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The Role of Public Spending Policies in Boosting GDP in Iraq

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Abstract:

Purpose: The research seeks to show the role of public spending policies in promoting GDP by stating the role of spending policy indicators in GDP during the research period.

Theoretical Framework: The research deals with many concepts related to the subject of the study, which are public spending and its policies, in addition to concepts related to public expenditure policy indicators. Also, the definition of GDP and its trends in the Iraqi economy.

Design/Methodology/Approach: Use the financial statements for the period (2004-2021) to knowing the trends of public spending in the Iraqi economy and to knowing the role played by analyzing the spending policies used by the government in directing public spending. In addition to analyzing GDP data and the role of public spending policies in promoting them

Findings: The results lead to knowing the role played by public spending in the GDP during the research period, as the researcher tries to reach a statement of the result of the direct relationship between public spending policies and GDP.

Research Implications: The results emphasize the increasing importance of integrating the current research variables in the formulation of expenditure policies that suit the Iraqi economy in line with strengthening the GDP in the future by directing spending to the productive sectors, which leads to increasing their contribution to the GDP.

Originality/Value: This study works to enhance awareness of the importance of directing public spending efficiently and effectively to ensure the achievement of its future goals, the most important of which is to enhance the gross domestic product.

Keywords: Public Spending, Fiscal Discipline, Public Spending Productivity, GDP

JEL Classification: H5,H4,M10,M5

Authors' individual contribution: Conceptualization —M.A.A and G.H.W..; Methodology — M.A.A and G.H.W..; Formal Analysis — M.A.A and G.H.W..; Investigation — M.A.A and G.H.W.; Data Curation — M.A.A and G.H.W..; Writing —Original Draft — M.A.A and G.H.W..; Writing — Review & Editing — M.A.A. and G.H.W.; Visualization — M.A.A and G.H.W.; Supervision — M.A.A and G.H.W.; Project Administration —M.A.A and G.H.W.

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1. Introduction:

Public spending represents one of the most important tools used by the state to intervene in economic activity because of its essential and distinguished role in the various economies of the countries of the world, whether developed or developing. Public spending leads to the achievement of economic and social goals in addition to political goals. Public spending has become a means and a tool of fiscal policy and one of the main pillars on which governments are based in achieving social and economic balance and achieving effective economic and social development by implementing economic and social programs aimed at achieving economic growth(Hamad et al., 2022a). Also, public spending policies, which are the policy of rationalizing spending, mean obtaining the highest possible productivity from public spending with as little waste and waste in that spending. Rationalizing public spending means obtaining the highest possible productivity from public spending with as little waste and waste as possible. Also, this policy does not mean working to reduce spending due to the development of the functional roles of the state, which means that the increase in public spending in developing countries is linked to factors that are difficult to avoid(Rahim et al., 2020). It is also difficult for the state to reduce spending because this leads to adverse effects on the national economy. Moreover, the fiscal austerity policy is defined as a set of measures. The state uses it with the aim of reducing the budget deficit and reducing public debt rates (Al-Mousawi & Al-Safi, 2019). A fiscal austerity policy is also defined as the government's adoption of fiscal policies aimed at balancing public expenditures and public revenues through the use of fiscal policy tools such as raising taxes of all kinds.(Majeed et al., 2022)As for indicators of public spending policies, they are the Financial Discipline Index, which can be defined as Financial discipline refers to the need for public spending not to exceed the quantities planned in the general budget and, in other words, the ratio of the fiscal deficit to GDP does not exceed the limit set for it. In the sense that the value of public spending is determined according to the financial means and not according to the financial needs of the country(Hussein & Hamdan, 2020). Financial discipline has five rules set by the Maastricht Treaty, which are as follows (Budget deficit/GDP base, Public debt/GDP rule, Budget balance rule (revenue/expenditure), and The golden rule (A. et al., 2023). The second indicator is the productivity of public spending. Productivity can be defined as the relationship between production and the inputs used in the production process. Productivity can also measure the amount of goods and services produced during a specific period or can measure the services or needs provided by a particular person or institution, and productivity can be measured through the following equation (Haberl et al., 2020). Productivity growth is one of the most critical components that contribute to long-term sustainable economic growth(Bucifal, 2013). The productivity of public spending is essential because it justifies the intervention of the state in economic activity. It is clear from the above that the productivity of one unit of public expenditures and the impact of this unit on GDP.(A. et al., 2023)in the sense of how much the output increases when public spending increases by one unit, that is, productivity can be positive or negative or may be zero. It is understood from the above that financial discipline is a measure of fiscal policy's ability to control the amount of public spending. Then, one of the most important objectives of the discipline is to adjust the public budget by following the policy of rationalizing public spending and increasing its effectiveness and efficiency (Edwards, 2007).

