

The impact Of The official Exchange Rate In The public Budget(Iraq: Case Study 2005-2022)

Khawla Radi torment
karrar Adnan Abd

Al-Qadisiyah University - College of Administration and Economics

Corresponding Author : karrar Adnan Abd

Abstract : The exchange rate is characterized by having a significant impact within economic activity, and affects macroeconomic variables, and has many reciprocal and intertwined relations between it and economic policies, including its relationship in the public budget. The article dealt with the impact of the exchange rate on the public budget (Iraq is a case study for the period 2005-2022), and the article problem was associated with the Iraq for the period (2005-2022)?.

The article aims, through the relationship between the variables, to achieve some objectives:

1. Explain The Moral effect Standard Analytical Exchange rate fluctuations in the public budget of Iraq for the period (2005-2022)
2. The extent to which the exchange rate contributes to increasing the effectiveness of fiscal policy and the stability of the public budget in Iraq for the period (2005-2022).

The importance of the article is evidenced by its connection with the importance of the exchange rate as it is a key linking tool between the local economy and international economies. The problem of the article was represented by the main question: - What is the impact of the exchange rate on the public budgets in Iraq for the period 2005-2022 , The community of the article was represented by the Iraqi economy, while the sample is represented by the public budget of Iraq . In this article, the standard statistical analysis method of the article was used to show the impact of the exchange rate on the general budget in Iraq through the use of statistical analysis software (12 reviews)

The article reached a number of conclusions, including that the Iraqi economy went through volatile conditions throughout the duration of the article, as it suffered from multiple security and economic problems that left multiple effects directly or indirectly on the exchange rate and the public budget in Iraq, The article explained that there is an inverse relationship between the dollar exchange rate and the public budget , where a decrease in the exchange rate of any country leads to an increase in demand for its exports , and in the case of a decrease in the dollar exchange rate leads to an increase in the budget deficit. Finally the article concluded with a set of The need for the Iraqi state to achieve stability in prices in the event of a desire to devalue the currency to ensure that the cost of local products does not rise , As well as relying on modern and accurate methods in order to provide more accurate data on economic changes in Iraq, because this will make the results of studies more accurate and can be used to improve the economic situation in Iraq.

Keywords: Iraq , The Public budget , The exchange rate

INTRODUCTION: The exchange rate is one of the important tools on which the economic system of each country depends, as it is considered one of the economic and financial indicators expressing the strength of the country's economy, whether in developed or developing countries because it is a successful tool that can protect the national economy from expected shocks, whether internal or external.

The public budget is a mirror that reflects all the activities of the state and is of importance in all political, economic, social and cultural fields, It is one of the basic issues that enable the state to carry out the functions entrusted to it and manage the national economy, And directing it according to the plan established in the public budget, which includes expenditures and revenues, and how to collect and spend them in order to achieve the public benefit, often within one next year.

Therefore, this article revolves around the study of the effects of the exchange rate in the general budget of the state as it is inevitable because of the growing importance of these two variables, as the exchange rate is a major link between the different economies and one of the direct reasons in directing the state to its external transactions in order to reach the required external balance, and therefore the article focused on the search for the impact of the exchange rate on Public budget in Iraq

1. Scientific methodology of the article :

2.1. The problem of the article

The exchange rate is one of the most important economic policies that have an important impact on collecting macroeconomic variables, and the stability of this article reflects the extent of the stability of the economy as a whole, so The researcher tries to focus on the importance of the exchange rate in the public budget in Iraq and highlight that importance through the following question: -

What is the impact of the Iraqi dinar exchange rate on the general budget in Iraq for the period (2005-2022)

2.2 The importance of the article

The exchange rate represents a major link between the local economy and the international economies. Therefore, fluctuations in exchange rates leave an inevitable impact on the country's economy, whether in its internal or external transactions. The article of exchange rate fluctuations and their impact on the public budget is a very important issue for the country's economy, which seeks to achieve internal and external balance as well as achieving stability in the local currency exchange rates and relative stability in the country's economic growth rates. The stability of the exchange rate reflects the soundness of the economic foundations and the followed fiscal and monetary policies and their ability to respond to the external shocks to which the country's economy is exposed.

2.3. Objectives of the article

The article aims through the relationship between the variables to achieve some goals:

- 1- Studying and analyzing the reality of the exchange rate in Iraq for the period (2005-2022)
- 2- Studying and analyzing the reality of the public budget in Iraq for the period (2005-2022)
- 3- clarification Moral impact Standard Analytical Exchange rate fluctuations in the public budget of Iraq for the period (2005-2022)

2.4. The hypothesis of the article

The article stems from the hypothesis that there is a positive effect of the exchange rate on the general budget of the state in Iraq for the period (2005-2022).

