Do Oil Price Changes Matter to Sugar Price in Malaysia?

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ABSTRACT

A fluctuation in oil price has been addressed by numerous previous studies as it can have great impacts on economies. An increase in oil price can result in a higher price of other goods. Sugar is an intermediate food products that can be inevitably affected due to a higher oil price. Therefore, this paper aims to investigate the effects of oil price changes on sugar price in Malaysia. Monthly data from 2008 to 2014 were collected. Johansen co-integration was employed in this present study and the results show that there is a long run relationship among RON95, RON97, diesel and sugar prices in Malaysia. This can be confirmed by the results of the error correction terms (ECT-1) which indicates significance in the t-statistic. The Wald test and Pairwise Granger Causality were also used and the results suggest that there is an effect of changes in the price of RON95 on sugar price in short run. Therefore, policies on oil prices should be formulated in order to cushion its effects on sugar price.

1. INTRODUCTION

Various economic problems such as higher cost of living and lower output might emerge if there is no price control on oil. A rising oil price can lead to an increase in the production costs, thus suppliers should adjust the price of goods so that they can maintain their profits. Thus, the cost of increasing oil price falls on consumers. Governments should play an important role in ensuring that the problems will not be rampant. This is because higher food prices can result in increasing burden of households as their spending needs to be increased in order to purchase foods especially households with low income (Alem and Soderbom, 2011). It will be insurmountably difficult to deal with the problems. Countries with higher oil price might face inflation (Malhotra and Krishna, 2015; Ibrahim and Said, 2012; Alom, 2011; Alvarez *et. al.*, 2010; Chen, 2009). Several empirical studies found that some low income countries such as Taiwan

are affected by higher oil price. Therefore, an increase in the price of oil can have deleterious effects on economy.

Since many issues arise due to the increase in oil price, some countries such as Malaysia subsidize oil. Nevertheless, in order to ensure its financial stability and improve its economic efficiency, the Malaysian government gradually removed subsidies from this commodity (International Monetary Fund, 2015). The reduction in the subsidy on oil triggered indignation among oil consumers (Central Bank of Malaysia, 2014a). Most people incurred the cost of increasing oil price. The rising prices for RON95, RON97 and diesel in Malaysia caused many people including economists to cast aspersions.

Food prices would inevitably soar as they are inextricably associated with oil products. Many previous researchers have provided empirical evidence that oil price increase can contribute to an increase in the price of food (Dillon and Barrett, 2015; Ibrahim, 2015; Balcilar *et. al.*, 2014; Pala, 2013; Maurya and Thenmozhi, 2013). Abdul Rahim and Zariyawati (2011) explored the relationship between the world's crude oil price and the price of rice in Malaysia. However, there are a limited number of previous studies that explored the effects of oil price changes on the price of sugar. Sugar is an essential ingredient in preparing foods in Malaysia. Most foods in Malaysia use sugar. After September, 2013, the increase of twenty cents per litre for RON95 and diesel had undesirable effects on the price of several goods in Malaysia. This included the price of sugar. The price of sugar for one kilogram was increased by a whopping fourteen percent (Ministry of Domestic Trade, Co-operatives and Consumerism, 2016).

Most previous studies were only concerned about the effects of oil price on food prices (Dillon and Barrett, 2015; Ibrahim, 2015; Balcilar *et. al.*, 2014; Pala, 2013; Maurya and Thenmozhi, 2013. However, the effect of oil price on intermediate food prices particularly sugar price should also be addressed. An increase in sugar price can contribute to an increase in the price of finished food products such as bread, *roti canai*, *roti jala* and *kuih*; the breakfast foods for most Malaysians (Bernama, 2016). According to a report by Institute for Public Health (2014), sugar (55.9%) was recorded most frequently daily and weekly food items consumed among Malaysian adults respectively. Therefore this study is to examine the effects of oil price changes on sugar price in Malaysia.

