The Effect of Oil Price Falling on the Jordanian Economic System

Asem Tahtamouni[1]*, Fouzan Al Qaisi[2], Usama Adnan Fendi[3]

[1]American University of Madaba, P. O. Box: 2882, Amman 11821, Jordan, [2]American University of Madaba, P. O. Box: 2882,

Amman 11821, Jordan, [3]American University of Madaba, P. O. Box: 2882, Amman 11821, Jordan,
*E-mail: a.tahtamouni@aum.edu.jo

ABSTRACT

Because oil is one of the most important commodities, its price impacts the economy as a whole. The oil price has dropped significantly during last years due to the growing gap between demand and supply. Jordan is a small country with a small market business and scarce natural resources, essential the government's hefty reliance on external assistance. This paper aims to evaluate the effect of oil price falling on the Jordanian economic system. Simple regression model has been used to evaluate the relationship between dependent and independent variables. It has been examined the variables between the period 2006 and 2015. The results show that the fall in oil prices impact on the Jordanian economy. While, Jordan is an importer of oil, and should be one of those countries that benefit from this drop, research has proven otherwise, in fact, the disadvantages weigh more than the advantages.

Keywords: Oil Price, Jordanian Economy, Trade of Balance, Gross Domestic Product
JEL Classifications: F1, Q43

1. INTRODUCTION

In the news, we constantly hear that the world is running out of oil, leading us to think that the world supply would be smaller; therefore, the price would be higher. However, the opposite is happening, prices have dropped significantly, making oil relatively cheaper than it has ever been.

The price of oil, gas, and coal is formed by supply and demand, until recently, three forces influenced this: First, the importance of oil, monopoly positions, and the geopolitical games. These three forces have always determined the price of oil, until the end of the 20th century, a forth force has entered the scene: Burning oil. Burning oil is one of the main sources of global warming; therefore, alternative forms of self-renewing energy must replace oil as soon as possible (Danzuraidi, 2016). However, for this to happen, the price of oil should be higher and therefore fairer than it currently is, which thus makes renewable sources more attractive to use. Yet, the price of oil still seems to be controlled by monopolistic positions and geopolitical games.

Who is playing these geopolitical games and keeping the price so low? There are many national and international players in the oil game. One of these players is the Organization of the Petroleum Exporting Countries (OPEC). Forming this alliance of the 12 already influential oil-producing countries to determine world supply and hence control the price in the past decades.

However, in recent years, other players have also become powerful, to try to swiftly defeat this competition. However, OPEC has opened its oil taps completely, greatly increasing supply; this caused the price to fall so dramatically lately. Such a low price is obviously not favorable for any oil producing country.

Oil is the world's most essential fuel and supports our elevated standard of living. It provides contemporary accessibility and source of movement. Also, oil is pivotal to transportation systems (APPEA, 2016). Petrol, diesel, jet fuel, and kerosene are products of the oil refining process. Any byproducts produced, as secondary product made in the synthesis of the oil refining process are also valuable. These byproducts include paraffin, lubricating oils, heavy fuels, waxes, and bitumen.

The production and refinery process of oil begun in 1850s. The top five countries with the highest dollar value resultant from exporting crude oil in 2015 are, from highest to lowest; Saudi Arabia, Russia, Iraq, United Arab Emirates, and Canada (Workman, 2016). The following chart displays the fluctuations in Brent Crude oil price in US dollars per barrel, from 2000 to 2015 (Chart 1).

The fluctuations of oil prices are more volatile than the value of any other investment, and because oil is considered to be a highly demanded commodity universally, the fluctuations of its price impact the economy as a whole. The biggest influence on oil prices is OPEC; control 40% of the world's oil supply, and affects the oil price by production levels. Another factor is natural disasters; for example, the hurricane Katrina in 2005 affected 19% of the United States' oil supply, causing prices to incline $3 per barrel. Also, production costs affect oil prices; extracting oil from Middle Eastern regions is considered to be relatively cheap compared to the extractions of oil from Albert Canada (Vidal, 2008). In addition to political instability, in July of 2008, the prices had risen to $136 per barrel, due to wars and unrests in Afghanistan and Iraq stoked consumer fears (Kosakowski, 2008).

