# Analysis Contributor Inflation Group " Volatile *Food*" from Sector Agriculture in Jambi Province

**Laura Vantania Safitri [1*], M. Ridwansyah [2], Rosmeli [3], Erni Achmad [4], Nurhayani [5], Zainul Bahri [6]**

[1] Universitas Jambi, Indonesia, email : laurasafitri77@gmail.com
[2] Universitas Jambi, Indonesia
[3] Universitas Jambi, Indonesia
[4] Universitas Jambi, Indonesia
[5] Universitas Jambi, Indonesia
[6] Universitas Jambi, Indonesia

* corresponding author : Laura Vantania Safitri

**Abstract:** Inflation in Jambi Province is influenced by volatile food groups, the study aims to see the effect of food prices on inflation, as well as inflation predictions in Jambi Province, 2019-2023 period, data analysis techniques using panel data, exponential smoothing methods to see inflation predictions. The results show that there is a significant effect of the price of rice, red chili, cayenne pepper, and broiler chicken on inflation, the price of shallots does not have a significant effect on inflation. The predicted value uses the exponential smoothing method where inflation in Jambi Province in the next 1 year will increase . The implications of the Jambi Provincial Government's price control policy require cooperation with the central government to stabilize food prices, such as regulating strategic food stocks and providing subsidies for farmers in terms of raw materials that support food production.

**Keywords:** Food Prices, Inflation, Exponential Smoothing

## 1. INTRODUCTION

Inflation in Jambi Province was influenced by price increases in the *volatile food group,* namely food commodities . This inflation occurred from rising food prices. Inflation in the area was relatively stable, but was ranked second highest in the region. Sumatra below Pinang .

In December 2023, the CPI for Jambi City and Muaro City Flower highest , Jambi City with a Consumer Price Index (CPI) of 123.70 and Muara Enim City Flower with Index Consumer Price Index (CPI) of 121.49, this occurred due to an increase in prices indicated by an increase in the price index in six expenditure groups, namely: the Food, Beverages, and Tobacco group of. In the formation of inflation, the largest and most dominant contribution comes from the Food, Beverages, and Tobacco expenditure group.

Based on the background that has been described, the researcher is interested in making a research title on " Analysis of Contributors to Inflation in the *"Volatile Food"* Group from the agricultural sector in Jambi Province". Looking at the development of commodity prices in the *volatile food* group in Jambi Province, the influence of commodity prices in the *volatile food group* on inflation in Jambi Province, inflation predictions in Jambi Province are associated with *volatile food conditions,* with the aim of for the government, it can be used as a driver to improve or develop strategies for controlling inflation in Jambi Province.

## 2.　METHOD

This research is literature, including in the type of library research. Library research is research whose data collection is carried out by collecting data from various literatures. The literature studied is not limited to books but can also be in the form of documentation materials, magazines, journals, and newspapers . The emphasis of library research is to find various theories, laws, propositions, principles, opinions, ideas and others that can be used to analyze and solve the problems studied.

### Types of research

The type of data in this study is quantitative data, which is data in the form of numbers. Quantitative data in this study are inflation data, consumer price index (CPI) data, and food commodity price data.

### Source data

The data sources used as research material are secondary data, obtained through library research, wheredata Which collected from material reading Which relate with study journals, work scientific, *website* , namely data obtained from publications from government agencies or services, including publications from the Central Statistics Agency (BPS) of Jambi Province, the Department of Plant Food Horticulture And Farm Jambi Province , Jambi Province Food Crops Service, Jambi Province Industry and Trade Service.

### Tool analysis

To determine the effect of rice commodity prices on inflation, the effect of red chili prices on inflation, the effect of cayenne pepper prices on inflation, the effect of shallots on inflation, and the effect of broiler chicken prices on inflation using panel data regression , to see inflation predictions. use method *exponential smoothing* .

