Analysis and Measurement of the Impact of Oil Price Fluctuations on the Structure of Public Expenditures in Iraq for the Period 1980-2018

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Abstract:
The Iraqi economy is considered one of the rentier economies, which depends mainly on oil revenues, which makes the financial policy very vulnerable to the changes taking place in oil prices, knowing that Iraq has undergone many economic transformations during the study period, during the period of the eighties there were no effects on the Iraqi economy, either The period of the nineties is the period of the economic blockade that continued until the end of the nineties, which witnessed the impact of the economic blockade as a result of replacing oil for food and medicine. As for the third period, it is the period of regime change from 2003 to 2018 as a result of the American occupation of Iraq that caused the destruction of The Iraqi economy as infrastructure as well as the entire economic projects almost destroyed.
There are several factors that contribute to changing oil prices, the most important of which is the rate of economic growth. The higher the rate of economic growth of the countries of the world, the higher the world oil price and vice versa. The public

expenditures (current and investment) in Iraq during the study period were affected by the change in oil prices afterthe economic analysis was used to indicate the extent of the public expenditures being affected and variation in shocks that occur to oil prices, and the study concluded that oil price fluctuations have more impact on investment expenditures compared to current expenditures , and this is evidence of the intensity of the sensitive investment expenditures compared to the current expenditures in Iraq, and this in turn reflects negative effects on other economic sectors such as the agricultural, industrial and tourism sectors.

The words used: - oil prices, current expenditures, investment expenditures, oil policy and spending policy.

Introduction:

 The international oil market is characterized by non-exploitation and the large fluctuations in oil prices as a result of its impact on many factors, and if we do not know that oil is an international commodity in its range, a strategy is important for all countries of the world, regardless of the level of its progress, as it is a consumer of oil, although to varying degrees it corresponds to a group Specific from the oil producing and exporting countries. It becomes self-evident to say that high oil prices are in the interest of the producing and exporting countries. Their oil revenues increase as the basis of their financial imports, which positively affects them and the preparation of their general budget, while this rise is not valid for consuming countries. As this increase in financial burdens increases on consuming countries, which affects the preparation of the general budget in them, and the situation will be reversed in the event of low oil prices, with the consequent risks and problems, and therefore all countries of the world face one risk, the name of the risk is oil price, thereby resulting in many risks that affects preparation of general budgets or when making economic decisions for oil exporting countries. Especially as fluctuations in oil prices have become a recurring and disturbing phenomenon at the global level affecting most of the oil producing and exporting countries, in these countries, oil consider as main source in achieving their financial resources in foreign currency, and therefore these countries seek to search from non-oil income sources to response to the risks and problems of low prices Global crude oil.

The research problem: that the structure of public expenditures in its two parts (current and investment) in Iraq is greatly affected by the change in oil prices, which is witnessing fluctuations constantly, and the reason for this is the rentier of the Iraqi

economy, therefore it requires taking into account when preparing the budget, because this greatly affects the taking Important economic decisions and laws.

Objectives of the study

1- Analysis of oil prices and factors affecting it for the period 1980-2018

2- Analyzing the impact of crude oil prices on public expenditures in Iraq during the study period.

3- Measuring and analyzing the impact of the change in oil prices on public expenditures in Iraq using a standard model.

4- Putting practical proposals for the financial authorities in Iraq, how to deal with the changes that take place in oil prices in order to ensure economic growth and then economic development.

the importance of studying: -

The dependence of Iraq mainly on the financial resources that come from oil as a major resource, so Iraq requires to put a mechanism to deal with the changes that occur due to the change in oil prices and how to prepare the budget because this greatly affects the size of public expenditures of the country, which in turn affects the growth and economic stability in Iraq .

The importance of the study comes in that oil prices exert a significant role in influencing the size of the public expenditures of the country, and therefore these variables have a prominent role in economic growth and economic stability in Iraq, on the other hand, the oil sector has great importance in many countries of the world, including Iraq, because this sector is the backbone of the Iraqi economy. Hence, we find that the global financial crisis and its follow-up from economic repercussions have affected the Iraqi economy from the real situation, in that Iraq is a rentier economy that mainly depends on the production and export of crude oil and is affected by that as a result of fluctuating oil prices, and the weakness of the flexibility of the production system in them, which leads to non The stability of the general budget, which indicates the significance of the relationship between fluctuating crude oil prices and public expenditures in Iraq.

The hypothesis of the study:

There is a positive relationship between high oil prices and public expenditures (current and investment). The more oil prices increase, the greater the size of public expenditures, especially investment, and vice versa. The more oil prices decrease, the

public expenditures are affected (current and investment) sectors and this is what happens in Iraq because of rent The Iraqi economy.

