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Estimation of Iraq's Import Function of Agricultural Commodities according to the General Commercial Gravity Model In the period (2008- 2019)

Rafed Fattah Mohamed [1], Muthanna Abdulelah Alwaeli [*2]

[1] *Alimam Jaafar Sadiq University/Thi Qar (Iraq), Rafed.fattah@sadiq.edu.iq*
[2] *Alimam Jaafar Sadiq University/Thi Qar (Iraq), mothanna.abd-allah@sadiq.edu.iq*

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Abstract:

The research aimed to estimate the function of Iraq's import of agricultural commodities and the possibility of verifying that the commercial Gravity model is suitable for it by using the data collected longitudinally through its three models (pooled, fixed and random) It was relied on the multiple tests of Lakernji and Haussmann to determine the preference between them, as the random model was the best. By studying three independent variables: the size of the economy of the exporting country of Iraq represented by its gross domestic product, the gross domestic product of Iraq, and the distance between the centers of the two capitals. As for the dependent variable, it was the Iraqi agricultural imports from these countries, and 12 countries were selected for a period of 12 years, so the number of views is 144 and within the period 2008-2019.The research reached a set of results and recommendations, among which we mention the statistical significance of all parameters of the model, with a level of significance (5%) and that the sign of each of the two parameters of the GDP Both for exporting countries (X1), and for Iraq (X2) is positive, and the value of the geographical distance parameter with a negative value (X3) has proven its consistency with theory and reality. The increase in our imports from Turkey and Iran, in addition to the reasonable quality of their goods and the competitiveness of their prices globally.

The research recommends diversifying the sources of agricultural import trends in a way that ensures avoiding losses and raising the ability to maneuver in supplying the internal market with the import demand process. It is also possible to benefit from the experiences of developed countries that formed blocs built on a commercial basis in reaching the fruits of success by providing similar projects after evaluating policies and programs that can be applied.

Keywords: Panel Data Models, Gross Domestic Product, Geographical Distance, Common Language.

**** Corresponding author***.

1. INTRODUCTION

Gravity models in economic studies use the concept of gravitational force to explain the volume of trade, capital flows, and migration between countries. For example, gravity models establish a baseline for the volumes of trade flows as determined by GDP, Population, and Distance. The results of these models can then be improved by adding policy variables to the function and estimating deviations from the base flows.

In many cases, Gravitational Models have a Great Explanatory Power, which prompted some economists to refer to it as a "fact of life". Multiply their masses, and inversely the square of the distance between their centers.

The importance of this study, along with its counterparts that study the commercial aspects, lies in the fact that it reveals the flaws, gaps between the local supply and demand sides, thus the Iraqi planner may benefit from its results in its work to reduce these gaps, by strengthening the “agricultural and industrial” productive sectors. Despite all the bottlenecks, negatives that the Iraqi economy suffers from due to its almost total dependence on the production and export of oil, and despite all the available productive capabilities, including agricultural lands, many rivers, human cadres, capital, this economy still exports oil, and imports everything from other countries. Even his food.

Hence, this problem imposes itself on researchers in the Iraqi economy, to try to find a useful solution to it. Therefore, this study identified one aspect of the aforementioned problem, which is the estimation of what Iraq will import of agricultural commodities from its trading partner countries, based on an actual data series of agricultural imports from those countries as a dependent variable, and three independent variables: the size of the gross domestic product of the exporting country to Iraq, the size of Iraq's GDP in the period (2008-2018), the actual "straight" geographical distances between Iraq with each country separately, "assuming that other factors remain constant". From the foregoing, the study seeks to address the following fundamental problems:

- Is it possible to describe the model of importing agricultural commodities to Iraq, according to the commercial attraction model?
- What are the most important exporting partner countries for Iraq in the field of agricultural commodities?
- How can we rationalize the values of our imports from them?

The research also aims to verify that the general commercial Gravity model is suitable for estimating the function of Iraq's import of agricultural commodities, by conducting statistical and standard tests on it; It assumes that it has two dimensions, of which the spatial is determined by Iraq and the countries that supply agricultural commodities to it; As for the timeline, it moves in the data for the period (2008-2019) and its analysis.