The two factors that drive oil prices: First factor is demand and supply, and second factor is market sentiment. As demand increases or supply decreases, the prices increase and as demand decreases or supply increases, the prices decrease. The second factor is market sentiment, which is the attitude of the market, and the feeling it bequeaths; and concludes by defining whether the market is prevailing bullish or bearish markets (Kosakowski, 2008).

Just as the price of any other commodity, the oil prices fluctuated over the centuries, but this drop, has been the worst since the early 1990s (Krauss, 2016). Although, Jordan is an importer of oil, and should benefit from this down fall of oil, research has proven otherwise, in fact, that the disadvantages weigh more than the advantages.

This paper aims to evaluate the effect of oil price falling on the Jordanian economic system. This paper will examine the following hypotheses:

H_1: There is no statistical effect of gross domestic product (GDP) (at market prices) on the trade balance.

Chart 1: Brent Crude oil price in US dollars per barrel (2000-2015)
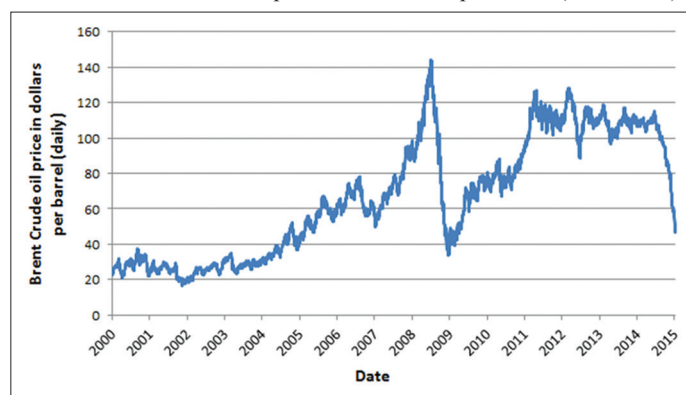
Source: U.S Energy and Information Administration (EIA)

H_2: There is no statistical effect of GDP (at basic prices) on the trade balance.

H_3: There is no statistical effect of current account on the trade balance.

H_4: There is no statistical effect of Workers' remittances receipts on the trade balance.

It will be used the simple regression model to evaluate the relationship between the independent variables (GDP at basic and market prices, current account, and the workers' remittances) and dependent variable (trade of balance). The variables during 2006 to 2015 will be examined.

2. LITERATURE REVIEW

The prices of oil have fluctuated over the centuries, but this recent drop has been the worst since the early 1990s (Krauss, 2016). While, Jordan is an importer of oil, and should be one of those countries that benefit from this drop, research has proven otherwise, in fact, the disadvantages weigh more than the advantages. Jordan imports 96% of its energy needs, generates almost all of its electricity from fossil fuels (Jordan Business, 2015).

Starting 2014 up until the present, Jordan has been enjoying the positive enhancements of the economy, benefiting from the lower oil prices and their current account deficit. Yet, the volatility in Syria adds even more burden on Jordan. The Jordanian government and the International Monetary Fund have predicted growth within the economy, but for this growth to ensue, Jordan's reliance on external remittances and funds to decrease.

A study by the Jordan Business Magazine states that:

There is the matter, too, of Jordan's ambitious plans to wean itself off imports of fossil fuels by developing its own shale oil reserves, investing heavily in renewables like wind and solar, and even building a nuclear power plant. As each of these projects comes online in the years ahead, world oil and gas prices will become less and less important for Jordan's economic performance. (Jordan Business, 2015).

