

**كفاءة أدوات السياسات النقدية والمالية في تعزيز  
الاستدامة المالية في الاقتصاد العراقي-(2010-2021)  
دراسة تحليلية**

**م. سعد حسن علي  
الجامعة العراقية – كلية الإدارة والاقتصاد**

The efficiency of monetary and financial policies tools  
in enhancing financial sustainability in the Iraqi  
economy-(2010-2021) analytical study

كفاءة أدوات السياسات النقدية والمالية في تعزيز الاستدامة المالية في  
الاقتصاد العراقي-(2010-2021) دراسة تحليلية

Teacher Saad Hasan Ali\*

Iraqia University - College of Administration and  
Economics

م. سعد حسن علي\*

الجامعة العراقية- كلية الإدارة والاقتصاد

تاريخ النشر: 2024/06/01

Received: 03/10/2023

تاريخ القبول: 2023/10/26

Accepted: 26/10/2023

تاريخ الاستلام: 2023/10/03

Published: 01/06/2024

## **Abstract:**

The use of monetary policy and fiscal policy by the government has important dimensions and multiple indicators of financial sustainability, through the link between the development of these indicators and the extent of the government's use of its monetary and financial tools. Therefore, the research aims to demonstrate the extent to which the Iraqi economy applies financial sustainability indicators during the period of the study and its impact on the two policies. Financial and monetary. To achieve this, we relied on the inductive approach in a descriptive, comparative manner, which relies on an evaluation of the most important different methods of financial sustainability. The research started from the hypothesis that achieving compatibility between monetary and financial policy tools could contribute to restructuring the Iraqi economy toward achieving indicators of financial sustainability. The research reached a set of conclusions, the most prominent of which is the existence of strategic and tactical challenges facing central banks in designing a strategy to formulate policy. To integrate the framework of monetary policy and macroprudential policy, especially to achieve the dual goals of monetary (price) stability and financial stability, as well as a relationship between monetary and financial stability, whether they are alternatives or complements. The research recommended the necessity of directing economic indicators to change the composition of the monetary base so that the largest part of it enters the circle of economic activity, understanding the movement of macroeconomic variables in their circumstances and the trends influencing them locally and externally and achieving optimal employment of financial and monetary policy tools and compatibility between them to reach financial stability.

**Keywords:** *Fiscal policy, monetary policy, financial sustainability.*

## **1. Introduction:**

Each of the monetary and financial policies has its direct and indirect economic tools to achieve monetary, financial, and economic stability, as the financial policies aim to achieve growth in the country's economic output and optimal employment of the revenues generated by the state. In contrast, the goal of monetary policies is focused on keeping inflation levels under control, so the research is concerned with analyzing the indicators of the tools of both financial and monetary policies and their impact on the financial sustainability of the Iraqi economy, and to achieve this, the development of financial and monetary policy variables and the financial sustainability index was addressed, and the relationship between them was analyzed. It is considered necessary to achieve consistency and harmony between the monetary authority and the financial authority to achieve the requirements of financial sustainability, which requires the government should diversify the sources of financing its budget deficit resulting from the decline in public revenues, which is due to the decline in oil prices, which is

the main source of revenues, the limited tax revenues, and the increase in public expenditures. This leads to the government turning to public debt, both parts (internal and external). Which requires regulating the relationship between them to maintain safe limits for borrowing, and this falls within the responsibilities of those in charge of both policies.

1.1. **Research problem:** The research problem is based on:

- Is there coordination between monetary and financial policies to achieve their goals of Iraqi monetary and financial stability?
- Has the use of the tools of these two policies contributed to achieving and enhancing financial sustainability in Iraq?

1.2. **Research objective:** It focuses on explaining the role of monetary and financial policies in enhancing the financial sustainability of Iraq.

1.3. **Research Methodology:** The research relied on the inductive approach of descriptive comparative analysis, which depends on evaluating the most important different methods of financial sustainability to choose the appropriate method that maintains the efficiency of monetary and financial policies, then quantitative analysis of the indicators.

1.4. **Research hypothesis:** Achieving optimal compatibility between monetary and financial policies can contribute to restructuring the Iraqi economy toward balance in achieving financial sustainability indicators.

## 2. The first section: The conceptual framework of monetary policy and fiscal policy

### 2.1. Monetary policy

#### 2.1.1. The concept of monetary policy

In its general sense, monetary policy is intended to be a set of measures and procedures that must be implemented to influence the course of economic activities, making them take a direction different from the direction they would have taken without these measures and procedures.

What is meant by monetary policy is the deliberate direct intervention by the monetary authority to control money and credit in the economic system in terms of quantity, type, and price through the use of monetary tools known as the weapons of the central bank, to stabilize economic activity.

The actions of the central bank influence near-term interest rates and the supply of money and credit as means to help promote economic tools and objectives.

#### 2.1.2. Functions of monetary policy:

Banks, as a whole, have come to perform functions that are summed up in providing credit. They are divided into two basic functions (one monetary, the other financing. (Al-Zahar,1972:145-146)

1. The monetary function: This function is represented in accepting deposits, granting loans, creating deposits, and issuing paper money. That is, the first function is to provide the group with money and organize its circulation within it.
2. The financing function: This means providing projects with the funds they need, either to carry out the projects in their productive stage or to establish them from the beginning. In other words, this means that the financing function of banks is to provide the capital necessary to establish projects or develop them. Banks perform these functions as economic projects aiming to achieve profit.

### 2.2. Fiscal policy

#### 2.2.1. The concept of fiscal policy

Fiscal policy is defined as a set of policies related to public revenues and public expenditures to achieve specific goals. (Slaves,2013:1-2)

It is a set of goals, directives, procedures, and activities that the state adopts to influence the national economy and society to maintain its general stability and development, address its problems, and confront all changing circumstances. It is a set of government policies that use financial means, including public expenditures, taxes, loans, monetary means, and budgeting, to achieve the goals of economic, social, political, cultural, and health policy. (Al-Sulaykhi,2013:6)

Through definitions, we can say that financial policy is the state's tool to influence economic activity to achieve the economic, social, and political goals that it seeks to achieve. (Masoud,2005-2006:48-49)

## 2.2.2. Objectives of fiscal policy:

Through the use of public financial tools, the government seeks to achieve the following points (Hussein, Abdul-Zahra, 2024: 308):

1. Economic stability, by using its tools represented by taxes and public spending to influence economic variables.( Al-Sulaykhi,2013:13-14)
2. Reducing the budget deficit, as it works to reduce the discrepancy between public expenditures and the state's public revenues.
3. Encouraging and increasing economic growth, by increasing spending, providing all kinds of subsidies, and reducing taxes, as well as increasing public spending on infrastructure that helps provide an investment climate that encourages national and foreign investments in the sectors that the state wishes to develop.
4. Fighting poverty is done through several measures, whether about the measures taken in terms of spending or terms of measures related to tax policy. The state can also fight poverty by providing support to projects and companies that produce necessary goods, and low-income people allocate a large portion of their income to spend on these goods.
5. Achieving full employment, as private investment plays an essential role in balancing the national economy (in capitalist economies). Here comes the role of the state in creating the appropriate and conducive environment for the prosperity and growth of private investment. In socialist countries, public investment dominates, so the role of fiscal policy is to provide the necessary financial resources for public investment.
6. 6. Achieving social justice. Social justice, or equality as some see it, means that everyone should enjoy rights and freedoms without discrimination. Social justice is achieved through the redistribution of income using financial policy tools. That is, reducing income disparity resulting from differences in returns on factors of production, as raising income levels for the poor classes is an important goal of financial policy.

## 2.3. Domestic public debt

A public loan is defined as (an amount of money that the state obtains from the national or (foreign) market, and undertakes to return it and pay interest on it according to certain conditions). Therefore, the state resorts to public loans in three cases:

The first case: is related to the tax, that is, when the tax capacity reaches its maximum.

The second case is when angry social reactions appear, due to imposing a new tax or raising the price of an old tax, even if the economy has not reached the first case.

The third case: You resort to it when the role of other means of financing is exhausted.

