# (Analyzing the relationship between domestic public debt and broad money supply In Iraq for the period (2004-2020).

Prof.Dr. NAzar KaDHIm Sabah Al-KhAYkanee<sup>1</sup>, Yusra Rasem Jabbar<sup>2</sup> <sup>1</sup>Al-Qadisiyah University, College of Administration and Economics, Email: nazar.sabah@qu.edu.iq <sup>2</sup> Al-Qadisiyah University, College of Administration and Economics,admin.ecco21.1@qu.edu.iq

Corresponding Author : NameAffiliation :Email:XXXX@XXX (10 Italic)Abstract:Public debt plays an auxiliary role in development if it is managed and used in an optimal way that<br/>achieves a return that exceeds the cost of borrowing, and thus the economy is able to meet its obligations, but<br/>the main results were reflected in its impact on the money supply in Iraq and thus reflected on the<br/>performance of monetary policy. Therefore, the research aims to analyze the development of the components<br/>of the internal public debt and its relationship to the broad money supply in Iraq for the period (2004-2020).<br/>In order to achieve the objectives of the research, the research was divided into three sections that included<br/>the conceptual framework of the internal public debt and the broad presentation of criticism and the theory<br/>relationship between them, then analyzing the development of the internal public debt and its relationship to<br/>the period (2004-2020), and it was concluded that the internal public debt<br/>debt did not lead to an increase Broad money supply due to other external factors.

Keywords - relationship, domestic

# I. INTRODUCTION

Public debt plays an auxiliary role in development if it is managed and used in an optimal manner that achieves a return that exceeds the cost of borrowing, and thus the economy will be able to meet its obligations. developed, emerging and developing countries, which appeared in the form of large deficits in public budgets and a sharp rise in public debt rates, which recorded large levels. Therefore, economic policy makers are faced with a dilemma in the short term represented in controlling financial conditions faster than they should be through measures to reduce the deficit, and that the reluctance in the procedures may lead to the accumulation of more debts that will pave the way for a subsequent crisis, but in the long term the matter is more difficult because it requires Control measures that increase revenues and reduce expenditures to restore the financial position and reduce debt to levels that relieve pressure on alpha prices In fact, global experiences have always proven that countries with a lower debt ratio are often more capable and less critical in the face of sudden financial crises and shocks, but as is known, maintaining an ideal debt level is difficult, given the increase in public spending in Iraq. And with the increase from interest and installments from year to year, as these burdens deduct a large part of public expenditures, as well as its impact on the money supply, and Iraq is one of the countries in which the budget deficit leaves a reason for internal borrowing. and external and thus increasing the debt burden on the monetary and financial policies by influencing the money supply and public spending.

#### II. RESEARCH IMPORTANCE.

The importance of the research comes from the importance of the issue of public debt, which is the main concern in a country such as Iraq, as its economy suffers from the continuation of the accumulation of internal public debt, and through the effect of the accumulation of public debt, the growth of the money supply is in a state of increase in view of the continuing planned deficit in the budget, which requires a statement The relationship between that debt and public spending.

#### **III. RESEARCH PROBLEM.**

Given what the public debt and its accumulation leave from an increase in financial deficits on the one hand, and the impact on monetary variables, especially the money supply, the problem of the research is the size of the effects that the expansion of public debt leaves on the performance of monetary policy.

# **IV. RESEARCH HYPOTHESIS.**

The research stems from a main hypothesis that (the expansion of the internal public debt leaves negative effects on the money supply, and it is expected that the relationship between public debt and public spending will be positive.

# V. SEARCH OBJECTIVE.

The research aims at the following:

1. Analysis of the evolution of the components of the internal public debt in Iraq for the period (2004-2020).

2. Analysis of the relationship between the internal public debt and the money supply in Iraq for the period (2004–2020).

Research Methodology.

In order to achieve the objectives of the research and test its hypotheses, the descriptive analytical (deductive) approach was followed, which is based on analyzing the relationship between the internal public debt and the money supply in Iraq for the period (2004–2020).