## 3.　RESULTS AND DISCUSSION

### The Influence of Volatile *Food Group Prices* on Inflation in Jambi Province

Panel data regression is done by combining cross-section and time series data types ( Ghozali And Ratmono , 2013), to find out the best and most efficient method for selecting the equation model, namely the Chow Test and Test Houseman need done testing each each of these models by using the panel data regression method as follows:

### Model Selection Test
#### 1.　Election Model Use Test Chow

Hypothesis Which formed in test chow is as following :

$H_0$: ( *Common Effect Model) Pooled Least Square*

$H_1$: *Fixed Effect Model*

$H_0$ is rejected if the probability < 0.05, which means that the most appropriate model to use is *the Fixed Effect Model* . Conversely, $H_0$ accepted if the probability > 0.05 then the model used is *the Common Effect Model* .

### Chow Test

Redundant Fixed Effects Tests
Equation: Untitled
Cross-section fixed effects test

| Effects Test | Statistics | df | Prob. |
|---|---|---|---|
| Cross-section F | 2.059603 | (1,113) | 0.0440 |
| Cross-section Chi-square | 2.167495 | 1 | 0.0410 |

*Source: Data processed use Eviews*

In the table above, it can be seen that the results show the probability value of the F test of 0.0440 . And *Chi- square* of 0.410. By using the significance level (α = 0.05) can it is said that probability < 0.05, so H $_0$ rejected and H $_1$ accepted, which means a good model is using **the Fixed Effect Model** .

### 2. Election Model using Test Houseman

The Hausman test is a way to distinguish *the Fixed Effect Model* (FEM) and *Random Effect Model* (REM) should be used. With the determination of Chi-Square and the distribution of the number of model variables, the Hausman test statistic has the same degrees of freedom. The Hausman test uses the Eviews program. The hypothesis test is as follows:

H0 : Random *Effect Model*
H1 : Fixed *Effect Model*

H0 $_{is}$ rejected and H1 $_{is}$ accepted if the probability value is less than α 5%. Conversely, H0 $_{is}$ accepted and H1 $_{is}$ rejected if the probability value is above α 5%. *The Fixed Effect* (FEM) model is used if the *p-value* is significant (≤5%). Meanwhile, *the Random Effect* (REM) model is used if the *p-value* is not significant (≥5%).

**Test Houseman**

Correlated Random Effects - Hausman Test

Pool: MOON

Cross-section random effects test

| Test Summary | Chi-Sq. Statistic | Chi-Sq. df | Prob. |
|---|---|---|---|
| Random cross section | 4.570140 | 5 | 0.0406 |

*Source: Data processed use Eviews*

From the table on it can be seen that the probability value is 0 ,0406 < 0.05 so H $_0$ rejected And H $_1$ accepted, with say other The appropriate model in this study is **the Fixed Effect Model.**

**Classical Assumption Test**
**Test Multicollinearity**

Test multicollinearity This used to detect whether or not there is a correlation between independent variables in the regression model used. In a model where there is a correlation between independent variables, then there is problem multicollinearity . To find out whether there is any in the model there is problem multicollinearity that is with perform correlation matrix analysis by looking at the variance inflation factor (VIF) value. If the VIF value < 10, this indicates that the model does not there is multicollinearity between variable independent . This applies vice versa if VIF > 10 then there is multicollinearity between variable independent . Here are the results from test multicollinearity with use Eviews .

**Test Multicollinearity**

Variance Inflation Factors
Date: 03/13/25 Time: 14:19
Sample: 1 120
Included observations: 120

| Variable | Coefficient Variance | Uncentered VIF | Centered VIF |
|---|---|---|---|
| C | 4.788475 | 6.31995 | NA |
| X1 | 0.026957 | 6.33957 | 1.279310 |
| X2 | 0.000119 | 5.18962 | 1.271517 |
| X3 | 9.260005 | 4.98036 | 1.579838 |
| X4 | 0.000610 | 4.94548 | 1.365156 |
| X5 | 0.001213 | 1.07217 | 1.073527 |

***Source: Data processed use Eviews***

From the test table multicollinearity with see The variance inflation factor (VIF) value shows that the correlation coefficient value between independent variables is <10 (less than 10), so it can be concluded that in the regression model there is no there is problem multicollinearity .

