and Tobacco Group
3. Housing, Water, Electricity, Gas and Fuel Group
4. Clothing Group
5. Health Group
6. Education, Recreation and Sports Group
7. Transport, Communication and Financial Services Group

Relationship between Food Commodity Prices and Inflation

Food commodities are commodities that have the most fluctuating prices, for example rice, chicken, soybeans, shallots, red chilies and beef. Some of these commodities are listed in the Minister of Trade Regulation No.63/m.dag/per/2016 which is a follow-up to Presidential Regulation No.71/2015 concerning the determination and storage of important goods. One of the commodities that is of concern in the inflation rate is the food sector, namely food commodities from the agricultural sector where the Indonesian State still relies heavily on the agricultural sector, including the food sub-sector, which is controlled through setting basic prices and highest prices for food commodities (Isnaini, 2018) .

High inflation can last for a long period of time, even though the development of the money supply in society is relatively low. This can be explained through Structuralist theory which states that inflation in the long term is caused more by the rigidity of the economic structure in developing countries, especially the structure of export revenues and domestic food production. Inflationary pressure will also arise if, for example, domestic food production is inadequate, causing an increase in food prices (Saputra, 2013).

The Role of the Agricultural Sector in Regional Development

Indonesia is known as an agricultural country, because the agricultural sector is a top priority in economic development in developing countries like Indonesia. Several experts have pointed out the importance of the agricultural sector in economic development. Todaro (2003) stated that agricultural development is an absolute requirement for national development, especially in third world countries. He saw that around two-thirds of the nation's poor depended on the agricultural sector for their livelihood, most of these poor groups lived in rural areas. Johnston and Mellor (1961) in Jhingan (1990) stated that the role of the agricultural sector in economic development is:

1. The main source of food supplies.
2. Sources of income and taxes.
3. Source of foreign exchange income needed to import capital, raw materials and others.
4. Domestic market to accommodate the products of the processing industry and other agricultural materials sectors.

Meanwhile, according to Daniel (2002), there are three main reasons why the agricultural sector needs to be developed first:

1. Industrial goods require support from people's purchasing power. Because in general the buyers of industrial goods are mostly in the agricultural sector. To meet the needs of life and also meet the need for equipment and materials for businesses in the agricultural sector, industrial goods are needed. Therefore, people in the agricultural sector must first increase their income.
2. To reduce production costs from the wage or salary component, it is necessary to provide cheap and affordable food ingredients, so that the wages and salaries received can be used to meet the basic needs of teachers and employees. This situation can occur if the production of agricultural products, especially food, can be increased so that prices are lower and affordable for purchasing power.
3. Industry requires raw materials originating from the agricultural sector, therefore the production of industrial materials provides the basis for growth itself. This situation can occur so that it is a cycle and cooperation that is mutually beneficial.

According to Soekartawi (2002), agricultural development is basically directed at fulfilling the desires to be achieved, namely to achieve more equitable welfare in agricultural communities. Agricultural development is carried out by increasing production, labor productivity, land and capital. With these efforts, the active participation of farmers and rural communities can be increased, so that increases in agricultural production levels can be achieved efficiently and

dynamically. followed by a fairer and more equitable distribution of economic surpluses between various economic actors, as well as the development of an efficient agribusiness system. Conceptually and empirically, the agricultural sector deserves to be a mainstay sector in economic development. In the development transformation process, it also has a role, which according to (Tripustika, 2005) is as follows:

1. Product contribution, namely the agricultural sector's role as a provider of food for workers in the industrial sector, as well as a provider of industrial raw materials.
2. Market contribution, namely households in the agricultural sector are the main target for consuming output produced in the industrial sector.

Foreign exchange contribution, namely acting as a foreign exchange contributor for the export of goods produced.

3. Method

This research was carried out in Kupang City through the official BPS Kupang City website which is a statistical report for each district. The determination of the research area was carried out purposively based on the consideration that Kupang City is one of three large cities in East Nusa Tenggara Province which contributes to inflation in East Nusa Tenggara Province. This research was conducted from April to October 2022.

