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Compatibility between government spending and broad money supply in Iraq's GDP growth for the period (2004-2020)

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***Abstract*---**The study dealt with the compatibility between government spending and broad money supply in the growth GDP, and it aimed to show the impact of three independent variables (current spending CS, investment spending Is, broad money supply Ms2) on the dependent variable (GDP), for the period (2020 -2004), the standard model was estimated according to the ARDL method, and according to the boundary test of join integration, it was found that there is a relationship of join integration of the estimated model. and the most important results of the study were that current spending and broad money supply have a positive impact on the growth of GDP at prices. However, this increase in GDP growth did not come as a result of diversifying revenues across the productive sectors of GDP, and that the concurrence of the short-term objectives of government spending and broad money supply did not create a solid ground for investment and a real increase in gross domestic product. At current prices, but rather a it led to an increase in domestic aggregate demand, which was met through imports as a result of the lack of a flexible production apparatus, which caused the phenomenon of stagflation. Import and modify its path from the ace. convergence to investment, in order to achieve a total balance between economic sectors, and achieve development in the non-oil GDP by creating requirements for private investment and strengthening the production base.

***Keywords*---**government spending, current spending, investment spending, broad money supply, gross domestic product, imports.

Introduction

The fiscal and monetary policy is one of the tools with which the state intervenes to address short-term problems and prepares for long-term solutions, using its management and spending programs to create desirable effects on all variables of economic and social activity to achieve the goals of society, where the fiscal policy can be a catalyst in supporting the national economy and the success of the economic policy, the economic can also be a weak point that causes the failure of development programs and economic reform policies Or in delays and disrupts the desired goals of economic programs and policies, Monetary policy is one of the most important areas of economic and interventionist policy (corrective and stimulating) that takes monetary data as the subject of its intervention, taking into account the relationship of money to economic activity on the one hand, and what monetary stability constitutes an appropriate climate for carrying out economics activity on the other .

The Iraqi economy suffers from several structural and structural imbalances due to the political and economic conditions that Iraq has experienced, perhaps the last of which is the economic repercussions of the Corona pandemic, that the latter led to a drop in oil prices, which directly affected the widening of the deficit gap and the scarcity of cash needed to finance the annual budget. The failure of the local production system, the expansion of idle production capacity and Iraq's lack of a policy of income diversification led to the public sectors dominance of sector on more than half of the gross domestic product to finance its increasing expenditures, and this means the lack of planning and compatibility between different economic policies.

First: Importance of Search

The importance of this research stems from analyzing the reality of government spending and money supply in stimulating GDP growth and measuring the impact of both government spending and money supply on GDP growth, as well as identifying channels of compatibility between fiscal and monetary policy through unifying common goals that reduce the lack of coordination between the central bank And the Ministry of Finance, thus increasing the effectiveness of the work of fiscal and monetary policy, which leads to the revitalization of GDP growth.

Second: Search problem

Despite the initiatives and measures taken by the fiscal and monetary authority and translated using monetary and fiscal policy tools to stimulate GDP growth, the Iraqi economy is still suffering from the stagflation crisis and other problems.

Three: Research Hypothesis

Alignment between short-term goals of government spending and money supply stimulates GDP growth and provides a solid ground for long-term growth.

Fourth: Research objectives

The study aims to achieve the following:

- Analyzing the reality of the impact of the fiscal and monetary policy individually in stimulating the growth of the domestic product.
- Determining the channels of compatibility between government spending (current, investment) and money supply through Consolidation of objectives to achieve the purpose of their use.

The first topic / the theoretical side
First: the concept and importance of compatibility

(Stanley Reiter) sees that compatibility is the interrelationship between the actions of economic agents or the interrelationship between fiscal and monetary policy and taking unified measures under certain conditions. (Reiter,2000,p3)

Second, the goals of compatibility

Monetary and fiscal policy are closely related to each other despite the fact that these two policies sometimes differ in terms of mechanisms and the combined time it takes to influence macroeconomic variables. The fiscal and monetary policies have a profound impact on the level and composition of savings, investment, output and employment, as well as the feasibility of the external account. The level and structure of taxes, the size and pattern of public expenditures, the dimensions of the fiscal deficit and its sources of financing, changes in the money supply, the availability and distribution of credit as well as its cost are the main determinants of the structure of production and levels of employment. The rationale for monetary and fiscal policy alignment and associated institutional and operational arrangements derive from the following interrelated objectives: (Hanif and Arby,2003:p.3)

- Setting internally consistent and mutually agreed objectives for fiscal and monetary policy with the aim of achieving stable, non-inflationary growth.
- Facilitate effective implementation of policy decisions to achieve specific objectives of fiscal and monetary policies efficiently through each other supportive of information exchange and meaningful discussions.
- Obligating both the central bank and the government to adopt a sustainable policy in the long term

Some common objectives of both fiscal and monetary policies can be mentioned as follows: (Khasawneh,2000: p249)

