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The impact of some agricultural policy indicators on investment in the Iraqi economy Dumooa Sadeq Khudhair

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Abstract

The study examined some of the factors that influence the investment decision and recognized the essential elements that are directly related to the investment. Based on this concept, the elements directly related to agricultural investments, as well as their purpose or objective and the factors influencing them, were examined. The study concluded that the analysis of the course of fiscal policy in the Iraqi economy did not show a clear idea of whether there are antecedent goals for fiscal policy to be achieved by aligning financial instruments in a specific direction to achieve these goals . which reflected the methodology of partial fiscal policy decisions in the agricultural economy. This limited the overall impact of financial policies and procedures. The study recommended the need to increase interest in agricultural science research and the development of special technologies in the agricultural sector, especially those researches and studies that maximize the benefits of investment in agricultural land due to its scarcity and low productivity, so that the agricultural sector can be play a role in development, address the problems of agricultural production and achieve food security.

Introduction:

Investment is at the heart of economic growth and accumulation. At the macroeconomic level, the development and performance of an economy depends on investment, which is the result of previous growth and accumulation. The investment refers to the use and benefits of money, and investing money means increasing it. Economic references interpret investment as the directing of savings toward uses that meet economic needs. Investment is expenditure on owning means of production or owning new capital that contribute to goods production of other goods. Therefore, an investment can be defined as the giving away of a portion of the money that a person owns at a certain point in time and linking it to one or more assets that he holds for the same

period, with the aim of obtaining future capital flows. While real investment is progress that will lead to an increase in national production in the future.

Theoretical framing of the research:

1-Research problem:

There is ongoing government spending in the form of support and subsidies to stimulate investment in the agricultural sector by raising the growth rates of agricultural production, both plant and animal, but the growth rates of the agricultural sector are still low.

2- Research hypothesis:

The research is based on hypothesis that there is a positive relationship between the volume of current government spending and the of agricultural growth rates production. This spending increases net income of agricultural producers, which plays a positive role exploitation the optimal in resources.

3- Research objectives:

- 1. Calculating growth rates for agricultural production, both plant and animal.
- 2. Calculating the rate of agricultural investment in Iraq economy.
- 3.Determining the impact of current government spending on production growth in the agricultural sector.

4-The importance of research:

The study is interested in trying to focus on current spending and its role in raising growth rates of agricultural production and ensuring its development and improvement in quantitative and qualitative terms, as government or public investments are not the most important means by which the desired growth in the agricultural economy is achieved.

Technical analysis:

1-The concept of investment:

Economists have elaborated their interpretation of the concept of investment and examined it from various material and intangible perspectives. John Maynard Keynes

(J.M. Keynes) defined investment as "representing the continuous increase in the value of capital goods that occurs as a result of productive activity over a given period of time." It is noted that in the light of this definition, investment is the main of expansion indicator the productive capacity, since the addition increase represents an accumulations, which means that investment is synonymous with the expression capital formation. As for the economic concept of investment, it represents expenditure to expand utilize productive capacity, and "which is synonymous with the process of capital formation to which Keynes referred" [1-10].

2- Factors affecting the investment decision:

To examine the factors that influence investment decisions, we need to understand the elements that are directly related to investments. We start first with (the first reason), i.e. the factors that are directly related to the investment, such as employment and the purpose or objective of the investment. It is the purpose or goal of an investment. Expected returns are what John Maynard Keynes called "marginal efficiency." "For Capital" is the return on retained earnings after costs. To calculate expected returns we need to know costs, which leads us to the three basic elements behind the investment decision process: (returns, costs and expectations), but that doesn't mean they exist. There are no other factors that affect the basic elements that we have mentioned in the study. The three elements on which investment decisions are based are return, costs and expectations. These elements are of particular importance for studying the feasibility of investments at the micro and macro levels, as well as on the public and private sides [11-17].