1.1. Overview of RON95, RON97, Diesel and Sugar Prices in Malaysia

Figure 6.1 shows the prices for RON95, RON97, diesel and sugar in Malaysia ranging from 2008 until 2014. In June 2008, the price of RON97 went up from RM1.92 to RM2.70 per litre. To reduce government's expenditure, the Malaysian government had decontrolled the prices of RON95 and RON97 starting from 1st November 2008. The sharp rise in petrol prices had resulted in inflation for all consumer products which including the food and transportation (Shaari *et. al.*, 2012).

From Figure 6.1, the increasing trend can be seen for RON97 with the increase of 41% over the period of September 2009 to May 2011. In July 2010, the government of Malaysia announced that the price of RON97 was determined by the global oil price which was under the managed float mechanisms (Central Bank of Malaysia, 2011). This led to the increase of 25 cents per litre in the price of RON97 in Malaysia. Furthermore, the oil subsidy revision in Malaysia was implemented on December 4, 2010, causing the reduction of 5% in the subsidy for RON95. Thus, the price of RON97 increased by 50 cents to RM2.80 per litre from January to July, 2011 (Central Bank of Malaysia, 2012).

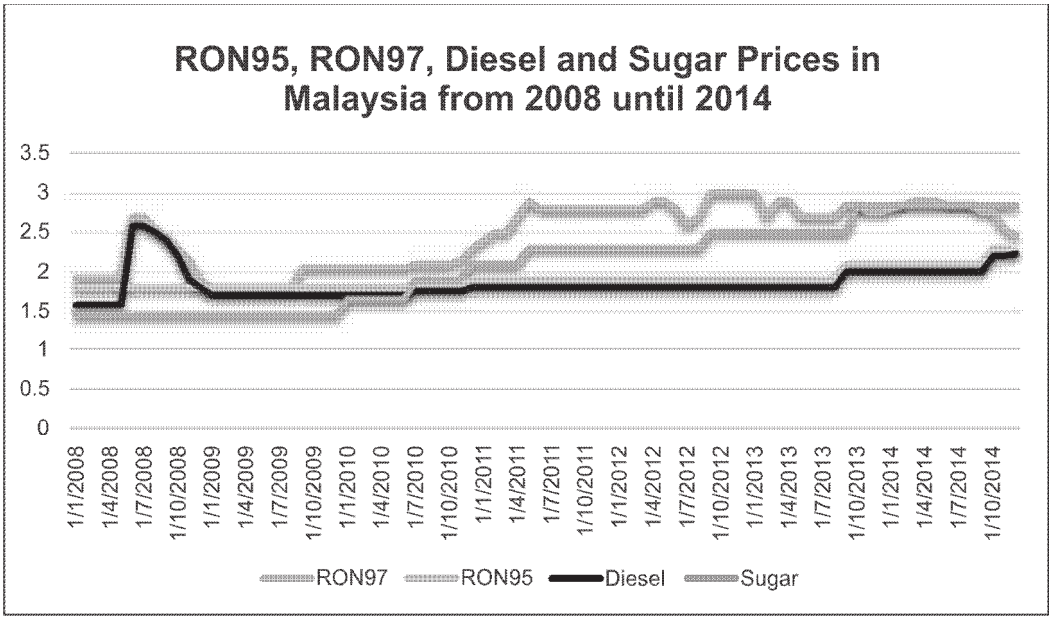

Figure 6.1: RON95, RON97, Diesel and Sugar Price in Malaysia
(*Sources:* Ministry of Domestic Trade, Co-operatives and Consumerism, 2016)

However, the price of RON97 grew sharply at the rate of 15.38% from RM2.60 per litre in July 2012 to RM3.00 per litre in September 2012 due to the hike of the world's oil price in the market (Central Bank of Malaysia, 2013a). Further, the price of RON97 increased from RM2.70 in August, 2013 to RM2.85 in September, 2013. However, the increase in the price of RON97 was lower than the increased in the prices of RON95 and diesel in 2013 due to the increasing supply of oil in the world market from the OPEC member countries (Central Bank of Malaysia, 2014b). The reduction in the subsidy for RON95, RON97 and diesel aggravated the burden for Malaysian especially the low-income group. Hence, to reduce the burden for those in the low-income group, the Malaysian government announced the BR1M (Bantuan Rakyat 1Malaysia), a program that was introduced to curb the increasing cost of living pressures experienced by low-income group in 2010 (Central Bank of Malaysia, 2013b).

