Ministry of Higher Education and Scientific Research

University of Basra / College of Administration and Economics

Department of Economics

Effects of the relationship between exchange rates and oil prices in some oil countries for the period from (1999-2020)

BAIDAA RAZAQ Hussein

bedia.hussain@uobasrah.edu.iq

Abstract

Explanation of the extent to which the oil countries and Iraq, including them, are affected by this relationship, whether the effect is from the exchange rate towards the oil price or vice versa. Oil will lead to decisive repercussions in the economic indicators of these countries, and the impact of this relationship will be in two directions. Whenever the direction of the relationship is from the exchange rate towards the oil price, this will lead to repercussions on revenues, spending and economic growth in these countries, and whenever the direction of the relationship is from the oil price towards the exchange rate This will lead to effects on exports and imports (balance of payments), purchasing power and inflation in these countries, and we will try in this research to trace these effects in turn.

Keywords: oil price , exchange rate, oil countries.

Research problem:-

Since economic studies are unstable in determining the shape and direction of the relationship between oil prices and dollar exchange rates, the problem that arises in this research is who influences the other, does oil price changes lead to exchange rate changes or vice versa, or is the relationship between them reciprocal in both directions, or are both variables independent of each other? From some, due to the different factors affecting both, and does this relationship, if they exist, lead to effects on the economies of the oil-producing countries?

The importance of the research: -

The importance of the research comes from the importance of both variables in the global economy, as oil is the largest traded commodity and the dollar is the first currency in reserve in the world. Also, the revenues derived from oil constitute a large percentage in the economies of the oil countries and that the changes that occur in oil prices have serious effects. on both sides of the price equation.

Research objective:-

The research aims to reveal the relationship between oil prices and exchange rates, know their direction, and investigate the effects of this relationship on the economies of the oil-producing countries.

Research hypothesis:-

The research is based on the hypothesis that ((there is a reversible and stable causal relationship in one direction from the exchange rate of the dollar against the euro to the prices of crude oil)) This hypothesis is based on the fact that the United States of America is the first economic power in the world that has control and influence on the exchange rates of its currency (dollar) and then it will do everything it can to influence international oil prices.

Research Structure:-

In order to test the hypothesis of the research, the research was divided into two sections. The first topic dealt with the effects of the relationship between the two variables from the exchange rate towards the price of oil in some economies of the oil-producing countries, which are both (UAE, Algeria, Iraq, Kuwait, Saudi Arabia, Iran, Venezuela, Qatar), and dealt with The second topic effects the relationship between the two variables of the oil price towards the exchange rate. The research concluded with a number of conclusions that are consistent with the research hypothesis, as well as a set of recommendations that would mitigate the effects of the relationship between the two variables on the oil countries.

1. Introduction

The nature of the relationship between oil prices and the dollar exchange rates has attracted the attention of economists and international economic institutions on both sides of the price equation after oil pricing policies in US dollars were stabilized as a result of the measures taken by the United States of America in the early seventies and the exit from the BRETTEN Woods system as well as the agreement between the United States of America and Saudi Arabia The judge was to sell the Kingdom's oil in US dollars, as a strong statistical economic relationship arose between the two variables, which was subjected to many inconclusive economic studies, the results of which led to four directions. A decrease in the dollar exchange rate leads to increases in crude oil prices and vice versa. An increase in the dollar exchange rates will lead to a decrease in crude oil prices. There is a reciprocal causal relationship between oil prices and the dollar exchange rate, as it

combines For the two previous trends, while the fourth trend: that both variables are controlled by different factors, exchange rates are subject to the theories of monetary policies, and crude oil prices are controlled by the special nature of the oil market, as there is no relationship between them Whatever the form of the relationship between the two variables, it leaves profound effects on the economies of the producing and consuming countries alike. However, these effects are more severe in the economies of the unilateral rentier oil countries that depend on oil revenues to finance their activities. Whenever the relationship takes a direction from the dollar exchange rate towards oil prices It left traces in revenues, expenditures and economic growth, and whenever the direction of the relationship is from the oil price towards the exchange rate, this will lead to effects on exports and imports (balance of payments), purchasing power and inflation..

2. Effects of the relationship from the exchange rate to the oil price

2.1 The effect on government consumption and revenue.

Oil represented the most exported commodity out of the total exports of the oil countries (OPEC) and it also constituted the largest proportion of the total incomes of the oil countries, and accordingly these countries will be affected if the causal relationship between exchange rates and oil prices (in concert with other factors) leads to a drop in oil prices, but by degrees Vary according to the degree of dependence on oil in the gross domestic product and in revenues, and according to the breakeven oil price of government budgets, as well as the size of foreign currency reserves and other factors.

Table (1) indicates the exposure of some oil countries to oil price fluctuations for the period (1999-2020), a period that witnessed significant price changes as a result of the economic crisis that began in the second half of 2008, as petroleum exports maintained the largest proportion of the total Exports in these countries, as the highest percentage in Iraq reached about (99.6%) in 2020 after it was (89.1%) in 2008, while the UAE recorded the lowest percentage of (15.2%) in 2016 after it was (42.6%) in 2008, while Algeria, Iran, Kuwait, Qatar, Saudi Arabia and Venezuela recorded varying

percentages of (64.1%, 42.2%, 89.6%, 31.6%, 74.8%, 94.9%), respectively, after they had recorded (67.6%, 88.1%, 95.0%, 70.95, 89.6%, 93.9%).

Table (1): The exposure of some oil countries to oil price changes for the two years (1999-2020)

The state	Petroleum Exports (1) Million dollars		percentage % change	Total export revenue (2) Million dollars		percentage % change	percentage % (2:1)	
	1999	2020		1999	2020		1999	2020
Algeria	53,607	18,638	-65.2	79,298	29,054	-63.3	67.6	64.1
Iran	88,660	41,123	-53.6	100,572	97,386	-3.1	88.1	42.2
Iraq	56,843	43,753	-23.0	63,726	43,890	-31.1	89.1	99.6
Kuwait	82,682	41,461	-49.8	87,011	46,261	-46.8	95.0	89.6
Qatar	38,950	22,958	-41.0	54,912	72,459	31.9	70.9	31.6
Saudi Arabia	280,998	134,373	-52.1	313,428	179,575	-42.7	89.6	74.8
UAE	102,073	45,559	-55.3	239,213	298,653	24.8	42.6	15.2
Venezuela	89,128	25,142	-71.7	95,138	26,473	-72.1	93.6	94.9

Source: It was calculated by the researchers using:-

OPCE Annual Statistical Bulletin2008,2020, different pages ,venae ,Austria.