#### VI. SEARCH STRUCTURE.

In order to achieve the objectives of the research and verify its hypothesis, the research was divided into the following sections with a conclusion to the most important conclusions and recommendations.

# VII. THE FIRST TOPIC

#### The conceptual framework of the internal public debt and the broad offer of criticism

### First: What is public debt?

Public debt is an important source of public revenue, and various countries, developed and developing alike, resort to it to finance the financial deficits in their public budgets, especially when public revenues are in

short supply to finance public spending, as public debt is understood as the sums that the state or one of its public authorities commit to others. As a result of her borrowing these amounts, she financed the deficit in her general budget, along with her pledge to repay the debt with the interest accruing from it after a period, according to the conditions for creating this debt (Shalal: 2020, 3).

The internal public debt is one of the forms of public debt, which the state owes to its public institutions and citizens, and some believe that it does not constitute any burden in itself (1) but rather imposes a burden on present and future generations, given that most of the debt is internally subscribed by federal agencies and trust funds Federal Reserve Banks and Private Investors (2)

The methods of financing the internal public debt are determined either by borrowing from the banking system, i.e. from the central bank and commercial banks, or by borrowing from outside the banking sector, i.e. from the public and non-bank intermediary financial institutions (Al-Dulaimi: 1989, 329)

# Second: What is the broad money supply?

Money is a tool for measuring values and fulfilling obligations. Money was defined as anything that money does, and Keynes defined it as everything used to settle payments as a general acceptance as a medium of exchange as well as its use to preserve purchasing power (Haddad and Hathloul: 2005, 17). The money supply is the sum of the means of payment circulating in the country during a certain period of time, and it is called local liquidity and consists of demand deposits or current deposits in addition to the currency in circulation as well as time deposits or time deposits (quasi-money) \* and often called savings deposits in commercial banks, and it can be formulated as follows (Chatles: 1998, 12):

M2=M1+TD

As (M2) represents money supply in the broad sense, and (M1) represents money supply in the narrow sense, and (TD) represents time deposits.

#### The second topic

#### The theoretical relationship between the internal public debt and the money supply.

The relationship of public debt with the money supply is related to the mechanism that is followed in financing the public budget deficit or through a group of financing methods, whether internal or external, as follows:

# First: the relationship in light of the method of borrowing from the central bank.

This type is called inflationary borrowing, which is the government's borrowing from the central bank directly to cover the net deficit, and it is represented in that it leads to an increase in the money supply, which may lead to higher inflation rates. (Jamal al–Din: 2003, 24)

# Manuscript title (11italic)

When the government tends to finance public spending due to the budget deficit by borrowing from the Central Bank, it works to increase the surplus cash reserves due to the increase in public spending as a result of borrowing, and this leads to an increase in the money supply (Al Niqash: 2001, 293).

#### Second: the relationship in the light of borrowing from commercial banks.

This type of borrowing will not have an impact on the aggregate demand, if the banks have an excess of reserves, or the central bank, through its monetary operations, provides excess and additional reserves, and this will affect other sectors, and there are two possible cases for the government to borrow from commercial banks depend on The ability of the banking system and the extent of what it has of surplus cash reserves, when the banks are in a surplus state, and here they can finance the budget deficit without affecting the credit granted to the private sector, the money supply increases as a result, but when commercial banks can buy and combine public bonds to the stock portfolio without affecting the credit granted to the private sector, thus expanding its monetary base and allowing an increase in the money supply (Mr. Ali: 1986, 406–407).

#### Third: The relationship in the light of the new monetary issuance method.

In the event of the inability of the previous sources to cover public expenditures, the state is forced to issue new money to finance the budget or move production activities. The new monetary issuance is the last resort for public revenues, and this method is called inflationary financing because it leads to inflation because natural resources are usually limited. The amount of money leads to an increase in demand for goods and services with limited supply, so a gap occurs between demand and supply, so prices rise and inflation rates accelerate (Moses: 2017, 928), and that financing the deficit in this way will lead to an increase in the money supply, since the new banknotes in circulation will be part of the supply Criticism (Al-Ashqar: 2002, 346).

