تحليل اقتصادي لأثر بعض مؤشرات السياسة المالية على التجارة الخارجية الزراعية
في العراق للمدة 1990-2020
An Economic Analysis of Impact of some fiscal policy Indicators on the foreign agricultural trade in Iraq for the Period 1990-2020

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المستخلص

هدفت الدراسة إلى بيان تأثير مؤشرات السياسة المالية على التجارة الخارجية في العراق للمدة 1990-2020 ، فضلا عن أهمية السياسة المالية وأهدافها وأدواتها، وأثر مؤشرات السياسة المالية في التجارة الخارجية في العراق للمدة 1990-2020 واستخدم الباحث التحليل الاقتصادي والإحصائي ، وتوصلت الدراسة الى تحليل اثر مؤشرات السياسة المالية (الإنفاق العام، الإيرادات الضريبية) على التجارة الخارجية الزراعية. وأظهرت النتائج أن هناك علاقة ارتباطية بين الصادرات الزراعية والإنفاق العام والضرائب، وهي علاقة خارجية مع الإنفاق العام. بمعنى آخر، فإن زيادة الإنفاق العام في أجزائه التشغيلية، مما يزيد من دخل الأفراد، ينعكس في زيادة الاستهلاك. وهذا يشجع المنتجين على زيادة الإنتاج الزراعي المحلي.

الكلمات المفتاحية: الصادرات الزراعية، الاستيرادات الزراعية، الإنفاق العام، الإيرادات الضريبية.

• البحث مستل من أطروحة الدكتوراه للباحث الأول .

Abstract

The study aimed to examine financial policy indicators in foreign trade in Iraq for the period 1990-2020, to fully explain the importance of financial policy, its objectives, its effects, and the impact of financial policy indicators on trade in Iraq for the period 1990-2020 to determine the economic and statistical analysis, and the study arrived at an analysis of the influence indicators. Fiscal policy (public spending, tax revenues) on agricultural foreign trade. After the results, there is a correlation between Dutch farmers and public spending and taxes, which is an external relationship with public spending. In other words, the increase in public expenditure in its operational parts, which increases the number of people, which reflects increased consumption. This encourages producers to increase local agricultural production.

Keywords: agricultural exports, agricultural imports, public expenditure, tax revenues.

The research part of Ph.D. dissertation of the 1st other.

1. Introduction

The world's goods and services have been traded between nations for centuries, making foreign trade a crucial aspect of global economic relations. Developing countries rely on foreign trade to maintain a balance between their imports and exports. Domestic and foreign policies are significantly influenced by the magnitude of foreign trade. Accelerating economic and social growth in developing countries is largely attributable to foreign trade (AL_Jubori,2017,1032) In many nations, including Iraq, the agricultural foreign trade sector is identified as a crucial

contributor to economic performance. Meeting domestic production needs through imports and providing foreign exchange via agricultural exports attest to the significance of agriculture in various economies, developed and developing alike. One clear means of gauging Iraq's agricultural sector is by measuring the extent of foreign agricultural trade. Apart from that, one should also shed light on the government's fiscal policy and its influence on agricultural foreign trade levels from 1990-2020, exhibited by policy indicators such as taxation and government expenditure. Due to food security policies and the need for self-sufficiency products, the impact of economic variables on agricultural foreign trade cannot be ignored. Through the import and export of raw materials and food, governments use indicators to achieve economic stability and activate fiscal policies. Such policies have become vital for all sectors. To gauge the level of status contribution to foreign trade management, including trade in agricultural products, is crucial. From 1990 - 2020, an examination was conducted to gauge the magnitude of international agricultural commerce in Iraq (Khaled,2013, 80).

2.The First Study

2.1 Objective of the Study : the analyses Iraq's import and export of agriculture across a thirty-year time span. By studying Iraq's agricultural foreign trade from 1990 - 2020, this research seeks to provide insight into the import and export of different agricultural products with the goal of analyzing the country's agricultural foreign trade scale, assessing its development situation, and examining fiscal policies' impact.

2.2 Study Problem: Through analysis of scale indicators of agricultural foreign trade over the period, the study also reveals the cause-and-effect relationship between government expenditures, taxes, and agricultural foreign trade. The agricultural foreign trade balance has been in a long-term deficit due to the limited capacity of agricultural exports to compensate for imports. This deficiency stems from the nation's reliance on rent-seeking characteristics of the oil sector (90), despite unpredictable oil prices. As such, an essential matter is to gauge the degree of agricultural foreign trade within the Iraqi economy.

2.3 Hypothesis of the Study: The root of the research problem lies here. Based on the assumption that there is a causal effect stemming from Iraq's foreign agricultural trade, the study delves into the development of the agricultural sector taking into account various economic indicators like government expenditures and taxes.

