



MEASURING THE IMPACT OF SOME FISCAL POLICY VARIABLES ON THE BALANCE OF PAYMENTS IN IRAQ FOR THE PERIOD (2004-2021)

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Article history:	Abstract:
Received: 14 th September 2022 Accepted: 14 th October 2022 Published: 24 th November 2022	The research aims to identify the performance of some fiscal policy variables and the balance of payments in Iraq, and to identify the impact of the fiscal policy variables on the balance of payments through the use of the analytical descriptive approach and the quantitative approach. To achieve this goal, an annual time series extending from (2004-2021) was used, and the (ARDL) model was used to estimate the short-term relationship and to know the co-integration relationship using the (Bound test) methodology between the variables of fiscal policy (revenues, expenditures) and the balance of payments, and then estimating the long-term relationship between variables. Through the results of the tests, the research concluded that there is a positive effect and an insignificant effect of the fiscal policy variables that were used, while the positive effect was for the public revenue variable, as its impact on the balance of payments in Iraq was (22.4) in the short term and (8.5) in the long term. The non-existent was for public expenditures, as it does not affect the balance of payments in the short and long term, because its probability was greater than 5%. The research recommends that the use of fiscal policy tools is supposed to be carefully studied and to avoid randomness and improvisation in making decisions regarding revenues and public expenditures to ensure maximum benefit from public expenditures in the service of the Iraqi economy and society by rationalizing their use and tabulating their expenditure items.

Keywords: Fiscal Policy, Balance of Payments, Public Expenditures, Public Revenues.

1. INTRODUCTION:

The balance of payments is of great importance at the level of macroeconomic analysis of any country, because it includes economic indicators that reflect the strength of the country's economy and the degree of its integration with the global economy, in addition to the fact that what is included in the balance of economic transactions reflects in terms of content the structure of production and its competitiveness, as well as the extent Its response to the development in the forces of production internationally. In view of this great importance, various countries seek to maintain the stability of this balance, through the use of a set of policies and procedures, as the stability of the balance of payments would maintain the various macroeconomic balances, which contributes to achieving the desired economic goals for the country's economy. Fiscal policy is one of the important policies that have sufficient tools that the state uses and directs to address economic imbalances and achieve the goals of the state's general economic policy. The Iraqi economy in general and the balance of payments in particular suffers from disturbances and

imbalances during the period of research, which is reflected in the process of growth and development in Iraq. 2021? Therefore, the research aims at the following: (1) Analysis of the variables of fiscal policy and the Iraqi balance of payments in the period (2004-2021), (2) Measuring the impact of fiscal policy tools on the Iraqi balance of payments in the period (2004-2021).

The research stems from the hypothesis that "there is a positive long-term impact of some fiscal policy variables on the balance of payments in Iraq." Due to the nature of the research and to achieve its goal, the inductive approach was adopted by following the descriptive analytical method by recalling the concepts and literature presented on fiscal policy and the balance of payments, and using the standard method to estimate the nature of the relationship between the tools of fiscal policy and the balance of payments during the period (2004-2021).

2. LITERATURE REVIEW:

2.1 Brown & Bidemi (2015):



The study is about "Fiscal Policy Measures and Balance of Payments in Nigeria" for the period 1980-2012, using the cointegration method (ECM), where the variables were used government expenditure, tax revenues, government debt, and balance of payments. The study concluded that the success of fiscal policy in promoting a favorable balance of payments depends on the level of available public revenues and the direction and implementation of public expenditure.

2.2 Al-Bakri (2015):

The study is about "Measuring and analyzing the response of fiscal policy to the shocks of the trade exchange rate for the period from 1990-2012," using the applied and analytical approach and graphic forms. The study relied on the variables of expenditure, revenues, and trade balance. The study concluded that following the financial rules is suitable in the case of an improvement in trade exchange, while the fiscal policy is suitable in the event of a deterioration in the rates of trade exchange.

2.3 Chachoua & Heidouchi (2020):

The study is about "The impact of fiscal policy on indicators of economic stability in Algeria: an econometric study during the period 1970-2017," using (VAR) model. The researcher relied on the following variables: government expenditure, inflation, unemployment, and the balance of payments. The study concluded that fiscal policy has an important role in achieving macro stability. The study also emphasized the need for a structural shift towards greater diversification of production.

2.4 Muhammad (2014):

The study is about "Monetary and financial policies and their impact on the Sudanese balance of payments during the period 2000-2010," using statistical analysis methods provided by the SPSS package. The most important variables of the study are tax revenues, money supply, and balance of payments. The results showed that tax revenues did not improve the balance of payments and the exchange rate as required, despite their positive impact on the balance of payments.