- Achieving an increase in the level of both income and production.
- Achieving full utilization level up.
- Achieving the goal of economic stability.
- Achieving the goal of economic growth

Third: the mechanism of compatibility

In order to address the output gap, it follows from this compatibility between the fiscal and monetary policies, in the sense of equally important to increase the output between fiscal and monetary policy, through the stabilization of the interest rate. This can be illustrated in the following figure:

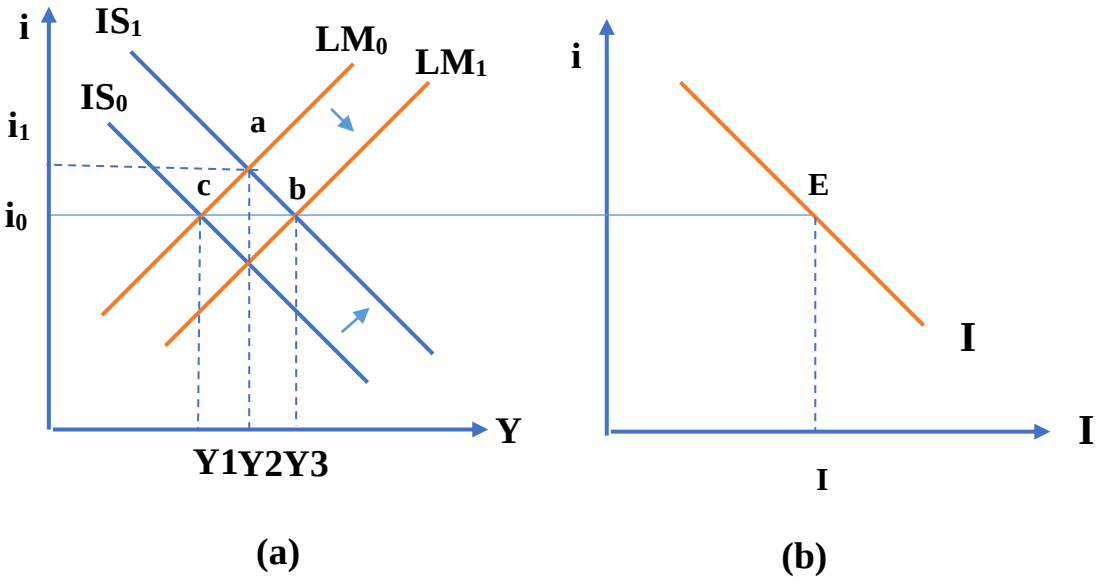

Figure 1. The effect of the alignment of government spending, money supply and interest rate stabilization on the overall equilibriu
Source: Khamis, Bassem, 2020, Public Finance and Financial and Monetary Policies, Al-Daad Library for Publishing and Distribution, Baghdad, Iraq, p. 20

The above figure shows the general equilibrium of the economy, through (the intersection of the IS curve with the LM curve)*, if we assume that the economy suffers from a recession (the actual output level is less than the expected output (planned)), and here it is necessary to agree between government spending and supply Criticism, to avoid conflict between them to achieve the goal, As the fiscal policy increases government spending, it will lead to a shift in the curve from (IS0) to (IS1), and the economy approaches a new equilibrium point (a), and this increase leads to an increase in demand for Money, which leads to an increase in the interest rate from (i0) to (i1) and then the output from (Y1) to (Y2), and in

* The IS curve indicates combinations of nominal interest rates (i) and output (Y) at which injection and leakage (saving, investment) are equal and the slope of the negative curve indicates that lower interest rates from (i) increase investment, which in turn leads to Increasing overall activity (balancing the real market), Whereas (LM) curve indicates the combinations of nominal interest rates (i) and output (y) at which money balances demanded equal the real money supply. and its positive slope (to the top right) explains to us the necessity of high interest rates to reduce the demand for cash balances that increase with the increase in output (achieving balance in the money market). Therefore, when the IS curve intersects with the LM curve, a level arises in the money and goods and services markets. (Next to Tinny, Strobe,1999:p 714-715)

order to cancel the reverse effect (crowding effect), which may result from the incompatibility between fiscal and monetary policy, in this case, the monetary authorities must work in the same direction, In order to ensure that the interest rate does not rise and keep it fixed, otherwise this leads to a decrease in investment, and then aggregate demand, which causes the failure of fiscal policy, and in this direction monetary policy must work alongside it, as this can be achieved, by increasing the money supply when the response is Infinite interest rate, The increase has led to a shift in the curve (LM0) to (LM1), and the economy approaches a new equilibrium point (b), which leads to a decrease in the interest rate from (i 1) to (i 0), Hence, investment increases aggregate demand and the equilibrium output level at a fixed interest rate. With this rate and output gap (Y3), the economy is completely equilibrated at point (b), and thus, in this case, there will be no effect of financial competition for the private sector. (Khalil,1994: p538).