Bank Audi published a Jordan Economic Report on the 16th of March of 2016 discussing "The Dual Requirement of Fiscal Adjustment and Growth Enhancement in a Tough Regional Environment" (Barakat et al., 2016). The report identified the factors that have posed an impact on the economy, and their reasoning. Firstly, discussing the political instability within the region, specifically within the neighboring countries, Iraq and Syria, the aspect that have been impacted are trade, tourism, investor confidence with investments within the country. Stating that although, the drop of oil prices has strengthened the domestic demand, yet weakened the external demand (Barakat et al., 2016).

Obeidat and Al-Emam in their paper state that the plunging oil price, which reached $35 a barrel, is good news for Jordanian consumers and some businesses, however if prices remain low in the coming years, this may bring a significant downside for the

Kingdom's economy (Obeidat and Al-Emam, 2015). The paper continues by expressing its title, "The good, the bad and the ugly effects of dwindling oil prices in Jordan." Starting with the good, this fall of prices has a beneficial aspect on the Jordanian economy as it means smaller energy bill, which has always been the largest expenditure payment. The cost of energy incurred by the Kingdom, which imports nearly 96% of its energy needs, declined during the first three quarters of this year by nearly a half to JD1.7 billion from JD3.3 billion in the same period of 2014, the Department of Statistics has announced recently. Moreover, NEPCO, the National Electric Power Company, debts are almost JD5 billion due to accumulated losses over the previous 5 years, and believes that this loss is due to the disruption of gas supplies from Egypt. Jordanian consumers are the biggest beneficiaries from the drop in oil prices; because it will decrease the amount they pay for energy purchases. Furthermore, producers and industrialists rely on fuel in their production, will benefit from lower production costs therefore enable them to better compete in the domestic and regional markets (Obeidat and Al-Emam, 2015).

On the other hand, a contrasting view states that the downfall of the oil prices could impact the government's domestic revenues as fuel products carry a tax rate of nearly 40%. State revenues from fuel products dropped by JD150 million this year. Therefore to minimize the impact on the revenue, these have different views on what should be done. It was suggested that instead of imposing a tax on fuel products, the government could charge a fixed amount per unit of fuel to make up for the drop in revenues. Moreover, the economic growth target for next year, put a 3.7%, might not be achieved due to shocks from low oil prices that could affect government revenues and may affect remittances of Jordanian expatriates (Obeidat and Al-Emam, 2015).

The bad effects of the downfall of the oil prices on Jordan include the Saudi Arabia, the world's largest oil producer and exporter, could see financing strains due to lower revenues if the downtrend in oil prices continues for the coming 2-3 years. The construction sector in the Gulf kingdom is likely to witness a severe slowdown because the government might get pushes to suspend projects there. There are many Jordanian employees that work in private construction companies in Saudi Arabia, due to the losses they are suffering, the construction firms are said to lay off some of their employees or cut their salaries (Obeidat and Al-Emam, 2015).

Mazen Irsheid, an oil and energy expert, said that such an effect on Saudi Arabia and other Gulf countries can be seen if the current low prices stay the same or further drop for 4-6 years to come, a matter he said is "unlikely," he continues by adding that the Saudi sovereign wealth fund contains $700 billion, $75 billion of which was spent since June this year, kicking off a depletion process of Saudi reserves. Irsheid criticizes the spending of Saudi Arabia, and cites International Monetary Fund expectations for the funds reserves to run out completely in 6 years' time in light of current spending patterns. Due to the reason that oil revenue estimates 90% of Saudi Arabia's income, Irsheid expects layoffs of guest workers, including Jordanians, to occur in 3 years if oil prices remain around $40 a barrel.

As mentioned, Jordan should consider alternatives of renewable energy forms, and develop strong ambition to fulfill strategic projects that could take time to establish, but once they start working, will be providing a substitute for oil, therefore, making Jordan an energy independent country.