When reviewing the most important literature that was conducted on this model in an applied manner in the field of foreign trade, and discussing its methodologies since the integrated conception of it by Tinbergen. We find that the study of Luca Salvatici (12) is one of the most important studies that have collected these applications for "a period of half a century". Where the study defined based on (11) the gravity model as the backbone of the interpretation of international trade for its ability to accurately explain the bilateral trade flows. The goal of Salvatici's study was to provide economists with an informed perspective on the empirical issues associated with estimating the gravity model in general. It also stressed the importance of using the gross domestic product in the model, as it raises the issue of its relationship to the total trade flows to and from the country, and indicated that there is a direct impact of the policies of exporting and importing countries on the volume and trends of their foreign trade; While this model usually includes the problem of the difference in the elasticities of exports and imports between multiple economies, and this is related to the difference in the effect of transport costs on the volume of trade and causes a statistical bias in the model; However, the presence of different elasticities in the model brings us closer to the truth. I argued that the idea of the model put the term trade costs as a substitute for trade flows within a more efficient model when estimating (5).

Study (10) asked about the possibility of presenting this model as an explanation for the inter-trade exchange in North African countries? Assuming that it is the most important standard model for studying the volume of trade exchange between the study countries. Among the results of this study: There is an agreement between the standard results of the function estimated according to the commercial gravity model with the basic hypothesis of the model, where the signals of each of the gross domestic product (GDP) for both sides, membership of the Great Arab Maghreb Union, population, and exchange rate fluctuation, are They are all positive as well.

The study (13) also aimed to reach how to increase the volume of trade exchange of Egypt with the African COMESA group, in Based on the regional and spatial link between its members, and to identify the most important factors affecting this exchange, and what are the most important partner countries and the least trade with Egypt using the logarithmic formula The duality model in his description of the relationship between variables based on Tinbergen's model (1962). Hagash's model, after making several modifications to it by the researcher, has passed all statistical significance tests and proved its agreement with the basic model of commercial attractiveness.

The study (8) also measured the determinants of foreign trade using gravity models based on trade data of Arab countries with the most important trading partners. The model included (17) Arab countries for the period (1990- 2014). It reached a set of results, the most important of which are: the significance of the elasticity of the GDP of the exporting and importing countries, and their signs were positive as expected, the elasticity of domestic output is Statistical significance, and that the population of importing and exporting countries is statistically significant, positive, as expected, and the geographical distance between the two countries increases the cost of transportation (and therefore is considered an obstacle In front of trade exchange), the borders and the common language positively affect the movement of trade, and their tests are Statistical significance, and accession to the World Trade Organization (WTO) is not necessary to contribute positively, but the sign of its coefficient was negative, and its statistical tests are significant, The studies also dealt with topics closely related to the same topic of research.

MATERIALS AND METHODS:

The commercial gravity model hypothesis:

Based on Newton's law of gravitational formula, it can be said that the hypothesis of the commercial gravity model states: The strength of trade attraction between any two countries is directly proportional to the size of their gross domestic product and inversely proportional to the geographical distance “displacement” between their centers (the center here means the political or economic capital).

To measure the determinants of trade between two countries, we present the following formula for trade attraction (Formula No. 1), which is taken from the

formula for Newton's law of gravitation:

$$\boldsymbol{Y_{1,2} = C.\frac{X_1.X_2}{D_{1,2}}} \qquad (\mathbf{1})$$

Whereas:

$Y_{1,\,2}$: The strength of commercial gravity between the two countries (1) and (2).

C: The constant in the function.

X_1, X_2: The two countries' GDPs.

$D_{1,\,2}$: The distance between the two trading centers of the two countries.