#### Fourth: The relationship in light of borrowing from individuals and financial institutions.

That is, borrowing from individuals or non-bank financial institutions, and the government sells government bonds or treasury transfers to individuals, whether in the long or medium term (Lahassan and AI-Akhdar: 2018, 34), and this type of borrowing does not cause an increase in the money supply because the units Non-bank economics do not have the ability to create money, and increasing their holdings of government bonds does not involve creating new money, and as long as the deposits of individuals and non-cash intermediary financial institutions with commercial banks decrease, at the same time, the current bank deposits of the government increase by the same amount (AI-Hamdani: 2014, 246).

#### The third topic

# Analysis of the development of the internal public debt and its relationship to the money supply in Iraq for the period (2004–2020)

# First: Analyzing the trends of internal debt and its components

It is evident from Table (1) that there is a clear fluctuation in the volume of the internal public debt in Iraq during the period (2004-2020). The total internal public debt has increased from 6062 billion dinars in 2004 to 64,247 billion dinars in 2020, with an average annual growth of about 28.8% for the period (2004-2020) due to the increase in public spending, especially the current one, which is represented in the salaries of employees and workers' wages. After its annual growth recorded about 8.8% in 2005, it decreased to (-14.4%) in 2006 and (8%) in 2007. Then (14.2%) in 2008 and up to 89.3% in 2009, and the reason for the decline until 2008 was due to the improvement in oil revenues and then the improvement of the balance of the public budget, and its increase in 2009 and in 2010 is due to the decline in oil prices due to the return of oil prices to the rise in 2013 and the achievement of a budget surplus and the achievement of a kind of security stability, the growth of the internal debt decreased at a negative growth rate of about (-35%) in 2013.

# Table (1)

The total internal public debt and its components in Iraq for the period (2004-2020) billion dinars: a percentage

Year	Total Interna I Debt	annual growth %	MOF Debt	Relativ e Contrib ution %	treasur y Bills	Relativ e Contrib ution %	The Bonds	Financial institutio ns loans	Relative Contribu tion %
2004			5137	85	925	15	0	0	0
2005	6594	8.8	5394	82	1200	18	0	0	0
2006	5645	-14.4	5394	96	252	4	0	0	0
2007	5194	-8	4675	90	519	10	0	0	0
2008	4456	-14.2	3956	89	500	11	0	0	0
2009	8434	89.3	3956	47	4479	53	0	0	0
2010	9181	8.9	3956	43	5225	57	0	0	0
2011	7447	-18.9	3556	48	3891	52	0	0	0
2012	6548	-12.1	3156	48	3392	52	0	0	0
2013	4256	-35	2756	65	1500	35	0	0	0
2014	9520	123.7	2456	26	7065	74	0	0	0
2015	32143	237.6	2356	7	19312	60	15	10461	33
2016	47362	47.3	2356	5	32764	69	1697	10546	22
2017	47679	0.7	2156	5	32295	68	2682	10546	22
2018	41823	-12.3	1956	5	28413	68	1953	9501	23
2019	38332	-8.3	1756	5	26003	68	1921	8652	23

*Manuscript title* (11italic)

2020	64247	67.6	1556	2	46106	72	1917	14669	23
average		28.8		44		46			9

Source: Prepared by the researcher based on:

1. Central Bank of Iraq, General Directorate of Statistics and Research, various annual bulletins.

2. https://cbiraq.org/DataValues.aspx

As a result of what Iraq was subjected to from two double shocks, namely the drop in crude oil prices in mid-2014 on the one hand, and the control of the terrorist organization ISIS over large areas of Iraq, and then the development of military operations and an increase in military spending on the other hand, which led to the need to increase financing The general budget until 2017, and then the Iraqi government directed towards issuing treasury transfers to finance electrical projects on the one hand, and heading towards increasing military spending, which led to a trend towards expanding the issuance of transfers and entering commercial banks to purchase them, which led to an increase in the volume of internal debt in 2017, but it decreased In 2018, and then in 2019 to reach 38,332 billion dinars, with a negative growth of about (-8.3%) for the same year mentioned, then returning to the rise to reach about 64,247 billion dinars in 2020.

