THE IMPACT OF WORLD FOOD PRICE ON FOOD INSECURITY IN SELECTED ASEAN COUNTRIES

Nur Marina Abdul Manap

ABSTRACT

The world has seen continued famine, starvation and malnutrition, concentrated mostly within poor and developing Third World countries. Starvation and malnutrition have a negative impact on health, leading to poor productivity, and thus gradually affecting overall economic growth. Factors such as climate change, natural disasters, overpopulation, food crises, higher food prices, and diminishing resources have aggravated the situation and are now beginning to impact the rich and developed countries. These problems have become global concerns and are recognized worldwide as food insecurity issues. Global food shortages, if unchecked, could lead to a major crisis and present significant challenges to humanity's food security. The food security problem, scientifically known as food insecurity, is a situation in which people do not have adequate physical, social or economic access to sufficient, safe, and nutritious food that meets their dietary needs and food preferences for an active and healthy life. Food insecurity began during World War II due to a limited supply of food, which led to higher food prices, lowering purchasing power and then led to a food crisis. Since then, global food crises are major challenges to food insecurity. The objective of the study is to investigate the impact of food price on food insecurity in selected ASEAN countries. This paper employed the Random effects analysis and the results show that increase in food price will lead to increase food insecurity in selected ASEAN countries. Higher prices for foods will increase undernourishment problems, because the rise in food price will impact income, it will reduce the purchasing power to acquire the minimum amount of quality food, with better nutrients and protein to fulfill their basic nutrition needs

Keyword: Food Insecurity, Food Price, Food Deficit, Food Import

1. INTRODUCTION

ASEAN is refer to The Association of Southeast Asian Nations was established on 8th August 1967 in Bangkok Thailand. There are 10 ASEAN members' states known as Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam. ASEAN populations as a whole is 638.622 million people. Figure 1.1 below shows population fragment based on ASEAN countries. According to this figure it's illustrate that Indonesia has the largest population compare other's ASEAN countries which is almost 40.89 percent of ASEAN populations is monopolies by Indonesia. This is because Indonesia has the largest demographic area compare others ASEAN countries where the area is 1.905 million km^2. The smallest population is from Brunei where the population is 0.07 percent compare to others ASEAN Countries and this smallest population is caused by smallest area where the area for Brunei is just 5765km^2.

Figure 1.1: population fragment in ASEAN countries
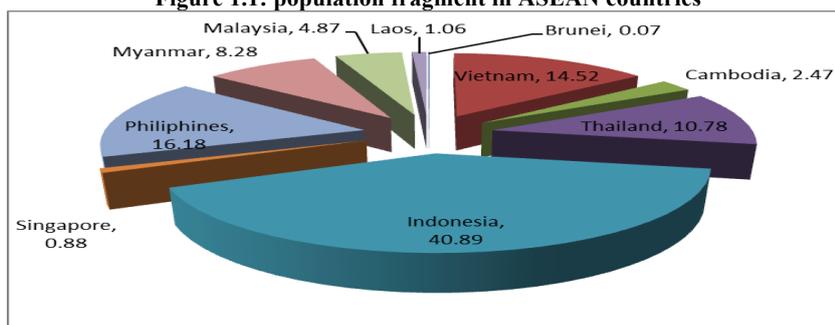
Source: FAOSTAT

Population and food security need to increase parallel to avoid undernourished and malnutrition and starvation problem. Figures 1.2 illustrate the trend of prevalence undernourishment problem in ASEAN countries from year 2013 until 2017.