Research Population and Sample

The population in this study is all data in the form of a certain year that is available on the Kupang City BPS website. The sample (data) used in this research is a time series for five years, namely from 2016-2020.

Data collection

To complete the data and references required in preparing this research proposal, the following method was taken:

1. Quote directly and process data from BPS Kupang City publications
2. Obtain data from the National Strategic Food Price Information Center (PIHPS)
3. Library Study (Library Research), namely research carried out by means of library study of various documents, articles, research journals and scientific works (thesis) related to this writing to obtain secondary data.

Data analysis

Partial Adjustment Model (PAM)

The partial adjustment model, also known as the Partial Adjustment Model (PAM), is a data analysis model that assumes the existence of a long-term equilibrium relationship between two or more economic variables. In the short term what happens is disequilibrium. With the partial adjustment mechanism, a proportion of the disequilibrium in one period is corrected in the next period. The adjustment process thus becomes a tool for reconciling short-term and long-term behavior (Gujarati, 1995).

This model assumes that the dependent variable (Y) expected in period t (written Yt*) cannot be observed directly. The variable Yt* will depend on the actual independent variable (Xi). Mathematically it can be written as follows:

$Yt = \beta o + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4X4 + \beta 5X5 + Ut$..... .....(a)

Where :

Yt = Expected inflation

βo = Intercept

β1,2,3,4,5= Partial regression coefficient

X1 = Rice Price

X2 = Price of Shallots

X3 = Price of Red Chili

X4 = Price of Chicken Meat
X5 = Price of Chicken Eggs
Ut = Error

The variable Yt* is not observed because it is still a target so this variable must be replaced using the model. Therefore the assumptions of the hypothesis are as follows.

$Yt - Yt\text{-}1 = \delta (Y^*t - Y\ t\text{-}1)$..... ....(b)
Where
δ is the partial adjustment coefficient, which therefore has the value $0 < \delta < 1$;
Yt - Yt-1 is the actual adjustment; while Y*t - Yt-1 is the desired adjustment. If equations (a) and (b) are substituted, the following new equation will be obtained.
$Yt = Yt\text{-}1 + \delta (\beta o + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4X4 + \beta 5X5 - Yt\text{-}1) + Ut$.....(c)
$Yt = \delta\beta o + (1- \delta)Yt\text{-}1 + \delta\beta 1X1 + \delta\beta 2X2 + \delta\beta 3X3 + \delta\beta 4X4 + \delta\beta 5X5 + Ut$.....(d)
If, $\delta\beta o = \alpha 0$, $\beta 1 = \alpha 1$, $\beta 2 = \alpha 2$, $\beta 3 = \alpha 3$, $\beta 4 = \alpha 4$, $\beta 5 = \alpha 5(1- \delta) = \alpha 6$,
then we get the following equation
$Yt = \alpha 0 + \alpha 1X1 + \alpha 2X2 + \alpha 3X3 + \alpha 4X4 + \alpha 5X5 + \alpha 6Yt\text{-}1 + Ut$..... .....(e)
Where :
Yt = Inflation
$\alpha 0$ =Intercept
α 1,2,3,4,5= Partial regression coefficient
X1 = Rice Price
X2 = Price of Shallots
X3 = Price of Red Chili
X4 = Price of Chicken Meat
X5 = Price of Chicken Eggs
Y(t-1) = Inflation in the previous year
Ut = Error

Equation (a) = to be an analysis of the elasticity of inflation towards food commodity prices in the long term, it is transformed into the Natural Logarithm (ln). Equation (e) = to be an analysis of the elasticity of inflation towards food commodity prices in the short term, it is transformed into the Natural Logarithm (ln).