As for the components of the internal public debt during the research period (2004 - 2020), it was one of the sources represented by borrowing from the public, i.e. from the non-banking sector by selling public debt bonds to the public and borrowing from commercial banks by purchasing public debt bonds as well as borrowing from the bank The central bank, whether by way of overdraft (the direct method) or by selling bonds (the indirect method) (Saud: 2018, 35).

Based on this, it is clear from the data of Table (1) itself that treasury transfers consisting of transfers discounted from the Central Bank and treasury transfers to commercial banks contributed an average rate of 46% for the period (2004–2020), as commercial banks account for a share of that amounted to The average period (2004–2014) is 100%, and this percentage has decreased continuously after 2014 to reach 2.3% in 2020 due to the issuance of treasury transfers to the Central Bank in 2015 and its contribution by 32.2% and increased to reach about 87.7% in 2020, which is a matter of shares Increasing the total treasury transfers from 925 billion dinars in 2004 to 46106 billion dinars in 2020, thus increasing the percentage of its total contribution from 15% in 2004 to 72% in 2020.

The role of remittances deducted from the Central Bank increased at the beginning of 2015 for the purpose of financing the planned deficit in the general budget in view of the low percentage of contribution of other tools in financing the said deficit, as well as the failure to announce the data of those remittances for the period (2004–2014).

Second: Analysis of broad money supply trends.

# Manuscript title (11italic)

It is clear from Table (2) that the size of the money supply (M2) was increasing during the period (2004–2020), and this is due to several factors, the most important of which are trade openness and the increase in the quantities of oil exported, and the continuous increase in government current spending, represented by the increase in salaries for state employees and an increase Investment spending as well as military spending for training and development of security services due to the deteriorating security situation (Al–Janabi: 2015, 124), as well as the replacement of the Iraqi currency after the issuance of the Central Bank Law (56) and raising the volume of foreign reserves with the Central Bank in exchange for an Iraqi currency in order to maintain the stability of the exchange rate The Iraqi dinar, and it is worth noting that the statistical data for the year 2014 indicate the absence of inflationary pressures as the basic inflation rate reached (1.6%) and that this year witnessed a state of deflation in the Iraqi economy.

It is worth noting, and in line with the research period, that the money supply (M2) witnessed a clear decrease in 2015 compared to 2014 with a negative growth rate of (6.7%), due to the decrease in the money supply (M1), both in terms of annual growth, or from In terms of the relative contribution to (M2), with a difference of about (4) percentage points in 2014 compared to 2015, in addition to the significant decrease in quasi-money from 17,875 billion dinars in 2014 to 14914 billion dinars in 2015, although it recorded a slight improvement in its contribution. All this to the deterioration of economic life as a result of the political crisis and the war on terrorism, as well as the decline in oil prices (Central Bank of Irag: 2015 31).

The rise in the annual growth of the money supply (M2) to about (15.9%) in 2020 after it reached about (-6.7%) in 2015, is due to the increase in the narrow money supply (M1) for the same years through the rise in quasi-money for the same years as well, given To achieve financial and economic stability and the rise in oil prices in 2017. (Central Bank of Iraq, 2020).

# Third: Analysis of the relationship between the internal public debt and the money supply in Iraq for the period (2004-2020).

