

## Estimating the Individual Demand Function for Table Eggs in Iraq Using the Ardl Model for the Period 2003-2023\*

Noor Eidan Hasan  , Suaad Hussein Ali  

Department of Agricultural Economics, College of Agricultural Engineering Sciences, University of Baghdad, Baghdad, Iraq.

### ABSTRACT

This study aimed to estimate and analyze the individual demand function for table eggs in Iraq for the period (2003-2023) and calculated the demand elasticity as they determine the relative relationship between price and quantity. The research was based on the frontier approach cointegration using the ARDL model in estimating the consumer demand function. As a result of both short-ran and long-ran demand elasticity showed, we conclude that eggs are a natural and very necessary commodity for the Iraqi consumer as they cannot be dispensed with even if their prices rise, the consumer will work to reduce a small part of them, and this is what the price elasticity of demand showed (-0.56, -0.73). As for the income elasticity, it showed that it is a commodity with superior goods for the consumer's income in the short and long ran as follows (1.58, 1.36) respectively, meaning that it is a commodity elastic to changes in income because the elasticity coefficient is greater than 1%. Based on what has been concluded, the researcher can recommend working to support egg production projects and working to achieve self-sufficiency in it, as it is a necessary and important commodity for the consumer, and that increasing local production works to increase the supply of eggs so that they are available at appropriate prices that the consumer can buy it.

**Key words:** Elasticity of demand, Local eggs, Necessary commodity, Plans of production, Saturation level



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### INTRODUCTION

Agricultural activity contributes significantly to the formation of economic activity by providing individuals' needs for consumer goods and food materials. It also works to reduce unemployment and employ workers, especially in developing countries. It also works to provide hard currency (Mohammed, & Hamza, 2017). Animal wealth in developing countries is a national wealth, so it must be taken care of and developed. Increasing its production leads to the possibility of meeting the local demand of all countries for animal wealth products and reducing imports from the outside world (Kadhim, 2022). Animal wealth is used in various fields, thus leading to achieving economic development and increasing local agricultural production, both plant and animal, which leads to increasing the

national income and thus increasing the individual's income in general, which leads to improving their standard of living and achieving the well-being of individuals, thus leading to increasing agricultural income in particular. The poultry industry has become a major economic activity in many countries, as poultry projects represent a national wealth whose importance has emerged in the national and agricultural economic sector (Al-saqqafi & Ali, 2023). Therefore, the subject of poultry production has become a major part of the agricultural sector due to its industrial, commercial and nutritional importance (Muhammad et al., 2024). Its speed in capital recycling compared to other animal production projects that take several months, up to 12 months, in addition to being one of the sources of agricultural income and one of the main

pillars of food security policy (Thamer, 2017). Two countries have been interested in poultry health and disease prevention in recent decades, and most of these diseases have been controlled by veterinary medicines (Thamer, 2017). In the last five decades, poultry breeding programs have been established, whose breeds in egg production, exceeding that of wild chickens. These breeds have achieved high production through the selection and breeding of superior chickens (Razuki et al., 2017). However, the rapid growth of these breeds has led to a shortage in the supply of eggs with energy and other elements such as vitamins and minerals. Therefore, many researchers have recommended the necessity of using early feeding of chicken embryos to enhance growth. The monthly profits of egg producers are determined by the cost of feed and nutritional value, as long as eggs are considered a good source of protein (Hassan, 2016). Therefore, many egg producers tend to increase the number of eggs for a specific area according to the population. Therefore, the subject of egg production has gained an important position in the agricultural economy of Iraq due its high and continuous production. Table eggs have an important nutritional status for the consumer because they contain proteins and all types of vitamins except vitamin C. They also contain minerals such as calcium, copper, zinc and phosphorus (Mustafa & Yassin, 2017). Despite the interest in producing table eggs, despite the nutritional and economic value of eggs, and despite the increasing demand, local production is still below the required level and is not sufficient to meet the local demand for eggs by individuals, as it covers only 45.7% of local consumption (Al Hani, 2017). The expansion in egg production comes as a result of the increasing demand for table eggs, and consequently, there are difficulties and problems facing production in Iraq after 2003, including the rise in the prices of locally produced eggs and the opening of the doors to imports from foreign countries whose goods are cheap and of poor quality (Hamad & Lateef, 2022). As a result of the decline in local production, a food gap will be formed that cannot be filled except through imports, and the size of this gap has been

widening with time as a result of the cessation of financial and technical support for this sector (Al-Abdal & Al-Ribhawe , 2016). Therefore, the state is working hard to support this sector and improve the reality of agricultural production in order to increase production and reduce dependence on the outside world in order to meet local demand, The autoregressive distributed lag (ARDL) model was adopted, which is used to analyze the long- and short-term relationships between variables. This model was developed by the scientist Pesaran, Shin, and others in 1999. This model is characterized by the fact that this model can be applied in the case of time series whose variables are some stable at the original level and others stable after taking the first difference, provided that the model does not include any variables that are integrated of the second order I(2). ARDL models have been widely used in recent years (Mahmoud, 2018 , Mahmoud & Bashar, 2012, Muksalmina, et al., 2024, Hadi & Chung, 2022).

