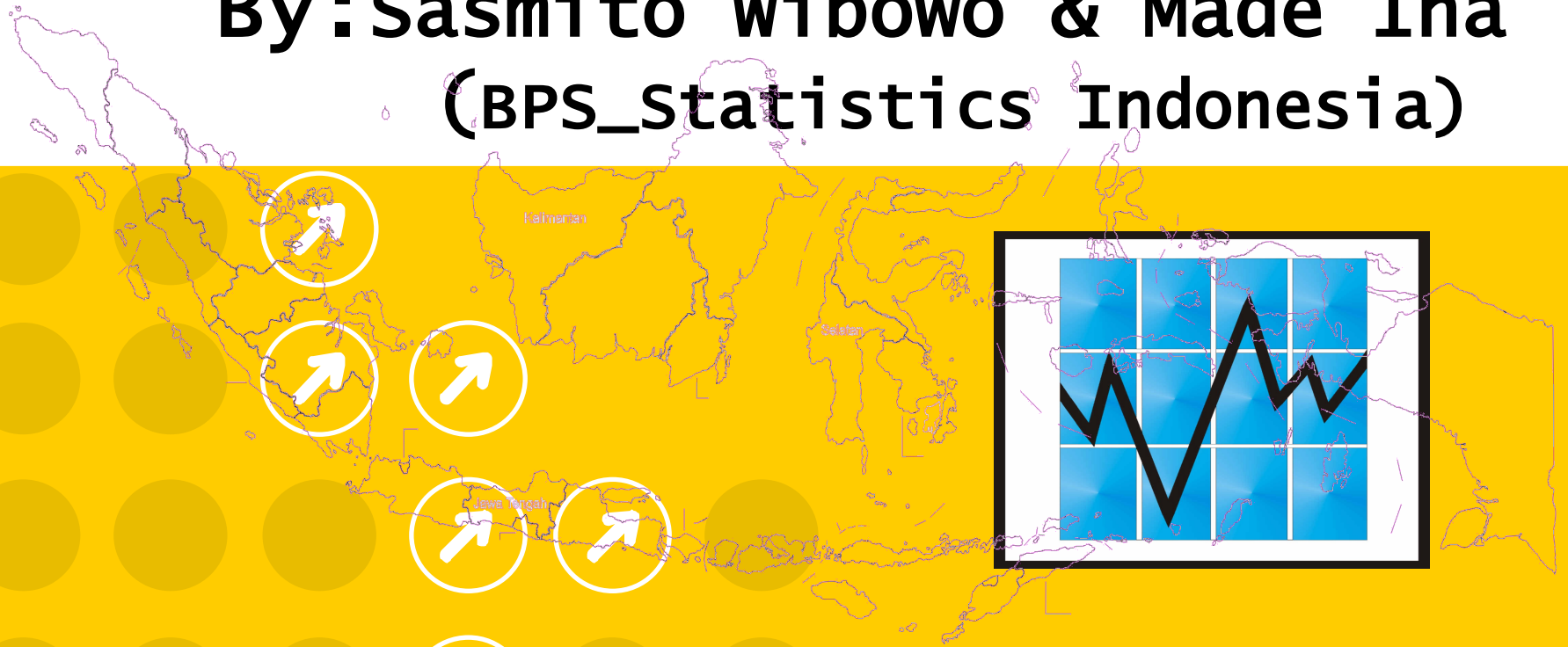




SOME FLASH INDICATORS FOR INFLATION IN INDONESIA

By: Sasmito Wibowo & Made Ina
(BPS_Statistics Indonesia)



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A. Flash Indicator of Inflation is Important

- * The President, MOF, Governor of Central Bank, businessmen, and society need early indicator of inflation to prepare their responses to the announcement of monthly final inflation.
- * BPS_Statistics Indonesia develops three systems of flash indicators for inflation.
- * This presentation compares those flash indicators



