

# The Impact of Oil Price Shocks on the Iraq Economy – a Case Study for the Period 1990-2018

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This paper estimates the impact of external shocks, especially oil shocks, on major macroeconomic variables - Real Gross Domestic Product, Government Expenditure, Inflation rates and Unemployment Rates – in the Iraq economy with quarterly data covering the period Q1 1990 to Q4 2018. In this study we have used a restricted VAR model and Johansen Co-integration test and Impulse Response Functions to investigate the impact of oil price shocks on the Iraq economy. Our results indicate that despite the decline in oil revenues as a percentage of GDP to 28.6% in 2015 compared with 42.4% in 2014. This was not accompanied by a decrease in public expenditure, because a large part of government spending goes to the operational budget, which is characterised by a high stability as a result of the increase of government spending on military operations for the purpose of extending security stability. Therefore inflation rates have only slightly changed, as the money supply in the Iraqi economy has not changed despite the changes in oil prices. We believe this is due to the extensive size of the Operating Budget, which is relatively stable at the expense of the Capital Budget, 30% at best for the duration of the research.

**Key words:** Oil shocks, Macroeconomic variables, Inflation, Unemployment, Government expenditure, Iraq.

### Introduction

Since the discovery of oil in commercial quantities early in the fourth decade of the last century and its pivotal role in the global arena, economically, politically and socially, the role of traditional energy sources like coal began to decline, as for mineral fuels (oil and gas)became more in demand. Industrial states gradually grew with the dependency on oil and the industrial



growth rates, and on the other side, the state's oil exporters depended on oil revenues to increase the growth rates in their economies.

What distinguishes the oil market is that it is not stable as it is occasionally exposed to shocks, whether positive or negative. The result being a strategic commodity for exporting and consuming countries alike as involvement in this unstable market is not only for economic reasons but also geopolitical and security reasons that always pertain to oil demand, .

## **Research Methodology**

**Objectives of the Research:** the research aims to achieve the following objectives:

- Develop a theoretical and conceptual framework to shocks under different economic schools, starting and ending with the rational mental expectations.

-Determine the importance of oil in the Iraqi economy and how reliant this economy is on oil revenues.

- Connect the oil revenue and GDP variables, unemployment, inflation and Government spending in the economy.

-Measure the impact of oil price shocks, in quantitative terms, on some variables in the Iraqi economy.

## Problem of the Research: the problem starts with the set of questions as follows.

\*Is it possible to predict GDP variables mechanism to end, unemployment, inflation and Government spending in the Iraqi economy under shocks in oil prices?

\*What is the time period that begins her College in the Iraqi economy indicators receiving the impact of the oil price shock?

\*What is the impact of oil price shocks on positive and negative indicators in the Iraqi economy?

**Research Hypothesis:** the research hypothesis stated that lower oil prices shocks (negative shocks) came to influence variables – GDP, unemployment, inflation, government spending – according to the logic of economic theory, it leads to low GDP and Government spending, increase of unemployment and lower inflation rates; while high oil prices shocks (positive shocks) apply the logic of economic theory for unemployment and inflation variables, but does not apply to the logic of economic theory for GDP variables and Government spending.

# Literature Review

We'll discuss the most important economic impacts which can be triggered by oil price shocks on aggregated variables for oil-exporting countries, as follows:



*External Shocks:* Literature tells that the degree and range to which external shocks are transmitted to the local economy depend on a number of characteristics including (Patrick et al., 2018):

- lack of flexibility of the exchange rate
- a strong concentration of exports, especially with a bias to commodities
- the level of integration in the global economy
- limited productive capacities
- lack of export competitiveness
- overdependence on aid
- inadequate foreign reserves
- openness of the capital account.

Here is an assessment of the Iraq economy in relation to external shocks through oil price shocks.

### The Impact of Oil Price Fluctuations on Economic Growth

There is an adverse impact of economic growth on oil prices, you can see the effect of global economic growth on oil prices in light of the strength of the oil market, in fact, global economic growth increases demand for oil pushing oil prices to rise initially, then this rise tends to be volatile, partly because of fluctuations in business cycles.