Figure 1.2: trend of prevalence undernourishment (2013-2017)
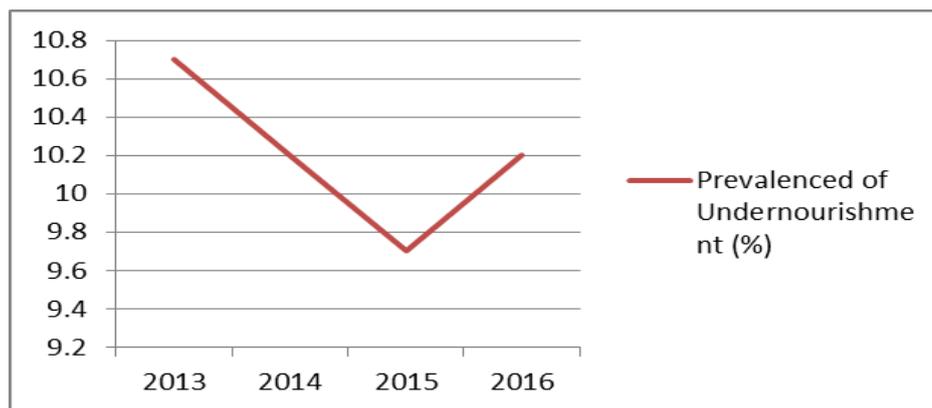
Source: FAOSTAT

Based on Figure 1.2, its shows the trend of prevalence undernourishment decrease dramatically from year 2013 which is 10.3 percent until 2015 where the percentage of prevalence undernourishment is 9.7 percent. However, this trend has increase drastically in 2016 where the percentage of prevalence is 10.2 percent. The rising in prevalence undernourishment in 2016 is cause by several factors. First is because most of ASEAN countries have faced El Nino Phenomenon and climate-related shocks. Secondly, various conflict around the world give an impact to the ASEAN countries especially on food production and food availability. Lastly, some ASEAN countries is heavily relying on commodity export, however because of unstable world political situation it cause decreasing in export commodities activities and reduce fiscal revenues. This situation has affected food availability through reduction in food import capacity and also rising in domestic food price. This entire situation will cause food insecurity problem in ASEAN countries.

2. GLOBAL FOOD INSECURITY SITUATION

The food security problem, scientifically known as food insecurity, is a situation in which people do not have adequate physical, social or economic access to sufficient, safe, and nutritious food that meets their dietary needs and food preferences for an active and healthy life (FAO, 2010). These situations can cause undernourishment when caloric intake is below the Minimum Dietary Energy Requirements (MDER). The MDER defines the amount of energy needed to maintain a minimum acceptable weight for one's attained height.

Generally, there are two types of food insecurity. The first is chronic food insecurity, which is a long-term or persistent situation that occurs when people are incapable of meeting their minimum food requirements at all times. Chronic food insecurity is caused by a long-term poverty problem, lack of assets, and insufficient access to productive and financial resources. This problem can be overcome with long-term development such as improving education and increasing access to productive resources, in order to raise the ability to meet minimum food requirements and reduce poverty. The second type of food insecurity is transitory food insecurity and is a short-term, temporary situation. The availability of food is reduced because of short-term shocks and fluctuations in domestic food production, food prices, and household income. To achieve food security, affected countries must strive to reduce poverty, increase cognitive and physical development, raise productivity, and promote economic growth.

Food insecurity began during World War II due to a limited supply of food, which led to higher food prices and then led to a food crisis. Since then, global food crises are major challenges to food insecurity. Figure 1.3 below shows the evolution of food commodity prices as represented by an index of various food commodities composed by IMF statistics, which increased slowly from 2003 to 2006 and surged upward from 2006 to 2008. This situation led to a global food crisis that impacted the political and economic stability of poor and developing countries. The food price started falling in 2009 but increased dramatically towards the end of 2009 until 2013, when the price was slightly higher than the food price index was in 2008. However, food prices fell between 2013 and 2014 due to a decrease in the oil price. There are several theoretical considerations concerning the link between oil and food prices. Among these is the fact that crude oil is an important input factor to agriculture productivity through its use in machinery, fuel, fertilizers, and transportation. Besides that, increasing energetic input with commodities such as oil will impact the final products of food commodities.