## 2.4. The concept of financial sustainability and ways to measure it

### 2.4.1. The concept of financial sustainability:

Fiscal sustainability is defined as a country's ability to meet its current and future financial obligations. Without the need to reschedule debts, the methodology in defining financial sustainability depends on stabilizing the ratio of public debt to GDP at a certain level or determining a specific percentage of GDP to be targeted (but leaving the door open for this percentage ( Khalili,2011:6)

Financial reforms are formulated in a way that helps achieve this percentage, as it is a hypothesis upon which predictions of the future are based in light of policies that are agreed upon for a certain period ( Al-Wasal,2018).

Usually, it is five years. In this case, fiscal policies are considered sustainable if they can stabilize or reduce the ratio of public debt to GDP. Sustainability is also defined as the implicit measure of an economy's ability to produce economic well-being over time ( Al-Wasal,2018)

The term financial sustainability in the general sense refers to the ability to service public debt in the medium and long term without the occurrence of financial crises or severe pressures on public finances, such as having to reduce public spending by a large percentage or stopping some government activities ( Moash,2020:4)

The International Monetary Fund defines the concept of financial sustainability as (the situation in which the borrower can service its debts without the need to make fundamental changes in the balance of expenditures and revenues in the future ( Mukhtar and Okil,2018:401)

knew European Commission The concept of financial sustainability is: (an expression of the government's ability to bear the financial burden of its debts in the future, avoid excessive increases in government expenditures, and not burden future generations with the burden of debt (Carone,2012:13) (Aslanli,2015:2). Fiscal policy is not sustainable if it involves excessive accumulation of debt and its servicing over time.

#### 2.4.2. Methods of measuring financial sustainability:

Financial sustainability has many indicators, the most prominent of which are:

1. Public debt ratio index as a percentage of gross domestic product. This index is one of the most indicative indicators that countries use to measure the degree of their indebtedness to assess the level of public debt about economic activity and its ability to repay debts. This index is one of the indicators of economic stability about public debt, through which it is calculated. Measuring financial sustainability and this ratio, the ratio of public debt to (GDP), varies from one country to another and according to the capabilities available in each country, and in some Arab countries, the law does not allow it to exceed more than (40%), while in European Union countries it must not It exceeds (60%), according to the Maastricht Agreement and according to the index of the ratio of public debt to (GDP), and the financial situation of any country is unsustainable in the following cases (Khan 2018: 94) The first case: If the ratio of public debt to (GDP) increases above its historical rates Or about the approved standards. The second case: If it is necessary to maintain a fixed ratio of public debt to (GDP), then the current financial policy needs to change. The third case: If the ratio of public debt to (GDP) decreases from its historical rates, or if the ratio of public debt to GDP stabilizes without changing the current fiscal policy, then the fiscal policy is considered sustainable ( Qarrouf and Al-Amrawi,2020:114)
2. Tax gap index, where the tax gap index measurement =  $(B/GDP) - (E/GDP)$ , where (E) public expenditures during the year, (B) tax revenues, and (GDP) gross domestic product during the year and in Most people notice that the percentage of actual taxes obtained annually is not sufficient to finance the burden of public spending, which prompts the state to search for other sources of revenue, and that this indicator is not a sufficient condition for judging the monitoring and analysis of the development of tax revenues as it is one of the main sources of financing public revenues and their components. The task of financing the burdens of government activities and one of the main elements in implementing the state's general financial policies. The tax gap: This indicator is one of the vital indicators for knowing tax capacity, as it is used to determine the ratio of taxes to gross domestic product necessary to stabilize the ratio of public debt to (GDP) in the medium term, and to compare it to the ratio of actual taxes to (GDP), as it is possible to determine the ratio of taxes and its growth rate. Which can prove the ratio of public debt to (GDP) in light of planned spending. (Al-Wasal, Ferjani, 2017 (83), and the tax gap index is calculated by comparing the target tax ratio to GDP with the ratio of government spending, according to the following formula (Al-Shabani,2021:24)
3. Primary deficit indicator: The primary budget deficit differs from the traditional budget deficit, as it excludes interest payments from the list of public expenditures and also excludes interest payments collected from the public revenue structure,

as this indicator gives evidence of the extent of the restrictions imposed on making public budget decisions. As a result of the increase in the government's public debt burden ( interviewer,2015:282)

4. The calculation of the primary deficit index depends on analyzing the structure of public spending and public revenues to determine the percentage of deficit in the general budget, by calculating the difference between public expenditures without interest payments and public revenues without interest collected ( Abou Sharar,2007:527)
5. Other: Other indicators can be built, additional indicators that are compatible with the situation of the country under study, such as the index of the ratio of oil revenues, especially in rentier countries that depend on oil, to public revenues, and there is another index that is the index of public revenues covering public expenditures, etc. (Mahomet et Aziz,2019:214)

## 2.5. Iraq's internal public debt for the period (2010-2021)

After the internal public debt, it is the first pillar of the general budget delegation, and covering its deficit. Iraq has often used internal public debt and cover the ongoing deficit in the current budget for several years, which consists of treasury transfers and bonds.

When observing the data in Table (1), the internal public debt for the period (2010-2021) witnessed a state of fluctuation between rise and fall, as the internal public debt recorded (9180) billion dinars in 2010, with a positive growth rate of (8.85%), and this is due to the increase in treasury transfers. With commercial banks. As for the period from 2011 - 2013, we find that the total internal public debt witnessed a significant and continuous decline, reaching (4,255) billion dinars in 2013, with a negative growth rate of (-35.01%). This decrease in debt is due to the extinguishment of the value of government bonds and transfers held by the government. The Central Bank at the end of 2012, in addition to a decrease in loans granted by the Central Bank to government departments, as well as an increase in oil revenues as a result of the rise in oil prices in global markets (Banque centrale d'Irak,2012:43)

During the period 2014-2017, the internal public debt witnessed a significant increase, as the debt increased from (9520) billion dinars in 2014 with a rate of change of (123.74) to (47678) billion dinars in 2017 with a rate of change of (0.67%), and that the reason for the increase in debt is The internal year is due to the double shock that the Iraqi economy was exposed to in the second half of 2014, which was represented by the decline in global oil prices, in addition to the increase in military expenditures to confront terrorist organizations, which burdened the general budget, forcing the government to Resorting to internal and external debt to fill the financial gap represented by a lack of liquidity to cover the budget deficit for this period.

As for the years 2020 and 2021, the internal debt rose again to record its highest level, reaching (69,912) billion dinars in 2021, with a positive growth rate of (68.82% over the previous year. This is due to the increase in most components of the internal public debt due to the increase in the state's financial obligations after the coronavirus crisis and the decline in... Oil prices that caused a decline in public revenues (Banque centrale d'Irak,2018-2021:50)

## 2.6. Iraq's external public debt for the period (2010-2021)

Iraq was not previously classified as one of the countries that need international support to achieve development, as a quarterly country that relies on oil revenues to finance spending. Iraq was able to achieve financial sustainability by balancing revenues generated from oil exports and public spending, but the events and circumstances that passed Iraq, especially the wars and sanctions, whose effects are still ongoing, forced it to resort to borrowing from a large number of countries and international financial institutions (Al-Jumaili et al,2021:14)

The external public debt has developed significantly from the levels it was recording in 2003 and before. The debts and their interest amounted to (157,879) billion dinars in 2004 due to the debts that accumulated in Iraq due to the First Gulf War, but it began to decline to reach (48,216) billion dinars in In 2009, a negative growth rate amounted to (-21.56%) compared to 2004, and the reason for the decline is due to the lifting of international sanctions on Iraq, in addition to the agreement with the Paris Club on rescheduling Iraq's debts, according to which (80%) of Iraq's foreign debts were extinguished. This is on the one hand. On the other hand, Iraq's exports of crude oil increased and its prices rose, which led to an increase

Oil revenues, achieving a surplus in the general budget, and increasing foreign reserves, enabled the government to pay some of its debts and reduce the burden of servicing the external debt represented by installments, interest, and interest (Mahomet et Mustafa,2021:365)

During the period from 2013 - 2016, the external debt increased by about (78,659) billion dinars in 2016, with a positive growth rate of (3.44%). A group of factors combined led to an increase in the volume of external debt, including Iraq's exposure to attacks by terrorist organizations and damage to the infrastructure. In addition to the decrease in public revenues, especially oil revenues due to the decline in oil prices, as well as the increase in military expenditures necessary for the process of liberating the country.

