Analysis of the relationship between financial sustainability and government spending in Iraq for the period (2004-2019)

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Abstract:

The research aims to study ways to achieve financial sustainability in Iraq, as well as to measure the type and direction of the relationship between financial sustainability indicators and government spending in Iraq and for the period (2004-2019), the main research problem was increasingly Government spending that exacerbated public debt rates and imposed future financial obligations on the country, and that the benefits and installments of public debt conflict with the possibilities of achieving financial sustainability in Iraq. To test the research hypotheses, the program Eveiws10 was used, and the research resulted in several conclusions, the most important of which were: The results of the sustainability indicators for public revenues (the extent of revenue coverage, oil revenue coverage of total revenue, non-oil revenue for total revenue, and the tax gap) indicate that financial sustainability It was not achieved in Iraq during the research period, and in light of the conclusions, a set of recommendations were reached, the most prominent of which are: The government must work to reduce the deficit in the public budget by rationalizing government spending and controlling it in proportion to the volume of investment spending to achieve the maximum possible benefit from public expenditures and the development of economic sectors non-oil. In addition to that, work continuously to find alternative sources of oil revenues and diversify sources of income through the development of legislation that would maximize revenues from state property and find the appropriate and court mechanism to control the border crossings’ revenue streams and tax revenues.

Keywords: financial sustainability, public expenditures, public revenues, public debt.

Introduction :

The concept of financial sustainability in general returns to the fore in economic discussions, considering that financial sustainability in its various dimensions is one of the modern concepts that are concerned with measuring the state’s ability to meet its obligations and finance its expenditures by relying on its own resources, and this concept represents the ideal proposition to know the extent to which the gap The financial sustainability of any country, and the increase in the role of the state and its intervention in economic activity led to an increase in its burdens accordingly and its expenditures exceeded its collected revenues, thus creating a deficit and increasing debts, and with reference to the risks of increasing debts and their burdens, the concept of financial sustainability appeared, as a guide for governments to guide and work in his shadow. In order to achieve the objectives of the research, the research was divided into three sections. The first section dealt with financial sustainability, its concept, methods of measuring it and the factors affecting it. The second topic dealt with the government agreement and its sources of financing, and the third topic analyzed the indicators of financial sustainability in Iraq for the period (2004-2019).

Research Methodology

First: the importance of research

Financial sustainability is an indicator for judging the success or failure of fiscal policy, through the role that fiscal sustainability plays in the economies of developing and developed countries alike in influencing economic and financial variables, since the existence of a sustainable fiscal policy means that the economy is moving in the right direction. There is an effective exploitation of the available economic resources, and the importance of the study is reflected in the statement of the type and size of the relationship between financial sustainability and government spending.

Second: the research problem

The research problem lies in the fact that the increased government spending has caused an exacerbation of public debt rates and imposed future financial obligations on the country, and that the benefits and installments of public debt conflict with the possibilities of achieving financial sustainability in Iraq.

Third: Research objectives

The research aims, in general, to examine ways to achieve financial sustainability in Iraq for the period 2004-2019. The detailed objectives of the study can be identified as follows:

1- Reviewing the conceptual framework of financial sustainability and the indicators for achieving it.

2- Review of the conceptual framework for government spending in Iraq for the period 2004-2019.

3- Analyzing indicators of financial sustainability and government spending in Iraq.

4- Measuring the type and direction of the relationship between financial sustainability indicators and government spending in Iraq.

Fourth: Research hypotheses

The research stems from a main hypothesis that there is an impact of financial sustainability indicators on government spending, from which the following branches are divided:

1- There is a statistically significant effect of the public debt service/public expenditure ratio on government spending.

2- There is a statistically significant effect of the ratio of total public debt/GDP on government spending.

3- There is a statistically significant effect of the coverage ratio of public revenues/public expenditures in government spending.

4- There is a statistically significant effect of the ratio of oil revenues/public revenues on government spending.

Fifth: Limitations of Research

The spatial boundaries of the research were represented by the Iraqi economy, which included indicators of financial sustainability and government spending. As for the time limits of the research, it included the period (2004 to 2019).

Sixth: Research Methodology

To achieve the objectives of the research, the inductive approach was adopted using descriptive analysis to examine indicators of financial sustainability and government spending on the one hand, as well as using the quantitative analysis approach to estimate and explain the extent to which financial sustainability has been achieved in Iraq for the period (2004-2019) on the other hand.

The first topic: Financial sustainability, its concept, methods of measuring it, and the factors affecting it.

First: The concept and definition of financial sustainability:

There are many concepts of financial sustainability, but the great development in the nature and size of the role of the state prompted the economic literature to review the concept of sustainability within the framework of what is known as modern analysis. Despite the multiplicity of concepts, but it can be said that all of them agree that the basic condition for achieving public financial sustainability is to assess the government's ability to continue implementing the policies set by its public finances, and to finance various public spending programs without being exposed to cases of financial default and default. .

This is consistent with what was adopted by the International Monetary Fund (IMF), which gave a concept of financial sustainability, which is "the situation in which the borrower can continue to service his debts without the need to make a fundamental change in public expenditures and revenues in the future" (Izquierdo, 2004: 95).

From an extrapolation of the economic literature, we review several definitions of financial sustainability, including:

Fiscal sustainability is defined as "the condition achieved when there is acceptable public debt intended to cover a deficit required in order to finance desirable growth) (Deiong j, Bradford, 2002: 399).

It was also defined as (the way by which the government increases the basic surplus not in the short term, but in the long term, which is very appropriate to cover its current debt) (Ber Dahlby, 1993: 12).

It was also defined as (a time corridor of the ratio of government debt to GDP, which makes this ratio constantly tend to remain stable in the future) (Deiong j; Bradford, 2002: 399).

And also defined financial sustainability (that the government is financially able to continue to pay the public debt burdens in the present and the future with the least amount of damage and to be able to create wealth and thus increase revenues in society) (Galal & Others, 2006: 13), and financial sustainability expresses the possibility of Achieving that the ratio between GDP to debt remains fixed, and that the ratio returns to its natural rates in the event of the disappearance of external influences or emergency events (Yamauchi & Alejardo, 2004: 2), and it also means that the government's financial resources are able to cover future debt burdens without the need To reschedule or not accumulate those debts. ((Albero, 2003: 45, and all of the above definitions are consistent with what is known as the rules of balanced budget, which means that the budget must be balanced in a way that prevents the accumulation of debts annually, as the rule requires that the deficit is mainly caused by emergency conditions that disappear with their demise, and then the financial surplus is directed to pay off the accumulated debt .