GDP has many concepts. GDP is the sum of the monetary values of goods and services that society produces and sells on the market over a given period, usually one year. The output is also defined as the sum of the monetary values of goods and services produced within the country during a given year. (Al-Musawi, 2023)The main goal in any economy is to achieve an increase in economic growth rates expressed in GDP. (S. H. Ali & Jameel, 2021)GDP is the accurate indicator that indicates the economic status of a country within a specified period. (Alkawsi et al., 2021)GDP also represents the sum of the values of goods and services produced within the country over a given period, mostly one year.

The economic system in Iraq The economic system and its description are essential issues that cannot be removed from its school framework. (Mshkal & Nashour, 2023)Therefore, the ancient writer John Robinson, in her famous book (Economic Philosophy), defined the economic system as a unity that requires a set of judgments while providing an ideology that justifies those judgments; it also requires higher awareness.(Duhayyim et al., 2022)Therefore, through this, we conclude that economic systems share three essential functions. The Iraqi economy is characterized by many characteristics and advantages that qualify it to achieve growth and development and to be one of the economically developed countries; one of the most prominent of these advantages is that Iraq has the third largest proven oil reserves in the world. After Saudi Arabia and Canada, Iraq's natural gas reserves are also about (3,000 billion cubic meters), which makes it ranked ninth in the world with about 1.7% of the world's reserves. In addition to other resources such as sulphur, phosphate and human resources, the population of Iraq will be about (42,248,883) million people in 2022 (Salman et al., 2023). The problem of research stems from the fact that Iraq lacks a rational spending policy in using its expenses to enhance GDP because of extravagance, waste, and non-directing spending rationally, so the problem of research can be formulated through the question, what is the impact of using public spending policies in enhancing GDP in light of increased public expenditures?

2. Literature review and Hypothesis Development:

(Baker, 2020)Unemployment is one of the problems rooted in the Iraqi economy despite the possibility of eliminating it or at least reducing it through spending policy because of its significant role in influencing it. Therefore, the research concluded, in its analytical aspect, that the spending policy adopted by the government after 2003 has a significant role in reducing the unemployment rate. The standard model was used for this purpose and confirmed in order to reach a set of results and recommendations that enhance the role of government spending in reducing the unemployment rate in the economy. Iraqi for the period from 2003-2019.

(Hamad et al., 2022b)The study starts by clarifying the impact of public spending policies on investment in Iraq for the period (2004-2019). Spending contributes to increasing investment and diversifying the productive base by increasing the proportion of non-oil sectors in the GDP. The study reached several recommendations, the most important of which was the need to review and correct the structure of public spending and financial allocation processes and raise the efficiency of spending in a way that ensures the achievement of its main goals that were spent to achieve them.

Spending. Studies. Discussing the second variable, gross domestic product, as follows:

(Sabr et al., 2021)The importance of the research is evident through the topic it deals with, which is concerned with studying the budget deficit and the impact on the GDP, as well as the statement of the relative importance of the economic sectors in generating GDP in Iraq during the period (2003-2018). The most important result of the research is that there is a direct relationship between the general budget deficit and GDP throughout the research. The most important recommendation in the research was the need to work to diversify production in the Iraqi economy and not rely on one source, which is oil.

(Jassim, 2021)The study came to clarify the impact of changes in oil prices on the GDP in Iraq for the period (2017-2021). The importance of the research lies in studying one of the most important economic and financial challenges facing the Iraqi economy, which is represented in oil price fluctuations, which is the leading financier of the Iraqi economy. The most critical recommendation reached by the research is the need to benefit from the periods in which oil prices increase to support growth in the GDP in Iraq by directing part of those funds to support other productive sectors, the most important of which is the industrial and agricultural sector to reduce dependence on oil revenues.

There are studies linked between the first and second variables, such as:
 The research assumes that public spending policies have a positive role in boosting Iraq's GDP through the use of those policies in the efficient and rational guidance of public spending.

3. Research Methodology:

Implementing the research requires adopting a specific methodology that is appropriate to the nature of the study and its subject, as the research methodology is chosen based on the main variables and objectives. In this context, the researcher relies on the descriptive and analytical method, which is characterized by a comprehensive vision that links the description of the issue and its analysis. This allows the collection of data and information in an integrated manner to understand the research problem and achieve the desired.
Goals.

3.1 Research Tools:

The researchers relied on the use of the analytical descriptive approach to prove or deny the research hypothesis based on the available data on public expenditure and GDP during the research period (2004-2021) by knowing the trends of the Iraqi economy and knowing the trends of public spending in both

3.2 Data Analysis Tools:

The researchers used statistical programs such as Excel and 10Eviews. To reach the results that clarify the validity of the hypothesis or not.