a- Returns: Returns

under the Investments capitalist system are made on the basis of expected profit, and when an investor purchases a capital asset, the purchase means that he is purchasing the right to a series of expected returns that he hopes to earn every year during his productive life. Origins. This annual sequence is called the expected rate of return on investment, which Keynes called the marginal efficiency of capital, and it depends on the accuracy of the data and information on which expectations of future capabilities and future prices based, and it also depends on the accuracy of future data information. conditions. Technological advances, inventions and population growth rates. The marginal efficiency of investment is related to expectations, which will be discussed in more detail later. Expected returns are a concern for organizers who are always trying to try everything new in production and production develop methods increase profits and go further. In addition to exercising monopoly

power over some or part of its products in the short term, other competitors can enable the enterprise to increase its revenues, thus allowing the enterprise to increase its profits and advantages. Of excellence. Since the goal that investors seek is to obtain the maximum return when making specific investment decisions. investors will compare a variety of different investment opportunities and then decide and accept investment in profitable investment the most project. The field of investment, and therefore investment decisions, is the trade-off or comparison between current consumption on the one hand and the exploitation of resources to meet future needs on the other hand. That is, if the present value of an investment (which equals the returns obtained in the future minus the costs incurred in the future) is less than its costs, that is, if costs arise, it will be profitable to make the investment. The result is less than the net benefit, which means the value added will be greater. Profit maximization is the behavioral goal regulators, of investment meaning that when decision makers adopt an approach that minimizes potential losses, the greatest benefits will be obtained, so that investment returns increase and projects can obtain more returns. It uses technology that optimizes the use of resources [25-35].

b- Costs: Costs

Cost is the second determining factor of the level of investment and

includes the cost of purchasing production equipment, as well as primary raw materials, energy, project land, etc. Therefore, the cost is more complicated due to the age and useful life of capital goods. The price is paid by borrowing money, and the price of borrowing money over a period of time is interest. The interest rate is the price for borrowing money, as the differentiates investor between borrowing money and the expected return or the amount of the deposit. Private capital) and work with banks for their benefit. Therefore, when making investment decisions, interest rates must be taken into account because low interest rates increase the amount of investment and therefore some investments that do not give returns when interest rates are high become a source of profit due to low interest rates. In the new situation, interest rates are falling, which means that investment is not just a function of interest rates, but a function of interest rates and the marginal efficiency of capital, which is a function of interest rates. The return that the investor expects before deciding to pursue or not pursue an investment project. Therefore, it is clear that any increase in costs will inevitably affect profits by decreasing them. Therefore, in feasibility studies, investors emphasize costs and try to find the best ways to reduce them. Or resort to any means to reduce it [30-**40**].

c - Expectations

Investment decisions depend on expectations and future events, and what is more difficult is that future events are difficult to predict because they are uncertain, because the uncertainty and ambiguity that comes with it increases pessimism or reduces optimism, and Keynes paid special attention to this matter. Psychological aspect) Keynes believed that there were expectations

Technical analysis tools:

1- Investment classification criteria:

There are a number of criteria by which the investment is classified, and among these criteria are:

a-Geographical criterion

The geographical criterion refers to two types of investment, namely local or national investment and foreign investment.

b- Investor standard

This criterion refers to private investment or public investment and mixed investment that combines the previous two types. This standard includes two types of investment:

• Direct investment

This type of investment requires control or management of the project, where the local or external investor has the right to supervise the project and participate in the partial or complete purchase of the project.

• Indirect investment

This type of investment is financial investment or investment in securities, and has been the dominant form of external investment. It is done

through financial markets without the need for control or management.

c-Time standard

Investment is classified according to the time period into short-term, medium-term, and long-term investment.

• Short-term investment

The duration of this type of investment is less than one year, and includes deposits, current accounts and liquid funds.

• Medium-term investment

The time period for this investment ranges between one year and five years.

• Long-term investment

The time period for this investment is more than five years, and includes assets and fixed assets.

The applied aspect:

1- Description of the model:

The description of the model and the selection of variables are determined by a group of factors, including those related to the concepts of economic theory, including those used in the studies contained in the field in question, in addition to the specificity of the economy under study. Here it was decided to choose the following variables:

IN = f (G, t, D, Inf, GDP, Dummy, T) whereas:

IN y= is agricultural investment G x2 = current government spending D x3 = public debt Dummy = dummy variable

T = time element

Table No(1).

