

## **THE EFFECT OF OIL PRICES ON INFLATION**

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### **Abstract**

The fluctuation in oil prices enhances the inflation rate and disturbs the business cycle and economic growth as well. The government put all efforts to reduce the dependency of economic growth on oil prices. The study aims to examine the impact of oil price fluctuation on economic growth which ultimately results in a high inflation rate. The statistical results obtained from SPSS depict that. Oil price fluctuations are highly correlated with each other and a sudden rise in the prices of oil increases the price of all products. The price rise reduces the demand at local and international levels which ultimately results in a high inflation rate. Time and lack of availability of literature are the major limitations of the research. The conclusion was drawn that, the government must design the policies to reduce the impact of oil price variations on the economy. it is concluded that the fluctuation in oil prices results in a high inflation rate. Although, other factors such as GDP and per capita income play a role in the economic development of the country the fluctuation in prices results in the recession and economic downturn

**Keywords:** Oil price, Inflation, Economic growth

# 1. INTRODUCTION

## 1.1. Background

The oil prices and inflation rates are interrelated with each other. Wu&Ni (2011) perform an empirical analysis and stated that the fluctuation in oil prices increases the prices of petroleum products. On the contrary, the fall in oil prices slows down the inflation rate as well. Although there is a seasonal rise in the oil demand it does not hit the revenue of the oil-enriched countries in the long run. However, the huge oil slump in the past few years damaged the economy of the country (Malik, 2017). The economy of the Country is considered a subsidized economy due to the large revenue earned from the trade of oil. However, the sudden decline in growth rate due to the oil slump forces the company to reduce the subsidies. The country depends heavily on oil prices because 46% of its annual budget depends on the transfer of oil prices to different countries. In 2008 Country earn high revenue, which contributes 42% of the total GDP (Mukhtarov, 2019).

However, it is challenging for the country to maintain a high growth rate for a long period. The country is considered an oil-enriched country, but due to the severe price challenges. The country starts to decrease its production, which leads to a reduction in GDP rate of up to 9.4% in the year 2009. Moreover, the drop-down continues to increase at the rate of 4.9% in the next couple of years (Mukhtarov, 2019). According to the researchers, fluctuations in oil prices create an influence on the economic growth, of both importers and exporters of the country. It is a common trend that, the increase in oil prices results in a reduction in production rate due to the high cost of production. According to the researchers, the severe fluctuations in oil prices creative a negative impact on the economic growth of the country, which leads to a high inflation rate in the year 2008. The sharp economic slump after the year 2009 reduces the revenue of the country and the reduction in revenue affects both the oil and non-oil sectors of the country. Although, it is an international crisis that leads to a heavy inflation rate (Katircioglu et al.2015).

The country enjoys abundant energy resources till the year 2008. However, the lack of resource management and poor diversification forces the company to depend only on one sector. The decrease in production rate results in an imbalance of supply and demand. The increase in demand leads to fluctuation in the rate of inflation. However, the sudden increase in oil prices is observed in the year 2013, which increases the growth rate of the country up to 5.9%. Katircioglu et al. (2015) and many researchers believed that oil enriches countries such as Country and Iran depend on the production of crude oil to manage their National economy. Furthermore, the

reduction in production level enhances the rate of inflation in the country. The researchers argue that the oil-enriched countries observe a high level of foreign currency inflow in the country, which results in a slight increase in the worth of local/ national currency of the state. Moreover, gradual exchange in currencies makes the local product more expensive and increases the demand as well. Malik (2017), depicts the direct relationship between oil prices and inflation.