For oil-exporting countries, the increase in oil prices will directly increase the real national income through increased export earnings, although part of this gain can be offset by later losses from declining export demand in general because of the economic stagnation experienced by business partners.

On the other hand, high oil prices maintain for a relatively long period of time, leading to a dramatically lower GDP growth in consumer countries, and then declines in the aggregated demand in those States when prices drop. High oil prices can also lead to an increase in exploration budgets for alternative sources of energy throughout the world and this could stimulate industrial countries to develop the use of alternative fuels (oil alternatives) that are more competitive and likely to reduce demand for oil in the future.

On the other hand, if fiscal and monetary authorities predict low oil prices in oil-exporting countries, this would lower government revenues leading to deflationary economic policies causing a slowdown in economic growth; and restrictive fiscal and monetary policies that aggravate unemployment and the recessionary impacts that goes with it. Therefore large drops



in oil prices could cause severe damage to the economies of oil-exporting countries by reducing long term economic policy options (Benedict, 2013).

## The Impact of Oil Price Fluctuations on Inflation

Lower oil prices are usually higher prices in oil-importing countries, especially low dollar exchange rates in oil-exporting countries. Oil price decline has contributed to a sudden drop in the number of currencies for oil exporters, including Russia and Nigeria as oil causes of decline in the price of the ruble, the Russian currency fell by 40% in 2014.

Although devaluing as an administrative prompt approach can help the oil exporting countries to undertake the required correction, it also causes worsening financial problems for companies and Governments with debt denominated in US dollars. In countries that lack adequate outlook installation, exchange rate cuts can quickly lead to very high levels of uncontrolled inflation.

If the price of oil falls, it would also have a substantial impact on the energy sector as bond holders are at risk of losing their investments in dollar terms. Although in the global banking system it is not likely to be significant, as it could lead to a more moderate increase in requirements for the allocation of losses offset by improving the quality credit in oil-importing countries and sectors. However, there may be some oil-importing countries associated with financial sectors in oil-exporting countries that may be exposed to the risks of economic and financial developments.

## The Impact of Oil Price Fluctuations on Unemployment Rates

The modern empirical economic literature developed in modelling non-linear, the theoretical literature is usually not clear about asymmetry in real activity response to oil prices.

The main exception to this is given by one economic justification for unequal relationship that was rendered in literature, for example, *Night Detective* (1982) to develop what is called the premise ramblings (Dispersion Hypothesis)<sup>(\*)</sup>, that rely on the argument that the change in oil prices changed the balance in the various sectors.

According to this argument, an increase (or decrease) in the price of oil leads to deflation (or expansion) in sectors that depend on the use of oil in the production process. Moreover, the

<sup>(\*)</sup>The premise ramblings (Dispersion Hypothesis) is a mathematical model discovered by David Lilien in 1982 to measure the size of the reallocated employment in various economic sectors after an oil shock and may be divided into two parts. The first is the ramification of of the oil shock on the industries, the second is the dispersion caused by the different effects of the oil shock on unemployment.



Increase (or decrease) in the price of oil generates expansion (or contraction) of energyefficient sectors relative to energy-intensive sectors

In a study by David Lilien it was found that a large part of total unemployment could be explained by dispersal of employment growth in all industrial areas. This can be explained in two parts. First, Lilien shows that a large part of the variation in the index of dispersion returns to the different impact of oil shocks in all industrial areas; and secondly, and more importantly, it appears that once represented, the dispersion in employment growth because of oil shocks, the residual dispersion ratios have no ability to unemployment.

However, given that in the short-term cost reallocation of resources between sectors is high, the oil shocks effect between the energy-intensive sectors can lead to a total loss in production. While this loss will exacerbate the recession when oil prices rise it will limit the expansion when oil prices drop economically, resulting in asymmetric effects. For these reasons, the sudden changes in the price of oil has wide repercussions on the economies of both exporting countries and consumer Nations. Thus, the prevailing view among economists is that there is a strong relationship between the growth rate of global variables and oil prices.