But if the economy is suffering from a state of inflation, meaning that the actual output is greater than the expected output, then the fiscal policy will reduce government spending, in order to reduce the volume of aggregate demand, and in this case, monetary policy must participate in the fiscal policy by not reducing the rate of inflation. interest so that it does not lead to Increasing the volume of investment and then increasing the volume of aggregate demand (Al-Hajjar, Rizk, 2010: 302), and this can be clarified through the following scheme:

Chart 1
The effect of the compatibility between government spending and money supply on GDP

Economic imbalances	Government spending	cash offer	interest rate	Investment size	total order volume	The resulting
The stagnation gap condition requires	increase	Increase	Fixed	increase	Increase	increase
The case of the inflationary gap requires	discount	Discount	Fixed	discount	Discount	discount

Source: Prepared by the researchers.

The second topic/ Analyzing the reality of the incompatibility between government spending (current, investment) and money supply in the growth of gross domestic product in the Iraqi economy

First: The impact of current spending on the growth of GDP at current prices.

The impact of current spending on the gross domestic product (GDP) can be explained at current prices, according to the following table (1):

Table 1
The effect of current spending on GDP growth at current prices for the period (2004-2020)/ million dinars

the years	current spending	Current Expenditure Growth Rate %	GDP at current prices (with oil)	GDP growth rate at current prices %
2004	13608947	_	53235358.7	_
2005	14683390	7.9	73533598.6	27.6
2006	32778999	123.2	95587954.8	23.1
2007	32719837	-0.2	111455813.4	14.2
2008	52301181	59.8	157026061.6	29.0
2009	45941063	-12.2	130643200.4	-20.2
2010	54580860	18.8	162064565.5	19.4
2011	60925553.5	11.6	217327107.4	25.4
2012	75788623.7	24.4	254225490.7	14.5
2013	78746806.3	3.9	273587529.2	7.1
2014	76741672.6	-2.5	266332655.1	-2.7
2015	55381792.3	-27.8	194680971.8	-36.8
2016	55162767.6	-0.4	196924141.7	1.1
2017	59025654.2	7.0	221665709.5	11.2
2018	67052856.1	13.6	268918874	17.6
2019	87300932.6	30.2	277884869.4	3.2
2020	72873537.5	-16.5	198774325.4	-39.8
average duration		14.2		5.5

Source: Prepared by the researchers based on: Ministry of Planning, Central Statistics Agency, Department of National Accounts

We note through the data in Table (1) that the current spending growth rates are not proportional to the GDP growth rates in Iraq during the study period, at the level of analyzing the gross domestic product at current prices, The annual growth rate was (29%_1%), During the study period, the highest percentage of the share was in 2008, reaching (29%), This rise is due to the decisions to lift the economic embargo, which was imposed on Iraq after 2003, Which led to lack of growth of government investments with all its components, which flowed into the entire economy, driven by the increase in oil revenues.

When we consider Table (1), we derive the inverse relationship between current spending and GDP, and this is confirmed by numerical indicators when relying on the average period, as it appears to us that the average current spending achieves a high rate of (14.2%), While the average duration of the GDP at current prices achieved a relatively low rate of (5.5%), This indicates that the increase in current spending on salaries, wages and transfer expenditures generated an increase in domestic demand in return for the weak flexibility of the production system, Which led to resorting to imports from abroad, and this means that the work of public spending was to cover domestic demand, meaning the exit of the foreign currency that could have been employed in favor of correcting the internal

structural imbalances, That is, it is going in the opposite direction to the growth trend of the productive sectors. In other words, government spending generated a great consumerism This is proven by the conclusive evidence through the increase in Iraqi imports of consumer goods more than its impact on the growth of the gross domestic product.

Second: The impact of investment spending on GDP growth.

Investment spending is closely related to GDP, and when investment spending has a real return (return on investment in huge investment projects within economic sectors), It is indicated that there is a growth in the gross domestic product. Within this paragraph, we discuss the impact of investment spending on GDP at current prices. The impact of investment spending on GDP at current prices can be addressed through Table (2):

Table 2
The effect of investment spending on GDP at current prices For the period (2004-2020) / million dinars

The years	GDP at current prices (1)	GDP growth rate at current prices%(2)	investment spending (3)	investment spending growth rate (4)	The ratio of investment spending to GDP (1/3=5)%
2004	53235358.7	_	17912480	_	33.6
2005	73533598.6	27.6	16147752	-9.9	22.0
2006	95587954.8	23.1	6027680	-62.7	6.3
2007	111455813.4	14.2	6588511	9.3	5.9
2008	157026061.6	29.0	14976016	127.3	9.5
2009	130643200.4	-20.2	9648658	-35.6	7.4
2010	162064565.5	19.4	15553341	61.2	9.6
2011	217327107.4	25.4	17832114	14.7	8.2
2012	254225490.7	14.5	29350954	64.6	11.5
2013	273587529.2	7.1	40380750	37.6	14.8
2014	266332655.1	-2.7	35487351	-12.1	13.3
2015	194680971.8	-36.8	27431818.7	-22.7	14.1
2016	196924141.7	1.1	18408054.9	-32.9	9.3
2017	221665709.5	11.2	16464461.2	-10.6	7.4
2018	268918874	17.6	13820332.7	-16.1	5.1
2019	277884869.4	3.2	24422590.4	76.7	8.8
2020	198774325.4	-39.8	3208905.4	-86.9	1.6
average duration		5.5		6.0	11.1