2.4 sample of research and Methodology Study : the researchers used ARDL cointegration analysis and EViews 10 statistical software to model the dependent variable of agricultural foreign trade volume against independent variables of government expenditure and tax.

3.The second section/theoretical framework

3.1. *Fiscal Policy theoretical framework* :- The governing body has a set of measures in place to manage its financial activities, called fiscal policy. With the goal of achieving economic stability and balance, as well as meeting the material needs of society, this policy influences income distribution and equality through various programs and plans geared towards generating state revenue. Taxes, fees, and other revenue streams are evaluated to ensure that government expenditures align with the level and structure of these earnings. Ultimately, the aim of fiscal policy is to promote sustainable financial development (Ali ,2005, 101).

3.2. Fiscal Policy Goals :- National fiscal policy pursues multiple goals

A. Economic growth and development: Economic development encompasses a series of essential shifts in the economy, technology, and society, as opposed to economic growth, which simply denotes an upswing in revenue and actual national production over time. The latter is influenced by population, social and political institutions (Osama ,2012 73,)

b. Achieving full employment: The recession of the 1930s has cast a shadow on countries ; economies and therefore the question of the operation and full use of productive energy has emerged as it required direct intervention by countries Governments can accomplish this by using fiscal policy, especially to address the unemployment issue by raising spending, cutting taxes, or doing both. This entails raising the overall and effective demand, which was supported by Keynes at the time. This will increase the demand for employment overall and increase the level of real national income. The government's participation in this situation is compensatory financing is determined to meet the shortfall in private demand and increase investment spending in particular, as it raises national income and increases the level of employment. (Budwei ,2012, 15)

c. Price stabilization: Achieving economic stability requires that there be no major fluctuations in the overall level of prices. Achieving this goal requires maintaining low levels of unemployment and inflation. Fiscal policy plays a major role in stabilizing prices, particularly in times of recession and inflation, so that the state, using fiscal policy, can achieve economic stability.

d. Achieving equity in income distribution: Achieving economic stability in the midst of social and political strife can be difficult when there is an enormous gap in income between the rich and the poor. The ideal solution would be for fiscal policy to step in and orchestrate a more equitable distribution of resources to encourage economic growth. A key consideration for success is the level of government revenue and public expenditure generated by fiscal policy (Mohamed ,2015, 7).

f. Efficient allocation of economic resources -: This objective includes channeling resources towards the best economic uses of society and in the most efficient way possible. In other words, the state interferes with the allocation of resources between different public uses. (Nizar ,2003, 21).

3.3.Financial policy instruments: Governments can impact their economies using fiscal policy instruments, just as they do through other measures. Fiscal policy use a variety of tools to attain its goals. These discretionary fiscal policy instruments, which are required by the implementation of new legislation and many essential government services (government, and tax rate). These instruments demand direct government intervention, which can take the form of raising tax rates or changing or restructuring government spending. When there is a catastrophic unemployment situation, it can intervene directly to find unemployed people temporary public work. (Nizar ,2003, 21) Among the most important direct fiscal policy measures is:-

3.3.1. Public expenditure: Most governments, through the public expenditure mechanism, tend to establish projects that private investors can't prove due to the high risks they pose, as in in the scenario of heavy industry and public expenditure in turn is divided into ongoing expenditure allocated to the provision of public expenditure (such as salaries and wages). Investment expenditure (to build power plants, roads, bridges, hospitals, and schools, etc…) (Mohamed ,2015, 225). And the need to adhere to these rules :- 1. The benefit rule: Under this rule, government expenditure is aimed achieving the maximum social benefit. Therefore, the state is not entitled to spend on things that are not intended to benefit. The benefit derived from state expenditure is not limited to marginal productivity and income derived from it, but extends to the benefits that can be derived from the money spent on the unemployed in the form of subsidies and social benefits.

3.3.2. Licensing rule: In accordance with this rule, public maintenance is disbursed by a public body with public funds, and public maintenance must therefore be subject to prior authorization by the competent authority for legislation. This is a special law that is enforceable, which distinguishes public maintenance from private maintenance.

The economic impact of taxes cannot be underestimated as they have the power to manipulate the overall spending pattern of a nation. Whenever the economy faces stagnation, the government usually takes the step of reducing or abolishing taxes on certain goods and services. This step increases the disposable income of people, which, in turn, boosts their demand and stimulates economic activity (Abdelhady,2013, 83).The primary objective of taxes is not just to generate government revenue but to curtail private expenditure and promote growth-oriented objectives. They serve the dual purpose of financing the state as well as contributing to the economic advancement of a country by encouraging savings, reducing income inequality, and directing surplus funds towards desirable growth opportunities.