| Debt D | Current Expenditure | Agricultural Investment IN | Year Y |
|----------|---------------------|-------------------------------|--------|
| x3 | x2 | y | year |
| 5900.0 | 4042.0 | 613.2 | 1980 |
| 5900.0 | 5411.0 | 791.6 | 1981 |
| 12980.0 | 7886.0 | 877.9 | 1982 |
| 15540.0 | 7138.0 | 692.3 | 1983 |
| 20823.6 | 6861.0 | 641.5 | 1984 |
| 12183.4 | 7363.0 | 534.7 | 1985 |
| 12890.1 | 7426.0 | 375.1 | 1986 |
| 13637.6 | 9229.0 | 327.0 | 1987 |
| 14428.6 | 10630.0 | 403.4 | 1988 |
| 15265.6 | 10872.0 | 402.4 | 1989 |
| 16161.6 | 11357.0 | 372.0 | 1990 |
| 17099.0 | 15653.0 | 156.5 | 1991 |
| 18090.7 | 25867.0 | 1304.4 | 1992 |
| 19176.0 | 50060.0 | 4647.6 | 1993 |
| 20288.4 | 171742.0 | 8561.3 | 1994 |
| 21465.1 | 605840.0 | 18580.0 | 1995 |
| 22710.2 | 506102.0 | 12103.4 | 1996 |
| 24027.3 | 534095.0 | 18098.1 | 1997 |
| 25421.0 | 824705.0 | 17661.9 | 1998 |
| 26895.1 | 831592.0 | 26588.0 | 1999 |
| 28455.3 | 1151663.0 | 27422.0 | 2000 |
| 30105.6 | 1490866.0 | 57202.2 | 2001 |
| 31851.7 | 151663.0 | 128502.2 | 2002 |
| 209914.0 | 4617646.0 | 7478.0 | 2003 |
| 166682.0 | 290663.3 | 186100.0 | 2004 |
| 132143.5 | 224716.5 | 198229.0 | 2005 |
| 73892.5 | 325976.1 | 388367.0 | 2006 |
| 51937.1 | 298198.6 | 301822.0 | 2007 |
| 36312.7 | 390874.2 | 625390.0 | 2008 |
| 69074.9 | 420536.2 | 911402.0 | 2009 |
| 73387.7 | 545808.6 | 86466.0 | 2010 |

| 56372.9 | 609255.5 | 982089.0 | 2011 |
|----------|----------|-----------|------|
| 46734.6 | 757886.2 | 1415608.0 | 2012 |
| 29821.7 | 787468.1 | 1374203.0 | 2013 |
| 65250.3 | 767416.7 | 126587.0 | 2014 |
| 217181.1 | 518328.4 | 148261.0 | 2015 |
| 300248.8 | 511734.3 | 169936.0 | 2016 |
| 299071.9 | 590256.5 | 168403.3 | 2017 |
| 253778.6 | 670528.6 | 332113.0 | 2018 |
| 226102.6 | 87301.0 | 267567.0 | 2019 |
| 368602.9 | 3208.9 | 79400.0 | 2020 |
| 365496.0 | 13322.7 | 252400.0 | 2021 |
| 720316.0 | 274276.2 | 346770.0 | 2022 |

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2-Stability test:

The results in Table (2) indicate that the time series for the variables were not static in their levels, as the Dickey-Fuller (ADF) test indicated that the test values calculated for each variable in absolute value are greater than the tabulated values at the level of statistical significance (5%) and (10%) %) for the dependent variable Y

test for the same variables and at the same level of significance.

Table No(2). UNIT ROOT TEST RESULTS TABLE (ADF) Null Hypothesis: the variable has a unit root

At Level

| | | y | X2 | X3 |
|--------------------------|-------------|------------------|---------|---------|
| With Constant | t-Statistic | -2.9510 | -5.7415 | 1.9293 |
| | Prob. | 0.0481 | 0.0000 | 0.9998 |
| | | ** | *** | n0 |
| With Constant & Trend | t-Statistic | -3.4552 | -5.8841 | 0.5475 |
| | Prob. | 0.0577 | 0.0001 | 0.9991 |
| | | * | *** | n0 |
| Without Constant & Trend | t-Statistic | -2.4184 | -2.2776 | 2.5336 |
| | Prob. | 0.0167 | 0.0236 | 0.9967 |
| | | ** | ** | n0 |
| | At First D | <u>ifference</u> | | |
| | | d(IN) | d(G) | d(D01) |
| With Constant | t-Statistic | -7.3200 | -7.9182 | -3.9480 |
| | Prob. | 0.0000 | 0.0000 | 0.0040 |
| | | *** | *** | *** |
| With Constant & Trend | t-Statistic | -7.2263 | -7.8748 | -4.4301 |
| | Prob. | 0.0000 | 0.0000 | 0.0055 |
| | | *** | *** | *** |
| Without Constant & Trend | t-Statistic | -7.4069 | -8.0241 | -3.6917 |
| | Prob. | 0.0000 | 0.0000 | 0.0005 |
| | | *** | *** | *** |

