Determination of Food Price Increase in Indonesia: RICE, FOOD, SOY Period 2007 - 2017

Elpina Idola Malau Post Graduated of Economic Universitas Negeri Medan

Keywords: High food price, Inflation specific, Macroeconomic

Abstract: The purpose of study to analyze the effect of broad money (m2), narrow money (m1), exchange rate, amount of rice and soybean production, rainfall and the maximum temperature on the high food prices in Indonesia for the period 2007-2017. The study used multiple linear regressions, to examine the study hypothesis. The empirical analysis show that broad money (m2) narrow money (m1), amount of rice and soybean production, rainfall and the maximum temperature significant and positively affects on the high food prices in Indonesia and exchange rate significant and negative affected on the high food prices in Indonesia, particularly rice and soybean. This study also found that narrow money (m1) had the most dominant influence on high food price in Indonesia. caused look at the society of velocity of money fast, that is trough economy and business transaction, that impact on the high food prices in Indonesia.

1 INTRODUCTION

The issue of rising food prices is one of the severe problems that Indonesia always experiences every year, this is very burdensome, especially for middleincome and lower income communities, starting with the rising prices of foodstuffs such as rice, soybeans, corn, and other foodstuffs. already and almost reached 100% increase.

Hariharan and Kumar (2012) state that the increase in food prices is caused by several factors, namely a shift in population and a shift in habits to food consumption, an increase in fertilizer prices, an increase in fuel prices which are key to of transportation agricultural commodities (distribution. production, food commodities). demand-side pressures, natural factors such as rainfall, hurricanes, floods, droughts, pests and diseases, resulted in a decline in agricultural productivity, which led to an increase in food prices.

Looking at the form of consumption patterns of the Indonesian people, average public expenditure on food each year ranges from more than 50%, meaning that public expenditures are very high, the high form of expenditure (demand) that is not balanced with the offer will cause a problem that is scarcity which ultimately results in an increase in food prices. One of the factors underlying the high level of consumption patterns (public expenditure) is the amount of money circulating, Irvin Fisher (1987) states that with the increasing level of circulation of money will have an impact on the increasing form of consumption patterns of the community.



Source: The central statistics agency (in though, 2017)

Figure 1: Indicators of Indonesian Community Expenditure on food and the amount of rice and soybean production in the last eleven years

The annual inequality between public expenditure and the amount of food production which will later reflect supply, this will directly

Malau, E.

Determination of Food Price Increase in Indonesia: RICE, FOOD, SOY Period 2007 - 2017.

DOI: 10.5220/0009509108510859

In Proceedings of the 1st Unimed International Conference on Economics Education and Social Science (UNICEES 2018), pages 851-859 ISBN: 978-989-758-432-9

Copyright © 2020 by SCITEPRESS - Science and Technology Publications, Lda. All rights reserved

cause problems in macro and micro, these problems include not fulfilling the demand for food needed by the community, the increasing form of imports made will be at risk of being negatively affected by the international economy due to the depreciation of the rupiah exchange rate which has made the price of imported food to rise and has an impact on fluctuations (changes) in local food prices, and will not achieve equilibrium conditions for the economy, because every year there is always an imbalance between supply and demand this ultimately led to an increase in food prices and a negative impact on the country's economy.



Source: BPS (2007 – 2017), processed. Figure 2: Graph of percentage increase in food prices (panangan rice, soybean, corn and other whole food ingredients)

Besides the influence of weather is also very influential on rising food prices, Lazzaroni (2012) states that weather changes have an impact on economic activities in various sectors, but the agricultural sector becomes the most influential, because the agricultural sector has the most vital relationship with the weather, due to growing food growth in addition to being supported by care and fertilizer, it must be supported by normal weather conditions, besides the smoothness of the form of food distribution is also determined by the weather.

In view of the increase in food prices in Indonesia every year, an evaluation of the problems that have been drawn based on reality and existing data is about increasing food prices, it is important to note and furthermore, an analysis of important food price increases, as for factors which affects the increase in food prices including the amount of money in circulation (m2) and narrow (m1), the rate of exchange (exchange rate), the amount of food production of rice and soybeans, weather (rainfall and maximum temperature). The variable variable is the parts that most influence the increase in food prices in Indonesia, this study aims to analyze the effect of rising food prices in Indonesia especially in rice and soybean foods.