Previous studies

A- Arabic study

1- Study of Siham Hussein Al-Bassam and Samira Fawzi Shahab (the risks and problems of low oil prices in preparing the general budget for Iraq, and the necessities of activating non-oil income sources, 2013). This study focused on the risks and problems of low oil prices in preparing the general budget in Iraq, and the necessities of activating sources Non-oil income in financing the public budget, and the researchers concluded that fluctuations in oil prices have confused many public budgets in Iraq, and have produced serious repercussions represented by real challenges to the budget represented by a surplus or deficit in the budget.

2- Abdul-Alioui, najm (the state's flexible public budget in light of oil price fluctuations), in which he stated that the large fluctuations in oil prices have noticeable implications in the economies and policies of all countries of the world taking the lowest and highest oil prices in light of a certain extent until these fluctuations are controlled. The research reached many conclusions, the most important of which is the preparation of the state's flexible general budget to ensure continued work in light of oil price fluctuations.

The researcher also reached many recommendations, the most important of which is the necessity of preparing the state's general budget for fluctuations in oil prices through a flexible budget that takes into account the lower and upper limits of the oil price

3- A study of Shaima Abdul Hadi Hussein Al-Sharifi, which states ((The impact of fluctuations in crude oil prices in budget financing for the period (2003-2015), a comparative study of Iraq and Saudi Arabia)). The researcher has reached several conclusions from it, that oil revenues are the basis for public expenditures that were characterized by imbalance, as a result of focusing on current expenditures more than investment expenditures, and this reflects the consumer nature of both countries, and that oil exports occupied the largest proportion of total exports, and the adoption of local production In Iraq on the oil sector that is larger than it is in Saudi Arabia. The researcher also reached results, including an imbalance in the structure of the gross local product of the two countries (Iraq and Saudi Arabia), because it relied completely on the commodity sector, as crude oil contributes to the greater part of it, While the contribution rate of the economic sectors, such as agriculture,

manufacturing, and others, has declined. And the state of the general budget of the two countries (Iraq and Saudi Arabia) was and still depends directly on oil revenues, which are affected by two main factors, the first (external), which is the global crude oil prices, and the other (internal), which is the amount of production and export of crude oil that directly affects the financing of the budget General of the state. In addition to the disruption of the public expenditures structure for both countries. And the dependence of the public expenditures of both countries almost entirely on the size of oil revenues.

4- Saleh study, Omar Howaidi, 1017) on analyzing the impact of oil prices on the structure of the public budget in Iraq (2005-2014), and the study concluded that the increase in oil prices has a tangible impact on increasing the volume of investment expenditures, as well as the results indicate that no There is a short-term response between the price changes of the fourth slowing oil and the operational spending at a level of significance less than (0.1).

5- A study (Saleh, Ali Wahib Abdullah 2016), on the effect of crude oil price changes on economic growth rates in Iraq for the period (2009-2013) and the study found that the results of stability tests contain time series of study variables on the root of the unit which is stable in the general level according to the Dickey - Fuller Extended Test (ADF)), as it has demonstrated the existence of a common integration between oil prices and GDP(Gross domestic product) , and the existence of a direct relationship between crude oil prices and GDP.

6- A study (Balqala, Ibrahim, on the developments of oil prices and their repercussions on the general budget of the Arab countries for the period (2000-2009), and the study concluded that the changes witnessed by crude oil prices during the study period, were clear reflections on oil revenues, which witnessed a significant increase, This led to an increase in the cash inflows of these economies, resulting in an increase in oil revenues, an increase in the ability of the financial authorities to expand spending, which also contributed to improving the level of economic activity, which led to an increase in the volume of tax and non-tax revenues that are directly proportional to economic activity , these developments were reflected positively on the conditions of the general budget of the Arab state, which witnessed an evolution in its balance according to the developments witnessed by the high oil prices.

7- A study (Al-Musawi, Abd-Rasoul Abd-Razzaq, 2009), the study dealt with fluctuations in global crude oil prices and their impact on the Iraqi budget, this study aimed to determine whether there is a relationship between fluctuations in world oil prices arising from the repercussions of the global economic crisis and its impact On the Iraqi public budget, and the study concluded that the primary resource will

experience public revenue into a serious decline during the next three years, it is not expected that global prices will return except in the event of political disasters in the region and the expected price of stability when it occurs is (75-80) dollars per barrel

B- English study

1- A study (Zavar Salah Ali Alı2019), The primary purpose of this study was to examine the relationship between oil revenues and government budget in Iraq for 2006-2016. The study found that, Iraq's oil production curve in recent years has remarkably specified the positions, even if not mainly at the levels estimated earlier, as more positive forecasts. Iraq has developed to be the world's fourth-largest oil exporter. This study confirmed that, the critical element for Iraq's economy is that, the country depends on oil and 97% of the government revenues are from its oil exports. While challenges continue to achieve the aims of increased oil production, opportunity for Iraq's resources to produce revenue and pay for broad-based economic development still exists.