The public debt, especially the internal one, is one of the financial tools that the government uses to borrow from several parties within the state, and this is done by borrowing, whether from the banking system or from outside the banking system, and they are in themselves factors affecting the money supply. When analyzing the relationship between the internal public debt and the money supply It is clear from Table (2) that the internal public debt was volatile during the period (2004-2020). When the total internal public debt increased from (6062) billion dinars in 2004 to (6594) billion dinars in 2005, with an annual growth rate of about 8.8%, it was The money supply in the narrow sense achieved an annual growth of 12.3%, while the annual growth of the broad money supply (M2) was about 27.5%, and when the money supply decreased to about 4456 billion dinars in 2008, with a negative growth rate of about -14.2% in the said year, the corresponding increase Both in the narrow money supply (M1) or in the broad money supply (M2) and then in its annual growth, as (M2) achieved an annual growth of 29.5% in 2008, and by continuing to review the table under

consideration, it is also noted that the increase in the total internal public debt to 32,143 billion dinars in 2015 was offset by a decrease in the broad money supply (M2) from 90568 billion dinars in 2014 to 845270 billion dinars in 2015 with a negative growth rate of 6.7% in the aforementioned year in the same year, and the same situation continued with a relationship that is to the contrary, because the increase in public debt did not lead to an increase in the money supply in comparison to the presence of other effects that were influential On the broad money supply, including net foreign assets and their increase to 1423 and one billion dinars in 2018, compared to a value of about 69331 billion dinars in 2017, which can be attributed to the rise in oil prices, that this from 49.3 dollars per barrel in 2017 to 65.6 dollars per barrel in 2018) ) (Central Bank of Iraq: 2018, 4). In addition, the components of internal government borrowing were in the highest proportion of it from individuals and financial institutions through the issuance of government bonds or treasury transfers to individuals (Rafah Al–Shihab Al–Hamdani: 0142, 246), which does not cause An increase in the money supply that does not involve the creation of new money, which dominated during the research period about 46% on average, compared to the decrease in the contribution of other tools affecting the money supply.

# Table (2)

The relationship between the internal public debt and the money supply in Iraq for the period (2004–2020). billion dinars

the year	Total Internal Debt	% annual growth	M1	% annual growth	M2	% annual growth
2004			10149		11499	
2005	6594	8.8	11399	12.3	14659	27.5
2006	5645	-14.4	15460	35.6	21050	43.6
2007	5194	-8	21722	40.5	26921	27.9
2008	4456	-14.2	28190	29.8	34862	29.5
2009	8434	89.3	37300	32.3	45355	30.1
2010	9181	8.9	51743	38.7	60289	32.9
2011	7447	-18.9	62474	20.7	72067	19.5
2012	6548	-12.1	63736	2	75336	4.5
2013	4256	-35	73832	15.8	87528	16.2
2014	9520	123.7	72693	-1.5	90568	3.5
2015	32143	237.6	69613	-4.2	84527	-6.7
2016	47362	47.3	75524	8.5	90466	7
2017	47679	0.7	76986	1.9	92857	2.6
2018	41823	-12.3	77829	1.1	95391	2.7
2019	38332	-8.3	86771	11.5	103441	8.4
2020	64247	67.6	103353	19.1	119906	15.9
average		28.8		16.5		16.6

Source: Prepared by the researcher based on:

1. Central Bank of Iraq, General Directorate of Statistics and Research, various annual bulletins.

2. https://cbiraq.org/DataValues.aspx

# **Conclusions and Recommendations**

# First, the conclusions:

- 1. To the increase in the components of the money supply (M2) during the studied period, whether from (M1) represented by the net currency in circulation and current deposits, and quasi-money whose values have increased, as well as the dominance of the contribution of the net currency in circulation and the decrease in that importance with regard to the percentage of the current deposits' contribution. Which was reflected in the slowdown in the increase in annual growth in (M2) due to the low confidence of individuals in commercial banks and the failure to deposit their money in these banks, which led to a rise in the percentage of currency outside banks.
- 2. With regard to the components of the internal public debt during the research period (2004 2020), the treasury transfers in the possession of the Central Bank play a major role in financing the temporary deficit in the government budget, compared to commercial banks that work to reduce dependence on the Central Bank and give a greater role to the banking system. It ranked first, while the debt of the Ministry of Finance ranked second in financing the fiscal deficit, then loans ranked third, while it ranked fourth in favor of the bond instrument.
- 3. The components of the internal public debt during the research period (2004 2020) were among the sources represented by borrowing from the public, i.e. from the non-banking sector by selling public debt bonds to the public and borrowing from commercial banks by purchasing public debt bonds as well as borrowing from the Central Bank Either by way of overdraft (direct method) or by selling bonds (indirect method).
- 4. The increase in the public debt did not lead to an increase in the money supply in return for the presence of other effects that affected the broad money supply, including net foreign assets.