Within the context of the budget, borrowing is not resorted to except in the case of financing investment spending and not current spending, which is known as the golden rule, which indicates that financial sustainability is achieved as long as current revenues cover current expenditures. (Countries, 2004: 18) The first attempts to analyze financial sustainability are attributed to the economist (John Maynard Keynes), who was concerned with the public debt crisis that France experienced in 1923, as he referred to the French government to develop a sustainable financial policy that achieves the constraint of the public budget and indicated that the ability to sustain endurance appears Starting from reaching low and acceptable values of the public debt-to-GDP ratio (2012: 3: J.Ahn)

Second: Methods of measuring financial sustainability

The measurement and analysis of financial sustainability is in accordance with the standards set by the international financial institutions from several combination indicators.

1- Traditional indicators for measuring financial sustainability: These indicators include indicators of the ratio of public debt to GDP.

2- Secondary indicators to measure financial sustainability.

The great weight of the public debt burden in the public budget has begun to form a structural imbalance in countries whose budgets are characterized by permanent deficits, and from this emerged the need to find indicators that allow controlling the ability of countries to face debt before financial sustainability. , which are indicators that work on the compatibility and cohesion of the financial budgets on the one hand, and the public debt on the other hand, and the burden of accumulating debt obligations and interests on the third hand. These indicators are: (Hill and others, 2011: 488).

A - Buitter indicator: This indicator focuses on the fiscal policy that achieves financial sustainability, which must maintain a deficit ratio in the public budget to GDP at its current level, in order to ensure the stabilization of the necessary financing and then the public debt. Buiter believed that the sustainability of fiscal policy must preserve the net assets of the public sector in relation to the gross domestic product. He gave the following formula:

$DT = (RT – NT)\ wt$ ……(1)

Since:

$Dt/ Yt = dt$ and expresses the ratio of the primary deficit to the gross domestic product.

$Wt/Yt= Wt$ It expresses the ratio of net accrual to GDP.

: rt is the rate of interest, :nt is the growth rate. Bueter suggested that the financial sustainability index be as follows:

$d - dt = (rt – nt)\ wt – dt$ …….(2)

This indicator expresses the difference between the specific primary deficit and the current primary deficit. If the value is negative, this indicates that the primary deficit is so large that its value cannot be determined or fixed, and then the fiscal policy can achieve sustainability.

This indicator can be calculated in finding the value of the primary deficit or surplus of the public budget. This is done by calculating the total public spending without including interest values, as well as calculating public revenues without interest values. This ratio indicates the extent of the restrictions imposed on budget decision-making due to the increase in debt burdens. General This indicator of the public budget is a necessary condition to ensure the stability of the public debt ratio to the output and financial sustainability, but it is not a sufficient condition to achieve this. In theory, in order to achieve financial sustainability, the budget must continue to achieve a continuous primary surplus in the coming years, so that the government will be able to repay the public debt and its due burdens. (Al-Baghdadi, 2010: 420)

b- The tax gap index: It is called the Blanchard index, and it is also called the tax robustness. This indicator was developed by one of the classical thinkers, Oliver Blanchard, which shows the changes taking place in the amount of public expenditures; Because the government is mostly bound by public expenditure programs and government transfers, unlike tax revenues. (Muhammad and Hussein, 2010: 155)

This indicator calculates the difference between the tax revenues generated and the tax burdens necessary for the level of financial sustainability, i.e. the ability of taxes to cover public expenditures, or the extent to which the debt-to-GDP ratio can be stabilized. The following equation can be represented to express this indicator (Al-Baghdadi, previous source: 427):

$T = gt + (rt – nt)\ dt^*$ …..(3)

T is tax revenue in relation to GDP needed to stabilize public debt to output

Rt: the real interest rate.

Nt: GDP growth rate.

Dt: The ratio of domestic public debt to GDP.

gt: Ratio of public spending to GDP excluding debt burdens.

This indicates that the total tax collected to the output must cover the total public spending and this total includes the public debt service from the proceeds of growth in the GDP, since the tax gap is the difference between the actual collected taxes to the GDP (t) and the amount of the target value of taxes (t*) needed to stabilize domestic public debt to GDP.

The tax gap index can be formulated as follows:

$T^* = T + (rt – nt)\ dt - gt\ T^*$ …..(4)

If the target tax revenue (T*) is greater than the actual tax revenue (T), then the tax gap is positive and thus we are in a financially unsustainable situation, and here it is required to reduce public expenditures or increase the ratio of tax revenues to GDP to the target level (T*). This indicator is based on the idea of maintaining the required ratio of public debt to GDP. It follows that the tax policy should aim to reduce the difference between taxes achieved for financial sustainability and actual taxes. Therefore, the target tax to GDP ratio is:

Target tax rate to GDP = ratio of government spending to output (without interest payments) + (real interest rate - real output growth rate) x public debt to GDP ratio. (Heij and et al, 2004: 536

Mostly, it is noted that the amount of tax revenue obtained annually is not sufficient to finance

Expenditure burdens, which leads the government to find sources of revenue. Therefore, this indicator helps to monitor and analyze the development of tax revenues, considering that it is an important tool of fiscal policy and financing public expenditures. However, it does not indicate that it is a sufficient condition to judge the sustainability of fiscal policy as well. The ratio cannot be applied to oil-producing countries, because the volume of GDP is large due to oil revenues, meaning that obtaining a tax commensurate with (GDP) is unfair to taxpayers (Heij and et al, 2004: 536).

Blanchard was interested in time and its impact, as long as fiscal policy operates in a dynamic environment and the changes that we do not take into account are large over time. Government expenditures and transfers may change in the future as a result of periodic movements in output. For example, in times of deflation, public expenditures ratios rise to The result, in addition to the fact that there may be government contracts that may show their effects on fiscal policy (Patterson, 2002: 265)

C- The Revenue Gap Index: It is one of the indicators that test the effect of a combination of fiscal policy behavior such as spending, taxes, output growth and changes in the ratio of public debt to GDP in affecting financial sustainability, by estimating the (Blanchard) index of the level of targeted tax revenues that It must be realized and measure the gap between the achieved and the target.

In the event that the current revenue gap is negative, this indicates a situation in which financial sustainability is achieved, and conversely, if the current revenue gap is positive, this indicates a situation in which financial sustainability is not achieved. (Helmut, 2004: 57)

D- Primary surplus or deficit indicator: This indicator is based on the fact that the fiscal policy that achieves financial sustainability must maintain a primary surplus ratio of the general budget / GDP at its current level in order to ensure the stability of the debt / GDP ratio, as follows:

Primary surplus = public revenue - overhead without interest payments.