The oil prices in the Country affect the rate of inflation which ultimately disturbs the overall economy of economy. Moreover, the over-dependence on the oil sector and poor diversification are two major reasons for the large-scale slump. The researchers predicted that the economic conditions of the Country become more severe in the future if the country relies heavily on the petroleum sector. However, the country must show its presence in other sectors as well (Malik, 2017). Moreover, the oil-based economies are the major victim of the fluctuation in oil prices. Abounoori et al (2014), believed that the slight fluctuation in oil prices creates a positive impact on the rate of inflation. However, the effect of oil rates on economic growth and consumer demands are both long-term and short-term as well. Eryigit, (2012) argues that the rise in oil prices and the decrease in production affect the overall economic activities of the country. The non-oil sector of the country is heavily dependent on the GDP growth earned from the oil sector of the country. The government of the Country faces a couple of challenges. Firstly, the high inflation rate, due to the downturn in the oil sector affects the growth of the country. Secondly, the government put all effort to cover the budget deficit of the country. Moreover, the government tries to manage the domestic currency of the country (Sibanda et al, 2015). There are a couple of factors that can cause inflation, such as high prices of the products and the imbalance between supply and demand due to fluctuation in prices and lack of economic growth. The variables of the study are oil prices, inflation rate, and GDP growth rate (Mukhtarov, 2019).

## **1.2 Problem Statement**

The increase in the inflation rate due to the fluctuations in oil prices is one of the major economic issues in the Country. The prices of crude oil rise due to an increase in demand and a decrease in the production level. The inflation rate results in the economic downturn of the country which is disastrous for the public sector and the private sector. Poor diversification strategy and lack of appropriate monetary policy result in fluctuations in oil prices.

### **1.3 Research Questions**

RQ1: How do crude oil prices tend to fluctuate the inflation rate in the country?

RQ2: How the oil prices create an impact on the economic growth of a country?

### **1.4 Research objectives**

RO1: The objective of the research is to investigate the effect of oil prices on the inflation rate of the country.

RO2: The objective of the research is to investigate the effect of oil prices on the economic growth of the country.

### **1.5. Hypothesis**

H1: There is a substantial relationship between oil prices and the inflation rate

H2: There is a significant relationship between oil prices and economic growth

## 2. LITERATURE REVIEW

### 2.1 Inflation

The economic conditions of varies due to the fluctuations in the inflation rate. The oil-based economies shape their economic system according to the ups and downs in the prices of oil (Wu&Ni, 2011). The studies and researches argue that there is a linear connection between oil prices and the inflation rate. However, it depends on whether the country is an oil exporter or importer (Eryigit,2012). The countries that are producing petroleum products rely on oil prices because the slight fluctuation in oil rates changes the cost of production which ultimately affects the macroeconomics factors such as inflation rate and unemployment rate (Katircioglu et al.2015). However, the study merely focuses on the export sector where fluctuations in the prices affect the supply and demand of the country. The oil-rich countries that earn major revenue from the export of petroleum products must introduce a diversified economic structure. The oil export slump may result in the devaluation of the currency which enhances the deficit of the Government. Moreover, the government minimizes the policy relaxation to recover the deficit which results in demand-pull inflation (WB, 2018).

Cavalcanti & Jalles, (2013) and other scholars cited in their work that, oil price shock results can cause inflation due to a couple of major reasons. Firstly, it disturbs the monetary policy of the oil-rich country such as Country. Secondly, it disturbs the consumer demand in the country. The exporters reduce production due to high costs which leads to an increase in demand for the products. Several studies propose that less diversified economies observe high inflation during the fluctuation in oil prices.

Although other facts such as unemployment lead to inflation as well the fluctuation in oil prices is the base inflation. The sudden rise in the inflation rate due to price fluctuation in the domain of the oil industry disturbs the overall economic sector of the country. However, oil-based economies are more vulnerable in case of fluctuation in oil rates. Although countries such as Azerbaijan and UAE put all their efforts to reduce dependency on the oil sector. Azerbaijan enhances revenue through investments and utilization of other energy resources. However, more than 60% of total revenue is generated from the oil sector. The oil price fluctuation in Arab countries affects the economy of underdeveloped countries like Pakistan because the consumption

of oil is entirely based on imports. The increase in price results in the rise in the price of all products such as commodities and luxury goods. In Pakistan, the oil prices go up due to the global economic slump and sudden rise in the prices of oil. Inflation is the situation of a country where the government is unable to fulfill its expenditure and it is very much difficult to manage the balance between supply and demand.