Notes:

a: (*)Significant at the 10%; (**)Significant at the 5%; (***) Significant at the 1% and (no) Not Significant

UNIT ROOT TEST RESULTS TABLE (PP)

Null Hypothesis: the variable has a unit root

At Level

| | | y | X2 | X3 |
|-----------------------|-------------|---------|---------|--------|
| With Constant | t-Statistic | -2.8851 | -5.9472 | 4.8626 |
| | Prob. | 0.0556 | 0.0000 | 1.0000 |
| | | * | *** | n0 |
| With Constant & Trend | t-Statistic | -3.4337 | -6.0709 | 2.1927 |
| | Prob. | 0.0605 | 0.0000 | 1.0000 |
| | | * | *** | n0 |

| Without Constant & Trend | t-Statistic <i>Prob</i> . | -2.3421 0.0202 ** | -4.7859 0.0000 *** | 5.4787 1.0000 n0 |
|--------------------------|---------------------------|-------------------------|--------------------------|------------------------|
| | At First D | <u> Difference</u> | | |
| | | d(IN) | d(G) | d(D01) |
| With Constant | t-Statistic | -16.6676 | -18.6503 | -4.2024 |
| | Prob. | 0.0000 *** | 0.0001 *** | 0.0019 *** |
| With Constant & Trend | t-Statistic | -16.3152 | -20.4272 | -3.8971 |
| | Prob. | 0.0000 | 0.0000 | 0.0211 |
| | | *** | *** | ** |
| Without Constant & Trend | t-Statistic | -13.9314 | -18.9079 | -3.6352 |
| | Prob. | 0.0000 | 0.0000 | 0.0006 |
| | | *** | *** | *** |

Notes:

a: (*)Significant at the 10%; (**)Significant at the 5%; (***) Significant at the 1% and (no) Not Significant

3-Analysis using the Autoregressive Distributed Lags (ARDL) method:

Several attempts were carried out to obtain the best estimation results in terms of their compliance with the standards and their freedom from problems, etc. The estimates in table () were the best results obtained, including the application of the (ARDL) model using the Eviews program. The table shows the results of the estimation of the effect of the independent variables with their lag periods on the variable dependent, in addition to the effect of the lag periods of the dependent variable itself. The results showed that:

Choosing the formula (1,4,4) is the best result obtained out of (100) self-

analyzed programming models, which means one deceleration for the independent variable (X2) spending, current four decelerations for the independent variable (X3) public debt, and four Lags of the dependent variable (Y) investment.

It appeared that R2 reached (0.92), which means that (92%) of the fluctuations are due to the variables included in the model, and the rest is due to variables that were not included in the model and their effect was absorbed by the random variable.

Table No(3) . Method: ARDL

Date: 02/18/24 Time: 00:15 Sample (adjusted): 1984 2022

Included observations: 39 after adjustments

Maximum dependent lags: 4 (Automatic selection) Model selection method: Akaike info criterion (AIC) Dynamic regressors (4 lags, automatic): X3SM Y

Fixed regressors: C

Number of models evaluated: 100 Selected Model: ARDL(1, 4, 4)

| Prob.* | t-Statistic | Std. Error | Coefficient | Variable |
|----------|-----------------------|------------|-------------|--------------------|
| 0.0000 | 15.16827 | 0.062129 | 0.942391 | X2SM(-1) |
| 0.0000 | 5.661661 | 0.524546 | 2.969799 | X3SM |
| 0.0002 | -4.311608 | 0.648529 | -2.796201 | X3SM(-1) |
| 0.7211 | -0.360725 | 0.722152 | -0.260498 | X3SM(-2) |
| 0.5113 | 0.665680 | 0.765183 | 0.509366 | X3SM(-3) |
| 0.0276 | -2.328757 | 0.569688 | -1.326666 | X3SM(-4) |
| 0.1342 | 1.544272 | 0.085776 | 0.132461 | Y |
| 0.7982 | 0.258168 | 0.095745 | 0.024718 | Y(-1) |
| 0.2507 | 1.173804 | 0.095905 | 0.112573 | Y(-2) |
| 0.4707 | -0.731681 | 0.095927 | -0.070188 | Y(-3) |
| 0.0108 | -2.737229 | 0.098205 | -0.268810 | Y(-4) |
| 0.0910 | 1.752928 | 41193.75 | 72209.65 | С |
| 634234.3 | Mean depe | endent var | 0.923658 | R-squared |
| 404248.4 | S.D. dependent var | | 0.892556 | Adjusted R-squared |
| 26.67432 | Akaike info criterion | | 132507.3 | S.E. of regression |
| 27.18619 | Schwarz criterion | | 4.74E+11 | Sum squared resid |
| 26.85798 | Hannan-Quinn criter. | | -508.1493 | Log likelihood |
| 2.523004 | Durbin-W | atson stat | 29.69744 | F-statistic |
| | | | 0.000000 | Prob(F-statistic) |