4. Results:

4.1 Structure of public spending:

The goal of analyzing the structure of public spending and its components is to know the direction of that spending during a specific period and, through this, to know the goals that the government seeks to achieve as well as to know the developments that have occurred in that spending Note through table (1) that public spending amounted to about (31,521,427) million dinars in 2004, then increased to reach about (67,277,197) million dinars in 2008. The reason for the increase is due to the improvement of security and economic conditions and the rise in oil prices. Public spending continued to increase, reaching about (105,139,576) million dinars in 2012 due to the increase in oil prices during this year, while the value of public spending decreased, reaching about (67,067,433). One million dinars in 2016, and the reason for the decrease is the effect of the double crisis that Iraq was subjected to, represented by the decline in oil prices on the one hand and Iraq's exposure to terrorist attacks, while the value of public spending increased to about (102,849,659) million dinars in 2021. The reason for the increase was due to the improvement in oil prices and the increase in the quantities exported,

through table (1), The average contribution of current spending from public spending amounted to (19.65%), while the percentage of investment spending (80.35%) indicates that public spending is more towards consumption than investment.

Table 1: Analysis of the structure of public spending in Iraq during the period (2004-2021) / Million Dinars

Years	Public spending	Growth rate	Investment spending	Current spending	Percentage of investment expenditure contribution %	Percentage of contribution of current spending %
	1	2	3	4	5	6
2004	31,521,427	...	27,597,167	3,924,260	87.6	12.4
2005	30,861,142	-2.1	27,066,124	3,795,018	87.7	12.3
2006	37,494,459	21.5	34,917607	2,576,851	93.1	6.9
2007	39,307,348	4.8	32,719,837	6,588,511	83.2	16.8
2008	67,277,197	71.2	52,301,181	14,976,016	77.7	22.3
2009	55,589,721	-17.4	45,941,063	9,648,658	82.6	17.4
2010	70,134,201	26.2	54,580,860	15,553,341	77.8	22.2
2011	78,757,668	12.3	60,925,554	17,832,114	77.4	22.6
2012	105,139,576	33.5	75,788,622	29,350,954	72.1	27.9
2013	119,127,555	13.3	78,746,805	40,380,750	66.1	33.9
2014	125,321,074	4.9	86,568,374	38,752,700	69.1	30.9
2015	70,397,514	-43.8	51,832,838	18,564,676	73.6	26.4
2016	67,067,433	-4.7	51,173,425	15,894,008	76.3	23.7
2017	75,490,115	12.6	59,025,654	16,464,461	78.2	21.8
2018	80,873,188	7.1	67,052,856	13,820,332	82.9	17.1
2019	111,723,522	38.1	87,300,932	24‹422‹590	78.1	21.9
2020	76,082,442	-31.9	72,873,537	3,208,905	95.8	4.2
2021	102,849,659	35.2	89, 526,686	13,322,973	87.0	13.0
The average duration% -2004) (2021					%80.35	%19.65

Source: Table prepared by the researcher based on data from the Central Bank of Iraq, Department of Statistics and Research, Annual Statistical Bulletin, multiple years.

Figure (1) notes the trends of public spending during the period (2004-2021). The highest value in 2014 amounted to (125,321,074) million dinars, while the lowest value of spending was in 2005 amounted to (30,861,142) million dinars.
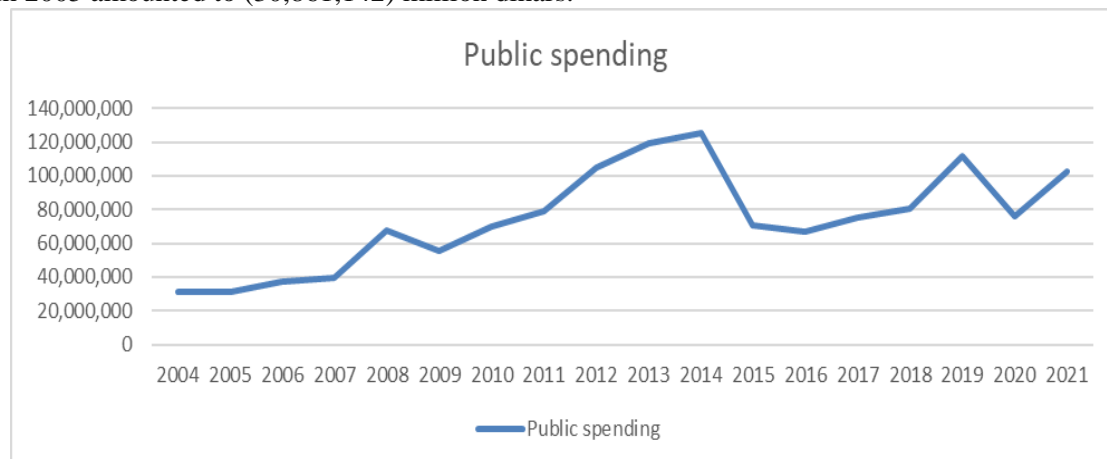

Figure: (1) Trends during public spending in Iraq during the period (2004-2021).