## **2.2. Economic Growth**

Researchers argue that a gradual or seasonal increase in oil prices does not affect the GDP or revenue stream of oil-enriched countries. However, the continuous increase in prices not only creates inflation but affects the overall economy of the country. The increase in the prices of products and services due to fluctuations in oil prices reduces the demand for the product which ultimately affects all sectors of the country. The country is one of the export giants of oil-made products and has a slump in the oil sector (Cavalcanti and Jalles, 2013).

The economic growth of the country depends on several factors. Firstly, the balance between income and expenditures. The balance can be maintained through appropriate budgeting and policies. The fiscal and monetary policies maintain the balance between income and expenditures. The GDP ratio and per capita income are the prime parameters of economic growth. The high ratio of average per capita income depicts the income level at the individual level. The fluctuation in the prices of products results in the recession and economic downturn for the country. However, the temporary rise in prices of the product results in a short-run economic downfall. Oil price fluctuation and economic growth are in a significant relationship with each other. The fluctuation in prices of the product reduces the demand of the product at local and mass level. Furthermore, the reduction in demand results in an economic downturn and increases the level of unemployment in the country.

Researchers argue that the government must take a couple of preventive measures to reduce the effect of the sudden economic downturn. Firstly, government designs the policies to minimize the dependency of the economy on oil prices which create a positive impact on the economic sector. Although oil is the major product governments of underdeveloped countries like Pakistan are over-dependent on oil prices. Secondly, the government must effectively design fiscal and monetary policy.

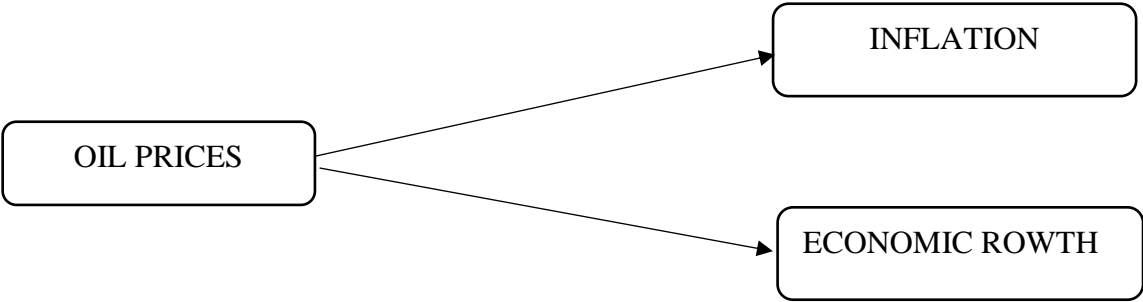
### **2.3. Oil Prices**

Oil prices are the parameter of economic growth for oil-based economies and underdeveloped economies as well. Fluctuations in oil prices result in an economic downturn and increase the rate of inflation in society. Although governments of Arab countries put all efforts to utilize other energy resources to strengthen the economy oil price is still an important parameter of economic stability. According to research, the fluctuation in oil prices in underdeveloped countries like Pakistan results in a high inflation rate which ultimately disturbs the economic conditions of the country.

**2.4. Theoretical Framework**

**Independent Variable**

**Dependent Variable**





### **3. RESEARCH METHODOLOGY**

#### **3.1. Methodology**

The research methodology is the process of gathering relevant data and producing relevant results according to the variables. The research is designed to examine the impact of oil prices on economic growth and inflation rate for this purpose the data will be collected from various resources in the following sections

#### **3.2 Research Design**

The research design includes all the techniques and procedures to conduct and carry out the research. Furthermore, appropriate research design initiates from the determination of suitable data and ended up after the suggestion of productive data analysis techniques. The research is descriptive and both primary and secondary data are used to analyze the relationship between the two variables. Descriptive research belongs to the description of any particular scenario and targets a specific population to conduct the research. The particular research describes the situation of oil prices and their impact on the inflation rate. However, the study belongs to the oil and non-oil production sector of the Country. The independent variable in the current study is the price of oil the dependent variable is the inflation rate which varies according to the prices of oil.

