

# The Impact Of Oil Revenues On Kuwaiti International Investments, A Standard Study For The Period (1995-2022)

Asst. Prof. Dr. Mhamed Radhi Jafaar<sup>1\*</sup>

<sup>1\*</sup>College of Administration and Economics, University of Kerbela, [Mhamed.r@uokerbala.edu.iq](mailto:Mhamed.r@uokerbala.edu.iq)

**Citation:** Asst. Prof. Dr. Mhamed Radhi Jafaar et al (2024), The Impact Of Oil Revenues On Kuwaiti International Investments, A Standard Study For The Period (1995-2022), *Educational Administration: Theory and Practice*, 30(7), 1010-1019  
Doi: 10.53555/kuey.v30i7.7004

## ARTICLE INFO

## ABSTRACT

The research relates to studying the impact of Kuwaiti oil investments in the world on the Kuwaiti gross domestic product. The research is based on the hypothesis that (investing Kuwaiti oil revenues in the world has an impact on increasing the gross domestic product). The goal of the research is an econometric analysis of a model that represents the economic relationship between investments and gross domestic product. The research used all analytical, statistical and measurement methods to prove the research hypothesis. The research reached a number of conclusions in this regard.

**key words:** Oil revenues, Kuwaiti global investments, econometrics

## Introduction:

Oil is one of the traditional fossil energy sources, as the global economy relies on it fundamentally as it is one of the most important major international standards affecting the world in all economic aspects. Oil is traded worldwide in terms of the mechanism of demand and supply, as oil has a major role in its contribution to the field of The gross domestic product of oil-producing countries, in addition to its effective role in the field of total imports obtained from oil exports, which contribute significantly to the preparation of the state's general budget.

. Oil revenues contribute significantly to industries such as petrochemical industries, electricity, and others, as well as investing oil revenues in the world. Oil prices are characterized by volatility and instability from time to time or from year to year depending on the policies followed by oil producing countries or the OPEC and OAPEC organizations according to the global demand and supply mechanism. The study focuses on the impact of fluctuations in global oil prices on the total investment of oil revenues collected in the State of Kuwait, one of the countries of the Gulf Union.

## The research importance:1-

The importance of the research stems from the fact that oil revenues in the State of Kuwait have a significant impact on the Kuwaiti economy, as they are a tool for increasing the employment process, increasing economic growth, and diversifying the economy to confront global crises, as well as global Kuwaiti investments and their positive impact on the economy in general.

## The research Problem

Since the Kuwaiti economy depends in general on oil and oil revenues, Kuwait decided to maximize its financial revenues by investing total revenues, including Kuwait's oil revenues, by making foreign investments, establishing gas stations and refineries in all countries of the world, and supplying them with Kuwaiti oil that is sold on a regular basis. Oil derivatives, which increases its revenues as a result of these investments.

The study is based on testing the following hypothesis (that investing Kuwaiti oil revenues in the world has an impact on increasing the gross domestic product) for the specified study period 1995-2022,

## 2- Research objective:-

The goal of the research is an econometric analysis of a model that represents the economic relationship between investments and gross domestic product. At the end of the study, it concludes with the most important conclusions and recommendations.

## 3- Research methodology and structure:

The researcher used all statistical and standard analytical methods adopted in studying the impact of oil revenues on Kuwaiti international investments for the period 1995-2022, by analyzing the available data on the research problem and its economic reality in order to prove the research hypothesis.

### Economic importance:4-

Kuwait is one of the ten largest countries producing conventional oil in the world, as it occupies sixth place in the world's proven oil reserves, as it made three oil discoveries in 2020 in order to enhance its oil capacity at the level of Arab oil-producing countries<sup>(1)</sup>. Turki Hassan Al-Hamash, 2022 . (It is characterized by a low population and a thriving economy, as Kuwait relies heavily on the oil revenues it receives, as oil revenues represent about 87.68% of the state's total public revenues, while non-oil revenues contributed about 12.32% of the total estimates of Kuwait's public revenues for the fiscal year. 2019-)<sup>(2)</sup> Ministry of Finance, fiscal year 2019-2020 ,(As Kuwait is like the oil-producing countries that face fluctuations in oil prices and instability of a certain price, therefore, Kuwait is required to move toward economic diversification and not rely entirely on oil revenues )<sup>(3)</sup>. Ahmed Raad Abdul Kafi Al-Rubaie, 2022 , (Rather, there is a clear investment of Kuwaiti oil revenues in countries around the world, as these investments will be analyzed through Table 2. Kuwait is a net importer of natural gas as a result of the lack of development of natural gas reserves)<sup>(4)</sup> Wael Hamed Abdel Moati, 2023 , (However, it sought through strategic plans that focused on the production of natural gas and renewable energy sources, considering that natural gas is one of the cleanest traditional energy sources, in addition to the fact that renewable energy sources are clean sources that do not pollute the environment compared to traditional energy sources) <sup>(5)</sup>. Sufyan or Jaida, 2023, ( Kuwait, through its strategic plans, was able to obtain natural gas production of about 17.4 billion cubic meters in 2017)<sup>(6)</sup>. General Secretariat of the League of Arab States and others, 2018 (This production is expected to reach 27.3 cubic meters in 2035)<sup>(7)</sup>. Energy Outlook Report, 2019The following is a table showing the movement of gross domestic product, Kuwaiti oil revenues, global oil prices, their annual growth rates, and the compound growth rate.