2 LITERATURE REVIEW

Food Definition

Food is a commodity that is a basic human need for food does not mean economically strategic, but also means as a form of community needs, which is categorized as food generally contains carbohydrates which function as main calories, and can be used for other needs such as processed raw materials based on the benefits obtained to produce the needs needed, which are included to. foodstuffs such as grains, tubers and stems of palms, soybeans, maize and non-carbohydrate foods such as onions, red chili which is the biggest need which is very important for most of the population (Hasan, 1998).

Increase in Food Prices

The increase in food prices can be interpreted as an increase in the price of one or more food commodities, these food commodities consist of rice, corn, soybeans, green beans, peanuts, sweet potatoes, cassava, chili and onions. The price increase is called volatile good (the tendency of changes in the value of goods), an increase in food prices is one of them based on factors increasing demand for food that is not balanced with food productivity (Central statistical agency, 2013).

The factors that cause increases in food prices according to Hariharan and Kumar (2012) are:

- 1. Continued increase in population and shifting habits of food consumption.
- 2. The increase in prices of other inputs such as fertilizers, seeds, etc. in recent times has caused inflation.
- 3. Continuous increase in fuel prices, which is a key input for transportation of commodity agriculture for central processing or consumption, so, prices Crude oil affects input costs and causes inflation to a large extent.
- 4. Natural factors such as rainfall, hurricanes, floods, droughts, pests and diseases result in decreased production and productivity of agricultural production in many countries
- 5. Increasing people's purchasing power is one of the main factors of inflation.
- 6. The increase in minimum support for food prices has caused inflation.

Money supply and rising food prices

In the quantity theory of money explained because the emergence of price increases is due to the excessive form of demand caused by changes in the money supply (Nopirin, 2000), according to Irving fisher, the effect of the money supply on price changes is formulated through MV = PT, namely M (money) = money supply, V (Velocity) = velocity of money circulation, P (Price) = price of goods, T (Trade) = Number of goods traded, according to Fisher the price of goods is influenced by the money supply due to purchasing power owned by the community it causes high consumption power owned by the community so that the consumption cycle owned by the community stimulates the flow of goods from producers to consumers. And according to Mankiw (2003) that the relationship between the money supply and the price increase cannot be done if it is only seen in the short term, but it must be seen in the long term in order to get good results and significant results. the relationship between the money supply and the price increase cannot be seen in the short term, therefore in explaining the relationship between the increase in prices and the money supply it will not be as tight as if it was seen over a ten year period friedman and Schwartz (1987).

Exchange Rate (Exchange Rate) and Increase in Food Prices

According to Cassel (1918) the exchange rate between the two countries should be equal to the price level of the country's ratio, the fall in the form of domestic purchasing power of a domestic currency will directly be followed by a depreciation in the country's currency against domestic money market but if it happens otherwise the domestic purchasing power becomes increased it will cause deflation which is directly followed by a form of appreciation in the currency, this theory is the theory that is most often tested for validity because there is a form of comparison that sees the form of power capability buy high which causes inflation / price increases (Cassel, 1918). According to Bob (2002) Purchasing Power Parity Theory is a theory that states that the exchange rate between money tends to lead to an equilibrium condition, purchasing power should be a society equivalent to the purchasing power of people in other countries. The occurrence of price increases, can be seen through the decline in the exchange rate of the rupiah against the value of foreign currencies because the depreciation of the exchange rate will cause an increase in the price of imported goods, this directly affects the fluctuations in domestic prices.

Total Food Production (rice and soybeans) and Increase in Food Prices

The reduced availability of food will have an impact on the reduction in basic needs needed by the community, this will lead to a form of food crisis, food availability involves three aspects, namely production. distribution, consumption, food availability supported by actors such as producers, processors (suryanan, 2004) The form of imbalance between the amount of production (reflection of supply) and demand will cause changes in the value of elasticity, as well as the result of demand and supply that will cause price fluctuations (Nicholson, 2000). The form of production, trade and consumption of food will affect fluctuations in food prices (changes in food prices) due to forms of processing that require costs and forms of demand and supply that make food prices rise and fall, therefore maintaining stability will cause a price balance (Ellis, 1992).

