

# IMPACT OF OIL PRICE FLUCTUATIONS ON IRAQ'S SUSTAINABLE DEVELOPMENT

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## ABSTRACT

*This research addresses an important issue that is constantly faced by the economy of Iraq. The problem is related to the oil price fluctuations & their subsequent effect on the cash supply which eventually impacts the overall economy & sustainable development of Iraq. This is due to the fact that economy of Iraq largely depends on the crude oil, & any variation in oil prices has direct impact on the country's economy. Hence, this is an important area of exploration for researchers and scholars as it is directly related to the economy of the country. This research presents a theoretical framework of oil prices & monetary policy for the period of 1990-2019 for more precise estimation of outcomes to accomplish research goals. This research aims to see the impact of oil price fluctuations on economic and sustainable development. The results suggest a significant impact of price fluctuations on the sustainable economic development of Iraq.*

**Keywords:** Crude Oil, Economy, Oil Price Fluctuations, Sustainable Development.

## INTRODUCTION

Crude oil is considered as the main source of income & energy for many countries around the world including Iraq (Kamyk, 2021). National income of Iraq is heavily dependent upon the revenues generated by crude oil (Wattar, 2019). Crude oil plays a significant role in the economies of the countries that have large scale production and consumption of crude oil. Any kind of fluctuation in oil price in international market directly impacts the economies of these countries especially Iraq (Almagtome, 2019) Economy of Iraq is heavily dependent upon oil exports, and oil revenues make a significant percentage of public revenues of Iraq Ali (2019) Past data about the fluctuations of oil prices shows that Iraq is one of the countries affected by increase or decrease in oil prices (Hameedi, 2019) Researchers have tried to examine the fluctuations in oil prices and how to benefit from the price fluctuations. The concept of oil chargers began in the beginning of 1970s in Iraq when majority of the oil producing states formed an oil policy that was free from the monopolistic international organizations (Almagtome, 2020; Ali, 2020). These states became self-sufficient in managing their oil wealth and revenues. In the early 1970s, oil prices were not stable and were prone to variations due to political or economic reasons. Iraq is one of the most affected country due to oil price fluctuations because of its dependence on oil revenues to fulfill its basic needs. So, this study deals with the oil price fluctuations and their effect on the sustainable development of Iraq. It shows the importance of oil prices variations for the countries that rely on oil production and consumption. This research aims to know and measure the fluctuations in oil prices and find out the relationship between fluctuations and sustainable development of Iraq. It also tries to examine the positive and negative effects by looking into historical data related to oil price variations, and using the latest statistical programs and tests. The main problem that is addressed in this research is the lack of clarity on the reasons of oil price fluctuations and recurrence. There is a lack of evidence about the positive or negative impact of these fluctuations on the economy of Iraq. Economy of Iraq is heavily dependent upon the oil revenues, and is directly impacted by the price fluctuations. The research tries to explore whether it is possible to exploit the positive impact of price fluctuations and avoid the adverse effects of price fluctuations. This

research is based on the proposition that there is a direct and long-term relationship between oil price fluctuations and sustainable development of Iraq.

## LITERATURE REVIEW

### Oil Price Fluctuations (OPF) and Money Stream

Price of oil is defined as the worth of goods and services conveyed through money (Lin, 2018) An item's real value is the amount of money that vendor gets from the purchaser for the product he makes and offers for sale (Kilian, 2016) This may be above or below the actual value. This has a volatile nature due to numerous subjective and objective factors including political, social, economic, and market factors (Zhao, 2016) The oil price has the monetary value of a barrel of crude oil on the US barrel scale of 42-gallon defined by the US monetary unit Han (2018) Table 1 shows the variations in oil prices in international market for the period of 1990-2019.