**Table 1:** shows the amount of gross domestic product, oil revenues, world oil prices, their annual growth rates, and the compound growth rate for the period 1995-2022: .GDP, revenues: million dollars, oil barrel prices: dollars, annual growth rates)% :

GDP,TR,Price Growth Rate Years	GDP	GDP.Gr.	Oil TR.	Oil TR.Gr.	TR. Percentage to GDP	The price of the barrel of Oil	Price Gr.
1995	27181		12052	*	44.33	16.09	--
1996	31068	14.30	14132	17.250	45.48	18.56	15.35
1997	30020	-3.37	13467	-4.700	44.86	18.13	-2.32
1998	25323	-15.65	8390	-37.680	33.13	12.16	-32.93
1999	29676	17.19	10362	23.500	34.91	17.30	42.27
2000	37708	27.07	10786	4.091	28.60	26.24	51.65
2001	34906	-7.43	9592	-11.060	27.47	22.80	-13.11
2002	38129	9.23	9654	0.664	25.31	23.85	4.61
2003	47869	25.54	11515	41.400	24.05	26.78	12.29
2004	59439	24.17	16517	43.430	27.78	33.64	25.62
2005	80799	35.94	28234	70.930	34.94	50.60	50.42
2006	110574	36.85	53172	88.320	48.08	61.50	21.54
2007	114564	3.61	59198	11.330	51.67	68.19	10.88
2008	147541	28.79	57808	-0.023	39.18	94.34	38.35
2009	105929	-28.20	30895	-46.550	29.16	61.39	-34.93
2010	124244	17.29	39822	28.890	32.05	78.06	27.15
2011	160626	29.28	67688	69.970	42.14	107.50	37.723

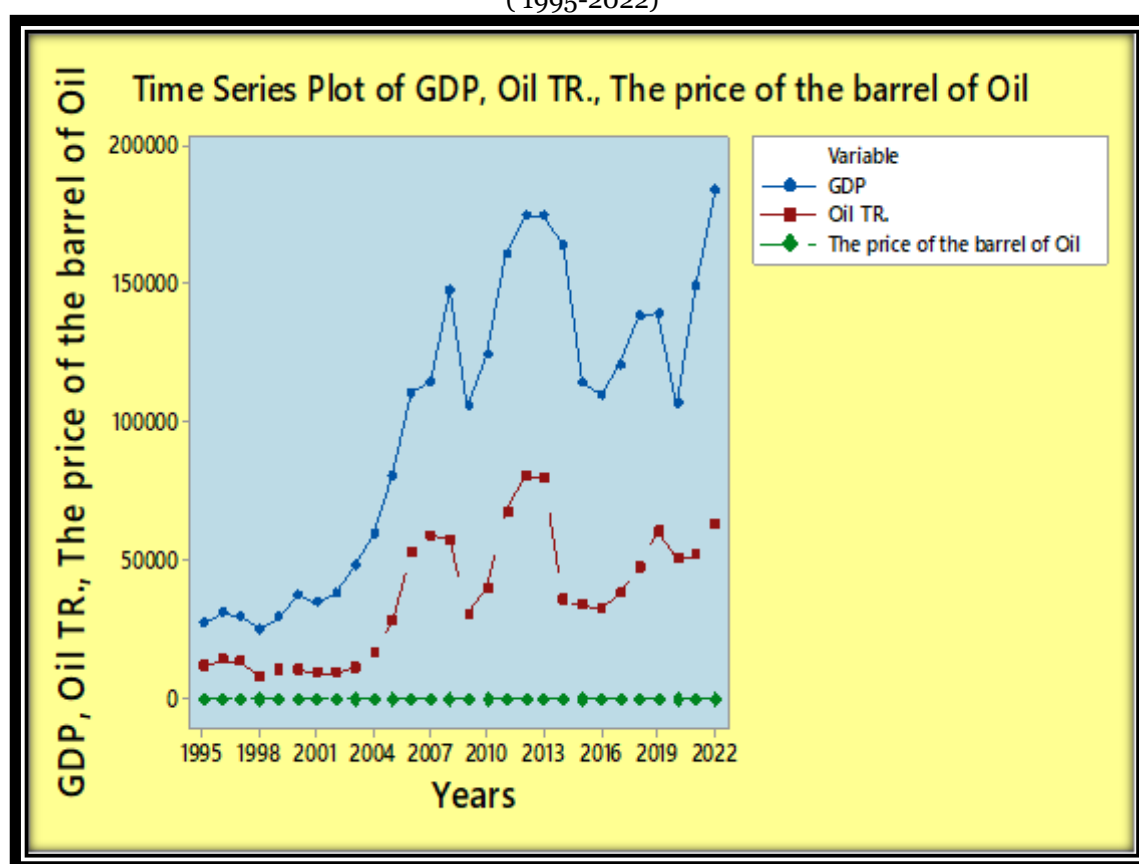
2012	174066	8.37	80814	19.390	46.42	109.08	1.47
2013	174128	0.04	79623	-1.473	45.72	105.47	-3.31
2014	163677	-6.002	35846	-54.980	21.90	97.07	-7.96
2015	114079	-30.30	34084	-4.915	29.87	49.50	-49.01
2016	109877	-3.68	32670	-4.148	29.73	40.70	-17.788
2017	120727	9.88	38560	18.028	31.93	52.4	28.74
2018	138182	14.46	47282	22.610	34.21	69.8	33.20
2019	139152	0.70	60869	28.730	43.74	64.0	8.309-
2020	106377	-23.55	50555	-16.940	47.52	41.5	35.15-
2021	149400	40.44	51754	2.371	34.64	69.9	68.43
2022	183600	22.89	62514	20.790	34.04	84.31	20.61

Source: 1- Growth rates calculated by the researcher.