2.5. Article population and sample

The article population is represented by the economy of Iraq, While the sample is the general budget of the Republic of Iraq.

3. The first topic

The Exchange Rate

3.1 The Concept Of The Exchange Rate

The development and growth of economic and trade relations led to an increase in trade exchange between the countries of the world, which resulted in the exchange of currencies. Meaning the value of one foreign currency against a number of local currencies, Or vice versa, the number of foreign currency units for one unit of the local currency (Maarouf, 2006: 281).

The exchange rate is an economic variable that is highly sensitive to external economic indicators, especially with regard to the acceleration and development of the role of foreign trade in economic development.

Therefore, the exchange rate differs radically in its content and importance from other economic variables, due to its broad impact on the macroeconomic balance and because it is one of the most important pillars on which countries depend to move economic activity (Khayyat, 2021: 2).

There are several opinions by some researchers about the concept of the exchange rate as follows:

1. The exchange rate is the number of units of the local currency that must be paid in order to purchase one unit of foreign currency (EjazAli, & others, 2002:839).
2. It is the price of one currency in the form of another currency or against other currencies (Parkin, 2010:443).
3. It is a process that appears when exchanging various currencies among them, as each country has its own currency that is used in the internal payment process, and it becomes necessary to use it in foreign transactions when it has external commercial or financial relations between companies operating inside the country with companies operating outside the country (Sopraseduth. 2003: 185.)
4. It is the relative price of one currency expressed in terms of another currency or group of currencies (Reserve Bank of Australia, 2018:1)

Based on the foregoing, the exchange rate can be defined (as a link between the local currency of the country and other foreign currencies, which leads to easy comparison between costs and prices and determine them between different countries, and thus be one of the most prominent foundations on which economic and trade relations between countries depend).

3.2 Types of exchange rate

Commercial exchanges that operate within one country use the local currency to pay production costs and workers' dues, as well as distribute profits among partners and accrued interest on internal loans. Companies with different foreign branches need to convert the local currency into different foreign currencies. (Zozowski, 2005: 13).

We will introduce some basic concepts regarding the types of exchange rates represented by the nominal exchange rate, the real exchange rate, the balanced exchange rate, and the effective exchange rate.

1. **Nominal exchange rate:** It is a measure of one country's currency that can be exchanged for the value of another country's currency, It is determined on the basis of demand and supply in the market at a particular point in time, Thus, we can say that the exchange rate changes according to the changing conditions of supply According to the exchange rate system approved in the country (Madani & Riwaq , 2019: 8)
2. **Real exchange rate:** It is the exchange rate that is proportional to the general economic equilibrium. In other words, the exchange rate is at equilibrium It represents the permanent equilibrium of the balance of payments When the economy grows at a normal rate (Amin, 2013: 15).
3. **Effective exchange rate:** It is the arithmetic average of the real exchange rate of a country's currency against other currencies for a given year, and there are two types of actual exchange rates, namely the nominal effective exchange rate and the real effective exchange rate (Rushdie, 2017:157)
4. **Equilibrium exchange rate:** Equilibrium exchange rate can be defined as the rate at which the supply and demand of foreign currencies are equal, That is, there is no surplus or deficit in foreign exchange, Equilibrium occurs at the point where the foreign exchange supply curve intersects the demand curve (Al-Abadi, 2005: 38)

3.3. Exchange Rate Functions

The exchange rate practice an important role in the foreign economic activities of any country, Whether that activity is commercial or investment, It is an important link between the local economy and the rest of the global economies, As it represents costs and prices, whether inside or outside the country, it can be used as an indicator of the competitiveness of the country and thus the balance of payments in the end, and the exchange rate is characterized by a number of functions, including: (Al-Zawi, 2016: 17):-

1. **Standard function:** The exchange rate represents a link between global prices on the one hand and local prices on the other, and through it we find that local prices - as an embodiment of the international value of goods - can be expressed in national currencies denominated in foreign currencies, meaning that the exchange rate is an important base for direct measurement of foreign trade or rather for certain trade operations, as economic dealers rely on the exchange rate in order to measure and compare local prices of a particular commodity with the prices of the same commodity in foreign markets.
2. **Development function:** The exchange rate is used to encourage the producer to develop and increase his exports to certain regions in the event that he obtains rewarding returns, and the exchange rate can be relied upon to encourage some imports from abroad, by disrupting some industrial branches
3. **Distribution function:** In addition to the previous functions, the price exercises a distributive function in the national economy as the exchange rate exercises distribution at the international level, at the national level, the distributive function performed by the exchange rate is related to foreign trade, in the case of raising the value of the country's currency, which makes importing countries pay more for their imports at a rate equal to the rate of raising the value of the currency and thus lead to a rise in the value of exports Increase the state's share of foreign currency, And then increase his national income and vice versa, with regard to the global level, when the exchange rate rises, exports become profitable and the number of capital owners increases, in return the purchasing power of workers decreases and vice versa (Alani & Abdul Rahman, 2019: 4).