The data in the above table indicates a general trend of a decrease in the percentage of the value of petroleum exports in the total value of exports between the beginning and end of the period (with the exception of Iraq and Venezuela), due to the drop in oil prices from (61.68) dollars / barrel in 2009 to (43.76) dollars / barrel 2020, on the other hand the exchange rates of the dollar against the euro during this period decreased from (1.393) $/€ in 2009

to (1.107) $/€ in 2020 with a rate of change (20.5%), and the effect of the relationship between the two variables during this period can be clarified in two phases: the first: starting from the beginning of the period in 2008 to 2012 and in the following form:

Fluctuations towards a decrease in exchange rates→ an increase in oil prices→ an increase in the ratio of the value of petroleum exports to the total value of exports.

During this period, the inverse relationship between the two variables becomes clear.

The second: starting from 2013 to 2020 and as follows:

Fluctuations towards a decrease in exchange rates →a decrease in oil prices→a decrease in the ratio of the value of petroleum exports to the total value of exports.

During this period, a direct relationship between the two variables emerges.

Changes in the value of total exports resulting from changes in the value of petroleum exports, which are affected by changes in oil prices in response to changes in exchange rates, undoubtedly have significant effects on government consumer spending, as Table (2) indicates the final expenditures of public consumption for the governments of a group of oil countries (% of GDP) for the period 1999-2020, Noting changes in final expenditures for public consumption with changes in oil prices.

Table (2) :Final public consumption expenditures of the governments of a group of oil countries (%of GDP For the period 1999-2020)

The state / Years	UAE	Algeria	Iraq	Kuwait	Saudi Arabia	Iran	Venezuela	Qatar
1999	–	16.79	11.26	26.86	25.41	11.82	12.32	25.65
2000	–	13.58	11.84	21.48	25.86	12.93	12.45	19.67
2001	9.91	14.78	15.71	23.63	27.33	12.87	14.24	18.63
2002	10.15	15.49	19.31	25.27	25.95	11.72	13.01	16.72
2003	9.75	14.80	12.27	23.00	24.48	11.42	12.87	15.41
2004	8.75	13.77	25.56	19.85	22.86	11.24	11.96	13.07
2005	7.87	11.45	19.97	15.71	21.34	12.08	11.06	14.30
2006	6.92	11.23	15.68	13.90	22.04	12.47	11.71	14.72
2007	6.73	11.64	18.73	14.01	20.66	9.48	12.47	12.40
2008	7.30	13.21	16.65	13.40	17.70	10.05	11.86	10.18
2009	10.23	16.15	21.06	18.49	22.19	11.18	13.70	15.63
2010	10.03	17.23	18.92	17.13	20.20	10.80	11.21	13.98
2011	9.95	20.67	17.02	14.88	19.39	9.62	11.52	11.04
2012	9.73	20.32	16.58	15.06	19.79	9.46	12.19	12.52
2013	10.98	19.14	21.00	16.39	22.45	9.24	12.39	14.56

2014	10.93	19.79	18.10	17.76	26.06	10.28	14.60	15.47
2015	12.43	21.63	22.30	24.19	30.00	12.70	–	19.77
2020	12.53	20.78	22.92	25.93	25.83	13.32	–	23.10

Source: It was calculated by the researchers using:
The world Bank . Data . http : // data www. World Bank . org

If oil prices remain below the equilibrium price of budgets for a long period of time, this will put great pressures on the budgets and current accounts of these countries in the form of deficits and in light of the linkage the rigid exchange rates in most of the oil-producing countries, these countries lack two important tools of macroeconomic (demand) management, namely, monetary policy and exchange rate policy, and they have a fiscal policy of one and a half, which is the policy of government spending without a tax policy to manage the economic cycle, and it is used in a way that is compatible with the economic cycle, meaning increasing spending in periods of boom and decreasing it in periods of deflation, while what is required is the opposite, because this deepens stagnation in periods of deflation and raises protectionism and inflation rates in cases of boom, and this is one of the old and new problems in oil economies that depend on the rigid linkage of exchange rates. Which strips it of the two previous tools using half a fiscal policy to counter the cycles of deflation and boom, while what is required is to form an optimal and flexible mix of macroeconomic policies, namely, fiscal, monetary and exchange rate to enhance economic stability in boom periods and stimulate growth in stagnation in the short and medium term, enhance competitiveness and diversify economies In the long run, and based on the data of the causal relationship between exchange rates and oil prices, as well as the data of the rigid linkage of exchange rates in these countries, the researcher finds that these countries lack the ability to form an optimal and opposite mix of macroeconomic policies to mitigate the negative effects of the impact of the exchange rates of the dollar towards prices Oil (the effect on the direction of lower oil prices in particular) will result in a loading Government spending is an unnecessary burden in these countries, such as government spending, reducing government support, and possibly increasing fees, etc., which would negatively affect economic activity and

growth at a time when policies for managing aggregate demand and the economic cycle (monetary and exchange rate) could have greatly eased As a result, we note that the absence of monetary policy and exchange rate policy, as well as the absence of tax policy, states that countries that built good reserves in periods of high prices were able to cover the deficits for a certain period. As for countries that do not have sufficient reserves, their situation was more difficult. That it had borrowed to cover these deficits, or had reduced its spending (which is not popularly accepted), which led to the deterioration of services provided to citizens, on the medium and long-term levels, economic policies, as this will represent a real challenge to the continuity of government spending and will put pressures on government spending and support programs. These measures, if reduced, will constitute a political challenge.