*Note: p-values and any subsequent tests do not account for model selection.

4- The long-run function:

In this test, the long-term parameters appear in the table (4). The parameter for both current spending (X2) and

public debt (X3) appeared to be consistent with the logic of economic theory, as it is assumed that increasing government spending and increasing

debt allocated to investments increases the volume of agricultural investment. While the values were not significant, this indicates the absence of a long-term relationship between agricultural investment in Iraq, current spending, and public debt, and the lack of long-term joint integration between them. Rather, the relationship was limited to the short term.

Table No(4).

ARDL Cointegrating And Long Run Form

Dependent Variable: Y Selected Model: ARDL(4, 4, 4) Date: 02/19/24 Time: 17:58

Sample: 1980 2022 Included observations: 39

| Cointegrati | ng Form |
|-------------|---------|
| | |

| | | 2118 1 91111 | |
|-------------|--|---|--|
| t-Statistic | Std. Error | Coefficient | Variable |
| -1.454614 | 0.428957 | -0.623967 | D(Y(-1)) |
| -1.978651 | 0.441075 | -0.872734 | D(Y(-2)) |
| -1.058121 | 0.436160 | -0.461510 | D(Y(-3)) |
| 1.476394 | 0.102496 | 0.151325 | D(X2) |
| 1.486699 | 0.115471 | 0.171671 | D(X2(-1)) |
| -1.391659 | 0.104549 | -0.145497 | D(X2(-2)) |
| 2.308763 | 0.076809 | 0.177333 | D(X2(-3)) |
| -2.002629 | 1.603050 | -3.210314 | D(X3) |
| -1.917242 | 4.646122 | -8.907742 | D(X3(-1)) |
| 1.442276 | 4.750687 | 6.851800 | D(X3(-2)) |
| -2.022169 | 3.044759 | -6.157017 | D(X3(-3)) |
| -0.331805 | 13802.538950 | -4579.752028 | D(@TREND()) |
| -0.146933 | 0.432472 | -0.063544 | CointEq(-1) |
| | -1.454614 -1.978651 -1.058121 1.476394 1.486699 -1.391659 2.308763 -2.002629 -1.917242 1.442276 -2.022169 -0.331805 | t-Statistic Std. Error -1.454614 0.428957 -1.978651 0.441075 -1.058121 0.436160 1.476394 0.102496 1.486699 0.115471 -1.391659 0.104549 2.308763 0.076809 -2.002629 1.603050 -1.917242 4.646122 1.442276 4.750687 -2.022169 3.044759 -0.331805 13802.538950 | -1.454614 0.428957 -0.623967 -1.978651 0.441075 -0.872734 -1.058121 0.436160 -0.461510 1.476394 0.102496 0.151325 1.486699 0.115471 0.171671 -1.391659 0.104549 -0.145497 2.308763 0.076809 0.177333 -2.002629 1.603050 -3.210314 -1.917242 4.646122 -8.907742 1.442276 4.750687 6.851800 -2.022169 3.044759 -6.157017 -0.331805 13802.538950 -4579.752028 |

 $\label{eq:cointeq} \begin{aligned} \text{Cointeq} &= \text{Y - } (2.3298*\text{X2} + 42.4560*\text{X3} \ \ \text{-}224912.3449 \ \ \text{-}72071.6335 \\ &\quad \ \ ^* @\text{TREND} \,) \end{aligned}$

Long Run Coefficients

| | Prob. | t-Statistic | Std. Error | Coefficient | Variable |
|--|-------|-------------|------------|-------------|----------|
|--|-------|-------------|------------|-------------|----------|

| 0.8918 | 0.137570 | 16.935096 2.329758 | X2 |
|--------|-----------|-----------------------------------|--------|
| 0.8924 | 0.136733 | 310.502783 42.455979 | X3 |
| 0.8393 | -0.205147 | 1096346.51689 224912.3449 0 49 | С |
| 0.9157 | -0.107043 | 673298.474336 72071.63345 1 | @TREND |

5- Testing the remainders:

a- Normal distribution test:

It is clear from the significance of the Jarque-Bera statistic, which has a value of (0.95), which indicates acceptance of the null hypothesis, which stipulates a normal distribution of the series of residuals in the ARDL model. He rejected the alternative hypothesis.