Based on the advanced functions of the exchange rate, it is clear that the exchange rate is a pivotal element in the economies of different countries and that its functions are of great importance within any economic system, because it represents a link between domestic prices and external prices and also greatly affects various economic indicators, whether at the internal level of the country or externally.

3.4. Exchange rate regulations

It includes two types of exchange systems (Al-Dakmawi, 2013: 340):-

1. **Fixed Exchange Rate System:** According to this system, the state links the value of its monetary currency to a certain weight of gold, which means that there is a certain price relationship between gold and other currencies. The exchange rates of each currency are determined according to the weight of each of them in gold, Thus, the exchange rate avoids various changes as long as the weight of the currency is constant. And that every country in the world should adopt a fixed exchange rate system if the following conditions are met (Stanley, 2005:707)
 - a. Linking the country's national currency to a quantity of gold.
 - b. Maintaining the constant relationship between the stock of currency in gold and the cash in circulation.
 - c. Freedom to export and import gold.
2. **Flexible Exchange Rate System:** The exchange rate under this system is determined on the basis of the interaction of supply and demand forces, This system is based on paper currencies that do not depend on the gold standard (Khalaf, 2004: 73). This system is also called the floating system, The monetary and financial authorities address the imbalance in the balance of payments by bringing about appropriate changes in the levels of prices, incomes

and wages at Inside, As well as adopting appropriate policies to limit imports, making changes in interest rates and restricting the movement of capital (Gnimassoun 53, 2015:).

This system is divided into two parts: (Al-Hindawi, 2011: 10):-

- a- **Managed flotation:** The exchange rate is determined by the interaction of the forces of supply and demand for currencies, The monetary authorities intervene in the market to manage the exchange rate to prevent sharp fluctuations in the market Without specifying a specific level for the course of the exchange rate, Through this system, the monetary authorities can influence the movement of the exchange rate, By interfering in the foreign exchange market and influencing the long-term trend of the exchange rate without prior determination or targeting of the course of the exchange rate, this intervention can be direct or indirect.
- b- **Free floating:** It is a situation in which the value of a currency can change up and down according to market forces, Floating allows other economic policies to be freed from exchange rate restrictions , Thus, floating the currency allows the authorities to prepare what is appropriate for economic policy.

4.The second topic

Public Budget

4.1. The concept of Public budget

The public budget at the present time is necessary for every country in the world, Whatever its political system and prevailing economic philosophy Without it, every country cannot carry out its work and the interests of its ministries and government institutions on a regular basis, and carry out the functions entrusted to it It is also difficult to direct and manage the national economy as planned, As The public budget is the axis around which all the work and activities of the state revolve in all fields, regardless of its conditions (Asfour, 2012: 15).

The public budget represents a financial mediation between two components of the fiscal policy, which are public spending and public revenues, As public spending represents a set of expenses that the state spends during a specific period of time, usually one year, in order to satisfy certain needs in the society that the state organizes (Al-Jubouri and Al-Zamili, 2014: 192). ere are several definitions of the public budget that differ according to different points of view or the angle through which the public budget is viewed It has been known from an administrative and oversight point of view (It is a detailed estimate of the public expenditures and revenues during a subsequent fiscal year prepared by the state apparatus and approved by the legislature by issuing a special law that allows the implementation of the budget on both sides of the expenditures and revenues (Ahmed, 2012: 257).

defined The Ethnic Accounting Principles Law No. 28 of 1940, as , it as (a table containing the estimation of revenues and expenditures for one fiscal year specified in the Budget Law) (Al-Ali, 2008: 658).

As defined by French law, "it is an annual financial law that estimates and authorizes for each calendar year the total revenues and burdens of the state" (Al-Khatib& Shamia, 2016: 271).

