International Journal of Energy Economics and Policy

ISSN: 2146-4553

available at http: www.econjournals.com

International Journal of Energy Economics and Policy, 2025, 15(3), 30-36.

Analysis of the Relationship between Oil Prices and Current Accounts in Oil Importing Countries

Gulmira Mombekova[1], Akmaral Sarsenova[2], Almas Kuralbayev[1]*, Bibigul Izatullayeva[3], Saule Kaltayeva[3]

[1]Khoja Akhmet Yassawi International Kazakh-Turkish University, Turkestan, Kazakhstan, [2]International Taraz innovative institute named after Sherhan Murtaza, Taraz, Kazakhstan, [3]International University of Tourism and Hospitality, Turkestan, Kazakhstan. *Email: almas.kuralbayev@ayu.edu.kz

Received: 10 September 2024 **Accepted:** 05 March 2025 **DOI:** https://doi.org/10.32479/ijeep.17409

ABSTRACT

The fact that oil resources are concentrated in certain regions of the world is a serious economic problem for countries that import oil intensively. Especially the changes in oil prices have a great effect on the economic indicators of the countries. The current account balance is shown among the most important macroeconomic problems of many countries. The aim of this study is to examine the effect of the changes in oil prices between the periods of 2000Q1-2024Q1 on the current account balance of oil importing countries. The relationship between the variables was analyzed with Hacker and Hatemi-J (2006) symmetric and Hatemi-J (2012) asymmetric causality tests. As a result of the analyzes, no symmetric causality relationship was determined between oil prices and the current account balance in oil importing countries. According to the results of the Hatemi-J (2012) asymmetric causality test, it was determined that there were asymmetric causality relationships between the variables in all other countries except Germany and the Netherlands.

Keywords: Oil Price, Current Account Balance, Current Account Deficit, Oil İmporting Countries, Asymmetric Relationship
JEL Classifications: C10, F32, Q43

1. INTRODUCTION

With increasing industrialization, the need for energy increases and the energy issue is becoming increasingly important in national economies. While increasing energy demands are considered as an indicator of growth, they also bring the current account deficit problem to the agenda for countries that are dependent on foreign energy. The fact that most of the energy needs are met by petroleum products and that petroleum products are used at high rates in many sectors makes the relationship between increasing petroleum imports and the current account deficit more interesting. There are different approaches to how changes in oil prices affect the current account balance. These approaches use different channels to explain the relationship. These are the supply channel, demand channel, trade channel, monetary channel and financing channel. According to Kilian (2010), a positive shock in the oil price is a terms of trade shock for a country that imports oil. Such a terms of trade shock can be considered as a problem affecting the production decisions of the economy. Because oil is an important production input. An increase in the price of this production input will also disrupt the trade balance. Another channel is the demand channel. An increase in the oil price, unlike the system in the supply channel, will cause a decrease in the demand for other goods or, in other words, the share allocated from the budget for the purchase of other goods. In other words, the amount of expenditure made for other goods will decrease. This situation is actually related to the price elasticity of oil demand. Based on the assumption that the price elasticity of oil demand is low, the trade balance will also be disrupted as a result of the change in the amount of goods exported and imported with the increase in the price of oil. The effect of oil prices on the current account deficit through the monetary channel occurs in the form of monetary policies implemented in the face of an increase in oil prices causing stagnation in the economy and increasing the current account deficit. The effect through the trade channel is that due to the increase in oil prices, imported goods become cheaper and exported goods become more expensive, which leads to a deterioration in the foreign trade balance and therefore an increase in the current account deficit. Finally, the finance channel assumes that changes in oil prices will increase asset prices and profits in oil exporting countries. In this way, a portion of the increased welfare will be transferred to oil importing countries, thus causing a change in the current account balance as a result of capital transfer. The evaluation of the current account balance as a leading indicator of economic crises that may occur in later years makes determining the causes of the foreign trade balance an important issue (Zanghieri, 2004). From this perspective, determining the effect of changes in oil prices on the current account balance is important for policy makers. Because in the event of a possible relationship, it will be possible to predict the course of the current account balance in the future by monitoring changes in oil prices and implement short and medium term policies accordingly.