2.5 Al-Saadi & Hashem (2018):

The study is about "Analyzing the reality of fiscal policy in Iraq for the period (2004-2017)," based on the applied and analytical approach and graphic figures, and using the following variables: expenditures, revenues, and the real and monetary market. The most prominent results were that the fiscal policy tools are considered one of the main factors influencing the determination of the economic growth rates of any country and it has the ability to determine the financial position.

2.6 Hamad (2014):

The study is about "The impact of fiscal policy on the Sudanese balance of payments 1990-2011," based on secondary sources of data, reports, periodicals, and bulletins. The descriptive and analytical method was used to show the relationship between the balance of payments as a dependent variable and the budget deficit as an independent variable. The study concluded that the increase in the budget deficit had a negative impact on the balance of payments, because this deficit was dealt with by the government through borrowing from the banking system, which led to an increase in the money supply, and thus an increase in inflation, which negatively affected the ability of exports to compete externally.

2.7 Zarzis (2021):

The study is about "The role of economic policies in correcting the imbalance of payments for selected countries for the period 1990-2018," with special reference to Iraq. The study used the least squares method, using the balance of payments as the dependent variable, the exchange rate, money supply, expenditures, revenues, exports, imports, and interest rate as independent variables using a descriptive, analytical and quantitative method. The study reached results, the most prominent of which is that the Iraqi balance of payments achieved a surplus after 2003, but the imbalance still exists. The study also showed that the effect of the deficit in Iraq is significant on the exchange rate and the money supply, and this came as a result of the control of the Central Bank of Iraq on the exchange rate and the money supply, as they had an effect on improving the balance of payments, while the interest rate had a non-significant effect on the balance of payments, which caused In the inability to attract capital. The inverse relationship between revenues and the balance of payments was inconsistent with the economic theory, while expenditures showed a non-significant effect on the balance of payments, due to the increase in consumer expenditure at the expense of investment expenditure

3. THE CONCEPTUAL FRAMEWORK FOR FISCAL POLICY AND BALANCE OF PAYMENTS:

3.1 The concept of fiscal policy:

The development of fiscal policy was synonymous and accompanied by the development of public finances with its expenditures and revenues, as most countries need expenditure to be able to carry out the duties entrusted to them and facilitate public interests, and at a time when the tasks of the state were limited to consolidating internal and external security and establishing justice among individuals (a traditional concept), Today, it includes all economic, social and cultural aspects (a modern concept of public finance),



meaning that it performs several functions, including carrying out urban projects, improving living conditions, protecting the national economy, increasing national wealth, spreading knowledge, preserving public health, securing irrigation and drinking water, and dealing with economic crises. Thus, the state needs money. With the increase of those jobs (Hashish, 1992: 370)

Some economists define it as "the way the government takes to plan its expenditures and manage its means of financing as it appears in the general budget, which may direct economy in public expenditures and be limited to the performance of basic services and thus take the principle of impartiality or tend to expand its expenditures by substituting public activity for private activity and entering into the production of some Commodities, repairing the defects of capitalist devices, stopping the danger of crises, limiting economic cycles, narrowing the disparity between incomes of individuals, adjusting the foundations of economic construction, adopting the nature of intervention, or even reaching the socialist character through owning the means of production" (Al-Omari, 1986: 401).

From the foregoing, it is clear that the fiscal policy is a set of actions and measures taken by the government in the financial field by defining its sources of revenue and appropriate expenditures for these revenues in order to achieve the desired goals. It is therefore a policy that links expenditure with government revenues to meet public needs and economic fluctuations and reduce unemployment rates in addition to achieving rates sustainable growth.

3.2 Fiscal Policy Tools:

To achieve its objectives, fiscal policy uses two main tools that implicitly derive from it a group of other tools, which are public expenditures and public revenues. Each of these two tools has evolved with the context of economic development in developed economies and developing countries.

3.1.1 Public expenditure:

The public expenditure policy is one of the most important tools of fiscal policy, and its importance has increased with the expansion of the role of the state in economic and social life and the diversity of its various functions, and the evolution of its role from the guardian state to the intervening state and then to the producing state (Khalil and Al-Lawzi, 2013: 89), so the traditional thought He was calling for reducing public expenditures to a minimum, in order to reduce the role of the state, limit its activity, limit it to specific traditional functions, and rely on self-powers to do its work in directing the economy and reach the equilibrium situation and put public expenditures within certain limits because they are wasteful and

unproductive. And to ensure its pressure and reduce it in a way that prevents resorting to expanding the provision of financial resources (such as taxes) necessary to cover it, but with economic development and increased state intervention in achieving economic and social balance and the economic and political problems faced by capitalist countries, especially the global recession crisis 1929-1933 that necessitated State intervention and then an increase in public expenditures (Shamia and Al-Khatib, 1997: 40-42).