Figure1.3: FAO food price index
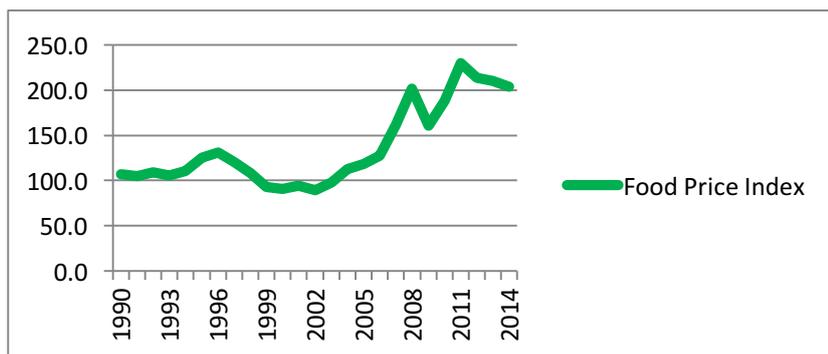
Notes: Indices based on world prices in US dollars. The Food Price Index consists of cereals, vegetable oils, meat, seafood, sugar, bananas, and oranges.

Fluctuations in the food price impact food-importing and food-exporting countries. Increasing food prices have a negative impact on food imports because of the higher cost of the import bill. A higher import bill will reduce food imports and increase food deficits, which gives rise to food security problems (United Nations, 2011). Besides that, food-exporting countries are also affected by a food price crisis. Food-exporting countries, also known as food-producing countries, have restricted their exports to sustain their domestic food sufficiency for households and to fulfill their basic nutrition needs (Giordani, Rocha & Ruta, 2011).

Medline and the Medical Encyclopedia have defined malnutrition as a lack of nutritional basic needs that are very important for human health. There are two types of malnutrition: first is protein-energy malnutrition, which is known as the lack of enough protein and quality food that provides energy to the body. The second type is micronutrient deficiency in terms of vitamin and mineral. Figures 1.4 below illustrate the percentage prevalence of undernourished in South-Eastern Asia from 2014 until 2016.

Figure1.4: prevalence of undernourished in South-Eastern Asia (%)
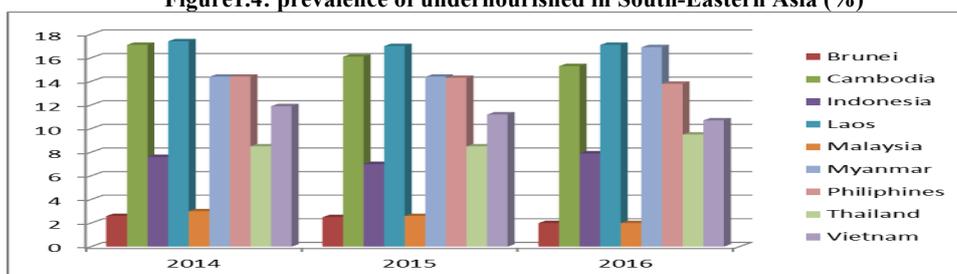
Source: FAO (2016)

Based on figure above, the prevalence of undernourished people in Brunei is the lowest compare with others South-Eastern Asia where the percentage in decreasing from 2014 which is only 2.6 percent, 2.5 percent in 2015 and this trend keep reducing to 2.0 percent in 2016. This prevalence undernourished percentage shows decreasing trend for Cambodia, Malaysia, Philippines and Vietnam. However, for Indonesia, Laos, Myanmar and Thailand shows constant and decreasing trend for year 2014 and 2015 but for year 2016 it shows increasing trend for these four countries.

In light of the problem of undernourishment, United Nation Development Programmed has supported the establishment of The Sustainable Development Goals (SGDs). These SDGs has listed 17 important goals until 2013 the goals are listed as follow:

i.   Goals 1: End poverty in all its forms everywhere
ii.   Goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture
iii. Goal 3: Ensure healthy lives and promote well-being for all at all ages
iv.   Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
v.   Goal 5: Achieve gender equality and empower all women and girls
vi.   Goal 6: Ensure availability and sustainable management of water and sanitation for all
vii. Goal 7: Ensure access to affordable, reliable, sustainable and modern energy for all.
viii. Goal 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
ix.   Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
x.   Goal 10: Reduce inequality within and among countries
xi.   Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable
xii. Goal 12: Ensure sustainable consumption and production patterns
xiii. Goal 13: Take urgent action to combat climate change and its impacts
xiv. Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development
xv.   Goal 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss
xvi. Goal 16: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

xvii.   Goal 17: Strengthen the means of implementation and revitalize the global partnership for sustainable development