As for the following years, the external public debt decreased, as it reached its lowest level during the study period, reaching (30,333) billion dinars in 2019, with a negative growth rate of (38.04), due to the improvement in the security and economic conditions of the country, as well as the increase in oil prices in global markets, which led to To increase public revenues. In 2020, the debt rose again to a record (34,823) billion dinars, with a positive growth rate of (14.80%). This is due to the increase in the state's financial obligations after the two Corona crises and the decrease in oil prices, which caused a decrease in public revenues. As for the year 2021, the internal public debt decreased to (31,185) billion dinars, with a negative growth rate of (10.45), and this is due to the increase in public revenues due to the rise in oil prices, as well as the increase in transfer revenues resulting from changing the exchange rate, and the resulting profits from the evaluation foreign currency and its equivalent in local currency.

#### 2.6.1. The extent to which the Iraqi reality is compatible with the limits of financial sustainability indicators

To demonstrate the extent to which the Iraqi reality is compatible with the limits of financial sustainability indicators, we discussed the following indicators

#### 2.6.2. Indicator of the ratio of public debt to gross domestic product

This indicator is one of the important indicators because it is linked to a basic variable, which is the gross domestic product, as the ratio of public debt to the gross domestic product is one of the approved measures to determine the extent of risk and safety of borrowing operations. The debt ratio has been set not to exceed (60%) of the gross domestic product until... It is within safe limits, as this ratio is called (the debt ceiling), which is a standard approved by international financial institutions and agreed upon among the European Union countries under the Maastricht Treaty in 1992. However, if it exceeds the specified ratio, it indicates the presence of risks from the borrowing process that will be reflected negatively. On economic development processes (Mahomet et Mustafa,2021:367)

The high ratio is represented by the debts accumulated before 2003 from the era of the previous regime and the country's inability to meet debts and service them, as well as the decline in gross domestic product. The ratio of public debt to gross domestic product before 2003 exceeded safe limits, but this ratio began to gradually decrease and Within safe limits due to the growth of the gross domestic product, as well as the increase in Iraq's oil exports and the rise in oil prices in global markets, which led to an increase in public revenues, especially oil revenues, and a decrease in the amount of debt, as well as Iraq's commitment to pay the debts it owes after the agreement with the creditor countries. However, the percentage of the index began to gradually rise, reaching (63.99%) of the gross domestic product in 2016, which is a percentage that exceeds the safe limits referred to, as a result of the double shock that Iraq was exposed to and its repercussions after 2014, represented by the security deterioration taking place in Iraq due to military operations against... Terrorist organizations, as well as the decline in oil prices in global markets, led to a decrease in the gross domestic product and an increase in public debt to (126021)

One billion dinars in 2016 to cover military expenses, as well as the reconstruction of infrastructure damaged as a result of the war and sabotage operations, which is an indication of the seriousness of the size of the public debt, the heavy burden of the debt, and the inability of the Iraqi economy to fulfill its financial obligations to the creditor countries.

Table (1) Iraq's public debt for the period (2010-2021) (billion dinars)

year	Debt Internal	Growth of debt Internal %	Debt internal to Public debt	Debt External %	Growth of debt External%	External debt To the public debt %	Total public debt
2010	9180	-	12	66720	-	88	75900
2011	7446	(18.89)	9	71681	7.44	91	79127
2012	6547	(12.07)	9	67285	(6.13)	91	73832
2013	4255	(35.01)	6	68465	1.75	94	72720
2014	9520	123.74	12	69022	0.81	88	78542
2015	32142	237.63	30	76041	10.17	70	108183
2016	47362	47.35	38	78659	3.44	62	126021
2017	47678	0.67	38	78136	(0.66)	62	125814
2018	41822	(12.28)	46	48954	(37.35)	54	90776
2019	38331	(8.35)	56	30333	(38.04)	44	68664
2020	64246	67.61	65	34823	14.80	35	99069
2021	31	8.82	69	31185	(10.45)	31	101097

Source: - Statistical country report, central Bank of Iraq, 2022.

- Yearly report – 2022, Central Statistical Organization, Iraqi Ministry of Planning

The ratio of public debt to GDP began to fluctuate between decrease and increase, but it was within safe limits until it reached its lowest level during the study period, reaching (24.71% in 2019). This is due to the decrease in public debt to (68,664) billion dinars on the one hand, and the increase in gross domestic product. On the other hand, due to the increase in Iraq's oil exports and the rise in oil prices.

It should be noted that adopting the indicator of the ratio of public debt to GDP in oil economies, in which crude oil constitutes a percentage of (96.65%) or more of their total output, indicates that the goods and services that the economy produces are sufficient to repay debts without incurring more debts. Inaccurate, as this percentage may rise to levels exceeding 100% in a rentier economy such as the Iraqi economy when global crude oil prices decline for more than a year. The ratio of debt to GDP is usually misunderstood, as many believe that a ratio that exceeds (100%) indicates that bankruptcy is the legal status of governments that are unable to pay outstanding or insolvent debts. Japan is a country with a ratio exceeding (200), for more than A decade ago with no signs of default. Therefore, this ratio does not provide solid statistics about the probability of default in a country (Hamoudi,2022:7)

### 2.6.3. Deficit to GDP index in Iraq for the period (2010-2021)

The calculation of this indicator depends on estimating the initial deficit or surplus-value of the general budget by calculating the difference between public expenditures and public revenues. The ratio of the deficit to the gross domestic product has been set not to exceed 3% by the Federal Financial Management Law No. (6) of 2019. The indicator is one of the important indicators as it aims to control the accumulation of debt and achieve financial sustainability, it is noted that Iraq's federal budget suffers from a planning deficit and not Actual, because this deficit often turns into a surplus at the end of the fiscal year, but in some years the federal budget returns from an actual deficit resulting from limited non-oil revenues, especially tax revenues. (Journal des faits irakiens:7).

Table (1) indicates that for most of the years of the study, the ratio of the deficit to output index was positive, meaning that the budgets achieved a surplus, so the ratios were acceptable, which facilitates achieving financial sustainability. As for the years 2009, 2013 - 2016, and 2019 - (2020), they achieved negative values, meaning a deficit. Whereas, in 2009, the budget witnessed a deficit, as the deficit to GDP reached a negative ratio of (-0.27), but within safe limits, and this is due to the country being affected by the global crisis that

As for the years 2014 and 2016, the budget achieved a deficit, as the ratio of the reservation to local benefit reached a negative percentage, reaching (3.04%) and (6.43%), respectively. This increases the unsustainability of public finances, due to the exceeding of the ratio of the general budget deficit to the domestic product. The safe or permissible limits are by Federal



Financial Management Law No. (6) of 2019, according to which the deficit rate was set at 3% of GDP. This deficit is due to several reasons, starting with the decline in oil prices in global markets, which had major repercussions on the state's general budget, which contributed

By increasing the budget deficit rate and exacerbating structural weaknesses and imbalances due to almost complete dependence on oil export revenues, in addition to the pressures resulting from increased military spending and the cost of dealing with the humanitarian crisis caused by terrorist organizations, which prompted the government to address this crisis by obtaining funding, whether through Religion (internal or external) (1).

The deficit-to-output ratio reached about (5.86%) in 2020, and thus its percentage exceeded the safe or permissible limits previously determined. This is due to the decline in oil revenues as a result of the decline in global demand for oil due to the Corona pandemic and the decline in global oil prices, in addition to Iraq's commitment To reducing production according to OPEC+ decisions.

Table (2) Debt to GDP index in Iraq for the period (2010-2021) (billion dinars)

year	Total public debt	gross domestic product	Total debt to GDP %
2010	75900	162064	46.83
2011	79127	217327	36.41
2012	73832	254225	29.04
2013	72720	273587	26.58
2014	78542	266332	29.49
2015	108183	194681	55.57
2016	126021	196924	63.99
2017	125814	221665	56.76
2018	90776	268918	33.76
2019	68664	277884	24.71
2020	99069	219768	45.08
2021	101097	301439	33.54

**Source:**

- Statistical country report, central Bank of Iraq, 2022.
- Yearly report – 2022, Central Statistical Organization, Iraqi Ministry of Planning

This indicator was based on the idea of maintaining the required ratio of public debt to output, and it follows that tax policy should aim to reduce the difference between taxes achieved for financial sustainability and taxes Actual data on the volume of public spending, growth rates of real output, and the ratio of public debt to output. This indicator helps monitor and analyze tax revenues as one of the main variables in implementing fiscal policy and financing the burdens of government activities. However, it does not represent a sufficient condition to judge the sustainability of government financial policy.