In this study, symmetric and asymmetric relationships between current account balance and oil prices were analyzed with data from oil importing countries. The section following the introduction of the study includes empirical studies investigating the relationship between current account balance and oil prices. In the fourth section, after the data set is explained, the analysis method and findings are presented. The study ends with the conclusion section.

2. LITERATURE REVIEW

The relationship between oil prices and the current account balance is complex and varies significantly across economies. Table 1 provides a summary of the literature on the subject. Research shows that oil price fluctuations can have both positive and negative effects on current account balances, depending on whether a country is an oil exporter or importer. The first study to examine the relationship between oil prices and the current account balance was conducted by Agmon and Laffer (1978). In their study of developed countries, the authors concluded that the current account balance deteriorates immediately after an oil price shock, but the balance is restored immediately after the initial deterioration. Rebucci and Spatafora (2006) similarly argue that oil price shocks have a short-term effect on the current account deficit.

Aristovnik (2007), Bitzis et al. (2008) and Barnes et al. (2010) revealed that there is a positive relationship between current account deficits and oil prices; Duncan (2014) and Garsviene and Butgus emphasized that this relationship is still positive but has a weak effect. Gosse and Serranito (2014) mentioned the existence of a strong positive relationship between current account deficits and oil prices in both the short and long term. Morsy (2012) underlined that the current account deficit-oil price relationship is negative in oil exporting countries and a positive relationship in oil importing countries in his analysis of 74 countries, 28 of which are oil exporters.

Zaouali (2007) examined the impact of a positive shock in oil prices on the Chinese economy using the Computable General Equilibrium Model. He analyzed this model according to two different scenarios of international oil price increases, first by \$10 and second by \$25. As a result of his analysis, he found that the price increase did not have a significant effect on the current balance.

Chuku et al. (2011) examined the relationship between oil price shocks and current account in the Nigerian economy using data from 1970Q1-2008Q4 using the structural vector autoregression method. As a result of their analysis, they determined that oil price shocks in the Nigerian economy had a significant short-term effect on the current account balance. The authors argued that the response of oil price shocks to the current account ratio increased in the first 6 quarters and then decreased until the 30th quarter. The authors concluded from the variance decomposition analysis that the effect of oil price shocks on the current account dynamics was 15.77%. Based on these results, the authors claimed that the effect of oil price shocks on the current account dynamics was small in the short term and that this effect disappeared in the long term.

Schubert (2014), in his study examining the effects of oil price shocks on small country economies, states that a permanent increase in oil prices has a J curve effect on the current balance. In other words, a permanent increase in oil prices disrupts the current balance. However, this disruption in the current balance corrects over time and comes to balance.

Huntington (2015) examined the relationship between crude oil trade and current account deficits of national economies using data from 91 countries for the period 1984-2009 using panel data analysis. The independent variables used in the model were the relative age-dependency ratio of the working age population, the government budget balance as a percentage of GDP, the deficit in the economy measured by the sum of imports and exports as a percentage of GDP, GDP per capita, the square of GDP per capita, and the net oil export balance as a percentage of GDP. The current account/GDP ratio was used as the dependent variable. The study argued that net oil exports were an important factor in explaining the current account surplus, but net oil imports had no effect on the current account deficit.

Varlik and Berument (2020) found that persistent oil price shocks do not permanently affect the current account deficit, instead adjustments occur in the trade balances and net exports of various sectors. Bibi et al. (2021) found in a study on 160 countries that oil price shocks generally have a positive effect on the current account through trade channels, but have a negative effect through wealth channels, especially for small and large oil importers. Fotshak and Bello (2022) found that in oil-dependent economies such as Nigeria, increases in oil prices have a positive but insignificant short-term effect on the current account, while long-term effects are negative and significant. Chang et al. (2023) found that the relationship is asymmetric for oil-importing countries, with rising oil prices tending to have a more significant negative effect on current account balances compared to the positive effects of falling prices.