Food security is a critical issue that has received serious attention in terms of the prevention of malnutrition, hunger, and famine, especially in ASEAN countries. This food security problem is caused by transitory food deficit, which occurs when there is a sudden drop in the ability to produce or access enough food to maintain a good nutritional status. Transitory food deficit is a short-term shock in which there is a fluctuation in food availability caused by an insufficiency of food production and a food price crisis. Moreover, insufficiency in food production and food price crises have resulted in malnourishment, malnutrition, hunger, and the food insecurity problem in ASEAN countries. The objective of this paper is to examine the impact of food price to food insecurity in selected ASEAN countries.

The significance of this paper is in showing that food security is very important to ensure increased in economic growth, reduced malnutrition, and increased labor productivity. In addition, food security can help certain countries grow their own food and meet their own needs, increase their domestic food production, reduce their dependency on food imports and food aid, reduce poverty and malnourishment, and increase economic growth. There has been a lack of research empirically measuring the link between food security and economic growth at the macro level, compared to the micro level. Although several studies have been conducted to measure food security at the micro level, these studies have focused only on one type of commodity in single countries, especially in Asian countries. However, few empirical studies have been conducted on the types of food commodities at the national and regional levels. Improved food security at the national level is very important for all countries, especially ASEAN countries.

3.   LITERATURE REVIEW

The achievement of food security at the national level mainly in developing countries presents a huge challenge because these countries face many constraints; for example, vulnerability with food price and land irrigation issues. Food price instability contributes significantly to food insecurity problems. Food prices have an impact on food security for households and at the national level. Many people in developing countries have spent more than half of their income on food to fulfill their dietary energy needs. When world food prices increase drastically it impacts these people, who will cut back on the quantity and quality of the food they buy. This situation causes food insecurity, famine, and undernourishment. The International Fund for Agricultural Development (IFAD) has identified two experiences of global food price increases; the first was from 2007 to 2008, and the second was from 2010 to 2011, and both were higher than increases in the early 1980s.

Price stabilization is important for the improvement of food security and to solve problems related to higher food prices. Ahmad (1988) examined the rationale of price stabilization and its impact on food security. Moreover, his study has built up a new approach to stabilizing food prices in Bangladesh. Some arguments have arisen about the validation of a theoretical position against price stabilization in Bangladesh. A rice price stabilization framework has been developed to mix public procurement, import, rationing, and open market operations to compress annual and seasonal prices. Price stabilization is used as an instrument for food security improvements and is crucial in reducing poverty and undernourishment in Bangladesh.

Myers (2006) has examined the cost of food price fluctuations in low-income countries. His study is linked to conventional welfare, where it measures the cost of food price vulnerability and its impact on economic growth and food security in low-income countries. This study has revealed that the cost of conventional welfare can be higher when fluctuations in food price have a negative impact on economic growth and a reduction in labor productivity and food security cannot be achieved. To overcome this problem, the author suggests a food price stabilization scheme to improve food security, welfare, and economic performance.

However, Wang (2010) found that food prices did not impact food security in China, because China had raised its residents' income during the previous year. Increases in the retail food price index do not have an effect on food security because of the concepts of income effects and substitution effects. This author has conducted a study on food security, food prices, and climate change in China. This paper determines the factors that influence food security, including the per capita disposable income of rural residents, the retail food price index, agricultural disaster area, sown area, and saving of urban and rural residents. This paper has applied dynamic panel data analysis and used POLS, fixed effects, difference GMM, and system GMM to analyze this study.

Food price volatility has a strong impact on food security through the food import channel. High Level Panel Expert (2011) has highlight that increased food prices will impact food security through the food import channel, in which increasing food prices will reduce food imports by increasing food import bills and reducing food security, especially in dry-land developing countries. These issues are supported by a report of the Food and Agriculture Organization (2011), which states that increasing food prices will increase the cost of food imports and food bills. This will cause the demand for food imports to decrease and cause a reduction in food security. Besides that, the measurement of the impact of food imports on food security at national level is accomplished through the domestic food price level index. Instability of world food prices will influence domestic food price

levels. Based on Gilbert & Morgan (2010), increases in global food prices will result in a reduction of food imports, which will have a negative impact on food security in countries that rely heavily on food imports.