<b>Year</b>	<b>Iraqi Oil Price</b>	<b>OPEC basket price</b>	<b>Brent crude price</b>	<b>Year</b>	<b>Iraqi Oil Price</b>	<b>OPEC basket price</b>	<b>Brent crude price</b>
1990	19.91	22.26	23.61	2005	48.33	54.44	50.64
1991	16.33	18.62	20.06	2006	57.97	65.16	61.08
1992	16.72	18.44	19.33	2007	66.4	72.55	69.08
1993	14.08	16.33	17	2008	92.08	97.37	94.45
1994	14.56	15.53	15.8	2009	60.5	61.68	61.06
1995	16.26	16.86	17.01	2010	76.79	79.6	77.45
1996	18.49	20.29	20.7	2011	106.17	111.36	107.46
1997	18	18.68	19.06	2012	107.96	109.45	111.62
1998	10.77	12.28	12.71	2013	103.6	105.87	108.62
1999	16.28	17.47	17.91	2014	94.45	96.29	99.08
2000	24.92	27.6	28.44	2015	47.87	49.49	52.41
2001	21.92	23.12	24.46	2016	39.53	40.76	43.76
2002	23.32	24.36	25.03	2017	51.87	52.43	54.17
2003	26.6	28.1	28.81	2018	68.62	69.78	71.22
2004	34.6	36.05	38.23	2019	62.54	64	64.2

### Source

OPEC, (1999, 2007, 2012, 2015, 2019, and 2020), Annual statistical bulletin

### Factors Affecting the Price of Crude Oil

#### Magnitude of the Oil Reserves

The scarceness of crude oil can be measured by looking into the proven reserves of crude oil Huang (2021). If geologists escalate their estimation about size of oil reserves, the

scarceness of oil resources will reduce. As a result, producers of oil will reconsider the cost towards reduction, and the price of oil will decrease.

### **Oil Demand**

Demand is the rate at which customers want to buy a particular commodity (Umar, 2021). According to economic theory, oil demand has two important factors: taste and ability to buy. Taste is defined as the aspiration to get a particular product. On the other hand, ability to buy means that a person has enough wealth and cash to purchase the product the specific market price. Demand and price have inverse relationship. If demands increases, then the price decreases and vice versa.

### **Oil Supply**

The comparative supply elasticity is decreasing, especially in relation with the higher prices of products (Newell, 2021). Production of oil is defined as the capability to extract from the wells and optimal extraction rate of oil from wells. Hence, the increase in the oil prices is not counterbalanced by upsurge in the oil supply. Increased pressure on prices to decrease the oil prices should increase the oil supply. It is a complicated matter, particularly when production capability reaches its maximum potential. More oil production and collection requires the expansion of existing wells and increasing the survey rate of new wells that demands a lot of time and resources (Kiran, 2019; Sacchi, 2016).

### **Economic Growth Rate**

International crude oil consumption is determined by the economic growth rate. A surge in the economic growth rate will increase the crude oil consumption rates, as a result the prices of oil will increase (Namini, 2019; Zhang, 2017). Additionally, if the conditions are reverse and there is a decline in economic growth rate, demand and consumption of oil will decrease which will eventually lower the price of oil.

### **U.S. Dollar Exchange Rate**

In international market, crude oil is priced in dollars and any fluctuation in the exchange rate directly influences the prices of oil (Namini, 2019; Freeman, 2006). Decrease in the dollar exchange rate leads towards higher oil price *via* direct or indirect means.

### **Climate Variability**

Environmental changes directly impact the demand of crude oil. It has been observed through past data that demand of oil decreases in the summer season due to increase in temperature. On the other hand, demand of oil increases in the winter season (Dyson, 2018; Dalinghaus, 2017).

## **RESEARCH METHODOLOGY**

This research relied on the historical and descriptive approach for the identification of oil prices, international oil price variations, and instability. Additionally, inductive approach based on descriptive and statistical analysis was used to analyze the past data to examine the outcomes and effects of oil price fluctuations on the sustainable development. According to the requirements of the research, data analysis was divided into two sections. First section was related to oil prices, factors affecting oil prices, and relationship between oil prices and

sustainable development. Second section was related to the reality of the economy of Iraq, oil indicators, and analysis of monetary policy for the time period of 1990-2019 (Tavlas, 2020; Mustafa, 2019; Mustafa & Demirbas, 2017).