**Test Heteroscedasticity**

Test heteroscedasticity This done to determine whether or not there are deviations from the classical assumption test in the regression model, where this model must meet the requirements No contain heteroscedasticity between variables ( Basuki Tri and Yuliadi , 2015). If the value probability from Obs * R squared > 0.05 then it can be said that the model does not there is problem heteroscedasticity . This applies vice versa if the value probability from Obs * R squared < 0.05 then in the model there is problem heteroscedasticity . The following are the results from test autocorrelation with use Eviews

**Test Heteroscedasticity**

Heteroskedasticity Test: Breusch -Pagan-Godfrey

Null hypothesis: Homoskedasticity

| | | | |
|---|---|---|---|
| F-statistic | 11.27565 | Prob. F(5,114) | 0.0870 |
| Obs *R-squared | 39.70806 | Chi-Square Prob.(5) | 0.8787 |
| Scaled explained SS | 66.54662 | Chi-Square Prob.(5) | 0.3807 |

***Source: Data processed use Eviews***

The table shows that mark Obs *R-squared is 39.70806 where the probability value is 0.8787 > 0.05, it can be concluded that the model used No contain heteroscedasticity .

**Autocorrelation Test**

According to Ghozali (2018) test Autocorrelation aims to test whether there is a correlation in the linear regression method. between error Disturber on period t with an error with period t-1 (previous). If there is no correlation, then it is called the existence of

autocorrelation problems . One of the tests that can be use For detect existence autocorrelation is test Breusch Godfrey or called Lagrange Multiplier. If the probability value > α = 5% means No happen autocorrelation . On the other hand, the probability value < α = 5% means happen autocorrelation

**Test Autocorrelation**

| F-statistic | 11.27565 | Prob. F(5,114) | 0.0870 |
|---|---|---|---|
| Obs *R-squared | 39.70806 | Chi-Square Prob.(5) | 0.8787 |
| Scaled explained SS | 66.54662 | Chi-Square Prob.(5) | 0.3807 |

***Source: data processed use Eviews .***

Based on results test autocorrelation can seen chi-square probability value of Obs *R- squared is 0.8787 greater than 0.05. Based on the theory, this means that the regression model used No happen autocorrelation .

**Best Regression Model Selection Test**

After the model selection has been carried out in the chow test , the test house give conclusion that the best model is **the Fixed Effect Model.** Next done test panel data regression model selection . **Fixed Effect Model** (FEM) is a model that assumes that the slope coefficient does not vary with individuals or time (constant). The calculation results are in the table below.

**Fixed Effect Model**

Dependent Variable: Y
Method: Panel Least Squares
Date: 03/07/25 Time: 13:25
Sample: 2019M01 2023M12
Periods included : 60
Cross-sections included: 2
Total panel (balanced) observations: 120

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| C | 6.721993 | 2.359540 | 4.120291 | 0.0001 |
| X1 | 0.525856 | 0.166157 | 3.164813 | 0.0020 |
| X2 | 0.015616 | 0.011546 | 1.352523 | 0.0189 |
| X3 | 0.000246 | 0.009646 | 2.025470 | 0.0497 |
| X4 | 0.043242 | 0.026586 | 1.626495 | 0.1066 |
| X5 | 0.099937 | 0.042409 | 2.356533 | 0.0202 |

Effects Specification

Cross-section fixed (dummy variables)

| | | | |
|---|---|---|---|
| Root MSE | 1.427205 | R-squared | 0.860450 |
| Mean dependent variable | 0.669500 | Adjusted R-squared | 0.855873 |
| SD dependent var | 1.564157 | SE of regression | 1.470746 |
| Akaike information criterion | 3.665980 | Sum squared residual | 244.4296 |
| Black criterion | 3.828583 | Log likelihood | -212.9588 |
| Hannan -Quinn critic . | 3.732014 | F-statistic | 3.599329 |

| | | | | |
|---|---|---|---|---|
| Durbin-Watson stat | 2.065706 | Prob (F-statistic) | 0.002652 |

*Source: data processed use Eviews .*

Based on results panel data regression with the following equation:

**$Y_t$ = 6.721993 + 0.525856**

The following is an explanation of the estimation results from the following equation:

1. The constant value is 6.721993, meaning that if the constants for the price of rice, the price of red chilies, the price of cayenne peppers, the price of onions... red , and chin chicken race equal to zero then inflation increased by 6.721993% in Jambi Province.