4. Results and Discussion

Data that is a time series needs to know whether the data used is stationary or not. If the data is not stationary, false or spurious regression will occur. To test the stationarity of the data, a unit root test can be carried out using the Augmented Dickey Fuller (ADF) method, with the following hypothesis:

H0: Time series data is not stationary (there is a unit root)
H1: Time series data is stationary (no unit root)

If the probability value is smaller than α = 5% and the t-statistic value is greater than the MacKinnon critical value at the 1%, 5% and 10% levels, then H0 is rejected, namely the time series data is stationary or there is no unit root. If the probability value is greater than α = 5% and the t-statistic value is smaller than the MacKinnon critical value at the 1%, 5% and 10% levels, then H0 is accepted, namely the time series data is not stationary or there is a unit root.

Table 4. Level Level Data Stationary Test Results (α=5%)

Variabel	DF t Statistik	Mackinnon	Prob	Keterangan
Inflasi	-7,643012	-2,902953	0,0000	Stasioner
Beras	-2,157878	-2,902953	0,2234	Tidak Stasioner
Cabai Merah	-3,673400	-2,902953	0,0065	Stasioner
Bawang Merah	-3,701774	-2,902953	0,0060	Stasioner
Telur Ayam	-1,252712	-2,902953	0,6470	Tidak Stasioner
Daging Ayam	-4,087977	-2,902953	0,0019	Stasioner

The results of the ADF test at level level show that of the six research variables used, there are four variables that pass the stationary data test. Where the ADF t statistic value is greater than the Mackinnon test value at the 5% level (H0 is rejected), including inflation data, red chili prices, onion prices and chicken meat prices. However, there are two data that are not stationary, where the ADF t statistic value is greater than the Mackinnon test value at the 5% level (H0 is accepted), including the price of rice and the price of chicken eggs. Therefore, it is necessary to carry out a degree of integration test or stationary test on the degree of difference until all research variable data is stationary simultaneously.

Table 5. First Difference Level Data Stationary Results Test

Variabel	DF t Statistik	Mackinnon	Prob	Keterangan
Inflasi	-8,273239	-2,906210	0,0000	Stasioner
Beras	-10,47773	-2,903566	0,0001	Stasioner
Cabai Merah	-8,776910	-2,903566	0,0000	Stasioner
Bawang Merah	-9,282793	-2,903566	0,0000	Stasioner
Telur Ayam	-10,98113	-2,903566	0,0001	Stasioner
Daging Ayam	-7,663306	-2,,904198	0,0000	Stasioner

The results of the ADF test at the difference level show that the six research variables used are stationary, with the ADF statistical t value being greater than the Mackinnon test value of 5% (H0 is rejected, the data are stationary).

Partial Adjustment Model (PAM) Test Results

This research was conducted to analyze the influence of inflation in the long term and short term with the dependent variable being the inflation value for the period 2017 to 2021 and the independent variables the prices of rice, shallots, red chilies, chicken eggs and chicken meat in the same year. Based on the regression results with the Partial Adjustment Model (PAM), the econometric model obtained in the short term is as follows.

$$Yt = \alpha 0 + \alpha 1X1 + \alpha 2X2 + \alpha 3X3 + \alpha 4X4 + \alpha 5X5 + \alpha 6Y(t-1) + Ut$$

Table 6. Partial Adjustment Model (PAM) Test

Variabel	Coeffient	Std.Error	t-Statistic	Prob
C	3.185456	19.07315	0.167013	0.8679
Harga Beras	-3.618240	2.194972	-1.648422	0.1042
Harga Cabai Merah	1.045008	0.358033	2.918749	0.0048
Harga Bawang Merah	0.292588	0.495335	0.590688	0.5568
Harga Telur Ayam	-0.501136	0.437746	-1.144810	0.2566
Harga Daging Ayam	2.077853	1.358102	1.529968	0.1310
Inflasi(-1)	-0.045905	0.119884	-0382912	0.7031

For short-term adjustments, based on the adjustment calculations in the table above, the following equation and analysis are obtained.

$$Yt = 3.185456 - 3.618240X1 + 1.045008X2 + 0.292588X3 – 0.501136X4 + 2.077853X5 - 0.045905Y(t-1) + Ut$$