Therefore, making any expenditure requires the availability of three conditions: (Khalil and Al-Lawzi, 2013: 90)

- a. Having money;
- b. Someone who spends;
- c. A general goal to be achieved.

These conditions are met in the public expenditure undertaken by the state in order to fulfill its obligations. Public expenditures, then, are sums of money approved by a legislative authority for a public person to spend to provide public goods and services and achieve economic, social and political goals.

3.1.2 Public Revenues:

Public revenues are the second main part of the fiscal policy tools, and these revenues enable the government to carry out its tasks towards its citizens and its economy, as the state's various functions require financial resources that cover the expenses that result from these functions, and given the expansion and development caused by the increase in public expenditures, this has been reflected in the development Public revenues through their increase and the multiplicity of their types and purposes. Public revenues are no longer limited to ordinary revenues, such as taxes and fees, but rather to include exceptional revenues (such as loans and cash issuance). It has an impact on economic and social activity, as the state seeks through public revenues to achieve social and economic goals (Al-Mahgoub, 1971: 8).

Public revenues are defined as "the income that the government obtains from all sources, usually in cash, in order to cover its expenses" (Khalaf, 2008: 163).

3.3 Balance of Payments:

The Balance of Payments is defined as "a basic and coordinated statement for all economic transactions that take place between citizens, governments and foreign institutions, and it has two sides to these transactions." It is also "a method for organizing cash revenues and payments in those international transactions during a specific period of time, usually a year." (Chacholiades, 1978: 38-48).

The balance of payments can also be defined as "a regular accounting record of all economic operations that take place between residents of a country and



non-residents, in a specific period of time, usually one year (Byé & Bernis, 1987: 82), and thus the balance of payments is a document A statistic that records all accounts of international, monetary and commercial transactions in a country between residents and non-residents for a certain period of time (usually a year), or is the surplus or deficit in current activities and net capital production in the long run, as well as assessing the movement of capital in the long run (Peyrard, 1999: 40).

The balance of payments represents the external balance that occurs under the fixed exchange system through state intervention, but in the case of flexible exchange rates, it balances automatically without the intervention of any party. (Al-Sabawi, 2012: 245)

3.4 The relationship between fiscal policy and achieving balance in the balance of payments:

The government uses fiscal policy to influence the volume of imports and exports in order to improve the position of the trade balance or for other economic goals, as the government resorts to imposing taxes (customs) on imported goods and then reducing the volume of imports and strengthening the position of the trade balance as well as protecting the local product from imported goods to maintain production. The government may resort to directing public expenditures in order to support exports by providing subsidies, whether in cash or in kind, or tax exemption in order to encourage exports and increase their competitiveness abroad, and then increase exports and improve the position of the trade balance (Al-Habib, 2000: 528-529).

And that the government's fiscal policy can contribute to reducing the deficit in the balance of payments, either by reducing expenditures on increasing taxes on the private sector, or by reducing government expenditures, or a combination of both.

Increasing taxes tends to reduce private expenditure through higher direct tax rates on incomes and profits, and therefore the private disposable income decreases, and this will reduce private consumption expenditures, and the rise in tax prices on goods or the imposition of new taxes, the impact on consumption will be direct. To a greater extent, these taxes are used during inflation. In cases of inflation,

the government should curb its expenditures and increase tax rates. It can be said that the effectiveness of deflationary financial measures in improving the current account in the balance of payments is determined by two factors (Musa, 2009: 75-76), as follows:

- a. The extent of its ability to reduce the aggregate demand for goods and services.
- b. The effect resulting from the decrease in aggregate demand for goods and services, such as a decrease in imports and an increase in exports. These measures will be effective in achieving a deficit in the balance of payments whenever their ability to reduce aggregate demand is large, and whenever the decline in aggregate demand results in a relatively large deficiency. In imports and a relatively large increase in exports, and the ability of these measures to reduce the total demand for goods and services depends on the size of the multipliers that show the strength of each of them in changing the level of aggregate demand.

As for the extent to which the decrease in aggregate demand results in a decrease in imports and an increase in exports, it depends on the extent of the importance of the external sector in the national economy. Where foreign transactions represent a large percentage of the total national transactions, and where both imports and exports tend to be highly responsive to changes in domestic incomes, the reduction in aggregate demand for goods and services leads to a fundamental improvement in the current account of the balance of payments

4. ANALYSIS OF THE RELATIONSHIP BETWEEN SOME VARIABLES OF FISCAL POLICY AND THE BALANCE OF PAYMENTS

Iraq relies on financing its public expenditures on public revenues, the main source of which is oil revenues. Fiscal policy uses its tools represented in revenues and expenditures to influence the balance of payments. Table (1) shows revenues, public expenditures, and the balance of payments in Iraq during the period (2004-2021) as follows