2.2 Impact on economic growth and economic cycles.

The causal relationship between exchange rates and oil prices (high exchange rates and lower oil prices) in the event of the continued decline in oil prices results in the oil countries being on the downward side of the economic cycle, and this is what is observed during the study period, especially with the increase in shale fuel production in the United States, where The bill for its imports of crude oil decreased, as this resulted in a relative slowdown in the oil-producing countries, offset by relative popularity in the United States of America, which will lead, with the continuation of the situation, to the widening of the gap between the two sides of the economic cycle, which may result in a divergence in the economic cycle, which is a matter in light of the currency peg with The dollar will lead to a convergence in monetary policies between the countries of the peg currency (the United States of America) and the countries that link their currencies with it (the oil countries) with effects that will be destabilizing the national economies in these countries. Relative popularity in the United States of America.

A rise in the exchange rate→a decrease in oil prices→a decrease in oil revenues→a decrease in government spending→a decrease in economic growth.

Table (3) indicates a form of divergence between the economic cycles in the oil-producing countries and the United States of America, at a time when the gross domestic growth rates were recorded in Kuwait, Saudi Arabia, Iran and Venezuela (-1.8, -3.8, -0.9%, -6.0 - %) in 1999, respectively, the United States of America recorded an economic growth of (4.7%) for the same year, and with the rise in oil prices, these oil countries recorded an improvement in the growth rates of their economies to become (0.7%, 1.2-0.0.8%, 3.4%) in 2001 when economic growth in the United States of America declined to (1.0%) for the same year.

Table (3): Growth in the GDP of a group of oil-exporting countries for the period (1999-2020)(%)

Years	Exchange rates	oil prices	UAE GGDP	Algeria GGDP	Iraq GGDP	Kuwait GGDP	Saudi Arabia GGDP	Iran GGDP	Venezuela GGDP	Qatar GGDP	USA GGDP
1999	1.0653	17.90	2.9	3.2	17.6	–1.8	–3.8	0.9	–6.0	--	4.7
2000	0.9232	28.66	10.9	3.8	1.4	4.7	5.6	5.9	3.7	--	4.1
2001	0.8952	24.46	1.4	3.0	2.3	0.7	–1.2	0.8	3.4	3.9	1.0
2002	0.9454	24.99	2.4	5.6	–6.9	3.0	–2.8	7.3	–8.9	7.2	1.8
2003	1.1321	28.85	8.8	7.2	–33.1	17.3	11.2	8.7	–7.8	3.7	2.8
2004	1.2438	38.26	9.6	4.3	54.2	10.8	8.0	4.4	18.3	19.2	3.8
2005	1.2449	54.57	4.9	5.9	4.4	10.1	5.6	3.2	10.3	7.5	3.3
2006	1.2563	65.16	9.8	1.7	10.2	7.5	2.8	5.0	9.9	26.2	2.7
2007	1.3711	72.44	3.2	3.4	1.4	6.0	1.8	8.2	8.8	18.0	1.8
2008	1.4726	96.94	3.2	2.4	8.2	2.5	6.2	0.3	5.3	17.0	–0.3
2009	1.3935	61.74	–5.2	1.6	3.4	–7.1	–2.1	1.0	–3.2	12.0	–2.8
2010	1.3261	79.61	1.6	3.6	6.4	–2.4	5.0	5.8	–1.5	19.6	2.5
2011	1.3931	111.26	6.9	2.9	7.5	9.6	10.0	2.6	4.2	13.4	1.6
2012	1.2859	111.63	4.5	3.4	13.9	6.6	5.4	–7.4	5.6	4.7	2.2
2013	1.3281	108.56	5.1	2.8	7.6	1.1	2.7	–0.2	1.3	4.4	1.7
2014	1.3297	98.97	4.4	3.8	0.7	0.5	3.7	4.6	–3.9	4.0	2.6
2015	1.1096	52.32	5.1	3.8	4.8	0.6	4.1	–1.3	--	3.6	2.9
2020	1.1072	43.67	3.0	3.3	11.0	3.5	1.7	13.4	--	2.2	1.5

Source: It was calculated by the researchers using:

1- The world Bank . Data . http : // data www. World Bank . org.

2- https://www.stlouisfed.org

In 2008, with the onset of the financial economic crisis, it was recorded (-0.3%) for the same year, and with the continued rise in oil prices and their reaching "record figures in 2011", the oil countries achieved high economic growth rates of (6.9%, 2.9%, 7.5%, 9.6 %, 10.0%, 2.6%, 4.2%, 3.4%) for the countries (UAE, Algeria, Iraq, Kuwait, Saudi Arabia, Iran, Venezuela, Qatar) respectively, while the United States of America recorded a growth of (1.6%) for the same year, and accordingly, linking oil pricing to the US dollar creates an inverse relationship between growth in the United States and growth in oil countries, as low oil prices mean higher growth in the first and lower in the second and vice versa. It is true that the rise in oil prices means a decrease in growth in the first and a rise in the second.

2.3 The effect on local exchange rates.

The literature of "international monetary economics" indicates that countries are obliged to choose one monetary system from among three possible monetary systems to determine the exchange rate of their currency (or its external value), which are (Kim& Nonlinear, 2020, 42-43):

***The first option**: Either you choose to stabilize the value of its currency against the currency of a strong country such as the US dollar (which is termed as a hard peg, as the exchange rate is not adjustable, and one of the advantages of this system is to reach a high degree of stability in the pricing of international transactions, However, what is taken for it is the central bank's loss of the independence of its monetary policy, because it does not have an adjustable exchange rate when the economy needs it, and the local interest rates are automatically linked to those prevailing in the country of the stabilization currency and cannot deviate from it until the success of the peg process continues and is not subjected to pressure As a result of capital flows, examples of countries that adopt this system are the Arab Gulf states such as Saudi Arabia, Qatar and the Sultanate of Oman.*

***The second option**: to let the value of the currency fluctuate as you wish (or what is termed as free float) where the exchange rate is determined freely according to the forces of supply and demand in the foreign exchange market,*

and the central bank does not interfere at all to influence it, and one of the advantages of floating is that the value of the currency automatically decreases (automatically) when the economy needs it, but its disadvantages appear as a result of sharp fluctuations in the exchange rate, which can they have a serious impact on countries' balance sheets and on (imported) inflation rates and growth in them. One of the disadvantages of this option is speculation in the dollar. Examples of these countries that adopt flotation are the United States of America.

