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Operational spending pressure in light of the use of the internal public debt to finance the public budget deficit in Iraq

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Abstract

The study shows the influence of operational spending pressure with the use of the internal public debt tool in financing the general budget deficit in Iraq from 1990 to 2021. The results of the standard analysis according to the statistical program (Eviews9) show that reducing operational spending leads to filling Part of the general budget deficit because operational expenditures constitute the largest proportion of the total public expenditures, the use of the internal public debt instrument provides funds to cover part of the public budget deficit, and this is explained by the value of R2 = 0.88 meaning that (88%) of the changes in the budget The generality as a dependent variable is due to the changes in (operating expenditure, internal public debt) as independent variables and (12%) represented by the random variable. Also, the value of (5.458682F =) at a Sig. level of 5% and a probabilistic value (Prob = 0.005242) shows Joint integration between the variables included in the model indicating a long-term equilibrium relationship, as the value of (DW = 1.520874) showed that (3 > DW > -3) has no autocorrelation problem for the values of the random variable indicating operating expenditure pressure. Using internal public debt instrument leads to filling part of the deficit in the public budget in Iraq. All the tables are prepared by the researcher based on the outputs of the Eviews9 program.

Keywords: macroeconomics, operational spending, internal public debt, general budget, ARDL.

Introduction

The great expansion in government jobs and the increase in the number of employees and employees leads to making the salaries and wages paragraph (operating expenses) constitute a large proportion of the total public expenditures under the pressures faced by countries to reduce unemployment rates in the absence of economic policies that support the activation of the private sector role in the development process economic and creating jobs and job opportunities outside the scope of the government sector, which makes the government sector from perspective of the members of society, the most secure place for job opportunities and access to entry away from economic standards and requirements of real needs for employment, which contributed to increasing the state of slack and poor performance and productivity in the device In light of the aggravation of the expansion in government operational spending, which leads as a result to a deficit in the public budgets of countries that suffer from these problems, and to finance that deficit, it is imperative for economic decision makers to pressure operational spending and use the internal public debt tool to address the financial crisis.

First: Study Methodology:

The importance of the study:

The study is significant because it clarifies the impact of operational spending pressure and the use of the internal public debt tool in financing the public budget deficit in Iraq.

Research problem:

To finance the public budget deficit in Iraq, what is the impact of operational spending pressure and the use of the internal public debt tool?

Research Hypothesis:

Operational spending pressure and using internal public debt positively affect the financing of the public budget deficit in Iraq.

Research Objectives: The research aims to:

1.Clarify the extent to which operational spending can be compressed to finance the general budget deficit in Iraq.

2.Stating the impact of using the internal public debt tool in financing the budget deficit in Iraq.

3. Clarify the relationship between (operating expenditure, the internal public debt instrument) and the general budget in a way that leads to financing the deficit in it.

Research Methodology:

The descriptive method was used with regard to the theoretical framework, and the method of standard analysis with regard to the study variables, and Iraq was taken as a case study.

Spatial and temporal limits of research:

The research takes its spatial limits from the Iraqi economy, and the time during the period (1990-2021).

Second: previous studies

1-Judy (2011) shows the role of financial planning to rationalize the discretionary budget And its relationship to combating administrative and financial corruption, because of the importance of the budget in building and developing Iraq and not wasting money allocated for the reconstruction of the country, and a number of conclusions were reached, including the failure to use financial planning methods effectively, and the presence of large deviations between the estimated operational and investment budget and actual spending , in addition to a strong correlation between the planning budget and the indicators of corruption addressed in our research. The researcher set some recommendations such as the necessity of separating the investment budget from the operational budget and making the planning of the investment budget for a period of 3-5 years, and activating the feedback to address deviations between budgets Planning and actual, and the introduction of planning specialists to use courses for effective financial planning.

2–DashushehAya (2017) studies the rationalization of public spending policy through the achievement of the aims of the economic policy addressing the management of public spending programs in Algeria based on the testing of the potential effects on the economic policy objectives determined by Kaldor's magic square theory. The study presented weak effects of public spending on economic growth, inflation, unemployment rates and the balance of payments, and this indicates that the public spending policy had no significance in the achievement of the goal of balance by achieving the aforementioned economic policy goals in light of the openness to the outside.

3. Al-Hussaini (2018) showed that the control procedures of the Federal Audit Bureau influence state institutions for controlling financial deviations showing the influence of financial control which Audit Bureau’s auditors enhance accountability and transparency which rationalize spending and oversight. The study found that the Federal Financial Supervision Bureau in Iraq is an old supervisory body found to protect public money. It is the Federal Financial Supervision Bureau, being the oldest and most efficient supervisory body, as it

includes specialized cadres and has high experience in supervisory work.