2-Data from the General Secretariat of Arab States, the Unified Arab Economic Report for the years 1998, 2000, 2021, 2022, 2002, 2007, 2010, 2016, 2014, 2017.

To understand data movement, we can represent it graphically in the following forms:

**Figure 1** shows the curves of GDP, Kuwaiti oil revenues, and the international barrel price for the period (1995-2022)

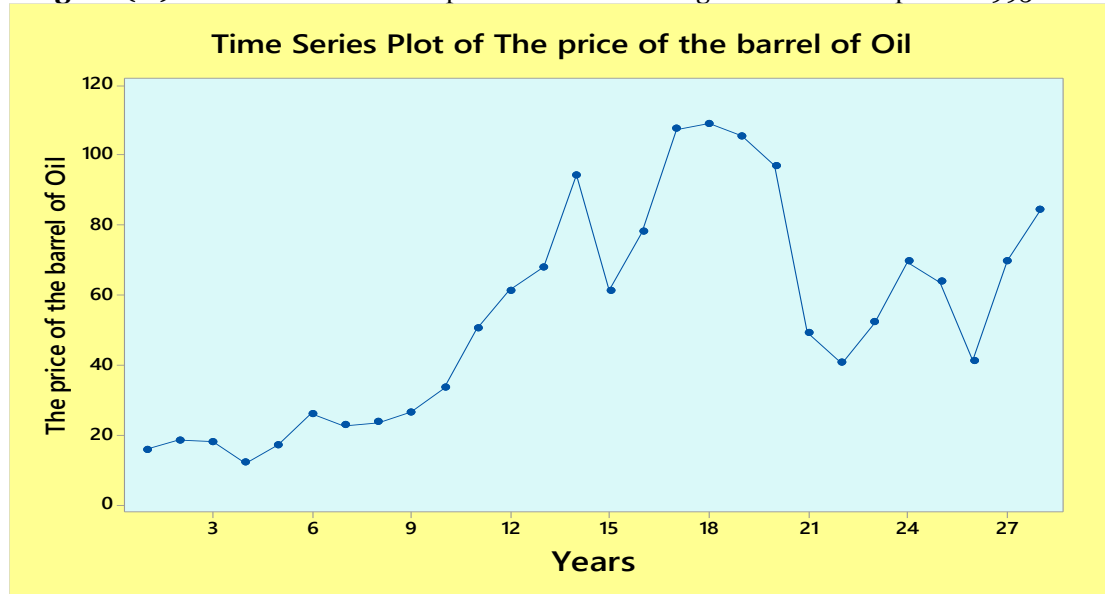


Source: The researcher's work based on the data in Table 1 and using the Minitab 18

### statistical program

We notice from the figure above that the GDP curve has evolved throughout the study period as a result of the increase in Kuwaiti economic activity in various sectors, as well as the increase and development of oil production in it, and despite its fluctuation as a result of the fluctuation of oil revenues, which was greatly reflected in the GDP, while the price of a barrel We notice that its curves behaved in a linear manner, and the researcher believes that this is due to the quantities of output and the corresponding oil revenues. Therefore, the researcher created an individual form for the price of a barrel of global oil in order to show the true behavior of its behavior during the research period, as in the following figure:

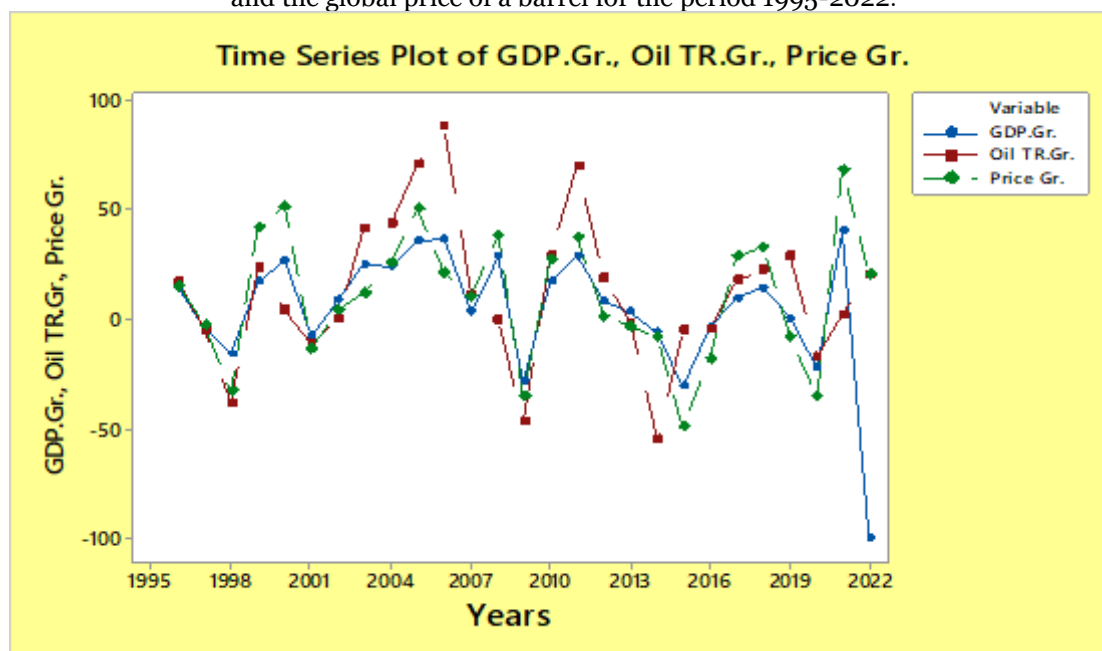
**Figure ( 2 )** shows the curve of the price of one barrel of global oil for the period 1995-2022