E- The traditional International Monetary Fund model for assessing financial sustainability under certainty: for a certain period, the Fund continued to assess sustainability based on the principle of full assurance of variables and compatibility with the government budget constraint, and the debt in the short period is repaid from the surpluses generated in public budgets in the later stages. What is important is the rate of output growth and the real interest rate and its direct impact on the ratio (debt / gross domestic product). As for the country that has a high output growth rate, it has achieved a low primary surplus because the increased growth is doing its duty to pay off debts and their burdens, as in the following equation:

$$Bt = (1+rt)\,Bt-1 - Xt \quad \ldots\ldots\ldots \quad (5)$$

whereas :
Bt is the balance of domestic public debt in period t.
Rt is the nominal interest rate in period t
Xt surpluses realized in period t, (public revenues also include the issuance of cash after deducting overheads).

Financial sustainability is achieved by the ratio of debt to output if the trend of public debt does not increase over time, and then the primary surplus achieved is so large that it covers the basic debt balance, and then sustainability is achieved in the long term. ((Baltagi, 2011: 385

However, estimating long-term variables is difficult to anticipate, in addition to the fact that government behavior moves in an environment that is not isolated, but affects and is affected by other economic variables, so the Fund switched to assessing sustainability to another approach. (This model has the advantage of being generalizable to all economies of countries because of its transparency in addition to its reliance on the standard aspect. The Fund has taken steps for sustainability as follows: (Charles Wyplosz, 2007: 12)

1- Develop a long-term program for at least five years, clarifying expectations of the economic variables that affect the public debt, such as interest rates, inflation, and the exchange rate.

2- Measuring the evolution of the size of the public debt / GDP by certain accounting methods for a period of five future years.

3- Test the internal and external shocks on each of the indicators (interest rate, GDP growth rate and current account balance) and these indicators are changed by 0.5% standard deviation for five years and 0.2% standard deviation for other indicators for the same period as well as the exchange rate will be reduced by 30% at the beginning of the test period.

4- After reaching the results, if the debt level is high, it requires achieving sustainability and working to reduce it, but if the results are within the safe limits of the public debt, then it is possible to continue to pay the public debts and achieve the rate of economic growth.

F- The International Monetary Fund model for assessing financial sustainability in light of uncertainty: The International Monetary Fund focused on the issue of sustainability in public finance as one of the financial transparency tools in countries and was used to reach results on indicators of public debt, deficit and financial forecasting in the medium term. The first surpluses are used to stabilize The debt and comparing it with the surplus actually achieved, in order to see the consistency of the actually achieved primary surplus with achieving a stable ratio of the debt-to-GDP ratio and the efforts made to reach the stability of public debt, and according to this model there are several steps to know the sustainability of the financial situation or not, which is to predict the overall variables The real ones such as (money supply, output growth rate, investment, inflation, net trade balance, current accounts, reserves, domestic credit, interest rates, public revenues, government spending without interest and interest installments, in addition to that the model predicts the size of the debt according to the amount of cash financing expected to be provided and the possibility of covering the deficit in the future with reference to The increase in the debt ratio affects economic variables, such as the rise in debt Inflation rates, low reserves and an increase in external debt, and that the model sets out a vision for the trend of public debt that achieves stability in the medium term and the overall indicators that it aims to achieve. On economic variables, specifically interest rates and economic growth, the impact of these two variables directly on sustainability, just as the model takes into account its calculations

G- Index of the International Monetary Fund for countries that depend on depleted resources: The index of the International Monetary Fund in light of (certainty and uncertainty) to assess and determine financial sustainability will lead to umbrella results. For countries that depend for their public revenues on depleted resources such as oil and natural gas, the Fund has adopted a model Specific to those countries trying to know the real capabilities of their economies to finance their obligations from the expenses and pay off their debts and interests, and the public revenues of these countries are characterized by the fact that a large proportion of them, if not all of them, are from the revenues of depleted resources used to finance government activities and pay the debt and its burdens, if the measurement is made according to traditional indicators In determining sustainability, then financial sustainability will be achieved, because most of the revenues go to finance public spending in addition to the remaining surpluses, all in the short term, but in the long term, these revenues may not continue at the same pace, not to mention the inflexibility of public spending, which increases the budget deficit. At that time, the real situation of the public finances appears (Enaya, 1998: 48).

Third: The most important factors affecting financial sustainability

There are many elements that affect financial sustainability, and the impact of each element differs from the other on financial sustainability depending on the country and the financial policies followed in that country and the extent to which financial sustainability is affected by those elements, and these elements include interest rate, economic growth rate, public debt and debt service (internal and external) and government spending as follows:

1- The interest rate: The interest rate is one of the economic factors that directly affect the financial sustainability, as both the interest rate and the financial sustainability are related to a direct inverse relationship arising from the fact that the rise in interest rates means a decrease in the ability of the country to issue debts due to the high costs of these debts Whether these debts are internal or external, which means that the state bears additional financial burdens in the field of servicing these debts, and this negatively affects the financial sustainability, and the interest rate is subject to two main factors: private saving and private investment. A set of factors as the interest rate is negatively affected by private saving, which in turn depends on individuals' decisions to save and/or consume, and the interest rate is also positively affected by the demand for private investment, which in turn is subject to the amount of foreign investment associated with foreign investment decisions. On the other hand (Kabbajah, 2012: 6).

2- The rate of economic growth: Economic development is one of the main goals that governments in the world's countries seek, whether developed or developing. It is one of the necessary conditions to improve the level of economic activity and achieve macroeconomic stability for the societies of these countries, and the process of achieving acceptable economic growth rates is linked to the availability of a set of fundamental factors in the community, which is considered the appropriate climate for its development (Abdul Rahim, 2008: 87).

3- Public debt and debt service (internal and external)

Public debt is one of the most important factors affecting financial sustainability. There is no sustainability in the presence of debt that burdens the government, so we will discuss it in some detail to know its concept and how it develops.