However, a study by Masood Ahmed, the International Monetary Fund Director of the Middle East and Central Asia Department states that:

As you look at the impact on the budget of lower oil prices, it turns out to be more or less neutral. It's not a big positive impact on the budget. And why is that? Well, on the one hand, there are some savings to the government from transportation and cash transfers to the population, which they are only made when oil prices are above a hundred dollars, but on the other side, they lose from some of the revenues that they get by taxing energy products (JT, 2015).

Jordan, as an oil importing but labor exporting small open economy which receives large inflows of external income (remittances, grants, and foreign direct investment) from oil rich countries, and examines the importance of external income shocks (mainly arising from oil price disturbances) in the growth dynamics of the country (Mohaddes and Raissi, 2011).

On the 9th of November, the Minister of Finance, said that low oil prices have reduced NEPCO's financial losses from JD1.3 billion in 2014 to JD250 million this year. Recently, the Jordanian government has been relying greatly on liquefied natural gas for power generation; therefore it is believed that NEPCO will reach cost break-even with no financial losses during the year 2016. Although, NEPCO blames their losses for the extending of the country's debt, the rising of the debt is due to the company's financial troubles and not the government spending. In addition, there are considerations to exit both the electricity and water sectors to get rid of the subsidies (Obeidat, 2015).

Until 2010, NEPCO had a balanced budget and financial status, it was importing gas from Egypt at a below market price. After a sequence of natural gas pipeline attacks in Egypt, the import had to cease, forcing Jordan to look at alternatives which has resulted in the company's large losses. In aiding to reduce this loss, the government has posed strategies, which include tariff increases; a diversification of energy sources, and measures to enhance efficiency. Hence, prior to the drop in oil prices, NEPCO's losses to begin to decrease, now that the oil prices have dropped significantly, the company is flourishing as it senses stability of decreasing its debt (Husain et al., 2015).

In mid of 2015, Jordan's external debt reached JD 9390.5 million, which is 35.3% of the GDP. After 2008, the external debt kept increasing, from JD 3640.2 million in 2008, to JD 9390.5 million in 2015. In 2013, the large entry of the Syrian refugees into Jordan has played a big role in limiting all resources within the country (Trading Economics, 2016a). Therefore, with this influx, finances had to be amplified in order to sustain this population.

Then followed the beginning of the drop in oil prices in 2014, which reduced the foreign aid provided by the Gulf countries, specifically Saudi Arabia. Saudi Arabia's economy is suffering on its own, due to their dependence on oil revenues, and is currently looking to diversify its revenue sources. Therefore, its ability to distribute funds as aid has been reduced. Jordan had always relied on the funds provided; consequently, when those funds decreased dramatically, external public debt became an option to fill in the financial shortage gap.

3. METHODOLOGY AND FINDINGS

In this section, the methodology will test the data to endorse the study objective. It covers the data, in addition to the data analysis, and the methodology used within this paper.

3.1. Regression
In order to examine the effect of the drop of oil prices on the Jordanian economy, the run regression model with panel data was used to investigate impact throughout the years.

3.2 Data Sources
For the collection of data for this paper, the statistics were collected from the Central Bank of Jordan, using the annual reports from the years 2006 to 2015.

3.3. Dependent Variable
3.3.1. Trade balance
The balance of trade of an economy indicates the gap between the country's imports and its exports. Which is the goods and services exported minus imports. Therefore, under this title; the imports and exports will be analyzed.

3.4. Independent Variables
3.4.1. GDP
The Organization for Economic Co-operation and Development (OECD) defines GDP as:

An aggregate measure of production equal to the sum of the gross values added of all resident institutional units engaged in production (plus any taxes, and minus any subsidies, on products not included in the value of their outputs). The sum of the final uses of goods and services (all uses except intermediate consumption) measured in purchaser's prices, less the value of imports of goods and services, or the sum of primary incomes distributed by resident producer units (OECD, 2001).