Source: The researcher's work based on the data in Table 1 and using the Minitab 18 statistical program.

We notice from Figure No. 2 that the behavior of the global barrel price curve is also fluctuating, which gives us a clearly visible fact that the impact of the barrel price on Kuwaiti oil revenues is very large, and this in turn is reflected in the Kuwaiti gross domestic product. From one look, we find that all curves are similar in behavior. We can reinforce what we have reached by using a graphic form that represents the annual growth rates of the gross domestic product, Kuwaiti oil revenues, and the price of a barrel, as follows:

**Figure:( 3 )** shows the curves of annual growth rates for the gross domestic product, Kuwaiti oil revenues, and the global price of a barrel for the period 1995-2022.



Source: The researcher's work based on the data in Table 1 and using the Minitab 18 statistical program

We notice from the graph that the oil revenue curve and the Kuwaiti GDP curve are affected by the curve and the coefficient of annual growth of global oil prices and behave the same way.

Kuwaiti oil investments around the world:-

When Kuwait saw that its economy relied heavily on oil and oil revenues, it wanted to maximize its financial revenues by investing total revenues, including Kuwait's oil revenues, by making foreign investments, establishing gas stations and refineries in all countries of the world, and supplying it with Kuwaiti oil that is sold in the form of derivatives. Oil revenues are increased as a result of these investments. The following is a table showing Kuwaiti investments and their annual growth rates:

**Table 2** shows the investment of Kuwaiti oil revenues in the world and their annual growth rate for the period 1995-2022):. Investments: million dollars(

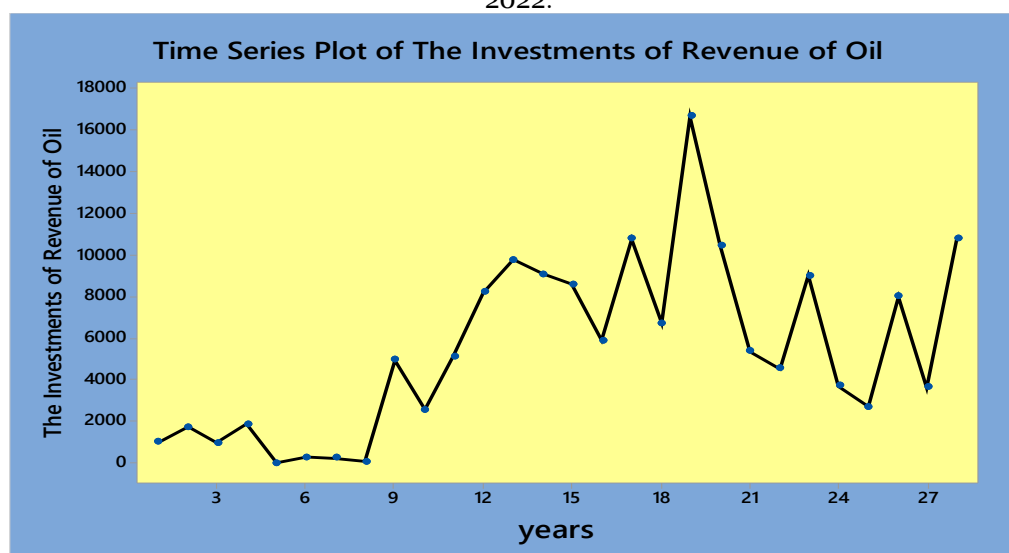
The Investments of Revenue	The Investments of Revenue of Oil
Years	
1995	1 022
1996	1 740
1997	969
1998	1 867
1999	23
2000	303
20001	242
2002	77
2003	4 960
2004	2 581
2005	5 142
2006	8 211
2007	9 784
2008	9 091
2009	8 582
2010	5 890
2011	10 773
2012	6 741
2013	16 648
2014	10 468
2015	5 367
2016	4 528
2017	9 013
2018	3 715
2019	2 696
2020	7 988
2021	3 631
2022	10766

Source: Data from the Central Bureau of Statistics, Kuwait, for the years,1996,1999,2001 ,2003 ,2006 ,2008 2010,2012,2015,2018,2019,2021,2022

We note that investment data fluctuates between years and other years, and this is due to Kuwait's total revenues, including the greatly influencing factor, oil revenues, as a result of their fluctuation as well, and due to the fluctuation of global oil prices.