3. DATA AND METHODS

3.1. Data and Model

Having oil reserves or importing oil significantly due to the country's structure is of great importance for countries in the global economic system (Syzdykova et al., 2022). This study examines the existence of relationships between current account balance and oil prices on the basis of oil importing countries and aims to reveal the existence of new relationships along with the differences between symmetric and asymmetric causality tests. The countries that import the most oil in the world in 2023 are China, United States of America, India, Republic of Korea, Japan, Germany, Netherlands, Spain, Italy, United Kingdom, respectively. Current account balances and oil price data of oil importing countries are presented in Graph 1. While Germany and Netherlands, which are oil importing countries, have current account surpluses, all other countries have current account deficits. The Netherlands had a current account surplus in the entire period included in the study except for the third quarter of 2015.

This study examines the relationships between current account balances (*ca*) and oil prices (*oil*) for the period 2000Q1-2024Q1 for oil importing countries. The data for the current account balance variable were obtained from the IMF database, while the oil price variable was obtained from the FRED database. When the time series graphs (Graph 1) of the data for the variables are examined, it is seen that both the graphs of oil prices and the current account balance data of the countries are subject to breaks and have a continuously variable structure (decreases and increases). It is expected that taking this situation into consideration will increase the reliability of the analyses to be conducted.

The relationships between variables are modeled using the following equations:

$$ca_t = \beta_0 + \beta_1\, oil_t + u_t \qquad (1)$$

In model (1), cat represents the current account balance of the countries as stated above, and oilt represents oil prices. β_0 represents the constant term coefficient, and β_1 represents the slope coefficient of the oil_t variable. u_t is the error term of the model. The t index indicates that the model is a time series and is listed as t = 2000Q1, 2000Q2,…,2024Q1.