***The third option**: to choose an intermediate system between the two previous systems, i.e. fixing the value of a currency against another currency or a basket of currencies while retaining the right to modify this value (which is termed as a soft peg) and the adjustment is through two tools used by the central bank, namely: changing the interest rate The main purpose of this system is to intervene in the exchange market using its foreign exchange holdings to correct the value of the currency up or down, either in a narrow range (± 1%) or in a wide range (± 30%), and this depends on the variation in inflation rates across countries, and one of the advantages of this system It combines the benefits of the two previous regimes (fixation and flotation), and on the other hand, what is taken into account is its exposure to the attacks of speculators to the extent that countries - such as Thailand - during the Southeast Asian crisis (1997-1998) exhausted their international reserves of foreign exchange in defense of the value of their currency and were forced to reduce them. , The success of the continuation of this system requires the availability of the country on sufficient reserves of foreign exchange and the establishment of controls on the movement of capital.*

And by noting the options of exchange systems in the oil-exporting economies, we find that they range in their entirety between two options, namely: the hard peg or the soft peg (directed float), while there is a "fear of free float" and an aversion to it for the great risks involved. There is a set of exchange rate arrangements in some oil-exporting countries. For example, Algeria follows directed flotation, Saudi Arabia, the fixed peg to the US dollar, Russia the directed float, and the United Arab Emirates, the fixed peg

to the US dollar, Venezuela, the fixed peg to the US dollar, Kuwait, the peg to a basket of currencies, and Libya, the peg. The fixed peg to the SDR basket and the fixed peg to the US dollar.

The oil sector is the basic sector on which the oil economies are based, and it is the main factor that enhances the internal and external macroeconomic balances. The foreign exchange reserve is an important tool for central banks that they use to manage and maintain currency stability through intervention in the exchange market. Foreign exchange reserves were known during the study period. Important developments with changes in oil prices Table (4) shows the changes in reserves for the period 1999-2020, divided into three sub-periods.

Table (4): Foreign exchange reserves of a group of oil countries for the period (1999-2020) Billion dollar

The state	1999	2001	2002	2008	2009	2020
UAE	10.790	14.256	15.355	31.694	26.104	85.390
Algeria	6.146	19.625	25.151	148.098	155.111	120.788
Iraq	6.744	6.744	6.744	50.101	44.332	44.885
Kuwait	5.560	10.599	10.078	19.320	23.028	33.936
Saudi Arabia	18.330	18.866	22.185	45.278	420.983	547.260
Iran	–	–	–	–	–	–
Venezuela	15.110	12.264	12.106	43.065	34.317	10.149
Qatar	1.309	1.317	1.573	9.996	18.803	31.887
Russia	12.325	36.302	48.325	426.278	439.341	377.052

Source: The world Bank . Data . http : // data www. World Bank . org.

From Table (4) it is clear that the fluctuations in oil prices have greatly affected the countries' foreign exchange reserves in a manner in which the rise in oil prices is in harmony with the increase in these reserves and vice versa.

Following the rigid fixation of the local exchange rates against the US dollar in most of the oil countries leads to the fact that the external shocks (fluctuations in oil prices or exchange rates) will be completely passed on to the national economies, since then it is not possible to use the exchange rates

as a correction tool to absorb or mitigate the shocks. If oil incomes fall from the US dollar, this means a parallel decrease to oil incomes in the local currency, but at flexible prices, the decrease or decrease in the value of the local currency against the dollar means an increase in oil incomes in the local currency against the US dollar, and this by its nature provides more space for the governments of the oil countries for public spending and relieves The severity of the decline in oil revenues on spending and growth, and from this angle, if we follow the impact of the decline in oil prices in a country oil prices with flexible exchange rates, such as Russia, we found that the impact of this decline was less due to the flexibility of the ruble exchange rates, which absorbed the impact of the decline in oil incomes, and since the justifications for the link mainly are to achieve stability in prices and income, and this is what we did not notice in the boom periods, as inflation rates rose in some countries Oil prices reached historical levels, which led to speculation on the currencies of the oil countries, especially the Arab Gulf states, in a period that preceded the outbreak of the global financial crisis (2007-2008), which weakened the credibility of the currency peg with the dollar. As for the stability of oil revenues, it emerged during the period of high oil prices. A strong inverse relationship between oil prices and the exchange rates of the US dollar against the currencies of the partners of the oil-producing countries. Imported inflation rates on the other hand.

Accordingly, the linkage restricts countries from benefiting from the economic policies as required to mitigate this shock, especially the exchange rate tool (through devaluation) to mitigate the decline in oil prices from government budgets, spending and economic activity, and then growth, The rigid link has become more of a burden on the oil-producing countries than a factor of stability. For example, the Algerian dinar exchange rate has witnessed since the beginning of the second millennium clear fluctuations against the dollar between the decline at times and the slight improvement at other times, with the general trend being declining, but at weak rates, and with the collapse of prices The recent oil and the decline in the country's incomes by more than half, the Central Bank of Algeria by allowing the dinar to depreciate by (25%) against the US dollar in 2015, as the dinar fell to a

new record level against the dollar at (100.69) dinars / dollar, and the authorities' justification behind that reduction was to curb the excessive growth in imports (note Table 5), and in general Since the end of 2014, the Algerian dinar exchange rate against the US dollar has fallen from (80.58) dinars / dollar to (109.44) dinars / dollar in 2020, in addition to the great collapse in the black market.