Table (1) Public revenues, expenditures, and balance of payments in Iraq during the period (2004-2021) (billion Iraqi dinars)

Year	Revenues (1)	Expenditures (2)	Deficit or Surplus (1-2)	Balance of Payments
2004	32.980	31.521	1.46	4212
2005	40.430	30.831	9.60	4122
2006	49.055	38.806	10.24	7360
2007	54.964	39.308	15.65	11757

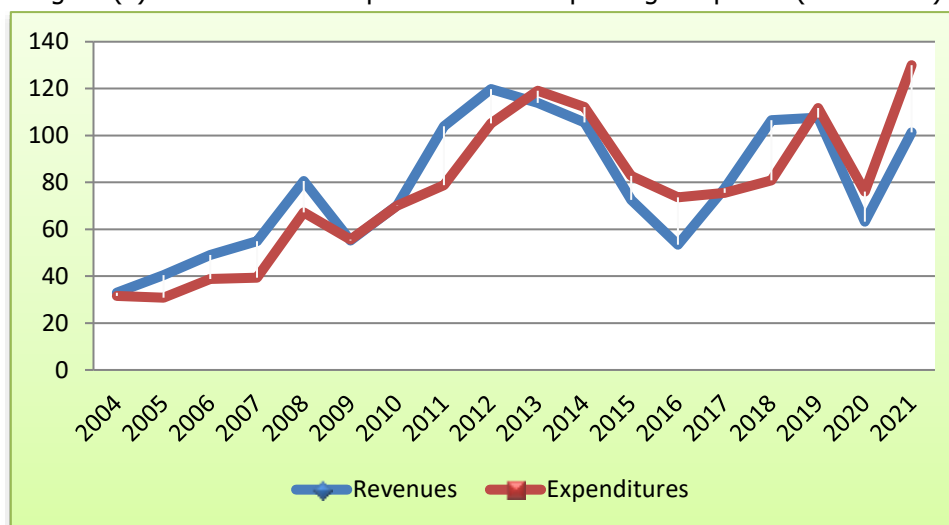


2008	80.641	67.277	13.36	18000
2009	55.243	55.589	(0.34)	(5000)
2010	70.178	70.134	(0.44)	6286
2011	103.989	78.757	25.23	10393
2012	119.817	105.139	14.67	7986
2013	113.840	119.127	(5.28)	7860
2014	105.553	112.192	(6.63)	(11871)
2015	72.546	82.813	(10.26)	(13473)
2016	53.413	73.570	20.15	(8344)
2017	77.422	75.490	1.93	(2701)
2018	106.569	80.873	25.69	6595
2019	107.566	111.723	(4.15)	8724
2020	63.200	76.082	(12.88)	8854
2021	101.320	129.993	28.67	8912

Source: Table prepared by the researcher, based on:

- Ministry of Finance, Budget Department, various years 2004-2021.
- Central Bank of Iraq, annual reports, various years, 2004-2021.

Figure (1): Revenues and expenditures in Iraq during the period (2004-2021)



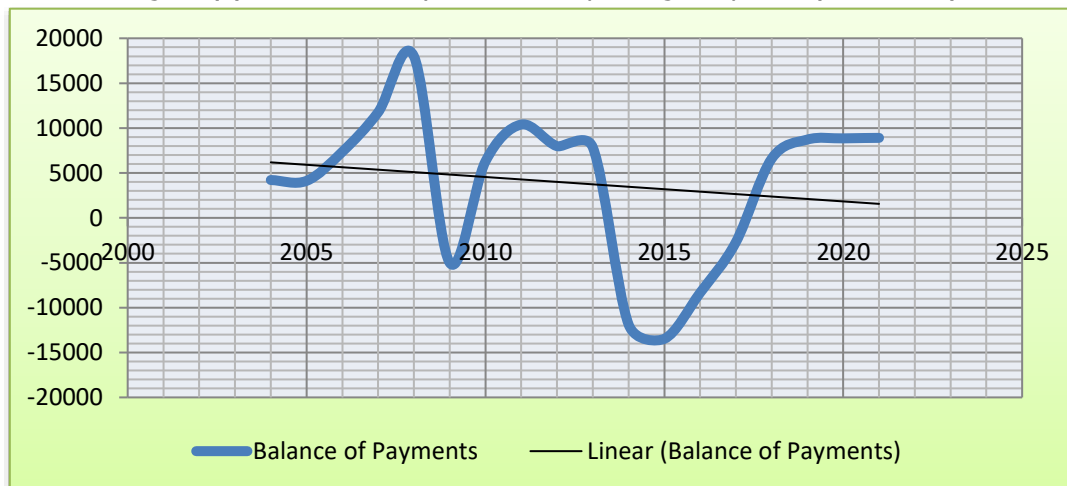
Source: Prepared by the researcher based on the data of Table (1).