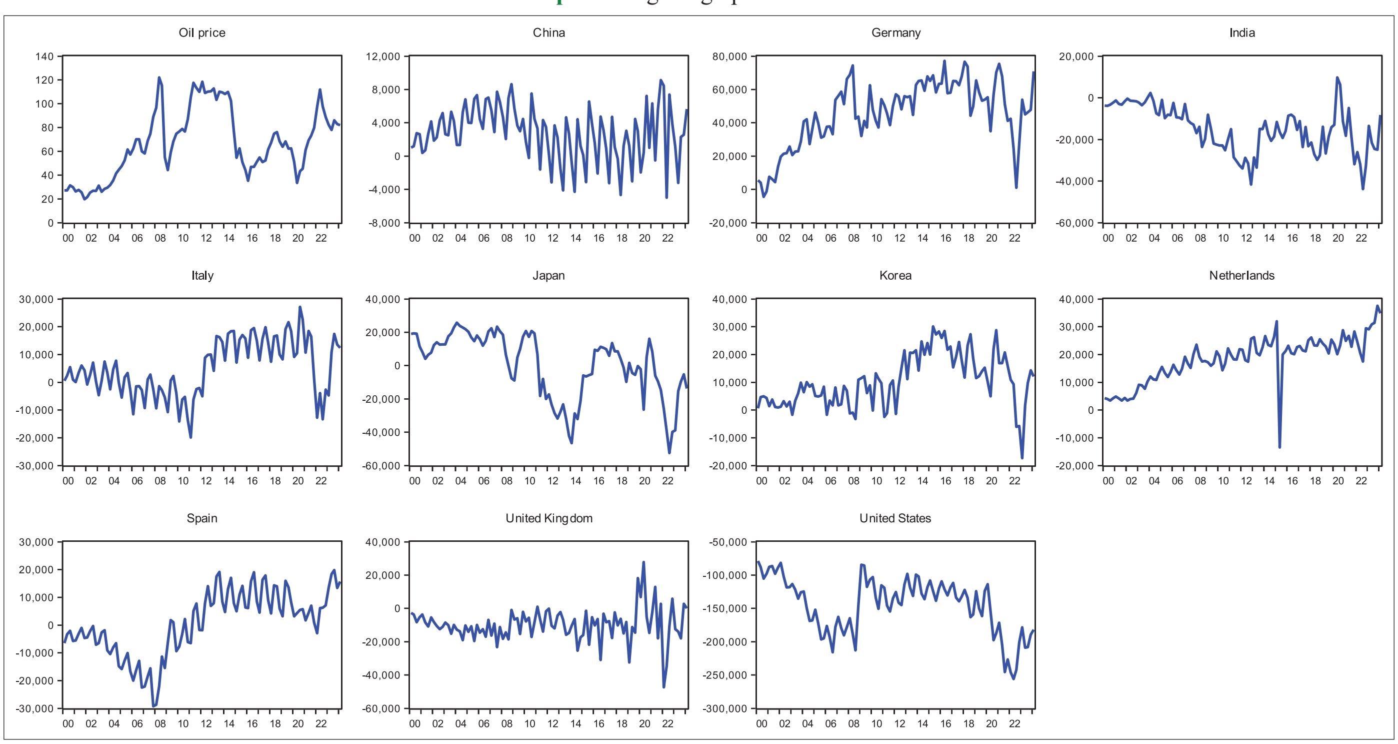
3.2. Methods

The dynamic relationships between oil_t and ca_t for oil importing countries are investigated using time series methods. In the first stage, the stationarity levels of the original values of the variables are determined using the Augmented Dickey-Fuller (ADF) unit root tests developed by Said and Dickey (1984) and the Phillips-Perron (PP) unit root tests developed by Phillips and Perron (1988). In the second stage, the symmetric causality relationships between the variables are investigated using the Hacker and Hatemi-J (2006) Causality test. In the third stage, the variables are separated into positive and negative components. Then, the causality relationships between the positive and negative components/shocks are investigated using the asymmetric causality analysis developed by Hatemi-J (2012).

3.2.1. Unit root tests

In time series analyses, it is necessary to examine the stationarity of variables in order to avoid the problem of spurious regression or

Graph 1: Original graphs of variables



to determine the analyses to be used in later stages. In this study, the stationarity levels of variables are examined by means of the ADF unit root test developed by Said and Dickey (1984), which are frequently used in time series analyses and are traditional unit root tests, and the PP unit root test developed by Phillips and Perron (1988). The purpose of using both tests together is that the PP test is more resistant to autocorrelation and heteroscedasticity than the ADF test. Thus, more reliable results are obtained. The null hypothesis of both tests is that the variables are not stationary, that is, they have a unit root. If the test statistics calculated in the tests are absolutely smaller than the critical values, H_0 cannot be rejected. In this case, the levels at which the variables are stationary can be determined by taking the differences of the variables and re-monitoring the test processes. For example, if the statistics calculated in the first difference of the variable are absolutely larger than the critical values, H_0 is rejected and the variables become I(1) (stationary in the first difference).

3.2.2. Hacker and Hatemi-J (2006) symmetric causality analysis

Symmetric causality analysis developed by Hacker and Hatemi-J (2006) has superior aspects such as not requiring the existence of cointegration between variables and the variables being stationary at different degrees since it is based on the Toda-Yamamoto (1995) causality test. Hacker and Hatemi-J (2006) renewed the analysis

Table 1: Summary of literature on the subject

Authors	Period	Country/Country group	Method	Results
Aristovnik (2007)	1971-2005	17 Countries selected from Middle East and Africa	Panel data analysis	Positive and strong relationship between current account deficit and oil prices
Bitzis et al. (2008)	1995-2006	Greece	Johansen cointegration analysis and error correction model	Positive and strong relationship between current account deficit and oil prices
Bildirici et al. (2010)	1971-2008	USA	TVAR and granger causality analysis	Oil prices are positively related to the current account deficit
Barnes et al. (2010)	1999-2009	Eurozone countries	Panel data analysis	Positive and strong relationship between current account deficit and oil prices
Morsy (2012)	1970-2009	91 Countries trading in oil	Panel data analysis	There is a negative relationship between current account deficit and oil prices for oil exporting countries and a positive relationship for oil importing countries.
Duncan (2014)	1973-2012	USA	Threshold model	Positive and weak relationship between current account deficit and oil prices
Garšvienė and Butgus (2014)	1980-2010	21 Developed and 29 developing countries	Panel data analysis	Positive and weak relationship between current account deficit and oil prices
Gosse and Serranito (2014)	1974-2009	21 OECD Countries	Panel data analysis	Positive and strong relationship between current account deficit and oil prices
Allegret et al. 2014)	1980-2010	27 Oil Exporting Countries	Panel regression analysis	While the current account deficit is significantly affected by oil prices in financially underdeveloped countries, it has been observed that this effect decreases as financial development increases.
Huntington (2015)	1984-2009	91 Countries trading in oil	Panel fixed-effect model	While oil exports have a significant impact on the current account deficit, oil imports have been found to have mostly no impact on the current account deficit.
Diaz et al. (2016)	1970:01-2014:12	G7 Countries	VAR, GARCH	In the short term, higher oil prices lead to more significant foreign cash inflows to developing countries and improve their current account balances. However, over time, inflation and exchange rate volatility undermine these benefits.
Nasir et al. (2020)	1987QII–2017QII	BRICS Countries	Time-varying structural vector autoregressive (TV-SVA)	Significant volatility of oil prices has a negative impact on the current account balance of emerging economies.