The previous formula must also be converted to a linear form for econometric analysis by using natural logarithms (In) so that the estimated linear function of the commercial gravity model is as follows (Formula No. 2):

$$\boldsymbol{In\,\widehat{Y}_{1,2} = \alpha_0 + \alpha_1\,In\,X_1 + \alpha_2\,In\,X_2 - \alpha_3\,InD_{ij} + \varepsilon_i} \qquad (\mathbf{2})$$

Represents α_0: The inverse of the natural logarithm of the constant term in the estimating function (which is a biased value because the function contains more than one independent variable). Indicate all of α_1 ،α_2 ،α_3 to the elasticities of foreign trade flow in relation to the size of the economy of the first country, the size of the economy of the second country, and the distance between them, and it is expected that the sign will be positive for the first and second, and negative for the third. It is possible, "as previous studies have proven," to add other economic determinants that affect foreign trade flows between countries, such as the number of people, the exchange rate, and others.

This standard model appeared as an idea in foreign trade in 1931 by (Reilly WJ) when he used the term "gravity" for the first time, and put in place a law that explains the willingness of consumers to travel long distances to the largest shopping centers. This willingness is strengthened by the proximity of the distance between the consumer's residence and the shopping center, and vice versa. Then (Walter Izard) proposed in 1954 a model based on the same law of universal gravitation as a basic model for trade between two countries. Wassily Leontief also made use of the concept of commercial attractiveness between countries in explaining his used-product model (4).

As for the integrated theoretical framing of the commercial attraction model, which reinforced by several applications that took place since 1962 by the Danish physicist (Jan Tinbergen), it contributed to the establishment of this model as one of the important foreign trade models. By linking economic theory with empirical tests, he developed (James Anderson) in 1979, and later (Jeffrey Bergstrand) in 1985, the commercial attraction model (9), through which he measured the gains of trade liberalization and the effect of border barriers. Where (Anderson) explained the presence of the output variables in the model, and the importance of their natural logarithmic form. (Bergstrand) also adopted the same approach, pointing out that the deflated GDP indicator and the exchange rate, as two independent variables included in the model are an important step for stabilizing the results of the model and making them close to accuracy.

Since the original Jan Tinbergen formula in 1962, gravity has been one of the most successful empirical models in economics in general, and in trade relations in particular. The incorporation of theoretical underpinnings of gravity into modern applications has led to richer and more accurate estimates and interpretations of the spatial relationships described by gravity.

Trade attraction models have been used in many research and studies, covering all economic fields, and researchers focused when applying them in the field of foreign trade policies. These models make it possible to assess the implications of various policies related to foreign trade and the new measures that countries wish to take when dealing with other countries. Thus, gravity models became the starting point for much scientific research related to trade policies, and interest in them coincided, especially with the availability of data on foreign trade for many countries. The most important "additional" independent variables that have been used in applications of gravity models around the world for half a century are:

- Population.
- Exchange Rate.
- Common Borders.
- Common Language.
- Accession of the two countries to a specific trade agreement.
- Common Legal Systems.
- Common Currencies.

- Shared Colonial Legacies.

Because the commercial gravity model depends on many dummy variables such as: "common borders, common language, two countries joining a specific trade agreement, common currencies, common legal systems, and common colonial legacies," it has been widely criticized. Therefore, its reliability doubts by economists, because those variables are non-numeric, and lead to a bias in the model parameter values during estimation (8).

Result and Discussion:

The regression function estimated according to the models used to estimate the parameters of the longitudinally collected data (Panel Data) under study, which are (the aggregation model, fixed effects, and random effects). the random-effects model was chosen as the most appropriate model for the study data based on a double test (Lagrange), (Hausman Test) in determining the preference among the three models. The following are the tables of the program (E-views 9.5) that show the method for estimating these parameters.