A. Three Flash Indicators of Inflation

- * The first two week consumer price data in 23 cities out of 66 CPI cities = preliminary inflation
- * The weekly prices of 17 basic commodities in 6 major cities = 17 basic commodities
- * The second week prices of 2 basic commodities which have highest correlation with inflation = 2 basic commodities



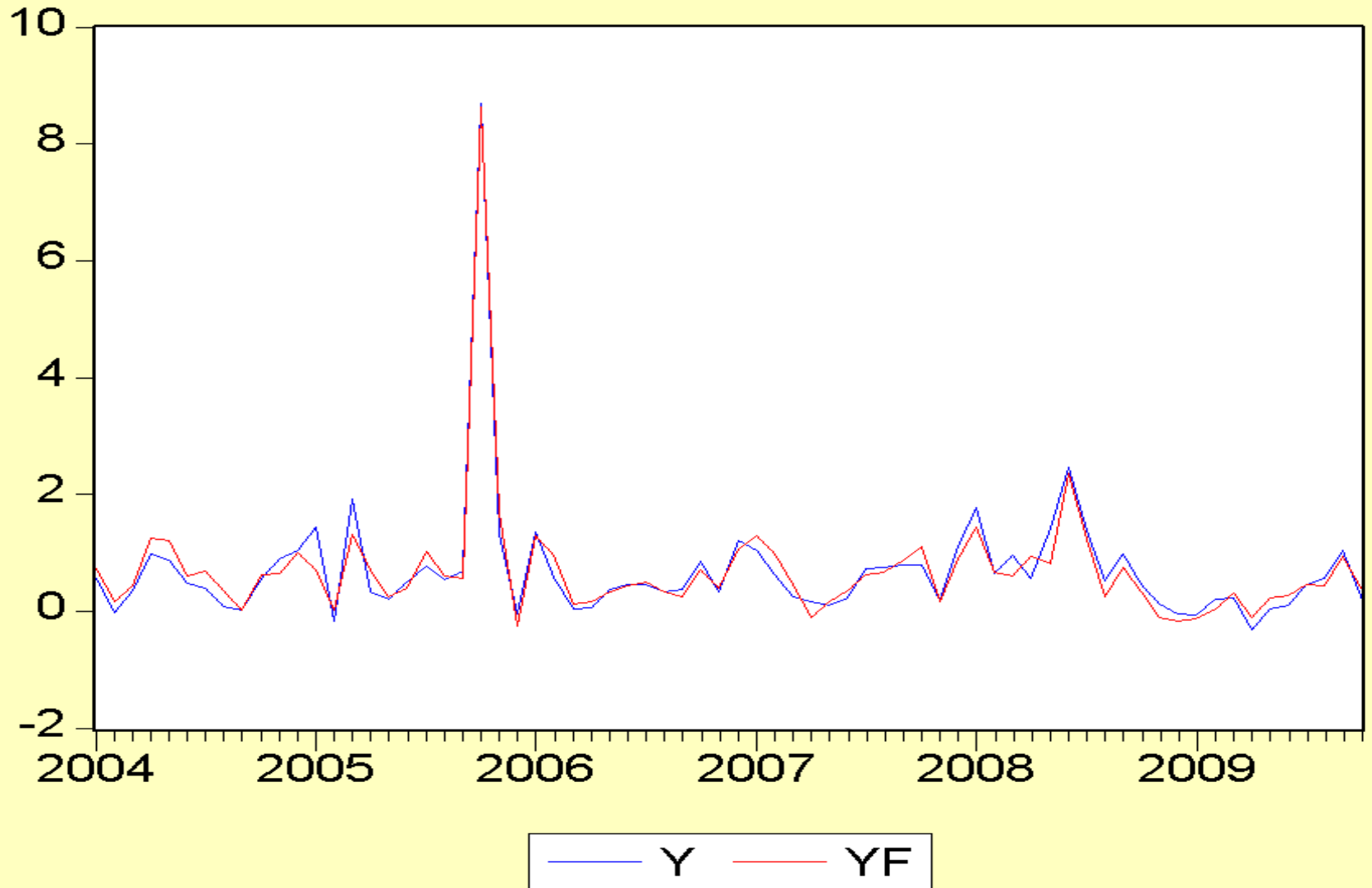
A. Preliminary Inflation

Based on the first two week consumer price data collection, BPS routinely and internally process the preliminary inflation since January 2004 through October 2009, then develop the following regression model:

$$\text{Final Inflation (} \hat{Y} \text{)} = 0.19 + 1.30 * (\text{Preliminary Inflation (YF)})$$



Graph 1. Actual Inflation (Y) and Forecast Preliminary Inflation (YF)





B. 17 Basic Commodities

By compounding the changes of prices of 17 basic commodities in 6 major cities until the 2nd week of the particular month during October 2007 through November 2009, the regression model as follows:

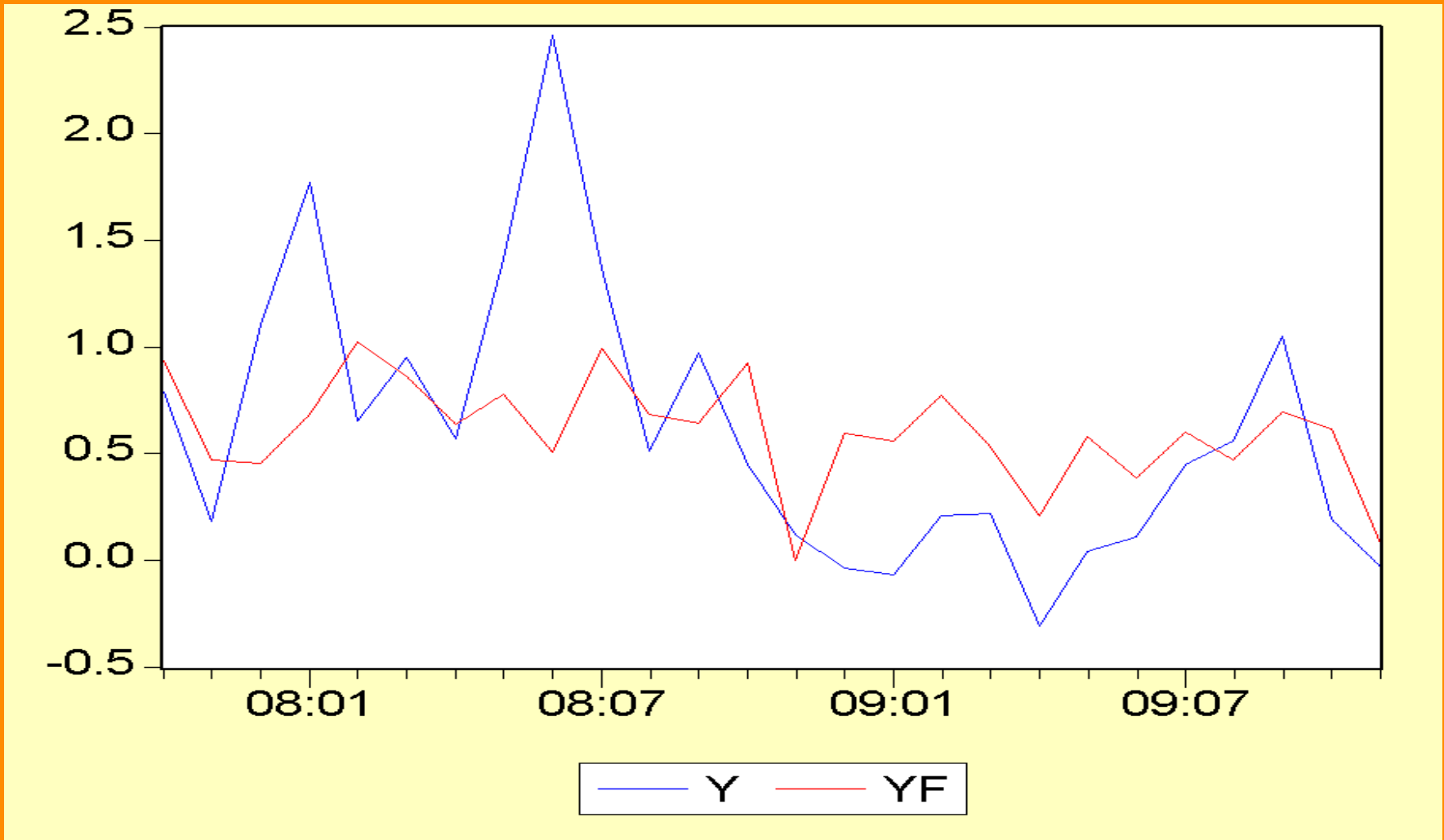
$$\text{Final Inflation}(\hat{Y}) = 0.49 + 0.21 (\text{17 Basic Commodity Inflation})$$