# Second: Recommendations:

1. The necessity of adopting monetary policy the issue of increasing current deposits and influencing making changes in the components of the money supply in order to seek to reduce the increase in the currency in circulation by using its monetary procedures.

2. Preparing new strategies to combat corruption by unifying the supervisory institutions and the applicable legislation.

3. The necessity of adopting monetary policy the issue of increasing current deposits and influencing making changes in the components of the money supply in order to seek to reduce the increase in the currency in circulation by using its monetary procedures.

4. Continuing to observe the public debt threshold in coordination between fiscal and monetary policy and follow-up government performance in raising the efficiency of financial performance by improving the performance of financial institutions, on the one hand, and addressing the deficit in the state's general budget in a way that curbs unjustified borrowing.

5. Preparing new strategies to combat corruption by unifying the supervisory institutions and the applicable legislation.

#### Sources:

- [1] Ahmad Al-Ashkar Macroeconomics, International Scientific House for Publishing and Distribution, Amman, 2002.
- [2] 2. The Central Bank of Iraq, Directorate General of Statistics and Research, Annual Economic Report, 2015.
- [3] 3. The Central Bank of Iraq, General Directorate of Statistics and Research, Annual Economic Report, 2020.
- [4] 4. Republic of Iraq, Central Bank of Iraq, Directorate General of Statistics and Research, Annual Economic Report for the year 2012.
- [5] 5. Republic of Iraq, Central Bank of Iraq, Directorate General of Statistics and Research, Annual Economic Report for the year 2015.
- [6] 6. Republic of Iraq, Central Bank of Iraq, Directorate General of Statistics and Research, Monetary Policy Report for the year 2018.
- [7] 7. Rafah Al-Shihab Al-Hamdani, Macroeconomic Theory, a Mathematical Introduction, 1st Edition, Wael Publishing House, Amman, 2014.
- [8] 8. Sherine Gamal El-Din Heikal, Domestic Public Debt and the Public Financial Proficiency Index, Information and Decision Support Center, Cairo, 2003.
- [9] 9. Diaa Hussein Saud, "Analysis of the Relationship between Internal Government Debt and the Budget Deficit in Iraq", Al-Mamoun College Journal, Issue 31, 2018.
- [10] 10. Abdel Moneim El-Sayed Ali, The Economics of Money and Banks in Capitalist and Socialist Systems and Developing Countries with Special Reference to Iraq, Part One. 2nd floor, Al-Mustansiriya University, 1986.
- [11] 11. Ammar Abd al-Hadi Shallal, The Impact of Public Debt on Economic Development, Iraq, a case study, for the period (2006–2017), Anbar University Journal of Economic and Administrative Sciences, Volume 12, Issue 28, 2020
- [12] 12. Awad Fadel Ismail Al–Dulaimi, Money and Banks, Part One, University of Baghdad, 1989.
- [13] 13- Ghazi Al-Naqash, Public Finance Analysis of the Foundations of Financial Economics, Wael Publishing House, 1st Edition, Amman, 2001.
- [14] 14. Nabil Mahdi Al-Janabi, the causal relationship between the change in money supply and the growth of GDP in Iraq for the period (1980-2012), Al-Qadisiyah Journal for Administrative and Economic Sciences, Vol. 17, No. 3, 2015.
- [15] 15. Central Bank of Iraq, General Directorate of Statistics and Research, various annual bulletins. https://cbiraq.org/DataValues.aspx.
- [16] 16. Michael B. Chatles. "Macroeconomics" second edition, Oxford university press ,Ine: New York ,1998, p12.