This data was represented in the following graphic form:

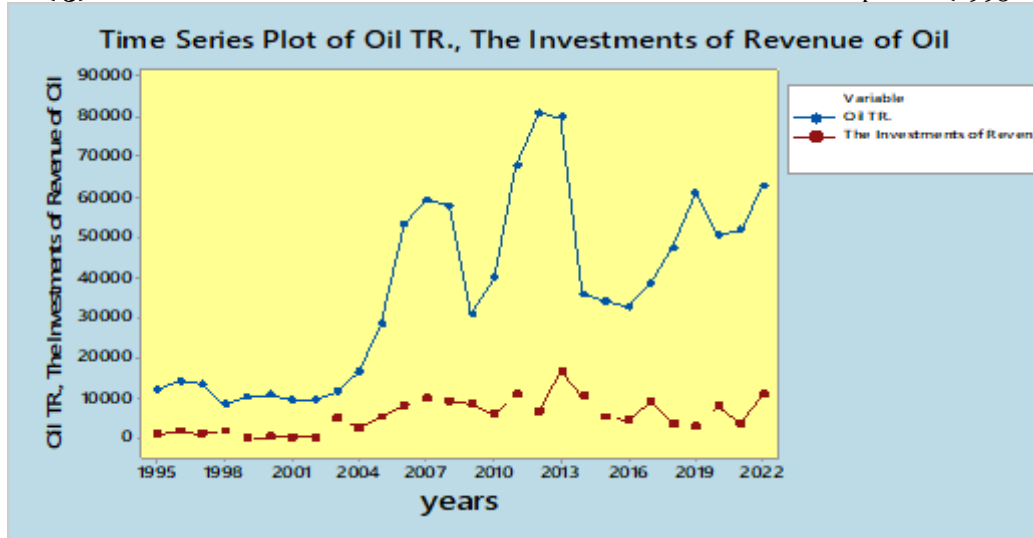
**Figure( 4 )** :shows the curve of Kuwaiti global investments in the field of oil in the world for the period 1995-2022.



Source: The researcher's work based on the data in Table 2 and using the Minitab 18 statistical program

We notice from the graph that the investment curve is also fluctuating as a result of the fluctuation in oil revenues, and this is due to the fluctuation in global oil prices. When we draw the curve of oil revenues and investments, we can notice the difference clearly, as in the following figure:

**Figure( 5):** shows the curve of Kuwaiti oil revenues and investments for the period (1995-2022).



Source: The researcher's work based on the data of Tables 1 and 2 and using the Minitab 18 statistical program. We notice, indisputably, that the two curves behave in a similar direction, which reinforces our approach in explaining their behavior.

#### Description of standard models:-

Before estimating standard models, we must describe the model variables and the mathematical formula for standard models as follows:

1-Description of the standard model:-

A - The GDP model, whose variables consist of the following:

1- The dependent variable: It represents the Kuwaiti gross domestic product estimated in millions of US dollars and we symbolize it with the symbol GDP.

2- The independent variables are as follows:

⊗ The oil revenues variable is estimated in millions of dollars and has the symbol O.TR.

⊗ The Kuwaiti investments variable is estimated in millions of dollars and we denote it with the symbol I.TR.

B - The oil investment model, which consists of the following variables:

□ The dependent variable: It represents Kuwaiti investments estimated in millions of dollars and we symbolize it with the symbol I.TR.

□ Independent variable: It represents oil revenues, estimated in millions of dollars and symbolized by the symbol O.TR.

Appreciation: Based on the data in Tables 1 and 2, standard models were estimated as in the following table:

**Table( 3)** shows the estimation of the GDP model and the investment model

Models Type: Linear Samples Size :2 Models Number:2 Case Number:1		
Variables & Tests	GDP Model Coefficients & Tests Value	I.TR Models Coefficients & Tests Value
Constantt	20033(2.66) <sup>1%</sup>	282(0.28) <sup>non</sup>
O.TR	1.767(6.47) <sup>1%</sup>	0.1410(6.12) <sup>1%</sup>
T	20.44	10.00
VIF		
I.TR	2.63	
T	(1.76) <sup>5%</sup>	
VIF	20.47	
R <sup>2</sup>	85.92%	59.03%
r	92.78%	76.88%
F <sub>(3,28)</sub>	(76.28) <sup>1%</sup>	(37.46) <sup>1%</sup>
D.W	(1.47185) <sup>1%</sup>	(1.4681) <sup>1%</sup>
Size of Distance :< 20% (No Heteroscedastic) TOL:<40%(No Multicollinearity ) t - Table <sub>0.01</sub> = 2.485 , t - Table <sub>0.05</sub> = 1.708 , t - Table <sub>0.10</sub> = 1.316 F <sub>(3-28) 0.01</sub> = 4.64 , F <sub>(3-28) 0.05</sub> = 2.98 D.W <sub>0.01</sub> :dl = 1.011 du = 1.787 , D.W <sub>0.05</sub> :dl = 1.206 du = 1.454		

Source: The researcher estimated it using the Minitab 18 program and tested values from statistical tables on an Internet site.

