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The Influence Of Inflation And Exchange Rates On The Balance Of Trade In Member Countries Of The Organization Of Islamic Cooperation (OKI) (Case Study: Indonesia, Brunei Darussalam And Saudi Arabia)

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Abstract:

This study aims to determine how much influence inflation and exchange rates have on the trade balance in 3 OIC member countries namely Indonesia, Brunei Darussalam, and Saudi Arabia Starting from 2012-2021. This research uses a quantitative approach with panel data types, The analysis tool used is Eviews 10 with the Vector Error Correction Model (VECM) method. Based on the results of this study shows that inflation and exchange rates have a significant effect on the trade balance in the 3 OIC member countries for the short term and also the long term. The variable which more dominantly affects the trade balance both in the short and long term is inflation. Where a low inflation rate will not have a significant effect on the trade balance so a low increase in inflation will still increase the balance sheet trade in 3 OIC member countries. The inflation rate can also cause a country not to be able to compete in world trade so exports decline and certainly affect the surplus trade balance in 3 OIC member countries.

***Keywords**: inflation, exchange rate, and trade balance*

1. Introduction

The condition of a country's economy can be seen from both the internal and external sides. Internal conditions are reflected in real sector developments, such as production, consumption, and investment, and monetary sector developments, such as inflation and money supply. Meanwhile, external conditions are reflected in the development of the balance of payments. The trade balance is an important part of the balance of payments. The trade balance explains a country's international trade transactions. In the long run, the condition of the trade balance shows the country's role in international trade. If the value of a country's trade balance is in surplus, the country is classified as an exporting country. If the trade balance is in deficit, the country is classified as an importing country. For developing countries, a trade balance deficit is

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unfavorable because the costs incurred for imports are greater than export revenues and will reduce the country's ability to improve the welfare of the population.

The developing world economy since the end of the 20th century has increasingly opened up trade relations between various countries, which is characterized by the rapid flow of goods or services between countries. International trade has a very important meaning for a country. Through international trade, it can mean many benefits, both direct and indirect benefits. The direct benefits of international trade include the existence of specialization, a country can export commodities that have been produced in exchange for what is produced from other countries at a more affordable cost. The country will benefit directly through an increase in national income, which in turn will increase the country's output and economic growth. This encourages every country to engage in international trade including countries that join the Organization of Islamic Cooperation (OIC).

The OIC itself has 57 member countries spread across 4 continents with diverse economic backgrounds of its members. However, this study only examines 3 OIC member countries, namely Indonesia, Brunei Darussalam, and Saudi Arabia. This is based on these three countries which have a fluctuating trade balance from 2012-2021. The reason for selecting OIC member countries is that the OIC is an organization with the largest Muslim population in the world, such as Indonesia, Malaysia, Brunei Darussalam, Saudi Arabia, Egypt, Qatar etc. Most of the OIC member countries are OIC countries, namely Indonesia, Brunei Darussalam, Saudi Arabia, Egypt, Qatar etc. Most of the OIC member countries are developing countries with fluctuating economic growth rates. The great strength of the OIC in the economy is the joining of the world's largest oil-producing countries and some countries that have very abundant natural resources. Most of the countries in the Middle East as a region are considered to play a major role in the pace of OIC work which will increase the economic growth of OIC member countries.

Exports affect a country's economic growth. Economic growth is an indicator of a country's economic progress. (Imsar et al., 2022) According to Kuznets, economic growth is a long-term increase in the capacity of the country concerned to provide various economies to its population. According to Mankiw, a country's trade activities can be divided into trade surplus, trade deficit and trade balance.(Silviana, 2016). Understanding the relationship between changes in the real exchange rate and changes in the trade balance is important for economic policy makers and the public in an open economy. Elif Akbostanci said the effect of exchange rates on the trade balance both in the short and long term differs over time and is influenced by the exchange rate system and the state of a country's economy. Exchange rate depreciation will initially worsen the trade balance, but over time the trade balance will increase like the J curve phenomenon. Meanwhile, according to Chowdury et al (2014), the exchange rate is an important variable that affects the trade balance, where devaluation will improve the trade balance in the long run.