Table 2: Unit root test results

Variables	Deterministic components	ADF		Philips perron	
		Level	1st difference	Level	1st difference
oil_t	Intercept	−2.586180	−10.47757	−2.137373	−8.884405
	Trend and intercept	−2.608662	−10.47270	−2.083180	−8.868508
ca_{china}	Intercept	2.546088	−7.205808	2.687082	−5.324428
	Trend and intercept	0.042855	−7.715727	−0.138320	−5.865538
ca_{usa}	Intercept	−2.361842	−8.372238	−2.222736	−10.88320
	Trend and intercept	−0.631058	−3.078724	0.313337	−11.50285
ca_{india}	Intercept	−4.188310	−2.882287	−3.803551	−11.68241
	Trend and intercept	1.168816	−7.408253	1.286286	−6.800545
ca_{korea}	Intercept	1.168816	−7.408253	1.286286	−6.800545
	Trend and intercept	−2.418866	−7.554777	−1.860023	−5.002862
ca_{japan}	Intercept	2.863136	−8.578817	2.361258	−10.53886
	Trend and intercept	−2.361842	−8.372238	−2.222736	−10.88320
$ca_{germany}$	Intercept	−0.631058	−3.078724	0.313337	−11.50285
	Trend and intercept	−4.188310	−2.882287	−3.803551	−11.68241
$ca_{netherlands}$	Intercept	−4.188310	−2.882287	−3.803551	−11.68241
	Trend and intercept	1.168816	−7.408253	1.286286	−6.800545
ca_{spain}	Intercept	1.168816	−7.408253	1.286286	−6.800545
	Trend and intercept	−2.418866	−7.554777	−1.860023	−5.002862
ca_{italy}	Intercept	2.863136	−8.578817	2.361258	−10.53886
	Trend and intercept	−2.361842	−8.372238	−2.222736	−10.88320
$ca_{unitedkingdom}$	Intercept	−0.631058	−3.078724	0.313337	−11.50285
	Trend and intercept	−4.188310	−2.882287	−3.803551	−11.68241

Values in parentheses show Mckinnon critical values at 5%

Table 3: Hacker and Hatemi-J (2006) bootstrap asymmetric causality analysis results

Null hypotheses	MWALD	Critical value	Lags
$oil_t \nRightarrow ca_{china}$	2.932	6.602	4
$oil_t \nRightarrow ca_{usa}$	3.230	6.003	3
$oil_t \nRightarrow ca_{india}$	2.083	6.441	3
$oil_t \nRightarrow ca_{korea}$	0.692	6.553	1
$oil_t \nRightarrow ca_{japan}$	0.148	4.123	2
$oil_t \nRightarrow ca_{germany}$	0.872	4.185	2
$oil_t \nRightarrow ca_{netherlands}$	0.490	4.430	2
$oil_t \nRightarrow ca_{spain}$	0.354	4.210	2
$oil_t \nRightarrow ca_{italy}$	2.736	4.703	2
$oil_t \nRightarrow ca_{unitedkingdom}$	1.792	4.109	2