The Jordanian GDP growth rate as reported by the Central Bank of Jordan, has been volatile. The first drop was just before 2008 had begun, visibly, due to the global economic instability. Then seemed like it had recovered and begun increasing until another severe drop in 2010. Which is explicable due to the Great Recession, which was a period of severe global economic decline. Thenceforth, Jordan seemed to avoid harsh fluctuations up until January of 2015 (3.3%) when the GDP growth rate dropped to 2% right after (Trading Economics, 2016b). The Jordanian economy is led by tourism, financial services, transportation, manufacturing and remittances. Due to the reasons that Jordan is a scarce water country, and the absence of arable land; the agricultural sector is minimal. In addition, to the regional instability, which has affected the tourism, therefore reducing one of the biggest revenue benefactors.

The population in Jordan increased significantly due to the large influx of refugees from problematic situations in neighboring countries. In addition to the industrial development; and investments in search of alternative energy sources, the growing economy also led to an increase of demand of power, by 5.5%-6.5% (Abdul Rahim, 2015).

3.4.1.1. GDP at market prices
GDP at market prices is used as it reflects "the production activity of resident producer units. It is equal to the economy's total output of goods and services at market prices, plus taxes minus subsidies on imports." (Eurostat, 2015) This indicator is important, as Jordan pays subsidies on its oil imports. As of November 2012, subsidies on petroleum products were cut drastically (from 5.8% of GDP in 2006) to 2.8% of GDP, and this program has continued till the present (Atamanov et al., 2015).

3.4.1.2. GDP at basic prices
The concept of GDP at basic prices also differs from GDP at market prices, but in this case the difference concerns the taxes and subsidies on the products themselves, such as sales taxes, fuel taxes, duties and taxes on imports, excise taxes on tobacco and alcohol products and subsidies paid on agricultural commodities, transportation services and energy (Canada and Canada, 2015). GDP at basic prices omits taxes and subsidies on imported products; GDP at market prices includes taxes net of subsidies.

3.4.2. Current account
Calculated by adding balance of trade, net income from abroad and net current transfers. In Jordan, the Central Bank of Jordan reports the current account data. This factor determines the level of international competitiveness of Jordan. Due to the fact that Jordan is a vastly importing country, it is reasonable that its records demonstrate a current account deficit.

3.4.3. Workers' remittances receipts
Remittances are the sum of money that is transferred by a foreign worker back in their home country. This is in addition to the financial aid provided by volunteering countries, complement each other by providing the major financial inflows to developing countries. One of Jordan's major exports is skilled labor, mainly working in the Gulf countries. Remittances reached over.

Remittances, in addition to the financial aid provided by volunteering countries, complement each other by providing the major financial inflows to developing countries. One of Jordan's major exports is skilled labor, mainly working in the Gulf countries. However, although those countries are considered wealthy countries, after the drop of oil prices had begun, the market activity decreased due to the lack of funds within the economy. This aspect has therefore impacted the inflow of these remittances, hence, reducing the finances within the country. 90% of the Jordanian migrant workers are working in the Gulf

countries. Therefore, due to unfortunate market activities and the revenue shocks in these countries, particularly Saudi Arabia. The response is to layoff employees, minimize salaries and wages, and look at alternatives to diversify their revenue sources. The first two options affect the remittances. Rationally, if a Jordanian employee is laid off, or their salary had cut, the remittances will decrease. Remittances reached over $3.66 billion (JD 2.6 billion) last year, which is equivalent to 10% of Jordan's GDP (Obeidat and Al-Emam, 2015).

3.5. Data Analysis

To further test the indicators, regression analysis was run to test whether or not there was a statistical effect of the independent variable on the dependent variable. It is used to further examine the relationship between two variables. Hence, regression analysis has been used as the tool to retrieve the results.

3.6. Findings

After studying the variances in value in the indicators reviewed, regression analysis model was used as a tool to test the variables, to whether or not there is a relationship and the level of significance.

The data used was collected from the Central Bank of Jordan statistical database, and are provided in the following Tables 1-3.