Table (1): Results of parameter estimation test by (POOLED OLS)

Dependent Variable: LY				
Method: Panel Least Squares				
Date: 11/12/20 Time: 13:23				
Sample: 2008 2019				
Periods included: 12				
Cross-sections included: 12				
Total panel (balanced) observations: 144				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	**-0.754243**	**1.832175**	**-0.411666**	**0.6812**
LX1	**0.620443**	**0.087696**	**7.074899**	**0.0000**
LX2	**0.507773**	**0.267722**	**1.896643**	**0.0599**
LX3	**-0.792021**	**0.225369**	**-3.514325**	**0.0006**
R-squared	**0.301096**	**Mean dependent var**		**-0.160802**
Adjusted R-squared	**0.286119**	**S.D. dependent var**		**1.376190**
S.E. of regression	**1.162763**	**Akaike info criterion**		**3.166859**
Sum squared resid	**189.2824**	**Schwarz criterion**		**3.249354**
Log likelihood	**-224.0139**	**Hannan-Quinn criter.**		**3.200381**
F-statistic	**20.10454**	**Durbin-Watson stat**		**0.219765**
Prob(F-statistic)	**0.000000**			

Source: Prepared by researcher based on EVIEWS 9.5.

Table (1) represents the estimation method by the aggregative model, which depends in its style on collecting cross-sectional and time-series data with each other, then estimating it by (OLS), which we cannot recognize its results because all regression parameters are considered constant for all periods. This assumption is unrealistic because it does not give consider to the difference in observations and the difference in data time according to the opinion of (7). Later, a (Lagrange test) conducted to compare the three models. The results came as in Table (2):

H_0 *:pooled is appropriate*

H_1 *:FEM and REM is appropriate*

Table (2): Lagrange Test Results

Test Hypothesis			
	Cross-section	**Time**	**Both**
Breusch-Pagan	**210.2113** **(0.0000)**	**2.215187** **(0.1255)**	**212.426487** **(0.0000)**

Source: Prepared by researcher based on EVIEWS 9.5.

Table (2) shows that the fixed and random effects methods are more appropriate than the pooled model method through the test segment value of (212.426487), with a probability (0.0000), and therefore we reject the pooled as an appropriate hypothesis, and accept the alternative hypothesis (FEM and REM are appropriate).

Therefore, the fixed effects model first resorted to, which aims to know the behavior of each country separately by making the parameter of the fixed limit vary from one country to another, with the slope remaining constant for each cross-sectional data set. The results came as in Table (3).

Table (3): Results of parameter estimation test by fixed effects model

Dependent Variable: LY **Method: Panel Least Squares** **Date: 11/12/20 Time: 13:27** **Sample: 2008 2019** **Periods included: 12** **Cross-sections included: 12**				
Total panel (balanced) observations: 144				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	**1.079916**	**9.422091**	**0.114615**	**0.9089**
LX1	**1.219096**	**0.290833**	**4.191739**	**0.0001**
LX2	**0.457754**	**0.290931**	**1.573413**	**0.1181**
LX3	**-1.506681**	**1.226614**	**-1.228325**	**0.2216**
	Effects Specification			
Cross-section fixed (dummy variables)				
R-squared	**0.701314**	**Mean dependent var**		**-0.160802**
Adjusted R-squared	**0.668898**	**S.D. dependent var**		**1.376190**
S.E. of regression	**0.791879**	**Akaike info criterion**		**2.469517**
Sum squared resid	**80.89241**	**Schwarz criterion**		**2.778873**
Log likelihood	**-162.8052**	**Hannan-Quinn criter.**		**2.595222**
F-statistic	**21.63510**	**Durbin-Watson stat**		**0.549654**
Prob(F-statistic)	**0.000000**			

Source: Prepared by researcher based on EVIEWS 9.5

One of the disadvantages of this method is that it consumes many degrees of freedom, especially when N cross-sectional units are very large. As an alternative to this method (fixed effects), we tried the random effects method (REM), which is more comprehensive than the fixed effects method, by Assuming that each country has a constant that varies randomly within a constant arithmetic mean (7). The results were as in Table (4).