## MATERIALS AND METHODS

1.Data collection: The time series data for the variables used in the analysis were relied upon, the commodity price of table eggs, the prices of the competing commodity, which is the average price of dairy, the average per capita income, the quantities of locally produced eggs and the quantities of imported eggs, and the population, for the period from 2003-2023.

2.Analysis method: The research used a set of descriptive and quantitative data analysis methods in order to estimate the individual demand function for table eggs in Iraq. The research used the ARDL methodology in order to reach the best results. This model takes the following form (Hamad & Lateef, 2022):

$$\begin{aligned} \Delta \ln Q_d = & \ln c + \lambda \ln y_{t-1} + B_1 \ln P_{1t-1} + B_2 \ln P_{2t-1} \\ & + B_3 \ln I_{t-1} + B_4 \ln T_{t-1} + \sum_{i=1}^m a_{1,i} \\ & * \Delta \ln (y_{t-1}) + \sum_{i=0}^k a_{2,i} \Delta (\ln P_{1t-1}) \\ & + \sum_{i=0}^k a_{3,i} * \Delta (\ln P_{2t-1}) \\ & + \sum_{i=0}^k a_{4,i} * \Delta (\ln I_{t-1}) \\ & + \sum_{i=0}^k a_{5,i} \Delta (\ln T_{t-1} + \sum t \end{aligned}$$

$\Delta$ = First difference of variable values.

$\sum t$ =Represents the fixed term.

$Q_d$ =Quantity of individual demand for table eggs in Iraq.

$P_1$ = Average price of table eggs.

$P_2$ = Average price of dairy products.

I= Average individual income.

T= Time that includes other factors.

The ARDL model has better features if the series data is short, as it gives better results, it can be used to determine the integral relationship of the dependent variable and the independent variables studied in the long and short run, and also the effect of each of the independent variables on the dependent factor can be determined (Al-Haboubi et al., 2017). Elasticity can be obtained by estimating the model parameters in the long and short run, as price elasticity, income elasticity, and cross elasticity can be obtained (Aljumaili, 2020) through the ARDL methodology. Elasticity, i.e. price, income, and cross elasticity, can be obtained directly through the double logarithmic equation that was used in the research and reached the best results through it. It is expected that the price elasticity will have a negative sign to indicate the inverse relationship with the quantity of demand for eggs, while the income elasticity is expected to have a positive sign to indicate the direct relationship with the quantity of eggs required, while the cross elasticity is also expected to have a positive sign as a result of the direct relationship with the quantity required (Al Hani, 2017). It is assumed that there is a non-linear relationship between income and consumption (Al-Abdal & Al-Ribhawe, 2016).

**Elasticity:** It represents the response period of the dependent factor to changes that can occur in the independent factors and is divided into:

1-Price elasticity of demand is known as March elasticity (Aljumaili, 2020) named after the economist Alfred Marshall. It represents the response time of the quantity demanded to changes in price, assuming that other variables remain constant.

2-Income elasticity of demand is the response time of the dependent factor to changes in income, assuming that other variables remain constant at a certain level.

3-Cross-price elasticity is also known as Hicksin and Slatsky- elasticity (Aljumaili,

2020) and represents the response time of the dependent factor to changes in the prices of other goods, i.e. substitute goods.

**Demand:** Demand can be defined as a set of goods and services that the consumer wants to obtain and can purchase, i.e. desire is not enough, but must be coupled with purchasing power during a specific period and current prices (Agha- Hazem et al., 2015).