#### **Oil Price Shocks in Iraq Economy**

# Relationship between Unemployment Rates and Oil Price Shocks in the Iraqi Economy for Long (1990-2018)

When the second Gulf war ended, visible structural problems started in the economy and in particular indebtedness, unemployment and inflation and the deterioration of human development indicators (Iraqi strategic report 2008), lower crude oil prices (24.53) US dollars a barrel a year 1990 (21.54) US dollars per barrel year 1991 and Iraq entering the war with Kuwait and the imposition of economic sanctions by the UN Security Council did not lead to increased unemployment but a few ratios increasing (19.66%) in the year 1990 (19.76%) In the year 1991, and despite the war having destroyed most of the economic sectors involved and contributing to the release of large numbers of workers, the total government expenditure, despite lower oil prices, had risen from (236316.6) million dinars (97205.5) million for the same period respectively. This was because of the introduction of the Government's new cash version to meet the shortfall in the State budget; and also due to the increased military spending, as well as the reconstruction of what was destroyed by the war. And this was also as a result of the halt of oil exports thanks to the economic sanctions imposed upon Iraq.

And after the year 2003 the Government directed the increase in revenue resulting in high oil prices, which reached (31.08) US dollars per barrel in order to increase total government spending and especially the current spending to rebuild what had been destroyed by the war. The total government spending had risen from (25697.3) million dinars (330127.9) million for



the years 2004-2003 respectively, while the rise in investment spending was less -(34197.7) million dinars in 2004 after (2855.2) million dinars in 2003 -, reflecting on the conditions of the high unemployment uncommonly recorded year 2003 rate (29.89%) The highest level for decades.

Iraq's economy was affected by low oil prices that occurred after the middle of the year 2014 which reached (48.66) US dollars a barrel in the year 2015, causing high unemployment (16.40%). That shock also resulted in a deficit in the State budget causing the total government expenditure to decline to (1330935.1) million as a result of lower investment expenses (344814.2) million dinars in 2015, while the current expenditures were (986120.8) in the same year (Organisation of the Petroleum); (The World Bank).

# The Relationship between Oil Prices and Inflation in the Economy for the Duration (1990-2018)

Upon entering the 1990s oil market saw low oil prices were a shock to (18.43) US dollars per barrel, due to the economic sanctions imposed on Iraq because of the Iraqi war with Kuwait, while the inflation started to rise significantly, especially in the second half of 1993, the Iraqi economy has entered a cycle of hyperinflation when inflation rates were (53.7%) from the year 1990 – 1993 (207.69%) In order to finance the deficit in the public budget and oil degradation product the Government searched for alternative sources of finance for the oil sector, to this new critical edition rearmed leading to higher rates of inflation rather than losing money was the most important functions as a store of value (Iraqi strategic report 2010-2011), and also the cause of inflation during that period increased speculation because there was an acute shortage in commodity supply. This led to the birth of an environment conducive to speculative prices, land, cars and real estate, gold and hard currency, and all that was reflected in the rise in the general level of prices (Dawood).

Then oil prices went to (22.12) US dollars a barrel in 1996, but the inflation rate dropped dramatically to reach (16.11-%). As a result of the introduction of the oil-for-food law and the subsequent austerity monetary measures to deal with the runaway inflation through the pressure on the total government expenditure to reach (24197.9) million dinars. With particular investment spending it arrived (1625.2) million dinars, so improving the budget. The public, through increased State resources from taxes and fees, and the abolition of exemptions and Government support, reflected the decline in the general price level and improved the Iraqi dinar. In addition the following factors helped stabilise prices. Factors such as the exchange rate liberalisation of the monetary policy and the allowance of the parallel market for Foreign Exchange to work exclusively with the Central Bank intervening from time to time by selling US dollars to commercial banks and exchanging offices at auction, (Abdul Rahim, 2007).