2. The coefficient value of rice prices is 0.525856, meaning that if the price of rice increases by one percent, inflation will increase by 0.525856% in Jambi Province.

3. The coefficient value of the price of red chili is 0.015616, meaning that if the price of red chili increases by one percent, inflation will increase by 0.015616% in Jambi Province.

4. The coefficient value of cayenne pepper prices is 0.000246, meaning that if the price of cayenne pepper increases by one percent, inflation will increase by 0.000246% in Jambi Province.

5. The coefficient value of the price of shallots is 0.043242, meaning that if the price of shallots increases by one percent, inflation will increase by 0.043242 % in Jambi Province.

6. The coefficient value of the price of broiler chicken meat is 0.099937, This means that if the price of broiler chicken increases by one percent, inflation will increase by 0.099937 % in Jambi Province.

**Testing Hypothesis**
**Testing Hypothesis ( t-test)**

Hypothesis testing in this study is done by using the t-test which basically shows how far the influence of one independent variable individually explains the variations in the dependent variable.

**T-test**

Method: Panel Least Squares
Date: 03/07/25 Time: 13:25
Sample: 2019M01 2023M12
Periods included: 60
Cross-sections included: 2
Total panel (balanced) observations: 120

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| C | -9.721993 | 2.359540 | -4.120291 | 0.0001 |
| X1 | 0.525856 | 0.166157 | 3.164813 | 0.0020 |
| X2 | 0.015616 | 0.011546 | 1.352523 | 0.0189 |
| X3 | -0.000246 | 0.009646 | 2.025470 | 0.0497 |
| X4 | 0.043242 | 0.026586 | 1.626495 | 0.1066 |
| X5 | 0.099937 | 0.042409 | 2.356533 | 0.0202 |

*Source: Data processed use Eviews*

From results Test t on can seen obtained t table as following:

1) The calculated t value of the independent variable rice price is 3.164813 < t

table 1 .65800 And mark the probability of 0.002 < 0.05. So the independent variable of rice price can be said to have a significant effect on variable bound inflation .

2) The calculated t value of the independent variable, the price of red chilies, is 1.352523 < t table 1 .65800 And mark the probability of 0.0189 < 0.05. So the independent variable of red chili price can be said to have a significant effect on the dependent variable of inflation.

3) The calculated t value of the independent variable, the price of cayenne pepper, is 2.025470 < t table 1 .65800 And mark the probability of 0.0497 < 0.05. So the independent variable of cayenne pepper price can be said to have a significant effect on the dependent variable of inflation.

4) The calculated t value of the independent variable, the price of shallots, is 1.626495 < t table 1 .65800 And mark the probability of 0.1066 > 0.05. So the independent variable of red onion price can be said to have no significant effect on the dependent variable of inflation.

5) The calculated t value of the independent variable, the price of broiler chicken meat, is 2.356533 < t table 1 .65800 And mark the probability of 0.0202 < 0.05. So the independent variable of broiler chicken meat price can be said to have a significant effect on the dependent variable of inflation.

**Testing Hypothesis ( F-test).**
        Test F statistic objective For show whether all independent variables included in the model have a joint influence on the dependent variable. The F test is used to determine whether the multiple correlation coefficient can be generalized to the population or not. In this study, the F test is used to determine the influence of variables between the price of rice, red chili, cayenne pepper, shallots, and broiler chicken on the inflation variable simultaneously.