4. MODEL SPECIFICATION AND METHODOLOGY

The Food and Agriculture Organization (FAO) has identified four dimensions of food security known as availability, accessibility and utilization and added food stability in term of the volatility of food prices on the determinant of food insecurity. The model is shown as follows:

$$
\begin{aligned}
\ln fis_{it} = {} & \alpha_0 + \beta_1 \ln fm_{it} + \beta_2 \ln fp_{it} + \beta_3 \ln pr_{it} \\
& + \beta_4 \ln rd_{it} + \beta_5 \ln ppp_{it} + \beta_6 \ln sf_{it} + \beta_7 \ln wi +_{it} \beta_8 \ln wfpi_{it} + \beta_9 li_{it} + \\
& \beta_{10} \ln al_{it} + \beta_{11} \ln gdpc_{it} + \mu_r + \tau_t + \varepsilon_{it}
\end{aligned} \qquad (1)
$$

Where the dependent variable is food insecurity (fis), which is proxy by Depth on Food Deficit (FD) and the independent variables consist of Food Import (fm), Food Production (fp), Road Density (rd), Purchasing Power Parity (ppp), Sanitation Facilities (sf), Improvement in Drinking Water (wi), World Food Price Index (wfpi), Arable Land (al), and Gross Domestic Product per capita (gdpc), country unobserved fixed effects (μ_r), time-specific unobserved fixed effect (τ_t), and error term (ε_{it}). The specific model is as follow:

$$
\begin{aligned}
\ln fis_{it} = {} & \alpha_0 + \beta_1 \ln fm_{it} + \beta_2 \ln fp_{it} + \beta_3 \ln pr_{it} \\
& + \beta_4 \ln rd_{it} + \beta_5 \ln ppp_{it} + \beta_6 \ln sf_{it} + \beta_7 \ln wi_{it} + \beta_8 \ln wfpi_{it} + \beta_9 li + \\
& \beta_{10} \left(\ln fpi_{it} x \ln fm_{it} \right) + \beta_{11} \ln al_{it} + \beta_{12} \ln gdpc_{it} + \mu_r + \tau_t + \varepsilon_{it}
\end{aligned} \qquad (2)
$$

Food price volatility has a strong impact on food security through the food import channel. High Level Panel Expert (2011) has highlight that increased food prices will impact food security through the food import channel, in which increasing food prices will reduce food imports by increasing food import bills and reducing food security, especially in dry-land developing countries. These issues are supported by a report of the Food and Agriculture Organization (2011), which states that increasing food prices will increase the cost of food imports and food bills. This will cause the demand for food imports to decrease and cause a reduction in food security. Besides that, the measurement of the impact of food imports on food security at national level is accomplished through the domestic food price level index. Instability of world food prices will influence domestic food price levels. Based on Gilbert & Morgan (2010), increases in global food prices will result in a reduction of food imports, which will have a negative impact on food security in countries that rely heavily on food imports.

This paper will employ a panel data specification by using a fixed-effects model because this model is suitable if unobserved individual characteristics are assumed to be correlated with the error term. Fixed-effects (FE) models are used to analyze the impact of fluctuating variables over time. Besides that, fixed-effects models are used to determine the relationship between predictor and outcome variables within a country. Each country has its own characteristics that may or may not influence predictor variables. The basic model to estimate this method is shown below

$$
y_{it} = \beta_1 x_{it} + a_i + u_{it} \qquad (3)
$$

Where, $a_i \left(i = 1 \ldots n \right)$ is the intercept for each country, y_{it} is a dependent variable, x_{it} is an independent variable, β_1 is a coefficient of the independent variable, u_{it} is an error term, i is a country, and t is a time. The fixed-effects model, using binary variables, is shown below:

$$
y_{it} = \beta_0 + \beta_1 x_{1,it} + \ldots \ldots \ldots + \beta_k x_{k,it} + \gamma_2 E_2 + \ldots \ldots + \gamma_n E_n + u_{it} \qquad (4)
$$