Table (3) Deficit to GDP index in Iraq for the period (2010 - 2021) (billion dinars)

Year	Surplus or deficit	GDP	Surplus or (deficit) GDP %
2010	44	162064	0.03
2011	25231	217327	11.61
2012	14678	254225	5.77
2013	(5288)	273587	(1.93)
2014	(8088)	266332	(3.04)
2015	(3928)	194681	(2.02)
2016	(12658)	196924	(6.43)
2017	1932	221665	0.87
2018	25693	268918	9.55
2019	(4158)	277884	(1.50)
2020	(12883)	219768	(5.86)
2021	6232	301439	2.07

**Source:**

- Statistical country report, central Bank of Iraq, 2022.
- Yearly report – 2022, Central Statistical Organization, Iraqi Ministry of Planning

When analyzing the data and the results reached by calculating the tax gap index as in Table (12), you notice that the index recorded positive results during the study period indicating that financial sustainability has not been achieved, which means that the tax revenues generated are very low as it is not possible to stabilize the debt ratio. The overall output is within safe limits, because the tax system in Iraq suffers from deficiencies and severe weakness in mobilizing revenues and limiting tax bases, due to the many challenges and obstacles facing the activation of tax policy as a source of the budget and a tool for stimulating growth and economic stability. The most prominent challenges that hinder the development of the tax system can be summarized in the excessive reliance on oil to finance the budget and the economy, and thus the weak incentive to activate taxes as an alternative resource to finance public spending. The symptoms are usually political and social. Weak tax administration in collecting taxes also leads to a decline in tax revenues due to the severe shortage. The information and data necessary to accurately identify taxpayers and the spread of financial and administrative corruption in all administrative circles of the tax apparatus. In addition to the large number of tax exemptions and incentives that Iraq witnessed, randomly and ill-considered, especially after the year 2003, this is on the part of (Hassan,2016:435) On the other hand, the weakness of the regulatory system is another obstacle to the development and divorce of the tax system in the country. The tax administration also faces another problem, represented by defective accounting data in the private sector, which increases the difficulty of estimating project profits, in addition to the spread of many unorganized sectors far from oversight (such as those in the liberal professions and crafts, which contributes to the loss of a large portion of potential tax revenues). It is not possible to ignore the role of technical aspects in the decline in tax revenues, as most workers in the tax system suffer from low educational levels and weak levels of skill and training.

Table (4) Tax gap index in Iraq for the period (2010 – 2021)

year	local production At fixed prices	Tax revenues	Tax revenues achieved to the output	Revenues Target tax To the output	Tax gap index
2010	132687	1503	0.93	(0.047)	0.97
2011	142700	1783	0.82	(0.103)	0.92
2012	162587	2311	0.91	(0.144)	1.05
2013	174990	2518	0.92	(0.018)	0.94
2014	175335	1885	0.71	0.056	0.65
2015	183616	2015	1.04	0.015	1.02
2016	208932	3861	1.96	(0.306)	2.27
2017	205130	6298	2.84	0.159	2.68
2018	210532	3651	1.36	0.023	1.33
2019	222141	4014	1.44	0.003	1.44
2020	196985	4718	2.15	0.318	1.83
2021	202468	4536	1.50	(0.042)	1.55

**Source:**

- Statistical country report, central Bank of Iraq, 2022.
- Yearly report – 2022, Central Statistical Organization, Iraqi Ministry of Planning

**3. The relationship between monetary policy tools and financial sustainability:**

**3.1. Monetary policy tools:**

Monetary policy tools are divided into direct and indirect tools.

1. Direct tools of monetary policy: It is a set of tools taken by the central bank, in addition to quantitative tools, to influence the quality and direction of bank credit in a manner consistent with the objectives of economic development. The Central Bank uses qualitative tools to support quantitative tools to achieve an effective monetary policy. The most important methods used by the Central Bank in this field are as follows. (monthly,2008:120)

A- Determining the upper limits for certain types of loans according to the needs of the national economy.

B- Following a policy of persuasion, providing advice and moral influence to direct the activity of commercial banks to pursue a specific credit policy.

C- Follow a policy of differentiation in interest rates according to the type and purpose of loans.

Indirect tools of monetary policy: This group of quantitative means aims to influence the volume of available cash in general and exchange credit in particular through the cost of credit and thus affects the volume of total cash, aiming to maintain economic stability. The indirect tools are: -

A-Rediscount Price: Commercial banks resort to borrowing from the Central Bank when they need additional liquidity to provide loans to their clients, by guaranteeing the securities they hold. The Central Bank then imposes an interest rate on the loans it provides to them. The rediscount price is not fixed at a certain level but can change depending on the quality of securities offered for rediscount in terms of the degree of security, as well as according to the mechanism adopted in secured lending through the so-called (Lombard) facilities, that is, the central bank's facilities that take the form of short loans. They are very long-term, collateralized, and generally priced at a higher price than any alternative sources of funds. In some countries, it may form an essential part of the payment system, or it may take the form of providing credit through auctions. Finally, this price may change depending on the mechanism adopted by the Central Bank in dealing with cases of economic deflation and inflation, to influence the volume of loans granted by changing their cost, which in turn affects the monetary basis and then the money supply. (ALI,2008:5-6)

A - Open market operations: Open market operations mean the intervention of the central bank in the financial market to buy or sell securities in general and government bonds in particular, to influence the money supply according to the requirements of economic conditions (Abdal Majeed,2000:255)

A - Cash reserve ratio: The volume of bank credit and regulating the money supply can be controlled by making changes in the legal cash reserve ratio. If the goal of the central bank is to increase supply

B- Increasing the volume of credit reduces the percentage of this reserve, which increases the ability of commercial banks to expand the volume of loans they grant, thus expanding and increasing the money supply. However, if the central bank moves towards reducing the money supply, it raises the legal reserve ratio, which limits the ability of commercial banks to grant loans, and the volume of credit, and thus the money supply, decreases.

C- Mandatory reserve: The Central Bank of Iraq is legally empowered to determine the amount of all or some of the assets that must be kept by banks as a reserve for deposits defined by the law and as it deems appropriate. The mandatory reserve constitutes one of the main pillars of indirect tools, through which the central bank can influence the lending capacity of banks (Abdelhak, Abadi, 2023).

4.

## 5. The third topic: The relationship between fiscal and monetary policy tools and financial sustainability

### 5.1. Financial policy tools:

**spending policy** (Expenditure Policy: (The tunnel policy can be defined as (the tunnel program that is based on the nature and roles of the state in political and social life and aims to confront the government and its local bodies). The spending policy varies from one country to another depending on the nature of the existing economic system. In the capitalist state, the spending policy still achieves the maximum possible amount of economic commitment and then implements and controls the

obligations, but it cannot be controlled. As for the developed countries, they build advanced industrial production equipment and increase the consumption of basic materials.