Apart from the influence of exchange rates, the trade balance in a country is also affected by the level of inflation that occurs in a country. Inflation is the process of rising general prices of goods continuously over a certain period. This inflation rate affects the trade balance, namely the weakening of the trade balance deficit due to the lack of export volume rather than imports. Yihevis and Musila (2018) stated that in the long run inflation does not have a significant effect on the trade balance. However, in the short term there is a causal relationship between the trade balance and the exchange rate. Then, Houck (1979) stated that through the concept of Purchasing Power Parity, differences in inflation in each country will affect exchange rates and encourage international trade. (Fakhruddin & Rahmawati, 2021).

Data on exchange rates, inflation, and trade balance in 3 member countries of the Organization of Islamic Cooperation (OIC), namely Indonesia, Saudi Arabia and Brunei Darussalam starting from 2012-2021. The table above shows that the exchange rate, inflation and trade balance in OIC member countries fluctuate every year. Fluctuations in the exchange rate will certainly affect the economic conditions in each of these countries. Likewise, inflation of the three members of the OIC countries also fluctuates, where these fluctuations are very consequential to the uncertainty for business people so that the productivity of business people decreases, and thisinflation greatly affects the country's economy. The trade balance also fluctuates, although in 2012-2015 Saudi Arabia experienced a deficit, but the deficit was not as minus as Indonesia. then in 2016-2018 the highest trade balance surplus was dominated by Saudi Arabia. This trade balance surplus means that exports in the country are higher than imports. This shows that the economy in the country is in good condition.(Silviana, 2016).

2. Theoretical Background

Trade Balance

The definition of trade balance itself is the value of a country's exports minus the value of its imports, or it can also be referred to as net exports. If net exports are positive, exports are greater than imports where goods and services sold to outside countries are more than goods and services purchased from outside countries. (Wibowo, 2021). When the value of exports is greater than the value of imports, it can be said to be a trade surplus. Meanwhile, when the value of imports is greater than the value of exports, it can be said to be a trade deficit. (Nancy Nopeline, 2020). The balance of the balance of payments depends on factors such as inflation, exchange rates. The effect of inflation on the balance of trade, if a country's inflation rises, the balance of trade will experience a deficit because domestic prices increase. If prices rise, imports will decrease and can disrupt the balance of payments. A country's exchange rate will affect the balance of payments. If the exchange rate increases (appreciation), the trade balance will decrease, and vice versa if there is a depreciation, the trade balance surplus will increase.(Bhayangkara & Raya, 2023)

The balance of trade (BoT) is also used to see the changes in goods or services exported to foreign countries and imported from foreign countries according to a set time frame. For the government, the balance of trade is used to identify and implement appropriate policies for international trade, so that domestic products can be protected.

A country can gain many benefits from international trade, including increasing national income and increasing the economic growth rate of the country.

Mankiw says the trade balance is the net export of goods as well as services. Thus, the trade balance is the difference between a country's exports and imports and the rest of the balance during a given period. It is measured using the currency prevailing at the time. When the value of imports is higher than exports, a trade deficit condition occurs. Conversely, if exports are higher than imports, then what happens is a surplus condition on the trade balance.(Afriyanti & Putri, 2021)

Harry Waluya stated that "Trade Balance" is a net calculation of import and export transactions of trade goods (visibele trade). Therefore, the trade balance is the difference between imports and exports. If imports are higher than exports, there will be a trade balance deficit, otherwise if exports are higher than imports, there will be a trade balance surplus. (Khoirunnisa, 2021). Pujoalwanto explained that the trade balance is a record or overview that contains or records all export transactions and import transactions of a country's goods. The balance of trade is said to be a deficit if the value of exports is smaller than imports and is said to be a surplus if the export of goods is greater than imports. And it is said to be a balanced balance of trade if the value of a country's exports is equal to the value of imports made by that country. (Ginting, 2014).