In Venezuela, and with the continuation of the opposite oil shock), it changed its exchange system by introducing some flexibility and the shift towards floating, allowing the "Bolivar" exchange rate to be determined freely according to the forces of supply and demand, but the surprise in 2020 was the announcement by Venezuelan President "Nicolas Maduro" a devaluation of the national currency, the Bolívar, and an increase in fuel prices in an effort to contain the repercussions of the oil price collapse crisis and confront the recession. The sharp and high inflation rate, which exceeded record numbers, and under this reduction, the official exchange rate moved from (6.28) bolivars / dollar in 2014 to (9.30) bolivars / dollar in 2020. In Russia, the ruble exchange rate was relatively stable, ranging between 31.74 rubles / dollar in 2009 and (31.84) rubles / dollar in 2013 rubles to the dollar, but it decreased in 2020 to an amount of (67.06) rubles / dollar, and the reason for this significant decline is due to the reduction of the Russian Central Bank's interventions in the exchange market to maintain the stability of the exchange rate The ruble in light of the decline in the country's foreign exchange reserves due to the combination of a group of factors such as the crisis of the collapse of the oil price as well as the Western sanctions imposed on it due to its interference in Ukrainian affairs, as well as the withdrawal of the United States of America to the exceptional expansionary monetary policy The policy that it started during the global financial crisis by reducing quantitative easing programs and raising the interest rate, which led to the decline (or flight) of capital flows into Russia, had its effects in 2014, the ruble suffered a sharp collapse in its value, which prompted the Russian Central Bank to make a significant increase in the interest rate as an attempt to save ruble.

In 2020, the ruble crisis deepened, as it witnessed a sharp decline with the

Ministry of Finance announcing its intention to transfer (212) billion rubles into foreign currencies from the local market at a rate of (3.5) billion rubles per day to be pumped into the reserve fund, and this measure automatically means reducing the Russian Central's daily intervention in the exchange market. Consequently, the (unauthorized) intention to float the exchange rate, despite the Russian government's assertion that it does not intend to float the currency (www.iefpedia.com), and in Saudi Arabia, the authorities committed themselves to maintaining the policy of pegging the currency rate at (3.75) riyals / dollars, which they did not limit during Three decades, although the riyal was subjected to severe selling pressure on more than one occasion, such as those that occurred in 1993 and 1998 due to the decline in Oil prices and the Asian financial crisis, and in light of the current oil shock, the exchange rate of the riyal was affected only in the futures market. In 2020, the riyal witnessed a record decline against the dollar in futures contracts, which prompted the governor of the Saudi Arabian Monetary Agency to issue a statement on the exchange rate policy of the Saudi riyal, in which he said that The strong fluctuations in the futures market of the Saudi riyal against the US dollar, which resulted from the incorrect perceptions of some dealers in the market about the general economic situation of the Kingdom of Saudi Arabia. The basic financial and economic indicators of the Kingdom are in a stable state, as the Kingdom's financial stability is due to its net credit position and its flexible and sound banking system. The statement also reiterated the institution's official position to maintain the policy of pegging the Saudi riyal at (3.75) riyals / dollars, supported by a group full of monetary policy tools, including its foreign exchange reserves, but the continuation of the fixed peg of the riyal to the dollar has become questionable. A memorandum issued by the French Society General Bank on February 4, 2020 surprised by announcing the possibility of depreciating the value of the Saudi riyal by no less than 25% in the short term, considering that this percentage may rise to 40% if the current oil prices remain in 2020. The probability of up to 60% if oil prices remain below 50 dollars per barrel in the next two years, and the bank said that despite the steadfastness of the link in previous periods witnessed the decline in oil prices and the rise of the

dollar, but the matter seems different this time, as the Kingdom records much higher levels of financial deficit in its general budget, in an energy market in which the chance of recovery is less, in addition to that, Saudi Arabia, which was setting the price in the oil markets In the past, the world has become a recipient of the price with the decline in its ability to influence the markets.

Table (5):Average exchange rates for a group of oil-exporting countries for the period (1999-2020)

(a unit of the national currency against the dollar)

Years	Exchange rates	oil prices	UAE	Algeria	Iraq	Kuwait	Saudi Arabia	Iran	Venezuela	Qatar	Russia
1999	1.0653	17.90	3.673	66.574	0.311	0.304	3.745	1,752.93	605.717	3.640	24.62
2000	0.9232	28.66	3.673	75.260	0.311	0.307	3.745	1,764.43	679.960	3.640	28.13
2001	0.8952	24.46	3.673	77.215	0.311	0.307	3.745	1.753.56	723.666	3.640	29.17
2002	0.9454	24.99	3.673	79.682	0.311	0.304	3.745	6,906.96	1,160.95	3.640	31.35
2003	1.1321	28.85	3.673	77.395	----	0.298	3.750	8,193.89	1,606.96	3.640	30.69
2004	1.2438	38.26	3.673	72.061	1,453.42	0.295	3.747	8,613.99	1,891.33	3.640	28.81
2005	1.2449	54.57	3.673	73.276	1,472.00	0.292	3.745	8,963.96	2,089.75	3.640	28.28
2006	1.2563	65.16	3.673	72.647	1,467.42	0.290	3.745	9,170.94	2,147.00	3.640	27.19
2007	1.3711	72.44	3.673	69.292	1,255.00	0.284	3.748	9,281.15	2,147.00	3.640	25.58
2008	1.4726	96.94	3.673	64.583	1,193.08	0.269	3.750	9,428.53	2.166	3.640	24.85
2009	1.3935	61.74	3.673	72.647	1,170.00	0.288	3.750	9,864.30	2.148	3.640	31.74
2010	1.3261	79.61	3.673	74.386	1,170.00	0.287	3.750	10,254.20	2.582	3.640	30.37
2011	1.3931	111.26	3.673	72.938	1,170.00	0.276	3.750	10,616.30	4.289	3.640	29.38
2012	1.2859	111.63	3.673	77.536	1,166.17	0.280	3.750	12,175.50	4.289	3.640	30.84
2013	1.3281	108.56	3.673	79.368	1,166.00	0.284	3.750	18,414.40	6.048	3.640	31.84
2014	1.3297	98.97	3.67	80.58	1,166.00	0.28	3.75	25,941.70	6.28	3.64	38.38
2015	1.1096	52.32	3.67	100.69	1,167.33	0.30	3.75	29,011.50	6.28	3.64	60.94
2020	1.1072	43.67	3.67	109.44	1,182.00	0.30	3.75	31,389.00	9.30	3.64	67.06