From Table 3 it is clear that the estimated domestic product model passed the statistical and measurement tests and that the relationships of the output with the independent variables are positive and are consistent with the theoretical hypotheses if it turns out that the following:

## 2-Significance test:-

### - a- T-test:

Based on the t test, it becomes clear that the constant variables and the oil revenues variable are significant at a significance level of 1%, which shows that our confidence limits have reached about 99%. This is that the amount of error in the two variables does not affect their representation of the model and their influence, since the constant shows the extent of the slope of the positive output curve, which is shown on The positive changes are the result of changes in the independent variables, which primarily represent oil revenues due to their high significance .As for the oil investments variable, its significance was proven at a significance level of 5%, which shows that its power is lower than the revenues variable, so our confidence limits in it reach 95%, which means that there are errors of 5% in the samples for this variable, but despite that, its impact on the gross domestic product The total remains strong and is consistent with the assumptions of economic theory, as its relationship is positive

### B-F test:

-Testing the Multicollinearity problem:

From the values of the VIF, the variance difference factor for the variable, we can obtain the TOL correction factor by dividing the number 1 by the variance difference factor, as follows:

$$\frac{1}{VIF} : O. TR = \frac{1}{20.44} = 0.05 , I. TR = \frac{1}{20.47} = 0.047$$

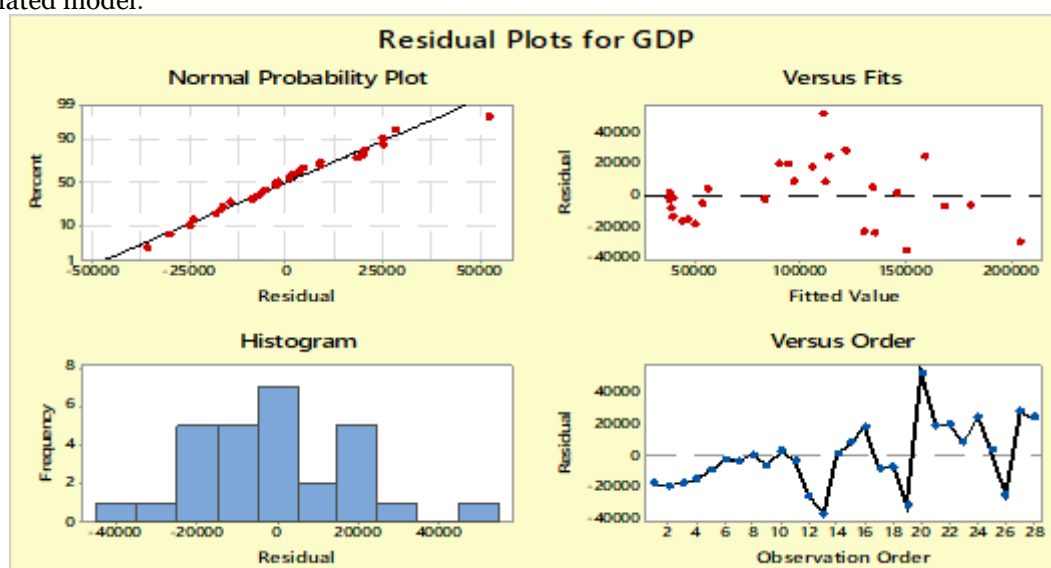
The value of the correction factor is very weak, which confirms the absence of the problem of Multicollinearity in the estimated model, and reinforces what we have reached in the first graph on the right side of Figure 6, which shows the spread of the residuals in a homogeneous manner except at the beginning of the first time period.

### -C-: Testing the autocorrelation problem

Based on the D-W test, the significance of the estimated model is revealed at a significance level of 1%, as the D-W value calculated from the model estimation falls in the acceptance region, which confirms the absence of the problem of autocorrelation between the random residuals. This is reinforced by the second figure at the bottom right of Figure 6 if The points and the movement of the curve between the negative correlation and the positive correlation, which confirms our point that this problem does not exist.

### D-Testing the Heteroscedasticity problem:-

The estimated model was tested with the distance estimation test if the discrepancy between the random values is small and the values are far from each other. This is confirmed by the third figure at the bottom left of Figure 6. It turns out that the average of the residuals is equal to zero and therefore the model does not violate the assumptions of the random variable and thus there is no problem of instability. Homogeneity of variance in the estimated model.



**Figure( 6)** shows tests of the random residuals for the estimated model:-

Source: From the results of estimating the GDP model using the Minitab program 18



### **- e- Testing the strength of economic relations:**

From the estimate, the strength of the correlation between the independent variables and the GDP variable was about 93%, which means that all the common points between the values of the independent variables and the values of the resulting variable are very close to the regression line. This indicates the strength of the very strong relationship between the variables of oil revenues and investments with the variable. GDP. As for the multiple determination coefficient, its explanatory power reached about 86%, which means that the two independent variables explain the changes occurring in GDP by 86%, and the remaining 14% is due to other variables that were not included in the model and were not taken into account.

### **Interpreting the economic relationships of the estimated model:**

It turns out that the two independent variables have a positive relationship with the GDP variable, and they are consistent with the assumptions of economic theory, and that a 1% increase in the oil revenues variable in parameter values will increase the GDP by about 1.767 million dollars. As for oil revenue investments by about 1%, the GDP will increase by about 2.63 million dollars. This shows that the government plan to invest oil revenues outside the country is a realistic plan that is successful by all standards in diversifying revenues and their impact on the gross domestic product.

### **Investment Model Estimation Analysis:**

#### **Significance test:**

##### **1-T-test:**

Based on the t-test, the regression coefficient of Kuwaiti oil revenues on investments is found to be significant at 1%. This means that the confidence limits for this variable are about 99%, which indicates that the errors committed in taking the data were 1%, and this shows us high confidence in this. The variable represents the economic relationship between the two variables in the investment model, while the significance of the constant regression coefficient was not proven.