Since mid-2014, the global oil price dropped by 50 percent due to a surge in oil supply and a weak demand (Institute for Energy Research, 2015). To enhance the country's revenue and to take advantage of the lowest oil price, the government of Malaysia has officially ended the subsidy of all fuels including RON95, RON97 and diesel on 1st December 2014. Nonetheless, the elimination of subsidy for RON95, RON97 and diesel has triggered most Malaysians. The inflation rate in 2015 was affected by the implementation of the new pricing mechanism for petrol prices in which there was an influence of global oil price volatility into domestic prices that had affected the domestic fuel products in Malaysia (Central Bank of Malaysia, 2015). Fluctuation of oil prices kept happening starting from January to December 2015. Until recent, the issues of oil price never seem to end in Malaysia.

Figure 6.1 also shows the trend in sugar price in Malaysia. The price of sugar increased consistently from January 2008 to December 2014. The price of sugar grew sharply by 14 percent from RM2.50 to RM2.84 per kilogram in October 2013. A sharp increase in fuel and sugar prices happened after the government reduced the subsidies for fuels and sugar in September until October 2013 in order to enhance country's

revenue (Department of Information Malaysia, 2013). On the other hand, the reduction of sugar subsidy also act as a strategy to reduce the rate of diabetes in Malaysians (Tun Haji Abdul Razak, 2013).

2. LITERATURE REVIEW

Numerous studies have investigated the effects of oil price on inflation (Zhao *et. al.*, 2014; Yoshino and Taghizadeh-hesary, 2014; Belke and Dreger, 2013). However, their studies produced mixed results. Some found the positive effects of oil price on inflation (Gichana, 2013; Ibrahim and Said, 2012; Celik and Akgul, 2011 and Alom, 2011). Whilst, some other studies found that oil price has a negative effect on inflation, such as Mallik and Chowdhury (2011). A limited number of previous studies explained that it was limited or no correlation between oil price and inflation (Jiranyakul, 2015;Chou and Tseng, 2011; Alvarez *et. al.*, 2010). These inconsistent factors were due to different economic factors, namely the exchange rate, interest rate, gross domestic products and monetary policy.

In the United States, Gao *et. al.*, (2013) determined the pass-through effects of oil price shocks on consumer price index (CPI), particularly on the prices of food and beverage, housing, apparel, medical care, recreation, education and communication and positive and significant effect on energy-intensive consumer price index. Therefore, there is a strong pass-through effect on the total CPI which ismainly driven by substantial increases in prices of energy-related commodities.

The investigation of oil price effects did not only focus on inflation. The effects of oil price on food prices were widely explored by previous studies (Ibrahim, 2015; Dillon and Barrett, 2015; Pala, 2013; Huang and Chao, 2012). In East Africa, including Mombasa, Dares Salaam, Kampala, Addis, Ababa, Ethiopia, Kenya, Tanzania, and Uganda, a study was conducted to examine the relationship between the global prices of oil on maize. The study discloses that global oil prices affect food prices across East Africa. Oil price shock has affected the transportation cost. The results show that in the local markets, the world price of oil has more significant impact on local maize prices compared to the world maize prices (Dillon and Barrett, 2015).

Alom *et. al.*, (2011) studied the mean and volatility spill over effects of the world price of oil on food prices in Asia and Pacific countries, including Australia, New Zealand, South Korea, Singapore, Hong Kong, Taiwan, India and Thailand from 1995 to 2010. By using the Vector Auto-regression (VAR) and Granger Causality Models, and Estimated Volatility Models, the study found a significant positive mean value and volatility spill over effects from world oil prices to food prices in Asia Pacific countries. Besides, the world oil price shocks has a significant positive impact on food prices in the short run only. Therefore, the study suggested that the countries should consider appropriate policies and forecasting approaches to cope with the serve effects of oil price shocks on the food prices.