3.6.1. Hypothesis 1: There is no statistical effect of GDP (at market prices) on the trade balance (Table 4-7)

In the first test that has been run, the simple linear regression has been used to test the hypothesis above. It is found that r = 0.907 is significant at 0.05 level, thus there is a high and negative relationship between the two variables. In addition, it is also found that t = −6.088 is significant at 0.05 level, and therefore this indicates that there is a statistical effect of GDP (at market prices) on the Trade Balance.

3.6.2. Hypothesis 2: There is no statistical effect of GDP (at basic prices) on the trade balance (Tables 8-11)

The second test that has been run to test the second hypothesis, that there is no statistical effect of GDP (at basic prices) on the trade balance, was resulted with the following. After the simple linear regression has been used to test the hypothesis, it has been found that r = 0.907 is significant at 0.05 levels thus there is a high and negative relationship between the two variables. Moreover, it has also been found that t = −6.078 which is significant at 0.05 level, which hence means that there is a statistical effect of GDP (at basic prices) on the trade balance.

3.6.3. Hypothesis 3: There is no statistical effect of current account on the trade balance (Tables 12-16)

The third test was run to test the third hypothesis, which is that there is no statistical effect of current account on the trade balance. Simple linear regression was used to test the hypothesis, it is found that r = 0.707 is significant at 0.05 level, thus there is a high and positive relationship between the two variables. Correspondingly, it is found that t = 2.825 which is significant at 0.05 level, which means that there is a statistical effect of current account on the trade balance.

Table 1: 2006-2015: GDP (at market prices) and GDP (basic prices)

Years	GDP (at market prices)	GDP (basic prices)
2006	10675.369	9362.783
2007	12131.423	10805.128
2008	15593.411	13971.201
2009	16912.209	15044.51
2010	18762.02	16417.19
2011	20476.59	17987.656
2012	21964.5	19298.2
2013	23851.6	20981.4
2014	25437.1	22365.9
2015	26637.4	23475.7

GDP: Gross domestic product

Table 2: 2006-2015: Current account and net trade balance

Years	Current account (million JD)	Trade balance (net) (million JD)
2006	−1223.8	−3584.7
2007	−2038.0	−4574.2
2008	−1457.2	−5084.4
2009	−882.9	−4448.8
2010	−1336.3	−4823.8
2011	−2184.6	−6261.7
2012	−3345.3	−7486.6
2013	−2487.7	−8270.1
2014	−1851.7	−8495.6
2015	−2403.1	−7249.3

Table 3: 2006-2015: Workers' remittances receipts

Years	Workers' remittances receipts (million JD)
2006	1782.7
2007	2122.5
2008	2242.
2009	2214.2
2010	2247.3
2011	2152.1
2012	2229.8
2013	2327.7
2014	2388.
2015	2423.3

Table 4: GDP (at market prices) and trade balance: variables

Variables entered/removed[b]			
Model	Variables entered	Variables removed	Method
1	GDP (at market prices)		Enter

[a]All requested variables entered. [b]Dependent variable: Trade balance (net) (Million JD). GDP: Gross domestic product

Table 5: GDP (at market prices) and trade balance: model summary

Model summary			
Model	R	R²	Adjusted R²	Standard error of the estimate
1	0.907[a]	0.822	0.800	784.1578

[a]Predictors: (Constant), GDP (at market prices). GDP: Gross domestic product

3.6.4. Hypothesis 4: There is no statistical effect of workers' remittances receipts on the trade balance (Tables 17-21)

Simple linear regression is used to test the fourth hypothesis, which is that there is no statistical effect of workers' remittances

Table 6: GDP (at market prices) and trade balance: ANOVA

ANOVA[b]					
Model	Sum of squares	df	Mean square	F	Significant
1					
Regression	22788138.097	1	22788138.097	37.060	0.000[a]
Residual	4919227.919	8	614903.490		
Total	27707366.016	9			