A- The concept of public debt: Sovereign debt means public debt, the sum of what the country obtained from internal and external loans and their interests until a certain date. When local financial resources are unable to cover the requirements of government spending, external borrowing is resorted to. One of the international institutions, and countries resort to these loans in order to fill their economic gaps at the local levels represented by the budget deficit, and externally represented by the balance of payments deficit, as it also means: the amounts that one of the public units in the state commits to others; As a result of her borrowing these amounts to finance the budget deficit with a pledge to repay it after a period, and to pay interest on the debt balance according to the conditions for creating this debt. The term government debt in general expresses the total debt incurred by a state at a certain moment, and the reasons behind this are either the state borrows from its citizens through several methods, the most prominent of which is that the government debt is in the form of non-negotiable bonds, or treasury bills for a period of three months Almost, or negotiable bonds. In this case, it is called the total debt (internal debt), or resorting to borrowing from abroad, and this is (external debt), i.e. it is the collection of foreign debts on a country at a given moment, and it is denominated in other currencies, i.e. not in its national currency. Government debt consists of domestic domestic debt and foreign foreign debt (Panizza & Jaimovich, 2006: 2)

b- The intellectual development of the public religion:

Public debt is one of the sources of public revenues, the government resorts to to finance its public expenditures when it is unable to provide other revenues, especially taxes, so it borrows either from individuals or from local or international bodies or from foreign countries, and the idea of government debt is relatively recent because it dates back to the beginning of the century. Approximately the eighteenth, and traditional thought in most of it took a hostile stance on the policy of the state resorting to public debt, and demanded the necessity of balancing the state's general budget annually. In order to finance wars that are of no use to society, or for consumer or extravagant spending that does not bring much benefit to society, and accordingly, the classics see that if the state is unable to cover its expenses from its sovereign revenues due to exceptional circumstances such as military expenditures in times of war, the state can resort to to borrow, provided that this is within the narrowest limits, and the state must repay it as soon as possible. The criticism of the classic was that the public debt leads to: (Alvarado & others, 2004: 11)

A- Transferring private sector funds that were intended for operation (employment) in productive projects in the public sector, where they are squandered in unproductive public expenditures.

b- Raising interest rates, the person who obstructs economic activities and misdistributes economic resources and stands as an obstacle in the way of economic progress.

C - Public debt service leads to an increase in the tax burden.

d- Public debt service leads to inflation; As the state may work to pay its obligations by issuing cash sometimes.

As for the contemporary thinkers, represented by Keynes and those who followed him from among the modern economic and financial jurists, he criticized the traditional thought, especially in the formula of launching and generalization that he used in presenting his views, and he stressed the importance of government debt in the national economy as one of the three important financial means in the hands of the government, namely: public expenditures taxes and government debt; Through it and through its mediation, it can intervene and direct the economy and work to achieve the society's economic goals in development, stability and employment (employment or full employment), and the modern thought concluded that the public debt should increase in order to absorb any excess purchasing power or any idle money and to reduce liquidity in times The public debt must be paid back or the greater part of it must be repaid in times of depression to increase liquidity in the national economy. (Wilcox, 1989: 21)

4- Government spending: There is some recent literature that states that government spending financed by the villages (public debt) does not lead to crowding out (investment crowding out), but rather leads to raising investment rates and increasing production, and this was confirmed by Keynesian thought, in contrast to the classic, as it emphasized that spending The government has a positive impact on income and employment, and that the increase in government expenditures does not lead to crowding out investment, but rather leads to an increase in it, especially when the government follows an expansionary fiscal policy that takes government expenditures as its main tool. (Mohammed, 2017: 136).

The second topic: the government agreement and its sources of financing

First, the concept of government spending

Financial thought includes many definitions of government spending, the fact of the matter is that the presence of more than one definition does not mean that there are different concepts around it, and among those concepts are the following:

Government spending has been defined as the sum of the expenses that the state spends in the form of a certain amount of money during a certain period of time, with the aim of satisfying general needs. (Abdul Hamid, 2005: 173)

It is also defined as the monetary amounts spent by government authorities in order to achieve a public benefit. (Taqa and Huda Al-Azzawi, 2007: 33)

It is also defined as a cash amount that comes out of the state treasury with the intention of achieving a public benefit. (Al-Janabi, 2009:18)

From the previous definitions of government spending, the basic elements of it can be identified, namely:

1- The monetary character of government spending

The main element of government spending is the use of a sum of money for the purpose of securing the country's needs for goods and services in order to run the work of its government departments. As well as being a price for the productive capital needed to implement investment projects and others, based on the fact that all economic transactions and exchanges are made through money and accordingly, cash spending is one of the best methods of government spending for many considerations:

A- Facilitating the work of the financial system because it focuses on the principle of control over government spending in order to ensure the priority of its use in accordance with the rules that achieve government benefit.

B - In-kind spending raises many administrative and organizational problems and leads to inaccuracies. (Al-Janabi, previous source, 18)

C - Expenditure in kind leads to a breach of the principle of equality between individuals in order to benefit from state expenditures and bear government burdens and costs. (Nasser, 1975: 46)

2- General character of government spending:

The requirement that government spending be issued from a public authority is an essential element of government spending, as it includes all spending made by a person of government law (the state or one of its government agencies). In this regard, it is possible to distinguish between government spending and private spending through the following two criteria:

A- Legal (moral) standard

The nature of expenditure is determined according to this criterion on the basis of the entity that undertakes the expenditure. If the entity is a person of public law, then this expenditure is considered public, but if that entity is a person of private law (individuals, institutions and private companies), the expenditure is considered private. Hence, government spending extends its scope to include all government spending issued by the central and local governments. (Ayeb, 2010: 102) This criterion may be based in its distinction on the different nature of the activity of both private and governmental law persons, and the latter is primarily devoted to achieving the governmental interest.

And that this difference is due to the nature of the guard state, whose role is limited to carrying out the work of the army, justice and defense. To include many works that are included in the activity of private persons, such as transportation, industry and trade.

Some researchers have concluded that there is insufficient reliance on the legal criterion, due to the collapse of the basis on which it is built, which is the legal nature of those who spend.

B - functional standard

This criterion is based on the functional nature of the spending, as all government spending that states issue requires the achievement of government benefit and acquires the status of public even if its activity is similar to that of the private sector. According to this criterion, government spending is considered among the spending carried out by the state in its sovereign capacity, and the spending is considered private if the spending made by the state is similar to the spending made by individuals. The following is taken from this criterion (Abdul Hamid, previous source: 176):

- It does not agree with what has been done in terms of government spending on that done by government agencies, which makes government spending lose its meaning.
- It mainly aims to remove the spending carried out by government projects from the scope of government spending.

Hence, this criterion does not do much in terms of distinguishing between government spending and private spending.