4.1.2 Analysis of indicators of public spending policies:
4.1.2.1 Rules of financial discipline:

The importance of financial discipline for developing countries is to control their finances through it in a way that makes them less vulnerable to external shocks or economic crises to which the economy may be exposed. We note from Table (2) that Iraq achieved positive indicators during the period of the research (2004-2021). However, this does not reflect the reality, as it cannot be said that Iraq is characterized by financial discipline in the general budget as much as it reflects Iraq's dependence on oil revenues, in the sense that the positive indicators of the financial rules of financial discipline were caused by the increase in oil revenues resulting from the rise in oil prices in addition to the increase in the quantities exported from it. The validity of the speech can be proven in view of the years in which oil revenues decreased. We note the exposure of the Iraqi economy to financial crises, which indicates that the Iraqi economy is a rentier economy that depends on the oil sector almost entirely.

Table 2: Analysis of financial rules for financial discipline in Iraq for the period (2004-2021).

Years	Public debt/GDP base 60%	Balance balance rule (Revenue/Enditure) %100	Budget deficit/GDP rule 3%	The golden rule Budget) deficit/investment (expenses
	1	2	3	4
2004	360.6	104.65	2.8	37
2005	209.6	131.15	13.1	253
2006	120.5	130.83	12.1	449
2007	88.0	139.83	14.0	238
2008	51.4	119.86	8.5	89
2009	64.0	99.38	-0.3	-4
2010	46.8	100.06	0.0	0.3
2011	36.4	138.15	13.8	169
2012	29.0	113.96	5.8	50
2013	26.6	95.56	-1.9	-13
2014	29.2	77.89	-10.4	-78
2015	51.0	94.42	-2.0	-21
2016	62.3	81.13	-6.4	-80
2017	56.6	102.45	0.8	11
2018	46.2	131.77	9.6	186
2019	42.0	96.28	-1.5	-17
2020	75.6	83.07	-6.4	-401
2021	53.9	106.06	2.1	47

Source: From the preparation of the researcher based on the data of the Ministry of Finance, the economic department, for several years (2004-2021).

4.1.2.2 Analysis of the productivity of public spending in Iraq:

The productivity of public spending is analyzed by relying on the equation. Public spending productivity = (change in public spending/change in GDP).

We note from table (3) that the productivity of public spending in Iraq was positive throughout the duration of the research (2004-2021) in the sense that it was greater than zero, that is, the increase in public spending leads to an increase in GDP. Except for specific years (2004-2014-2016), where productivity was negative, this means that the increase in productivity leads to a decrease in GDP, and that the reason for the decrease in productivity in those years is the deterioration of the security and economic conditions in Iraq. The highest value of productivity in 2019 was about (8.16) million dinars. While the lowest value of productivity in 2016 was (4.11-).

Table 3: Productivity of public expenditure in Iraq for the period (2004-2021)

Years	Change in GDP	Change in public spending	Public spending productivity
	1	2	3
2004	....	....	......
2005	38.1	-2.1	-0.05
2006	30.0	21.5	0.72
2007	16.6	4.8	0.29
2008	40.9	71.2	1.74
2009	-16.8	-17.4	1.03
2010	24.1	26.2	1.09
2011	34.1	12.3	0.36
2012	17.0	33.5	1.97
2013	7.6	13.3	1.75
2014	-2.7	5.2	-1.96
2015	-26.9	-43.8	1.63
2016	1.2	-4.7	-4.11
2017	12.6	12.6	1.00
2018	21.3	7.1	0.33
2019	4.7	38.1	8.16
2020	-28.5	-31.9	1.12
2021	49.8	35.2	0.71

Source: Table prepared by the researcher based on data from the Central Bank of Iraq, Department of Statistics and Research, Annual Statistical Bulletin, multiple years.
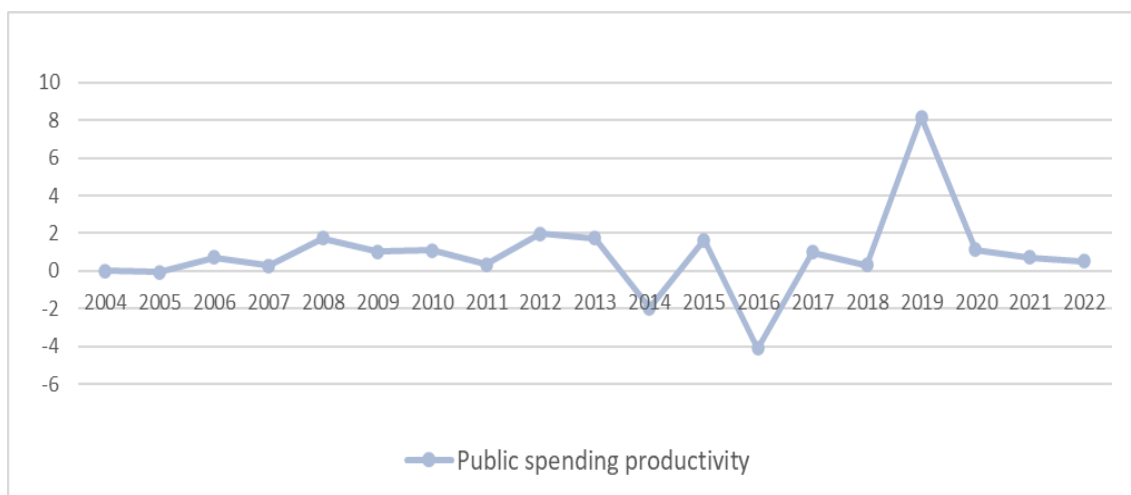

Figure2: The trend of public expenditure productivity in Iraq for the period (2004-2021).