using bootstrap, unlike the Toda-Yamamoto (1995) test. As is known, in the Toda-Yamamoto (1995) test, analyses are performed using the original values of the variables. First, the appropriate lag number (p) is determined via the Vector Autoregressive Model (VAR). In addition, the information regarding the maximum integration degree (d_{max}) according to the stationarity levels of the variables is included in the Toda-Yamamoto (1995) test equation. For this reason, before this analysis, unit root tests should definitely be performed and the maximum integration degree (d_{max}) should be calculated. These processes mentioned by Toda-Yamamoto (1995) are also valid for the Hacker and Hatemi-J (2006) causality test. After determining p and d_{max}, a restriction test is applied to the coefficients just like in the Granger Causality Test. In addition, Hacker and Hatemi-J (2006) obtain the MWald statistic by making some changes in the Wald statistic. The calculated MWald statistic value shows the χ^2 distribution. However, as Hacker and Hatemi-j (2006) also stated, in some cases this assumption is not valid and there may be a heteroscedasticity problem in the model. Hacker and Hatemi-j (2006) eliminate this problem by using the boostrap method and obtain the critical values of this test they developed with the boostrap method. All these mean that this method is superior to other symmetric causality tests. The hypotheses of the test are as follows:

H_0 = "There is no Granger Causality from oil prices to current account balance" $oil_t \nRightarrow ca_t$

H_1 = "There is Granger Causality from oil prices to current account balance" $oil_t \nRightarrow ca_t$

If the calculated Hacker and Hatemi-j (2006) test statistic value is greater than the bootstrap critical values, H_0 is rejected. In other words, it is decided that there is a causal relationship between the variables. In the opposite case, H_0 cannot be rejected, in other words, it is found that there is no causal relationship between the variables.

3.2.3. Cumulative shocks and Hatemi-J (2012) asymmetric causality analysis

The asymmetric causality test developed by Hatemi-J (2012) is based on the symmetric causality test developed by Hacker and Hatemi-J (2006). The basic idea underlying the development of this test is that the relationships between variables cannot always be symmetric. What is meant here is that not all relationships between variables are fully revealed in the analyses conducted using the original states of the variables. For this reason, Granger and Yoon (2002) first developed a cointegration test (hidden cointegration). In this cointegration test, analyses are conducted using the positive and negative components (cumulative shocks) of the variables (Abubakirova et al., 2021). For the same reason, Hatemi-j (2012) developed the Hacker and Hatemi-j (2006) causality test and separated the cumulative shocks of the variables just like in the study of Granger and Yoon (2002). This is called the Hatemi-j (2012) asymmetric causality test. The only difference between the asymmetric causality test and the symmetric causality test is that it does not use the original forms

Table 4: Hatemi-J (2012) asymmetric causality test results

Null hypotheses	Countries									
	China	USA	Korea	India	Japan	Germany	Netherlands	Spain	Italy	UK
$oil_t^+ \not\Rightarrow ca_t^+$	-	✓	✓	✓	✓	-	-	✓	✓	✓
$oil_t^+ \not\Rightarrow ca_t^-$	✓	-	-	✓	-	-	-	-	-	-
$oil_t^- \not\Rightarrow ca_t^+$	-	✓	-	-	-	-	-	-	-	-
$oil_t^- \not\Rightarrow ca_t^-$	-	-	-	-	-	-	-	✓	-	-

✓expresses causality relationships according to 5% significance

of the variables; it uses the positive and negative components (cumulative shocks) of the variables, as developed by Hacker and Hatemi-j (2006).

With this causality test, 4 hypotheses can be tested:

1. H_0: There is no causality from positive oil price shock (oil_t^+) to positive current balance shock (ca_t^+).
2. H_0: There is no causality from positive oil price shock (oil_t^+) to negative current balance shock (ca_t^-).
3. H_0: There is no causality from negative oil price shock (oil_t^-) to positive current balance shock (ca_t^+).
4. H_0: There is no causality from negative oil price shock (oil_t^-) to negative current balance shock (ca_t^-).

Hypotheses are tested in a similar way as in Hacker and Hatemi-J (2006). If these hypotheses are rejected, the sub-hypotheses show that there are causal relationships between the specified shocks. By using asymmetric causality analysis, it can be seen which shocks actually caused the causal relationship in the symmetric causal relationships between oil_t and ca_t. In addition, even if there are no symmetric relationships, the existence of asymmetric causal relationships can be determined. Since asymmetric causal relationships have not been analyzed before between the variables belonging to the countries in the study, the use of the asymmetric causality test developed by Hatemi-J (2012) becomes important.