Source: Prepared by the researchers based on data: Ministry of Planning, Central Bureau of Statistics, Department of National Accounts

The data in Table (2) supports our observation about the small amounts allocated to investment spending. In a more precise sense, the effect of investment spending on the gross domestic product (GDP) at current prices was reduced

during the study period. In addition, the ratio of the average period of investment spending to GDP at current prices amounted to (11.1%), This reflects the government's weak interest in the investment aspect, despite its importance in expanding production capacity and increasing rates of capital accumulation, Hence, the increase in local income, for several reasons, most notably the security and political conditions that the country. We also note that the growth rates of investment spending over the average period amounted to (6%), However, the average GDP growth rates for the period are (5.5%), This is due to directing investment allocations to sectors towards the reconstruction of projects affected by military and security operations, and towards the perpetuation of these projects in a way that did not result in an increase in the productivity of these sectors.

If we look at the data contained in Table (2), it appears to us clearly that the growth rates in investment spending are not proportional to the growth rates of the gross domestic product in Iraq during the study period, The growth rates of GDP at current prices ranged between (29% - 1.1%), During the study period, the highest percentage was in 2008, This is due to the gradual rise in world oil prices, which was accompanied by an increase in the production and export rates of crude oil, Which led to an increase in the growth rate of investment spending by (127.3%), and this proves that the spending pattern is highly dependent on rentier resources.

The apparent fluctuation of the rates of GDP growth rates after 2004 indicates that the activities of all sectors are linked to the external variables surrounding Iraq, especially oil prices, We note that the GDP growth rate was recorded in 2005 (27.6%), However, the growth rate of investment spending recorded a significant decline, with a negative growth rate of (-9.9%) in the same year, This indicates the weak efficiency of the Iraqi economy in achieving economic growth. We note that in 2006 there was also a decrease in the negative growth rate of investment spending by (62.7%), as well as a decrease and a negative growth rate of the gross domestic product by (23.1%) in the same year compared to 2005, This is due to the security and political situation in the country. We also note in 2008 that the growth rate of investment spending and the rate of GDP growth recorded the highest percentage that the Iraqi economy had not witnessed throughout the study period, and then the decline started again in 2009, Investment spending recorded a negative growth rate of (32.6%), and the GDP recorded a negative growth rate of (-20.2%) during the same year, which was the result of the global crisis that led to a decrease in investment allocations and then negatively impacted the growth of GDP. Total, After that, investment spending returned to take its way to rise again during the years (2010-2013) with fluctuating annual growth rates of (61.2%), (37.6%), respectively, The reason for the increase in investment spending is due to the rise in oil prices and the increase in exported quantities, but this rise did not take long until it returned to decline during the years (2014-2018) With negative annual growth rates of (-12.1%), (-16.1%), The reasons for these declines are due to the lack of approval of the general budget starting in the second half of 2014, the drop in oil prices on the one hand, and the high costs of the war that the country has been exposed to on the other hand.

Then 2017, the security situation improved, and oil prices rose, but investment spending remained low due to the dominance of current spending at the expense of investment spending from the total public government spending, We also note that the GDP growth rates during the years (2019, 2013, 2012) were a small percentage (14.5 %), (7.1%), (3.2%) Compared to annual growth rates for investment spending by (64.6%),(37.6%), (76.7%) in the same years, This indicates the inefficient distribution of financial resources for the development of other sectors. Then, in 2020, we notice a recurrence of the decline in the growth rates of investment spending at a negative annual growth rate of (86.9%), And a decrease in GDP growth rates at a negative annual growth rate of (-39.8 percent), due to the lack of approval of the general budget due to the Corona pandemic on the one hand, and a decrease in oil prices on the other hand.

We conclude from the foregoing, that despite the noticeable increase in investment spending as a result of the improvement in oil prices in global markets during the study period, its impact on the rate of GDP growth at current prices was not commensurate with this increase, but rather remained at low levels, and the reason is due to weak The sectors and activities that make up the GDP, except for the oil sector.

Fourth: The impact of the broad money supply (MS2) on the growth of GDP at current prices.