4.2 Analysis of GDP in Iraq for the period (2004-2021).

GDP is one of the most essential basic criteria that show the total production of the country, as well as one of the most essential criteria for showing the extent of economic growth in the country. We note through Table (4) that the GDP amounted to about (53,499,238) million dinars in 2004, while the output increased in 2008 to reach about (111,961,231) million dinars with a compound annual growth rate of about (24.25%) throughout the period due to the increase due to the improvement in security and economic conditions and high oil prices.

The GDP continued to rise, reaching about (274,745,875) million dinars in 2013. With a compound annual growth rate of about (15.85%), the reason for the rise is due to the increase in oil prices and the increase in export quantities of it. While the GDP decreased during the period (2014-2018), reaching about (272,083,889) million dinars in 2018 with a compound annual growth rate of about (0.36%), the reason for the decline is due to the exposure of the Iraqi economy to the double crisis represented by the decline in low oil prices and terrorist attacks on some Iraqi provinces. While the GDP increased to about (302,691,912) million dinars in 2021 at a compound annual growth rate of about (2.66%), the reason for the increase is due to the increase in oil prices resulting from the return of life to the global economy after reducing global restrictions due to the coronavirus outbreak.

Table 4: Analysis of GDP in Iraq for the period (2004-2021) million dinars.

Years	GDP	Growth rate	Composite growth rate%
	1	2	3
2004	53,499,238	-	
2005	73,533,598	37.44	
2006	96,067,161	30.64	%24.25
2007	111,961,231	16.54	
2008	158,443,584	41.51	
2009	131,632,210	16.92-	
2010	163,104,740	23.90	
2011	218,617,834	34.03	%15.85
2012	255,727,068	16.97	
2013	274,745,875	7.43	
2014	267,262,787	2.72-	
2015	196,203,013	26.58-	
2016	198,774,370	1.31	%0.36
2017	224,636,322	13.01	
2018	272,083,889	21.12	
2019	279,757,642	2.82	
2020	217,413,593	22.28-	%2.66
2021	302,691,912	39.22	

Source: From the preparation of the researcher based on the data of the Central Bank of Iraq, the Central Bureau of Statistics and Research for multiple years (2004-2021).

Through Figure (3), we note the trajectory of GDP in Iraq for the period (2004-2021). The highest value of the output was about (302,691,912) million dinars in 2021, while the lowest value of the output was about (53,499,238) million dinars in 2004.
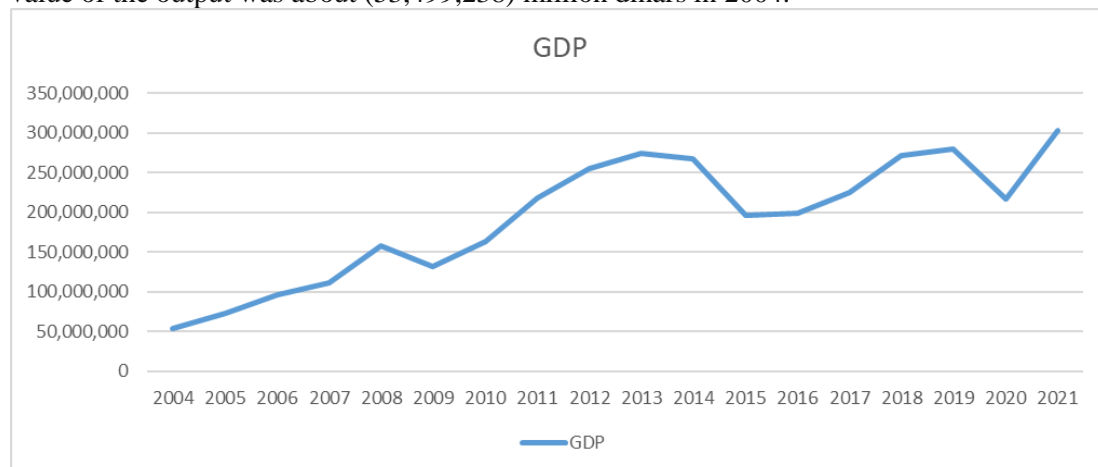

Figure 3: GDP trends in Iraq for the period (2004-2021).

4.2.1 The percentage of economic sectors' contribution to the gross domestic product in Iraq

We note from the table that the oil sector is the main sector in the formation of the gross domestic product throughout the research period, which indicates that the Iraqi economy is a rentier economy.