2 - A study(Ahmed Hamdi2013), Financial Crisis and the fluctuations of the global crude oil prices and their impacts on the Iraqi Public Budget "Econometric and analytical Study)   ABSTRACT   The Iraqi economy is not isolated from the international economic it influences and is influenced by international economic variables, and perhaps the recent global financial crisis cast a shadow over the Iraqi general budget , as the fall of the price of crude oil is one of the negative influences of this crisis , it is known that the revenue of the crude oil exports constitutes an important element in the GDP and also in the public revenue of Iraq and the major element of its annual budget , Thus the Iraqi economy generally suffering from the global financial crisis , And the public budget particular suffered from implications of the recent crisis .

3 - A study (Sajjad Faraji Dizaji2012),The effects of oil shocks on government expenditures and government revenues nexus (with an application to Iran's sanctions).

The first topic: - The impact of oil prices on the structure of public expenditures

Oil is a very important strategic commodity because it has multi-faceted roles, especially in light of the great acceleration in technological and industrial development in the world, and oil prices change high (oil booms) or low (shocks) from one period to another as a result of the incompatibility of its prices with a rapidly changing world. The Iraqi economy is among the rentier economies that depend on oil revenues to finance its public budget, which makes it extremely vulnerable to changes at the

global market level, which affects the economic policy within the country because oil revenues are the primary source for financing development projects.

The first requirement: - The concept of oil prices

The issue of oil prices is the most controversial topic and surrounded by ambiguity and confidentiality, there are many considerations that play a very important role in determining oil prices as well as supply and demand factors to the extent that understanding the pricing process and realizing the significance behind a particular price have always been difficult to understand many from outside the oil industry (Hasnaoui and Chaouch, 2016,32) (2013,49, Jun) (2011, Mukhriz, 36).

The world oil markets are distinguished by the unpredictability of their performance, i.e. fluctuations in world oil prices, which leads to many difficulties in planning budgets and ensuring the maintenance of public services, as oil price fluctuations gain special significance in countries that depend on oil revenues that have adverse and direct effects on financial stability For these countries, 13 (Ghalayili, 2013) (Davig, 2015,26).

The price of oil is known as the monetary value or the monetary picture of a barrel of crude oil measured in US dollars. The price of oil is subject to continuous fluctuations, due to the nature of the global oil market, which is characterized by instability and frequent fluctuations, and those fluctuations have become worrisome at the global level since the early seventies and its continuation until now (Al-Bassam). Al-Sharidah, 2013,5) (Saleh, 2017,97).

The price of crude oil is also defined as a monetary unit at a specific time and place, and that the relationship between the price of oil and its value is not equal, equal or fixed, but rather there was often an unequal relationship, since the price of crude oil for previous and long periods of time was less than the value, which is The other was related and influenced by the factors that were associated and surrounded the nature of the commodity and how it is used and consumed (Omar, 2013.137) (Al-Douri 1988,22).

The second requirement: - Analysis of oil prices and the structure of public expenditures in Iraq.

Oil is a strategic commodity that is governed by economic, political and security dimensions, so that this commodity affects various aspects of the oil market, and there are reasons affecting high oil prices in relation to producers and consumers, as well as the difference in vision and interests between them, but demand and supply remain the main determinants of the oil price. As for other commodities (Saleh, 2016, 46).

And because the Iraqi economy is a rentier economy and depends on a major resource in financing current and investment expenditures, which is oil revenues, it will be subjected to continuous shocks in the oil price.

First: An analysis of oil price fluctuations in Iraq for the period 1980 -2018

The changes in the world oil prices and its causes in Iraq for the period 1980-2018 can be found through Table No. (1) as follows: -

1- Reducing the price of oil from 35 dollars per barrel in 1980 to 14 dollars in 1986, which means that it decreased by 60%, due to the decrease in demand for oil due to energy rationalization programs and the use of

Table No. (1) Oil prices, the size of public expenditures and the relative importance of both current and investment expenditures at current prices for the period (1980 -2018), million dinars

Oil prices per barrel (dollars)	The ratio of investment expenditures to the public	The ratio of current expenditures to the public	Public expenditures	investment expenditures	current expenditures	years
35.0	45	55	7262	3268	3994	1980
37.0	53	47	11330	5980	5350	1981
31.0	46	54	14435	6606	7829	1982
29.0	41	59	12042	4988	7054	1983
28.0	36	64	10592	3858	6734	1984
26.0	31	69	10457	3219	7238	1985
14.0	27	73	10031	2730	7301	1986
17.0	22	78	11846	2617	9229	1987
17.6	20	80	13363	2733	10630	1988
18.0	22	78	13934	3062	10872	1989
22.3	20	80	14179	2821	11358	1990
18.6	11	89	17497	1844	15653	1991
19.0	21	79	32883	7007	25876	1992
20.0	27	73	68954	18894	50060	1993
15.5	14	86	199442	27700	171742	1994
16.9	22	88	690786	84946	605840	1995
20.7	7	93	542542	36441	506101	1996
20.5	54	46	1168551	634456	534095	1997
14.0	10	90	920501	95796	824705	1998
18.1	20	80	1033552	201960	831592	1999
28.2	23	77	1498700	347037	1151663	2000
24.3	28	72	2079747	588861	1490886	2001
24.9	31	69	2551386	788703	1762683	2002
28.9	5	95	5658415	288213	5370202	2003
37.8	9	91	32117491	3014733	29102758	2004
53.4	17	83	26375175	4572018	21803157	2005