Public revenues: The expansion of the state's role and increased intervention in economic life has become a necessity. The government seeks to provide public services and achieve well-being for the people of society. However, it needs money to spend to achieve its desired goals. As the expansion of public expenditures has become a feature of the times, public revenues must expand to cover these expenditures (bédouin ,2012:121-122)

## 5.2. The impact of financial policy tools on financial sustainability:

This part of the research aims to provide an overview of the economic and financial linkages between the government and financial sectors. Here he focuses on the potential channels through which financial policies can support or threaten financial stability. These links are broad and somewhat heterogeneous; Therefore, it may be useful to distinguish between several types of relationships:

1. Governments and their fiscal policies can interact directly with the financial system as market participants when financing their fiscal deficits and managing debt. In this context, criteria such as the amount and maturity of public debt held by financial institutions, (changes in) sovereign credit ratings, the proportion of government debt insured through credit default swap markets, and the share of interbank lending that is covered by government securities as collateral are established and can be taken into consideration when evaluating the relationship between fiscal policies and financial stability. In addition, the government plays a key role as a tax authority, influencing the behavior of financial sector participants through tax structures.
6. **The indirect linkages between fiscal policies and the financial sector**, via NBFCs or households, are extensive and therefore of great importance. They may have more important consequences for financial stability than direct links, also in light of the potential consequences for a country's national balance sheet. Furthermore, there may be cross-border contagion effects coming from or having an impact on the rest of the world. These indirect effects are particularly important in a monetary union such as the euro area. In principle, fiscal policies may represent a risk to financial stability if they pose a risk to the performance of the real economy. On the contrary, they contribute to financial stability as long as they support overall sound economic developments.
  - 6.1. The perception of the stability of the financial system may depend on the financial strength of the government behind it, which in turn is influenced by the amount of recognized and emergency government support provided to the financial system. Therefore, financial risks and financial risks may not be completely separable. When assessing financial stability risks, fiscal sustainability must be taken into account to assess the ability of governments to reduce potential negative feedback loops that could develop into a self-reinforcing downward spiral.
  - 6.2. Although contributing to financial stability has not received much attention as a standard objective of fiscal policy to date, appropriate fiscal policies may contribute to financial stability in several aspects, which may include the following:
  - 6.3. Contribute to achieving a high level of public and market confidence through responsible and sustainable conduct of fiscal policy;
  - 6.4. Create financial room for maneuvering to have a strong ability to intervene in times of crisis;
  - 6.5. Providing sound incentives for owners and managers of financial institutions, as well as for the economy as a whole, about tax and spending structures.
  - 6.6. Establish restrictive rules for providing financial assistance to financial institutions to reduce "moral hazard" behaviors.

Overall, the different channels through which fiscal policies can support or pose risks to euro area financial stability merit regular examination of the euro area's financial position for financial stability assessments.

7. **Analysis of the relationship between government spending** (as an indicator of fiscal policy) and gross domestic product (as a reflection of monetary policy and the most important economic activities in Iraq for the period (2010-2021).

Table (5) The development of government spending and gross domestic product and the percentages of the contribution of economic activities to its formation in Iraq for the period (2010-2021)

years	Government spending	GDP	Relative contribution of commodity activities (%)	Relative contribution of distribution activities (%)	Relative contribution of service activities (%)
2010	70134201	132687028	65.48	21.91	13.16
2011	78757666	142700217	65.65	21.69	13.25
2012	105139576	162587533	65.74	22.59	12.23
2013	119127556	174990175	65.24	22.97	12.18
2014	83556226	178951406	67.14	16.79	16.36
2015	70397515	183616252	68.18	16.69	14.75
2016	67067437	208932109	73.03	14.61	12.85
2017	75490115	205130066	71.44	16.14	13.23
2018	80873189	202776268	71.85	18.49	14.33
2019	111723523	211789774	71.06	20.49	9.25
2020	76082443	188112265	70.99	19.75	9.92
2021	102849659	202523457	71.41	18.83	10.39

Prepared by the researcher based on:

- Central Bank of Iraq, annual economic report, Department of Statistics and Research, statistical bulletins for different years.
- Ministry of Planning, Central Bureau of Statistics, Directorate of National Accounts, various annual reports.
- Ministry of Finance, final accounts, various annual reports.

It aims to explain the nature of the relationship between the elements of total injection and the GDP and the actual contribution to the formation of the GDP according to the most important economic activities as one of the indicators of economic stability. This will be clarified by knowing the nature of the relationship between each element of the total injection and the contributions of those activities. Economic composition of the gross domestic product, according to the following details:

1 - Analysis of the relationship between government spending and the gross domestic product and the most important economic activities contributing to its formation in Iraq for the period (2010-2021) to clarify the nature of the relationship linking government spending as one of the elements of total injection and the gross domestic product and the most important economic activities contributing to its formation as one of the elements. Indicators of economic stability

It is clear from Table (5) and by tracking the path of development of both government spending and gross domestic product in Iraq during the research period, that the relationship between them was positive in most of the research periods by the logic of economic theory, which assumes that increasing the volume of government spending will inevitably lead to an increase in the volume of aggregate demand. This, according to the assumption that appropriate and natural conditions are available, leads to an increase in the volume of employment and production, and then to an increase in the volume of total supply, as it appears that the volume of government spending began to rise continuously during the period (2010 to 2014), accompanied by an increase in the size of the gross domestic product. From (132,687,028) million dinars in the year (2010) to (178,951,406) million dinars during the year (2014), this confirms the existence of a positive relationship that is consistent with the logic of the economic theory. However, the increase in the volume of output was not due to the increase in the volume of government spending at that time, but rather due to the increase in The percentages of

contribution of commodity activities to its composition, which increased from (65.48) in (2010) to (67.14%) in (2014), as a result of improved quantity returns.

8. **Produced from crude oil in particular by foreign investment** institutions and companies associated with its production, compared to the decline in the contribution rates of distribution activities, which witnessed a decline from (21.91) in the year (2010) to (16.79%) the year (2014). This indicates the existence of a relationship There is an inverse relationship between government spending and the size of the contribution of distributive activities to the formation of output. This contradicts the assumption of economic theory because there is a government consumption orientation at the expense of supporting and enhancing the capacity of activities of the productive structure of the economy in the country, which caused a decline in the contribution of distributive activities compared to its relative increase for service activities as a result of improvement. The added values of social and personal development services and activities increased the percentage of contribution of service activities to the formation of the gross domestic product (13.16%) in (2010) to (16.36%) in (2014), but this improvement was not at a sustainable pace and was relatively mixed, mainly as a result Current spending increased, a large portion of which went to the increase in salaries and security ministries' jobs at that time, and government spending levels witnessed a successive decline after that, specifically during the period (2014-2016). This is due to the changes and development path of government spending being closely linked to the developments and fluctuations in oil price levels at the time as a result of the dual crisis arising due to the turmoil in the security situation and the deterioration of oil prices, while the volume of domestic product continued to increase relatively despite the decline in its growth rates according to fluctuating levels for the same reasons, rising from (178,951,406) million dinars in the year (2014), reaching (208,932,109) million dinars in the year (2016) so that the relationship becomes temporarily inverse due to the dual crisis arising due to the turbulent security situation and the deterioration of oil prices, which negatively affected commodity activities and were characterized by fluctuations in their contribution rates as a result of those circumstances. witnessed in the same period, while the scope of the contribution of distributive activities continued to deteriorate with increasing neglect, which coincided with the causes and crises that occurred in the country during the same period, bringing the lowest contribution rate for those activities to (14.61%) in the year (2016), and the service activities were not Regardless of being affected by these conditions, its contribution rates witnessed relative variation as a result of the fluctuations witnessed in the levels of government spending, recording approximately (12.85%) in the year (2016), after which government spending increased from (75,490,115) million dinars in the year (2017) to (111,723,523) million dinars. In the year (2018), This was offset by a decrease in the gross domestic product from (205,130,066) million dinars in the year (2017) to (202,776,268) million dinars in the year (2018), so that the inverse relationship continues, but this time as a result of the decline in the volume of production due to the consequences and circumstances left by the dual crisis, and this contradicts the logic of Economic theory proves the imbalance in the structure of government and productive spending at the expense of expanding the circle of non-productive spending compared to the limited productive contributions of most economic activities and their fluctuation in terms of maximizing the value of the gross domestic product, and then the relationship returned to become positive with each of them increasing during the years (2019, 2021), while The relationship between the volume of government spending and the percentages of contribution of economic activities varied, which turned out to be inverse between government spending and the relative contribution of commodity activities, specifically during the period (2019, 2020). As a result of the decline in the growth of most activities except the electricity sector activity, the relationship with the relative contribution of distribution activities was characterized by positivity during the same period as a result of the increasing government interest in enhancing and supporting most of the facilities for these activities, while the relationship remained inverse between government spending and the contribution of service activities in light of the increasing neglect of services. These activities, and then the Corona pandemic crisis in 2020) confirmed the direct relationship between government spending, the size of the gross domestic product, and the percentage of contribution of commodity, distribution, and service activities as a result of the consequences that this crisis had on other variables, which resulted in a significant decline so that the relationship

continues in its character. Positive with the return of improved government spending, which amounted to (102,849,659) million dinars in the year (2021), so the size of the gross domestic product also increased in the same year and recorded a value of (202,523,457) million dinars, with a relative improvement in contributions to economic activities as a result of the recovery of the global economy and its various sectors and activities, which As a result, the growth levels of these activities in Iraq improved, making it clear from the above that the relationship between government spending, gross domestic product, and the contribution rates of commodity activities was positive for most of the research period and is consistent with the logic of the economic theory. However, this correlation was not realistic and is not based on the mechanism of the multiplier as a result of the inflexibility of the production system in Iraq in a way that is commensurate with the increasing volume of government spending and the diversity of financing methods and direction of its uses. Most of the increase in the gross domestic product was primarily the result of the high contribution rates of activities. Commodities that depend on the oil sector and this is explained by the inverse relationship that linked government spending with the relative contributions of both distributional and service activities in most of the research times, moving in a direction other than the growth of real productive activities, with an imbalance in the production structure resulting from the limited amount of contribution of these activities to The combination of total supply growth and increasing dependence on oil as the sole rentier resource.