Based on the regression results with the Partial Adjustment Model (PAM), the long-term equation is as follows.

$$Yt = \beta o + \beta 1X1 + \beta 2X2 + \beta 3X3 - \beta 4X4 + \beta 5X5 + Ut$$

Table 7. Long Term Effect Estimation Results

Variabel	Rumus	Jangka Panjang
C	$\alpha_0 = \frac{\alpha_0}{1-\alpha_6}$	**3.045645**
Harga Beras	$\alpha_1 = \frac{\alpha_1}{1-\alpha_6}$	**-3.459434**
Harga Cabai Merah	$\alpha_2 = \frac{\alpha_2}{1-\alpha_6}$	**0.999142**
Harga Bawang Merah	$\alpha_3 = \frac{\alpha_3}{1-\alpha_6}$	**0.279746**
Harga Telur Ayam	$\alpha_4 = \frac{\alpha_4}{1-\alpha_6}$	**-0.479141**
Harga Daging Ayam	$\alpha_5 = \frac{\alpha_5}{1-\alpha_6}$	**1.986655**
Inflasi (-1)	$\alpha_6 = \frac{\alpha_6}{1-\alpha_6}$	**-0.043890**

For long-term adjustments, based on the adjustment calculations in the table above, the following equation and analysis are obtained.

Yt = 3.045645 - 3.459434X1 + 0.999142X2 + 0.279746X3 - 0.479141X4 + 1.986655X5 + Ut

So, based on the results of the Partial Adjustment Model (PAM) test, the following results were obtained:

Table 8. Short Term and Long Term Estimation Results Partial Adjustment Model (PAM) Test

Variabel	Jangka Pendek	Jangka Panjang
Harga Beras	-3.618240	-3.459434
Harga Cabai Merah	1.045008	0.999142
Harga Bawang Merah	0.292588	0.279746
Harga Telur Ayam	-0.501136	-0.479141
Harga Daging Ayam	2.077853	1.986655
Inflasi(-1)	-0.045905	-0.043890

Discussion

The Effect of Rice Prices on Inflation

Table 9. Rice Price Partial Adjustment Model (PAM) Test Results

Variabel	Jangka Pendek	Jangka Panjang	Probability
Beras	-3.618240	- 3.459434	0.1042

Based on the regression results of the Partial Adjustment Model (PAM) method that has been carried out, it shows that the short-term coefficient value of rice prices on inflation is -3.618240, where if there is an increase in rice prices of 1%, there will be a decrease in inflation of 3.618240% in the short term and vice versa with the assumption that other independent variables are considered constant (Ceteris paribus). The long-term coefficient value of rice prices on inflation is - 3.459434, where if there is an increase in rice prices of 1%, there will be a decrease in inflation of - 3.459434% in the long term and vice versa, assuming that the other independent variables are considered constant (Ceteris paribus).

In the long term, the elasticity of rice prices towards inflation in Kupang City is better. Meanwhile, the rice price variable has a negative and insignificant effect on inflation. This means that the increase in rice prices has no real effect on inflation. This is indicated by the probability value of 0.1042, where the probability value is greater than α(0.05). The rice price variable is not in accordance with the research hypothesis because the rice variable does not have a significant effect on inflation in Kupang City. This is in contrast to the results of Setiawan's (2015) research, which states that fluctuations in rice prices have an influence on inflation variations in East Nusa Tenggara Province. This is because rice is the main staple food of the people in Indonesia, so an increase in the price of rice will certainly not reduce rice consumption among the people. However, the contribution of rice prices, in recent years, can be said to have not contributed much to changes in the value of inflation because the price of rice itself has been regulated by the Government through Trade Regulation No. 57 of 2017 concerning determining the highest retail price for rice.