3- The goal of government spending is to achieve public benefit:

Government spending mainly aims to achieve a public benefit and satisfy a public need, and therefore it is not considered public spending, when it does not satisfy a general need and does not achieve a public benefit for members of society, and the justification for this element may be the need to achieve equality in the use of government spending by members of society as long as they are equal in bear government burdens. (Al-Mahjoub, 1966: 36)

It is difficult to observe the optimum economic efficiency when judging the benefit achieved in government spending. Therefore, the criterion to be relied upon in this regard depends on the state’s use of its political power, in deciding the spending necessary to achieve a public benefit in accordance with the rules and regulations governing government spending, in order to achieve The maximum possible government benefit, and using the least amount of government spending, "the cost-benefit criterion". (Ayeb, previous source: 102)

Government spending may appear in many different forms, such as wages, salaries, pension payments, prices of government purchases, subsidies, installments and interest on government debt, and all of these forms fall within current government spending. As well as government investment spending. (Taqa and Al-Azzawi, previous source: 49)

Second: Sources of financing government spending

Government spending is financed through several sources, namely:

1- taxes

The tax is one of the most important financial policy tools and is a source of state government revenues. It includes direct and indirect taxes such as income and corporate taxes, as well as external and internal customs duties imposed by the state on goods and services in order to achieve certain goals that serve the state's economic policy, such as redistribution of national income. It is known that the tax is a sum of money that the government authority deducts from individuals forcibly and permanently without return in order to achieve the goals of society (Taqah and Al-Azzawi, previous source: 89) and when the state exploits part of the community's resources and money expenditures Through government spending, the main source of this money in capitalist countries is taxes, and most of the tax revenue comes from various sources, such as taxes on personal income, salaries, wages, and corporate income, as well as taxes on sales, etc. (Guartney and Strobe, 1999: 141)

2- Government loans

Government loans are another "financing" source for government spending, and the state resorts to it when the taxes reach their maximum and in a way that exceeds the national mandated ability "which is the extent to which the national income is able to bear the taxes imposed on it", as the state cannot resort to more taxes because this will lead to To the deterioration of the standard of living and economic activity, as well as the state facing strong reactions from members of society when imposing new taxes or raising the prices of existing taxes. The government loan is an effective means in the hands of the state in order to accumulate savings that the tax cannot obtain. Therefore, the government loan is considered a "complementary" resource for the tax and one of the financial policy tools affecting the national economy.

The government loan has sparked a wide disagreement about its nature, especially about the nature of the economic burden it leaves, and about determining the burden it will bear. The Nationalist (Al-Mahjoub, previous source: 482)

A distinction can be made between two types of government loans, which are:

A - internal loans

They are those loans that the state obtains from natural or legal persons within its territory, regardless of their nationality. The sources of these loans are derived from realized savings or from creating purchasing power by bank borrowing, and they have different effects according to the source, how it is used, and the nature of the source of funds needed for its consumption. Bank lending may be more attractive to developing countries in light of the small volume of national savings in them. It can also pressure consumption and direct resources to productive activities. (Al-Omari, 1988: 463) It is well known that internal loans are made in the national currency and affect both sides of the government budget, the government revenue when it is received, and the government spending side when it is repaid with the interest resulting from it. Also, the state obtains government loans from individual lenders, commercial banks, the central bank, and others.

b- External loans

It means the state borrowing from foreign economic units. Usually, the government resorts to this type of borrowing when the local savings are not enough to finance the projects that the state seeks to establish. These loans help the state in obtaining foreign currencies so that the state can purchase goods and services from abroad. (Al-Wadi and Azzam, 2007: 107) It is known that these loans are made in foreign currency and affect both sides of the balance of payments upon receipt and payment. There are types of external loans (bilateral, multilateral, commercial).

3- The new cash issue

When the state is unable to provide cash from the previous means of financing in order to cover its expenses, it may resort to the financing source. The new monetary issuance or expansion means creating a quantity of paper money that the state uses in order to cover its expenses. (Al-Obaidi, 2011: 176) The state resorts to it for the purpose of filling the government budget deficit through the issuance of a quantity of new money by the Central Bank. It is worth noting the difference in the impact mechanism of the new monetary issuance in both developed and developing countries, where it is positive in the developed countries for many reasons, including the flexibility of the productive system and the low marginal propensity to consume versus the high marginal propensity to save. While the mechanism of influence in developing countries is mostly negative due to the weak flexibility of the production system and the high marginal propensity for both consumption and import, the marginal propensity to save is offset by a decrease in the marginal propensity to save, which becomes a source of inflationary financing that has negative effects on the economy and society. Therefore, the new cash issuance is in fact a fierce regressive tax because it can apparently and temporarily exempt some financiers from the tax burden for not being able to do so because the economic conditions required to resort to it are not available and to postpone resorting to taxes for a long-term period. (Al-Mahjoub, previous source: 555)

The third topic: analysis of financial sustainability indicators in Iraq for the period (2004-2019)

The measurement and analysis of financial sustainability is in accordance with the standards set by international financial institutions through several indicators and models, and we will address those indicators and models as follows:

1- Indicators for measuring financial sustainability:

The high burden of public debt in the public budget is an indicator of a structural imbalance in countries whose budgets are characterized by permanent deficits, and from this emerged the need to find indicators that allow controlling the ability of countries to face debt before financial sustainability, and to address this, INTOSAI proposed a set of indicators to assess sustainability. Financial indicators, which work on the compatibility and cohesion of financial balances on the one hand, and between public debt on the other hand, and between the burden of accumulating debt interests on a third hand.

The development of public financial sustainability indicators depends on tests and models, depending on the level of interdependence and dependence between cash flows and financial reserves, that the ratio between the budget on the one hand and the public debt on the other hand and the level of interest on the third side, and can be determined by the following (Mohammed and Hussein, 2010: 145)

$D_{t+1}= D_t (1+r_t) + Bp_t$ ....(١)

: total public debt in period t

rt: The interest rate charged on the debt

BPt: Setting the initial annual general budget

From this equation, a main condition arises for financial sustainability according to which the relationship between (debt growth, GDP growth, primary deficit and the imposed interest rate) is determined. This condition is the basis for models and indicators to measure sustainability, and these indicators are as follows:

A- Results of the analysis of the indicator (Buitter

This indicator focuses on the fiscal policy that achieves financial sustainability, which must maintain a ratio of deficit in the general budget to GDP at its current level in order to ensure the stabilization of the necessary funding and then public debt. And the results reached by calculating the value of the Buitter index for the period from (2004-2019) as in Table (1), we find that the years (2009, 2010) and (2013-2017), as well as (2019), have achieved positive results, which means that the value of the first target surplus It is greater than the achieved, which indicates the lack of financial sustainability, and from the data of Table (1) it is noted that the achieved primary deficit levels are high, which means that the government must make adjustments and take the necessary measures in the core of its financial policy to achieve a surplus in the budget to cover its expenses and debt burdens.

As for the years (2004-2008) as well as the years (2011, 2012, and 2018), the result was negative, which indicates the existence of financial sustainability, which means that the ratio of government revenues to GDP was greater than the first deficit ratio, and the burdens of the deficit can be covered The first of those revenues.