64.3	16	84	38806679	6027680	32778999	2006
71.1	20	80	39031232	7723044	31308188	2007
97.1	20	80	59403375	11880675	47522700	2008
61.8	20	80	52567025	10513405	42053620	2009
79.1	22	78	70134201	15553341	54580860	2010
104.1	23	77	78757666	17832112	60925554	2011
105.1	28	72	105139576	29350953	75788623	2012
104.1	34	66	119127556	40380750	78746806	2013
96.2	32	68	112192125	35450452	76741673	2014
50.7	34	66	119462429	41214037	78248392	2015
45.4	24	76	105895723	25746312	80149411	2016
42.6	25	75	100671161	25454018	75217143	2017
43,4	25	75	101819603	25454900	76364703	2018

Reference: - Ministry of Planning, Central Statistical Organization, for the period (1980-2018)

alternatives, as well as the impact of the Iraq-Iran war on the oil supply (Al-Juburi 2010, 37). (Behar, 2016,64) (Daniel, 2001,76).

2- The price of oil began to gradually increase from 14 dollars per barrel in 1986 to 22.3 dollars per barrel in 1990 by 59.3% due to the increase in demand for oil on the one hand and Iraq's occupation of Kuwait led to that Iraq paid compensation for exporting oil abroad.

3- The decrease in the price of oil after witnessing an increase from 22.3 dollar per barrel in 1990 to a decrease of 18.6 dollar in1999 per barrel by 18.8%, due to an economic crisis in Asian countries that negatively affected the level of oil demand on the one hand, and on the supply side, it has Oil supplies to OPEC countries increased from 25 million barrels per day to 275 million barrels per day, which contributed to raising the oil stocks of industrialized countries, all of which contributed to the decline in global oil prices (Organization of Arab Petroleum Countries. OPEC, 2001, 14) (Elanshasy, 2011, 27).

4- The price of oil increased from 18.1 dollars per barrel to 97.1 dollars in 2008, and by 436.5% as a result of economic growth and increased demand for crude oil. Decreased surplus production methods, high production costs, and increased speculative activity in the markets (Saleh 2016,147).

5- The price of oil decreased from 97.1 dollars per barrel in 2008 to 61.8 dollars in 2009, and the rate of decline was 36.4% as a result of the impact of the global financial crisis and the economic recession that affected most of the global economies. (Farid and Nabeel, 2015 ,7) (Abdel Aal, 43,2009) (Amany, 2011,4).

6- The price of oil increased from 61.8 dollars in 2009 to 96.2 dollar in 2014, and the rate of increase was 55.6% as a result of economic stimulus programs implemented by many countries of the world, especially the major industrialized countries, as well as a

decrease in the commercial stock of crude oil. In those countries (published 2012, 42,6) (Saleh, 2017,99) (Ibrahim 54,2009).

And that period witnessed as a result of the rise in crude oil prices during this period to the growth of investments in oil to enhance profits, especially in the United States of America, and coinciding with the technological development in extracting shale oil after using the latest technical and modern technological developments, so North American production of shale oil jumped from 10, 9 million ton per day (Nujoom, 2015, 14), and the United States and the European Union imposed a ban on the export of Iranian oil in 2012, causing the exit of about one million barrels per day of its oil from the market, this matter exacerbated fears of an Iranian military response, which is what remains High oil prices, As the world oil price witnessed its highest level in 2012, it reached 105.1 dollars per barrel.

7- The price of oil decreased from 96.2 dollars per barrel in 2014 to 43.4 dollars in 2018, and the rate of decline was 55.7% , as result, increasing the supply of crude oil in the international market from countries outside OPEC, for example, Brazil was one of the oil-consuming countries that became one of the exporting countries as a result of recent explorations, as well as economic contraction in European countries and Japan, and declining rates of economic growth in China, as follows: -

1- The price of oil witnessed the highest level in 2012 and reached 105.1 dollars per barrel.

2- The oil price witnessed the lowest level in 1986 and 1998, and it reached 14 dollars per barrel.

3- The general average price of oil during the study period was (41) dollars per barrel.

4- The global demand for energy increases steadily in order to meet the aspirations and needs of population growth and social and economic developments. Energy demand has increased from 50.65 million barrels of oil equivalent in 2000 to 63.66 million barrels in 2013, according to US Energy Department reports and is being met Those requirements are from different primary energy sources, the most important of which are oil and natural gas, which will remain from the main sources for several decades to come. In mid-2012, oil production exceeded 3 million barrels, of which 2.4 million barrels were exported (Arab Joint Energy Conference, Abu Dhabi, UAE - December, 2014, KPC). OPEC expects that the demand will continue to rise to 113 million barrels per day by 2030, while the Agency for Energy expects that the global demand for oil will be 150 million barrels per day in the same year (Energy Prospects in Iraq Special Report within the Energy Prospects of the World, 17).