Table 5: Percentage of economic sectors' contribution to the gross domestic product in Iraq

Years	Contribution of the oil sector %	Contribution of the industrial sector %	Contribution of the agricultural sector %
	1	2	3
2004	57.96	1.76	6.93
2005	57.83	1.32	6.88
2006	55.47	1.54	5.82
2007	53.18	1.63	4.92
2008	55.98	1.49	3.45
2009	40.12	2.4	4.38
2010	42.8	2.3	5
2011	54.41	1.83	4.15
2012	52.4	1.7	4.1
2013	46.5	2.7	4
2014	46.1	2.9	4.1
2015	29.83	1.81	3.92
2016	30.4	2.2	5.1
2017	40.17	2.17	2.97
2018	44.85	2.03	2.81
2019	40.9	2.1	3.7
2020	28.4	2.7	5.9
2021	45.5	2.22	3.06

Source: Ministry of Planning - Central Bureau of Statistics - Department of National Accounts - Annual Statistical Collection for the Years (2004-2021)

4.3 Indicative analysis of the relationship between spending policy indicators and gross domestic product

4.3.1 Description of the estimated model

GDP = ƒ (BAB, DEN, DER,GOL,EXR)

$GDP = B''0'' + B1x1y + B2x2y + B3x3y + B4x4y + B5x5y + ut$

GDP: gross domestic product
DEN: Public debt to GDP rule
DER: Rebalance the balance
GOL: The golden rule
EXR: Public spending productivity
BAB: The base of the budget deficit to GDP:

Table (6): Standard Model Variables:

Type of variable	The name of the variable	The variable code
Independent	The base of the budget deficit to the GDP	BAB
Independent	The base of public debt to GDP	DEN
Independent	The golden rule	GOL
Independent	Balance balance rule	DER
Independent	Public spending productivity	EXR
Continue	gross domestic product	GDP

Source: Prepared by the researcher based on the model description.

4.3.2 Stillness tests:

It was found through the Dickey Fuller extended test that the variables represented by the symbols (GDP, BAB, DER) are not static in the original level, while we lived at the first difference (1). This indicates that the three variables suffer from the presence of a unit root, so we accept the hypothesis of zerones (H0) which states that the two series will not be inhabitable according to the value of (PROP) which was greater than (0.05%) and we reject the alternative hypothesis (H1) While the remaining variables were at the original level (AT) in the sense that the value of (PROP) was less than (0.05%), that is, there is, there is no

root of a unit, so we reject the hypothesis of zero (H0) and accept the alternative hypothesis (H1), which provides for the stillness of the time series.

Table (7): Dicky Fuller Extended Test for the Estimated Model.

Variables		At Level			At First Difference		
		With Constant	With Constant & Trend	Without Constant & Trend	With Constant	With Constant & Trend	Without Constant & Trend
BAB	I1	0.1832	0.1892	0.0336	0.0000	0.0003	0.0000
DEN	I0	0.0003	0.0342	0.0000	0.0000	0.0000	0.0000
DER	I1	0.1419	0.1632	0.5372	0.0000	0.0003	0.0000
GOL	I0	0.1375	0.0189	0.0350	0.0000	0.0005	0.0000
EXR	I0	0.0027	0.0143	0.0658	0.0000	0.0000	0.0000
GDP	I1	0.5011	0.3677	0.8638	0.0000	0.0001	0.0000

Source: Prepared by the researcher based on the outputs of the statistical program (10EViews)

4.3.3 ARDL self-regression model test:

It is clear from table (7) that the model (ARDL) determines the degrees of time slowdown automatically for variables if the degrees of time slowdown are two degrees for all independent variables, as well as for the dependent variable. The results of the Adjusted R-squared coefficient test also showed that independent variables explain (97%) of the changes that occur in the dependent variable. In comparison, the remaining percentage (3%) is due to other factors not included in the model.

Table (8): Model Test Results ARDL

Variable	Coefficient	Std. Error	t-Statistic	Prob	
GDP (-2)	0.911113	0.145616	6.256962	0.0000	
BAB	23342331	5791707.	4.030302	0.0012	
DEN	-2779336.	336430.8	-8.261239	0.0000	
DER	-8753839.	2213591.	-3.954587	0.0014	
GOL	81.38500	34111.52	0.002386	0.9981	
EXR	10397184	1876488.	5.540768	0.0001	
Adjusted R-squared	0.970950	Durbin-Watson stat	1.734572	Prob (F-statistic)	0.0000

Source: Prepared by the researcher based on the outputs of the statistical program (10EViews)

4.3.4 Co-integration test of the estimated model:

Table (8) shows that the value of (F-statistic) has reached (16.24132), which is greater than the table value of the upper limit, reaching (3.87) at a moral level (0.05%), so we reject the hypothesis of zeroes.

(H0) and accept the alternative hypothesis (H1). This indicates the existence of a joint integration relationship between the independent variables and the dependent variable in the estimated model.

Table (9) Boundary Test Results for Joint Integration.

Test Statistic	Value	K
F-statistic	16.24132	5
Tabular value (Critical Value Bounds)		
Significance	I0 Bound	I1 Bound
%10	2.63	3.35
%5	3.1	3.87
%2.5	3.55	4.38
%1	4.13	5

Source: Prepared by the researcher based on the outputs of the statistical program (EViews10).