As for the concept of the Public budget from the point of view of economists, it differed according to the role played by the state in economic activity, and the public budget can be defined in traditional economic thought, which believes that the role of the state is limited to traditional jobs and leaving economic activity to individuals and that the economic balance is achieved according to the market mechanism. He defined it as "balanced tables between the two sides, which include revenues and public expenditures over a coming period of time, usually a year" (Taqa & Al-Azzawi, 2010: 169). With the development and expansion of the role of the state in the economy to restore economic and social balance in cases of imbalance resulting from economic crises in the capitalist system, the concept of the public budget has changed and has taken new dimensions that reflect the objectives of fiscal policy and accordingly the public budget may be defined as a plan that includes estimating public expenditures and public revenues of the state during an expected future period, often one year, and this estimate is based on the goals sought by fiscal policy in order to achieve well-being. socio-economic" (Osman, 2003: 555). It is clear from the previous definitions of the budget that the budget is based on two main elements (Klay & Vonasek, 2008: 379):-

- Estimated: It means estimating the public revenues that the government must obtain to spend in order to satisfy the needs of members of society.
- Accreditation: It means the approval of the legislative authority on the general budget program proposed by the executive authority, and this approval is converted into a financial law, including saying that the public budget is a project that is approved by the legislative authority to become the public budget. Therefore, the Public budget has a number of characteristics (Al-Hajj & Azzam, 2000: 157):-
- It's a detailed estimate of state revenues and expenditures.
- It is approved by the legislature
- It represents an executive financial plan for the next fiscal year in line with the economic plan of the state
- A means of coordination between the various activities of the state
- A tool for public financial control

Based on the foregoing and in agreement with the views of Approved sources, the public budget can be defined (as a proposed financial program that includes public expenditures and estimated public revenues that the government intends to implement during the next period of time, usually one year, as it is approved by the legislative authority and thus reflects the role of the state in the economic, political, social and cultural fields in order to achieve the goals of society and reach a more advanced level of economic and social well-being).

4.2. Stages of Preparing the Budget

The legislative authority is entrusted with the task of approving the budget because it is representative of the people, as it discusses it after it is prepared and prepared by the executive authority, and the Public budget goes through several multiple stages as follows: Al-Ameri & Al-Helou,2020 : 125) (Al-Hamdawi, 2021: 32)

1. **Budget preparation stage:** At this stage, the various government institutions prepare the draft budget and determine the estimated amounts of revenues and expenditures for the next fiscal year.
2. **The stage of approving the budget:** where it is approved by the legislative authority (parliaments), and it is an important and significant responsibility with the changes it entails in the Public budget, which deals with all sectors of society and its various economic activities.
3. **Budget Implementation Phase:** The budget is implemented by the executive authority through its various organs according to what was approved by the legislative authority.
4. **The stage of monitoring the implementation of the public budget and preparing the final account:** Work is being done to monitor and properly implement the government's financial plan expenditures and revenues in accordance with what is planned and decided in the public Budget.

5.The practical side

5.1. Analysis of the impact of the official exchange rate on the public budget

The impact of the exchange rate on the Public budget is evident during the analysis of the relationship between the rise or fall in the value of the currency and this leads to a number of repercussions on the general budget of the state, as the Public budget in its various items have to do with the changes that occur in currency exchange rates, and the effects of these cases on the general budget, whether deficit or surplus, can be highlighted, and for this purpose we will focus on the cases of rise and fall of the exchange rate and their effects on the Public budget as follows: (Khader & Ismail, 2015: 240-241) and (talib &Takhfifi, 2022: 15)

- 1- **The case of the decline in the exchange rate:** The exchange rate is a monetary tool that has a strong impact on current transactions with foreign countries and capital transactions alike, With regard to food commodities, the decline in the exchange rate affects the movement of import and export of these commodities, As it leads to a reduction in imports and then a decrease in the quantities of imported food commodities as a result of their high prices in the national currency Thus shifting the demand for locally produced food commodities Or this leads to higher prices and lower domestic demand for it And the decline in the local exchange rate leads to a rise in the general level of prices and thus to the deterioration of the real value of cash balances This leads to an increase in the demand for money and a decrease in the level of national output and employment due to the continued annual rise in prices.