The four factors that affect the trade balance include foreign income, domestic income, inflation and the real exchange rate. An increase in foreign income will boostdemand for domestic goods. An increase in exports will result in an increase in the trade balance. The same applies to domestic income, when there is an increase in domestic income it will result in additional income used for imports. Increased imports will lead to a decrease in the trade balance. Foreign income will increase the demand for domestic goods. An increase in exports will improve the trade balance. Therefore, when foreign income increases, the trade balance will improve.

In the view of Islam, international trade is allowed because there is no evidence that forbids this trading activity. In carrying out international trade, each country must also pay attention to its rules. These rules include the halalness of goods and services at the place of trade, international trade can realize the benefits of Muslims, and finally economic activities must be led by a Muslim. The balance of trade or commonly referred to as net exports is a bridge between national income and international transactions. According to Abu Ubaid bin Salam bin Miskin bin Zaid al-Azdi, he highlighted international trade through exports and imports. He suggests that there is no zero tariff in international trade, there are certain limits to the imposition of excise, and foodstuffs are lighter or cheaper. Because according to him the excise tax is the habit of the ignorant people.(Ii et al., n.d.)

Inflation

Inflation is an event that shows a general and continuous increase in the price level. Inflation is the tendency of the prices of goods and services to rise in general and continuously. If the prices of goods and services in the country increase, then inflation increases. The increase in the price of goods and services causes a fall in the value of the currency. Thus, inflation can also be interpreted as a decline in the value of money against the value of goods and services in general. Indicators to calculate the inflation rate are the consumers price index, the wholesales price index and the implicit price index (GNP deflator). Broadly speaking, inflation occurs when the price of goods increases and lasts for a long time.

In an economic perspective, inflation is an event where the usual (general) price level increases continuously. Inflation can cause unrest for the community if it occurs continuously (prolonged). (Suhardi & Tambunan, 2022). Inflation can be said to be like a disease for a country. Inflation is one of the variables that affect trade. Inflation can also cause the price of export goods to be expensive, so inflation tends to reduce exports. This is what can cause the current account balance to deficit. (Matondang, 2019)

According to Tandelilin (2010), inflation is the tendency for prices of products to rise as a whole, resulting in a decrease in the purchasing power of money. Inflation occurs when prices continue to creep up as a result of economic growth or too much money circulating in the market. (A, 2022). According to Mankiw that inflation is normal, there are important variations in the rate of price increase. The public often views this high inflation rate as a major problem in the economy. (Ningsih & Andiny, 2018). Then according to Mankiw inflation is an increase in the overall price level or an upward trend in prices for goods that are included in basic needs and are taken into account in the cost of living survey.

According to Keynes' view, he saw that inflation occurs due to the excessive appetite of people who want to utilize more of the available goods and services. Because of the desire to fulfill needs excessively, demand increases, while supply remains fixed,what will happen is that prices will rise, the government can buy goods and services by printing money. (Simanungkalit, 2020). According to Sukirno, inflation is an increase in the price of goods and services, which occurs because demand increases more than the supply of goods in the market. In other words, too much money chasingtoo few goods. Inflation usually refers to consumer prices, but can also use other prices (wholesale prices, wages, prices, assets and so on). (Huda, 2018).

The difference in inflation that occurs in two countries that conduct international trade will affect the balance of trade of each country. Houck states that prices in countries with high inflation will increase more than countries with lower inflation. The difference in inflation rates encourages countries with high inflation to import from other countries, allowing the country's trade balance to experience a deficit. Meanwhile, according to al Maqrizi, Inflation occurs because prices generally increase and continue.(Fadilla, 2017). In Islam, inflation is not known, because the currency used is dinar or dirham, which has a stable value and is justified in Islam. A decrease in the value of dinar or dirham is indeed possible, namely when the value of gold that supports the nominal value of the dinar has decreased. (Seli Saftiri., Imsar., 2019)

Rates
The currency exchange rate or often referred to as the exchange rate is the price of one unit of foreign currency in domestic currency or it can also be said that the price of domestic currency against foreign currency. (Maisyarah, Siti., Mustopa Kamal Rokan., 2019). The exchange rate represents the price level of exchange from one currency to another and is used in various transactions, including international trade transactions, tourism, international investment or short-term money flows between countries that cross geographical boundaries or legal boundaries. If a country's currency increases in value, it is called appreciating. Meanwhile, if the opposite happens, it is called depreciation. (Fauzan Fahmi Hasibuan, Andri Soemitra, 2023).