The effect of fiscal policy is reflected in the amount of tax revenue and government spending. Fluctuations in interest rates and their levels affect inflation rates, financial conditions and foreign trade. Inflation rates can have a direct impact on fiscal policy through debt sustainability and servicing costs. Likewise, the impact on public finances depends on the volatility and level of inflation. When financial planning becomes very difficult, forecasting public finances becomes very difficult (Al-Zubaidi,2011, 150)

Fiscal policy has become an important tool for economic policy to guide the economic path and respond to shocks and crises. However, financial policy cannot achieve all the goals of the economy and should be coordinated with other policy areas. There are multiple cost breakdowns, including:-

1. Public expenditure refers to the amount of funds allocated from the treasury to meet general needs. The state provides a variety of public services to protect citizens and improve their general well-being, and requires the government to spend money to provide these services (Hamdan,2020 ,88)

2. Allocation of public expenditures. If each country makes a positive assessment based on its own needs, circumstances and level of economic and social development, it is normal that as the state's intervention in public life increases, the diversity of public expenditures will also increase..

Fiscal policy can serve as a direct tool of the Iraqi central government to provide catalysts and financing for the creation of a circular economy (Abd Alhussein,2020, 142)

3.4. Foreign Trade Concept: Greater economic development necessitates unrestricted trade and employment opportunities. This is because foreign trade enhances the economy of both developed and developing nations by acquiring foreign exchange and facilitating economic development. It also helps combat inequalities and growth issues in productive sectors. For instance, removal of trade barriers and improved access to global markets is vital to achieve this goal (Mukhtar ,2009, 110) .The exchange of goods and services between countries is a significant aspect of foreign policy as it represents the economic interaction between nations. This trade has been a crucial benchmark for a country's development and ability to meet the demands of the global market. To better understand the regulations governing foreign trade, it is necessary to analyze them quantitatively within both national and international policy contexts. Promoting economic and social development in emerging countries, foreign trade takes on a crucial role. Through its active involvement, it defines the key components of the economic framework and supports the balance and interconnection of various sectors. To gauge the significance of foreign trade, it's vital to

analyze exports and imports. By examining these variables, we can determine the level of the trade deficit, as their components function as reliable indicators (Al-Badri,2013 ,85)

3.5. The significance of international trade: The significance of the matter is found, among other things (Al-Badri,2013 ,85)

a. It helps expand marketing capacity by opening up new markets to countries products, linking them to each other.

b. It helps to increase the country well-being by expanding the areas of consumption and investment.

c .It is an important indicator of the state productive capacity and competitiveness in the international market, because it is linked to the productive potential available, the state export capacity, its income levels and its import capacity, as well as its reflection on the state foreign exchange stock and its effects on the trade balance.

d. There is a connection between foreign trade and economic development.

. The third topic / the practical aspect4

4.1. Application analysis of the study: – Impact of fiscal policy indicators on Iraq's foreign agricultural trade, 1990-2020

Iraq's agricultural foreign trade can be influenced through the adoption of fiscal policy tools like government spending and taxation. A table displaying government spending, tax revenue, and agricultural imports and exports is available to determine the extent of its impact on macro objectives.

Table 1. Iraq's public expenditure, public revenue, taxation, agricultural exports and imports, 1990-2020

Year	General expenditure (million dollars)	Public revenue (million dollars)	Tax revenue/(million dollars)	Agricultural imports(million dollars)	Agricultural exports(million dollars)
1990	4562098	2731982	2288	185159	25169
1991	5629665	136036	411	1692	977
1992	1058012	1623874	274	19665	859
1993	2218597	2894788	176	94124	4
1994	6417053	8255792	75	5853	762
1995	2222597	3442278	87	63845	7
1996	1744987	5727574	254	44557	952
1997	1949170	1320904	491	27899	1624
1998	2961715	1674485	797	9719	2182
1999	3325457	2313594	1164	16141	1552
2000	4822072	3645541	1701	18794	625
2001	6659353	4148153	2009	24187	833
2002	8102503	6342101	2125	164573	3298

2003	1079819	1169034	1359	158766	4039
2004	2210426	2269975	1101	227416	9869
2005	1795451	2757174	3339	304201	3016
2006	2282746	3343936	4026	308529	18
2007	267292	4350554	9695	295129	1699
2008	4979327	6726922	8259	530544	7002
2009	4417397	4642313	10787	439618	5374
2010	540773	589733	11099	193051	2044
2011	5852061	9143478	11773	1055325	2044
2012	759452	1006867	18743	444763	3412
2013	8980927	9560285	23352	276215	311
2014	7021532	8856019	2964	218534	257
2015	5915758	5585735	2015	290703	2475
2016	5674064	4603153	38618	192473	2369
2017	6375854	6531753	62982	365995	1991
2018	880458	7746717	56862	126151	126
2019	1118551	8871402	39015	95791	4103
2020	1862437	2554027	47181	108137	1074

Source: Ministry of Planning, Central Statistical Organization, Iraq.