5- The most important factors affecting world oil prices are global demand. Demand for oil depends on economic growth and an increase in the size of the population as

global oil consumption has increased by an average of 1.76 annually in the last five years, and that high oil prices for the year 2008 and reached 97.1 dollars, has negatively affected growth The global economy has thus led to weak demand, as well as economic crises such as the financial crisis in 2008 and the Asian crisis, as well as wars and natural disasters, the deterioration of the dollar exchange rates and the emergence of alternative sources of energy. The United States of America is the largest consumer of oil in the world, it consumes and It alone is a quarter of the estimated global production of about 80 million barrels per day, and thus 4% of the Earth's population consumes 25% of global oil production, and according to the American production curve of the year 2005, it exceeded its absolute value in 1975 when it reached 9.5 million barrels per day and gradually falls from that date. Until it reached 4-5 million barrels per day in 2005.

It can be said that America depends on importing oil by 75% to cover its needs of 21 million barrels per day, and it is expected that the global demand for oil for Abu Dhabi will increase from 9.1 million barrels in 2012 to 12.2 years in 2030.

We find that the global demand for oil in the OPEC group constitutes 50% of the total global demand for oil, and this indicates the importance of this economic group globally and its ability to influence the international oil market, which casts the historical necessity on Iraqi oil policy makers establishing joint cooperation and construction relations With this group in a way that suits the interests of the Iraqi economy and build a future on a balanced basis with the global market away from economic dependency, in addition to that the Asian countries are no less important than the group of countries OPEC, as the global demand for oil increased by the Asian countries And with a greater amount of OPEC countries in the year 2030 as it reaches 56.2 million barrels, which confirms the accelerating growth of this group and thus its ability to play a greater role in influencing the global market in the future, so it has become necessary for Iraq to adopt oil policies appropriate to the nature of the Iraqi economy and the political conditions that it passes and countries The area in general (Al-Rubaie, 2013, 65-66) (Al-Muzaini, 2013, 327, 329).

Second: Analyzing the size of the public expenditures structure in Iraq for the period 1980-2018.

Through Table (1), we analyze the volume of current and investment expenditures in Iraq during the research period according to the following: -

1- The volume of current expenditures amounted to 3994 million dinars in the year 1980, and the relative importance of them to the total of public expenditures reached 55%, while the volume of investment expenditures amounted to 3268 million dinars

for the same year, and the relative importance of them of the total public expenditures reached 45%, and the volume of current expenditures increased to 15653 million In 1990 dinars, the relative importance of it to the total public expenditures increased by 89%, while the relative importance of investment expenditures to the total public expenditures decreased by 11%, and the decrease in oil prices was the prominent role in the decrease in that relative importance in investment expenditures.

2- Current expenditures increased by 93% to public expenditures, while 7% decreased for investment expenditures to public expenditures in 1996, as a result of the circumstances that passed through Iraq as a result of the accumulated economic blockade, while the ratio of current expenditures to public expenditures amounted to 46% while they increased The ratio of investment expenditures to public expenditures is 54% as a result of the implementation of Resolution 986, which includes oil for medicine. Consequently, there has been a marked improvement in the financial position of the Iraqi government as a result of exporting oil.

3- Fluctuations in the relative importance of both current and investment expenditures to total public expenditures, where the ratio of current expenditures to public expenditures was 91% in 2004, while the relative importance of investment expenditures was 9%, where oil prices had the largest role in these fluctuations. The high oil prices led to an increase in investment expenditures and a decrease in public expenditures, and vice versa in the event of low oil prices, an increase in current expenditures compared to a decrease in current expenditures.

4- During the study period, the ratio of current expenditures to public expenditures reached 70% as a general average during the period of the research, and as was the policy spending in Iraq still tends to be consumed at the expense of investment, causing weakness in the production system of the Iraqi economy, and not increasing production in the real sectors Such as agriculture, industry and tourism, and not creating a balanced and diversified economy that is necessary for Iraq at this stage in order to advance the Iraqi economy and push it forward.

The second topic: Measuring and analyzing the impact of oil prices on the structure of public expenditures for the period (1980-2018).

The first requirement: - Description and construction of the standard model: -

The simplified linear regression model that includes all of the oil prices can be used and is an independent variable while the two variables are the current and investment expenditures in the dependent variable, in order to reach the best model of the

statistical program (spss) (statistical package the social sciences) which is the most common computer program and the estimated form of the above formulas is as follows: -

$Y = b_0 + b_1X + U$

whereas: -

Y = current and investment expenditures and represent dependent variables.