**F Test**

Dependent Variable: Y
Method: Panel Least Squares
Date: 03/07/25 Time: 13:25
Sample: 2019M01 2023M12
Periods included: 60
Cross-sections included: 2
Total panel (balanced) observations: 120

| | | | |
|---|---|---|---|
| Root MSE | 1.427205 | R-squared | 0.860450 |
| Mean dependent variable | 0.669500 | Adjusted R-squared | 0.855873 |
| SD dependent var | 1.564157 | SE of regression | 1.470746 |
| Akaike information criterion | 3.665980 | Sum squared residual | 244.4296 |
| Black criterion | 3.828583 | Log likelihood | -212.9588 |
| Hannan -Quinn critter . | 3.732014 | F-statistic | 3.599329 |
| Durbin-Watson stat | 2.065706 | Prob (F-statistic) | 0.002652 |

*Source: Data processed use Eviews*

        Based on the table above, the F-statistic value obtained is 3.599329 with mark the probability of 0.002652. Therefore, the F-count is greater than the F-table value. that is 3,599329 > 2.29 And mark probability more small from mark alpha (0.05) which is 0.002652 < 0.05. This means that the independent variables simultaneously influence the dependent variable.

**Coefficient Determination (R $^2$ )**
        The coefficient of determination $(R^2)$ essentially measures how far the ability of the rice price model $(X1)$, red chili price $(X2)$, cayenne pepper $(X3)$, red onion $(X4)$, broiler chicken (X5) in explaining the dependent variable inflation. . The coefficient of

determination value is between zero (0) and one (1). A small R2 value means that the ability of the independent (free) variables to explain the variation of the dependent variable is very limited.

**Coefficient of Determination**

Dependent Variable: Y
Method: Panel Least Squares
Date: 03/07/25 Time: 13:25
Sample: 2019M01 2023M12
Periods included: 60
Cross-sections included: 2
Total panel (balanced) observations: 120

| | | | |
|---|---|---|---|
| Root MSE | 1.427205 | R-squared | 0.860450 |
| Mean dependent variable | 0.669500 | Adjusted R-squared | 0.855873 |
| SD dependent var | 1.564157 | SE of regression | 1.470746 |
| Akaike information criterion | 3.665980 | Sum squared residual | 244.4296 |
| Black criterion | 3.828583 | Log likelihood | -212.9588 |
| Hannan -Quinn critic . | 3.732014 | F-statistic | 3.599329 |
| Durbin-Watson stat | 2.065706 | Prob (F-statistic) | 0.002652 |

*Source: Data processed use Eviews*

Results from test The above regression shows an R-Square value of 0.860450 or 86%. The coefficient of determination ($R^2$) shows that the ability of the price variables of rice, red chili, cayenne pepper, red onion and broiler chicken in explaining the variance in the inflation variable, while 14% is influenced by other variables outside the regression model.

**Inflation predictions in Jambi Province are associated with volatile *food conditions* in Jambi Province.**

`     At this stage, the identification of the data obtained, namely the combined inflation data of Jambi City and Muaro Bungo, this stage explains the process of forecasting the combined inflation of the two cities, namely Jambi City and Muaro Bungo. The forecasting process is carried out using inflation data. The following can be seen on table below this.

*Analysis Exponential Smoothing Inflation*

| Fit Statistics | Mean | SE | Minimum | Maximum |
|---|---|---|---|---|
| Stationary R-squared | 0.784 | . | 0.784 | 0.784 |
| R-squared | 0.700 | . | 0.700 | 0.700 |
| RMSE | 1.148 | . | 1.148 | 1.148 |
| MAPE | 32,332 | . | 32,332 | 32,332 |
| MaxAPE | 5010.343 | . | 5010.343 | 5010.343 |
| MAE | 1 | . | 103,621 | 103,621 |
| MaxAE | 523,228 | . | 523,228 | 523,228 |
| Normalized BIC | 10,074 | . | 10,074 | 10,074 |

*Source: data processed use SPSS*

Based on the analysis conducted, the R-Squared value of 0.70 means 70% is included in the strong category, then the *Mean Squared Error (MSE) value* is 1.148. This value indicates that the average squared error in forecasting is 1.14 % . *Mean Absolute*

*Percentage Error (MAPE)* is 32,332 This value means that the level of error in forecasting is 32.33 % <50%. which means that the forecasting ability is decent/adequate, in other words, the forecasting results have an average squared error of 1.14% and an error rate of 32.33%. These values can be used to evaluate the accuracy of the forecasting model that has been applied.