Third: Theoretical framework

1. Operating Expenditure Pressure:

Operational spending constitutes the largest proportion of total spending in Iraq, and the attempt to pressure it leads to liberating the government from large burdens that confuse its financial and economic activity, its role in providing public services and the level of saturation of public needs, in addition to that this process will reduce the and thus the government can From getting rid of part of the public debt through the gradual partial disposal of economic support borne by the government as a result of the presence of productive units in the public sector that achieve a loss and operate according to foundations that are not based on the market economy, which makes it an obstacle to any economic progress and adopts any of the methods to get rid of One of the burdens of that support is on the effectiveness of subsidized government projects in production and the national economy(Al-Ani, 2018).

2. Internal public debt:

The use of internal public debt instruments, in turn, enhances the importance of developing local financing markets, as the high public budget deficit and financing need rise lead the government to raise the efficiency of internal public debt management operations, with the aim of securing the budget's financing needs at the best possible costs and at an acceptable level. From the risks, through the rational management of internal public debt operations, the development of the appropriate institutional framework(Salem, 2012), and increasing the ability to access different markets to meet the financing needs. Hence, the effectiveness of the Iraqi government in developing markets for financial instruments emerges. Internal public debt, both primary and secondary, with the aim of deepening government stock markets and enhancing the degree of liquidity in them, such as sovereign sukuk, project financing bonds or revenue bonds, and diversifying the investor base, as the financial markets suffer from the concentration of the investor base in the banking sector, with reference to the segments of investors. In the tools offered by the government, especially bonds and sukuk, we find that commercial banks account for an average of 75%, and this casts a shadow over the state's ability to offer long-term financial instruments for commercial banks to acquire these securities, so it is imperative to diversify the investor base to accommodate the increase in the supply of debt instruments offered(Al-Hadithi, 2010).

3-The general budget and the fiscal deficit:

The state's general budget plays important roles in the economic, social and political sphere in society, as the general budget has become one of the strong and influential elements in shaping the national economy in growth, slowdown, stagnation, unemployment or inflation, as it should be noted that in light of the growing importance Which has become occupied by the general budget in various fields of economic activity, the fiscal deficit has tended to increase, which deteriorates the currency purchasing power as a result of the increase in inflation rates. The increase in military spending, the increase in financing payments and the impact of inflation, as there is no dispute that addressing the public budget deficit should be prominent in economic reform programs by compressing operational spending and offering government securities to withdraw part of the monetary mass circulating in economic activity to feed the side Revenues and fill part of the deficit in the general budget(Muhammad, 2019).

Fourth: Presentation and analysis of the results according to the standard analysis model

The operational expenditure tool was used with the internal public debt tool, during the period (1990-2021) with a description of the relationship between these tools and the general budget, using the statistical program Eviews9) and by measuring the impact of these tools on the general budget and clarifying the effectiveness of the fiscal and monetary policies to finance the public budget deficit , The analysis included measuring the impact of (operating expenditure, internal public debt) as independent variables in the public budget as a dependent variable, as follows:

Y= f (x)

Y = PB

X = (OS, ID)

OS, ID {PB = f}

As:

PBPublic Budget

OSOperational Spending

IDInternal Public Debt

Table (1) Some financial and monetary indicators for the period (1990-2021) / million dinars

Public budget	internal public debt	operational spending	years
5688-	**32737**	**6142**	1990
13269-	**46473**	**7033**	1991
27836-	**75318**	**8691**	1992
59957-	**137596**	**15771**	1993
173783-	**323242**	**42734**	1994
583798-	**926988**	**156117**	1995
364529-	**1270646**	**158755**	1996
195265-	**1479306**	**1286556**	1997
400071-	**1965807**	**3020603**	1998
314487-	**2205019**	**2880197**	1999
365666-	**2585887**	**5944656**	2000
790481-	**3552885**	**6488987**	2001
547160-	**4798584**	**7919967**	2002
7730408	**5543684**	**3631594**	2003
865248	**5925061**	**32608947**	2004
14127715	**6255578**	**14683390**	2005
10248866	**5307008**	**14984454**	2006
15568219	**5193705**	**20871484**	2007
20848807	**4455569**	**26139166**	2008
2642328	**8434049**	**27517759**	2009
5169133	**9180806**	**30660743**	2010
39167867	**7446859**	**36999562**	2011
14677648	**6547519**	**42158634**	2012
-5287480	**4255549**	**47755742**	2013
-7863671	**9520019**	**47946900**	2014
-3927263	**35142805**	**49278260**	2015
-12739471	**42462251**	**46947205**	2016
1932058	**44678796**	**58913503**	2017
2987158	**47822918**	**66933210**	2018
4156528-	**38331548**	**5617208**	2019
12882754-	**64246559**	**5088751**	2020
1824906-	**64046559**	**6420595**	2021