Weather (rainfall and maximum temperature) and increase in Food Price Increase

According to Gilbert and Morgan (2010, in Alisher and Daniel 2012) Weather change is considered as one source of variability in the prices of agricultural commodities. Trovero and Von Braun (2008 in Lazzorini 2012) mention weather changes can cause a form of potential, such as floods, droughts which ultimately damage food crops and hamper the form of food distribution, which in turn has an impact on rising prices of food commodities Trovero and Von Braun (2008 in lazzorini 2012 According to Banumurty, PamiDua and Lokendra (2012) the impact of weather is very influential on macroeconomic policies because weather is a fundamental factor that affects the positive and negative significance of the results of the agricultural sector, and the impact of climate change directly has a very negative impact on price increases and production growth food. food price increases can be caused by weather because the weather influences the shape of the crop, and the form of crop failure, besides the weather also causes disruption of the form of distribution patterns such as the occurrence of landslides causing obstruction of the distribution, resulting in scarcity of food commodities in the end it caused a tendency to increase food prices, due to problems in the form of distribution patterns

Previous research

Previous research was conducted by Salman and Adnan 2013, which is about the Determinants of High Food Prices of the Case of Pakistan wherein this research examines the factors that cause food price increases in Pakistan, which are seen through the consumer price index, GDP, and agricultural sector loans. The results of this study explain that the variables that become the object of research, one of which is the agricultural sector credit has the most significant influence among other variables on changes and increases in food prices, seen through the method of autoregresive distributed lag analysis by comparing the total value of the past agricultural credit sector and value the present as a result, credit obtained from the agricultural sector has a significant effect on changes and the occurrence of food inflation

Previous research was carried out by Aviral Kumar 2010, which discusses the Impact of Supply of Money on Food Prices in India: A Causality Analysis, in this study using Vector error correction model (VECM) analysis method to determine the causality between variables, variables that used in this study is the money supply in area (M2) and the money supply in narrow measure (M1). the results of this study explain that the size of the money supply in a narrow measure (M1) significantly causes food inflation while the broad amount of money supply does not affect food inflation because in the analysis framework it is found that changes in the money supply are wide (M2) it will only have a significant impact on food inflation in just three years.

The next study was conducted by Alisher and Daniel 2012, in his discussion discussing Effects of weather shocks on agricultural commodity prices in Central Asia, in this study using the Feasible Generalized Least Squares (FGLS) analysis of panel regression, this study uses several variables consisting of price local local wheat and prices of fried potatoes, global wheat prices and global potato prices, exchange rates, inflation rates, water irrigation, weather changes, potato stocks. wheat stock, the amount of wheat and potato production, The results of this study show that weather changes and water availability have a significant effect on the prices of wheat and potatoes in central Asia, whereas in potato commodities the effect is more apparent in the amount of yield obtained from potato production.



In this study using several determinants in assessing the form of increase in food prices in

RESEARCH METHOD

3

assessing the form of increase in food prices is the amount of money that varies widely (m2) and narrow (m1), the exchange rate, the amount of rice and soybean food production, rainfall, and maximum temperature. All observations of the data amounted to 132 observations. To analyze the effect of factors increasing food prices, multiple linear regression was used and using the classic assumption test it aims to determine the effect of independent variables on dependent. The time period in this study was from 2007-2017

The regression equation is described as follows:

 $Y = \beta 0 + \beta 1 X1 + \beta 2 X2 + \beta 3 X3 + \beta 4 X4 + et.$

Information :

Y = Increase in food prices (food inflation)

 $\beta 0 = Constants$

 β 1, β 2 = Regression Coefficient

X1 and X2 = The money supply area of M2 and the money supply is narrow (M1)

X3 = Exchange rate

X4 and X5 = Amount of rice production and total soybean production

X6 and X7 = Rainfall and Maximum Temperature (Rainy and hot weather) Det = error

Data source

The data used in this study was obtained online or through official institutions / agencies. Data from the determinants of rising food prices were obtained from the Central Statistics Agency Bank. Meteorology Climatology and Geophysics Council. In addition, data also used from journals, books, articles, and other relevant sources used in this study.