[a]Predictors: (Constant), GDP (at market prices). [b]Dependent variable: Trade balance (net) (million JD). GDP: Gross domestic product

Table 7: GDP (at market prices) and trade balance: coefficients

Coefficients[a]					
Model	Unstandardized coefficients		Standardized coefficients	t	Significant
	B	Standard error	Beta		
1					
(Constant)	−397.111	957.616		−0.415	0.689
GDP (at market prices)	−0.293	0.048	−0.907	−6.088	0.000

[a]Dependent variable: Trade balance (net) (million JD). GDP: Gross domestic product

Table 8: GDP (at basic prices) and trade balance: variables

Variables entered/removed[b]			
Model	Variables entered	Variables removed	Method
1	GDP (at basic prices)	0.0	Enter

[a]All requested variables entered. [b]Dependent variable: Trade balance (net) (million JD). GDP: Gross domestic product

Table 9: GDP (at basic prices) and trade balance: model summary

Model summary				
Model	R	R²	Adjusted R²	Standard error of the estimate
1	0.907[a]	0.822	0.800	785.1883

[a]Predictors: (Constant), GDP (basic prices). GDP: Gross domestic product

Table 10: GDP (at basic prices) and trade balance: ANOVA

ANOVA[b]					
Model	Sum of squares	df	Mean square	F	Significant
1					
Regression	22775201.104	1	22775201.104	36.942	0.000[a]
Residual	4932164.912	8	616520.614		
Total	27707366.016	9			

[a]Predictors: (Constant), GDP (basic prices), [b]Dependent variable: Trade balance (net) (million JD). GDP: Gross domestic product

receipts on the trade balance. It is found however that r = 0.733 is significant at 0.05 level, thus there is a high and negative relationship between the two variables. Additionally, it is found that t = −3.048 which is significant at 0.05 level, which means that there is a statistical effect of workers' remittances receipts on the trade balance.

4. CONCLUSION

As Jordan is an oil importing country, it should be benefiting from the drop in oil prices, however, research has proven otherwise. In fact, the disadvantages weigh more than the advantages. The research was conducted to evaluate the fall in oil prices effect on the Jordanian economy. Data analysis was used to test variables, and a regression analysis was run to test the relationship between them.

The International Monetary Fund in April 2015 published a consultation stating that Jordan even through the instability that the region had been going through due conflicts in neighboring countries, Syria and Iraq. As the industrial and mining sectors revive exports within the country in 2014.

In search of further alternatives to diversity the energy mix, Jordan has held numerous contracts for liquefied natural gas, and is currently exploring nuclear power generation, exploitation of abundant oil shale reserves and renewable technologies. The drop of oil prices are believed to help Jordan enhance its economic consolidation by neutralizing the deficit in gas supplies, in addition to reducing the import bill and NEPCO's debt.

The benefits of this drop include, slimmer energy bills, which rank as the heaviest burden on the Jordanian economy. Since Jordan had starting importing from Saudi Arabia, the cost of importing had increased; therefore, this drop of price has compensated the importing costs. In addition to NEPCO's debt significant decrease. Production and the Jordanian industries will enjoy lower production costs therefore increasing their competition not only domestically, but also in regional markets.

However, the shortcomings of oil prices fall include the need for the diversification of Jordan's energy mix, to offset the impact. Leading Jordan into developing energy from renewable sources such as, nuclear power, solar energy, and utilizing its mountainous topography with wind farms.

Jordan's economic growth target for 2016 was set to be 3.7%, which may not be achieved due to the shock, which leads to the decrease of the government revenues. As a result of the effect that may be caused by the decrease of remittances and financial aid. Finally, the construction sector will face a slowdown in the gulf, therefore may lead to appending projects; which influences the revenues of the gulf, hence the remittances and foreign aid.