As for imports of capital equipment, machinery, consumer goods and imported inputs In view of the necessary need for these inputs and the inability to produce them locally, local projects are forced to reduce the size of their production capacity and reduce the expansion of investment spending, There was no intention of these projects to compensate for this part by increasing its issuance Because they were not willing to make new investments as a result of the lack of domestic demand resulting from the rise in the general level of prices As the effect of that situation is the overburdening of the public budget due to the rise in prices, which forces the state to bear part of the social costs for the sake of economic adjustment

- 2- **The state of the rise in the exchange rate:** In the event of a rise in the exchange rate, it leads to the creation of a situation affected by the total demand for goods and services as a result of the rise in their prices at home, in return for the increase in demand for imported goods and thus negatively affects the movement of the current account and then the balance of this on the one hand and on the other hand leads to a decrease in revenues tax on exports and results in a decrease in the volume of public revenues in the budget and at the same time an increase in expenditures on imports, These effects did not stop to this extent, but extend to the competitiveness of locally produced goods and services, and we find through this analysis that import prices are more attractive for residents.

There is a relationship between the rise in the exchange rate and the budget deficit, as when the exchange rate rises, it leads to a decrease in the prices and value of exports, which results in a decrease in export tax revenues, a rise in the division of imports and increased hypocrisy on imports, thus burdening the public budget and then increasing the deficit in it.

5.2. Analysis of changes in the official exchange rate in Iraq

The exchange rate is one of the important tools that play an influential and important role in the Iraqi economy, and achieves clear objectives for monetary policy in Iraq, and after the change in the Iraqi economy politically and economically, and the weak confidence in the Iraqi dinar and the deterioration of its function as a store of value, and the resort of money owners to replace the national currency with the US dollar, an important new policy was followed starting from the Central Bank obtaining its independence in accordance with Law 56 of 2004, and the goal of stabilizing the dinar exchange rate was Iraqi in the official market is one of the most important functions of the Central Bank (Al-Ghalbi & Surrounded 2017:299).

There are several measures taken by the Central Bank of Iraq after its independence, including the establishment of a daily auction of foreign exchange through the sale and purchase of foreign currencies, through which it aims to end the official pluralism of exchange rates in Iraq and its effects on the Iraqi economy and mitigate the fluctuations of the exchange rates of the Iraqi dinar, as well as the impact on the volume of liquidity, and that the main reason behind the transformation of the currency auction into a window, because the Central Bank found itself a seller of foreign currency and depends on obtaining foreign currency From one source through oil revenues in an economy characterized by weakness and lack of productive and service sectors, unlike the countries of the world, as the private sector finances itself by itself, in addition to the diversity of its economies, in the sense that it is sufficient to finance its needs through foreign currency through its exports, so the monetary authority follows the window of selling the currency to control and control the exchange rate, that is, the window of selling the currency has become the appropriate area in determining the exchange rate targeted by monetary policy And adopt it (Al-Ani, Abdulrahman, 257: 2019).

We note through Table (12) how the Central Bank of Iraq maintained the stability of the exchange rate throughout the article period with intentional changes on its part in line with international recommendations, and the bank's opinion of achieving goals that serve the Iraqi economy from its point of view, as the developments of the exchange rate of the US dollar against the Iraqi dinar during the period (2005-2022) The period 2005-2007 has witnessed some changes in the exchange rate of the official Iraqi debt against the US dollar, As the exchange rate during this period reached an average of (1469) dollars in 2005, and fell in 2006 at a rate of (1467) dollars and a change rate of (-0.14%) In 2007, after studying the market and the movement of the monetary mass inside Iraq, there was a different view of the Central Bank of Iraq, it reduced the exchange rate of the currency and gave the value of the Iraqi dinar, as the exchange rate reached (1255) dollars and a change rate of (-14.6%)

Table (1)

Official exchange rate of the Iraqi dinar against the US dollar and its growth rate in Iraq for the period (2005-2022)

Value: USD

Years	Nominal exchange rate	Growth rate in the official exchange rate%
2005	1469	-
2006	1467	-0.14
2007	1255	-14.6
2008	1193	-4.9
2009	1170	-1.9
2010	1170	0
2011	1170	0
2012	1166	-0.34
2013	1166	0

2014	1166	0
2015	1190	2.1
2016	1190	0
2017	1190	0
2018	1190	0
2019	1190	0
2020	1460	22.7
2021	1460	0
2022	1500	2.7

Source: Prepared by the researcher based on:

1. Central Bank of Iraq, General Department of Statistics and Research, Annual Statistical Report, Miscellaneous Pages
2. Central Bureau of Statistics, Index Section, Dollar Exchange Rates Report, for the year 2021.
3. Central Bank of Iraq, General Department of Statistics and Research, Central Bank of Iraq Monetary Policy Report 2021.