X = oil price

U = random variable

The approximate formula for the general level of prices can be found for the purpose of measuring the impact of oil prices on current and investment expenditures. The OLS method (Ordinary least squares) has been adopted. The variables that represent the model are as follows:

First: The dependent variable. The standard model consists of two dependent variables, which are current and investment expenditures in Iraq, y_1 and y_2, respectively, and through reliance on a time series for the period (1980 - 2018) that contains 39 views.

Second: the independent variable: the standard model includes one independent variable, the price of oil X.

Third: Building the standard model, and after describing the dependent and independent variables that represent the study variables, it must be described as a mathematical formula, which represents a major formula in building a standard model, and the standard model takes both current and investment expenditures in the Iraqi economy as well as oil prices in the standard formula, as follows: -

$Y_1 = f(x)$

$Y_2 = f(x)$

The form can be developed in the following general standard format: -

$Y_1 = B_0 - B_1EX + U_i$

$Y_2 = B_0 - B_1EX + U_i$

As U_i represents the random variable, and it contains the effect of all the variables that did not enter the model, meaning the effect of the random variables, and the simple regression model will be used in analyzing the data in Appendix 1, and depend on the model that passes economic, statistical and standard tests, it gives the best results.

The second requirement: - Analysis of the results of the standard model of the impact of oil prices on the size of public expenditures for the period (1980-2018)

First: - Analysis of the results of the impact of oil prices on current expenditures for the period (1980-2018)

Statistical analysis: - Statistical analysis represents one of the main pillars through which it can test the accuracy and validity of the studied model and its dependence for the purposes of forecasting and setting future policies. The results compelled the statistical analysis as follows: -

Table No. (2)

R^2	r	F	siq	t	siq	B0	b_1
.628	.792	62.46	000^b	7.9	000	-12864724.615	859927.241

Through table No. (2) the results of the statistical program appeared, and by relying on the statistical program (spss), the equation was as follows: -

Y= B+ b x

Y= -12864724.615+859927.241x

The results of the statistical analysis showed that the value of the interpretation factor (R2) is 0.682, and this means that 62.8% of the variables that happen to current expenditures were due to changes in oil prices, while the remaining 37.2% is due to reasons or other variables that did not take Considering the model as being random variables, in addition to that, my studies on oil prices and expenditures.

As for the test (F), which represents the validity of the model studied for forecasting and planning purposes in the future, the results of the statistical program showed that the value of F of 62.446 and with a high moral degree reached 000b, and less than 0.1, and therefore the results of the model can be relied upon for the purposes of forecasting, planning and developing Future policies regarding oil prices and their impact on current expenditures.

As for the test (t), which measures the extent of the significance of the independent variables in the model and its ability to influence dependent variables, the results of the statistical program showed that the value of t, which is 7.904, is very significant with a significant score of 0,000 which is less than 0.05 and 0.01, which means that the independent variable (the price of oil) exerts a very high moral impact on current expenditures.

As for the correlation coefficient, it reached 0.792, which is a very strong and significant direct relationship, which means that the change in oil prices is strongly correlated with current expenditures.

Economic analysis: - Both the values of B0 and b1 form the independence of the model and the inclination of the studied model, where the results showed through the formula that the value of B (12864724.615) This means that the value of costs will be

this amount in the case of excluding the impact on oil prices when $(X) = 0$), which is significant 0.05, note that the negative value of B0 is that in the case of excluding the effects of oil prices, that is, when the price of oil is zero, then the coverage of current costs is through external or internal borrowing, so its value appears negative.

With regard to the independent variable (the change in oil prices), the value of b1 was 859927.241), which means that the change in oil prices by one unit will lead to a change in current expenditures by 859927.241)), in the event that oil prices increase by one unit It will lead to an increase in current expenses, in addition to being very significant and less than 0.01.

In general, it appears clearly, through discreet statistical tests, that the change in oil prices greatly affects current expenditures, which means, therefore, the need to take into consideration when planning and developing future policies for current expenditures, to note changes in oil prices.

Second: - Analysis of the results of the impact of oil prices on investment expenditures for the period (1980-2018).

Statistical analysis: - Through table No. (3) the results of the statistical program appeared, and by relying on the statistical program (spss), the equation was as follows: **-Table No. (3)**

R^2	r	F	siq	t	siq	B0	b_1
.536	.732[a]	42.71	000[b]	6.5	000	-5446606.563	322202.678

$Y= B+ b\ x$

$Y= -5446606.563+322202.678x$

The results of the statistical analysis showed that the value of the interpretation factor (R2) is 0.536, and this means that 53.6% of the variables that happen to current expenditures were due to changes in oil prices, and the remaining 46.4 percent is due to reasons or other variables that did not take the model Considering that they represent random variables, in addition to that, my studies on oil prices and expenditures.

As for the test (F), which represents the validity of the model studied for forecasting and planning purposes in the future, the results of the statistical program showed that the value of F of 42.717 and with a very high degree of significance amounted to 000b, and less than 01, and this means that it is possible to rely on the results of the model For the purposes of forecasting, planning and developing future policies regarding oil prices and their impact on investment expenditures.