4 RESULT

For estimation of multiple linear regression in this study, the aim is to find out whether the independent variable has a positive or negative influence and is significant to the increase in food prices in Indonesia, these results are shown by the form of coefficients (positive) and probability values < 0.05

to find out the results have a significant effect or not, and see the results of the R2 value which shows how much influence the independent variable on the dependent variable, these results are obtained based on the following results:

Dependent Variable:Y					
Variable	Coefficient	Std.Error	t-Statistic	Prob	
C	-97.21513	8.355733	-11.63454	0.0000	
X1	1.380341	0.596226	2.315132	0.0222	
X2	5.126113	0.546585	9.378443	0.0000	
X3	-0.778071	0.250492	-3.106167	0.0023	
X4	3.964014	1.141838	3.471609	0.0007	
X5	4.080209	1.152318	3.540870	0.0006	
X6	4.118688	1.405513	2.930380	0.0040	
X7	0.050615	0.023266	2.175481	0.0315	
R-square: 0.931469		F statistic: 240.7703			
Observasion: 132		Prob (F	Prob (F statistic): 0,0000		

T 11 1	D 1.	0	1. 1	1.	•
Table 1	Reculte	ot i	multinle	linear	regression
	results	UI.	munpic	moar	regression

Source: Data processed Eviews 7, 2014

The coefficient of determination (R-Squared) shows a number of 0.931469, meaning that the variable money supply area (m2) and narrow (m1), exchange rate (exchange rate), amount of food production of rice, soybean, rainfall and maximum temperature can explain 93% variable variation in food price increases in Indonesia, while the rest (7%) can be explained by other variables outside the model. The F-test of 0.00000 indicates that the variable amount of food production of rice, soybeans, rainfall and maximum temperature has a significant effect on the variable increase in food prices in Indonesia. In the t test, the value> t table is 1.979 which means that the t statistic is fulfilled and looking at the probability value of the seven variables has a carry value of 0.05 meaning that the variable has a significant influence on the Y variable, it can be concluded from 7 independent variables tested, has a spositive and significant influence on the increase in food prices in Indonesia.

After regression analysis on all variables, both the dependent and independent variables, from the estimation results that have been obtained, it is necessary to do a classic assumption test. Tests to find out whether the estimation model has fulfilled the form of criteria in econometrics means that there are not enough forms of errors based on assumptions that must be fulfilled in the Ordinary Least Square (OLS) method. The result of a good estimate is regression that has met Blue criteria (best linear Unbiased Estimator) (Gujarati, 2002). Table 2: Normality Test

Statistic test	Sig value	Information
Kolmogorov-		
Smirnov Z	0,431	Normal spread

Based on the results of normality testing in the table above, it is known that the residual regression significance value formed is greater than the 5% real level so that it can be said that the assumption of normality is fulfilled.

Table 3: Assumption of Normality				
Independent				
Variabel	Sig.	Information		
X1	0,298	Homoskedastisitas		
X2	0,363	Homoskedastisitas		
X3	0,823	Homoskedastisitas		
X4	0,947	Homoskedastisitas		
X5	0,458	Homoskedastisitas		
X6	0,909	Homoskedastisitas		
X7	0,232	Homoskedastisitas		

Based on the table above, it is known that the sig value. > 0.05, it can be concluded that there is homoskedasticity or in other words the assumption that heteroscedasticity does not occur has been fulfilled statistically.

Table 4: Multicolenearrity test (Variance Inflating Factor VIF)

		Collinearity	
Mode		Statistics	
		Tolerance	VIF
1	(Constant)		
	X1	,175	5,708

X2	,157	6,370
X3	,730	1,370
X4	,562	1,779
X5	,483	2,071
X6	,354	2,828
X7	,282	3,552

Based on the table above, it can be seen that the independent variables in this study have a Variance Inflation Factor smaller than 10, so that it can be said that there are no symptoms of multicollinearity between the independent variables in this study.

Dl	Du	4-du	4-dl	Dw	Interpretation
1,60	1,82	2,17	2,3	1,93	not occur
6	9	2	94	7	
					Autocorrelation

5 DISCUSSION

In general, the regression model used in this study has a good outcome. Free Vaiabel is used, namely the money supply area (m1) and narrow (m2), the exchange rate (exchange rate), the amount of food production of rice, soybeans, rainfall and maximum temperature can

Explain the effect on the increase in food prices with ahigh percentage (93%), Together these variables have a significant effect on the increase in food prices in Indonesia. Individual influences can be explained as follows:

Variablewide money supply (M2) has a Significant influence on rising food prices, the results of the coefficients obtained in this variable are positive, this indicates, that the existence of a positive direction means that an increase in the money supply will affect the increase in food prices. The value of the regression coefficient obtained is 1.380341 it shows, if there is a form of increase experienced by the money supply of 1% or one unit directly causing an increase in food prices by 1.38% with the form of asusmi other variables remain and there is no change. The results obtained based on this regression analysis are in accordance with the theory put forward by Irvin Fisher who explained that the higher level of money circulation would lead to the high purchasing power of the community. And the results obtained are also the same as stated by Nophirin, according to him in the theory of money

complexity that because of the rise in price, the excess form of demand owned by the community is a form of high demand due to the money supply.