The growth rate of the official exchange rate is calculated according to the following equation:

$$R = \frac{(a_1 - a_0)}{a_0} * 100$$

The government, represented by the Central Bank, has continued to raise the value of the national currency against the dollar, in order to ensure the stability of the value of the national currency and protect it from deterioration, and eliminate the phenomenon of dollarization (in the market), as it reduced it to (1193) dollars in 2008 and a change rate of (-4.9%) and then reduced it in the following year 2009 to (1170) dollars against a slight decrease of (-1.9%) and then took its stability for a period from 2009-2012 and in 2012 it also decreased by a small percentage, if it became (1166) dollars with a decrease of (-0.34%) and then achieved stability at this rate until 2014, and in 2015 the Central Bank devalued the dinar against the dollar, thus raising the exchange rate to reach (1190) dollars and by rising to (2.1%), and then it took stability on this amount until 2019.

Then the Iraqi government took to make a set of economic reforms consistent with the policy of the IMF and the World Bank towards Iraq, and aims to enhance national production as well as the reform paper, which was called (the white paper), according to which the exchange rate was raised to (1460) dollars, with an increase rate of (22.7) in 2020, and it began to rise in 2021 at a rate of (1450) dollars and will pass this rise until 2022, As it became (1500) dollars, with a change rate of (2.7%) from the previous year, is the highest percentage change in the exchange rate, which reduced confidence in the value of the Iraqi dinar and prices rose significantly, and it is hoped that it will decline later according to the opinion of the government, and the recommendations of the International Monetary Fund and the World Bank.

5.3. The federal budget in Iraq

The public budget in Iraq shows the content of the philosophy of the adopted financial policies, their economic orientations, their social options, and the scope of their effects in addressing cyclical economic fluctuations in order to reach a state of economic stability that resists inflationary or deflationary pressures, in a way that ensures the sustainability of development and the achievement of justice in distribution (Al-Sultani, 2014: 118).

In view of Table (2), it is clear that the public budget in Iraq went through both deficit and surplus states during the research period (2005-2022), As it achieved a financial surplus in the period (2005-2014) in addition to the years (2022,2021,2018,2017) and recorded a financial deficit during the years (2020,2019,2016,2015), The budget started with a high surplus of (14,127,715) billion in 2005 due to the increase in public revenues, especially oil, in exchange for a decline in public expenditures. until 2009, As it decreased by a large size again, thus the surplus decreased to (44,737,859) billion dinars, and the reason is due to the linkage of oil revenues with global oil prices which the global financial crisis had a clear impact on the decline in oil prices and the decline in oil revenues which soon affected

public revenues in Iraq Then it rose again in the years (2014, 2013, 2012, 2011, 2010) and in 2015 the public budget in Iraq recorded its first deficit during the research period, as the size of its deficit reached (3,927,263-) billion dinars, and the reason for that is the decrease in revenues due to the decline in international prices for crude oil and the continued deficit in the public budget in 2016, As the size of the deficit increased to (12,658,167-) billion from the previous year, and in the years (2017 and 2018), the budget recorded a surplus and the reason is due to the gradual improvement of global oil prices and the increase in oil revenues, which led to an increase in public revenues, After that, the public budget usually recorded a deficit in the years (2019 and 2020), as it recorded in 2020 a deficit amounting to (12,882,754-) billion, as a result of the return of the decline in crude oil prices due to the spread of the Corona virus(COVID-19) in the countries of the world, which closed its borders and reduced its international trade, and thus decreased Oil revenues are at their lowest levels

And its impact on public revenues, and then the public budget usually records a surplus in the years (2021, 2022), and the year 2022 represents the highest level of surplus during the research period, as it amounted to (44,737,859) billion, because public revenues in 2022 achieved their highest levels during the research period due to the high price Crude oil in light of the Russian war on Ukraine, in addition to the end of the Corona virus epidemic crisis, and the countries of the world usually open their markets and engage in trade and industry normally. Table (2) shows the development of the budget structure in Iraq for the period (2005-2022).

(Table 2)
: Evolution of the budget structure in Iraq for the period (2005-2022) (billion dinars)

Years	Public Revenue	Public Expenses	Surplus Or Deficit
2005	40,502,890	26,375,175	14,127,715
2006	49,055,545	38,806,679	10,248,866
2007	54,599,451	39,031,232	15,568,219
2008	80,252,182	59,403,375	20,848,807
2009	55,209,353	52,567,025	2,642,328
2010	69,521,117	64,351,984	5,169,193
2011	99,998,776	69,639,523	30,359,253
2012	119,466,403	90,374,783	29,091,620
2013	113,767,395	106,873,027	6,894,368
2014	105,386,623	83,556,226	21,830,397
2015	66,470,252	70,397,515	-3,927,263
2016	54,409,270	67,067,437	-12,658,167
2017	77,335,955	75,490,115	1,845,800
2018	106,569,834	80,873,189	25,696,645
2019	107,566,995	111,723,523	-4,156,528