The third topic: The role of fiscal policy in achieving Iraq's financial sustainability for the period (2010-2021)

Fiscal policy plays an important and major role in achieving financial sustainability through its tools compared to monetary policy, whose role is limited to achieving monetary and financial stability. Therefore, the focus here will be on fiscal policy, as follows: -

#### 8.1. **First: Public expenditures and their role in achieving financial sustainability for the period (2010-2021)**

Public expenditures witnessed a clear fluctuation during the research period (2011-2013) towards (17832.1, and 40380) billion dinars, with annual growth rates of (14.7%, and 37.6%), respectively, to implement the five-year investment plans by the Ministry of Planning to diversify revenue sources, then It decreased during the period (2014-2016) and amounted to (35450, 15894.1) billion dinars with negative annual growth rates (-12.2%, -42.1%), respectively, due to the decline in oil revenues, while it increased during the period (2017-2019) about (16464.5, 24422.6) billion dinars at annual growth rates of (3.6%, and 76.7%), respectively, due to the stability of the security situation and the reconstruction of areas destroyed during the war, then it decreased in (2020) to about (3208.9) billion dinars at a negative growth rate (-86.9%) and with relative importance (4.2%) due to the delay in forming the Iraqi government and the spread of the Corona pandemic, and in the year (2021) it increased about (13,322.9) billion dinars at an annual growth rate of (315.2%) and with relative importance (13%) due to the improvement of economic conditions, the establishment of public projects, and the improvement of infrastructure. This amounted to The average investment expenditures are (31,459.64) billion dinars, with an annual growth rate of (30.2%), which constituted about (43.7%) of the average public expenditures during the research period.

As for the ratio of public debt to public expenditures, it amounted from about (33,261) in (2011) to about (30,778) in (2013), then rose to about (73,118) in (2016), then decreased to about (69,396) in (2019). The average total internal public debt reached about (59,352.9) for the period (2011-2021)

It is clear that the index of ratios of public debt to public expenditures has reached about (68.3%) as an average of public expenditures, and has witnessed fluctuations during the research period as a result of the rise and fall in oil revenues and prices. This necessitates those adjustments be made to public expenditures, especially in times of low oil prices, and especially to Current expenditures because they constitute a percentage as an average during the research period, and especially the salaries and wages paragraph, which constitute a percentage as an average for the aforementioned period. This requires encouraging the private sector to provide job opportunities, especially for university graduates, so that this does not constitute a burden on the budget.

Public expenditures are divided into current expenditures, which constitute a percentage of approximately (129.2, and 151.2) respectively of the total public expenditures. Current expenditures were noted during the research period, as during the period (2011-2013) they amounted to approximately (60925.5, 78746.8) billion dinars, with annual growth rates (11.6% and 3.9%, respectively, due to economic openness and increased investment and oil revenues, while it decreased during the period (2014-2016) to (76,741.7, 51,173.4) billion dinars, with negative annual growth rates (-2.5%, -7.6%), respectively. This is due to the decline in oil revenues and the control of terrorist groups over Iraq, after which it rose during the period (2017-2019) and reached (59025.6, 87300.9) billion dinars with annual growth rates of (15.3%, and 30.2%), respectively, due to the stability of the security and economic conditions, then it declined in (2020) and amounted to about (72873.5) billion dinars, with a negative growth rate (-16.5%) and a relative importance of (95.8%) due to the delay in forming the government, in addition to the austerity policy followed by Iraq due to the decline in global oil prices, and finally it rose about (89526.7) billion. Dinar in the year (2021) with an annual growth rate of (22.9%) and relative importance (87%) due to increasing oil revenues. The average current expenditures amounted to about (56730.6) and an annual growth rate of (14.7%), which constituted about (75.8%) of the average public expenditures. During the search period. As for the ratio of public debt to current expenditures, it amounted to about (33,261) in (2011) to about (52,825) in (2015), then increased to (80,697) in (2017), then decreased to about (69,396) in (2019), as It was higher in most years of research than the ratio to public revenues, as it reached (26%) in (2012), while it rose to about (137%) in (2016), after which it decreased again to reach (92%) in (2021). As for the public debt ratio public expenditures reached (414%) in (2004) and then gradually declined to reach (26%) in (2013), while they increased by (99%) in (2016) and about (107%) in (2017) due to the improvement of the security and economic situation. As a result of the stability of global oil prices, it reached (97%) in (2021), and the average relative importance during the research period was about (96.3).

Investment expenditures witnessed a clear fluctuation during the research period, as they amounted to about (2011-2013) about (17832.1, 40380.7) billion dinars, with annual growth rates of (14.7%, 37.6%), respectively, in order to implement the five-year investment plans by the Ministry of Planning to diversify in Sources of revenues then decreased during the period (2014-2016) and amounted to (35450.5, 158940.1) billion dinars with negative annual growth rates (-12.2%, -42.1%), respectively, due to the decline in oil revenues, while they increased during the period (2017-2019) about (16464.5, 24422.6) billion dinars with annual growth rates of (3.6%, 76.7%), respectively, due to the stability of the security situation and the reconstruction of areas destroyed during the war, then it decreased in (2020) to about (3208.9) billion dinars with a negative growth rate (-86.9%) ) and with relative importance (4.2%) due to the delay in forming the Iraqi government and the spread of the Corona pandemic, and in the year (2021) about (13,322.9) billion dinars increased at an annual growth rate of (315.2%) and with relative importance (13%) due to the improvement of economic conditions, the establishment of public projects, and the improvement of infrastructure. Infrastructure, the average investment expenditures amounted to (31,459.64) billion dinars, with an annual growth rate of (30.2%), which constituted about (43.7%) of the average public expenditures during the research period. As for the ratio of public debt to investment expenditures, it reached about (186.5) in (2011) to about (76.21) in (2013), then rose to about (460.0) in (2016), then decreased to about (54.69) in (2018).

Table (6) Public expenditures and public debt for the period 2010-2021 (values in billion dinars)

year	General expenses 1	growth rate%	Current expenses 2	growth rate%	Investment expenses 3	growth rate%	Public debt 4	Rate 2/1	3 rate/4	Rate 1/4	Rate 2/4	Rate 1/3
2010	70134.2		54580.8		15553.4		30725	128.4	197.5	43	56	22
2011	78757.6	12.3	60925.5	11.6	17832.1	14.7	33261	129.2	186.5	42	77.4	22.6
2012	105139.5	33.5	75788.6	24.4	29350.9	64.6	31462	138.7	107.1	30	72.1	27.9
2013	119127.5	13.3	78746.8	3.9	40380.7	37.6	30778	151.2	76.21	26	66.1	33.9
2014	112192.1	-5.8	76741.7	-2.5	35450.5	-12.2	38977	146.1	109.9	35	68.4	31.6
2015	82813.6	-26.2	55381.8	-27.8	27431.8	-22.6	52825	149.5	192.5	64	66.9	33.1