Narrow money supply (M1)

Based on the results of the t test, the results show that the variable money supply narrow M1 has the most dominant, significant and positive influence on the increase in food prices, the result of which the coefficient obtained is positive, this indicates that there is a positive direction affect the increase in food prices and vice versa. The coefficient of the narrow money supply variable is 5.126113, it shows that there is an increase in the money supply amounting to 1% which will cause an increase in food prices which is equal to 5.12%, with the form of other variables remaining fixed or no changes to other variables (constant). The results of the analysis obtained are in accordance with the theoretical form proposed by Mankiw (2000) that a high price increase will occur if the existence of a high level of circulation in the amount of money circulating directly will cause a boost in public consumption. The increase in money distribution both narrowly and broadly will cause a high form of public consumption power, based on the manki theory, an increase in the money supply causes a form of positive increase in consumption which will gradually lead to increases in food prices (Mankiw, 2000)

From the results of the t test that has been done, it is found that the variable rate of exchange / exchange rate has a significant influence on the increase in food prices (food inflation) Indonesia. The coefficient obtained in this variable is negative, meaning that the increase experienced by the exchange rate / exchange rate causes a decrease in the increase in food prices, and vice versa the occurrence of depreciation (decline) by the exchange rate will cause an increase in food prices. The regression coefficient obtained is - 0.7787071, which shows that the increase in the rate of exchange / value of 1% will cause a decrease in the increase in food prices by -0.77% with the assumption that there is no change in other variables (constant variable) . The results of the analysis obtained in accordance with the form of theory put forward by Cassel (1918) the exchange rate between the two countries should be equal to the price level of the country's ratio, the fall in the form of domestic purchasing power of a domestic currency will directly (increase the inflation rate) followed by deperesiasi form on the country's currency against the domestic money market but if it happens

otherwise domestic purchasing power becomes increased it will cause deflation which is directly followed by a form of appreciation in the currency, this theory is the theory that is most often tested for validity is because there is a form of comparison that looks at the form of high purchasing power that causes inflation / price increases. The same thing was stated by Bob (2002) The occurrence of price increases, can be seen through the decline in the rupiah exchange rate against the value of foreign currencies because the depreciation of the exchange rate will cause an increase in the price of imported goods, this directly affects domestic price fluctuations.

Amount of Rice Production

Based on the results of the t test, it was found that the rice production variable had a significant effect on the increase in food prices in Indonesia. The coefficient of the rice production variable obtained is positive, which means that a decrease in the form of rice production will cause an increase in food prices and conversely the positive increase in the form of rice production will suppress the form of rising food prices. The value obtained from the regression coefficient of rice production is equal to 3.964014, which shows that the increase in rice production which is equal to 1% will cause an increase in food price increases of 3.96% with the assumption that there is no change in other variables (constant variable). The results of the analysis above show that the results are in accordance with the theory explained by Ellis (1992) that the forms of production, trade and consumption of food will affect the fluctuations in the price of goods.

Soybean Production Amount

Based on the results of the t test, the results show that the variable amount of soybean production has a significant effect on the increase in food prices. The coefficient value of the rice production variable obtained is positive, this indicates that if a decrease in soybean production will cause an increase in food prices and vice versa if the increase towards the positive towards soybean production will cause a decrease in the increase in food prices. Regression coefficient value of soybean production obtained is equal to 4.080209. The results show that the increase that occurs in soybean production which is equal to 1% will cause an increase in the increase in food prices by 4.08% assuming no changes occur by other variables (all variables are constant). The results of the analysis obtained show that the results are in accordance with the theory put forward by Ellis

(1992) that the forms of production, trade and consumption of food will affect the fluctuations in the price of goods and according to Suryana (2004) explain that the form of food supply involves three aspects, namely distribution , consumption, availability that is supported by actors who have interests such as producers,