4.3.5 Testing short-term estimated parameters and error correction coefficient.

This test shows the assessment of the short-term parameters to detect the degree of impact of the independent variables in the dependent variable as well as determining the type of short-term relationship. The error correction coefficient also shows the speed of the model returns to the long-term equilibrium and

as in the table(9)

table (10) Results of the assessment of the error correction model and the short-term relationship of the GDP model

Variable	Coefficient	Std. Error	t-Statistic	Prob
D(BAB(-1))	-10.566433	2439553.	0.000000	0.0000
D(DEN)	-2779336.	201149.9	-13.81724	0.0000
D(DER)	-8753839.	1078029.	5.730061	0.0001
D(GOL(-1))	154432.5	25205.37	-6.126966	0.0000
D(EXR)	10.397184	1052570.	-2.705647	0.0171
CointEq(-1)*	0.020755-	0.001629	12.74414	0.0000

Source: Prepared by the researcher based on the outputs of the statistical program (10EViews)

4.3.6 Appreciation of the long-term relationship:

This test shows the long-term parameter assessment to detect the degree of effect of the independent variable in the dependent variable, as well as determine the type of long-term relationship:

Table (11) Results of the assessment of the error correction model and the long-term relationship of the GDP model

Variable	Coefficient	Std. Error	t-Statistic	Prob
BAB	-1.63E+09	5.92E+09	-0.276045	0.0321
DEN	7.0181972	2.62E+08	0.267872	0.7927
DER	6.85E+08	2.49E+09	0.275542	0.0125
GOL	7053526.	25179057	-0.280135	0.0435
EXR	6.06E+08	2.26E+09	-0.267671	0.0431

Source: Prepared by the researcher based on the outputs of the statistical program (10EViews)

4.3.7 Conducting diagnostic tests for estimated remainders:
To confirming the correctness and accuracy of the results obtained in the previous tests, we will conduct some important diagnostic tests to prove this as follows:

4.3.7.1 Self-relation problem test:
This test is used to confirm the extent to which the estimated model is free of the self-association problem of the remains.

Table (12) Results of the Self-Relation Problem (LM) Test for the GDP Model

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	0.215334	Prob. F (1,13)	0.6503
Obs-R-squared	0.521416	Prob. Chi-Square (1)	0.4702

Source: Prepared by the researcher based on the outputs of the statistical program (10EViews)

It is clear from the table that the value of (F-statistic) is at a probability level of (0.6503), which is greater than (0.05%), which means that there is no self-related problem, and therefore we must accept the no-statistic hypothesis (H0), which states that there is no problem of self-related between the random residuals, and we reject the alternative hypothesis (H1), which stipulates that there is a self-related problem between the random residuals, and therefore this test enhances the accuracy of the results of the model (ARDL).

4.3.7.2 Contrast heterogeneity problem test:
This test is used to confirm the extent to which the estimated model is free of the problem of contrast difference of the remains.

Table (13) Results of the Stability of the Error Limits Variance Test (Contrast Homogeneity) of the GDP (GDP) Model
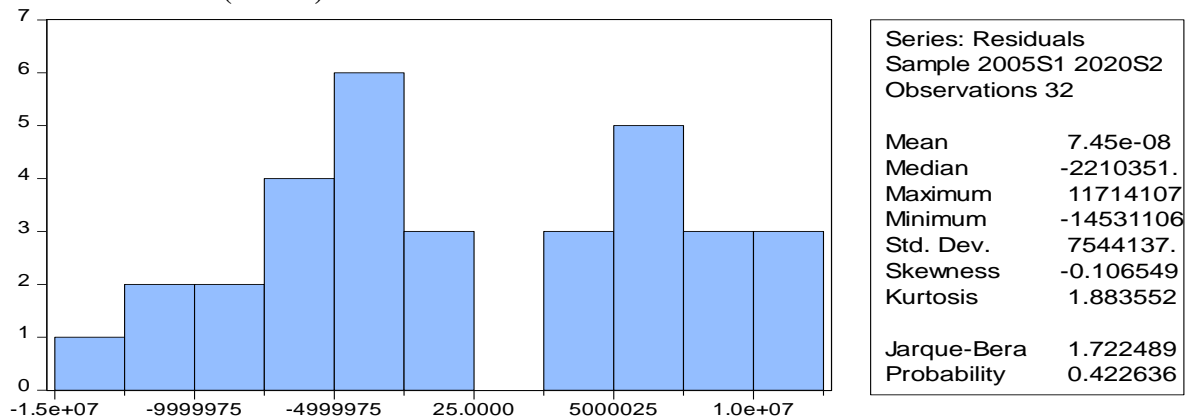
Heteroskedasticity Test: ARCH			
F-statistic	1.295122	Prob. F (1,29)	0.2644
Obs*R-squared	1.325255	Prob. Chi-Square (1)	0.2497

Source: Prepared by the researcher based on the outputs of the statistical program (10EViews)
The table shows the results of the variance difference problem (ARCH) test, as it reached the value of (F-statistic) at the probability level (0.2644), which is greater than (0.05), which means that the model is free of the problem of variation difference, and therefore here we must accept the non-existence hypothesis, which states that there is no problem of variation difference between the random residuals, and we reject the alternative hypothesis, which stipulates that there is a problem of variation difference between the random residuals, and therefore this test enhances the accuracy of the results of the model (ARDL).