##### **2-F test:**

Based on the F test, the significance of the model is found to be 1%, which indicates that the researcher has succeeded in choosing this relationship between the two variables and indicates the quality and success of the researcher in it. It also proves the significant significance of the coefficient of determination  $R^2$ , which states that a change in the independent variable is followed by a change in the dependent variable. The results showed that the coefficient of determination reached about 59.3%, which means that about 60% of the changes occurring in oil investments are due to oil revenues only, and the remaining about 40% is due to the nature of Kuwaiti non-oil revenues.

#### **Standard tests:**

##### **1-Multicollinearity test between independent variables:**

Since the standard model is a simple model with a simple relationship, the multiplicity test is nullified because the model contains one independent variable. Despite this, the residuals are spread homogeneously, as in Figure 7, the figure at the top left.

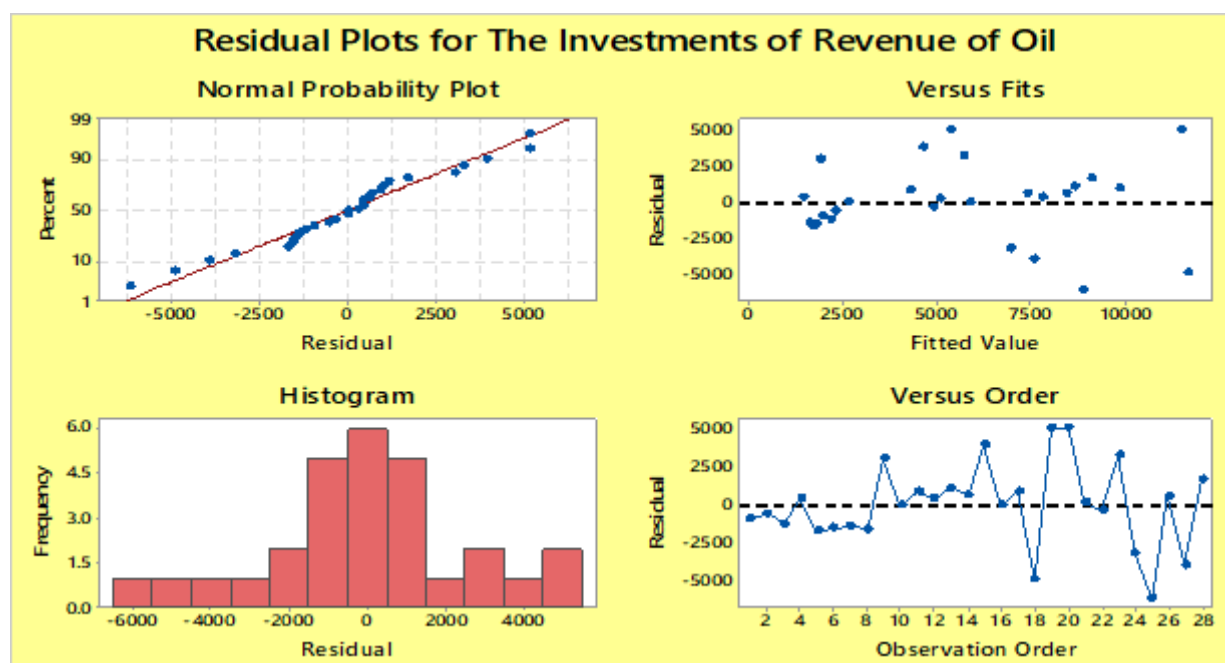
##### **2-Autocorrelation test between random residuals:**

By relying on the autocorrelation test for the random residuals, it was found that the calculated value of the D-W test was  $[[D.W]] \_0.01:du=1.787<1.9969<4-du=2.213$ . This means that the calculated value fell between the lower and upper critical limits, which indicates that it falls in the acceptance zone and thus The estimated model is free of this problem, and what we have reached is reinforced by the lower right-hand graph of Figure 7, as the difference in the behavior of the points indicates the absence of an autocorrelation problem between the random residuals.

##### **3-Testing the problem of non-stationarity of homogeneity of variance:**

The distance test indicates that the divergence between the random fluctuating values is less than 20%, which indicates homogeneity of variance, and since the model is free from the problem of autocorrelation, this means that the model is also free from the problem of counting the stability of homogeneity of variance, and this is reinforced by the upper and lower figures of Figure 7. So the arithmetic mean of the random variable is equal to zero This is consistent with the theoretical assumptions, and the distribution of the random residuals between negative and positive fulfills this assumption, as it is in the bottom figure on the left side, while the top figure indicates that all double points between the two variables are close to the regression line.





**Figure( 7)** shows the results of standard tests for the estimated Model:  
Source: From the results of estimating the GDP model using a program Minitab 18

### Interpretation of the economic relationship :-

From estimating the relationship, it becomes clear that the oil revenues variable has a positive relationship between it and the dependent investments variable, with a very strong effect, so a change in oil revenues by 1% will inevitably lead to a change in investments by the revenue variable parameter of 0.1420, and this is good relative to the amount of invested revenues.