The impact of the broad money supply (MS2) on the growth of GDP at current prices can be shown, according to the following table (3):

Table 3
The effect of broad money supply (MS2) on the growth of GDP at current prices for the period (2004-2020) / million dinars

The years	MS2	MS2 growth rate	GDP at current prices	GDP growth rate %
2004	12254000	_	53235358.7	_
2005	14684000	19.8	73533598.6	27.6
2006	21080000	43.6	95587954.8	23.1
2007	26956076	27.9	111455813.4	14.2
2008	34919675	29.5	157026061.6	29.0
2009	45437918	30.1	130643200.4	-20.2
2010	60386086	32.9	162064565.5	19.4
2011	72177951	19.5	217327107.4	25.4
2012	77187497	6.9	254225490.7	14.5
2013	89512076	16.0	273587529.2	7.1
2014	92988876	3.9	266332655.1	-2.7
2015	84527272	-9.1	194680971.8	-36.8
2016	90466370	7.0	196924141.7	1.1
2017	92857047	2.6	221665709.5	11.2
2018	95390725	2.7	268918874	17.6
2019	103440475	8.4	277884869.4	3.2

2020	119743009	15.8	198774325.4	-39.8
average duration		**15**.1		5.5

Source: Prepared by researchers based on data: Central Bank, Department of Statistics and Research, annual reports and bulletins for separate years (2004-2020)

Within the context of the relationship between money supply and GDP, economic theory emphasizes the existence of a relationship between the two variables GDP as a dependent variable, and MS2 money supply as an independent variable, As any change in the money supply by following an expansionary monetary policy leads to a decrease in the interest rate and with the prevailing optimism among businessmen, the increase in investments will be the result of a decrease in the interest rate, And in light of the inverse relationship between investment and the interest rate, which generates a double increase in income, which in turn leads to an increase in aggregate demand, which constitutes a catalyst in increasing GDP, and vice versa (Al-Hamdani, et al., 2018: 4). In Table (3), the relationship between MS2 money supply and GDP, an inverse relationship, despite the adoption of an expansionary monetary policy, based on the average duration indicator during the study period. We find that the money supply achieved a higher percentage (15.1%) Of the average duration of GDP has a low rate of (5.5%). This indicates that the effect of broad money supply is low on the granting of credit, according to the GDP sectors (agriculture, industry, and other sectors) in the economy which led to lower GDP growth.

The third topic / Measur and analyze the relationship between government spending, money supply and GDP jamali In Iraq for the period (2004-2020)

The relationship between the independent variables (current spending, investment spending, money supply) and the dependent variable (GDP at current prices) of the Iraqi economy for the period (2004-2020) was measured using the statistical program (Eviews10) to show the compatibility between government spending (current, investment). And the presentation of money in the growth of the gross domestic product, as the analysis includes a model as follows:

$$\text{GDP} = f(CS, IS, MS2) \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots (1)$$
$$\text{GDP} = \beta 0 + \beta 1\ \text{CS} + \beta 2\ \text{IS} + \beta 3\text{MS2} + \text{ui} \dots..(2)$$

As:

- (GDP) Gross domestic product at current prices.
- (CS) Current Spending.
- (IS) investment spending.
- (MS2) presentation of criticis in the broad concept.

The data was converted into quarterly data, and the variables data (current spending CS, investment spending IS) were converted into quarterly data via the ready-made statistical package (Eviews 10) Due to the small size of the study sample of (17) observations, so that the value of the observations became (68) views.

First: The time-series static test.

The unit root test is performed to ensure that the variables are inactive, and this is the first procedure in the time series tests, after which the other tests were performed.

Philips-Perron (PP) test results

The time series data for the variables (Current Spending CS, Investment Spending IS, Broad Money Supply MS2) are unstable at the level and across three cases at the 5% significant level except for GDP (GDP) it was stable at the level and across three cases at the significant level 5%, the variables, and it became clear to us after taking the first difference That the variables (wide money supply MS2, GDP), were stable across three cases, while the variables (current spending CS, investment spending IS) were stable across only two cases (Only the fixed term Intercept and when there is no fixed term nor the general trend (None)) in this difference and at the level of significance of 5%, and then here we must accept the alternative hypothesis (H1 = 1) and reject the null hypothesis (H0 = 0).

Table 4
Philips-Perron (PP) test results

Variables		Ievel			1st difference		
		Intercept	Trend& Intercept	None	Intercept	Trend& Intercept	None
5%	CS	0.3512	0.7117	0.7774	0.0303	0.0920	0.0027
	IS	0.5237	0.8772	0.2562	0.0306	0.1163	0.0022
	MS2	0.9247	0.8801	0.9999	0.0000	0.0000	0.0000
	GDP	0.0000	0.0000	0.0013	0.0001	0.0001	0.0000

Source: Prepared by the researchers based on the research data and based on the (Eviews10) program

Through Table (4), it becomes clear to us the possibility of testing the Autoregressive Distributed Deceleration (ARDL) model. As what distinguishes this model is that it estimates the variables even if they are static in the first difference, level or mixture together.

Second: ARDL model estimation of the impact of (MS2, IS, CS) on GDP.

In order to detect the presence of co-integration between the variables, we use the ARDL model and the F-Bound test, which is the first step. As the table (27), which includes 68 observations, shows us that the calculated F-statistic value recorded (4.942194), It is higher than the upper limit at the level of significance of 5%, which means that there is a co-integration between the variables, and this means that it is possible to reject the null hypothesis which states that there is no co-integration between the two variables and accept the alternative hypothesis, i.e. the existence of co-integration and based on that we found a relationship Long-term equilibrium, at least in one direction, between the two variables.