4.3.7.3 Testing the problem of the normal distribution of the estimated model:
Figure (4) shows that the value of (F-statistic) at a probability level of (0.422636), which is greater than (0.05%), which indicates that the model is free of the problem of natural distribution, that we accept the hypothesis of non-eitness, which stipulates that there is no problem of natural distribution of the remainders. We reject the alternative hypothesis that there is a problem of normal distribution of the remainders. The results of this test also enhanced the accuracy of the ARDL model.

**Figure(4) Test results of the problem of normal distribution of the remainders of the estimated model (ARDL)**

Series: Residuals	
Sample 2005S1 2020S2	
Observations 32	
Mean	7.45e-08
Median	-2210351.
Maximum	11714107
Minimum	-14531106
Std. Dev.	7544137.
Skewness	-0.106549
Kurtosis	1.883552
Jarque-Bera	1.722489
Probability	0.422636

Source: Prepared by the researcher based on the outputs of the statistical program (EViews10).

4.3.7.4 The stability tests of the estimated mode:

Figure (5) shows the cumulative total test of the remains of the estimated model. Through the figure, it turns out that the model is stable throughout the research period. The zigzag chain didn't go out of critical boundaries.

Figure (2) Cumulative Total Test
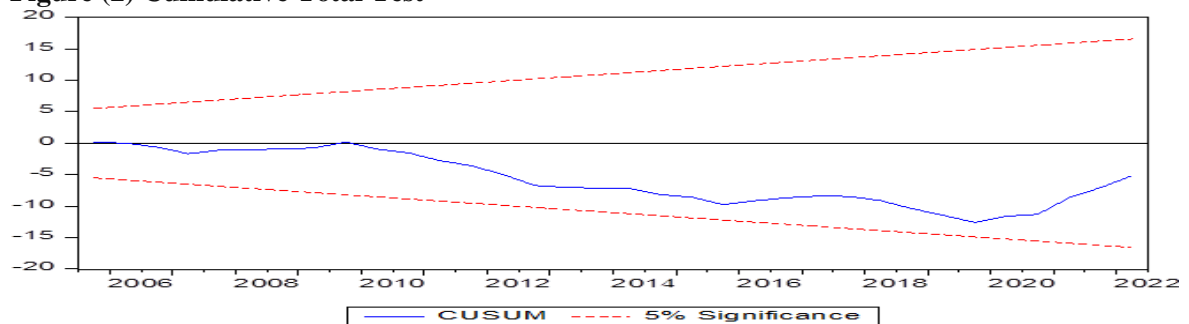
Source: How much the researcher prepared based on the outputs of the statistical program (10EViews)

5. Discussion of the Results:

1. The continued increase in public expenditure and the failure to control those expenses will lead to the continuation of the fiscal deficit in the general budget.

2. The dominance of current spending over investment spending in the proportion of the allocation of total public spending will lead to a continued decline in infrastructure across the country.

3. positive indicators achieved by Iraq in financial discipline reflect the increase in oil revenues and not evidence of financial control in the Iraqi economy.

4. The continued decline in the contribution of non-oil economic sectors will lead in the future to an increase in the crises to which the Iraqi economy is exposed.

5. The increase in GDP reflects the increase in oil revenues in Iraq during the research period (2004-2021).

6. Conclusion:

Public spending in Iraq suffers from the dominance of current spending on investment spending, which led to the directing of public spending towards consumer projects instead of investment projects, that is, the Iraqi economy suffers from the efficiency of public spending resulting from the low percentage of allocation to investment spending, and since the Iraqi economy is a rental economy that depends on one resource to finance its expenses represented by the oil resource, which led to increasing the exposure of the economy to external shocks. The high percentage of the oil sector's contribution to the formation of GDP is the result of increased oil revenues and increased demand for oil products in the world. Using the analytical method and the use of the standard quantitative method to estimate and analyze the relationship between the indicators of public expenditure policies and GDP, the validity of the research hypothesis is correct. The standard analysis proved the existence of a direct relationship between the independent variables represented by public spending policies and GDP, as the use of public expenditure policies leads to the strengthening of the resulting input.

Authors Declaration:
Conflicts of Interest: None
-We Hereby Confirm That All The Figures and Tables In The Manuscript Are Mine and Ours. Besides, The Figures and Images, Which are Not Mine, Have Been Permitted Republication and Attached to The Manuscript.
- Ethical Clearance: The Research Was Approved By The Local Ethical Committee in The University.

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