Table 1 shows that public expenditure and revenue were lowest in 1990 and 1991 respectively (267,292, 136,036). This means that the indicator for this period of the 1990s is negative due to the conditions that Iraq experienced during this period, while the highest values of public expenditure and revenue in 2019 and 2020 (8980927, 372377108) respectively indicate the degree of economic openness in 2003 despite the Oil price fluctuations and crises after 2003. Expenditure policy was almost the only tool available during this period to achieve these goals. In a country like Iraq that lacks economic diversification and a sound tax system, the only source of financing is crude oil, which was exported in 2003 and stipulated the establishment of the Development Fund for Iraq (DFI) as the only source of financing. national oil revenue.

The severity of the economic blockade has restricted the ability of fiscal policy in general and taxation in particular. The tax base has become so narrow that it has no capacity to pay the public budget with the necessary funds to ensure the minimum level of expenditure, owing to low economic activity, low per capita taxable income, and therefore the fiscal policy's ability to manipulate and adjust to this shock has been limited. The responsibility to obstruct it is to move and debate narrow revenue areas that Iraq's economy has not been familiar with (Hussein ,2010, 174).

Taxes are an important part of any country as they cover a portion of public revenue. In Iraq, the tax system suffers from a major shortfall in its legislative structure in general and fiscally in

particular, which in turn has led to its financial underperformance as an important source of public budget financing.

The table above shows that the average tax revenue is (3824.50), while the highest tax revenue in 2020 was (471.81) million IQD and the lowest was (75) million IQD in 1994, indicating that tax revenue increased during this period. This was due to fluctuations in tax revenues during the period, the economic situation in Iraq, reductions in state tax collections due to the suspension of foreign exchange transactions, and reductions in certain tax components. Support was given to citizens and the tax burden was relieved due to the increased tax burden due to the sanctions imposed at the time, the recent war in Iraq, the deterioration of the security situation and the destruction of most state institutions. This growth also reduces the importance of other revenues, especially taxes. In light of these circumstances, Iraq has begun to pursue its financial policies, specifically to adapt to these policies and decisions. The Iraqi economy suffers from structural distortions of full rent and neglect of other economic activities (Walid ,2006, 160)

The volume of tax revenues is not commensurate with the tax revenues of most countries in the world, so Iraq tax system requires a package of economic policies in order to activate the role of tax revenues by reforming the tax system (Walid ,2006, 160)

During the same period, agricultural product imports fluctuated greatly, as shown in Table (1). Economic sanctions were reduced from $1.85 billion in 1990 to $169 million in 1991. The overall import of agricultural products has gradually increased. However, the most significant feature of this period is the import value of agricultural products in 2011, which was approximately US$10.6 billion; the import value of agricultural products in 2011 hit a record.

Agricultural product exports fluctuated greatly during the same period. As shown in the table above, the lowest value of agricultural product exports occurred in 1994, at (4 million U.S. dollars), and the highest value occurred in 1990, at (251.69 million U.S. dollars).

4.2 Description of The Model

The model description phase is one of the most important phases in building a standard model, as it requires identifying the variables that the model must contain. At this stage, economic theory boils down to using code to translate relationships between variables into mathematical equations to determine the nature and direction of relationships between economic variables and their strength (Walid ,2006, 165) At this stage, the model variables will be determined, based on economic theory, or on the available information on the phenomenon in question that we are exploring from previous research and applied studies. table 2 includes the independent and depended model variable.

Table 2 shows the structure of the examined relationship's economic model.

variable name	code	Variable type
Agricultural imports	AI	dependent
Agricultural exports	AE	dependent
Government spending	GS	independent
Taxes Revenue	TR	independent

Source: Prepared by the authors.

4.3.Time Series Stability Tests

When advancing to the next stage of model selection, a crucial aspect to keep in mind is performing critical testing. It is important to verify the data's reliability in order to find the most suitable model

for the task at hand. To ensure accurate results with OLS models, modern time series analysis methods such as stability tests and unit root tests must be utilized. Failing to run stability tests alongside least squares analysis may result in a skewed and unsupported conclusion. Therefore, it is vital to include these tests in standard model selection to prevent inaccurate results. Rewriting cannot be done as the provided text contains no information. A comprehensive analysis of time series was conducted using a collection of sample data. Further, two stationary tests, the Augmented Dickey-Fuller (ADF) test and Phillips-Perron (PP) test, were utilized. Look to Table 1 for the breakdown of findings...