4. RESULTS

As the first stage of the study, the stationarity levels of the original states of the variables were determined using the ADF and PP unit root tests. The most important purpose of performing these tests is to determine the maximum degree of integration while examining the symmetric causality relationships between the variables with the Hacker and Hatemi-J (2006) causality test. The results of the unit root tests are shown in Table 2. First of all, the variable oil_t in the VAR equation for all countries is stationary in the first difference. When the ADF and PP unit root tests of the current account balance (ca_t) variables of the countries are examined, it is seen that they are generally stationary at the I(1) level. This means that the d_{max} value for the causality relationship investigated separately for the countries is 1, that is, 1 more lag should be added in addition to the appropriate number of lags.

As seen in Table 3, the d_{max} number to be added to the Hacker and Hatemi-J (2006) symmetric causality test for all countries was calculated as 1 and the test was performed using this information. Table 2 shows the Hacker and Hatemi-J (2006) symmetric causality test results for countries. When the table is examined, none of the hypotheses could be rejected. Because the calculated test statistics for the hypotheses are less than the 5% critical value. This means that oil prices are not the symmetric cause of the current account balances of the oil importing countries included in the study.

Although there is no symmetric causality relationship between oil prices and current account balances in oil importing countries, it was decided to conduct the Hatemi-J (2012) asymmetric causality test based on the assumption that there may be causality relationships between cumulative shocks of variables. In this direction, firstly, oil_t and ca_t variables belonging to countries were decomposed into their shocks as shown in Granger and Yoon (2002) and Hatemi-J (2012). After this stage, the process of Hacker and Hatemi-j (2006) causality test is followed. The results of Hatemi-j (2012) asymmetric causality test are shown in Table 4. As a result of the analysis, it was determined that there were asymmetric causality relationships between oil_t and ca_t in all other countries except Germany and the Netherlands.

5. CONCLUSION

In this study, which attempts to separate the symmetric and asymmetric relationships between the current account balance and oil prices for oil importing countries, according to the results of the Hacker and Hatemi-J (2006) symmetric causality analysis, no symmetric causality relationship was detected in any country. However, according to the results of the Hatemi-J (2012) asymmetric causality test, which was applied because the symmetric causality relationship does not take into account the asymmetric relationships of the variables, it was determined that there were different relationships between the oil price and the components/shocks of the countries' current account deficits. While there was no asymmetric relationship between the two variables for Germany and the Netherlands, the existence of asymmetric causality between the variables was revealed for the other countries. This situation shows the importance of considering asymmetric relationships in the econometric analyses to be conducted. This difference between the symmetric causality test and the asymmetric causality test in terms of variables is one of the important findings of the study. As a result, although there are no symmetric relationships between oil prices and the current account balance for oil importing countries, the existence of asymmetric relationships is important. These differences in symmetric and asymmetric findings should be taken into account by country policy makers.

REFERENCES

Abubakirova, A., Syzdykova, A., Dosmakhanbet, A., Kudabayeva, L., Abdulina, G. (2021), Relationship between oil prices and stock prices in BRICS-T countries: Symmetric and asymmetric causality analysis. International Journal of Energy Economics and Policy, 11(3), 140-148.

Agmon, T., Laffer, A.B. (1978), Trade, payments and adjustment: The case of the oil price rise. Kyklos, 31(1), 68-85.

Allegret, J.P., Couharde, C., Coulibaly, D., Mignon, V. (2014), Current accounts and oil price fluctuations in oil-exporting countries: The role of financial development. Journal of International Money and Finance, 47, 185-201.

Aristovnik, A. (2007), Short-and Medium-term Determinants of Current Account Balances in Middle East and North Africa Countries. William Davidson Institute Working Paper Number 862. William Davidson Institute at the University of Michigan.

Barnes, S., Lawson, J., Radziwill, A. (2010), Current Account İmbalances in the Euro Area: A Comparative Perspective. OECD Economics Department Working Papers No. 826.