Beyond 2014 year recorded a decline in oil prices reaching (93.17) US dollars per barrel which was reflected on lower government spending (393139.7) million dinars. The General level of prices witnessed were relatively stable during this year, as in the middle of the year 2014 with oil prices at 48.66 USD (A barrel) leading to the lower inflation rate of (1.4%), while noting that Government spending had risen because of the deteriorating security and political situation and increased military spending to counter terrorist groups resulting in total government spending rising to (1330935.1) million dinars (The World Bank); (Organisation of the Petroleum); (The Central Bank of Iraq).

## The Relationship between Oil Prices and GDP in the Iraqi Economy for Long (1990-2018)

The GDP fluctuated markedly as a result of the circumstances the country went through with the wars and the economic blockade imposed on it after the invasion of Kuwait. It may have been worth (10682.0) million dinars in 1991 after its value (29711.1) million dinars in 1990, as a result of lower prices of (24.53) to (21.54) US dollars per barrel for the years 1990-1991, respectively, reflecting the low total government spending of (236316.6) million dinars for 1990 and (97205.5) million dinars for 1991.

In subsequent years the GDP rose to (40344.9) million dinars in 2002. This improvement in the output value was the result of the application of the memorandum of understanding (oil-for-food and medicine) which enabled Iraq to export part of its crude oil output, and also was a result of increased oil prices reaching (26.18) dollars a barrel. This has allowed an increase in government spending to (66362.8) million dinars, especially as it had risen to (33905.3) million dinars, while investment spending is (23561.1) million for the year 2002.

The oil market has recorded higher prices in the year 2003 causing an oil shock: 2004 prices rose to (41.51) US dollars per barrel and this led to increased GDP value of (41608) million dinars in 2004 due to the direct relationship between oil prices and output (Abdul Hadi, 2005).

Both 2014-2015 have seen oil prices rocketing down starting in the second half of the year 2014 as the prices fell (93.17%) (48.66%) US dollars per barrel for the years 2014-2015, respectively. Because of this decrease in GDP (75581.3) (42835 million for the period, there has been a declined in total government expenditure (393139.7) million dinars in 2014, while in 2015 witnessed an increase in total government expenditure to (1330935.1) million dinars, as a result of increased military spending to combat terrorist groups that dominated nearly two-thirds of the country (Organisation of the Petroleum)<sup>+</sup> (Ministry of planning).



## **Empirical Methodology** *Job Description Form*

The model assumes an inverse relationship between crude oil prices and unemployment rates. High crude oil prices led to increased oil revenues and thus increased government spending which in turn led to lower unemployment rates, and low oil prices lead to lower oil revenues and then lower government spending and thus increasing unemployment.

This model also assumes a direct correlation between crude oil prices and inflation:when crude oil prices increase, State revenue spending is increased, which in turn leads to increases in the General level of prices coincident with the increase in productivity. The Iraqi economy is characterised by the lack of flexibility of its already weak productive machinery.

As the model assumes a direct correlation between crude oil prices and real gross domestic product (RGDP) – high crude oil prices lead to increased oil revenues and thus increased government spending which in turn leads to an increase in RGDP – lower crude oil prices lead to lower oil revenues and then lower government spending and then a decrease in GDP.

Illusions variables have been added (Dummy Variable) to the template as independent variables the first variable (D1) is specific to a sudden elevation shock in world oil prices, the second variable (D2) is for lower oil prices shocks for global variable (D1) were giving values between (0-3) there, and during the search, three sudden hikes in oil prices, with the highest value, and (3) to the top of the shock, the second highest shock has been given (2) thus, the years where prices have not changed, Or a slight change had been given.

As for the second variable (D2) and here was giving values between (0-4) because there were four special low oil prices shocks in a search, the same way before, was given (4) for the biggest shock, a sudden drop in world oil prices, and so on for other trauma.