Expenditures continued to rise, reaching their highest value in 2013, as public expenditures amounted to (119.127) trillion dinars in 2013, and this led to a deficit of (5.28) trillion dinars. As for the period (2014-2021): Public expenditures suffered from fluctuations due to fluctuations in revenues, with the exception of 2014, when public expenditures were high as a result of the increase in military expenditures, as public expenditures amounted to (112.192) trillion dinars.

These expenditures decreased to reach (76.082) trillion dinars in 2020 as a result of the Corona events. Note that the lowest value of public expenditures was (31.521) trillion dinars in 2004, while the highest value was (119.127) trillion dinars in 2013.

It is clear from Table (1) and Figure (2) the balance of payments in Iraq during the period (2004-2021)

Figure (2): Balance of Payments in Iraq during the period (2004-2021)



Source: Prepared by the researcher based on the data of Table (1).

It is clear from Table (1) and Figure (2) the balance of payments in Iraq during the period (2004-2021), where the balance of payments account showed a surplus during the period (2004-2008), after it was 4212 in 2004 trillion dinars, it became 18000 trillion dinars in 2008 .

The account of the balance of payments became negative with a value of (5000) trillion dinars in 2009 as a result of Iraq's dependence on the oil sector to a large extent, as it constitutes 98% of the total exports, and therefore the occurrence of the budget deficit by (0.34) trillion dinars was a result of the decrease in oil revenue resulting from The decrease in oil sales and oil prices causes a deficit in the balance of payments (Al-Mawla & Hammad, 2021, 185).

Also, the deficits in the balance of payments were during the period (2014-2017) as a result of the decrease in exports, especially oil ones, and the increase in imports.

For the Iraqi economy to resume its activity after the end of the security crisis, i.e. during the period (2018-2021), the high oil exports will resume, the oil revenues will increase, and it will achieve a surplus in its budget and a surplus in the balance of payments.

Also, the expenditures did not play their required role in reducing the deficit or increasing the surplus in the balance of payments. On the contrary, the increase in expenditures was leaking abroad to increase imports, and constituted a weight and burden on the budget and the balance of payments

5. MEASURING THE IMPACT OF SOME FISCAL POLICY VARIABLES ON THE BALANCE OF PAYMENTS IN IRAQ:

The (ARDL) model was relied upon to measure the impact of the relationship between the variables of fiscal policy (revenues, expenditures) and the dependent variable (balance of payments).

Here, the independent variable and the dependent variable included in the standard economic model are determined. The following describes the variables included in the model:

1. The dependent variable: Balance of Payments (bp).
2. The independent variable: It is represented in some variables of fiscal policy, as follows:
 - a. Public revenues, symbolized by (re)
 - b. Public expenditures, symbolized by (ex)

5.1 Results of static tests:

You must first ensure that all model variables are still by performing sleep tests as follows:

5.1.1 Augmented Dickey-Fuller (ADF) Test:

It is clear from Table (2) the results of the stability test (Augmented Dickey-Fuller Test), and the test results show that both the dependent variable (balance of payments) and the independent variables (revenues, expenditures) were not static at the level (Level), because the probability of all variables was greater than 5%, for all cases.

After that, all variables (balance of payments, revenues, expenditures) became static at the first difference (1st difference) because the probability of all variables was less than 5%, and for all cases



Table (2) Augmented Dickey-Fuller Test (ADF) for the variables used in the model

Variable	Level			1 st difference		
	Intercept	Trend and Intercept	None	Intercept	Trend and Intercept	None
	Prob	Prob	Prob	Prob	Prob	Prob
Balance of Payments	0.2324	0.5335	0.0567	0.0000	0.0000	0.0000
Revenues	0.2300	0.4320	0.6729	0.0000	0.0000	0.0000
expenditures	0.5747	0.4244	0.8233	0.0000	0.0000	0.0000

Source: The table is from the researcher's work based on outputs of E-Views9 program

5.1.2 Phillips-Perron (PP) Test:

It is clear from Table (3) the results of the stillness news (Phillips-Perron), which shows that the dependent variable (balance of payments) was not static at the level in the fixed limit, the fixed limit, and the trend, and became static at the level in the case of (without a fixed limit or a general trend) Thus, the balance of payments becomes not static at the level, so the static condition is that it is static at two limits,

and let it be (a fixed limit and a trend, without a fixed limit or a general trend).

The independent variables (revenues, expenditures) were not static at the level (Level), because the probability of all variables was greater than 5%, and for all cases.

And that all variables (balance of payments, revenues, expenditures) became static at the first difference (1st difference), because the probability of all variables was less than 5%, and for all cases.