Source: It was calculated by the researchers using:

1. *The world Bank . Data . http : // data www. World Bank . org.*
2. *https://www.stlouisfed.org.*
3. *Annual Statistical Bulletin,2003,2007,2010,2014,2020.*

- *Since 2008, every single unit of the new Venezuelan currency is equal to 1000 old units.*
- *Parallel prices of the Iraqi currency against the dollar for the years 1999 - 2000 -2001 - 2002-2003 were 2,100 - 2,000 - 1,900 - 2,000 - 2,100 (dinars / dollar), respectively.*

The Gulf economies are also increasingly detaching from the United States, adding that all the mentioned factors make the adoption of a more flexible

exchange rate desirable. These speculations came in parallel with the Standard & Poor's downgrade of Saudi Arabia's credit rating (S&P) by two notches from "A-". In addition, the International Monetary Fund reduced its expectations about the growth prospects of the Saudi economy

During the year 2020, it reached an average of 1.2%, which is the lowest level in seven years (http://www.cnbcarabia.com). It was mentioned earlier that it is more like a currency crisis situation (currency Crises/Crashes) whose features are manifested in the inevitable devaluation of the external value of the currency.

3. The effects of the relationship of the oil price towards the exchange rate.

3.1 The effect on inflation and purchasing power.

The economies of the oil-producing countries are generally linked to a large degree with the economies of the developed countries through contact with both consumer and capital goods. As a result of the structural composition of the economies of the oil-producing countries, the degree of heavy dependence on imports can affect inflation rates through changes in the exchange rate even in the case of stable prices in Global markets The deterioration in the exchange rate of international currencies undoubtedly leads to an increase in the cost in the national currency of the inputs of imported production, which pushes producers to increase the prices of goods and services. As well as a direct increase in the prices of imported consumer goods, which leads to the promotion of inflation. Of course, the extent of that impact depends on whether there are industries to replace consumer goods and imported production inputs, as well as the preferences of consumers for those goods, and the decrease in the local exchange rate (or its reduction) has Significant impact on local prices This is due to the fact that the increase in the prices of imported goods (as a result of the decline in local exchange rates) can affect inflation expectations, which in turn leads to the deterioration of the local exchange rate as investors buy foreign exchange to maintain the purchasing power of the national currency and in light of this The feedback between the exchange rate and domestic prices makes it easy for the country concerned to become a victim of a vicious circle between the deterioration in the exchange rate and inflation (Mahran,2020: 6).

Table (6): Inflation (prices paid by consumers per year) in some oil countries for the period (1999-2020)(%)

Years	Exchange rates	oil prices	Russia	Iraq	Iran	Kuwait	Saudi Arabia	**Algeria**	**UAE**	Bahrain
1999	17.90	1.0653	85.7	12.6	20.1	3.0	–1.3	2.6	–	–1.3
2000	28.66	0.9232	20.8	5.0	14.5	1.8	–1.1	0.3	–	–0.7
2001	24.46	0.8952	21.5	16.4	11.3	1.3	–1.1	4.2	–	
2002	24.99	0.9454	15.8	19.3	14.3	0.9	0.2	1.4	–	–0.5
2003	28.85	1.1321	13.7	33.6	16.5	1.0	0.6	4.3	–	1.6
2004	38.26	1.2438	10.9	27.0	14.8	1.2	0.3	4.0	–	2.4
205	54.57	1.2449	12.7	37.0	13.4	4.1	0.7	1.4	–	2.6
2006	65.16	1.2563	9.7	53.2	11.9	3.1	2.2	2.3	–	2.0
2007	72.44	1.3711	9.0	–10.1	17.2	5.5	4.2	3.7	–	3.3
2008	96.94	1.4726	14.1	12.7	25.5	10.6	9.9	4.9	12.3	3.5
2009	61.74	1.3935	11.7	6.9	13.5	4.6	5.1	5.7	1.6	2.8
2010	79.61	1.3261	6.9	2.9	10.1	4.5	5.3	3.9	0.9	2.0
2011	111.26	1.3931	8.4	5.8	20.6	4.9	5.8	4.5	0.9	0.4–
2012	111.63	1.2859	5.1	6.1	27.4	3.2	2.9	8.9	0.7	2.8
2013	108.56	1.3281	6.7	1.9	39.3	2.7	3.5	3.3	1.1	3.3
2014	98.97	1.3297	7.8	2.2	17.2	2.9	2.7	2.9	2.3	2.7
2015	52.32	1.1096	15.5	1.4	13.7	3.3	2.2	4.8	4.1	1.8
2020	43.67	1.1072	7.0	–	8.6	3.2	3.5	6.7	1.6	2.8

Source: It was calculated by the researchers using:
The world Bank . Data . http : // data www. World Bank . org.

On the other hand, the economies of the oil-producing countries depend largely on oil, which contributes about (50.13%) of total exports, according to 2020 statistics, to reach (99.68%) in Iraq for the same year,(OPEC,2020:21-22), and undoubtedly This unbalanced structural composition of the economies of the oil-producing countries and the dependence of the economies of these countries on oil can constitute one of the Sources of economic instability that may result from fluctuations in oil prices in global markets and then the impact of these fluctuations in local currency exchange rates, causing negative rebounds in the economies of these countries, the most important of which is the effect on inflation rates, and as

a reflection of changes in high oil prices, the situation of the economies of the oil-producing countries is affected. The period that witnessed a rise in international oil prices, which is the period from (2002-2008), the real GDP growth witnessed the highest compared to the period that preceded the significant rise in oil prices. Spending, which leads to an increase in aggregate demand, which will lead to more inflationary pressures in light of the stability of production or its inability to catch up with the increase. It is correct to reverse the previous trend when prices fall, as the spending tendency of governments decreases, which leads to a decrease in demand, which mitigates the effects of inflation.