12 Series: Residuals Sample 1984 2022 10 Observations 39 Mean 1.67e-10 8 Median -35694.31 Maximum 321034.7 6 Minimum -329557.5 111694.0 Std. Dev. Skewness 0.187968 4 4.659462 Kurtosis 2 Jarque-Bera 4.704607 Probability 0.951500

100001

200001

300001

Figure (1) Normal distribution test

b- Autocorrelation test:

-300000

The results, as shown in Table (5), showed that there is no autocorrelation in light of the results

-200000

-100000

of the LM test by comparing the probability of the Chi-Square statistic, which is (0.08), which is greater than (0.05). Therefore, we accept the null

hypothesis, which states that the autocorrelation. model is free of the problem of

Table No (5)

Breusch-Godfrey Serial Correlation LM Test:

| 0.2303 | Prob. F(4,23) | 1.516800 | F-statistic |
|--------|---------------------|----------|---------------|
| 0.0866 | Prob. Chi-Square(4) | 8.140476 | Obs*R-squared |

Test Equation:

Dependent Variable: RESID

Method: ARDL

Date: 02/18/24 Time: 00:13

Sample: 1984 2022

Included observations: 39

Presample missing value lagged residuals set to zero.

| | <i>U</i> | | | |
|----------|--------------------|--------------|-------------|--------------------|
| Prob. | t-Statistic | Std. Error | Coefficient | Variable |
| 0.6741 | -0.425919 | 0.099517 | -0.042386 | X2SM(-1) |
| 0.6320 | -0.485391 | 0.587998 | -0.285409 | X3SM |
| 0.9025 | -0.123846 | 0.774599 | -0.095931 | X3SM(-1) |
| 0.8220 | 0.227525 | 1.011225 | 0.230079 | X3SM(-2) |
| 0.8932 | -0.135694 | 1.077828 | -0.146255 | X3SM(-3) |
| 0.7158 | 0.368580 | 0.744025 | 0.274233 | X3SM(-4) |
| 0.4995 | -0.686125 | 0.095607 | -0.065598 | Y |
| 0.6367 | 0.478703 | 0.100310 | 0.048019 | Y(-1) |
| 0.9606 | 0.049882 | 0.097070 | 0.004842 | Y(-2) |
| 0.9011 | -0.125592 | 0.094529 | -0.011872 | Y(-3) |
| 0.5698 | 0.576672 | 0.100661 | 0.058048 | Y(-4) |
| 0.5942 | 0.540211 | 55505.71 | 29984.78 | C |
| 0.1851 | -1.366057 | 0.247776 | -0.338476 | RESID(-1) |
| 0.6902 | 0.403707 | 0.340869 | 0.137611 | RESID(-2) |
| 0.1776 | 1.390768 | 0.396596 | 0.551573 | RESID(-3) |
| 0.3152 | 1.026733 | 0.330095 | 0.338919 | RESID(-4) |
| 1.67E-10 | Mean dep | endent var | 0.208730 | R-squared |
| 111694.0 | S.D. dependent var | | -0.307315 | Adjusted R-squared |
| 26.64534 | Akaike in | fo criterion | 127708.6 | S.E. of regression |
| 27.32782 | Schwarz c | riterion | 3.75E+11 | Sum squared resid |
| 26.89021 | Hannan-Q | uinn criter. | -503.5840 | Log likelihood |
| | | | | |

c- Contrast test:

Based on the (ARCH) test, the calculated F value was obtained, which is significant (0.56). The results of the variance test conducted on the model also confirmed that the value of the Chi-Square statistic, which is

significant (0.52), is greater than (0.05), and therefore there is no variance difference in The error limit, and accepting the null hypothesis which states that there is no problem.