Table (1)
Index data and results) Buitter (for the period (2004-2019) million dinars

Indicator Buitter	Targeted surplus (deficit /(GDP	Targeted surplus or deficit	The realized surplus (deficit (GDP	realized surplus or deficit	general revenue/GDP	real growth rate	real interest rate	Statement the years
-1.6	0.002	٩١٧,٧٦	1.63	865248	61.96	٥٤,١	-٢١	٢٠٠٤
-9.7	9.55	٧٠٢٢٥٦٠	19.21	14127715	55.08	٤,٤	-٣٠	٢٠٠٥
-10.5	5.83	٥٥٧٠٨٥٧	16.29	15575484	51.50	١٠,١٦	-٣٧,٢	٢٠٠٦
-7.9	8.67	٩٦٦٢٩٣٧	16.60	18501554	48.99	١,٣٨	-١٠,٨	٢٠٠٧
-7.5	5.79	٩٠٨٦٨٩٢	13.28	20848807	51.11	٦,٦	١٢,٣	٢٠٠٨
12.3	14.36	١٨٧٥٧٣٠٧	2.02	2642328	42.26	٥,٨	٩,٨	٢٠٠٩
10.5	14.14	٢٢٩٢٢١٥٥	3.60	5826239	43.30	٥,٥٣	٣,٦	٢٠١٠
-10.8	7.24	١٥٧٢٧٩٧٦	18.02	39167869	50.07	١٠,٢١	٠,٤	٢٠١١
-5.8	5.82	١٤٧٩٦٠٣٢	11.58	29442441	44.78	١٢,٦١	-٠,١	٢٠١٢
8.9	6.99	١٩١٢٧٩٤٤	-1.93	-5287480	43.60	٧,٣١	٤,١	٢٠١٣
3.0	0.00	---------	-3.04	-8086894	39.64	٠,٢	٤,٤	٢٠١٤
14.7	12.73	٢٥٤١٤٠٦٥	-1.97	-3927263	36.32	٤,٧٢	٤,٣	٢٠١٥
18.6	11.86	٢٤١٩٤٩١٩	-6.69	-13653991	26.19	١٣,٧٩	٢,٥	٢٠١٦
10.3	11.07	٢٥٠١٩٨٥١	0.82	1845840	34.22	-٣,٧٧	٣,٥	٢٠١٧
-5.2	4.91	١٢٥١٤٥١٦	10.08	25696645	42.45	-٩,١٦	٤,٥	٢٠١٨
11.4	9.91	27537929	-1.50	-4156528	232.69	٧,٢٣	٤,٥	٢٠١٩

Source : Table and percentages prepared by the researcher based on:
Data of the Iraqi Ministry of Finance, Accounting Department, Budget Department, for the years (2004-2019)
Data of the Iraqi Ministry of Planning - Central Statistics and Planning Agency, for the years (2004-2019.

b- Analyzing the results of the indicator(Blanchard)

This indicator deals with the public revenues actually obtained and the targeted revenues, which leads to the stability of the public debt, given that this gap is a tool that responds to changes in the amount of public expenditures because the government is often bound by some public expenditure programs and government transfers, unlike tax revenues (Abdullah and Al-Shammari). , 2020: 176.(

When analyzing the data and the results it reached, the indicator value was calculated BlanchardAs in Table (2) for the period from (2004 - 2019), we find that the indicator in the years (2004 - 2007) achieved negative results, as well as in 2016,

that is, the tax gap is negative, which indicates that the achieved tax rates are less than the targeted tax rates, Consequently, financial sustainability was not achieved, and the reason for this was a decrease in the ratio of public expenditure/GDP, all of which led to an improvement in the level of tax rates achieved, but they are not sufficient to cover government spending, and therefore those revenues are sufficient to cover government burdens .As for the years (2008 - 2019), the results led to a positive tax gap, meaning that the targeted tax rates were less than the achieved tax rates ،which indicates the achievement of financial sustainability for those years, and the reason for this is the high debt/GDP ratio, as well as the high real interest rate Compared with growth rates, which necessarily requires reducing government spending or creating new tax bases, diversifying sources of income and not relying on oil revenues.
From this, we see that the targeted taxes on the output needed to finance the initial expenditures always exceed the actual taxes collected annually, which are of course not sufficient to finance public spending, which calls for the development of the tax system, the application of new taxes and the diversification of sources of income.

Table (2)

Index data and results Blanchard For the period (2004-2019) million dinars

tax gap	target tax revenue GDP	Tax Revenue Earned /GDP	Public Debt Ratio /GDP	real growth rate	Public spending without debt burdens/ GDP	Statement the years
-2.5	٢,٧٩	0.291	179.0	٥٤,١	٠,٤٢	٢٠٠٤
-0.6	١,٢٣	0.633	128.0	٤,٤٠	٠,٣٩	٢٠٠٥
0.5	٠,١٦	0.618	80.0	١٠,١٦	٠,٤٩	٢٠٠٦
1.1	٠,٠٥	1.102	68.0	١,٣٨	٠,٤٢	٢٠٠٧
0.9	-٠,٣٢	0.628	43.0	٦,٦٠	٠,٥٢	٢٠٠٨
2.5	٠,٠٧	2.553	56.0	٥,٨٠	٠,٥٠	٢٠٠٩
1.3	-٠,٢٧	1.064	46.0	٥,٥٣	٠,٥٠	٢٠١٠
0.8	-٠,٢٠	0.648	34.0	١٠,٢١	٠,٣٤	٢٠١١
1.3	-٠,٣١	1.036	27.0	١٢,٦١	٠,٤٠	٢٠١٢
1.4	-٠,٣٤	1.052	26.0	٧,٣١	٠,٤٢	٢٠١٣
1.2	-٠,٢٣	0.950	24.0	٠,٢٠	٠,٣٠	٢٠١٤
1.3	٠,٠٥	1.313	55.0	٤,٧٢	-٠,٠٢	٢٠١٥
2.1	٠,٠٨	2.221	63.1	١٣,٧٩	-٠,٠٢	٢٠١٦
3.1	٠,٠٠٣	3.136	61.9	-3.77	٠,٠٢	٢٠١٧
-0.7	3.40	2,675	٥٧,٣	-9.16	0.28	٢٠١٨
-22.0	23.80	1.778	٥٢,٢	7.23	1.99	٢٠١٩

Source: Table and percentages prepared by the researcher based on
Data of the Iraqi Ministry of Finance, Accounting Department, Budget Department, for the years (2004-2019(
Data of the Iraqi Ministry of Planning, Central Statistics and Planning Agency, for the years (2004-2019(

C- Analyzing the revenue gap indicator data.