And the usefulness of these fictitious variables is for access to analyse the regression equation more accurately, as the phantom variant is used to distinguish between different cases, useful as it enables us to use single regression equation to represent multiple sets. The regression equation can be written by individual equations and formula as follows:

GDP= $\beta$ 0+ $\beta$ 1 OPSH + $\beta$ 2 UNEM + $\beta$ 3 INFL + $\beta$ 4 DNEXP + $\beta$ 5D1+ $\beta$ 6D2+ui



## The Results of the Tests

\*Stability of a time series: by testing the stability of a time series, we found that all chains settled in first difference except the GDP series stabilised at their level and moral levels ranged between (1%-5%).

\*Test Vector Autoregression (VAR) Estimates: since the time series stabilised at their level in the first difference should go to model (ARDL) but measuring the impact of shocks we necessitated using (VAR) to not move bound goals (2 LAG) has the value R-squared (93%) Totalled Adjusted R-squared (82%), the value of the test (F) were (8.466421) is greater than the value of table (5.1922) and abstract level (1%).

\*Instant response function test (Impulse Response Functions): illustrated by figure (1) immediate response (pulse response) the ten future periods, by one unit, and as the spectators form was the years predicting response would be for ten years, and note in the box (1) response GDP change in oil prices starting from the second period (one quarter) to rise and continue that rise into the fourth period, and then take a new stable until the end of the tenth period, the researcher believes that this slight change in GDP due to the direction Bullish oil prices was greater than the downward trend, despite lower oil revenues as a share of GDP (28.6%) In the year 2015 compared to (42.4%). The year 2014 (The World Bank), but it was not associated with the lower public expenditure because a large portion of government spending goes to operational budget which is characterised by high stability under inflated government spending on military operations for the purpose of extending security stability.

In the box (2) of the same shape, shows that unemployment rates dropped in the first and second reporting periods, while falling in the third period, and even fourth period with the sixth period starting to rise again to become a serious rise before slightly dropping in the seventh and eighth periods to finally settle down in the last two, nine and ten.

Inflation rates represented by the box (3) has changed little during the 10 periods, this saw a very slight change believe that due to the money supply in the Iraqi economy, unchanged oil prices change and the magnitude of the operational budget; which was surely relative, at the expense of investment budget. Only a proportion of the general budget (30%) in the best case for the duration of the research, as well as the relationship between inflation and oil prices, is positive here and identical with the logic of economic theory.

In the box (4), we find that Government spending dropped noticeably; initially until the fourth period, but it started with a slight rise again starting from the fifth period, to return to stability of seventh period until 10:00.



**Shape 1.** Response variables, GDP, unemployment and inflation and Government spending of oil price shocks



As for the impact of the first imaginary variable (D1) and the rise in oil prices shocks, found in the response of GDP, as shown in figure (2) box (5), as it began to rise until fifth period, during this period GDP started to decline and continued until the beginning of the period 6. This fits in with the logic of economic theory, starting from the sixth period beginning with stability until the end of the tenth period. It was concluded that this stability in GDP, despite the shock of high oil prices by one standard deviation, is due to the greater proportion of increases in oil revenues that do not just go to productive sectors but also to consumer sectors which are inflexible in influencing GDP increase.

In the box (6) find that the response rates of unemployment in the shock of higher oil prices is positive. With increased oil prices reducing unemployment only until fifth period and following the end of the fifth period until the tenth period starting to climb, albeit slightly, except for in the eighth period. This does not fit with the theoretical logic economy despite the increase in government revenue as a result of high oil prices but this may be because the Iraqi economy management wasn't competent enough to direct this increase into new jobs for the unemployed. This may have been the case as a result of the ballooning public sector and the absence of economic policies that would develop the private sector and attract foreign investment.

As government spending represented by box (7) decreased in the first three periods, this is contrary to the logic of economic theory. Perhaps this was due to the adoption of government spending of oil revenues making the country vulnerable to global economic fluctuations, because business cycles – the Business Cycle –the world economy could easily find their way into the Iraqi economy because of the economic exposure rate and reliability on the outside.