2016	73570.8	-19	51173.4	-7.6	15894.1	-42.1	73118	143.7	460	99	76.3	23.7
2017	75490.1	12.6	59025.6	15.3	16464.5	3.6	80697	127.8	490.1	107	78.2	21.8
2018	80873.2	7.1	67052.8	13.6	138203.3	-16.1	75592	120.6	54.69	93	82.9	17.1
2019	111723.5	38.1	87300.9	30.2	24422.6	76.7	69396	127.9	284.1	62	78.1	21.9
2020	76082.4	-31.9	72873.5	-16.5	3208.9	-86.9	95377	104.4	2972	125	95.8	4.2
2021	102849.6	35.2	89526.7	22.9	13322.9	315.2	100027	114.8	750.7	97	87	13
middle	90729.51	6.29	69093.18	6.13	31459.64	30.2	59352.9	131.8	490.1	68.3	76.22	23.78

Source: Ministry of Finance, Economic Department for the period (2010-2021)

## 8.2. Second: Public revenues and their role in achieving financial sustainability for the period (2010-2021)

Public revenues witnessed a clear fluctuation during the research period (2011-2013) towards (103989.1, 113840.1) billion dinars, to implement the five-year investment plans by the Ministry of Planning to diversify sources of revenues, then it decreased during the period (2014-2016) and amounted to (105553.8). (53413.4) billion dinars, respectively, due to the decline in oil revenues, while it increased during the period (2017-2019) by about (77422.2, and 107566.9) billion dinars, respectively, due to the stability of the security situation and the reconstruction of the areas that were destroyed during the war, then it decreased in (2020) by about (63,199.7) billion dinars, due to the delay in forming the Iraqi government and the spread of the Corona pandemic, and in the year (2021) it increased about (13,322.9) billion dinars at an annual growth rate of (315.2%) and with relative importance (13%) due to the improvement of economic conditions, the establishment of public projects, and the improvement of infrastructure. The average investment expenditures amounted to (32,881.3) billion dinars, with an annual growth rate of (23.5%), which constituted about (43.7%) of the average public expenditures during the period.

As for the ratio of public debt to public revenues, it reached about (43.7) in (2010) to about (27) in (2013), then rose to about (137) in (2016), then decreased to about (65) in (2019).

It is clear that the index of public debt to public revenues has reached about (74.09) as an average of public revenues, and has witnessed fluctuations during the research period as a result of the rise and fall in oil revenues and prices. This necessitates those adjustments be made to public expenditures, especially in times of low oil prices, and especially to current expenditures. Because it constitutes (69093.18) as an average during the research period, especially in the salaries and wages section, and this requires encouraging the private sector to provide job opportunities, especially for university graduates, so that this does not constitute a burden on the budget.

Public revenues are divided into oil revenues, tax revenues, and other revenues, and oil revenues, constituted a percentage of about (82219.67) as an average for the period (2010-2021). Oil revenues witnessed a clear fluctuation during the research period, as during the period (2011-2013) they amounted to about ( 98090, 110677) billion dinars, due to economic openness and increased investment and oil revenues, while it decreased during the period (2014-2016) to (97072,44267) billion dinars, respectively, due to the decrease in oil revenues and the control of terrorist groups over Iraq, after which it increased during The period (2017-2019) amounted to (65,071, 99,216) billion dinars, respectively, due to the stability of the security and economic conditions. Then it decreased in (2020) and amounted to approximately (54,448) billion dinars, due to the delay in forming the government, in addition to the austerity policy followed by Iraq due to the decrease in Global oil prices. As for the ratio of public debt to oil revenues, it reached about (45.98) in (2010) to about (27) in (2013), then rose to about (137) in (2016), then decreased to about (65) in (2019).

As for tax revenues, they constituted a percentage of (3.59) of public revenues as an average for the period (2011-2021). Other revenues witnessed a clear fluctuation during the research period. They increased during the period (2011-2013) towards (1491.29, 2335.11) billion dinars, due to openness. Economic growth and an increase in investment and oil revenues, decreased during the period (2014-2016) to (1552.82, 3861.89) billion dinars, due to the decrease in oil revenues and the control of terrorist groups over Iraq, after which they increased during the period (2017-2019) and reached (3451.5,4014). (1 billion dinars, due to the stability of the security and economic conditions, then it declined in (2020) and

amounted to about (718.4) billion dinars, due to the delay in forming the government, in addition to the austerity policy followed by Iraq due to the decline in global oil prices, and finally it rose to about (390). 5 billion dinars in 2021, to increase oil revenues. The average tax revenues amounted to about (3083.01), which constituted about (90729.51) of the average public expenditures during the research period.

As for the ratio of public debt to tax revenues, it reached about (1.84) in (2010) to about (2.05) in (2013), then rose to about (7.23) in (2016), then decreased to about (3.73) in (2019).

As for other revenues, they constituted (141570.6) as an average for the period (2010-2021). Other revenues witnessed a clear fluctuation during the research period.

Table (7) Public revenues, oil, and tax revenues for the period 2010-2021 (values in billion dinars)

year	Public revenues	Oil revenues	Tax revenue	Public debt ratio/1	Public debt ratio/2	Rate 1/3
2010	70178.2	66819	1292.1	43.7	45.98	1.84
2011	103989.1	98090	1491.29	32	33.9	1.43
2012	119817.2	116597	2135.11	26	26.98	1.78
2013	113840.1	110677	2335.11	27	27.8	2.05
2014	105553.8	97072	1552.82	37	40.15	1.47
2015	72546.3	51312	1068.12	73	102.94	1.47
2016	53413.4	44267	3861.89	137	165.17	7.23
2017	77422.2	65071	3451.5	104	124.01	4.45
2018	106569.8	95619	5686.2	71	79.05	5.33
2019	107566.9	99216	4014	65	69.94	3.73
2020	63199.7	54448	4,718	151	175.17	7.46
2021	109081.5	87448	5,390	92	114.38	4.94
Middle	91931.52	82219.67	3083.01	74.09	83.78	3.59

Source: Ministry of Finance, Economic Department for the period (2010-2021)

Second: The role of public revenues in financial sustainability

As for public revenues, they witnessed a clear fluctuation during the research period. They rose from about (70178.2) in 2010 to about (113840.1) in (2013) due to the rise in oil prices, then decreased to about (72546.3) in (2015), the lowest and highest. Oil revenues decreased by about (66,819) in (2010), then increased to (110,677) in (2013), then decreased to (44,267) in (2016). As for the ratio of internal public debt to public revenues, it reached about (18.89%) in (2010) and then increased. About (237.63%) in (2015).

As for the ratio of external debt to public revenues, it reached about (7.44) in (2011) and about (10.17) in (2015).

As for the ratio of public debt to public revenues, it reached about (43.7) in (2010) and then to (137) in (2016), and the average public debt to revenues (74.09%).

It is clear from this that the ratios of internal, external, and public debt to public revenues have witnessed a clear fluctuation between rise and fall depending on the fluctuation of oil revenues and prices.

## 9. Conclusion

### 9.1. Conclusions

1. This paper has discussed various fundamental aspects of the link between monetary and financial stability and several central issues that still require further analysis, particularly the practical importance of risk-taking behavior in reshaping the way monetary policy operates.

2. There are many strategic and tactical challenges facing central banks in terms of designing a policy strategy to integrate the monetary policy framework and macroprudential policy, especially to achieve the dual goals of monetary (price) stability and financial stability.
3. Given the fact that the relationship between monetary and financial stability, whether substitutes or complements, is still openly debated, it is important to draw its implications, especially about the policy mandate of the central bank.
4. Through the research data, it becomes clear that the percentage of oil revenues' contribution to the state's general revenues during the study period constituted the largest percentage and double the contribution of the rest of the government revenues, including tax revenues, which confirms the weakness of the role of fiscal policy in reaching an acceptable level of financial sustainability in the Iraqi economy, because oil revenues are variable. Iraq is subject to the variables of the international oil market.
5. On the other hand, the financial policy represented by public expenditures has been dominated by current expenditures compared to investment expenditures, especially in the wages and salaries section, which constituted a large proportion of current expenditures. This reflects negatively on financial sustainability, especially in the years of low oil prices in light of times that are reflected in oil revenues. And therefore, on public revenues.
6. We notice an increase in public debt, especially internal debt, in light of the increase in public expenditures greater than public expenditures, and the public budget suffered from an increasing deficit, which forced us to resort to public borrowing, especially internal debt. This reflects negatively on financial sustainability in Iraq, and when reviewing government public debt for the study period, the average amounted to (59352.9) Its ratio to total government revenues in its various forms shows that it has increased significantly and continuously, which causes weakness in financial sustainability.