2020	63,199,689	76,082,443	-12,882,754
2021	109,081,464	102,849,659	6,231,805
2022	161,697,440	116,959,581	44,737,859

The source is prepared by the researcher based on:

1. Republic of Iraq, Ministry of Planning, Central Bureau of Statistics, Iraqi Economic Report for different years.
2. Republic Of Iraq, Central Bank of Iraq, Department of Statistics and Research, Annual Report of the Iraqi Economy for Different Years
3. Republic of Iraq ,Ministry of Finance Budget Department , General Financial Reports

5.4: Measuring the impact of the exchange rate on the public budget in Iraq for the period (2005-2022)

The impact of the change in the exchange rate on the general budget in Iraq will be measured for the period (2005-2022) in order to test the extent to which one of the following two hypotheses has been achieved:

H0: There is no trace of exchange rate changes on the public budget

H1: There is a trace of exchange rate changes on the public budget

This is done by using modern standard tests and models such as dormancy tests, cointegration and an autoregressive model To slow down the distributor ARDL And using Eviews12

- The independent variable is the official exchange rate (bank rate) and is symbolized by (EXR).
- The dependent variable is the net budget and it is symbolized by (NB).

In order to determine the form of the relationship between the variables, it must be formulated in the form of mathematical equations This can be described by using the autoregressive model, which is one of the most flexible models in the analysis of multivariate time series because it is possible through this model to characterize the dynamic behavior of the variables. The general form of a model consists of the following equation:

$$\Delta Y_t = \alpha_0 + \theta_i \sum_1^{d-1} \Delta Y_{t-i} + \varphi Y_{-1} + \beta X + (U_t)$$

Y_t ; represents the vector of the dependent variable (NB).

X_t : the independent variable (EXR)

α_0 : represents the intersection Limit vector (fixed boundary).

θ_i : It represents a short-term transactions matrix.

φ : It represents a long-term transaction matrix.

U_t : represents the vector of the random variable.

According to the economic theory and approved studies on the relationship between the exchange rate and the variables of financial policy, the relationship between them is an inverse relationship.

1. **Dormancy tests** : Before starting the model estimation, the variables were tested to be free from the unit root to avoid falling into the problem of false regression. The Dickey-Fuller ADF test was used The Phelps Perron PP at the level and at the first difference. Table (3) shows the test results for the two variables. We note that the results of the two tests were identical, as the variables were not stable at the level at the three types of tests (without a categorical and a time direction, with a conclusive, with a categorical and a time trend) and at all levels of morality. But it stabilized at the first difference in the absence of a conclusive and a time trend at a significant level of 0.05, which means that it is static of the I~(1) degree.

Table (3)
Dormancy test results ADF and PP

Variables	Level				1 st Differences			
	ADF		PP		ADF		PP	
	T-static	Prob.	T-static	Prob.	T-static	Prob.	T-static	Prob.
	EXR	2.759484-	0.2173	1.365118-	0.8628	2.900438-	*0.0043	4.340074-
NB	2.251426-	0.4542	1.585156-	0.7892	3.644793-	0.0004	3.735846-	0.0003

Source: Researcher's work based on the results of the Eviews12 program.

2. **-Standard model** : After making sure that the variables are free from the root of the unit, it is possible to estimate the standard model that measures the relationship between exchange rate changes and the public budget.

For the purpose of knowing the impact of changes in the exchange rate on the deficit and surplus in the budget, the following model was built and the results of the estimate were obtained as shown in Table (4):

Table (4)
Results of Estimating the Net Budget Model

Dependent Variable: NB				
Method: Least Squares				
Sample: 2005Q1 2022Q4				
Included observations: 72				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	6371866.	18812804	0.338698	0.7359
EXR	38.27769	14827.73	0.258149	0.7970
R-squared	0.620951	Mean dependent var		11203787
Adjusted R-squared	0.613321	S.D. dependent var		15938848
S.E. of regression	16044658	Akaike info criterion		36.04703
Sum squared resid	1.80E+16	Schwarz criterion		36.11028
Log likelihood	-1295.693	Hannan-Quinn criter.		36.07221
F-statistic	0.066641	Durbin-Watson stat		1.560770
Prob(F-statistic)	0.037049			

Source: Researcher's work based on the results of the Eviews12 program.