Changes in exchange rates will directly change the price of goods and services. Currency exchange rates are related to international trade because fluctuations in exchange rates can affect the value of exports and imports.(Bagus et al., 2017). When international trade activities occur, a weak currency can affect the amount of goods a country can buy. International trade is necessary in increasing the rate of economic growth of a country. Currency conversion or exchange rates are needed in international payments because of the different currencies that each country conducts trade. A country's exchange rate will affect the macroeconomic conditions of a country, especially with net exports or trade balance.

Exchange rates are divided into two, namely nominal exchange rates and real exchange rates. The nominal exchange rate is the exchange rate of the domestic currency compared to the value of the foreign currency. While the real exchange rate is a comparison of the value of domestic goods and services against goods and services that are homogeneous and produced abroad. Exchange rates are motivated by the demand and supply of foreign exchange. The demand for foreign exchange (forex) comes from domestic money holders who need forex to buy foreign goods and services. Foreign exchange offers come from foreigners or foreign parties who want to buy domestic goods and services (exports) paid in domestic currency.

According to Salvatore "The exchange rate is the price of a country's currency against another country or the currency of a country expressed in the currency of another country". An increase in the exchange rate is called depreciation while a decrease in the exchange rate is called appreciation. Generally, the increase or decrease in the exchange rate is determined by the intersection of the market demand curve and the supply curve of the foreign currency. (Khoirunnisa, 2021). According to Krugman who defines the exchange rate as the price of a country's currency measured through the currency of another country. Thus it can be understood that what is meant by the exchange rate is the relative price of a currency against the currencies of other countries. Exchange rates move all the time so that the value of a currency against another currency will fluctuate.(Tamam & Muslikhati, 2019)

According to Kennedy's theory, he argued that the exchange rate has a positive influence on the trade balance. Because the exchange rate has an important role in international trade which can result in a stronger trade balance if the exchange rate is also strengthened. (ARIE, 2022). Changes in the real exchange rate will affect a country's trade balance.

In Islamic economics, currency exchange activities or exchange rates are called sharf activities. Where the sharf activity is permissible. Sharf is the buying and selling or exchange between one foreign currency and another foreign currency, such as rupiah with dollars, dollars with yen and so on. The exchange rate can change from time to time as a result of changes in value or called relative price changes (referring to inflation means nominal prices or changes in all prices, while relative price changes are not all prices of goods change). (Laili, 2021)

3. Methodology

This research method uses a quantitative approach with secondary data collection techniques from the World Bank and Bank Indonesia. The analytical tool used is Eviews 10, the analysis method used is the Vector Error Correction Model (VECM) analysis using panel data for a period of 10 years. The variables used in writing this journal are the independent variables Inflation (X1) and Exchange Rate (X2) and the dependent variable Trade Balance (Y) in the Organization of Islamic Cooperation (OIC) member countries, namely Indonesia, Brunei Darussalam, and Saudi Arabia starting from 2012-2021.

4. Empirical Findings/Result

The first step in conducting the analysis in this study is to test the panel data method used. To test this, the Hausman Test was conducted

Table 2. Hausman Test

Correlated Random Effects - Hausman Test			
Equation: Untitled			
Test cross-section random effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	3.748725	2	0.1535

Based on the table above the prob value. Chi Square = 0.1535> 0.05, then H0 is accepted so that the Random Effect model is selected. So it can be concluded that from the Hausman test the best model is Random Effect. Panel data results with Random Effect can be seen below:

Table 3. Hausman Test

Variables	Coefficient	Std. Error	t-Statistic	Prob.
C	-1314.222	827.6014	-1.587989	0.1249
INF	1.967298	14.08312	0.139692	0.8900
KUR	0.172569	0.094688	1.822498	0.0804

The coefficient value of Inflation = 1.967298, the Inflation variable has a positive regression coefficient on the Trade Balance. This means that if the other independent variables are constant, then each unit increase in the Inflation variable will cause an increase in the Trade Balance of 1.967298.