### Conclusions and recommendations

#### First: Conclusions:-

1-The GDP curve has evolved throughout the study period as a result of the increase in Kuwaiti economic activity in various sectors, as well as the increase and development of oil production in it, and despite its fluctuation as a result of the fluctuation of oil revenues, which has greatly reflected on the GDP, while the price of a barrel, we notice that its curve has behaved in a linear manner. This is due to the quantities of output and the corresponding oil revenues, as it was resorted to finding an individual form for the price of a barrel of global oil in order to show its true behavior during the research period.

2-By observing Figure No. 2, the behavior of the global barrel price curve is also fluctuating, which gives us a clearly visible fact that the impact of the barrel price on Kuwaiti oil revenues is very large, and this in turn is reflected in the Kuwaiti gross domestic product. From one look, we find that all curves are similar in behavior .

3- By observing Chart 3, the oil revenue curve and the Kuwaiti GDP curve are affected by the curve and coefficient of annual growth of global oil prices and behave the same way.

4-When Kuwait saw that its economy relied heavily on oil and oil revenues, it wanted to maximize its financial revenues by investing total revenues, including Kuwait's oil revenues, by making foreign investments, establishing gas stations and refineries in all countries of the world, and supplying them with Kuwaiti oil that is sold. In the form of oil derivatives, which increases its revenues as a result of these investments.

5 - Based on the t-test, it becomes clear that the constant variables and the oil revenues variable are significant at a significance level of 1%, which shows that our confidence limits have reached about 99%. This is that the amount of error in the two variables does not affect their representation of the model and their influence, since the constant shows the extent of the slope of the positive output curve. Which is evident from the positive changes as a result of the changes occurring in the independent variables, which represent oil revenues primarily due to their high significance .As for the oil investments variable, its significance was proven at a significance level of 5%, which shows that its power is lower than the revenues variable, so our confidence limits in it reach 95%, which means that there are errors of 5% in the samples for this variable, but despite that, its impact on the gross domestic product The total remains strong and is consistent with the assumptions of economic theory, as its relationship is positive. While relying on the F test, which tests the significance of the multiple determination coefficient, it turns out that the model was significant at a significance level of 1%, which indicates the quality and success of the researcher in selecting the variables of the GDP model, which makes the model representative of the economic relationship.

6-It turns out that the two independent variables have a positive relationship with the GDP variable, and they are consistent with the assumptions of economic theory, and that a 1% increase in the oil revenues variable in parameter values will increase the GDP by about 1.767 million dollars. As for oil revenue investments by about 1%, the GDP will increase by about 2.63 million dollars. This shows that the government plan to invest oil revenues outside the country is a realistic plan that is successful by all standards in diversifying revenues and their impact on the gross domestic product. In addition, estimating the relationship shows that the oil revenues variable has a positive relationship between it and the dependent investment variable, with a very strong effect, so a change in oil revenues by 1% will inevitably lead to a change in investments by the revenue variable parameter of 0.1420, and this is good for the amount of invested revenues. .

### **Second: Recommendations:-**

- 1- Diversifying the production base, as well as increasing investment rates by increasing the contribution of other non-oil sectors to the formation of the gross domestic product in order to reduce dependence on the leading oil sector and thus diversify the main source of income in Kuwait
- 2- Since the traditional energy sources are oil  
Natural gas and coal are depleted sources, so it was necessary to search for alternative sources of oil, one of the traditional energy sources that the State of Kuwait currently relies on. This is done by finding alternatives to oil in Kuwait's local production, such as encouraging and raising local production and industry, as well as supporting technological projects and industry. Innovative and unconventional.
- 3-Supporting digital and technical projects through which profits can be achieved and a positive quality can be transferred to Kuwait.
- 4-Paying attention to the private sector as it is one of the stimulating sectors of the Kuwaiti economy, which in turn leads to the transformation of the State of Kuwait into a productive country in all sectors.

### **Sources:-**

- 1-. Ahmed Raad Abdel Kafi Al-Rubaie (Doctor), The Dilemma of the Rentier State: The Dominance of a Single Supplier, Rawafed House for Printing, Publishing and Distribution, first edition, Babylon, Iraq, 2022, p. 228
- 2-General Secretariat of the League of Arab States and others, "Unified Arab Economic Report," Abu Dhabi, 2018, p. 338.
3. Turki Hassan Al-Hamash, The impact of the decline in oil prices due to the Covid-19 pandemic on the field of exploration and production in the petroleum industry, Arab Oil and Cooperation Journal, Volume 48 - Issue 182, Organization of Arab Petroleum Exporting Countries (OAPEC), Kuwait, 2022, p. 51
- 4- Energy Outlook Report ,Kuwait, 2019, p. 4
5. Sufyan or Jaidah (Doctor), European countries' trends towards the use of renewable energies and their potential effects on oil markets, Arab Oil and Cooperation Journal, Volume 49 - Issue 186, Organization of Arab Petroleum Exporting Countries (OAPEC), Kuwait, 2023, p. 121
6. Wael Hamid Abdel Moati, The repercussions of the Coronavirus (Covid-19) pandemic on the global natural gas sector and future expectations, Arab Oil and Cooperation Journal, Volume 49 - Issue 185, Organization of Arab Petroleum Exporting Countries (OAPEC), Kuwait, 2023, p. 127
7. ,Ministry of Finance, Statement of the Minister of Finance on the economic, financial and monetary conditions for the fiscal year 2019-2020, Ministry of Finance, Kuwait, p. 122.Available on the international Internet:-<https://www.mof.gov.kw/MofBudget/PDF/Minister-stat20-19.pdf>