## 9.2. Recommendations

1. Re-engineering the ethnic economy with efficient visions and policies that take into account all problems related to macro variables by inferring control tools (monetary and financial) to achieve optimal financial stability.
2. Directing economic indicators to change the composition of the monetary base and the high-power money available in the Iraqi economy, so that the largest part of it enters the circle of economic activity instead of 80% of the high-power money remaining in the hands of the public and entering it into the financial cycle.
3. The banking system is the lifeblood of the economy and the lifeline of its financing. Therefore, it is necessary to encourage the transformation of banking activities from a storehouse of state money (government banks), and from a currency trader (private banks) to a financier of various real economic activities.
4. Ensuring economic and financial stability comes through understanding the movement of macroeconomic variables, their conditions, and the trends influencing them locally and externally. What is required is to understand and then draw efficient policies for the direction of that movement and its conditions in a way that achieves optimal employment of financial and monetary policy tools and compatibility between them to reach financial stability.
5. Reducing public expenditures, especially current ones, especially wages and salaries for employees, by encouraging the private sector to absorb the unemployed.
6. Diversifying sources of Iraqi income and not relying on a single source (oil) by encouraging the agricultural and industrial sectors.

## Funding

None

## Acknowledgement

None

## Conflicts of Interest

The author declares no conflict of interest

## Reference

- Abdel Fattah Abdel Rahman Abdel Majeed, *The Economics of Money (Islamic View)*, Faculty of Commerce - Mansoura University, 2000.
- Abdul Hafiz Abdul Latif Hussein Ali, *Transformations in Monetary Policy between the Two Stages of Monetary Restriction and Liberalization in Iraq*, PhD thesis - College of Administration and Economics - Al-Mustansiriyah University, 2008.
- Abdullah Khader Abtan Al-Sabaawi, *The impact of monetary policy on inflation rates in selected developing countries for the period (1980 - 2003)*, Master's thesis - College of Administration and Economics - University of Mosul, 2008.
- Abu Sharar Ali Abdel Fattah, *International Economics Theories and Policies*, Dar Al-Masirah for Publishing, Distribution and Printing, Amman, 2007.
- Ahmed Saleh Hassan, *Analysis of the relationship between oil revenues and financial sustainability in Iraq for the period (1990-2013)*, *Journal of Economic and Administrative Sciences*, Volume 22, Issue 94, 2016.
- Al-Hawri, Muhammad Ahmed Ali (2015) *Analysis of the sustainability of public finances in Yemen in light of the decline in oil production*, *University of Science and Technology Journal of Social Studies*, Issue (44) Dar Al-Mandumah
- Al-Shabani, Mayada Hassan, Rahim (2021) *Financial sustainability and its impact on economic performance, Iraq and Algeria, a case study, a doctoral dissertation submitted to the Council of the College of Administration and Economics, Department of Economics, Al-Qadisiyah University.*
- Bassem Khamis Obaid Al-Shammari, *The effectiveness of monetary policy in achieving economic stability in Iraq for the period from 1990-2005*, *College of Administration and Economics, University of Baghdad*, Master's thesis, 2008
- Bassem Khamis Obaid, *The impact of fiscal policy in achieving stability and growth in Iraq for the period 1990-2010*, doctoral thesis - College of Administration and Economics - University of Baghdad, 2013.
- Central Bank of Iraq, *General Directorate of Statistics and Research, Annual Economic Report for the Years 2018-2021*
- Central Bank of Iraq, *General Directorate of Statistics and Research, Annual Economic Report for 2012*
- Drawsi Masoud, *Financial Policy and its Role in Achieving Economic Balance, the Case of Algeria from 1990-2004*, Faculty of Economics and Management Sciences University of Algiers, 2005-2006.
- Enas Muhammad Rashid, Ahmed Ibrahim Jumaa, and Ibrahim Hamid Mohsen, *analysis of the impact of public debt on government spending and economic growth in Iraq, a study in light of the impact of general budget laws on the Iraqi economy for the period (2008-2020)*, *Iraqi University Journal*, No. 52, Part 3, 2021.
- Farid Jawad Al-Dulaimi, Iftikhar Muhammad Al-Rafi'i, *Measurement and Analysis of New Indirect Monetary Policy Tools in Controlling Public Liquidity in Iraq for the Period (3/2005 - 3/2007)*, *Iraqi Journal of Administrative Sciences - Issue Twenty-Nine.*
- Garrouf Muhammad Karim and Al-Amrawi, Salim (2020), *Measuring and analyzing the impact of financial sustainability indicators on economic growth in Algeria for the period (1990-2018)*, *Knowledge Collections Magazine*, Volume (6) Issue 2.
- Giuseppe Carone, *Fiscal Sustainability Report 2012*, European Commission, Directorate General for Economic and Financial Affairs, Brussels, p1 3) Kenan Aslanli, *Fiscal sustainability and the State Oil Fund in Azerbaijan*, *Journal of Eurasian Studie*, 2015.
- Hajar Abdelhak, Atheer Abbas Abadi: *The effectiveness of modern methods of financial analysis and forecasting in reducing banking risks Case study for Gulf Commercial Bank for the period (2016\_2021)*, *Economics and Administrative Studies journal*, No.4, Vol. 2, I: <http://doi.org/10.58564/EASJ/2.4.2023.5>

- Ibtisam Ali Hussein, Zahra-Abdul-Zahra, The future of fiscal policy in light of economic diversification, Analytical study for the Iraqi economy period (2010-2020), Economics and Administrative Studies journal, No. 1, Vol 3, 2024. , DOI: <http://doi.org/10.58564/EASJ/3.1.2024.18>
- Jiyad Matar Badawi team, The impact of fiscal policy on monetary variables in Iraq for the period (1970-2009), Master's thesis - College of Administration and Economics, University of Kufa.
- Kamal Amin Al-Wasal, Infrastructure and Public Investments in the Arab World between the Necessity of Development and the Funding Dilemma, Arab Center for Research and Policy Studies, first edition, Beirut, 2018
- Kamal Amin Al-Wasal, Infrastructure and Public Investments in the Arab World between the Necessity of Development and the Funding Dilemma, Arab Center for Research and Policy Studies, first edition, Beirut, 2018
- Mohamed Hamed Mohamed Al-Zahar, Monetary Policy and Economic Stability, Master's Thesis - Faculty of Commerce - Cairo University, 1972.
- Muhammad Khairy Daoud Khanjar Al-Sulaikhi, The role of financial policy in improving the investment climate in the tourism sector in selected countries, Master's thesis - College of Administration and Economics - University of Karbala, 2013.
- Muhammad Moash, Methodology for Calculating the Financial Sustainability Index, An Applied Case for Some Arab Countries, Economic Studies, Arab Monetary Fund, Issue 65, 2020.
- Muhammad Shaima Fadel and Aziz Khalil Ismail (2019), Measuring financial sustainability in Iraq for the period (2003-2017) using the VRA model, Tikrit Journal of Science and Economics, Volume 15, Issue 47, Part 2.
- Nasrin R.Khalili, Practice sustainability from grounded theory to emerging p6 strategies, library of congress, first edition, 2011,
- Osmani Mukhtar and Okil Rabah, Financial Sustainability Indicators in Algeria during the Period 1990 - 2016, Maaref Magazine, Department of Economic Sciences, Thirteenth Year, Issue 25, 2018.
- Saeed Ali Muhammad and Anmar Atallah Mustafa, the impact of external public debt on GDP (excluding oil) in Iraq for the period 2004 - 2019, Tikrit Journal of Administrative and Economic Sciences, Volume 17, Issue 55, Part 3, 2021.
- Sami Hamid Al-Jumaili, Muhannad Khalifa Al-Muhammadi, and Ahmed Younis Jabbar, The development of public debt in Iraq for the period (2004-), Dinar Magazine, Issue 23, 2021.
- Sarmad Jassim Hamoudi, Public Debt and its Reflection on Some Economic Variables in Iraq for the Period 2006-2020, Journal of Monetary and Financial Studies, Issue Ten, 2022.