Table (3) Phillips-Perron test for the variables used in the model

Variable	Level			1 st difference		
	Intercept	Trend and Intercept	None	Intercept	Trend and Intercept	None
	Prob	Prob	Prob	Prob	Prob	Prob
Balance of Payments	0.1926	0.4686	0.0464	0.0000	0.0000	0.0000
Revenues	0.2217	0.3867	0.6729	0.0000	0.0000	0.0000
expenditures	0.5682	0.3693	0.8256	0.0000	0.0000	0.0000

Source: The table is from the researcher's work based on outputs of E-Views9 program

From the foregoing, the standard analysis will depend on the ARDL model, with its basic condition that the time series is stable at the level or at the first divergence, or that one is stable at the level and the other at the first divergence, and thus we fulfilled the condition of the ARDL model.

5.2 Estimation of the model according to the ARDL method:

The autoregressive distributed lag time (ARDL) model requires that it be preceded by tests of rest of the time series and that the time series be stable either at (level) or at (first difference), and therefore the estimation was performed and the results are as follows:

Table (4) The results of estimating the ARDL model

R-squared	0.817008	Mean dependent var	67.14286
Adjusted R-squared	0.816882	S.D. dependent var	4321.389
S.E. of regression	3939.762	Akaike info criterion	19.46438
Sum squared resid	1.01E+09	Schwarz criterion	19.62498
Log likelihood	-676.2532	Hannan-Quinn criter	19.52817
F-statistic	4.503722	Durbin-Watson stat	2.015270
Prob(F-statistic)	0.000000		

Source: The table is from the researcher's work based on outputs of E-Views9 program



Table (4) shows the autoregressive distributed deceleration (ARDL) model, and the results show that the model is acceptable as the coefficient of determination reached 81%, meaning that the independent indicators used explain 81% of the changes that occurred in the dependent variable of the model, and the Fisher statistic, which amounted to (4.503722) and highly significant, where the significance of the model as a whole was (0.000000), and the arrival of the statistical value Durbin - Watson (D-W), from number (2) does not mean that the model is free from the problem of autocorrelation, but

there are many other tests that work to determine That, which we will discuss later in the same topic.

5.3 Co-integration test according to ARDL methodology:

The cointegration test shows us the cointegration relationship between the dependent variable and the independent variables in the ARDL model, which is known as the Bounds test, that is, limits from (1%-10%) that were determined by Basiran and as shown in Table (5)

Table (5) Limit test for cointegration according to the ARDL methodology

Test Statistic	Value	K
F-statistic	21.01924	2
Critical Value Bounds		
Significance	I0 Bound	I1 Bound
10%	2.63	3.35
5%	3.1	3.87
2.5%	3.55	4.38
1%	4.13	5

Source: The table is from the researcher's work based on outputs of E-Views9 program

Table (5) shows the limits test, as there is a relationship known as the cointegration relationship between the dependent variable (balance of payments) and the independent variables (revenues and expenditures). The calculated value of F, which amounted to (21.01924), which was greater than the tabulated upper bound for the same coefficient Bound I (1), which amounted to (5) and much more than the value of the lower limit, Bound I (0) of (2.63) at a significant level (1%, 2.5%, 5%, 10%). The economic explanation for the existence of cointegration matches the economic hypotheses, and that this result will lead

us to apply the error correction model in the short and long term, and this will be explained in this section.

5.4 Error correction model according to ARDL methodology:

The error correction model consists of two parts, the first includes the short-run elasticity shown in Table (6), and the second part includes the long-run flexibility, which we will not discuss, and the results are as follows:

It is clear from Table (6) the short term parameters for the study model, the error correction coefficient and the long term parameters.

Table (6) Error correction model (short term) according to the ARDL methodology

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(RE)	22.4388649	6.3960077	3.508261	0.0008
D(EX)	-89.208306	68.315875	-1.305821	0.1962
CoIntEq(-1)	-0.900843	0.106850	-9.366816	0.0000
CoInteq = D(BP) - (-8.5472*RE -7.6296*EX + 1173.4824)				
Long Run Coefficients				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
RE	8.547198	37.623452	0.227177	0.0082
EX	-7.629609	33.406843	-0.228385	0.8201
C	1173.482412	1527.279855	0.768348	0.0451

Source: The table is from the researcher's work based on outputs of E-Views9 program

It is noted that there is a positive effect (for public revenues) on the balance of payments, as the increase in the value of revenues by one unit (one trillion dinars) leads to an increase in the balance of payments by (22) and at a significant level of 5%, as the probability for them was (0.0008).

We note the negative effect of expenditures, as increasing it by one unit leads to a decrease in the balance of payments by (-89), and that this effect was not significant at the level of (5%), where the probability value for it was (0.1962).