As for the test (t), which measures the extent of the significance of the independent variables in the model and its ability to influence dependent variables, the results of the statistical program showed that the value of t, which is 6,536, is very significant with a significant score of 0,000 which is less than 0.05 and 0.01, which means that therefore the independent variable (oil price) exerts a very high moral effect on investment expenditures.

As for the relation to the simple correlation coefficient, it reached 0.732, which is a very strong and significant direct relationship, which means that the change in oil prices is strongly correlated with investment expenditures.

Economic analysis: - Both the values of B0 and b1 form the independence of the model and the inclination of the studied model, where the results showed through the formula that the value of B (-5446606.563) This means that the value of costs will be this amount in the case of excluding the impact on oil prices when (X) = 0), which is significant 0.05.

With regard to the independent variable (change in oil prices), the value of b1 was 322202.678), and this means that the change in oil prices by one unit will lead to a change in current expenditures by (322202.678), in the event that oil prices increase by one unit It will lead to an increase in investment expenditures, as well as being very significant and less than 0.01.

In general, it appears clearly and through discreet statistical tests, that the change in oil prices greatly affects investment expenditures, which means, therefore, the need to take into consideration when planning and developing future investment policies, to note changes in oil prices.

<u>Third: - Analysis of the results of the impact of oil prices on public expenditures for the period (1980-2018)</u>

Statistical analysis: - Statistical analysis represents one of the main pillars through which it can test the accuracy and validity of the studied model and rely on it for the purposes of forecasting and setting future policies for public expenditures. The results showed the statistical analysis as follows: -

Table No. (4)

R^2	R	F	siq	t	siq	B0	b_1
.613	.783	58.57	000[b]	7.6	000	-18311331.178	1182129.918

Through table No. (4) the results of the statistical program appeared, and by relying on the statistical program (spss), the equation was as follows: -

Y = B + b x

Y = -18311331.178 + 1182129.918x

The results of the statistical analysis showed that the value of the interpretation factor (R^2) is 0.613, and this means that 61.3% of the variables that happen to public expenditures, including current and investment expenditures, were due to changes in oil prices, while the remaining ratio of 39.7 is due to causes or variables. Others did not take into account the model because they represent random variables as well as that study on oil prices and current and investment overheads.

As for the test (F), which represents the validity of the model studied for the purposes of forecasting planning in the future, the results of the statistical program showed that the value of F, which is 58.576 and with a very significant degree, reached 000b, and less than 01, and this means that it is possible to rely on the results of the model For the purposes of forecasting, planning and developing future policies regarding oil prices and their impact on public expenditures.

As for the test (t), which measures the extent of the significance of the independent variables in the model and its ability to influence dependent variables, the results of the statistical program showed that the value of t, which is 7.654, is very significant with a significant score of 0,000 which is less than 0.05 and 0.01, which means that therefore the independent variable (oil price) exerts a very high moral effect on current expenditures.

As for the relation to the simple correlation coefficient, it reached 0.783, which is a very strong and significant direct relationship, which means that the change in oil prices is strongly correlated with public expenditures.

Economic analysis: - Both the values of B0 and b1 form the independence of the model and the inclination of the studied model, where the results showed through the formula that the value of B0 (-18311331.178) and this means that the value of costs will be this amount in the case of excluding the impact on oil prices when (X) = 0), which is significant 0.05.

With regard to the independent variable (the change in oil prices), the value of b1 was equal to (1182129.918), which means that the change in oil prices by one unit will lead to a change in public expenditures by (1182129.918), in the event that oil prices increase by one unit It will lead to an increase in overheads as well as being very significant and less than 0.01.

In general, it appears clearly and through discreet statistical tests, that the change in oil prices greatly affects public expenditures, which means, therefore, the need to take into consideration when planning and developing future policies for public expenditures, to note changes in oil prices.

Comparison table for studied models

	r	R^2	Sig.	t	Sig. F		b_1
current expenditures	.792	.618	.000	7.904	.000[b]	62.466	859927.241
Investment expenditures	.732	.523	.000	6.536	.000[b]	42.717	322202.678
Public expenditures	0.783	.613	.000	7.654	.000[b]	58.576	1182129.918

From the above table, which represents the comparison table of the studied models, it is clear that R2 for the model of current expenditures has obtained the highest interpretation factor of 0.618, and that the value of F in the mentioned model (current expenditures) has reached 62,466 which is higher than that of both investment and public expenditures This means that the current expenditures model is one of the most efficient and best models for interpreting and analyzing the impact of oil prices on public expenditures.

Conclusions

1- The most important characteristic of the world oil market is the instability of prices, as they are fluctuating between rise and fall all the time. The research showed that during the study period.