("Central Bank of Iraq, General Directorate of Statistics and Research, various bulletins.,")

1.Time series test results

The unit root test is performed for ensuring that the variables are inactive, and this represents the first procedure in the time series test, after which other tests are performed(F & M, 2017)and as follows:

2.Phillips Perron (PP) test results

The PP test was conducted as in Table (2) to verify the existence of a unit root on the basis of three cases (constant term only, fixed and general trend, with fixed and general trends), (Noori, Hayali, 2019, p: 1030) , as it was found that the variable (PB) has resided in the level (Io), so the null hypothesis (H=o) , there is a unit root is rejected and the alternative hypothesis (H=1) is accepted, and after taking the first difference (I1) for the variables (OS,ID) it turns out that it has settled on this difference, and here we reject the null hypothesis (H=O) and accept the alternative hypothesis (H=1), and through the results of Table (2) it becomes clear(A, A, & Oda, 2019):

Table (2) Philips-Peron unit root test (P P unit root test)

Second difference	**No fixed limit and no general trend**	**Prob**	**0**	**0**	**0**
	Fixed boundary and general trend	**Prob**	**0**	**0**	**0**
	fixed limit only	**Prob**	**0.0001**	**0.0001**	**0**
First difference	**No fixed limit and no general trend**	**Prob**	**0**	**0**	**0.0029**
	Fixed boundary and general trend	**Prob**	**0**	**0**	**0.0563**
	fixed limit only	**Prob**	**0**	**0**	**0.0238**
Level	**No fixed limit and no general trend**	**Prob**	**0.0045**	**0.9974**	**0.9961**

After conducting the unit root test and according to the results of the Phillips-Peron test (pp), it was found that one of the variables resided at the level (0I) and the other variables resided at the first difference (1I), which means that it is possible to test the autoregressive model of the distributed slowness (ARDL), as what distinguishes this model is estimating the variables even if they are static in the first difference (I1) or level (IO) or the mixture together, as we note that the model selects the number of lags in an automatic way and this is one of its features(Basha & Tamadir, 2018).

3. ARDL test results

A) ARDL model estimation of the effect of (ID, OS) on (PB(

After conducting an ARDL model estimation, we test the extent of the existence of a long-term equilibrium relationship to the impact of

(operating expenditure, internal public debt) on the general budget, through the value of (F) according to the null hypothesis (the parameters of the slowed levels of the variable are all equal to zero), and therefore means the lack of a long-term equilibrium relationship between the variables H0:A1=A2=A3=A4=0, which contradicts the alternative theory of a long-term relationship H1:A1≠A2≠ A3≠ A4≠0 (Gujarati, 2002)

Through the results of Table (3), it is noted that the effect of the mentioned independent variables (ID,OS) was significant on the dependent variable (PB), as this is evident through the value of (t) calculated for both variables at the level of significance (5%), as shown by the coefficient of Determining (0.88 = (R2) that (88%) of the changes taking place in the general budget are explained by the independent variables included in the model, and (12%) are because of the other factors excluded from the model. , 1995), by means of bounds testing, and this method is known as (bounds testing approach), where the calculated (F) statistic in comparison with the upper bound (I1Bound) and the lower bound (I0Bound). If the calculated (F) value is greater than the upper bound, the null hypothesis (H = 0) is rejected accepting the alternative hypothesis (H = 1), but if the calculated value (F) is less than the minimum, we accept the null hypothesis (H = 0)(Fatukasi, Gbenga, R, & Bounds, 2015).