Some studies (Mahran, 2020: 22) indicate that the deterioration in the local exchange rates resulted from the rise in the exchange rates of the dollar as a result of the decline in oil prices (according to the inverse relationship) and other factors that lead to high rates of inflation, because the flexibility of exchange rates is not fixed in most countries Oil, as it follows the fixed linkage system.

As a result, we can say that the increase in oil prices will lead to a decrease in the exchange rates of the US dollar, and this means a decrease in the local exchange rates, for the oil countries, corresponding to an increase in government spending, which leads to the occurrence of inflationary pressures, but in the case of low oil prices, this will lead to a rise in exchange rates This means an increase in the local currency exchange rates, offset by a decrease in government spending, and this leads to alleviating inflationary pressures, and most commodities basic commodities such as crude oil, precious metals, industrial minerals and grains such as wheat and corn are priced in US dollars, and that any decrease in the value of the dollar makes basic commodities cheaper from the perspective of consumers in areas other than the dollar area, and then leads to an increase in demand for those areas. On the supply side, pressures on prices may arise from the decrease Profits are denominated in local currency from the perspective of producers

Outside the dollar area (International Monetary Fund, 2020: 84), the situation is different in the opposite direction, that is, in the event of an increase in the value of the dollar, it makes basic commodities more expensive from the perspective of consumers in areas other than the dollar area, and then leads to a decrease in demand for those areas, and on the supply side increases Profits of producers, which leads to increased production, is a problem, a factor in the decline in prices.

3.2 The effect on exports and imports (balance of payments).

Changes in the exchange rate directly affect commercial transactions with the outside world. There is no doubt that the decline and rise are through the forces of supply and demand in the market. As for the reduction and rise, it is through the intervention of the monetary authorities. In all cases, there is a direct relationship to the balance of payments balance. local, as for raising or increasing the price the exchange of the local currency is the opposite of the first effect, and countries rarely resort to it in order to get rid of the surplus in the balance of payments. The decline of the currency can affect the trade balance through:

3.2.1 The impact of currency depreciation on exports.

The consequence of the depreciation of the currency makes the prices of exports (domestic goods destined for export) relatively cheaper, denominated in foreign currency, and then increases the demand for exports, and then increases the quantity and value of exports, provided that the elasticity of foreign demand for exports is greater than the correct one, which is reflected in the increase in the currency supply Table (7) indicates changes in the ratio of exports to GDP for the period (1999-2020), as it is clear from the table that oil prices rose from (17.90) dollars / barrel in 1999 to (98.97) dollars / barrel in 2014, coinciding with the decrease in the exchange rate of the dollar against the euro from (1.0653) dollars / euro to (1.3297 dollars / euro) for the same period, which means a decrease in the value of the local currency in the sample countries, which results in a rise in exports as a percentage of GDP, as it rose from (28.2, 77.6, 45.9, 34.7, 19.3, 22.9, 60.0)% in 1999 in (Algeria,

Iraq, Kuwait, Saudi Arabia, Iran, Venezuela, Qatar) to (36.9, 44.4, 74.7, 54.3, 24.1, 26.2, 76.5) in 2012, respectively.

Table (7): Ratio of exports to GDP in some oil countries (1999-2020) %

Years	Exchange rates	oil prices	UAE	Algeria	Iraq	Kuwait	Saudi Arabia	Iran	Venezuela	Qatar
1999	17.90	1.0653	-	28.2	77.6	45.9	34.7	19.3	22.9	60.0
2000	28.66	0.9232	-	42.1	75.7	56.5	43.4	21.5	29.7	67.3
2001	24.46	0.8952	49.2	36.7	65.3	51.3	39.6	19.3	22.7	65.9
2002	24.99	0.9454	49.5	35.5	70.6	44.6	40.9	24.4	30.4	60.3
2003	28.85	1.1321	55.9	38.2	77.4	52.1	45.9	24.6	33.9	61.7
2004	38.26	1.2438	63.6	40.1	56.3	56.9	51.0	25.3	36.2	64.2
2005	54.57	1.2449	67.6	47.2	54.3	64.0	57.1	30.3	39.7	65.1
2006	65.16	1.2563	68.6	48.8	51.0	56.5	59.8	29.9	36.5	62.8
2007	72.44	1.3711	72.4	47.1	45.9	63.4	59.9	28.8	31.1	60.3
2008	96.94	1.4726	78.9	48.0	50.3	66.8	62.1	26.6	30.8	61.4
2009	61.74	1.3935	79.7	35.4	39.4	59.5	47.1	22.7	18.1	51.1
2010	79.61	1.3261	77.7	38.4	39.4	66.7	49.6	24.4	28.5	62.3
2011	111.26	1.3931	89.8	38.8	44.4	73.2	56.0	52.6	29.9	72.6
2012	111.63	1.2859	100.3	36.9	44.4	74.7	54.3	24.1	26.2	76.5
2013	108.56	1.3281	100.6	33.2	39.7	70.9	51.9	26.9	24.8	72.7
2014	98.97	1.3297	99.1	30.2	41.3	68.5	46.9	23.1	16.7	68.0
2015	52.32	1.1096	-	-	-	-	-	-	-	-
2020	43.67	1.1072	-	-	-	-	-	-	-	-

Source: It was calculated by the researchers using:
The world Bank . Data . http : // data www. World Bank . org

3.2.2 The effect of currency depreciation on imports.

The decline in the currency leads to making the prices of imports denominated in the local currency higher, which leads to a decrease in the domestic demand for imports, and then a decrease in the quantity and value of imports, provided that the elasticity of domestic demand for imports is greater than zero, and then the demand for foreign currency decreases, which contributes to the elimination of excess demand on foreign currency.