#### **3.3. Data Collection**

McCormick (2017) stated that there are five major methods of data collection which are questionnaires, interviews, observations, history, and document records. The study is quantitative in nature and records/ documents will be to collect numerical and factual data. Our study collects the annual bases and the reports of the last five years will be used to collect and analyze data. Moreover, the survey method will also be used as a tool for data collection. As the study deals with the oil prices and their impact on the economy and inflation rate so the population of the research is the economic analysts of various organizations of the country. A simple random sampling technique is used to select a sample for a population. The sample size of the research is 100. The questions will be asked from managerial staff. Although simple random sampling has flaws it is less time-consuming and generates more accurate results. Moreover, the data will be

gathered from the economic indicators of the World Bank report. The qualitative means of data collection with also be used such as articles and books.

#### **4. ANALYSIS AND RESULTS**

McCormick (2017) stated that Statistical models are used in research methodology to analyze the results and quantify the data. The statistical software is used to analyze the data which will be collected from participants. The statistical analysis is divided into two major parts which are descriptive analysis and modeling. The study is descriptive so; the data will be analyzed through statistical software SPSS. The statistical tests are generally required to generate productive output from already gathered data. The relevant statistical analysis enhances the accuracy of the data.

##### **4.1. Correlation**

The Pearson correlation is used to examine the relationship between dependent and independent variables. The correlation values must be greater than 0.5. The correlation of a variable with itself is always equal to 1.

<b>Sr No</b>	<b>Variable</b>	<b>1</b>	<b>2</b>	<b>3</b>
<b>1</b>	<b>Oil Prices (OP)</b>	1		
<b>2</b>	<b>Inflation (I)</b>	.642**	1	
<b>3</b>	<b>Economic Growth (EG)</b>	.777**	.780**	1
** . Correlation is significant at the 0.01 level (2-tailed).				

*Table 1: Correlation*

The correlation shows significant results which are above the desired estimated point of 0.5. Inflation is a dependent variable and its relationship with oil price is .642\*\* which is highly significant. The Pearson correlation value of economic growth with oil price is .777\*\* which is highly significant as well.

## 4.2. Regression

Regressions show the degree of relationship between independent and dependent variables. However, the correlation test only includes the degree of relationship. The regression values are represented by R.

Model	R	R Square	Adjusted R Square	Std. The error of the Estimate
1	.803 <sup>a</sup>	.644	.644	.59378

- a. Predictors: (Constant), OP
- b. Dependent Variable, EG

*Table 2: Regression Model*

The regression value is 0.803 is model summary which is highly significant and far above the borderline of 0.5.

## 4.3. Limitations

Limitations are the expected shortcomings of the examination. Each exploration has a few imperfections, and it is the piece of examination however these blemishes should be referenced and this is the distinction between the great and the terrible examination. Be that as it may, such a large number of imperfections make the consequence of the outcome flawed. This examination additionally contains a few defects and limitations, and these imperfections are referenced underneath.

## **5. CONCLUSION AND RECOMMENDATION**

### **5.1. Conclusion**

Based on the above discussion, it is concluded that the fluctuation in oil prices results in a high inflation rate. Although, other factors such as GDP and per capita income play a role in the economic development of the country the fluctuation in prices results in the recession and economic downturn. The results show that fluctuation in oil price is directly related to the inflation rate and economic growth. The underdeveloped countries like Pakistan increase prices on the parameter of oil price fluctuation because of the over-dependency of oil imports. The increase in global oil prices results in the variation in import prices which increases the rate of inflation in the country. Inflation ultimately affects the economic growth of the country in terms of low demand and recession in the business cycle.

### **5.2. Recommendations**

Based on the above analysis and discussion following recommendations were drawn.

1. Government must take necessary action to reduce the dependency of the economy on oil-based products. Moreover, the policies must be designed in such a way that, the fluctuation in oil prices results in the minimum effect of economic growth.
2. Government must improve business activities in the country because it may increase the per capita income of the country which ultimately results in economic growth.

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