The four variables that were used in the methodology to test the relationship, and whether or not they pose impacts on one another, were; GDP at market and basic prices, current account, and the workers' remittances receipts as independent variables,

Table 11: GDP (at basic prices) and trade balance: coefficients

Model	Unstandardized coefficients		Standardized coefficients	t	Significant
	B	Standard error	Beta		
1					
(Constant)	−341.614	967.951		−0.353	0.733
GDP (basic prices)	−0.335	0.055	−0.907	−6.078	0.000

[a]Dependent variable: Trade balance (net) (million JD). GDP: Gross domestic product

Table 12: Current account and trade balance: variables

Model	Variables entered	Variables removed	Method
1	Current account (million JD)	0.0	Enter

[a]All requested variables entered. [b]Dependent Variable: Trade balance (net) (million JD). GDP: Gross domestic product

Table 13: Current account and trade balance: model summary

Model	R	R^2	Adjusted R^2	Standard error of the estimate
1	0.707[a]	0.499	0.437	1316.7403

[a]Predictors: (Constant), current account (million JD)

Table 14: Current account and trade balance: ANOVA

Model	Sum of squares	df	Mean square	F	Significant
1					
Regression	13836924.991	1	13836924.991	7.981	0.022[a]
Residual	13870441.025	8	1733805.128		
Total	27707366.016	9			

[a]Predictors: (Constant), current account (million JD). [b]Dependent variable: Trade balance (net) (million JD)

Table 15: Current account and trade balance: unstandardized coefficients

Model	Unstandardized coefficients	
	B	Standard error
1		
(Constant)	−2763.153	1228.391
Current account (million JD)	1.699	0.602

Table 16: Current Account and trade balance: standardized coefficients

Model	Standardized coefficients	t	Significant
	Beta		
1			
(Constant)		−2.249	0.055
Current account (million JD)	0.707	2.825	0.022

[a]Dependent variable: Trade balance (net) (million JD)

Table 17: Workers' remittances receipts and trade balance: variables

Model	Variables entered	Variables removed	Method
1	Workers' remittances receipts (million JD)	0.0	Enter

[a]All requested variables entered. [b]Dependent variable: Trade balance (net) (million JD)

Table 18: Workers' remittances receipts and trade balance: model summary

Model	R	R^2	Adjusted R^2	Standard error of the estimate
1	0.733[a]	0.537	0.480	1265.8226

[a]Predictors: (Constant), workers' remittances receipts (million JD)

Table 19: Workers' remittances receipts and trade balance: ANOVA

Model	Sum of squares	df	Mean square	F	Significant
1					
Regression	14888910.274	1	14888910.274	9.292	0.016[a]
Residual	12818455.742	8	1602306.968		
Total	27707366.016	9			

[a]Predictors: (Constant), workers' remittances receipts (million JD). [b]Dependent variable: Trade balance (net) (million JD)

Table 20: Workers' remittances receipts and trade balance: unstandardized coefficients

Model	Unstandardized coefficients	
	B	Standard error
1		
(Constant)	9901.051	5240.824
Workers' remittances receipts (million JD)	−7.198	2.361

Table 21: Workers' remittances receipts and trade balance: standardized coefficients

Model	Standardized coefficients	t	Significant
	Beta		
1			
(Constant)		1.889	0.096
Workers' remittances receipts (million JD)	−0.733	−3.048	0.016

[a]Dependent variable: Trade balance (net) (million JD)

and trade balance as the dependent variable. After running the regression analysis, the results were that there is a high and negative relationship between trade balance and GDP at market prices, GDP at basic prices, and workers' remittances receipts. Whereas, a high but positive relationship between trade balance and the current account.

Thus, it is important for Jordan to continue to diversify its' energy mix. Therefore, reducing the impact of the oil price fluctuations on its economy. Noting that Jordan is a heavy imported of oil. Therefore, leading Jordan into developing energy from renewable sources such as, nuclear power, solar energy, and utilizing its mountainous topography with wind farms. Which will reduce its reliance on importing oil, therefore, reduce the impact of the price fluctuations.

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