Unit Root Test:

4.3.1. Modified Dickie-Fuller Test (ADF):- Table 3 reveals that the Dickie-Fuller test has embellished the ADF outcomes. The data exhibits agricultural product imports, government expenses and tax incomes have an unstable pattern at all three levels, while agricultural product exports boast of a solid and pointed trend at the 5% level. By using the first difference as presented in Table 3, the ADF trial outcomes were uncovered to determine the soundness of the residual variables beneath the moral threshold of 1%...

Table 3 Stability of time series

Level		AI	AE	GS	TR
With Constant	t-Statistic	===	3.673**-	===	===
& Trend	Prob.	===	0.04	===	===
At First Difference		AI	AE	GS	TR
With Constan8t	t-Statistic	-5.649*	===	-4.807*	-8.237
	Prob.	0.00	===	0.00	0.00

4.3.2. Phillips-Perron Test (PP): To confirm the above results, another stability test is the pepper-based Phillips-Perron test. Table (4) shows the PP at the I(0) level. For sampling data results, the PP test is more accurate. (Kozhan, ,2010, 140) The test results show that agricultural product imports, agricultural product exports, government expenditures and tax revenue are all unstable at the levels of the three cases and remain stable after the first moral level difference of 1%..

Table 4 Stability of time series

At First Difference		AI	AE	GS	TR
With Constant	**t-Statistic**	**-5.799**	**-5.487**	**6.138**	**4.357**
	Prob.	**0.000**	**0.000**	**0.000**	**0.001**

4.4. Analysis of the function of agricultural exports :-

Through table 5 data, the results of the analysis of the impact of fiscal policy variables (public expenditure , tax revenues) on agricultural exports emerged using ARDL analysis.

Table 5. Results of the analysis of the impact of fiscal policy on agricultural exports in Iraq

Dependent Variable: AE				
Method: ARDL				
Variable	Coefficient	Std. Error	t-Statistic	Prob.*
AE(-1)	0.865438	0.116130	7.452320	0.0000
AE(-2)	-0.351186	0.147360	-2.383190	0.0209
AE(-3)	0.268074	0.120896	2.217383	0.0310
GS	0.000380	0.000502	0.756953	0.4525
TR	15.08765	2.299146	6.562282	0.0000
TR(-1)	-11.97181	2.611221	-4.584754	0.0000
C	15714.06	20278.05	0.774930	0.4419
R-squared	0.916314	Mean dependent var.		283826.3
Adjusted R-squared	0.906658	S.D. dependent var.		333709.2
S.E. of regression	101954.5	Akaike info criterion		26.01344
Sum squared reside.	5.41E+11	Schwarz criterion		26.25992
Log likelihood	-760.3964	Hannan-Quinn criter.		26.10965
F-statistic	94.89518	Durbin-Watson stat		1.910192
Prob. (F-statistic)	0.000000			

Source: E-views 10 output.

Table 5 shows the results of evaluating the impact of the independent variable and its lag period on the dependent variable, as well as the impact of the lag period of the dependent variable itself, and shows that the value of the coefficient of determination (0.91) considers the fluctuation (91%) of the dependent variable (agricultural product exports) to be is caused by variables in the model, while (0.9%) fluctuations are not included in the model or absorbed by its random variable effects, and the statistical value of F(94.895) at 1% is.

It is clear from the table that the estimated value of agricultural exports (0.865) is morally 1% and agricultural exports are affected exogenously during the same period as compared to the ratio of (0.351) in the earlier period.

As for government spending, in the same year it has a value (0.0003), which is unethical, while in tax revenue (15.087), the ethical is 1%, with the effect I exclude in the same year and the previous year it is counterproductive (11,971), which is 1% is ethical.

The economic theory shows that the relationship of agricultural exports with public spending and taxes assumes a bulwark relationship with public spending. The increase in public spending in its operational component, which increases the incomes of individuals, is reflected in increased consumption and thus prices. This encourages producers to increase domestic agricultural production. The increase in investment expenditure also has an impact by increasing agricultural investment. The paradox is that this increase has not been reflected in agricultural production in Iraq for the period after 2003 but in the increase in consumption of foreign agricultural goods because of lower tax fees and taxes on foreign agricultural goods, which cannot be competed with domestic products.