Table (4): Results of parameter estimation test by random effects model

Dependent Variable: LY				
Method: Panel EGLS (Cross-section random effects)				
Date: 11/12/20 Time: 13:28				
Sample: 2008 2019				
Periods included: 12				
Cross-sections included: 12				
Total panel (balanced) observations: 144				
Swamy and Arora estimator of component variances				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	**2.384506**	**3.277546**	**0.727528**	**0.4681**
LX1	**0.922889**	**0.179495**	**5.141586**	**0.0000**
LX2	**0.497168**	**0.198474**	**2.504950**	**0.0134**
LX3	**-1.439356**	**0.506579**	**-2.841323**	**0.0052**
Effects Specification				
			S.D.	**Rho**
Cross-section random			**1.001645**	**0.6154**
Idiosyncratic random			**0.791879**	**0.3846**
	Weighted Statistics			
R-squared	**0.180438**	**Mean dependent var**		**-0.035778**
Adjusted R-squared	**0.162876**	**S.D. dependent var**		**0.865400**
S.E. of regression	**0.791793**	**Sum squared resid**		**87.77111**
F-statistic	**10.27434**	**Durbin-Watson stat**		**0.484360**
Prob(F-statistic)	**0.000004**			
	Unweighted Statistics			
R-squared	**0.239990**	**Mean dependent var**		**-0.160802**
Sum squared resid	**205.8314**	**Durbin-Watson stat**		**0.206542**

Source: Prepared by researcher based on EVIEWS 9.5.

To determine which of the two models is suitable for the study, we conducted the Hausman Test.

H_0: REM is appropriate.

H_1: FEM is appropriate.

The results came, as in Table (5).

Table (5): Hausman Test Results

Correlated Random Effects - Hausman Test **Equation: Untitled** **Test cross-section random effects**			
Test Summary	**Chi-Sq. Statistic**	**Chi-Sq. d.f.**	**Prob.**
Cross-section random	**2.969543**	**3**	**0.3963**
Cross-section random effects test comparisons:			
Variable	**Fixed**	**Random**	**Var (Diff.)**	**Prob.**
LX1	**1.219096**	**0.922889**	**0.052365**	**0.1955**
LX2	**0.457754**	**0.497168**	**0.045249**	**0.8530**
LX3	**-1.506681**	**-1.439356**	**1.247960**	**0.9519**

Source: Prepared by researcher based on EVIEWS 9.5.

The test results indicate insignificance (Chi-Sq), whose value is (2.97) with a probability of (0.3963), that is, greater than (5%), so we chose the null hypothesis, which considers that the random-effects model is the appropriate model for the study data. To confirm that this model is the most efficient, the distribution of residuals was tested; its results appeared as shown in Figure (1).

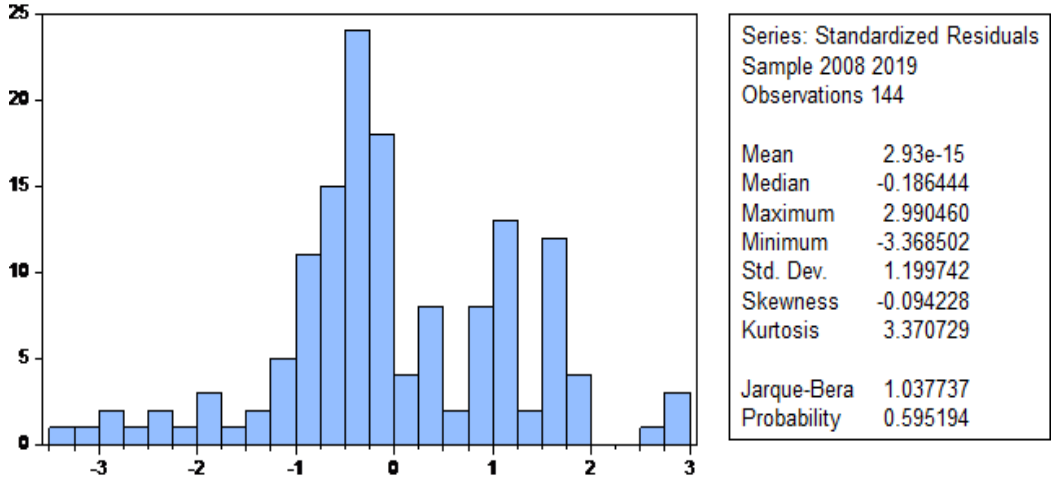

Figure (1): The residual distribution test

In the figure above came the statistic (Jarque-Bera) with a value of (1.037737), a probability of (0.595194), so it is not significant. This proves that the distribution of residuals is normal, and confirms the efficiency of the (REM) model. That is, "and with a second emphasis", the random effects method is the appropriate strategy for the studied data and must be adopted. Therefore, our study depends

on the interpretation of its results according to Table (4), as follows:

$$\mathbf{InY = 2.38450584706 + 0.922889087124\ InX_1 + 0.497167756562\ InX_2 - 1.43935561652\ InX_3 + \varepsilon_i} \quad \mathbf{(3)}$$