## **Economy of Iraq for the Duration of 1990-2019**

### **Reality of the Economy of Iraq**

The 1990 Gulf War and subsequent economic sanctions heavily damaged the infrastructure and resulted in the destruction and collapse of economy of the Iraq. Sanctions were enforced on Iraq after six days of its incursion of Kuwait and resulted in the ban of all exports and imports except for some food and medicine (Nadal, 2017) However, even before the Gulf War, sanctions, and economic collapse, the economy of Iraq was not in any way self-sufficient. It was heavily dependent on imports to meet its medicine and food requirements (Pan, 2018) Due to US occupation of Iraq in 2003, oil production of the country decreased from 2.1 million to 1.3 million barrels per day. It also resulted in mass destruction of the public sector and shortage of economic activity GDP of the country fell by 22%, which was slightly greater than 12 billion dollar in 2003 After the 2003 political change in the country, the problems only got worse. The economy was heavily damaged after the demolition of infrastructure, bridges, buildings, and looting of critical facilities. Iraq's GDP improved from 34.7% growth rate of 2003 to 60.7% growth rate of 2006. This GDP growth significantly contributed towards the continued rise in world oil prices. Improvement in international oil markets and increased oil exports during this time have ensured that output growth rates of Iraq are at highest level compared to the rates of 2001-2003 Nazlioglu Conversely, this situation altered in 2014, when oil prices decreased and terrorist organizations occupied almost one-third of the country's territory. This resulted in the suffering of economy from double shock and trade deficit. As a result, losses of 47 billion US dollars were estimated. Hence, Iraq required an efficient economic policy that could help in improving the economy. During this time period of recession and conflict, the country faced from inflationary pressure, lower exchange rates, and high public debt. But, GDP grew by 13.7% in 2016 as compared to 2015. The growth rate became negative at 3.77% in 2017 because of low oil prices in the international market. Also, non-oil output was negative during this time period. This analysis shows the degree to which the economy is impacted by external factors Nazlioglu (2019).

### **Indicators of the Economy of Iraq**

#### **Iraq's Oil Reserves and Production**

Oil reserves of Iraq are predicted at 115 billion barrels of proven reserves, standing at third position after Kingdom of Saudi Arabia (KSA) and Iran, relative importance approaching to 13% of OPEC oil reserves (Ouyang, 2018). Around 10% of the world's financial records in 2009 dispersed Iraq's oil reserves in most of the Iraq provinces. Basra province alone has capacity of 65.784 billion barrels in its advanced fields and 4.450 billion barrels in its undeveloped areas. It is considered to have the highest oil reserves in Iraq. Its relative importance is considered at 59%, followed by Kirkuk province with 12%, and then Maysan province has relative importance of about 7.6% Similarly, DhiQar province has the storage capacity of about 5 billion barrels of proven oil reserves with relative importance of 4.5%. While the remaining provinces are structured by the left over quantities and of different significance levels, the southern provinces namely Basra, Maysan, and DhiQar have around 71% of the proven oil reserves. On the other hand, the Northern provinces named as Kirkuk, Salah al-Din, and Mosul have about 22% of the confirmed oil reserves (Mensah, 2017; Hamori, 2017). In contrast, other regions in central Iraq account for about 7% of Iraq's oil reserves.

Table 2 below shows the Iraqi crude oil production and its global importance for the time period of 1990-2019:

<b>Year</b>	<b>World reserves (1 Million barrels)</b>	<b>Iraqs reserves (1 million barrels)</b>	<b>Importance to the world %</b>	<b>Year</b>	<b>World production on (1 Million barrels)</b>	<b>Iraq production (1 million barrels)</b>	<b>significance to the world%</b>
1990	985031	100000	10.2	1990	59106.7	2112.6	3.57
1991	988768	100000	10.1	1991	58696.7	282.5	0.5
1992	994793	100000	10.05	1992	59327.3	526.2	0.9
1993	996161	100000	10.04	1993	59106.9	659.5	1.12
1994	1001762	100000	9.98	1994	59889.1	748.7	1.25
1995	1033300	100000	9.9	1995	60443.5	736.9	1.23
1996	1039400	112000	10.77	1996	61572.1	740.4	1.2
1997	1045176	112500	10.76	1997	62924.1	1383.9	2.2
1998	1051820	112500	10.7	1998	65147.4	2181.1	3.35
1999	1067204	112500	10.5	1999	63395.9	2719.8	4.3
2000	1090620	112500	10.3	2000	65856.9	2810	4.3
2001	1121822	115000	10.25	2001	65386.9	2593.7	3.97
2002	1157610	115000	9.9	2002	63980.8	2126.5	3.3
2003	1184823	115000	9.71	2003	67221.1	1377.8	2.05
2004	1190338	115000	9.66	2004	70511.7	2107.1	2.99
2005	1198953	115000	9.6	2005	71640.5	1853.2	2.6
2006	1209545	115000	9.51	2006	71374.9	1957.2	2.73
2007	121308	115000	9.5	2007	71287.2	2035.2	2.85
2008	1292280	115000	8.9	2008	71773.6	2280.5	3.2
2009	1332776	115000	8.63	2009	68984.7	2336.2	3.4
2010	1459765	143100	9.8	2010	69885.6	2358.1	3.4
2011	1480251	141350	9.63	2011	70426.7	2652.6	3.8
2012	1480251	140300	9.5	2012	72784.6	2942.4	4
2013	1490134	144211	9.7	2103	72909.2	2979.6	4.1
2014	1492254	1430069	9.6	2014	73359.8	3110.5	4.2
2015	1490454	142503	9.5	2015	75080.1	3504.1	4.7
2016	1490661	148766	9.98	2016	75276.2	4647.8	6.2
2017	1492160	147223	9.87	2017	74566.8	4468.7	6
2018	1497986	145019	9.7	20180	75779.9	4410	5.82
2019	1550740	145019	9.35	2019	75265.6	4580	6

### Source

OPEC, (2007, 2009, 2012, 2015, 2019, and 2020), Annual statistical Bulletin.

### Monetary Policy of Iraq

Monetary policy is among the macroeconomic policies that are imposed by the monetary authority and personified by the Central Bank with the help of banking system.

Financial system influences the monetary policy and consists of institutions such as stock exchange, insurance firms, and investment banks (Rotimi, 2017) both banking system and financial system play an important role in monetary policy. The Central Bank of Iraq is led by the issuance of cash, controls the banking system, and overlooks the management of the payment system. The volume of credit's impact to fulfill the country's credit requirements and the management of foreign currency reserves is done by the highest monetary authority in Iraq, called the Bank of Banks (Mehdi, 2017; Mukhametshin, 2019). This manages the resources of commercial banks in Iraq. It issued instructions and guidance for monetary policy in Iraq to attain the central primary objectives, including raising the purchasing power of the Iraqi Dinar and levitating its value against foreign currencies and decreasing inflation rates, and the formation and management of foreign reserves.

## DISCUSSION & CONCLUSION

From the early 1970s, oil prices fluctuated even after many oil producing countries including Iraq became independent of international oil companies. Different political, economic, and commercial factors have significantly contributed towards oil prices variation. Iraq faced severe economic problems due to its reliance on oil revenues. Iraq has one of the world's largest oil reserves, accounting for more than 10% of total crude oil reserves, making it one of the most prominent and dominant countries in OPEC and the international oil market. Rent is one of the problems faced by the economy of Iraq. Its reliance on the oil sector in the absence of other sectors such as infrastructure development, manufacturing, innovation, and agriculture leaves Iraq more vulnerable to economic difficulties in the times of low oil prices. The influence of oil prices on the sustainable development and the economy of Iraq relies completely on oil revenues. Any increase in oil prices increases public revenues, thus, increasing the supply of money. This is because of the instability and insecurity of oil prices and the absolute dependence on oil revenues in Iraq's general budget. A suggestion is to diversify public revenues in the economy of Iraq and avoid sole reliance on the oil market, which may expose the country's economy to severe difficulties due to price variations. The Central Bank must ensure the country's monetary stability, exchange rate stability, and the elimination of graft in Iraq's currency auctions.

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