Rainfall

Based on the results of the t test, it was found that the rainfall variable had a significant effect on the increase in food prices. The coefficient of rainfall variables is positive, these results show that positive increases that occur in rainfall will cause an increase in food prices, so the decrease in rainfall will cause a decrease in the increase in food prices. The bulk regression coefficient huja is equal to 4.118688, the results show that the increase that occurred at 1% will cause an increase in the increase in food prices by 4.11% with the assumption that other variables are constant without change. The results of the analysis obtained in accordance with the relevant theory put forward by Gilbert and Morgan (2010) according to him weather changes are considered as one source of variability in the prices of agricultural commodities. The same thing was stated by Trovero and Braun (2008) that changes in weather can cause a form of potential, such as floods, droughts which ultimately damage food crops and hamper the form of food distribution, which in turn has an impact on rising prices of food commodities (Trovero and Von Braun, 2008

Maximum Temperature (Hot Weather)

Based on the results of the t test, the results show that the maximum temperature variable has a significant effect on the increase in food prices. The coefficient value of the rainfall variable is positive. This result shows that the occurrence of a positive increase in maximum temperature causes an increase in food prices and conversely the decrease in maximum temperature will cause a decrease in the increase in food prices. The maximum temperature regression coefficient value is 0.050615, the results show that an increase in the number of 1% will cause an increase in food prices by 0.05%, this applies with the assumption that other variables are constant and do not change.

After performing various tests both on the questionnaire and on the variables; it turns out that this research deserves to be continued by multiple linear analysis. In multiple linear regression test to four independent variable of reliability, competence, credibility and communication have influence to

employee job satisfaction. The effect of these four variables varies greatly. Reliability has the greatest influence; followed by communication, then credibility and competence. The four variables gave effect of 61.0%, meaning 39.0% influence on satisfaction contributed by other variables not included in this research model.Similarly, the correlation of each independent variable with satisfaction indicates that the most dominant and strongest positive correlation is between the variable of reliability and job satisfaction, followed by communication variables with job satisfaction, competence with job satisfaction and lastly between credibility and jobsatisfaction.

In hypothesis test by simultaneous test method (F Test) also called ANOVA, it turns out sig value alpha 0.000 < alpha 5% (0.05). The value of f arithmetic is also greater than f table. This means that four variables together will have a positive and significant impact on jobsatisfaction.In the Partial Test (Test T), it is found that the variable reliability communication significantly affect job and satisfaction, but the credibility and competence variables do not significantly affect job satisfaction. The variable of reliability in the performance appraisal system gives a significant influence in affecting job satisfaction, which means satisfaction and job dissatisfaction of employees influenced by variable reliability.

Based on the background of research that the performance appraisal system has not been able to provide job satisfaction, so the variable reliability is one factor in the performance appraisal system that has not been able to provide job satisfaction. This can be explained through several things, employees feel reward or punishment miss promotion promotion, increase salary levels are often not based on performance appraisal results; so that employees feel the performance appraisal is not done or executed as promised. Or the company is often late in doing performance appraisal which will then slow down the promotion process or a raise.

Communication variables also gained a significant influence in affecting job satisfaction, which means communication in the performance appraisal system is one factor that has not been able to provide job satisfaction. This can be explained by several things; the company has not really explained well the performance appraisal system. The company also rarely discusses the employee's appraisal system that has not been able to provide job satisfaction. This can be explained through several things, employees feel reward or punishment miss promotion promotion, increase salary levels are often not based on performance appraisal results; so that employees feel the performance appraisal is not done or executed as promised. Or the company is often late in doing performance appraisal which will then slow down the promotion process or a raise.

Communication variables also gained significant influence in affecting job satisfaction, which means communication in the performance appraisal system is one factor that has not been able to provide job satisfaction. This can be explained by several things; the company has not really explained well the performance appraisal system. The company also rarely discusses the employee's next performance plan after the performance appraisal. Employees expect performance planning together with the company. Competence variables, although partially ineffective in affecting job satisfaction but together with other variables have an influence on satisfaction. Officers who carry out assessment in the eyes of employees is quite strong and skilled and have sufficient knowledge; but it is not a major factor that gives a sense of satisfaction. Credibility variables are also partially ineffective in influencing job satisfaction, but together with other variables have an influence on satisfaction. The courteous, honest and respectful examiner is the capital to be an appraiser that pleases employees; but it is not enough if it does not get a reliable and wellunderstood performance appraisal system.