**Forecast Prediction .**

Forecast Prediction After analyzing the table above using SPSS, the inflation forecast for the following month is obtained. The results of the inflation forecast or prediction are obtained based on the output calculations from SPSS. Based on the calculations inflation on got it MAPE value 32.33 %. Thus the inflation forecast for the future is as follows:
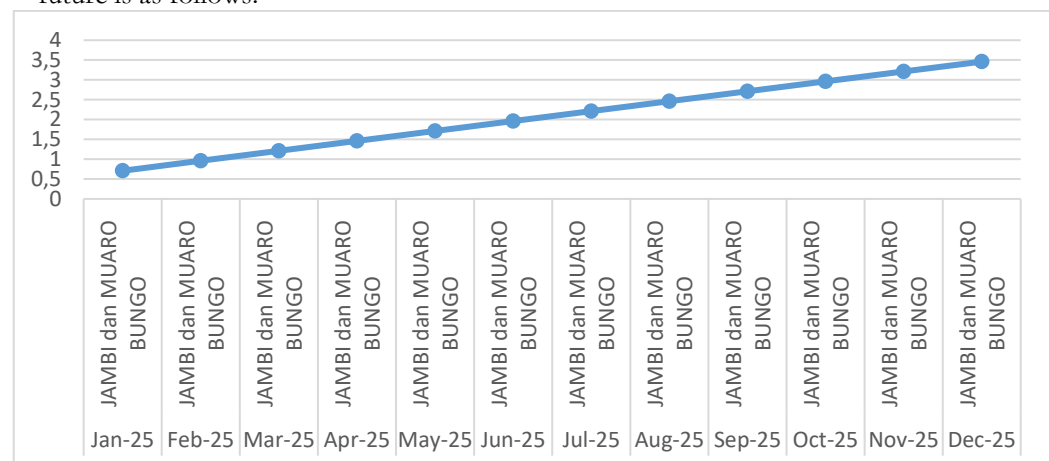


**Figure 1 Inflation Forecasting**

From the image above, it can be seen that the results of the combined inflation forecast in the two cities of Jambi and Estuary Flower  that in January by 0.71% percent, February by 0.96%, March, 1.21%, April by 1.46%, May, 1.71%, June 1.96%, July by 2.21%, August 2.46%, September by 2.71%, October by 2.96%, November by 3.21%, and in December by 3.46%. From the forecast results it can be seen that the combined inflation in the two cities of Jambi and Estuary Flower experience monthly increase on 2025

## 4.  CONCLUSION AND SUGGESTION

**Conclusion**

The commodity prices that have a positive effect on inflation in Jambi Province are: Rice Price, Red Chili Price, Rawit Chili Price and Broiler Chicken Price. Meanwhile, Red Onion Price has no effect on inflation in Jambi Province. Inflation prediction using exponential smoothing within 1 year forward Inflation in Jambi Province has increased.

**Suggestion**

Strengthening more targeted food price control policies. The Jambi Provincial Government needs to work together with the central government to develop policies that can stabilize food prices, such as regulating strategic food stocks and providing subsidies for farmers in terms of agricultural raw materials that support food production. This policy will help maintain adequate supplies and affordable food prices for the community. In addition, it is also necessary to implement more effective social protection programs for the poor, such as providing food assistance or direct subsidies for affected families inflation food . These programs can reduce the negative impact of inflation on people's purchasing power to achieve the goal of more equitable welfare in Jambi Province.

This method can be utilized by the community, especially the government. government Provision Jambi For become reference in forecasting inflation on period in the future , so that government can make the right policy in controlling inflation in Jambi Province according to the forecast made. In addition , it is recommended for researchers to try other forecasting methods, in order to see a better picture of inflation and forecast accuracy.