As for the long-term relationship, it is clear that the error correction coefficient is high (CointEq(-1)), which is negative and its value is confined between zero and the correct one, meaning that it is identical to the terms of the error correction condition in terms of value, sign and significance, as its value is (-0.900843), as it reached Correction speed (0.90/1). This means that imbalances in the balance of payments that occur in the short term are corrected by fiscal policy in the long term within (1 year, 3 months), and the long-term relationship indicates that there is an effect between the variables of fiscal policy (revenues), expenditures) in the balance of payments, and the results are as follows:

1. There is a long-term positive relationship between (public revenues and the balance of payments) at the level of 5%.

2. There is no long-term relationship between (public expenditures and the balance of payments) at a level greater than 5%.

As an increase in revenues by one unit leads to an increase in the balance of payments by (8.5) and at a significant level of less than 5%, as the probability reached (0.0082), and this is in the long term.

As for expenses, they did not have an effect on the balance of payments, since the probability of them was (0.8201), and this is in the long term.

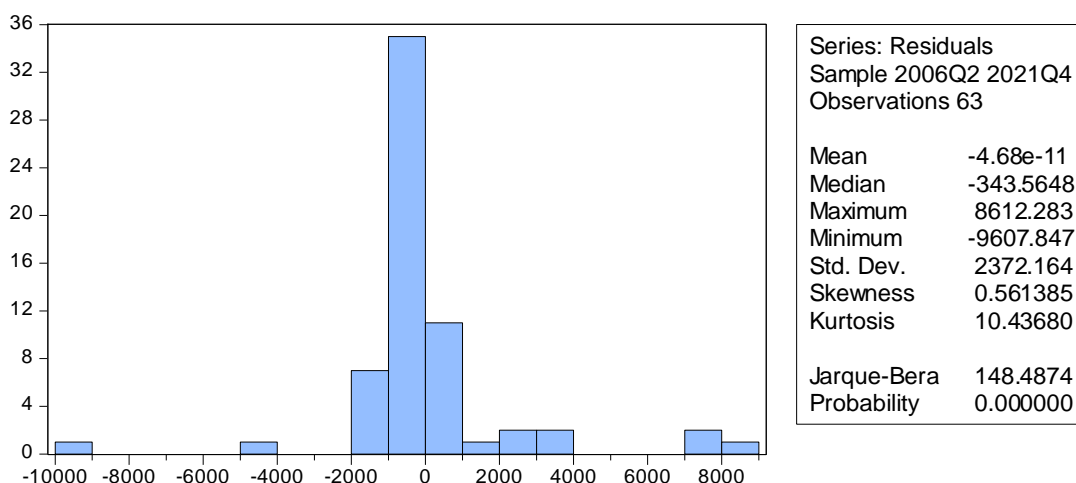
5.5 ARDL Model Quality Tests:

ARDL model quality tests include several tests, including:

5.5.1 Normal Residual Distribution:

This test is based on the probability value of the Jarque-Bera statistic, so we accept the null hypothesis that the residuals of the model are normally distributed if the probability value is greater than (0.05).

Figure (3) Normal distribution of model residuals



Source: Outputs of E-Views9 program

Thus, we accept the alternative hypothesis which states that the residuals of the model are not normally distributed if the probability value is less than (0.05), and the result is presented in Figure (4), where the results indicate that the residuals of the study model are not normally distributed because the probability value It is (0.000) and it is less than (0.05), and the reason for this is due to the presence of extreme A

values, especially in the series of independent variables.

5.5.2 Variance stability test for errors:

There are several tests that show whether the error variance is homogeneous or not, including the ARCH test, which is based on the chi-squared probability value of χ^2 and the results are as in the following table (7):

Table (7) Variance stability test for ARDL model errors

Heteroskedasticity Test: ARCH			
F-statistic	0.460728	Prob. F(1,56)	0.4999
Obs*R-squared	0.472458	Prob Chi-Square(1)	0.4919

Source: The table is from the researcher's work based on outputs of E-Views9 program

It is clear from Table (7) the results of the homogeneity stability test, as it is clear that the probability value (for chi-square) of (0.4919) indicates

that we accept the null hypothesis that states that the errors of the model are constant variance, and we reject the alternative hypothesis that states that the



errors of the model are not fixed variance, because the probability is greater from 5%.
 5.5.3 Serial autocorrelation test of the remainders of the ARDL model:

The LM test is used, which is also based on the chi-square probability value of χ^2 , the results of which are shown in Table (8) as follows

Table (8) Serial autocorrelation test for the residuals of the ARDL model

Breusch-Godfrey Serial Correlation LM Test			
F-statistic	0.000955	Prob. F(2,39)	0.9990
Obs*R-squared	0.003085	Prob. Chi-Square(2)	0.9985