The exchange rate coefficient value is 0.172569, the exchange rate variable has a positive regression coefficient on the trade balance. This means that if the other independent variables are constant, then each unit increase in the Exchange Rate variable will cause an increase in the trade balance of 0.172569.

Stationarity Test

The stationarity test uses the unit root test with the Augmented Dickey Fuller Test (ADF Test) method. If the prob value <0.05 then the data does not contain unit roots which means the data is stationary. The use of time series data in the VECM model requires stationary data. A data is said to be stationary if it meets three criteria, namely: the average, variance, and covariance at each lag are the same at all times" (Agus Widarjono, 2007: 341). This study uses the Dickey-Fuller (ADF) unit root test to see the stationarity of the data.

Table 4. Stationary Test

Variables	**Level**		***First Difference***	
	ADF	P-value	ADF	P-value
Inflation	-10,5064	0,0000	-10,62283	0,0000
Rates	-1,68329	0,7528	-11,15927	0,0000
Trade Balance (NP)	-2,532266	0,3123	-15,94263	0,0000

From the table above, it can be seen that based on a significant level of 5% at the level level, only the inflation variable has a probability <0.05 or significant. While the exchange rate and trade balance variables are significant at the first difference level when the probability <0.05. So it is concluded that all variables are stationary at the first difference level.

Optimum Lag Test

The optimum lag test is used to determine the optimum lag length that will be used for further analysis. In determining the optimum lag there are several stages including: First, determining the maximum lag length of a stable VAR system. The stability of the VAR system is seen from the inverse roots of the AR polynomial characteristics. A VAR system is said to be stable (stationary) if all of its roots have a modulus smaller than one and all are located in the unit circle. Second, the optimal lag length will be sought using the information criteria of Likehood Ratio (LR), Final Prediction Error (FPE), Akaike Information Criterion (AIC), Schwarz Information Criterion (SC) and Hannan Quin Criterion (HQ). The optimal lag length is required to capture the effect of each variable on the other variables in the VAR system. The optimal lag will be selected is the lag that is most selected by several criteria tests used, marked with the most asterisks (*) on that lag. (Tamimah et al., 2019). Based on the results of the lag optimum lag test using the Akaike Information Criterion (AIC) criterion, the results show that the lag optimum is at lag 1.

Table 5. Testing the Optimal Lag Length

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-509.6851	NA	7.20e+14	42.72376	42.87101	42.76282
1	-438.8625	118.0375*	4.21e+12*	37.57188*	38.16091*	37.72815*
2	-432.9891	8.320678	5.70e+12	37.83243	38.86322	38.10590

VAR Stability Test

The VAR equation estimation model must be tested for stability first to obtain valid results during impulse response function (IRF) and variance decomposition (VD) analysis. The VAR stability estimation results are stable if all roots have a modulus smaller than one (<1), based on the stability test results on the side, it can be seen that the modulus value in the table has a value <1 so that the conclusion can be drawn that the VAR estimation results are stable.

Table 6. VAR Stability Test

Root	Modulus
0.693120	0.693120
0.038192	0.038192
0.108556	0.108556

The VECM model is declared stable if in determining the optimum lag all variables have a Modulus Roots of Characteristic Polynominal value smaller than one. After the VECM stability test, the VECM estimation can be carried out. In this study, the VAR model is stable as shown in Table 6.

Cointegration Test

The cointegration test is conducted to determine the existence of a relationship between variables, especially in the long run. If there is cointegration in the variables used in the model, it can be ascertained that there is a long-term relationship between the variables If a set of variables is truly cointegrated, it must be possible to detect implied or unrestricted VAR. Based on the cointegration test results, this model has cointegration at 5% real level.