Bibi, S., Haq, M., Rashid, A. (2021), Oil price fluctuation and current accounts: Exploring mediation effects for oil importing nations. International Journal of Energy Economics and Policy, 11(3), 517-528.

Bildirici, M., Alp, E., Bakirtas, T. (2010), Oil prices and current account deficits: Analysis of causality in the USA. Applied Econometrics and International Development, 10(1), 137-150.

Bitzis, G., Paleologos, J.M., Papazoglou, C. (2008), The determinants of the Greek current account deficit: The EMU experience. Journal of International and Global Economic Studies, 1(1), 105-122.

Chang, L., Mohsin, M., Gao, Z., Taghizadeh-Hesary, F. (2023), Asymmetric impact of oil price on current account balance: Evidence from oil importing countries. Energy Economics, 123, 106749.

Chuku, C.A., Akpan, U.F., Sam, N.R., Effiong, E.L. (2011), Oil price shocks and the dynamics of current account balances in Nigeria. OPEC Energy Review, 35(2), 119-139.

Diaz, E.M., Molero, J.C., De Gracia, F.P. (2016), Oil price volatility and stock returns in the G7 economies. Energy Economics, 54, 417-430.

Duncan, R. (2015), A threshold model of the US current account. Economic Modelling, 48, 270-280.

Fotshak, N., Bello, A.M. (2022), Oil price fluctuations and its impact on current account in Nigeria. Sustainable Development, 5(3), 118-129.

Garšvienė, L., Butkus, M. (2014), Evaluation of the determinants of growing current account deficit. Socialiniai Tyrimai, 36(3), 123-133.

Gossé, J.B., Serranito, F. (2014), Long-run determinants of current accounts in OECD countries: Lessons for intra-European imbalances. Economic Modelling, 38, 451-462.

Granger, C.W., Yoon, G. (2002), Hidden Cointegration. Economics Working Paper, No. (2002-02). San Diego: University of California.

Hacker, R.S., Hatemi-J, A. (2006), Tests for causality between integrated variables using asymptotic and bootstrap distributions: Theory and application. Applied Economics, 38(13), 1489-1500.

Hatemi-J, A. (2012), Asymmetric causality tests with an application. Empirical Economics, 3(1), 447-456

Huntington, H.G. (2015), Crude oil trade and current account deficits. Energy Economics, 50, 70-79.

Kilian, L. (2010), Oil Price Volatility: Origins and Effects. (WTO Staff Working Paper No. ERSD-2010-02). World Trade Organization.

Morsy, H. (2012), Current account determinants for oil-exporting countries. Emerging Markets Finance and Trade, 48(3), 122-133.

Nasir, M.A., Naidoo, L., Shahbaz, M., Amoo, N. (2018), Implications of oil prices shocks for the major emerging economies: A comparative analysis of BRICS. Energy Economics, 76, 76-88.

Phillips, P.C.B., Perron, P. (1988), Testing for a unit root in time series regression. Biometrika, 75, 335-346.

Rebucci, A., Spatafora, N. (2006), Oil prices and global imbalances. IMF World Economic Outlook, 4, 71-96.

Said, S.E., Dickey, D.A. (1984), Testing for unit roots in autoregressive-moving average models of unknown order. Biometrika, 71, 599-607.

Schubert, S.F. (2014), Dynamic effects of oil price shocks and their impact on the current account. Macroeconomic Dynamics, 18(2), 316-337.

Syzdykova, A., Abubakirova, A., Kudabayeva, L., Zhantayeva, A., Omarova, A. (2022), Asymmetric causality relationship between oil prices and inflation in BRIC countries. International Journal of Energy Economics and Policy, 12(3), 184-191.

Toda, H.Y., Yamamoto, T. (1995), Statistical inference in vector auto-regressions with possibly integrated processes. Journal of Econometrics, 66, 225-250.

Varlik, S., Berument, M.H. (2020), Oil price shocks and the composition of current account balance. Central Bank Review, 20(1), 1-13.

Zaouali, S. (2007), Impact of higher oil prices on the Chinese economy. OPEC Review, 31(3), 191-214.

Zanghieri, P. (2004). Current account dynamics in new EU Members: Sustainability and policy issues. CEPII, Working Paper No 2004 - 07.