Table 5
F-Bound test for cointegration

ARDL Error Correction Regression Dependent Variable: D(GDP) Selected Model: ARDL Case 2: Restricted Constant and No Trend Date: 01/24/22 Time: 07:28 Sample: 2004Q1 2020Q4 Included observations: 64		
Null Hypothesis: No long-run relationship exist		
Test Statistic	Value	K
F- Statistic	4.942194	3
Critical Value Bounds		
Significance	I0 bound	I1Bound
10%	2.37	3.2
5%	2.79	3.67
2.5%	3.15	4.08
1%	3.65	4.66

Source: The table is the work of the researchers, depending on the data of the research and based on the program (Eviews 10)

A- Test the quality of the model

After confirming the existence of co-integration in the previous step, we must verify the model and evaluate its results from the angle of potential problems that may occur in the model, through several tests, including the value of the coefficient of determination R2 and the significance of the parameter through F-stats and the Durbin-Watson stat (b), as well as the residual diagnostic tests of Histogram-Normality Test, Serial Correlation LM Test, and the Heteroskedasticity Test: ARCH, which are shown in the table below:

Table 6
Model Quality Test

the test	Value
Breusch-Godfrey Serial Correlation LM Test:	
Prob.F	0.8658
Prob. Chai-Square	0.8215
Histogram-Normality Test	
Probability	0.579094
Heteroskedasticity Test: ARCH	
Prob.F	0.3872
Prob.Chai-Square	0.3790
R-squared	0.914849
Adjusted R-squared	0.892710
F-statistic	41.32266

Prob(F-statistic)	0.000000
Durbin-Watson stat	0.954970
Durbin s h stat	2.093

Source: Prepared by the researchers based on the research data and based on the (Eviews 10) program.

Table (6) shows us that the model does not suffer from the problem of autocorrelation, as we note that the probabilistic value of F is (prob. F = 0.8215), according to the Breusch-Godfrey test, which is greater than 5% since the probabilistic value is significant, and therefore we accept The null hypothesis states which there is no autocorrelation problem between the random residuals and rejects the alternative hypothesis. Hence this test it enhances the accuracy of the model results. As for the Histogram-Normality Test, the probability value is (0.579094), which is greater than 5%, as the statistical value is significant, and from here we accept the null hypothesis which states that there is no problem of the normal distribution of residuals. Hence, this test enhances the accuracy of the model results.

As for the Heteroskedasticity Test: ARCH, it indicates by observing the value of Prob.Chai-Square amounted to (0.3790), which is greater than 5% as the probability value is significant, and then we accept the null hypothesis which states that there is no problem of variation among the random residuals. As this test enhances the accuracy of the model. Through the statistical results, it is found that the value of Adjusted R-squared is (0.892710), meaning that the independent variables explain that 89% of the changes that occur in the dependent variable. As for the Prob F-statistic, it reached (0.00000) as it is less than 5%, and this explains the significance of the model as a whole from a statistical point of view. As for the value of Durbin-Watson stat, which is (0.954970), it is not reliable, because it is shaded in the autoregressive models, and we use Durbin s h stat instead, which was not significant at the level of significance of 5%, and this explains that the model is free from the problem of autocorrelation to the limit of error.

The Durbin s h stat, or the so-called (h) statistic, can be obtained from the following equation: (Gujarati.Damoder.N,2004: p707)

$$h = p\hat{} \sqrt{\frac{n}{h - n[var\ (a2\hat{})]}} \ldots\ldots\ldots\ldots (3)$$

as it represents:
h : Durbin test s h stat
P^ : represents (1-d/2) since d represents the value of the Durbin-Watson stat
a^2 : represents the estimated variance value for the parameter of the time-lagged dependent variable
n : number of observations

and the value of Durbin s h stat reached (2.093), and the value of Durbin s h stat is normally distributed Standard Normal Distribion, then we accept the null hypothesis, and the statistical value of h is (3+_) at the 1% level of significance or

(1.96+_) at the 5% level of significance. Since the value of h is greater than (1.96), it indicates that the model is free from the problem of autocorrelation to the error limit.

Estimating the short term and long term relationship.