2- The fundamentals of demand and supply are the traditional factors that govern the price mechanism in the oil market, and there are other factors that have a major role in determining global oil prices, such as political factors, natural disasters, oil crises, low reserve production capacities and the speculative factor in markets, and oil prices are affected by many One of the economic and political factors that have a direct impact on global supply and demand, and that fluctuating oil prices in most may be due to temporary supply and demand factors, so they can be changed in the short term and not to long-term structural factors that are difficult to obtain on her .

3- The instability of oil prices greatly affects the instability of public spending, especially in countries that depend on oil as a major financial resource, including Iraq.

4- Investment expenditures are affected by a greater rate than the current expenditures are affected by oil shocks (low prices), because it can be postponed and delayed to another period, and this will create negative effects that reflect on economic sectors associated with investment expenditures such as the agricultural, industrial and tourism sectors. As for current expenditures, there is difficulty in delaying The large size of them because most of them are salaries, wages and expenses that are difficult to postpone.

5- The statistics mentioned in the research indicated that most public expenditures are being implemented within the framework of what is known as the operational budget, and that salaries and wages are for employees of the state, including workers in the security sector and the military, as well as for the product, benefits, social benefits, and state purchases of goods and services .... The largest of the spending in the country. ..

6- There is a direct relationship between crude oil prices and current expenditures, where the oil prices represented by 859927.241 represent the tendency, i.e., the change in current expenditures, meaning that the improvement in oil prices by one dollar leads to an increase in current expenditures by 859927.241 million Iraqi dinars, and vice versa. It represents the direct impact of crude oil prices.

7- The research proved that there is a direct relationship between the prices of crude oil and investment expenditures where the oil prices represented by $b1 = 322202.678$ represent the tendency, i.e. the change in investment expenditures, meaning that the improvement in oil prices by one dollar leads to an increase in investment expenditures by 322202.678 million Iraqi dinars And vice versa, this represents the direct impact of crude oil prices.

8- The research showed that there is a response between oil prices and public expenditures, with both sides of investment expenditures and current expenditures in the short term.

9 - The fluctuations in oil prices explain 50% of the changes in investment expenditures, while these fluctuations explain less than a third of the changes in current expenditures, and this indicates the severity of investment expenditures for oil shocks and is the opposite of current expenditures.

Recommendations

1- setting an effective strategy to reduce fluctuations in oil prices by relying on new alternatives in accordance with successful strategies and plans drawn from the

experiences of countries that have achieved successes in this framework, such as the experience of Norway and the United Arab Emirates.

2. Adopting an oil policy that relies on a clear strategy that requires first and foremost reliance on modern technical techniques that help to increase production represented in information technology and the specialized staff to advance the oil production reality according to new requirements consistent with market priorities

3. The structural imbalances of the Iraqi economy must be addressed by changing the contribution of the real economic sectors to the gross domestic product, thus ensuring the diversification of the economy and reducing the dominance of the oil sector in favor of other sectors such as the industrial and agricultural sectors, services, tourism, and taking advantage of sources of oil wealth in the diversity of other economic sectors and the development of the petrochemical sectors .

4. The government adopts a financial policy that seeks to increase the diversity of the country's financial revenue sources and direct the spending policy to increase investment expenditures and promote the building of technological and innovative institutions.

5. There must be a means of adapting to price fluctuations and overcoming them by decision-makers in Iraq that take into account when preparing the general budget with the development of special policies for hedging, which would address imbalances in the state's general budget.

6. Linking oil revenues to the process of economic development, taking into account the absorptive capacity of investment when directing investment expenditures through a program that includes a well-defined economic plan that includes among its goals the service of current and future generations and building a long-term investment base, especially as oil is a successful national wealth.

7. The external tremors are not the only thing that puts the economy in trouble, but this also occurs because of the weakness of the administration responsible for managing the economy through wrong thinking, lack of management and development bar. Therefore, local technological research and efficient development of the work and production path must be translated.

8. Rehabilitation of extractive oil export facilities to increase production and export in line with the levels of proven oil reserves owned by Iraq.

9. Development of existing fields by the national effort while taking advantage of foreign companies to provide their services if necessary, and if the new fields are not developed in cooperation with international companies according to accepted and accepted formulas that are appropriate to the characteristics of the Iraqi oil fields in

general and the characteristics of each field separately, and that it be This is according to competitive bases that guarantee the conditions for Iraq.

10. Reducing unnecessary government expenditures and reviewing existing public expenditures policies with a view to restoring the balance between current and investment expenditures in the state's general budget and supporting the trend towards rationalizing current expenditures and reviewing the policies followed in setting investment spending priorities on various activities leading to the optimal use of financial resources Available.

11. The trend towards diversification of sources of national income, restructuring of the tax system and making it more effective in a way that allows for a gradual increase in the tax share in place of tax revenue.

12 - The linking of oil prices to a basket of alternative currencies to the US dollar would reduce the fluctuation of oil prices as a result of fluctuations in global exchange rates, which may be the result of global economic fluctuations.

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