Table No, (6)

Heteroskedasticity Test: ARCH

| 0.5655 | Prob. F(4,30) | 0.750505 | F-statistic |
|--------|---------------------|----------|---------------|
| 0.5276 | Prob. Chi-Square(4) | 3.183764 | Obs*R-squared |

Test Equation:

Dependent Variable: RESID^2

Method: Least Squares

Date: 02/18/24 Time: 00:11 Sample (adjusted): 1988 2022

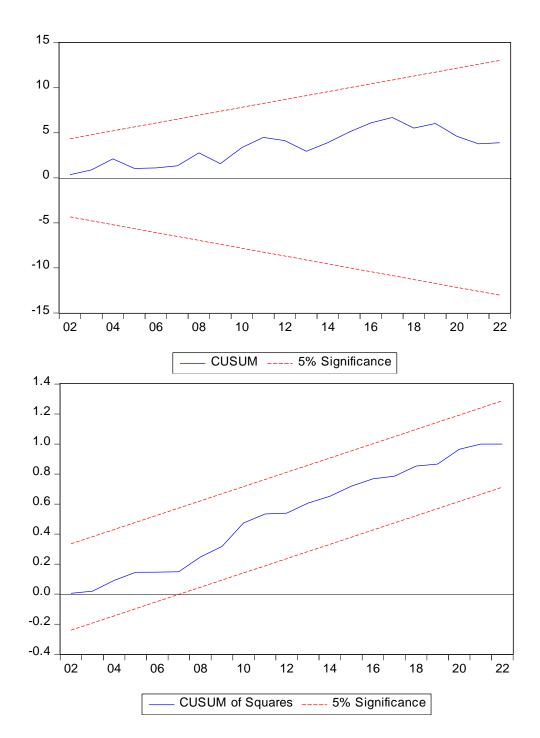
Included observations: 35 after adjustments

| Prob. | t-Statistic | Std. Error | Coefficient | Variable |
|----------|---------------------------|------------|-------------|--------------------|
| 0.0762 | 1.836815 | 5.48E+09 | 1.01E+10 | С |
| 0.2735 | 1.115365 | 0.180901 | 0.201771 | RESID^2(-1) |
| 0.3133 | 1.025574 | 0.254165 | 0.260665 | RESID^2(-2) |
| 0.9461 | -0.068162 | 0.253414 | -0.017273 | RESID^2(-3) |
| 0.5043 | -0.675805 | 0.250585 | -0.169347 | RESID^2(-4) |
| 1.34E+10 | Mean dependent var | | 0.090965 | R-squared |
| 2.46E+10 | S.D. dependent var | | -0.030240 | Adjusted R-squared |
| 50.85125 | Akaike info criterion | | 2.50E+10 | S.E. of regression |
| 51.07345 | Schwarz criterion | | 1.87E + 22 | Sum squared resid |
| 50.92795 | Hannan-Quinn criter. | | -884.8969 | Log likelihood |
| 2.014129 | Durbin-Watson stat | | 0.750505 | F-statistic |
| | | | 0.565516 | Prob(F-statistic) |

d- Two stability tests:

They are considered among the most important tests of the suitability of the model for regression, as the CUSUM and CUSUMSQ tests were used to test the structural stability of the model in the short and long terms. As shown in Figure (2), we notice

from the test results that all parameter values fall within the confidence limits (critical limits) at the level Significant (5%), meaning there is structural stability in the study variables and consistency of the model in the short and long term. This means that the estimated model is good.



Conclusions and recommendations: 1) Conclusions:

- 1- The analysis of the path of fiscal policy in the Iraqi economy did not show a clear vision about the existence of prior objectives for the fiscal policy to achieve, which
- led to a lack of reconciliation between financial tools to achieve those objectives.
- **2-** The spending policy in Iraq did not lead to achieving external balance, as it did not have a clear

- impact on investments despite the increase in public spending.
- **3-** Debt policy contributed to eliminating sources of financing investments, but it led to the transfer of financial resources from investments to consumption, which conflicts with encouraging private investment and stimulating economic growth.

2) Recommendations:

- 1- A suitable climate must be created for agricultural investments and investment in reclaiming agricultural lands to develop the agricultural sector must be encouraged.
- **2-** Spending should be focused on establishing new production projects and reducing imports through complementary projects.
- **3-** Attention must be given to agricultural technical progress and the development of technologies for the agricultural sector.
- **4-** The private sector and agricultural companies should be encouraged to invest in reclaimed lands.
- 5- Scientific research in the agricultural aspect must be given attention to achieve food security and increase productivity in the agricultural sector.

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