Where E_n is a country n. By using binary models, which are dummy variables, countries with $(n-1)$ need to be added to this model, γ_n is the coefficient for the binary regressors. Besides that, this method can also add time effects to the country-effects model to have a time- and country-effects regression model, which is shown as follows:

$$y_{it} = \beta_0 + \beta_1 x_{1,it} + \ldots\ldots\ldots + \beta_k x_{k,it} + \gamma_2 E_2 + \ldots\ldots + \gamma_n E_n + \sigma_2 T_2 + \ldots\ldots + \sigma_t T_t + u_{it} \ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (5)$$

Where T_t is a binary variable (dummy), which is $(t-1)$ time periods, and σ_t is the coefficient for the binary time regressors. Moreover, based on equation (3.77) above, the average of the equation over time for each unit of I will apply as shown below:

$$\bar{y}_{it} = \beta_1 \bar{x}_{it} + \bar{a}_i + \bar{u}_{it} \qquad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (6)$$

Next, subtracting the equation as follows:

$$y_{it} - \bar{y}_{it} = \beta_1 \left(x_{it} - \bar{x}_{it} \right) + \left(u_{it} - \bar{u}_{it} \right) \qquad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (7)$$

This equation shows that variables x and y as observations of each panel with their mean per individual have been removed. This equation is also known as the within transformation, and the estimation is known as the within estimator. The within estimator will be unbiased and consistent if all the explanatory variables are strictly exogenous. The within transformation applies the Least Square Dummy Variable (LSDV) model because the regression from LSDV will produce the same result as the model estimated from the original data and a set of $(N-1)$ indicator variables for all but one unit of the panel data. Based on LSDV, the effects of x_1 are based on the differences across countries. When the dummy variable for each country is added, it will show the pure impact from x_1, while controlling unobserved heterogeneity. Additionally, the degrees of freedom for the fixed-effects estimator would be $(N(T-1)-k)$. A constant term is included and an F-test is required for the null hypothesis test where all the coefficients a_i' are zero, where a_i' are deviations from the mean values $\bar{a}_i$. In a fixed- effects model, time invariance cannot be included because the values will be equal to zero for all time periods. Based on a fixed-effects assumption, all time-invariant characteristics are unique to all countries and cannot be correlated with others countries' characteristics. This fixed-effects model controls all time-invariant differences between countries and will cause the estimated coefficients of the fixed-effects models not to be biased because these models have omitted time-invariant characteristics. If the full set $(T-1)$ of time dummies is added, any explanatory variables that have a constant difference over time for each country cannot be included because it relates to time-constant effects.

An alternative way to substitute a fixed-effects model, is by using a random effects model. The difference between fixed effects and random effects is whether the unobserved individual effect represents the elements that have correlated with the regressors in the model, and it does not matter whether either of these effects are stochastic or not. The random effects model is the most suitable model if the error term or the differences across countries are linked with the dependent variable. Time-invariant variables can be included in this random effects model. The random effects model is:

$$y_{it} = \beta_1 x_{it} + a_i + u_{it} + \varepsilon_{it} \qquad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (8)$$

Where u_{it} is a between-countries error and ε_{it} is a within-countries error.

Lastly, to identify whether the fixed-effects model or random-effects model is more suitable for this study, we needed to run a Hausmen test, where the null hypothesis represents the random effects model and the alternative hypothesis is a fixed-effects model.

The interaction term construction is based on Ozer-Balli & Sorensen (2012) where the interaction derivation is illustrate as follow

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \mu_i + v_t + \varepsilon_{it} \qquad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (3.95)$$

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 \left(X_{1it} - \bar{X}_1 \right) \left(X_{2it} - \bar{X}_2 \right) + \mu_i + v_t + \varepsilon_{it} \qquad \ldots\ldots\ldots \quad (3.96)$$