Nonetheless, previous empirical studies found that the relationship between the domestic oil price and the price indices which represent food, clothing, housing, transportation and communication, education and entertainment, medicines and medical care and miscellaneous were not significant in Taiwan from 1999 to 2011, (Huang and Chao, 2012). However, the international oil prices has significantly influenced the price indices. By using the Multivariate Threshold Auto-regression Model (TAR), Granger Causality Test, and Unite Root Linear Co-integration Tests, the study found that lead-lag relationship between changes in domestic oil prices and changes in the price indices vanish except for the consumer price (transportation)

which is affected by domestic oil prices. The study explained that government should put emphasis on the building up confidence in price stability to avoid people's excessive expectations and at the same time, the government should consistently control the price level to avoid further increase.

Several studies found that there are significant effects of oil price on sugar price (Esmaeili and Shokoohi, 2010;Leucci *et. al.*, 2014 and Nazlioglu *et. al.*, 2012). Esmaeili and Shokoohi (2010) studied on the effects of oil price on the world food prices in the United States. The study investigated the relationship between co-movement of food prices (egg, milk, oilseed, rice, sugar, meat, and sugar) and macroeconomic variables from 1961 until 2005. The study included crude oil prices, consumer price indexes, food production indexes, and the world's GDP. The results show that all the included variables influence the food prices. For the relationship between oil prices and food production index, the findings indicate that price of food production influences the macroeconomic index. Hence, there is an indirect effect of oil price on food production. Besides, the study also suggested that controlling management policy can reduce the effects of oil price shocks on agricultural commodities prices and food security.

Besides, Leucci *et. al.*, (2014) examined the impact of energy market on agricultural food commodities such as corn, soybean oil, rapeseed and sugar cane in the United States and Brazil from 2000 to 2012. The study used the Vector Autoregressive Model, Granger Causality, Jarque-Bera Test and Bivariate Model. The study found that agricultural food commodities' prices are influenced by energy market compared to the food market. The prices of corn and soybeans are influenced by the energy market.

Nazlioglu *et. al.*, (2012) explored the impact of the volatility in oil prices on the agricultural commodity prices, including corn, soybeans, wheat, and sugar from 1986 to 2011 in the United States and the European Union. By using the Vector Auto-regression (VAR), Descriptive Statistics, Auto-regressive Conditional Heteroskedasticity (ARCH) and Generalized Auto-regressive Conditional (GARCH) parameters, the study found that there is no volatility spillover between oil and agricultural commodity market during the pre-crisis period. However, it appeared after the oil crisis, the market risk was transmitted to corn, wheat, and soybean markets. Hence, the volatility in oil prices increased the agricultural market risks and this effect was significant during post-crisis period. The study explained that financial factors such as exchange rates, futures markets, speculation, and interest rates are important to determine commodity prices.

3. RESEARCH METHODOLOGY

This study analyzes the relationship between oil prices (RON95, RON97 and diesel) and sugar price based on the Fisher's quantity theory of money (Fisher, 1922)as below:

$$M \times V = P \times Q \quad (1)$$

$$P = MV/Q \quad (2)$$

where, M is the total amount of money in circulation in an economy (coins, checkable deposits, traveller's checks), V is the velocity of money (ringgit Malaysia circulates in the systems to purchase final goods and services during a year), P is the price level, and Q is the total final goods and services produced in economy. Many eighteenth-century classical economists, as well as American economist Irving Fisher (1867-1947) and English economist Alfred Marshall (1842-1942), made the following assumptions that V and Q are constant (Arnold, 2011) and therefore:

$$P = f(M) \tag{3}$$

Price is dependent on money supply. However, this theory did not include oil price which also can influence price. Therefore:

$$P = f(M, OP) \tag{4}$$

where, P is the price level, *f* is the function of, M is money supply, and OP is the oil price.