6 CONCLUSIONS

Based on the explanation of the problems, hypotheses, discussion and analysis results in the previous chapter, it can be concluded that the variable money supply, the rate of exchange, the amount of food production, the weather has a positive and significant effect on the increase in food prices in Indonesia.

1. The form of increasing the money supply, besides being influenced by currency held by the public is also influenced by credit, because easily the form of credit or loans obtained directly will cause many people to do a form of credit or loan which in the end, easily obtained and the amount of funds obtained will directly increase people's consumption patterns, this is the same as the theory proposed by Irvin Fisher regarding the effect of the money supply on price increases, therefore the most the basis of influencing the increase in the money supply is the community and the process of credit facilitated by the bank so that there is a tendency for people to make loans so as to increase the form of business activity and the economy of the community.

- 2. The occurrence of depreciation (rate of decline) on the rate of exchange (exchange rate) can be seen from the form of imports of some food commodities that Indonesia does every year, due to the form of structural inequality, namely the productivity gap associated with weak asset allocation and production factors, and forms of dependence on foreign debt which has a negative impact on the economy (the impact of business people who often engage in foreign exchange) and the equilibrium trap phenomenon (trap imbalance) related to the structure between the three production sectors that underlies the economic crisis which ultimately impacts depreciation of the exchange rate (exchange rate) which ultimately causes an increase in prices of imported goods, the amount of food production that is not matched by demand and the demand for imported food every year, without increasing production facing domestic food commodities eventually led to an increase in prices, especially imported food, due to the depreciation of the exchange rate (declining exchange rate) against foreign currencies.
 - The problem of rising food prices caused by weather, because the weather influences the growth and development of food crops, for example, such as rainfall, very high rainfall causes the food crops to be inundated and become damaged, which causes crop failure for food crops so that with yields that are small and high in demand cause an imbalance between supply and demand so that in the end it will lead to a tendency to increase prices, and looking at hot weather (drought) can cause disruption to plant growth due to hot weather affecting drought to food crops so that it ultimately does not the fulfillment of sufficient water for food crops, this is the basis of the occurrence of crop failure caused by hot weather, as well as an explanation of rainfall, crop failure caused by maximum temperature (cu aca heat) will cause a reduced form of production to be obtained so there will be an imbalance between demand and supply which ultimately leads to an increase in food prices.

REFERENCES

- Aviral (2010), Impact of Supply of Money on Food Prices in India: A Causality Analysis
- Alisher Mirzabaev and Daniel Tsegai (2012), Effects of weather shocks on agricultural commodity prices in Central Asia. ZEF-Discussion Papers on Development Policy No. 171
- Badan pusat statistik (2014), data komoditas pangan, Surabaya
- Banumurty, pamidua dan lokendra 2012), driving food price
- Cassel (1918), Purchasing power parity; journal of economic, Volume 2 No.9
- Ellis (1992), Aspek penyebab perubahan harga
- Gujarati, D., 1995, Regresi linier berganda, Singapore: McGraw-Hill Book Co
- Glasson (1990), Basic of theory economic
- Hariharan dan kumar 2012.An Analysis Of Food Inflation In India, Volume 2, issue
- Hasan (1998). Komoditas pangan dan bentuk permintaanya
- Mankiw, N. Gregory (2000). Principles of Macroeconomic edisi 3 (e-book)
- Muh. Yunanto (2007), Uang beredar dan kebijaka moneter
- Imran, Ayyoubdan Fatima, (2013). Does Inflation Matter For Sectoral Growth In Pakistan, An Empirical Analysis. Volume 51, No. 1 (Summer 2013), pp. 71-92
- Mankiw, N. Gregory (2003). Teori Makro ekonomi Edisi Kelima. Terjemahan. Jakarta: Penerbit Erlangga.
- Nicholson (2000), demand and supply. . Volume 47, No. 2 (Summer 2000), pp. 15-19
- Suryanan (2004), ketersediaan dan ketahanan pangan.
- Salman dan Adnan, (201)3.Determinants of High Food Prices The case of Pakistan,Volume51, No. 1 (Summer 2013), pp. 93-107
- Sara Lazzaroni (2012), Weather variability and food consumption: Evidence from Uganda; The Hague, The Netherlands