As for the inflation posed by box (8) which initially increased during the periods of (2-4) and is consistent with the logic of economic theory, it soon started to dip slightly during periods of (4-7) due to the ineffectiveness of monetary policy in Iraq to maintain stable rates of inflation.

Figure 2. And inflation and Government spending response variables, GDP and unemployment rising oil prices shocks



As for the phantom Variant (D2), which explains the shape (3) box (9) and lower oil prices shocks, indicated GDP witnessed a kind of stability despite an increase in oil prices, as we have seen due to the nature of non-productive economy through high consumption propensity.

As for the unemployment rates represented in box (10) of the graph, we find that it continues to decrease until the sixth period and then start gradually and this is compatible with the logic of economic theory, initially forming the shock for certain periods and the negative impact of economic policies and then trying to resolve this problem.

In the box (11) we find that Government spending is dropping, starting the second period as a result of the oil shock, which is normal due to the nature of the oil trade which characterised the agreement on supply of specific quantities of current future whether the value increases or



decreases at the time of supply, so it is natural that there is no negative effects of the shock. The prices lower only after a certain period, and then continues to decrease until the eighth period corresponds to the logic of economic theory, except in the fourth period where there are rises in government spending despite the shock of falling oil prices. We believe that the reason is due to increased military spending rate putting money back into cash reserves or borrowing deficit financing from international institutions.

As for inflation, representing the box (12) was marked by the kind of stability along the 10 periods, we believe that it was due to the effectiveness of monetary policies to maintain inflation in the economy.

**Shape 3.** Response variables, GDP, unemployment and inflation and Government spending to the lower oil prices shocks



Table 1 shows the variance analysis of the impact of oil price shocks on the variables of GDP, unemployment and inflation and Government spending, representing the table 2 variance



analysis of the impact of high oil prices shocks on the mentioned variables, table (3) represents the variance analysis of the impact of lower oil prices shocks on these variables.

**Table 1:** Response variables, GDP, unemployment and inflation and Government spending of oil price shocks

GE	IR	UR	GDP	Period
0.000000	0.000000	0.000000	0.000000	1
(0.00000)	(0.0000)	(0.00000)	(0.00000)	
2.127358	2.522653	-0.474369	0.904529	2
(0.79236)	(3.14616)	(0.27220)	(0.45466)	
-2.257328	2.141439	-0.828190	1.046888	3
(1.34866)	(4.84117)	(0.58966)	(1.16904)	
0.291182	-0.004677	-0.229579	0.851941	4
(2.09719)	(4.28734)	(0.86888)	(2.00726)	
-1.958176	-0.970898	0.126802	0.599341	5
(2.79219)	(4.15746)	(1.05528)	(2.60802)	
-0.147802	-1.230969	-0.054392	0.474101	6
(2.36664)	(3.89902)	(1.04232)	(2.80804)	
-0.802330	-0.928415	0.090563	0.198613	7
(2.54146)	(3.63270)	(1.03617)	(2.53392)	
0.286166	-1.062479	0.365069	-0.022415	8
(2.77309)	(3.95440)	(0.96719)	(1.95183)	
0.196612	-0.565696	0.273327	-0.123867	9
(2.48193)	(4.40651)	(1.06276)	(1.50563)	
1.148867	-0.079463	0.150505	-0.190198	10
(2.53742)	(4.45375)	(1.18498)	(1.52618)	

Impulse Response to OP (One Unit Innovations)

**Table 2:** Response variables, GDP, unemployment and inflation and Government spending shocks, high oil prices

Impulse Response to OP (One Unit Innovations)

GE	IR	UR	GDP	Period
0.000000	0.000000	0.000000	0.000000	1
(0.00000)	(0.00000)	(0.00000)	(0.00000)	
-0.165323	-0.114757	-0.114757	0.049486	2
(0.15229)	(0.60467)	(0.60467)	(0.08738)	
-0.626259	0.250037	0.250037	0.119836	3
(0.21306)	(0.68403)	(0.68403)	(0.19341)	
0.707375	0.222557	0.222557	0.148929	4