Assuming that the revenue gap is the tax gap itself, then revenue realization is an indicator of a change in the state's policies to increase revenues after stabilizing the size of the local public debt. It raises the level of public financial proficiency, and the value of the revenue gap index was reached (Al-Hauri, 2015: 281), through Table .(٣)We note that the targeted tax revenues to GDP are smaller than the ratio of realized revenues to GDP when analyzing for the period (2004 - 2017), which indicates that the revenue gap is negative, and also indicates the sustainability of financial revenues and the reason for this is the high oil export rates accompanied by high prices, so the state must change its policy in order to invest these benefits in the development of its various sectors and then achieve higher tax revenues to pay The accumulated public debt burden.

Table (3)
Data and results of the revenue gap index for the period (2004-2019) million dinars

revenue gap index) (TT 1-2)(	revenue ratio/ GDP (2)	Target Tax Revenue Ratio/ GDP (١)	Statement the years
-٥٩,٢١	٦٢,٠	٢,٧٩	٢٠٠٤
-٥٣,٧٧	٥٥,٠	١,٢٣	٢٠٠٥
-٥١,١٤	٥١,٣	٠,١٦	٢٠٠٦
-٤٩,٩٥	٥٠,٠	٠,٠٥	٢٠٠٧
-٥١,٤٢	٥١,١	-٠,٣٢	٢٠٠٨
-٤١,٢٣	٤١,٣	٠,٠٧	٢٠٠٩
-٤١,٤٧	٤١,٢	-٠,٢٧	٢٠١٠
-٤٨,١	٤٧,٩	-٠,٢	٢٠١١
-٤٧,٤١	٤٧,١	-٠,٣١	٢٠١٢
-٤٢,٣٤	٤٢,٠	-٠,٣٤	٢٠١٣
-٤١,٢٣	٤١,٠	-٠,٢٣	٢٠١٤
-٣١,٩٥	٣٢,٠	٠,٠٥	٢٠١٥
-٢٦,٩٢	٢٧,٠	٠,٠٨	٢٠١٦
-٢,٩٩٧	٣,٠	٠,٠٠٣	٢٠١٧
-٣,٣٨	0.020	3.40	٢٠١٨
-٢٣,٧١	0.094	23.80	٢٠١٩

Source : Table and percentages prepared by the researcher based on:

Data of the Iraqi Ministry of Finance, Accounting Department, Budget Department, for the years (2004-2019.(

Data of the Iraqi Ministry of Planning - Central Statistics and Planning Agency, for the years (2004-2019.(

D- Analyzing the primary surplus and deficit indicator data

This indicator is based on the fact that the fiscal policy achieved for financial sustainability must maintain a primary surplus ratio of the public budget / GDP, at its current level in order to ensure the stability of the debt / GDP ratio (Mohammed, 2012: 41), and that:

Primary surplus = overhead - overhead without interest payments.

When reviewing the data in Table (3), we note that the budget achieved an initial surplus for the period (2004-2006) and was negative for the years (2007, 2009, 2010, 2015, 2016), which indicates the lack of financial sustainability for these years.

Table (4(
Data and results of the primary surplus or deficit indicator for the period (2004-2019) million dinars

Primary deficit or surplus GDP	Primary deficit or surplus	Public spending without debt burdens	general revenue	GDP	Statement the years
٢٦,٢٦٦٧٩٨	١٣٩٨٣٢٢٤	18999515.1	32982739	٥٣٢٣٥٣٥٨,٧	٢٠٠٤
٥,٦٢٠٠٢٩٦	٤١٣٢٦١٠	24825998	40502890	٧٣٥٣٣٥٩٨,٦	٢٠٠٥
٢,٣٨٣٣٠٣٧	٢٢٧٨١٥١,٣	43114152.69	49063361	٩٥٥٨٧٩٥٤,٨	٢٠٠٦
-١,٧٣٦٥٢١	-١٩٣٥٤٥٤	43999984.08	52046698	١١١٤٥٥٨١٣,٤	٢٠٠٧
٠,٢١٩٦٨٦٤	٣٤٤٩٦٤,٨٩	80131144.11	80252182	١٥٧٠٢٦٠٦١,٦	٢٠٠٨
-٩,٢٠٥٨٤٨	-١٢٠٢٦٨١٥	62435029.82	55209353	١٣٠٦٤٣٢٠٠,٤	٢٠٠٩
-١٠,٢٠٠٨٧	-١٦٥٣١٩٩٣	78267305.20	70178223	١٦٢٠٦٤٥٦٥,٥	٢٠١٠
١٤,٦٨٤٩٣٤	٣١٩١٤٣٤٣	72074744.92	108807392	٢١٧٣٢٧١٠٧,٤	٢٠١١
٨,٣٥١١٥٤٨	٢١٢٣٠٧٦٤	98586458.64	119817224	٢٥٤٢٢٥٤٩٠,٧	٢٠١٢
٠,٤٩٠٥٠٥٧	١٣٢٩٧٢٠,٦	112510354.4	113840076	٢٧١٠٩١٧٧٧,٥	٢٠١٣
١٠,٦٨٧٥٢٥	٢٧٨٥٢٨٠٦	77547193.88	105386623	٢٦٠٦١٠٤٣٨,٤	٢٠١٤
-٢,٢٠٥٥٤٥٣	-٤٦٢٠٤٣٩,٢	4714487.6	66470252	٢٠٩٤٩١٩١٧,٨	٢٠١٥
-٢,٤١٣٨٥٠١	٤٩٢١١٢٨,٢٧-	4975537.54	53413446	٢٠٣٨٦٩٨٣٢,٢	٢٠١٦
١,١٦٧٤٥٦٤	٢٦٣٨٩٥١	50952004.2	77335955	٢٢ ٢٢٥٩٩٥١٧٧٩	٢٠١٧
8.4517363	21540956	70102711.0	106569834	254870184.6	٢٠١٨
32.5832026	90543790	528841842.0	107566995	254870184.6	٢٠١٩

Source : Table and percentages prepared by the researcher based on:

Data of the Iraqi Ministry of Finance, Accounting Department, Budget Department, for the years (2004-2019.(

Data of the Iraqi Ministry of Planning - Central Statistics and Planning Agency, for the years (2004-2019.(

Conclusions and Recommendations

First: the conclusions

1- There is a large deficit in the government budget in Iraq due to the imbalance in the structure of public revenues for the period (2013-2016) due to its large dependence on oil revenues. .
2- The results of the public revenue sustainability indicators (the coverage of public revenues/expenditures, the ratio of oil revenues/total revenues, the ratio of non-oil revenues/total revenues, and the tax gap) indicate that financial sustainability was not achieved in Iraq during the study period.
3- The results of the sustainability indicators for public expenditures refer to (public debt/GDP ،Government debt service / public expenditures, compound growth of

expenditures and compound growth of revenues) that financial sustainability in Iraq was also not achieved during the study period.