The Effect of Red Chili Prices on Inflation

Table 10. Partial Adjustment Model (PAM) Test Results for Red Chili Prices

Variabel	Jangka Pendek	Jangka Panjang	Probability
Cabai Merah	1.045008	0.999142	0.0048

Based on the regression results of the Partial Adjustment Model (PAM) method that has been carried out, it shows that the short-term coefficient value of red chili prices on inflation is 1.045008, where if there is an increase in the price of red chilies by 1%, there will be an increase in inflation of 1.045008% in the short term and vice versa. assuming that other independent variables are considered constant (Ceteris paribus). The long-term coefficient value of red chili prices on inflation is 0.999142, where if there is an increase in the price of red chilies by 1%, there will be an increase in inflation of 0.999142% in the long term and vice versa, assuming that the other independent variables are considered constant (Ceteris paribus). In the short term, the price elasticity of red chilies towards inflation in Kupang City is better. Meanwhile, the red chili price variable has a positive and significant effect on inflation. This means that fluctuations in the price of red chilies affect the inflation rate. This is indicated by the probability value being 0.0048 where the probability value is smaller than α(0.05). The red chili price variable, in accordance with the research hypothesis, has a significant effect on inflation in Kupang City. This result is in accordance with the results of Setiawan's (2015) research, the price of the food commodity that has a big influence on inflation in East Nusa Tenggara Province is red chilies.

The Effect of Shallot Prices on Inflation

Table 11. Partial Adjustment Model (PAM) Test Results for Red Onion Prices

Variabel	Jangka Pendek	Jangka Panjang	Probability
Bawang Merah	0.292588	0.279746	0,5568

Based on the regression results of the Partial Adjustment Model (PAM) method that has been carried out, it shows that the short-term coefficient value of shallot prices on inflation is 0.292588, where if there is an increase in shallot prices of 1%, there will be an increase in inflation of 0.292588% in the short term and vice versa. assuming that other independent variables are considered constant (Ceteris paribus). The long-term coefficient value of shallot prices on inflation is 0.279746, where if there is an increase in shallot prices of 1%, there will be an increase in inflation of 0.279746% in the long term and vice versa, assuming that the other independent variables are considered constant (Ceteris paribus).

In the short term, the elasticity of shallot prices towards inflation in Kupang City is better. Meanwhile, the onion price variable has a positive but not significant effect on inflation. This means that fluctuations in shallot prices have no real effect on inflation. This is indicated by the probability value of 0.5568, where the probability value is greater than α(0.05).

The onion price variable is not in accordance with the research hypothesis because the price of shallots does not have a significant effect on inflation in Kupang City. This is in contrast to Rizaldy's (2017) research, the price of shallots has a significant effect on inflation in Malang City and

Setiawan's (2015) research, the price of shallots has a large influence on the variation in inflation values in Banten Province. On the island of Java, shallots are a commodity whose prices tend to be high, however, in Kupang City, shallots supplied from East Nusa Tenggara Province are sold at low prices, even when prices increase, shallots are still set at the same price. , so that shallots tend to be a commodity contributing to deflation in Kupang City.

The Effect of Chicken Egg Prices on Inflation

Table 12. Partial Adjustment Model (PAM) Test Results for Chicken Egg Prices

Variabel	Jangka Pendek	Jangka Panjang	Probability
Telur Ayam	-0.501136	- 0.479141	0.2566

Based on the regression results of the Partial Adjustment Model (PAM) method that has been carried out, it shows that the short-term coefficient value of chicken egg prices on inflation is -0.501136, where if there is an increase in the price of chicken eggs by 1%, there will be an increase in inflation of 0.501136% in the short term and on the contrary, assuming that other independent variables are considered constant (Ceteris paribus). The long-term coefficient value of chicken egg prices on inflation is - 0.479141, where if there is an increase in the price of chicken eggs by 1%, there will be an increase in inflation of 0.479141% in the long term and vice versa, assuming that the other independent variables are considered constant (Ceteris paribus).