After verifying the existence of a joint integration between the variables of the study, and then ensuring the quality of the model statistically, then verifying the existence of the short and long-term relationship between the dependent variable (GDP at current prices) and the independent variables current spending CS, investment spending IS, broad money supply, MS2) And through the results of the table (7) It is clear to us to determine the type of the short relationship, and this test shows the unconstrained error correction coefficient (UECM), which measures the speed of return of the model to equilibrium in the long run between the dependent variable (GDP) and the independent variables (CS), (IS), (MS2) In the case of divergence and deviation occurring in the short term, and one of its conditions is that it be negative and moral. If the contrary is met, this indicates that the A model that approaches a state of equilibrium in the long run, and on the contrary, the model moves away from the state of equilibrium, if this coefficient is Positive, and the table (7) shows the following:

Table 7
Results of estimating short-term parameters

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(GDP (-1))	-0.395590	0.111953	-3.533533	0.0009
D(GDP (-2))	-0.596219	0.078679	-7.577880	0.0000
D(GDP (-3))	-0.781016	0.052773	-14.79948	0.0000
D(CS)	4.263132	1.848941	2.305716	0.0253
D(CS(-1))	-0.298416	2.892491	-0.103169	0.9182
D(CS(-2))	3.237431	2.928227	1.105594	0.2742
D(CS(-3))	2.905018	1.954522	1.486306	0.1435
D(IS)	-1.151018	1.173126	-0.981155	0.3312
D(MS2)	2.554910	1.090947	2.341919	0.0232
CointEq(-1)*	-0.741640	0.143561	-5.166028	0.0000

Source: Prepared by the researchers based on the research data and based on the (Eviews 10) program

Table (7) shows us that the dependent variable (GDP), responds to the variables of the independent variable current expenditure (CS) and the relationship is direct between them, meaning that an increase (CS) by one unit will lead to an increase (GDP) by (4.26) at a significant level (prob = 0.0000) and in time lag (D(CS)), Also, an increase in the broad money supply (MS2) by one unit leads to an increase in (GDP) by (2.55) at a significant level (Prob = 0.0232) and with a time delay (D(MS2)). This is assuming that other factors are held constant for each deceleration.

This direct effect between current spending (CS) and gross domestic product at current prices (GDP) is very logical from an economic point of view, as the

increase in current spending has a positive multiplier effect. That is, every increase in current spending leads to an increase in cash income, which contributes to creating purchasing power and an increase in aggregate demand for domestic products, which leads to a higher increase in GDP. The reason for the significant increase in current spending in the Iraqi economy is due to the expansionary policy pursued by the fiscal policy as a result of the dominance of the oil sector, which in turn is the main financier of government spending, which constitutes the largest part of the gross domestic product. In addition, both GDP and government spending are external variables that are affected by the change that occurs in global oil markets. This is contrary to economic theory, and that the increase in the gross domestic product, which is a nominal increase, is due to the inflation of the figures in the gross domestic product at current prices, in other words, it is not an increase in the productive sectors.

The reason for the direct relationship between the broad money supply (MS2) and the gross domestic product at current prices (GDP) is the dependence on the oil sector as a main and main source of foreign currency. Despite the direct relationship between GDP and MS2, the broad money supply has a significant impact on the poor efficiency of the monetary policy transmission mechanisms in Iraq during the study period, due to the imbalance experienced by the Iraqi economy and the continued impact of fiscal policy on the performance of monetary policy and because of the Iraqi economy's dependence on The oil sector, whose revenues determine the size of the monetary base and money supply, the rigidity of the productive system and the rise in annual budgets, in addition to the expansion of the public sector, which contributed significantly to crowding out the private sector, which led to the weakness of credit granted to banks.

Finally, the estimated relationship showed that the unconstrained error correction coefficient (UECM), whose value was (-0.741640), was negative and significant (Prob = 0.0000), which confirms the existence of a short-term relationship between the dependent variable (GDP) and the independent variables (CS, IS, MS2), This means that the error correction factor explains the error correction in the short run (due to a shock or a change in the independent variable) by (-0.74) in each quarter, while the GDP does not respond to the investment spending variable. As for estimating the long-term co-integration equation, it can be seen in the following table (8):

Table 8
Results of estimating long-term parameters

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CS	-0.135823	0.778418	-0.174486	0.8622
IS	2.306255	0.812851	2.837242	0.0066
MS2	0.766031	0.392131	1.953511	0.0564
C	22900024	14874511	1.539548	0.1300
EC = GDP - (-0.1358*CS + 2.3063*IS + 0.7660*MS2 + 22900024.4107)				

Source: Prepared by the researchers, based on research data and based on (Eviews 10)

Through the results of Table (8), it becomes clear to us to determine the type of long-term relationship, as the table shows that there is a direct effect between (IS & GDP), meaning that an increase in (IS) by one unit, will lead to an increase in (GDP) by (2.30) and when Significance level (Prob = 0.0066). Also, an increase in the broad money supply (MS2) by one unit will lead to an increase (GDP) by (0.76) at the level of morale (0.0564), assuming other factors are held constant. While it becomes clear to us that the Gross Domestic Product (GDP) does not respond to the independent variable, current spending in the long run.

The structural stability of the estimated ARDL model.