In this study, an empirical analysis is employed and it focusses on some chosen variables. The variables include the prices for RON95, RON97, diesel and sugar (in Malaysian Ringgit, RM). This study does not include M as M only influences the general price level significantly but not the price of a specified good such as sugar. The monthly data ranging from 2008 to 2014 are used for each variable in Malaysia. The following equation is used in this study:

$$SU_t = \beta_0 + \beta_1 \text{ RON } 95_t + \beta_2 \text{ RON } 97_t + \beta_3 \text{ DIESEL}_t + \varepsilon_t \tag{5}$$

$$\text{RON } 95_t = \beta_0 + \beta_1 SU_t + \beta_2 \text{ RON } 97_t + \beta_3 \text{ DIESEL}_t + \varepsilon_t \tag{6}$$

$$\text{RON } 97_t = \beta_0 + \beta_1 SU_t + \beta_2 \text{ RON } 95_t + \beta_3 \text{ DIESEL}_t + \varepsilon_t \tag{7}$$

$$\text{DIESEL}_t = \beta_0 + \beta_1 SU_t + \beta_2 \text{ RON } 95_t + \beta_3 \text{ RON } 97_t + \varepsilon_t \tag{8}$$

where; SU is the price of sugar for period *t*. RON 95_t, RON 97_t, DIESEL_t are the proxy of oil price for period *t*. In order to produce better results, all the variables must be in log form. This is also to see the percentage change in a dependent variable as a one percent change in the price of sugar.

3.1. Stationary Test

This study employs the Augment Dickey-Fuller (ADF) test. This test is performed based on the following regression model which consists of first difference and constant with trend.

$$\Delta\lambda_t = \alpha_1 + \alpha_2 t + \Phi\lambda_{t-1} + \beta_t \sum_{t=1}^{m} \Delta\lambda X_{t-1} + \varepsilon_t \tag{9}$$

If the stationary test is significant, the variable series are stationary and do not have a unit root. Thus, the null hypothesis based on the ADF can be rejected, but the alternative hypothesis is accepted. Then, if the stationary test shows insignificant results, the variable is non-stationary and it contains a unit root. Thus, the null hypothesis is accepted. The hypothesis for the ADF test is as follows:

$$H_0 : \Phi = 0 \ (y_t \text{ is non stationary}) \tag{10}$$

$$H_1 : \Phi \neq 0 \ (y_t \text{ is stationary}) \tag{11}$$

3.2. Co-integration Test

After the unit root test based on the ADF is performed, the Johansen Co-integration test can be proceeded. The Co-integration test is to explore the long run relationship among the prices for RON95, RON97, diesel and sugar. Therefore the equation is as follows:

$$Y_t = c + \sum_{j=1}^{\rho} \Gamma_j \Delta Y_{t-j} + \varepsilon_j \tag{12}$$

If the variables in Y_t are I(1), the VAR in Eq. (13) is not stationary. If no co-integration exists, statistical inference is not possible by using the usual tests. Given this condition, the difference of the series should be determined and a first difference VAR of the form should be estimated.

$$\Delta Y_t = c + \sum_{j=1}^{p} \Gamma_j \Delta Y_{t-j} + \varepsilon_j \quad (13)$$

Integration vectors give rise to the stationary variable. If this is the case, the VAR in Eq. (14) can be written as:

$$\Delta Y_t = c + \sum_{j=1}^{p} \Gamma_j \Delta Y_{t-j} + \phi Y_{t-1} + \varepsilon_j \quad (14)$$

In Eq. (15), ϕ is a rank r matrix that can be divided as:

$$\phi = \alpha\beta \quad (15)$$

where α is a $3 \times r$ loading matrix and β is a $3 \times r$ matrix of co-integrating vectors, r being the number of co-integrating vectors. Following the Johansen procedure the number of co-integrating vectors were tested by using the co-integrated VAR.