The State had previously left farmers and agricultural producers free to choose the crops they were growing, except for the duration of the economic embargo, where emphasis had been placed on the cultivation of the main grain crops to meet some of the local consumption. (Al-Badri, 2017, 1032)

4.4.1 The ARDL Limits Test :- This test evaluates whether there is a long-term relationship between variables.

Table 6. Boundary test results

The result	The number of independent variables	worth	Statistical test
At a level above 1%, there is no long-term equilibrium relationship and no cointegration relationship..	2	1.186	F. statistic
	upper limit (1) I	Min (0) I	tables values bounds
	5	4.13	1%
	4.38	3.55	2.5%
	3.87	3.1	5%
	3.35	2.63	10%

Source: Eviews 10 outputs.

F - Statistical :- The limit test value is (3.88). If it is 1% above the upper critical value, reject the null hypothesis that there is no long-run relationship between the variables and accept the alternative hypothesis that there is a long-run relationship between the variables under study.

3.4.2. Evaluate the Calculated Model :- It turns out that there is an intermittency problem, we rely on the LM test, and we rely on the Breusch-Godfrey model, so the errors of the model must be order independent, which confirms the validity of the model, as shown in Table 7.

Table 7. Results of the autocorrelation test (Breusch-Godfrey serial correlation LM test)..

F-Statistic	**0.280**	**Prob. F (2 ,50)**	**0.765**
Obs. *R-squared	0.654	Prob. chi -square (2)	0. 720

Source: Eviews 10 outputs.

The null hypothesis of no relationship between residuals is accepted, while the alternative hypothesis is rejected, as the chi-square probability value (2) surpasses the significance level of 1% (0.01) at correlation level (2), as shown in Table 7. The eighth question warrants investigation to determine if any heterogeneity exists, as indicated by the table's presented data..

Table 8. Detection heterogeneity problem.

F-Statistic	1.696	Prob. F (1 , 56)	0.198
Obs. *R-squared	1.705	Prob. chi -square (1)	0.191

Source: Eviews 10 outputs.

Rejecting the alternative hypothesis means accepting the null hypothesis since the probability chi-square value in Table 8 exceeds 1% (1). H is greater than 0.01 at 0.191. A numerical reference was given without accompanying text by the user..

With a significance level of 5%, the model evidences a substantial negative correlation between tax revenue, government expenditure, and agricultural exports. Estimated coefficients of 0.49 further bolster this finding, indicating the model possesses noteworthy explanatory power. The highest correction for error is (-0.21). Indicating noteworthy explanatory power, estimated coefficients of 0.49 strongly support a substantial negative correlation between government expenditure, tax revenue, and agricultural exports at a significance level of 5%. The model reveals the highest correction for error to be (-0.21)..

Table 9. error correction model

ARDL error corrected regression				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(AE(-1))	0.083112	0.100697	0.825368	0.4129
D(AE(-2))	-0.268074	0.112248	-2.388219	0.0206
D(TR)	15.08765	2.093036	7.208498	0.0000

CointEq (-1)*	-0.217674	0.097165	-2.240252	0.0294
R-squared	0.495889	Mean dependent var.		16228.24
Adjusted R-squared	0.468392	S.D. dependent var.		135966.2
S.E. of regression	99134.98	Akaike info criterion		25.91174
Sum squared reside.	5.41E+11	Schwarz criterion		26.05259
Log likelihood	-760.3964	Hannan-Quinn criter.		25.96672
Durbin-Watson stat	1.910192			

Source: E-Views 10 outputs .

The short and long term estimable autoregressive distributed lag model (ARDL) demonstrates valuable empirical results. The estimated model proves significant explanatory power, displaying a 0.96 coefficient of determination. This implies that the independent variables, which include government expenditure, government revenue, and tax revenue, account for approximately 98% of the observed fluctuations. As unmeasured factors contribute the remaining 0.04%, the analysis showcases a clear understanding of the model dynamics. Furthermore, Table 10 presents the coalescent correlation between the dependent variables and independent variables. An F-statistic of 126,625 with a significance level of 0.000 fortifies the substantiality of the model..

$$EC = AE - (0.0017*GS + 14.3142*TR + 72190.7702)…….$$

A valuable and positive signal (0.001) is conveyed by the GS that reveals the existence of a long-term relationship involving government spending and agricultural exports. TR has a positive estimate (14.314) and is Moral at 1%, which indicates a long-term exorcism, revealing the significant influence of tax revenues on agricultural exports. This, however, contradicts the economic theory on taxation as previously mentioned..

Table 10. long term coefficient equation.