Note:

Basic Commodity inflation is the weighted average of price changes of 17 basic commodities (rice, chicken, beef, milk, cooking oil, sugar, flour, small chili, red chili, kerosene, onion, tempe, tofu, soy bean, chicken egg, milk fish, and kembung fish) in the 2nd week of the particular month in 6 major cities (Medan, Jakarta, Bandung, Surabaya, Makasar, and Pontianak). A particular commodity inflation is generated from comparing the price at the 1st two weeks with the average price of the previous month.



Graph 2. Actual Inflation (Y) and Forecast basic Commodity Inflation (YF2)





C. 2 Basic Commodity Inflation

There were 10 basic commodities which their weekly prices were completely collected during October 2007 through November 2009. Their correlation coefficients with head inflation were as follows:

No	Commodities	Corelation with final Inflation
1	Flour	0.1225
2	Milk	0.1596
3	Beef	0.2658
4	Small Chilli	-0.1023
5	Kerosene	0.5319
6	Cooking Oil	0.07931
7	Red Chilli	-0.1241
8	Sugar	-0.0577
9	Rice	0.5123
10	Chicken	0.2346

It was found that the price changes of rice and kerosene have highest correlations with headline inflation. Hence, we develop the 3rd model, called 2 basic commodity inflation as follows:

$$\text{Final Inflation}(\hat{Y}) = 0.47 + 0.28 (\text{Rice Inflation}) + 0.03 (\text{Kerosene Inflation})$$



Graph3. Actual Inflation(Y) and Forecast 2 Basic Commodity Inflation(YF3)