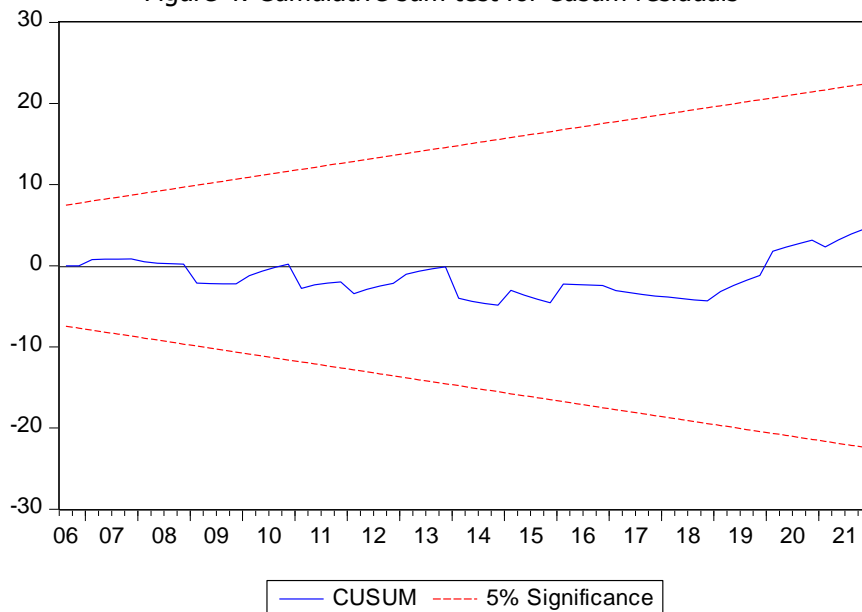
Source: The table is from the researcher's work based on outputs of E-Views9 program

5.6 Model stability tests:

After estimating the ARDL model, testing the limits of cointegration, the error correction model, conducting quality tests, and conducting model stability tests through my tests (Cumulative Residue Cusum), which was performed, the results are as in Figure (4):

The probability value (chi-squared) which amounted to (0.2520) shows us by accepting the null hypothesis which states that the model does not suffer from serial autocorrelation of errors, and we impose the alternative hypothesis which states that the model suffers from serial autocorrelation of errors, because it is greater (0.05).

Figure 4: Cumulative sum test for Cusum residuals



Source: Outputs of E-Views9 Program

Figure (4) shows the cumulative sum test for model residues, and that the red dashed lines indicate the critical limits at the significance level (5%), while the connected and zigzag blue series indicates the cumulative sum of the model residues, and the content of stability is the presence of that cumulative series within the limits red critical, so it turns out that the study model was stable for the duration of the research

6. CONCLUSIONS AND SUGGESTIONS

6.1 Conclusions:

After estimating the quantitative relationships between the variables included in the standard model - which was formulated according to the economic logic of the nature of the impact of fiscal policy tools and the balance of payments situation - the results include the following:

1. The Iraqi economy depends on its expenditures on oil revenues, which constitute more than 90% of public revenues.
2. The nature of the relationship between the tools of fiscal policy and the balance of payments is clear and conforms to the hypotheses formulated according to the logic of economic theory, and this means that both public revenues and public expenditures do not deviate from the norm and are effective in changing the conditions of the



balance of payments, and that they contribute to a large percentage of changes in it.

3. The relationship between the aforementioned tools (research variables) is stable and significant in the short and long terms in terms of the significant co-integration relationship estimated for the model, and this indicates the possibility of using the two tools to change the conditions of the balance of payments in the two mentioned fields.
4. The value of the error correction coefficient was (-0.900843), as the speed of correction was (1/0.90). This means that the imbalances in the balance of payments that occur in the short term are corrected by the fiscal policy in the long term within (1 year, 3 months).
5. An increase in revenues by one unit leads to an increase in the balance of payments by (8.5) and at a significant level of less than 5%, as the probability reached (0.0082), and this is in the long term. in the long term.

6.2 Suggestions:

1. Diversifying sources of income and not relying mainly on the oil sector because it is vulnerable to external fluctuations that occur in oil prices as a result of various crises.
2. Follow an appropriate financial policy that contributes effectively to the balance of payments.
3. Directing the largest proportion of public expenditures to investment expenditures that contribute to increasing Iraqi exports to the outside world, which enhances the strength of the trade balance and then the balance of payments.
4. Increasing the rate of customs taxes on imports from abroad to mitigate unnecessary imports and thus reduce the rate of leakage of hard currencies and maintain a balanced trade balance or surplus with the outside world as a whole and thus raise the level of the balance of payments.

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