Table (3) ARDL model estimation of the effect of (ID,OS) on (PB) for the period (1990-2021)

Prob	t- Statistic	Std. Error	Coefficient	Variable
0.0152	-2.9243	0.35585	-1.0406	PB (-1)
0.168	-1.4862	0.23291	-0.3462	OS
0.0004	-5.1556	0.84026	-4.3321	ID
0.8921	-0.1392	2281585	-317599	C
4096493	Mean dependent var		0.88429	R-squared
1.1E+07	S.D. dependent var		0.72229	Adjusted R-squared
34.1899	Akaike info criterion		5576970	S.E. of regression
34.9212	Schwarz criterion		#######	Sum squared resid
34.3927	Hannan-Quinn criter.		-412.37	Log likelihood
1.52087	Durbin-Watson stat		5.45868	F-statistic

B) Testing the boundary approach to find a long-term equilibrium relationship between (ID, OS) and (PB(

It is noted through Table (4) that the calculated (F) whose value is (6.786864) is greater than the upper limit value of (3.87) at Sig. level of 5%)), while the value of the minimum amounted to (3.1), which means rejecting the null hypothesis, on the absence of a long-term equilibrium relationship accepting the alternative hypothesis, a long-term equilibrium relationship exists between the variables of the study, and this indicates the strength of the explanatory relationship between the variables.

Table (4) The boundary approach test to find a long-term equilibrium relationship between (ID, OS) and (PB) for the period (1990-2021)

K	2		Bound (I1)	3.87
Value	6.78686	Critical Value Bounds	Bound (I0)	3.1
Test Statistic	F.Statistic		Significance	5%

c) Testing of long and short-term parameters according to the ARDL test

There is a joint integration relationship between the variables of the study in order to make sure whether it is a short or long integration relationship(Hamilton, 2009)? Table (5) shows in the short-term parameters test that the error correction coefficient is negative and significant, as its value reached (CointEq(-1) = -1.105522), and with a probabilistic value (Prob = 0.0001), which confirms a short-term relationship and a mechanism to correct the short-term error towards the long-term equilibrium.

Table (5) Long- and short-term parameters according to the ARDL test

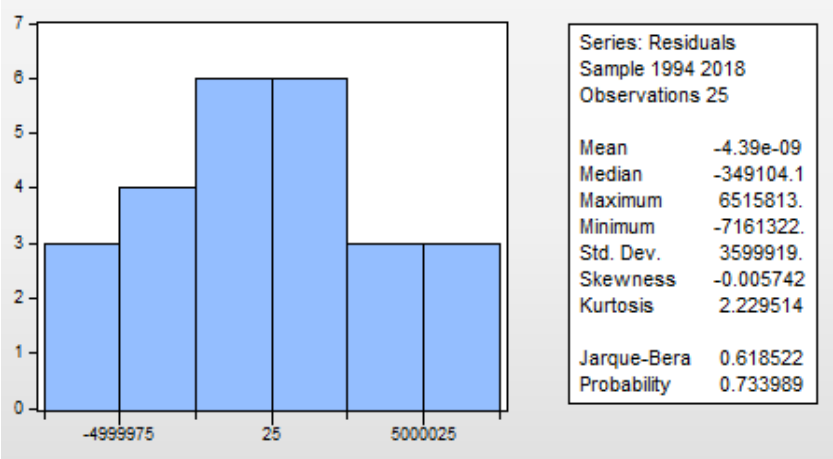
Long Run Coefficients	**Prob**	**0.3095**	**0.12**
	t-Statistic	**-1.0706**	**1.69999**
	Std. Error	**0.78527**	**4.75609**
	Coefficient	**-0.8407**	**8.0853**
	Variable.	**OS**	**ID**
Cointegrating Form	**Prob.**	**0.0744**	**0**
	t-Statistic	**-1.9915**	**-7.004**
	Std. Error	**0.17382**	**0.61851**
	Coefficient	**-0.3462**	**-4.3321**
	Variable	**D(OS)**	**D(ID)**

d) Historam-normality test for the effect of (ID,OS) on (PB)

The model integrity test shows how errors are distributed as in Figure (1), as it is noted that the Jarque-Bera test, which tests the null and

alternative hypotheses, and its value was (0.618522), and on the basis of that, the value of (Probability = 0.733989), which is greater than 5%, and thus the null hypothesis, the residuals are distributed normally is confirmed rejecting the alternative hypothesis there is no normal distribution of residuals, which is desirable .

Figure (1) Histogram-normality test for the effect of (OS ID,) on (PB) for the period(1990-2021



h) Heteroskedasticity Test for the effect of (ID,OS) on (PB)

The test illustrates the instability of homogeneity of variance, and based on the (ARCH) test(Asteriou & Hall, 2006). Table (6) shows that (F-statistic = 1.751461) with a probability value of (Prob F(4,16)= 0.1881), the value of (Obs*R-squared = 6.395014) and the probability value of (Prob Chi-Square (4) = 0.1715) which is bigger than 5%, showing no problem of homogeneity of variance stability accepting the null hypothesis no problem of the stability of variance homogeneity exists. So, the alternative hypothesis there is a problem of stability of homogeneity of variance exists.