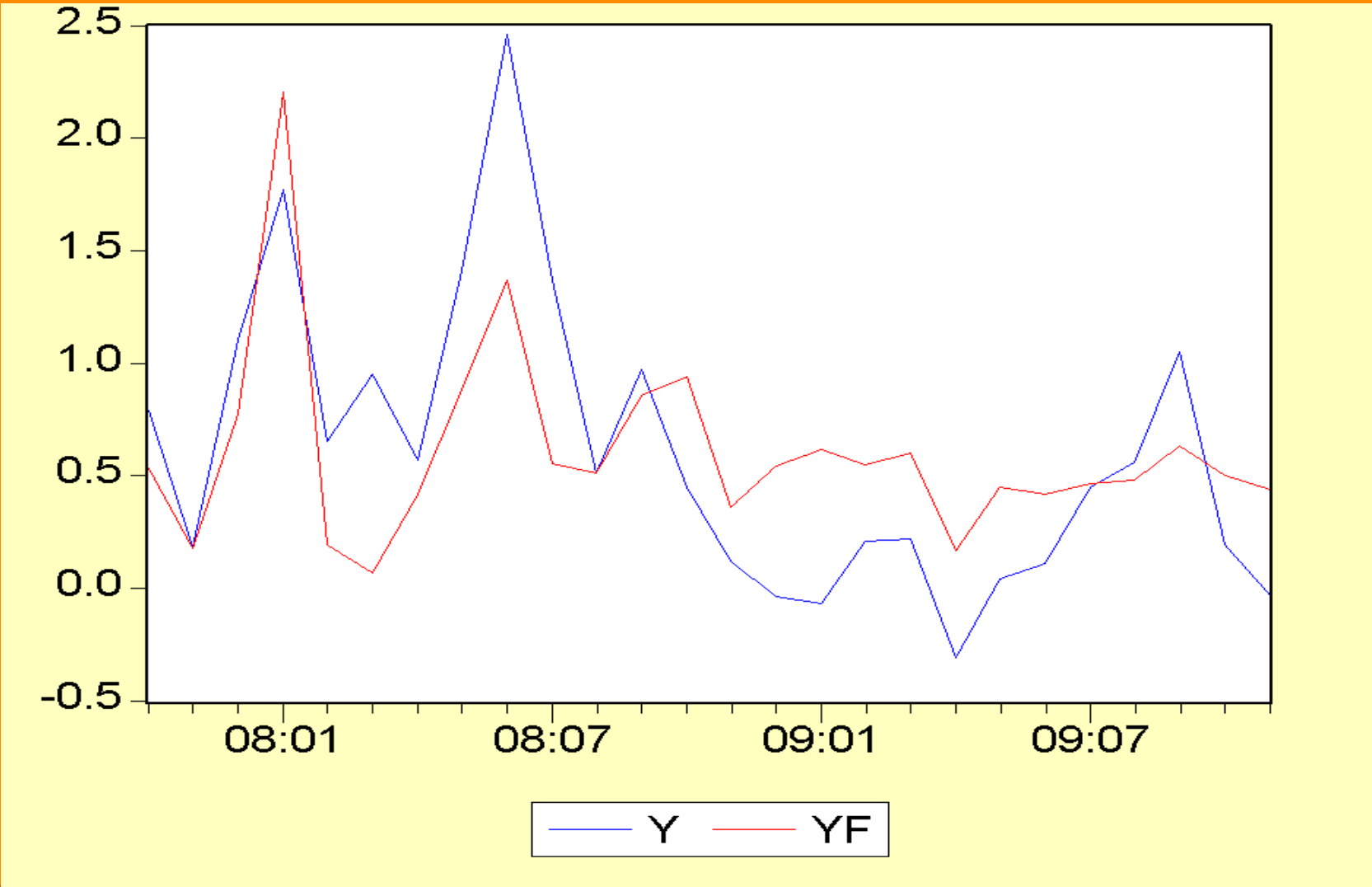




Table. Flash Inflation Model

Summary

No	Model	R-Square	Durbin-Watson stat	Prob (F -stat)	Sample	RMSE
1	Final Inflation(\hat{Y}) = 0.19 + 1.30 (Prelim Inflation)	0.9555	2.0380	0.0000***	70	0.4562
2	Final Inflation(\hat{Y}) = 0.49 + 0.21 (17 commodity inflation)	0.1548	1.2887	0.0467**	26	0.5812
3	Final Inflation(\hat{Y}) = 0.47 + 0.28 (Rice) + 0.03 (Kerosene)	0.4344	0.8430	0.0014***	26	0.4754

**) CI 99%

*) CI 95%



Conclusion

1. The preliminary Inflation is the best predictor for the Indonesian Final Inflation Rate (It has the smallest *Root Means Square Error*)
2. All 3 models have the same movements as the actual inflation; but model 2 and 3 have high autocorrelation, probably due to limited length of observations and lower correlation to final inflation
3. The changes of prices of rice and kerosene could be used as the second option for predicting the current monthly inflation.

DATA

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