Table (8): Percentage of imports to GDP in some oil for the period (1999-2020) %

Years	Exchange rates	oil prices	UAE	Algeria	Iraq	Kuwait	Saudi Arabia	Iran	Venezuela	Qatar
1999	17.90	1.0653	-	22.8	60.7	39.4	23.2	15.6	19.2	25.7
2000	28.66	0.9232	-	20.8	49.9	30.1	24.8	19.8	18.1	22.3
2001	24.46	0.8952	40.7	22.0	61.5	35.5	23.9	21.2	19.4	29.1
2002	24.99	0.9454	43.6	25.6	49.2	36.6	23.6	23.8	18.1	28.1
2003	28.85	1.1321	46.4	23.9	76.8	34.5	24.0	26.1	16.7	28.5
2004	38.26	1.2438	53.1	25.6	64.0	32.4	24.1	26.0	19.2	26.2
2005	54.57	1.2449	52.0	24.1	61.4	28.3	24.9	24.1	20.5	29.7
2006	65.16	1.2563	50.8	21.9	38.6	24.2	30.1	23.3	22.1	35.8
2007	72.44	1.3711	64.4	24.9	28.2	28.3	34.9	21.0	25.1	35.8
2008	96.94	1.4726	69.6	28.7	30.7	25.9	34.0	21.7	21.0	28.1
2009	61.74	1.3935	73.8	36.0	39.3	29.4	37.8	21.0	20.4	29.0
2010	79.61	1.3261	63.6	31.4	34.1	30.4	33.0	19.4	17.6	23.8
2011	111.26	1.3931	62.0	28.7	27.8	25.9	29.5	17.6	19.7	26.1
2012	111.63	1.2859	64.8	28.5	29.1	26.3	29.2	23.2	24.2	29.3
2013	108.56	1.3281	64.9	30.4	36.0	26.7	30.8	23.4	29.5	29.7
2014	98.97	1.3297	68.9	31.9	36.9	31.5	33.8	21.5	31.4	31.0
2015	52.32	1.1096	74.4	36.5	40.9	44.9	38.8	19.3	-	36.0
2020	43.67	1.1072	75.7	35.3	40.9	46.4	30.7	20.8	-	41.6

Source: It was calculated by the researchers using
The world Bank . Data . http : // data www. World Bank . org.

Based on the foregoing, it can be said that the decline in oil prices will, by its opposite effect, raise the exchange rates of the US dollar, and since most oil-producing countries link their currencies to the dollar, this means that the exchange rates of the currencies of these countries will also rise, which means an increase in imports and a decrease in non-oil (non-oil) exports. This mechanism does not work in most oil-producing countries due to fixed exchange systems, and table (8) indicates changes in the ratio of imports to GDP due to changes in oil prices and dollar exchange rates, as it is noted from the table that this ratio is almost stable in most of the selected countries This indicates that the aforementioned mechanisms do not work because of the stabilization system followed in them, as well as the fact that imports are necessarily and indispensable, whether the exchange rate decreases or rises, in other words, the inflexibility of imports to exchange rate changes.

4. Conclusions and Recommendations

4.1 Conclusions:-

1. *The form of oil is the most important commodity at the level of global trade, as it is the main source of energy for the consuming countries and the main source of revenue for the producing countries, so the interest in this source, and the search for the best ways to ensure its flow for the consuming countries and to ensure higher returns for the producing countries has formed an element Sometimes a collision between the two parties.*

2. *The exchange rate of the US dollar constitutes one of the most important international economic variables, as the US dollar occupies the leading position among currencies as an international reserve currency, but it has suffered and is suffering from serious problems related to the problems faced by the US economy itself, such as an imbalance in the trade balance and the rise of government indebtedness to unprecedented levels.*

3. *All countries that peg their currencies to the US dollar witnessed a decline in the value of their currencies when the world oil prices rose.*

4. *The inverse relationship between the two variables has negative effects on the oil countries and in both directions. These negative effects were reflected in the economic variables represented in revenues, expenditures, and economic growth when the relationship was from the dollar exchange rates towards oil prices. It also left other negative effects in both exports, imports*

and purchasing power. And inflation when the relationship of oil prices towards exchange rates.

4.2 Recommendations:

1. *Since oil revenues represent the largest proportion of the oil countries' revenues and due to their great impact on the exchange rates of the dollar against the euro, the first recommendations stipulate the direction of effective action to diversify the oil economies to reduce the shocks resulting from the relationship between the two variables.*

2. *The current crude oil pricing system suffers from a lot of defects that negatively affect the oil countries, so work must be done to correct this system through cooperation between the oil countries among themselves first and between producers and consumers secondly.*

3. *Disengaging the link between the US dollar and the price of oil will be the effective and required step, as it has contributed to reducing the impact of the dollar's change in the real price of a barrel of oil, as well as in maintaining the purchasing power of oil revenues.*

4. *The negative inverse relationship between each of the global crude oil prices and the exchange rates of the dollar against the euro changes from one period to another according to other economic interactions, which requires the establishment of follow-up units in the concerned departments for the exchange rates and oil prices to know the direction of the relationship between them and take appropriate decisions to confront the effects of this relationship Including maximizing the revenues of the oil wealth.*

References

1. *Mahran, Hatem.(2020).Inflation in the Gulf Cooperation Council Countries and the Role of Oil Funds in Economic Stability, Gulf Center for Development Policies, research published on the website*

   www.gulfpolicies.com

2. *Annual Statistical Bulletin.(2008). OPEC , Vienna, Austria.*

3. *Annual Statistical Bulletin.(2009). OPEC, Vienna, Austria .*
4. *Annual Statistical Bulletin.(2003). OPEC, Vienna, Austria.*
5. *Annual Statistical Bulletin.(2010). OPEC, Vienna, Austria.*
6. *Annual Statistical Bulletin.(2015). OPEC, Vienna, Austria.*
7. *Annual Statistical Bulletin.(2016). OPEC, Vienna, Austria.*
8. *Annual Statistical Bulletin.(2017). OPEC, Vienna, Austria.*
9. *Annual Statistical Bulletin.(2020). OPEC, Vienna, Austria.*
10. *International Enery forum.(2020). progress Report on the Jeddah energy meeting.*
11. *Jong-Min Kim& Hojin Jung Nonlinear.(2020). Relationship between Oil Price and Exchange Rate by FDA and Copula ,www.aeaweb.org.*