4- Through the data on public expenditures and public revenues for the period (2004-2019), the behavior of the state's general budget was responsive to the economic cycle, as public expenditures rise with the increase in public revenues and decrease with their decrease, as well as not benefiting from the surpluses achieved during the years of financial abundance in the payment of debts, which leads not to achieve financial sustainability.

5- Through the results obtained for the indicators of financial sustainability)Buitter ،Blanchard ،Revenue Gap Index, Primary Surplus or Deficit Index) for the period (2004-2019) we infer that the financial sustainability of all the mentioned indicators has not been achieved.

Second: Recommendations

1- The government must work to reduce the deficit in the public budget by rationalizing government spending and controlling it in proportion to the volume of investment spending to achieve the maximum possible benefit from public expenditures and to develop non-oil economic sectors .In addition to that, work continuously to find alternative sources of oil revenues and diversify sources of income through the development of legislation that would maximize revenues from state property and find the appropriate and court mechanism to control the border crossings' revenue streams and tax revenues.

2- The need for the financial legislator, when preparing the general budget, to take into account the behavior of the economic cycle. In the stage of boom and high levels of public revenues, the government must follow a rational financial policy in order to invest the surplus achieved in revenues in productive projects and pay off previous debts. In the event of a recession, the government must control its expenditures public and reduce the amount of taxes levied.

3- Develop a strategy aimed at reducing the size and burden of the internal and external public debt, because the burden of the public debt represents a pressure on expenditures, because most of these expenditures go to repay the debts and their interests.

4- The appropriate budget pattern must be chosen, which would contribute to achieving financial sustainability, such as balancing programs and performance instead of balancing the items that are currently being worked out due to recent developments in the financial situation in Iraq.

-٥It requires the government to take real and serious steps in diversifying the sources of budget financing and not relying entirely on oil revenues in order to reduce the accumulated foreign debt ،develop the banking system, revitalize the Iraqi market for securities, and invest external borrowing in productive projects .

Source

Arabic sources

First: the books

1- Jawartina ، James and Astrup ، Richard ، macroeconomic, Dar Mars Publishing and Distribution, Riyadh 1999.
2- Taqah, Muhammad and Al-Azzawi, Huda, The Economics of Public Finance, Edition 1, Dar Al-Maarifa for Publishing and Distribution, Amman, 2007 .
3- Aib, Walid Abdel Hamid, The Macroeconomic Effects of Government Expenditure Policy, 1st Edition, Al Hassan Modern Library for Publishing and Distribution, Beirut, 2010 .
4- Abdel Hamid, Abdel Muttalib, The Economics of Public Finance, University House for Publishing and Distribution, Cairo, 2004 - 2005.
5- Slave Al-Raheem Ahmed D. Religion general and impotence budget public، Library Jerusalem، Egypt، 2008
6- Al-Obaidi, Saeed Ali Muhammad, Economics of Public Finance, 1st Edition, Dijla House for Publishing and Distribution, Amman, 2011.
7- Al-Omari, Hisham Muhammad Safwat, The Economics of Public Finance, second edition, 1988.
8- Enaya, Ghazi, Financial Inflation, Dar Al-Jeel Publishing, Beirut - Lebanon, 2006.
9- Qabaja ، Ahmed. Sustainability Finance for power Palestinian :Experience Historical and horizons future، Institute Research Policies Economic Palestinian, Palestine، 2012 .
10- Mahjoub, Refaat, Public Finance, Dar Al-Nahda Al-Arabiya for Publishing and Distribution, Cairo University, 1966.
11- Nasser, Zine El Abidine, The Science of Public Finance, Dar Al-Nahda Al-Arabiya for Publishing and Distribution, Ain Al-Shams University, 1975.
12- Al-Wadi, Muhammad Hussein, and Zakaria, Ahmed Azzam, Principles of Public Finance, 1st Edition, Dar Al-Masira for Publishing and Distribution, Amman, 2007.

Second: Research

1- Al-Baghdadi، Marwa Fathi mister ، pointers Sustainability Finance and risk Which threaten her at Egypt، magazine Research Legal and economic، collage of rights /University Banha، 2010
2- Muhammad Hosny، Sustainability Finance at Light thought Economic and experiences International With Application On Egypt، magazine Research le al and economic، College rights، University Menoufia، Egypt، the number45 ،.2017

Third: Bulletins and Reports

1- Ministry Finance Presentation of oz Circle Accounting، Circle budget، For the years (2004-2019.(
2- Ministry planning Presentation of oz، the device central for statistics، for years). (2019 - 2004 .)

Foreign Sources

Books and Research-

1- Ahmed Galal and others, Suggestions for a New set of Fiscal Indicators, Fiscal Sustainability in Emerging Markets, Cairo, 2006.

2- Alvarado, Iquierdo , & Panizza , "Fiscal Sustainability in Emerging Market Countries with Application to Ecuador", Working Paper series 511, Inter-American Development Bank, 2004.
3- Bagnai Albero , Keynesian and neoclassical fiscal sustainability indicators, with applications to EMU, Izquierdo Alejardo Economic Studies, Cairo, (Working Paper No.91), 2003.
4- Dahlby . Ber , Sustainability Fiscal Policy in Alberta, Wecentre , For Economic Research in Formation on Bulletin 13, AL berta , 1993.
5- Deiong j; Bradford, Macroeconomics, updated Edition McGraw –Hill, Network, 2002.
6- Izquierdo and panizza , FiscaL Sustainability: 'Issues for emerging market countries', Egyptian of Economic studies, WP. No, 95, Cairo Egypt, 2004.
7- J.Ahn , The Role of Inergov - ernmental Aid in Defining Fiscal Sustainability, Hyunsjung Ji Jeong at the Sub-national Level Arizona State University, (2012).
8- Koopmans, Tajalling C (1965), "On the Concept of Optimal Economic Growth", 37-Colles Foundation per 238, Reprinted from Academia Scientiarum Scripta Varia 28, Member countries, Universia degli studi di roma , working paper No. 75, 2004.
9- Romars , David, Me- Grow, Hills Companies, "Advanced Macro- Economics", Inc 1996.
10- World Bank, "Disinflation, fiscal sustainability, and labor Market Adjustment in Turkey", World Bank Policy Research, Working Paper; Report Number WPS3804, 2006.
11- Yamauchi, Izquierdo Alejardo , , Fiscal Sustainability ISSUES For Emerging Countries, the Egyptian Center for fiscal Sustainability- The Case of Eritrea, IMF Working paper, 2004.
12- Wyplosz , Charles, "Debt Sustainability Assessment - The IMF Approach and Alternatives", Helep , No.30, 2007.