## REFERENCES

[1] F. Abidin and L. F. Prastiwi, "Measuring the Contribution of Strategic Commodities to Persistent Inflation; An Effort to Stabilize the Economy," *EcceS (Economics Social and Development Studies)*, vol. 10, no. 1, pp. 48–68, 2023. [Online]. Available: https://doi.org/10.24252/ecc.v10i1.37856

[2] F. Adikusuma, Ernawati, and M. Yanita, "Analisis Pergerakan Harga Cabai Merah di Provinsi Jambi," *Agribusiness and Local Wisdom*, vol. 5, no. 2, pp. 49–53, 2022. [Online]. Available: https://hargapangan.id/

[3] A. S. Ahmar, F. Fitmayanti, and R. Ruliana, "Modeling of inflation cases in South Sulawesi Province using single exponential smoothing and double exponential smoothing methods," *Quality and Quantity*, vol. 56, no. 1, pp. 227–237, 2022. [Online]. Available: https://doi.org/10.1007/s11135-021-01132-8

[4] C. J. Anwar, I. Suhendra, A. Srimulyani, V. M. Zahara, R. A. F. Ginanjar, and S. C. Suci, "Food Price and Inflation Volatilities during Covid-19 Period: Empirical Study of a Region in Indonesia," *WSEAS Transactions on Business and Economics*, vol. 20, pp. 1839–1848, 2023. [Online]. Available: https://doi.org/10.37394/23207.2023.20.161

[5] A. E. Armi, A. H. Kridalaksana, and Z. Arifin, "Peramalan Angka Inflasi Kota Samarinda Menggunakan Metode Double Exponential Smoothing (Studi Kasus: Badan Pusat Statistik Kota Samarinda)," *Informatika Mulawarman: Jurnal Ilmiah Ilmu Komputer*, vol. 14, no. 1, p. 21, 2019. [Online]. Available: https://doi.org/10.30872/jim.v14i1.1252

[6] K. Artika, M. Firdaus, and T. Irawan, "Volatility and Transmission of Shallot Commodity Prices in Indonesia," *International Journal of Scientific Research in Science, Engineering and Technology*, vol. 6, no. 5, pp. 50–61, 2019. [Online]. Available: https://doi.org/10.32628/ijsrset19657

[7] A. Bhinadi, "Struktur Pasar, Distribusi, Dan Pembentukan Harga Beras," *Jurnal Ekonomi Dan Studi Pembangunan*, vol. 13, no. 1, pp. 24–32, 2012. [Online]. Available: https://journal.umy.ac.id/index.php/esp/article/view/1256

[8] R. Biri, Y. A. R. Langi, and M. S. Paendong, "Penggunaan Metode Smoothing Eksponensial Dalam Meramal...," *Jurnal Ilmiah Sains*, vol. 13, no. 1, pp. 68–73, 2013. [Online]. Available: https://ejournal.unsrat.ac.id/index.php/JIS/article/view/2035

[9] L. Caroline, *Analysis of Food Inflation in Java and Sumatra Islands*, pp. 117–129, 2021.

[10] R. A. Chintia and R. Destiningsih, "Pengaruh Harga Komoditas Pangan Terhadap Inflasi Di Kota Semarang," *Jurnal Ilmiah Ekonomi Bisnis*, vol. 27, no. 2, pp. 244–258, 2022. [Online]. Available: https://doi.org/10.35760/eb.2022.v27i2.4948

[11] R. N. Dubey, R. Sathish, and D. Dasgupta, "Domestic Wheat Price Formation and Food Inflation in India," *MPRA*, no. 31564, 2011.

[12] D. R. P. Sari, "Penerapan Metode Double Exponential Smoothing Pada Data Inflasi Bulanan Tahun 2021," *Jurnal MSA*, vol. 10, no. 2, pp. 26–31, 2022. [Online]. Available: https://doi.org/10.24252/msa.v10i2.27272

[13] *Pengantar Teori Ekonomi Mikro*, Bagian Pertama, 1998, pp. 1–405.

[14] F.A.O., *The 2007–2008 food price episode: Impact and policies in Eastern and Southern Africa*, Food and Agriculture Organization of the United Nations, Aug. 2009. [Online]. Available: http://www.fao.org/3/a-i0984e.pdf

[15] E. Febriyana, "Jurnal Paradigma Multidisipliner (JPM)," *Paradigma Multidisipliner*, vol. 1, no. 1, pp. 1–12, 2020. [Online]. Available: http://smkn1magelang.sch.id/jpm/index.php/jpm/article/view/1/1

[16] Feryanto, Harianto, and Herawati, "Retail trader pricing behavior in the traditional rice market: A micro view for curbing inflation," *Cogent Economics and Finance*, vol. 11, no. 1, 2023. [Online]. Available: https://doi.org/10.1080/23322039.2023.2216036

[17] J. Friedman, S. Y. Hong, and X. Hou, "The Impact of the Food Price Crisis on Consumption and Caloric Availability in Pakistan: Evidence from Repeated Cross-Sectional and Panel Data," *Health, Nutrition and Population (HNP) Discussion Paper*, Nov. 2011.