Figure (2) shows us the stability of the estimated model parameters in the short and long term by using the CUSUM Test, according to which stability is achieved in the model parameters, If the estimate line lies within the confidence limits (critical limits), during the study period at a significant level (5%), and this supports the acceptance of the null hypothesis and the stability of the estimated parameters in the model over time, as the estimate line fluctuates around the zero value as in the figure below:

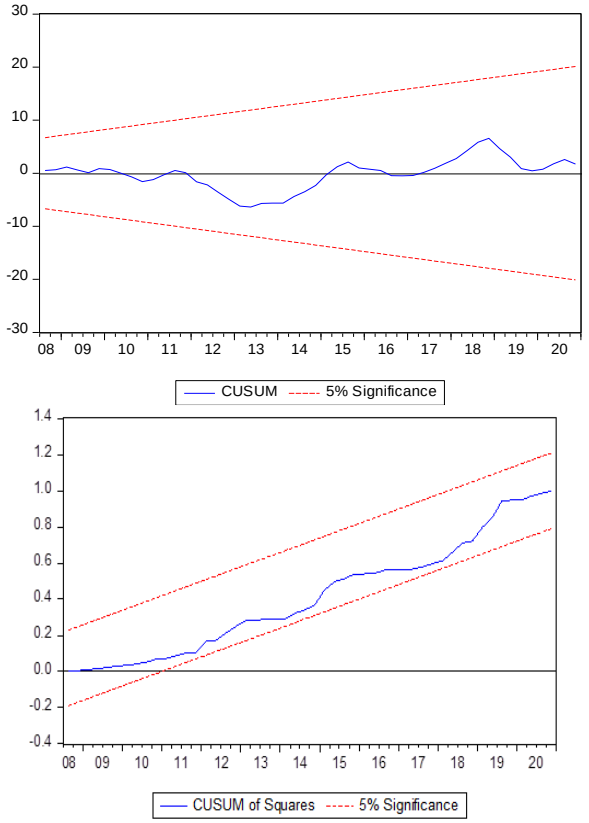

Figure 2. Results of the CUSUM Test Structural Stability Test
Source: (Eviews 10) output

Conclusions

- The standard model showed that the relationship between government spending (current, investment) and money supply with some variables of the Iraqi economy is weak in the short term, this relationship also showed that the continuation of the approach of the two policies in achieving its short, medium and long goals, will lead to an impact on the gross domestic product at current prices. However, there are some variables in the money supply through the standard model that did not stimulate the GDP, but rather stimulated the volume of imports, this is due to the fact that the Iraqi economy suffers from structural imbalances related to (productive requirements, technology, workers' skills and internal and external shocks), and that these structural imbalances are a major cause of the problem of stagflation in the Iraqi economy.
- The compatibility between the short-term goals of government spending and money supply is attributed to the increase in aggregate demand and the inability of the aggregate supply to provide goods and services to meet the increasing aggregate demand, and what is related to production capacities and economic resources and bottlenecks in the degree of exploitation of production capacities, which are evident through the deficit of the aggregate supply structure from Goods and services for change, With the change in the structure of local demand, due to the inflexibility of the production system and the lack of optimal exploitation of economic energies and resources, the Iraqi economy has not reached the optimal use, as the productive devices and productive resources are, It has been unable to reach its maximum production potential, which is reflected in inflationary rises in prices, and just as excessive government spending (consumer) and money supply, it is considered an imbalance in the market for goods and services and the money market, Therefore, the consensus in the short-term objectives of government spending and money supply did not create an investment environment that would lead to an increase in GDP growth through the productive sectors. Rather, this increase came as a result of the increase in oil revenues in the long term.
- The study highlighted that the growth rates of the gross domestic product are the result of the development of oil prices, which is a non-judgmental variable, and this is what hides the fragility of the Iraqi oil-dependent economy, and it is vulnerable to economic shocks, as price fluctuations have a direct impact on the public budget through oil revenues. Hence, the Iraqi economic crisis is a structural crisis.

Recommendations

Through the conclusions that were reached in the previous paragraph, it was necessary to reach some treatments for the problems that the Iraqi economy suffers from, which are as follows:

- Directing part of the oil revenues to develop the oil sector, as well as working to activate and increase the importance of other non-oil sectors in the GDP, Especially the agricultural sector and the manufacturing sector through a specific program that provides direct and indirect basic support

to these sectors during a certain period of time, As well as providing the necessary protection from external competition, provided that it is gradual over a certain period of time and gradually fades away until these sectors reach the level at which they can compete with imported goods and meet local demand, Noting that this program starts from the agricultural sector, which it considers a basic source of food security and raw materials required by the industrial sector, As the restructuring of the Iraqi economy and the growth of the non-oil sectors will lead to less dependence on oil revenues as an engine for economic growth.

- Building a long-term strategy for monetary policy, in line with fiscal policy, to limit the phenomenon of increasing public government spending and its impact on import, and modify its path from consumption to investment, in order to achieve overall balance between economic sectors, and achieve development in the non-oil GDP by creating the requirements for private investment and strengthening the production base.
- Giving an important role to the interest rate channel to influence individuals' decisions regarding saving, restore confidence in the economic system and improve banking services, in order to increase the number of dealers in banking and financial institutions, which will improve the impact of money supply on granting credit to support productive sectors

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