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(0.40284)	(0.82186)	(0.82186)	(0.30013)	
-0.435700	-0.268245	-0.268245	0.039795	5
(0.46866)	(0.82718)	(0.82718)	(0.33403)	
-0.369914	-0.443955	-0.443955	-0.034789	6
(0.53014)	(0.80030)	(0.80030)	(0.27844)	
0.259603	0.039735	0.039735	0.023863	7
(0.53328)	(0.83706)	(0.83706)	(0.22658)	
0.406719	0.059254	0.059254	-9.71E-05	8
(0.55313)	(0.80182)	(0.80182)	(0.19878)	
-0.332329	-0.199618	-0.199618	-0.073125	9
(0.53396)	(1.01443)	(1.01443)	(0.21635)	
0.048307	5.24E-05	5.24E-05	-0.033993	10
(0.61737)	(0.83064)	(0.83064)	(0.27453)	

**Table 3:** Response variables, GDP, unemployment and inflation and Government spending to the lower oil prices shocks

GE	IR	UR	GDP	Period
0.000000	0.000000	0.000000	0.000000	1
(0.00000)	(0.00000)	(0.00000)	(0.00000)	
0.194238	0.242677	-0.032926	0.079897	2
(0.12136)	(0.48188)	(0.04169)	(0.06964)	
-0.310335	0.322356	-0.017173	0.075657	3
(0.20637)	(0.66545)	(0.08271)	(0.14333)	
0.428337	0.234452	-0.112668	0.158823	4
(0.33711)	(0.68233)	(0.11170)	(0.25413)	
-0.407902	0.037208	-0.079337	0.111483	5
(0.44645)	(0.71146)	(0.15839)	(0.37669)	
-0.211057	-0.200218	0.032005	0.084481	6
(0.44117)	(0.64124)	(0.16998)	(0.44746)	
-0.168638	-0.089847	-0.003564	0.081323	7
(0.43336)	(0.65196)	(0.16057)	(0.46076)	
0.134692	-0.138394	-0.018031	0.040283	8
(0.41739)	(0.58436)	(0.14273)	(0.42606)	
-0.195369	-0.224387	0.069129	-0.019220	9
(0.45540)	(0.69993)	(0.14388)	(0.33683)	
0.051330	-0.124227	0.074364	-0.028115	10
(0.41377)	(0.72775)	(0.17559)	(0.25289)	

Impulse Response to OP (One Unit Innovations)



### Conclusion

The study concluded:

- 1. Iraqi's economy crisis is not the product of today or caused by oil price shocks, but is the result of the structural imbalances of the economic sectors not moving at a pace to offset oil price shocks.
- 2. The Iraqi economy's need to lower oil prices as a result of the halt of oil exports imposed by the economic sanctions of the UN Security Council as a result of the Iraq-Kuwait war leading to a decrease in GDP and unemployment rates and increased government spending. With inflation rates reaching a level of hyper-inflation, the monetary policy in the new monetary version met the shortfall in the State budget as a result of increased government spending which included the expense of rebuilding what had been destroyed by war.
- 3. The effect on the Iraqi economy was in relation to oil shocks during (2010-2011-2012-2013) that resulted in high oil prices, which led to an increase in GDP and increase government spending and thus increase inflation.
- 4. Iraq also suffered a negative oil shock after the second half of the year 2014 because of low oil prices and payments to low GDP with inflation and unemployment rising slightly.
- 5. Proven the hypothesis of the study that the low oil price shocks (negative shocks) affect variables (GDP, unemployment, inflation, government spending) according to the logic of economic theory, since the oil price shocks have led to lower gross domestic product and Government spending, and increased unemployment, reduced inflation.

Even though the high oil prices shocks (positive shocks) satisfy the logic of economic theory for unemployment and inflation variables it did not apply to the logic of economic theory for GDP variables and Government spending.



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