Variable	**Coefficient**	**std. Error**	**t-Statistic**	**Prob.**
GS	0.001745	0.002428	0.718786	0.4755
TR	14.31424	4.874792	2.936380	0.0049
C	72190.77	85845.79	0.840935	0.4042

Source: EViews 10 outputs.

4.5. Analysis of the function of agricultural imports:-

Through table 11. Use ARDL analysis to obtain analysis results of the impact of fiscal policy variables (public expenditures, tax revenue) on agricultural product imports.

Table 11. Results financial policy on agricultural import in Iraq.

Method: ARDL				
Variable	Coefficient	Std. Error	t-Statistic	Prob.*
AI(-1)	0.766582	0.103321	7.419447	0.0000
GS	0.001220	0.000696	1.752130	0.0861
TR	5.906090	3.428720	1.722535	0.0914
TR(-1)	-1.186900	3.312311	-0.358330	0.7217
TR(-2)	-13.72327	3.886725	-3.530804	0.0009
TR(-3)	8.234076	3.681273	2.236747	0.0300
TR(-4)	5.267768	3.740588	1.408273	0.1655
C	5146.165	22966.11	0.224076	0.8236
R-squared	0.892748	Mean dependent var.		283300.4
Adjusted R-squared	0.877107	S.D. dependent var.		339272.7
S.E. of regression	118935.9	Akaike info criterion		26.34212
Sum squared reside.	6.79E+11	Schwarz criterion		26.63146
Log likelihood	-729.5794	Hannan-Quinn criter.		26.45430
F-statistic	57.07748	Durbin-Watson stat		1.805941
Prob.(F-statistic)	0.000000			

 Source: E-Views 10 outputs .

The dependent variable's fluctuation (agricultural product imports) is mainly impacted by the independent variable and its lag period, as well as the lag period of the dependent variable itself, according to the evaluation results presented in Table 11. The coefficient of determination (0.89) indicates that 89% of the variation in the dependent variable can be explained by the model, while only 0.11% are caused by variables not included in or absorbed by the model's random effects. In addition, the F statistic has a moral value of 1% and is equal to 57.077.

In the early period, agricultural product imports were influenced exogenously, causing an estimated 1% value decrease as indicated in the table. This aligns with economic theory. Additionally, government spending hit 10% of the ethical level, valued at 0.001 in the same year. At the same time, tax revenue also reached the same ethical level of 10% equating to 5.906..

4.5.1 ARDL Limit Test: This test determines whether a variable has a long-term correlation. The results of this test are shown in Table 12.

Table 12. Bounds Test Results.

The result	number of independent variables	worth	Statistical test
At a level higher than 1%, there is no long-term equilibrium relationship and no cointegration relationship..	2	3.236	F. statistic
	upper bound (1) I	Min (0) I	tabular values bounds
	5	4.13	1%
	4.38	3.55	2.5%
	3.87	3.1	5%
	3.35	2.63	10%

Source: E-views 10 outputs.

If the value from the statistical limit test is higher than 1%, then the null hypothesis, which claims that there is no long-term relationship between the variables at hand, is rejected. Instead, the alternative hypothesis, signaling the presence of a long-term relationship between the variables, is accepted. The limit test value for this case is fixed at 3.236...

4.5.2 Calculated Quality Score:- LM test is used to identify an autocorrelation issue, while the Breusch-Godfrey model is relied upon for a resolution. Table 13 demonstrates that the validity of the model is confirmed by the error's order independence..

Table 13. Autocorrelation (Breusch-Godfrey series correlation).

F-Statistic	**0.492**	**Prob. F (2 ,50)**	**0.614**
Obs. *R-squared	1.174	Prob. chi -square (2)	0. 555

Source: E-views 10 outputs.

If the correlation coefficient is 2, then the probability value of the chi-square test statistic is greater than 1%, specifically, 0.555 is greater than 0.01. Accept the null hypothesis (which assumes that there is no relationship between the residuals) while rejecting the alternative hypothesis to identify any problems with the homogeneity test, as shown in Table 14.

Table 14. The homogeneity test.

F-Statistic	0.427	Prob. F (1 , 53)	0.516
Obs. *R-squared	0.440	Prob. chi -square (1)	0.507

Source: E-views 10 outputs.

The datasheet provided shows this example. The chi-square value (1) is 0.507, which is above the significance level of 0.01. This indicates that the null hypothesis that there is no heteroscedasticity among the residuals is accepted, while the alternative hypothesis is rejected. Users have provided numerical references without accompanying text. (Gujarati,2004,534)

3.5.3 Error correction: – Indicating that agricultural product imports and independent variables have a synchronous integral relationship is a significance of 5% for a negative error correction limit (-0.233). The acceptable predictive power of the model with a coefficient of determination (0.39) is represented by the relationship with the variables (tax revenue, government expenditure)..