In the long term, the price elasticity of chicken eggs towards inflation in Kupang City is better. Meanwhile, the variable price of chicken eggs has a negative and insignificant effect on inflation. This means that fluctuations in the price of chicken eggs have no real effect on inflation. This is shown by the probability value of 0.2566 where the probability value is greater than α (0.05). The chicken egg price variable is not in accordance with the research hypothesis because the price of chicken eggs does not have a significant effect on inflation in Kupang City. This is in contrast to Setiawan's (2015) research, where the price of chicken eggs has a significant effect on inflation in Banten Province.

The Effect of Chicken Meat Prices on Inflation

Table 13. Partial Adjustment Model (PAM) Test Results for Chicken Meat Prices

Variabel	Jangka Pendek	Jangka Panjang	Probability
Daging Ayam	2.077853	1.986655	0.1310

Based on the regression results of the Partial Adjustment Model (PAM) method that has been carried out, it shows that the short-term coefficient value of chicken meat prices on inflation is 2.077853, where if there is an increase in the price of chicken meat by 1%, there will be an increase in inflation of 2.077853% in the short term and vice versa. assuming that other independent variables are considered constant (Ceteris paribus). The long-term coefficient value of chicken meat prices on inflation is 1.986655, where if there is an increase in chicken meat prices of 1%, there will be an increase in inflation of 1.986655% in the long term and vice versa, assuming that the other independent variables are considered constant (Ceteris paribus).

In the long term, the price elasticity of red chilies towards inflation in Kupang City is better. Meanwhile, the chicken meat price variable has a positive but not significant effect on inflation. This means that fluctuations in chicken meat prices have no real effect on inflation. This is shown by the probability value being 0.1310 where the probability value is greater than α(0.05).

The chicken meat price variable is not in accordance with the research hypothesis because the price of chicken meat does not have a significant effect on inflation in Kupang City. This is in accordance with Isnaini's (2018) research, the price of chicken meat has a positive effect on inflation in Indonesia and contrary to Setiawan's (2015) research, the price of chicken meat has a significant effect on inflation in Banten Province.

The Effect of Previous Period Inflation on Inflation

Table 14. Partial Adjustment Model (PAM) Inflation Test Results (-1)

Variabel	Jangka Pendek	Jangka Panjang	Probability
Inflasi (-1)	-0.045905	-0.043890	0.7031

Based on the regression results of the Partial Adjustment Model (PAM) method that has been carried out, it shows that the short-term coefficient value of previous period inflation on inflation is -0.045905, where if there is an increase in inflation in the previous period of 1%, there will be a decrease in inflation of 0.045905% in the short term and on the contrary, assuming that other independent variables are considered constant (Ceteris paribus). The long-term coefficient value of previous period inflation on inflation is -0.043890, where if there is an increase in inflation in the previous period of 1%, there will be an increase in inflation of 0.043890% in the long term and vice versa, assuming that the other independent variables are considered constant (Ceteris paribus).

In the long term, the elasticity of inflation in the previous period towards inflation in Kupang City is better. The inflation variable in the previous period had a positive but not significant effect on inflation. This means that changes in the inflation value of the previous period have no real effect on current and future inflation. This is indicated by the probability value of 0.7031, where the probability value is greater than α(0.05).

4. Conclusion

Based on the research results, the following conclusions were obtained: The price of rice, chicken eggs and previous inflation had a negative and insignificant effect on inflation in Kupang City in the short and long term. The price of red chilies had a positive and significant effect on inflation in Kupang City in the short term. and long term, the price of shallots and chicken meat has a positive and insignificant effect on inflation in Kupang City in the short and long term.

Suggestion

The suggestions that the author can give regarding the results of this research are as follows: to the Government, the Government is expected to be able to maintain price stability in the market, especially prices for food commodities such as rice, red chilies, shallots, chicken eggs and chicken meat and also consider consumer welfare. and producers in determining market prices. And to the next author, the next author is expected to use more complex research variables such as variables outside of food commodities which also contribute to regional inflation and analysis tools other than PAM (Partial Adjustment Model) so that more complex analysis results on inflation are obtained.

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