Table 7. Cointegration Test

Hypothesized		Trace	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.
None*	0.592927	205.3380	47.85613	0.0000
At most 1*	0.282818	79.51128	29.79707	0.0000
At most 2*	0.157346	32.97162	15.49471	0.0001

Granger Causality Test

This test is one of the important analyses in the VAR model, to see if there is a reciprocal relationship or causal relationship between one variable and another significantly, this is because the variables in this research model have the opportunity to become endogenous or exogenous variables, so the relationship between variables is seen from $\alpha = 5\%$.

Table 8. Granger Causality Test

Pairwise Granger Causality Tests			
Date: 07/11/23 Time: 19:03			
Sample: 2012 2021			
Lags: 1			
Null Hypothesis:	Obs	F-Statistic	Prob.
INF does not Granger Cause NP	30	0.00018	0.0394
NP does not Granger Cause INF		0.14620	0.7056
KUR does not Granger Cause NP	30	4.11016	0.0539
NP does not Granger Cause KUR		2.10698	0.1596
KUR does not Granger Cause INF	30	0.29454	0.5923
INF does not Granger Cause KUR		1.82270	0.0196

The Granger Causality test results above show that only the prob of inflation is significant to the Trade Balance variable with a probability of 0.0394 <0.05, while the prob of trade balance is not significant to inflation. Thus it can be concluded that there is unidirectional causality between inflation and trade balance variables, where inflation statistically significantly affects the trade balance, and not the other way around.

Empirical Results of VECM Model Estimation

These results indicate that the model on the trade balance of Oki countries has met the requirements to be able to continue at the VECM estimation test stage based on the results of the cointegration test that has been carried out previously. At the VECM estimation test stage, it will explain the short-term and long-term relationships. On the research variables. A variable will be said to be significant in influencing other variables if the t-statistics value of the variable is greater than the t-table at a real level of 5%, namely (t statistic> 1.697) The results of the VECM estimation on the trade balance of Oki countries can be seen in the table below:

Table 9. Empirical Results of VECM Model Estimation

	Long-term	
Variables	Coefficient	T statistic
INF(-1)	7.763145	[6.01964]
KUR(-1)	-0.882527	[4.16201]
	Short-term	
D(INF(-1))	0.866409	[2.91199]
D(KUR(-1))	-0.064578	[1.90789]

In the VECM estimation of the trade balance model of OIC countries, it is explained that in the long run all macroeconomic variables, namely inflation and exchange rates, have a significant effect on the trade balance. While in the short term, inflation and exchange rate variables also have a significant effect on the trade balance of Oki countries. Inflation is very dominant in affecting the trade balance in both the long and short term.

The inflation variable has a significant effect in the long term or short term, this is in accordance with research (Kasidi & Mwakanemela, 2013) it is considered that a low inflation rate will not have a significant effect on the trade balance, so that a low increase in inflation will still increase the trade balance of Oki countries (Chris & Anyingang, 2012). On the other hand, avoiding deflation is preferred over avoiding inflation in the country.

While the exchange rate variable also has a significant effect on the trade balance of OIC countries in the long run and short run, it shows that in developing countries the more inflexible the exchange rate system of a country, the lower its trade balance; while in developed countries there is no significant difference in the use of fixed and floating exchange rate systems (Eduardo & Stuzenegger, 2003) can provide a higher level of trade balance growth, in this case depending on the preferences and monetary policies that accompany the exchange rate regime (Philippe & Wincoop, 2000). Meanwhile, the effect of exchange rate on the growth of trade balance through the AD channel is contemporaneous, which occurs immediately after the exchange rate change. Some components of aggregate demand, such as consumption, investment, immediately react and go to their latest values. Changes in the magnitude of these AD components indicate changes in the trade balance and economic growth.