3.3. Granger Causality Test

The Granger Causality Test is used to analyze the relationship between two variables. If the *p* values of the variable Y significantly contribute to forecast the value of another variable X, then Y has a Granger casual relationship with X and vice versa. The test is based on the equation below:

$$Y_i = \gamma_0 + \sum_{\tau=1}^{p} \gamma_\tau Y_{t-\tau} + \sum_{t=1}^{q} \lambda_t X_{t-1} + \mu_t \quad (16)$$

$$X_t = \varphi_0 + \sum_{\tau=1}^{p} \delta_\tau X_{t-\tau} + \sum_{t=1}^{q} \Psi_t Y_{t-1} + \varepsilon_t \quad (17)$$

Where Y_i and X_t are used for tested variables, μ_t and ε_t are the error terms, and t is implies that the time period τ and i the number of lags. The null hypothesis is $\lambda_i = \Psi_i = 0$ or all i. In the alternative hypothesis that $\lambda_i \neq 0$ and $\Psi_i \neq 0$ are not significant, whereas X is Granger causal to Y. Nevertheless, if both coefficients are significant, then causality will run both ways.

4. EMPIRICAL RESULTS

The unit root test is performed to explore the stationarity of the variables. The ADF results in Table 6.1 reveals that all the variables are non-stationary and have unit roots at level, but are stationary and have no unit roots after first differencing. These results suggest the effects of oil (RON95, RON97 and diesel) prices on the price of sugar in Malaysia that all the estimated variables are integrated of order one. Therefore, the Johansen co-integration test can be conducted to examine the long run relationship.

According to Engle and Granger (1987), this present study can carry out co-integration test due to its order of integration. This study determines the optimal lag length criteria based on the Akaike Information Criterion (AIC). The lag order selection criteria is presented in Table 6.2. The results suggest that lag 3 is selected as it considers the lowest AIC. Then, the Johansen co-integration can be proceeded.

Table 6.1
Augmented Dickey-Fuller (ADF) Unit Root Test

	Intercept			*Intercept + Trend*		
	Level	*First Difference*	*I(d)*	*Level*	*First Difference*	*I(d)*
RON 95	0.4537 (0.9841)	–9.1411* (0.0000)	I(1)	–1.5910 (0.7883)	–9.3530* (0.0000)	I(1)
RON 97	–1.7748 (0.3904)	–7.9523* (0.0000)	I(1)	–1.7789 (0.7061)	–7.9703* (0.0000)	I(1)
Diesel	–2.6922 (0.0797)	–8.0994* (0.0000)	I(1)	–2.7891 (0.2055)	–8.0512* (0.0000)	I(1)
Sugar	–0.3340 (0.9143)	–9.6414* (0.0000)	I(1)	–2.7061 (0.2370)	–9.5868* (0.0000)	I(1)

Note: * and ** indicates the rejection of the null hypothesis of non-stationary at 1% and 5% significance level.

Table 6.2
Lag Order Selection Criteria

Lag	*AIC*
0	–9.154325
1	–15.45107
2	–15.45133
3	–15.54808*
4	–15.25010
5	–14.98706
6	–14.75621
7	–14.53420
8	–14.28203
9	–14.26886
10	–14.26343
11	–14.28384
12	–14.60535

* indicates lag order selected by the criterion
AIC: Akaike information criterion

Table 6.3 shows the Johansen co-integration results. The results for the Trace and Max-Eigen Statistics indicate that there is only one co-integrating equation. Thus, we can conclude that the long run relationship among all the variables (The price of RON95, RON97, diesel, and sugar price) exist. Then, the Vector Error Correction Model (VECM) is conducted.

Table 6.3
Johansen co-integration testresults

Rank	*Max-Eigen Statistic*	*Critical Value (Eigen) at 5%*	*Rank*	*Trace Statistic*	*Critical Value (Trace) at 5%*
$r = 0$*	28.42840	27.58434	$r = 0$*	50.04447	47.85613
$r \leq 1$	16.64570	21.13162	$r \leq 1$	21.61607	29.79707
$r \leq 2$	3.668046	14.26460	$r \leq 2$	4.970376	15.49471
$r \leq 3$	1.302330	3.841466	$r \leq 3$	1.302330	3.841466

Trace test indicates 1cointegratingegn(s) at the 0.05 level
*denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) *p*-values
Max-eigenvalue test indicates 3cointegratingegn(s) at the 0.05 level

The relationship between the oil prices and the price of sugar can be examined by using the VECM test. The results are reported in Table 6.4. The error correction terms (ECT-1) indicate that it can be confirmed that the findings from Johansen co-integration show that there is a long run relationship among RON95, RON97, diesel and sugar price. Apart from that, this test can also explain the effect of oil prices on sugar price in the short run. The results of *t*-statistic also imply that there is an effect of the price of RON95 on sugar price in Malaysia.