Table 15. Error Correction Model.

ARDL Error Correction Regression				
ECM Regression				
Case 2: Finite constant and no trend				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(TR)	5.906090	2.555658	2.310986	0.0252
D(TR(-1))	0.221422	2.270360	0.097527	0.9227
D(TR(-2))	-13.50184	2.520249	-5.357345	0.0000
D(TR(-3))	-5.267768	2.795501	-1.884373	0.0656
CointEq(-1)*	-0.233418	0.062932	-3.709033	0.0005
R-squared	0.391712	Mean dependent var.		17097.61
Adjusted R-squared	0.344003	S.D. dependent var.		142461.6
S.E. of regression	115384.8	Akaike info criterion		26.23498
Sum squared reside.	6.79E+11	Schwarz criterion		26.41581
Log likelihood	-729.5794	Hannan-Quinn criter.		26.30509
Durbin-Watson stat	1.805941			
* P-value is incompatible with t bounded distribution.				

Source: E-views 10 outputs .

The Autoregressive Distributed Lag (ARDL) model's results indicate it can handle both short and long-term periods. [22] The model's estimation displays a convincing explanatory proficiency with an R2 coefficient of determination of 0.34. This coefficient reveals that 34% of the observed variations stem from independent variables. Government revenue is primarily accumulated through taxes and government spending. The current model fails to acknowledge other factors that contribute a small percentage (0.66%) to total revenue. To see the correlation between the independent and dependent variables, refer to Table 15 which exhibits the full equation.:

$$EC = AI - (0.0052*GS + 19.2691*TR + 22046.9667)…….2$$

The (GS) reference is negative and valuable (0.005), a negative reference indicates a long-run inverse relationship between government spending and agricultural imports. The TR estimate is positive (19.269). 5% is ethical, suggesting an overall strategy of excluding links between them to show that tax revenues have a direct impact on agricultural imports. It is pointed out here that due to the underdevelopment of the agricultural sector in Iraq and the open-door policy implemented under the pretext of freedom, the proportion of government expenditures does not apply the logic of economic theory, especially in Iraq (Abdulhussain ,2020, 140) After Iraq's transformation in 2003, successive governments vigorously promoted foreign trade, opening the door to cheap foreign agricultural products, but blocking expensive Iraqi agricultural products, making it more difficult to compete with them. This is therefore felt in the underdevelopment of the agricultural sector due to international sanctions and continuous wars, as well as in national employment policies, wage distribution and expansion of employment in the defense and household sectors. , no need for certification, and the distribution of social welfare wages, which has had a significant impact on workers in the agricultural sector, causing a large number of people to leave the countryside and shift these reasons to cities, leading to an increase in agricultural imports.

Table 16. Long run Coefficients Equation.				
Variable	**Coefficient**	**std. Error**	**t-Statistic**	**Prob.**
GS	0.005227	0.003537	1.477862	0.1460
TR	19.26913	8.220133	2.344139	0.0233
C	22046.97	96718.08	0.227951	0.8207

Source: Eviews 10 outputs .

The fourth section

 Conclusions:

The research results are as follows:
1. The link between agricultural exports and public spending and taxation is peculiar to public spending. The government spends more on its operating segment, which increases personal income, which is reflected in increased consumption, leading to higher prices. This encourages producers to increase domestic agricultural production. Increased capital spending has also had a disproportionate impact on increased investment in agriculture. Paradoxically, this growth was not reflected in agricultural production in Iraq after 2003, but in increased consumption of foreign agricultural products due to lower taxes and taxes on foreign agricultural products that were unable to compete with domestic products.
2. There is a long-term negative correlation between government expenditure and agricultural product imports, and since it is linked to tax revenue, it has a significant impact on agricultural product imports. Here we note that the proportion of government expenditures does not conform to the logic of economic theory, especially in Iraq. Due to the underdevelopment of Iraq's agricultural sector and the reversal of the open door policy promoted by successive Iraqi governments under the pretext of free foreign trade in 2003, Opened the door to the import of cheap foreign agricultural products, thus preventing the export of Iraqi agricultural products.

Recommendations:

1. The need to support the agricultural sector to promote domestic production that contributes to agricultural exports by increasing public spending that will reflect the real relationship with agricultural exports.

2. There should be a clear import policy to fill the domestic deficit and leave open-door foreign trade policy to ensure a balance between agricultural exports and imports in order to balance the trade balance.

3. Addressing rural migration and the lack of the agricultural sector in order to ensure equity and the provision of all infrastructure requirements, thereby reducing the policy of government employment and, in turn, the deficit in domestic production.

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