Where i is cross-sectional index such as individual or country effect, t is a time index, μ_i is country fixed effect and ν_t is time fixed effect. Variable X_{it} is the average over time for cross-sectional unit i by $\bar{X}_i$, The average across cross-sectional units at period t by $\bar{X}_t$ and the mean across all observation by $\bar{X}$. The regression (3.96) is not robust to slopes that vary across countries. If the mean of X_1 varies by country and the covariance of $\bar{X}_{1i}$ and β_{2i} is non-zero, the covariance of $\left(X_{1it} - \bar{X}_1\right)\left(X_{2it} - \bar{X}_2\right)$ and $\beta_{i2}X_{2it}$ becomes non-zero and the interaction term will take all the country-varying slopes. In order to overcome this problem, the panel data regression for interaction term is estimates as follow;

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2_{it}} + \beta_3 \left(X_{1it} - \bar{X}_{1i}\right)\left(X_{2it} - \bar{X}_{2i}\right) + \mu_i + \nu_t + \varepsilon_{it} \quad \ldots\ldots\ldots\ldots \quad (3.97)$$

Where the country-specific means are substrct from each variables in the interaction.

5. RESULT AND DISCUSSION

The main results of the analysis are presented in Table 1 below; the table shows the analysis based on FAO models in selected ASEAN countries.

Table 1: The Impact of World Food Price to the Food Insecurity in Selected ASEAN Countries.

Dependent / Independent Variable	Food Deficit (FD)
Log Food Import Index (lfm)	2.9534***
Log Food Production Index (lfp)	0.3324
Log Purchasing Power Parity (lppp)	-1.6461***
Log Road Density (lrd)	0.1514***
Log Sanitation Facilities (lsf)	8.4064***
Log Water Improvement (lwi)	-22.6899***
Log Land Irrigation (lli)	-1.2081***
Log Food Price Index (lwfpi)	1.9292***
Log Interaction $\left(\ln fm_{it} \times \ln fpi_{it}\right)$	0.4421***
Log gross Domestic Product per capita (lgdpc)	-0.0142264
Log arable land (lal)	0.1214*
Intercept	74.5112***
Observation	40
Countries	9
R-Square	0.9902
F-Test	26.03***
Hausman Fixed	8.09

*, **, ***significant at 10%, 5%, 1%, respectively

The analysis shows that food price have a significant impact on the food insecurity. where when world food price increase 1 percent food deficit will increase 1.9292 percent which is significant at 1 percent respectively. Besides that, this paper also has added I more estimations. The estimation is the measurement the impact of food price on food security through food import channels, and the results illustrate that a 1 percent increase in food price will reduce food import and increase food deficit by 0.4421 percent. This theory is in parallel with the theory stating that the increase in food price will reduce food import due to the

increasing in food import bill and increase food insecurity. This result is supported by Ahmad (1988), who posited that higher food prices will increase poverty and undernourishment, reduce food import and food security. Higher prices for foods will increase undernourishment problems, because the rise in food price will impact income, it will reduce the purchasing power to acquire the minimum amount of quality food, with better nutrients and protein to fulfill their basic nutrition needs. When poor households get less nutritious foods, countries experience the worst food insecurity (Myers, 2006). The increase in food price is generally caused by several factors, such as slower growth in food production especially in developing countries, rapid increase in food demand, and the rise of global demand for biofuels, whether through shocks and an increase in agriculture production costs in terms of irrigation pumps, machinery, transportation, and fertilizer costs (FAO, 2011).

6. CONCLUSION AND POLICY IMPLICATION

Food is very important for social development with sufficient nutrition to produce energy and to protect human bodies from infection and disease. Recently, food security has been recognized as one of the most important global issues. Mainly, the objective of this study is to examine the impact of world food price to food insecurity in selected ASEAN countries. Generally, this study has used data from 9 ASEAN countries between 2000 until 2016. This paper has analyzed all data by using static panel data analysis known as Random effects model. This study has identified that world food price significantly give an impact to food insecurity in selected ASEAN countries. In accordance to this study, government need to increase sufficiency in food production and less relying on food import, because when world food price increase ASEAN countries can depend only on domestic food production and less depending in food import and reduce food insecurity problem.

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Nur Marina Abdul Manap,
School of Economics, Finance and Banking (SEFB),
University Utara Malaysia
nurmarina@uum.edu.my