Table (6) Heteroskedasticity Test for the effect of (ID,OS) on (PB) for the period(1990-2021)

F-statistic	**1.751461**	**Prob. F(4,16)**	**0.1881**
Obs*R-squared	**6.395014**	**Prob. Chi-Square(4)**	**0.1715**

g) Breusch-Godfrey Serial Correlation LM TestImpact of (ID,OS) on (PB)

The model integrity test shows a problem of self-correlation between the variables of the model. Table (7) shows value of F-statistic = 0.934200)) and with a probability value of (ProbF(1,19)= 0.3590) with a value of (Obs*R-squared = 2.350969) and with a probability value of (ProbChi-Square (1) = 0.1252) bigger than 5%. Thus, the null hypothesis is accepted with no problem of self-correlation between

the variables. So, the alternative hypothesis stating a problem of self-correlation between the model variables is rejected.

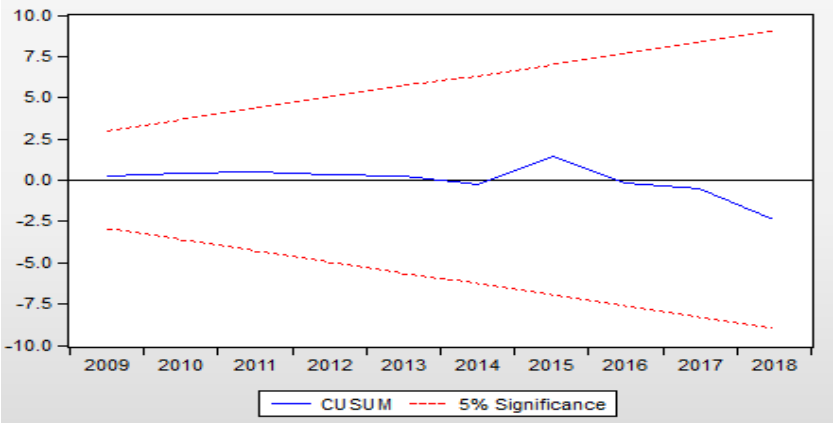
Table (7) Breusch-Godfrey Serial Correlation LM Test for the Effect of (ID,OS) on (PB) for the period(1990-2021)

Breusch-Godfrey Serial Correlation LM Test	**0.359**	**0.1252**
	Prob. F (1,19)	**Prob. Chi-Square (1)**
	0.9342	**2.35097**
	F-statistic	**Obs*R-squared**

D) ARDL static test for the first model

The cumulative sum of the residuals (CUSUM Test) shows the estimated quiescence of the model at a significant level of 5%, as it was found through the null hypothesis that the model parameters are static, and fluctuate around the zero mean (the blue curve) and their occurrence within the critical limits confirms a joint integration between the study variables as in Figure (2):

Figure 2. Cumulative Residual Sum (CUSUM)



Conclusions:

1.The process of compressing operational spending and using the internal public debt tool provides an opportunity for financial decision-makers to achieve financial surpluses through which part of the deficit in the general budget is filled, and this is what was shown by the results of the statistical analysis and according to the (ARDL) test, as the value reached (R2=0.88), which confirms the independent variable influences (ID, OS) on the dependent variable (PB).

2. The limits tests show a co-integration between variables through the value of (F=6.786864), which is greater than the upper and lower limits at the Sig. level of 5% in the model.

3.The significance value of (5.458682F) for the model as a whole was shown through the (ARDL) test, and with a probabilistic value of (Prob = 0.005242) at the Sig. level (5%).

4.The value of (DW = 1.520874) in the model indicates no autocorrelation problem for the random variable values.

Recommendations:

1. Applying the operational expenditure pressure mechanism in a fair and non-affective manner on the low-income class of society.

2. Directing the financial surpluses obtained through the pressure of operational spending towards investment spending, as it is one of the main components of aggregate demand, increasing the production and thus achieving a balance in the general budget.

3. The internal public debt is a usual tool for financing the deficit in the general budget and achieving monetary stability in the short term if it is used in the right direction and in a manner that leads to filling part of the public budget deficit.

4. Establishing sovereign funds and keeping part of the surplus funds in them when oil prices increase in light of the use of the internal public debt instrument and the pressure of operational spending, and using it at a time when there is a deficit in the public budget, because of its effect on filling Part of that deficit.

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