Function No. (3) Shows the existence of elasticity positive relationship (with high statistical significance) for all explanatory variables, the GDP variable for the countries exporting to Iraq) (X_1), the Iraqi GDP variable(X_2), and the geographical distance variable (X_3).

In addition to the two sizes of the economy of the trading countries, and the factor of distance, the applied economic literature has sought to expand the determinants of trade flows, such as the common language, administrative borders, and the common colonial history, which generally affect them positively. Several studies have directed to estimate the commercial effects of regional trade agreements using dummy variables that take a value of (1) if the trading partner belongs to the agreement, and (0) otherwise (1).

To take advantage of other influential variables in the volume of Iraq's agricultural imports, also to delve deeper into the explanatory economic analyzes, and to improve the model to benefit from it in estimating, planning: the researchers inserted two dummy variables into the model. The first is defined by (D_1) it takes a value of (1) when there is a common language, (0) otherwise. The second (D_2) takes (1) the presence of common borders, and (0) otherwise. The results of the analysis came, as in Table (6).

Table (6) Estimation results after entering the dummy variable

Dependent Variable: LY				
Method: Panel EGLS (Cross-section random effects)				
Date: 11/12/20 Time: 15:43				
Sample: 2008 2019				
Periods included: 12				
Cross-sections included: 12				
Total panel (balanced) observations: 144				
Swamy and Arora estimator of component variances				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	**-0.349305**	**3.394778**	**-0.102895**	**0.9182**
LX1	**0.814932**	**0.155037**	**5.256363**	**0.0000**
LX2	**0.415748**	**0.196524**	**2.115506**	**0.0362**
LX3	**-0.969088**	**0.485234**	**-1.997156**	**0.0478**
D1	**-1.074523**	**0.569686**	**-1.886169**	**0.0614**
D2	**1.981951**	**0.716259**	**2.767087**	**0.0064**
	Effects Specification			
			S.D.	**Rho**
Cross-section random			**0.711484**	**0.4505**
Idiosyncratic random			**0.785794**	**0.5495**
	Weighted Statistics			
R-squared	**0.249004**	**Mean dependent var**		**-0.048845**
Adjusted R-squared	**0.221794**	**S.D. dependent var**		**0.894669**
S.E. of regression	**0.789240**	**Sum squared resid**		**85.96028**
F-statistic	**9.151218**	**Durbin-Watson stat**		**0.504425**
Prob(F-statistic)	**0.000000**			
	Unweighted Statistics			
R-squared	**0.495406**	**Mean dependent var**		**-0.160802**
Sum squared resid	**136.6579**	**Durbin-Watson stat**		**0.317292**

Source: Prepared by researcher based on EVIEWS 9.5.

Thus, the estimated function after adding two dummy variables: the common language (D_1) and the common terms (D_2), is as follows:

$$\mathbf{InY = - 0.349305 + 0.814932\ InX_1 + 0.415748\ InX_2 - 0.969088\ InX_3 - 1.074523\ D_1 + 1.981951\ D_2 + \varepsilon_i} \quad \mathbf{(4)}$$

After adopting the estimated function (4), we convert it to the exponential form, as follows:

$$Y = 0.705178.X_1^{0.814932}.X_2^{0.415748}.X_3^{-0.969088}.D_1^{-1.074523}.D_2^{1.981951}.e^{\mu} \quad (5)$$

The results of the exponential function (5) showed the following:

- All parameters of the model are statistically significant, at a significant level (5%).