We can see from the table:

1. There is a direct relationship between exchange rate changes and the deficit and inverse with the surplus of the public budget and this is evidenced by the parameter signal $\beta = 38.27769$, The higher the exchange rate by one unit, the higher the budget deficit by 38.2 units. This is because the rise in the exchange rate leads to higher prices and a decrease in the value of exports, and thus a decrease in export tax revenues, an increase in the value of imports, an increase in expenditures on imports, a burden on the public budget and an increase in the deficit in the public budget. As a result of the erosion of the real value of the local currency when the foreign exchange rate rises, and this result is consistent with economic theory.
2. The explanatory power of the model through the value of R² was about 0.620951, meaning that the independent variable (exchange rate) explains 62% of the net budget changes and the remaining percentage is due to other factors present in the random variable.
3. The model has statistical significance, depending on the value of Sig for the F'-Test, which is less than 0.05, as it indicates a significant relationship between the exchange rate and the net budget, and this is consistent with economic theory, and this confirms the rejection of the null hypothesis H₀ and the acceptance of the alternative hypothesis H₁ by finding a statistically significant significant effect.

6. Conclusions and recommendations:

6.1. Conclusions

1. The Iraqi economy once in volatile conditions throughout the period of research, as it suffered from multiple security and economic problems left multiple effects directly or indirectly on the exchange rate and on the public budget in Iraq.
2. The study showed that there is an inverse relationship between the dollar exchange rate and the public budget deficit, as the decline in the exchange rate of any country leads to a rise in demand for its exports and in the event of a decrease in the exchange rate of the dollar leads to a rise in the public budget deficit.

3. During the research period, it was found that the growth of public revenues does not keep pace with the growth of public expenditures and that the reason for this is due to the fact that the Iraqi economy depends heavily on one source to finance public revenues, which are oil revenues, which are linked to crude oil prices and external conditions and there is no diversity in the sources of public revenues in addition to the weak flexibility of the tax apparatus and the abundance of tax evasion and the increase in tax exemptions.
4. It is clear that the exchange rate has a variety of different systems that focus the degree of adoption on the type of system in which the state operates and the degree of internal stability of the Iraqi economy in addition to the degree of suitability in achieving balance of payments, whether the system of exchange rate fixed or flexible or managed.
5. It is clear during the research period that the general budget of Iraq has suffered from a continuous deficit throughout the research period, except for some few years in which it witnessed a surplus, and this deficit is due to the expansion of public expenditures followed by the spending policy in the Iraqi economy and the fluctuation of revenue growth and failure to keep pace with public expenditures.
6. The results proved that the research hypothesis is achieved by the existence of a significant relationship Statistically significant between the independent variable (exchange rate) and the dependent variable (net budget).
7. The existence of a positive moral effect between exchange rate fluctuations and the deficit and inverse with the surplus of the general budget, and this is evidenced by the reference parameter $\beta = 38.27769$ with an explanatory power of 0.62. This is because the appreciation of the exchange rate leads to higher prices and a decrease in the value of exports Thus, lower export tax revenues, higher import value, and increased expenditure on imports and the increase in the deficit in the public budget, As a result of the erosion of the real value of the local currency when the foreign exchange rate rises, this result is consistent with economic theory.

6.2.Recommendations

1. Iraqi Government must work to stabilize prices if the currency is to be devalued to ensure that the cost of local products does not rise.
2. Coordination between economic policies and activating the role of the banking sector is a necessary process to work on determining the exchange rate of the Iraqi dinar and the reason for this is due to the continuation of the Central Bank of Iraq in the auction of the sale of foreign currency has caused the exchange rate to decline relatively and this reflects negatively on foreign reserves.
3. Work to rationalize public expenditures and avoid waste in public expenditures, and this is done by activating the role of financial control, putting an end to financial corruption and avoiding spending on unnecessary projects.
4. The Iraqi government must necessarily limit the powers related to the exchange rate to the Central Bank of Iraq and not allow other parties to intervene to prevent the smuggling of foreign currency.
5. Relying on modern and accurate methods in order to provide more accurate data for economic variables in Iraq because this will make the results of studies more accurate and can be used to improve the economic situation in Iraq.
6. The necessity of working on restructuring public expenditures and adopting a spending policy that puts with it priority to expand the volume of investment expenditures and reduce consumer expenditures (current) for its important role in expanding the production processes of the Iraqi economy and through which the problems of the Iraqi economy, especially inflation and unemployment, can be addressed.
7. Not to rely on a single source of revenue, but it must and is necessary to work on the diversity of public revenue sources by relying on innovative financing methods in order to avoid the effects associated with fluctuations in crude oil prices.

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