Table 6.4
Short run coefficients – VECM

DV	*IV*	*Coefficient*	*t-statistic*
SUGAR	ECT (–1)	–0.046731	–0.898879
	RON95	0.727548	2.983782*
	RON97	0.165710	1.827086
	DIESEL	–0.114638	–1.181946
	C	0.017433	2.238773**
RON95	ECT (–1)	–0.142609	–1.522365
	SUGAR	–0.014977	–0.192733
	RON97	–0.001909	–0.036853
	DIESEL	–0.014655	–0.264591
	C	0.007989	1.796653
RON97	ECT (–1)	0.228546	3.056970
	SUGAR	0.210694	0.714128
	RON95	–0.099871	–0.507872
	DIESEL	0.319580	1.519672
	C	0.011157	0.660820
DIESEL	ECT (–1)	–0.582977	–3.889006*
	SUGAR	0.198407	0.716600
	RON97	–0.251632	–1.363562
	RON95	–0.880441	–1.774613
	C	0.009570	0.604043

The results of the WALD test are presented in Table 6.5. The test was conducted using lag 3 which is based on the AIC. The results suggest that there is a relationship running from RON95 to sugar price in Malaysia.

Table 6.5
WALD Tests

Independent Variables	*Dependent Variables (Chi-square)*			
	D(RON95)	*D(RON97)*	*D(DIESEL)*	*D(SUGAR)*
D(RON95)	–	6.532271	3.400746	8.970067**
D(RON97)	0.424943	–	2.630100	4.084100
D(DIESEL)	0.796781	4.528615	–	2.135119
D(SUGAR)	0.530660	1.173054	0.543287	–

This study employed the Pairwise Granger Causality test to determine the direction of the relationship between the variables. The causality results presented in Table 6.6 indicate an existence of relationship between the price of RON95 and sugar. Table 6.6 shows that the existence of relationship between RON95 and sugar price is found. Besides, also from Granger Causality test, it reveals that RON97 price does not have any deleterious effect on sugar price. A part from that, there is also no mutual relationship between diesel price and sugar price from 2008 to 2014 in Malaysia.

Table 6.6
Pairwise Granger Causality Test Result

Independent Variables	*Dependent Variables (Chi-square)*			
	D(RON95)	*D(RON97)*	*D(DIESEL)*	*D(SUGAR)*
D(RON95)	–	0.85227	1.03210	5.13963*
D(RON97)	0.06233	–	0.28311	1.00932
D(DIESEL)	0.01689	3.78802**	–	0.44354
D(SUGAR)	0.30461	1.27425	0.53360	–

5. CONCLUSION AND POLICY IMPLICATION

This study aims to address the issue of the effects of oil prices on sugar price. It examines the possible effects of oil price on sugar price in the short run and long run. The unit root test was performed to explore the stationarity of the variables and the results show that all of the variables (RON95, RON97 and diesel prices as well as sugar price) are non-stationary at level and stationary at first difference.

The Johansen co-integration test was employed and the results that there is a long run relationship among all variables. However this relationship can be confirmed by the result of error correction terms (ECT-1) which indicates significance in the *t*-statistic. Two approaches were employed in this study in order to explore the causality relationship between two variables. The results of the Wald test and Pairwise Granger Causality suggest that there is an effect of changes in the price of RON95 on sugar price from 2008 to 2014. This empirical evidence may shed light on the effects of oil prices on sugar price in Malaysia. The findings can suggest that it is important to control the price of oil to cushion its effects on sugar price. The removal subsidy from oil is detrimental to sugar price in Malaysia.

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