- The sign of each of the two GDP parameters for both exporting countries (X_1) and Iraq (X_2) is positive (as expected). Whenever the exporting country is output increased by (1%), its agricultural exports to Iraq would rise by (0.8%) in comparison. Whenever Iraq's output increased by (1%), its agricultural imports would rise by approximately (0.4%), and vice versa.

- The value of the geographical distance parameter with a negative value (X_3) proved its consistency with theory and reality so that the farther the distance between Baghdad and the commercial center of the exporting country by (1%), Iraq's agricultural imports from it decreased by approximately the same percentage (1%), and vice versa. This is due to the transportation costs that are directly proportional to the increase in the distance between the seller and the buyer.

- The common language does not affect Iraq's import of agricultural products, as a negative parameter (D_1) appeared (contrary to the theoretical assumptions) despite its high statistical significance, and this is due, according to our interpretation, to two reasons: the similarity of Arab commodities in terms of type, and their low quality compared to other foreign ones.
- There is an effective and direct impact of the common borders on Iraq's imports (consistent with theoretical assumptions), as indicated by the positive parameter (D_2) and its high statistical significance, which explains the rise in our imports from Turkey and Iran, in addition to the reasonable quality of their goods and the competitiveness of their prices globally. As for the random results for each country separately, Table (7) shows the variance of their random effects. We find them limited to the countries of Turkey and the Russian Federation with the values of (1.532279) and (-1.413405), respectively.

Table (7) random effects results for each country

Number	COUNTRIES	Effect
1	Syria	0.502094
2	Turkey	1.532279
3	Egypt	0.979455-
4	Russia	1.413405-
5	Ukraine	0.845975
6	Germany	0.684364-
7	Italy	0.748937-
8	Switzerland	0.473867-
9	India	0.316391-
10	Thailand	0.984526
11	China	0.862080
12	United States	0.110536-

Source: Prepared by researcher based on EVIEWS 9.5.

Conclusions:

Through the foregoing analyzes based on numbers documented by statistical tests, economic analysis, the research reached a set of results, as follows:

- The model of importing agricultural commodities to Iraq has been described according to the commercial Gravity model, and in a significant and statistically reliable, it can be developed by adding other independent variables like population, the exchange rate, to be more accurate and beneficial than it is. Thus, the study answered its first problem as follows: Yes, the model of importing agricultural commodities to Iraq can be described, according to the commercial Gravity model, capable of predicting well.
- Both Turkey, Iran ([1]) acquired the two largest shares of the volume of Iraq's imports of agricultural commodities, first because they are aligned with the Iraqi borders; secondly, to diversify their production. Russia came in third ranking, which we import agricultural machinery and equipment due to its reasonable quality and competitive prices globally. In all cases,

[1]. Data on Iraq's imports from Iran were not counted due to the lack of data on trade with it due to the US economic embargo on it. So that it's agricultural commodities enter Iraq in a way that is not usually authorized in international data. However, the person familiar with the commodity market in Iraq is sure of the huge volume of those imports.

the main reason for the hugeness of these imports is the unilateralism of the Iraqi economy and the neglect of its agricultural sector. Knowing that he has all the elements of agricultural production from wasted water, deserted arable lands, oppressed idle hands, scattered capital, and management waiting to be used optimally.

- It is possible to rationalize Iraq's agricultural imports in the coming years if the government adopts economic policies that embrace the agricultural sector, such as effective and balanced customs policies, supporting farmers through the Ministry of Agriculture purchasing their crops at remunerative prices, contributing to their marketing operations. Also, the Ministry of Commerce's contribution to determining the entry of some commodities for which it is possible to provide a local alternative.

- Diversifying and increasing production in Iraq has become not only an economic necessity but also a last chance to survive within living societies.

Recommendations:

• The research recommends diversifying the sources of agricultural import trends to ensure avoiding losses and raising the ability to maneuver in supplying the internal market with the import demand process.

• It is possible to benefit from the experiences of the developed countries that formed blocs built on a commercial basis to reap the fruits of success by providing similar projects after evaluating the policies and programs that can be applied.

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