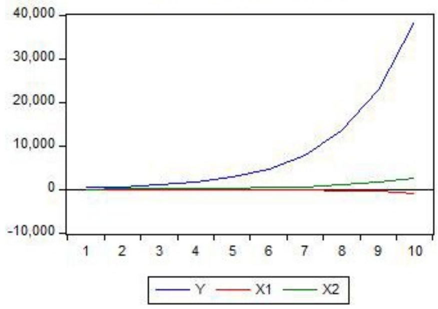

Figure 1. Response of Y to Innovations

Impulse Response Function analysis is conducted to see the response trace of the dependent variable to shocks in the error terms in the VAR system for the next few periods. The figure above shows that the IRF results in the growth of the trade balance of the OIC countries as a whole respond positively when there are shocks to the Inflation and Exchange Rate variables. In period 1 to period 10 the trade balance responds positively to inflation and exchange rate shocks. In the 10th period inflation responds negatively to the trade balance.

FEVD

After analyzing the behavior of shocks through Impulse Response Function (IRF), the next step is to predict the contribution of each research variable to shocks or changes in certain variables by looking at the model through Forecast Error Variance Decomposition (FEVD). To predict the contribution of shocks of each variable Inflation and Exchange Rate to the growth of trade balance.

Table 10. FEVD

Variance Decomposition of Y: Period	S.E.	NP	INF	KUR
1	327.3398	100.0000	0.000000	0.000000
2	648.9647	99.84611	0.097419	0.056469
3	1155.014	99.74578	0.104943	0.149278
4	1993.544	99.66582	0.092553	0.241629
5	3403.577	99.60298	0.080034	0.316989
6	5785.695	99.55685	0.070957	0.372196
7	9816.159	99.52488	0.065014	0.410106
8	16638.90	99.50361	0.061280	0.435107
9	28190.12	99.48985	0.058976	0.451176
10	47747.74	99.48110	0.057564	0.461334

Variance decomposition analysis is useful for predicting the percentage contribution to the variance of each variable due to changes in certain variables in the VAR system. The dynamics of a variable can be analyzed using the decomposition of the variance of the orthogonalized forecasting error. (Ginting, 2014). From the decomposition table of the trade balance variable above, it can be seen that at the beginning of the period, the trade balance is determined by the shock to the variable itself, which is 100 percent in the first period, which means that the shock to other variables has no contribution at all.

In subsequent periods, other shock variables begin to influence the trade balance variable, although the effect of the shock is not too large. In the long run, it can be seen that in addition to the shock to the trade balance itself, the shock to the inflation contributes only about 0.057564 percent in period 10 and the exchange rate variable of about 0.461334 percent can almost be said not to contribute anything to the trade balance variable

5. Discussions

Inflation and exchange rates have a significant influence on the trade balance. The hypothesis was accepted in the Granger causality test with a probability value of 0.0394 < 0.05. The inflation variable has a significant influence both in the long term and also in the short term, this is in accordance with research (Kasidi & Mwakanemela, 2013) where it is assessed that a low inflation rate will have a significant effect on the trade balance, resulting in a low increase in inflation. will continue to increase the balance of trade in OIC member countries. The exchange rate variable also has a significant influence on the trade balance, if one of the currencies in the 3 OIC member countries weakens against foreign currencies, domestic consumers will reduce consumption of imported products because they have to spend more money than before, while exports will continue to increase. because foreign consumers consider domestic products to be cheaper so they spend less money than before and will increase the value of the trade balance in the 3 OIC member countries. Of the two variables, the one that more dominantly influences the trade balance in both the long and short term is inflation.

6. Conclusions

Inflation and exchange rates have a significant effect on the trade balance in the 3 OIC member countries, but the more dominant influence on the trade balance both in the short and long term is inflation. The growth of the trade balance of OIC countries as a whole responds positively when there are shocks to the Inflation and Exchange Rate variables. The inflation variable experiences shocks in the negative direction in the ninth and tenth periods. While the exchange rate variable responds positively from the first period to the tenth period. The oki countries' trade balance variable is more dominantly influenced by the trade balance itself with a contribution of 99.48110% in the tenth period. And continued with the exchange rate which contributed 0.461334%. The variable that has the lowest contribution is given by the inflation variable with a contribution of 0.057564%.

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