[18] V. P. Gandhi, "Indian agriculture at a critical crossroad: Change and transformation needed for a brighter future," *Indian Journal of Agricultural Economics*, vol. 76, no. 1, pp. 12–77, 2021.

[19] T. M. Hurley, P. G. Pardey, X. Rao, and R. S. Andrade, "Returns to Food and Agricultural R&D Investments Worldwide, 1958–2015," *International Science & Technology Practice & Policy*, Brief, Aug. 2016, pp. 1–11. [Online]. Available: https://ageconsearch.umn.edu/record/249356/files/InSTePPBriefAug2016.pdf

[20] S. Kasus and K. Bandung, "Vol.17 No. 2," vol. 17, no. 2, pp. 111–120. [n.d.]

[21] L. Kornher and M. Kalkuhl, "Food price volatility in developing countries and its determinants," in *Proc. 53rd Annual Conference*, Berlin, Germany, 2013.

[22] A. Kusmutiarani, "The Impact of Three-Main Volatile Food Commodities To the...," vol. 2, pp. 364–377, 2018.

[23] J. K. M. Kuwornu, A. Mensah-Bonsu, H. Ibrahim, and A. Mensah-Bonsu, "Analysis of foodstuff price volatility in Ghana: implications for food security," *European Journal of Business and Management*, vol. 3, no. 4, pp. 100–118, 2011.

[24] M. Mahmudi, R. Irwandi, R. Rahmadaini, and R. Fadhilah, "Meramalkan Laju Inflasi Menggunakan Metode Pemulusan Eksponensial Ganda," *Journal of Data Analysis*, vol. 1, no. 1, pp. 12–20, 2018. [Online]. Available: https://doi.org/10.24815/jda.v1i1.11863

[25] I. C. Mardiyanto and P. K. Prasetyanto, "Pengaruh Harga Tanaman Pangan Terhadap Inflasi Di Kabupaten Kendal," *Transekonomika: Akuntansi, Bisnis Dan Keuangan*, vol. 3, no. 1, pp. 98–109, 2023. [Online]. Available: https://doi.org/10.55047/transekonomika.v3i1.346

[26] H. Margareth, "No Title طرق تدريس اللغة العربية," *Экономика Региона*, vol. 32, 2017.

[27] B. Marpaung, H. Siregar, and L. Anggraeni, "Analysis of El Niño Impact and the Price of Food Commodities on Inflation," *Jurnal Ekonomi Indonesia*, vol. 8, no. 1, pp. 21–35, 2019. [Online]. Available: https://doi.org/10.52813/jei.v8i1.11

[28] D. Novita, R. Nurmalina, N. Nuryantoro, and W. Java, "The Effect of Rice Price on the Indonesian Inflation in a New," Jun. 2024, pp. 621–636.

[29] N. A. Sudibyo, A. Iswardani, A. W. Septyanto, and T. G. Wicaksono, "Prediksi Inflasi Di Indonesia Menggunakan Metode Moving Average, Single Exponential Smoothing Dan Double Exponential Smoothing," *Jurnal Lebesgue: Jurnal Ilmiah Pendidikan Matematika, Matematika Dan Statistika*, vol. 1, no. 2, pp. 123–129, 2020. [Online]. Available: https://doi.org/10.46306/lb.v1i2.25

[30] F. Permatacita and D. Suwardi, "Analisis Sistem Distribusi Komoditi Strategis di Kota Mataram," *JIIP - Jurnal Ilmiah Ilmu Pendidikan*, vol. 5, no. 11, pp. 5097–5105, 2022. [Online]. Available: https://doi.org/10.54371/jiip.v5i11.1154