**Reality of the production of the table eggs in Iraq during the period (2003-2023):** The production of table eggs in Iraq after 2003 witnessed a noticeable increase over previous years, but local production did not achieve self-sufficiency as a result of the huge increases in population numbers and as a result of opening the doors to various food products, including table eggs after 2003, and as a result of the increasing demand for eggs, as they are essential goods that cannot be dispensed with, we notice an increase in imported quantities and the state's dependence on the outside world in order to fill the shortage in local production. Table (1) shows that local production fluctuates between high and low during the study years, as the average production of table eggs reached about (1,300,867) million eggs. In 2022, the highest production was achieved in this year, compared to the lowest imports. As for the imported quantity, we notice its increase during the study years, as the average imports reached about (3,016,796) million eggs, and the average per capita share of available consumption reached about (126.16), which was obtained through available consumption over the population. As for the average price of eggs, it reached about (4918.4), and the table shows the increase in egg prices during the study years, as well as the increase in dairy prices, which are the only alternative to table eggs, as their average reached about (8907.1). The population is the most important factor in terms of its impact on local production of Table(1) eggs, and as a result of the state not taking action to maintain a largely balanced population level, this will lead to a greater increase in imports in the coming years and the inability of local production to meet the increasing demand for food products, including table eggs.

**Table 1.** The quantity of production and import of table eggs and the factors affecting the demand for table eggs in Iraq for the period (2003-2023).

Year	Local production Thousand eggs/year (1)	Import quantity Thousand eggs/yea (2)	Quantity available for consumption Thousand eggs/year (1+2=3)	Per capita share of available for consumption Egg/year (3/8=4)	Average price of eggs Dinar/layer (5)	Average price of dairy (Dinar) (6)	Average income per capita (Dinar) (7)	Population (million people) (8)
2003	604000	1964	605964	23.63	1680	2966	97631.61	25.64
2004	964000	14404	978404	37.19	2968	3694	172778.97	26.31
2005	1034000	11846	1045846	38.85	2999	4685	235135.9	26.92
2006	932000	3456000	4388000	159.86	4235	6556	292395.18	27.45
2007	807000	3256000	4063000	145.91	5125	6186	336963.96	27.91
2008	916000	3265246	4181246	147.81	4845	8102	482462.04	28.39
2009	507000	3280291	3787291	130.73	4843	8672	380033.79	28.97
2010	926200	3617285	4543485	154.17	4320	8730	450484.44	29.47
2011	1018000	3533492	4551492	148.16	4500	8692	576196.38	30.72
2012	1104000	3832325	4936325	154.79	5302	8810	663834.99	31.89
2013	1149000	3817589	4966589	149.78	5475	9846	693414.27	33.16
2014	373000	5244785	5617785	163.26	5150	10392	679324.14	34.41
2015	564000	4725364	5289364	150.22	5250	10969	461876.46	35.21
2016	710000	3814624	4524624	125.13	5750	11032	457579.47	36.16
2017	729000	4025179	4754179	128.04	5548	10487	493554.27	37.13
2018	855000	4167487	5022487	130.69	5083	10736	570800.16	38.43
2019	969000	4982550	5951550	152.14	4502	10814	572498.97	39.12
2020	1118000	1293124	2411124	60.05	6745	11099	453981.99	40.15
2021	2699000	1782648	4481648	108.80	7238	11239	463175.55	41.19
2022	5010000	2492984.2	7502984.2	177.63	5964	11663	585190.08	42.24
2023	4330000	2737524	7067524	163.15	5765	11679	596881.89	43.32
average	1300867	3016796	4317662	126.16	4918.4	8907.1	462675.9	33.53

Source: Ministry of Planning - Central Statistical Organization

## RESULTS AND DISCUSSION

**First. Unit root test:** time series stability procedure is the first step that is carried out for time series through the unit root test (Augmented Dickey – Fuller (ADF) as shown in Table 2 to ensure that the series is free of distorted data that negatively affects the regression and may give unreal results, i.e. false self-suicide with high values for each of (T, F, R-squared) and then the researcher cannot reach the facts through which the decision is based and thus it is wrong. We note

from Table (2) that the data is not stable at level (0), so some measures were taken to stabilize the series that includes both the required quantity of table eggs and the average price of eggs and the average price of dairy and the average per capita income in the logarithmic formula during the period (2003-2023) which stabilized after taking the first difference, i.e. at level I(0) with the presence of both the constant and the constant and the trend and also without the constant and the trend as shown in Table (2).

**Table 2.** The stability test for the study variables for the period 2003-2023 using the ADF test)

Variables	Level	At Level			At first difference		
		With aconstant	With aconstant &trend	Without constant &trend	With constant	With constant &trend	constant &trend
LnQd	t-statistic	-3.413	-3.039	0.648	-5.066***	-5.195***	-5.005***
	Prob..	0.022	0.146	0.847	0.000	0.002	0.000
LnP1	t-statistic	-4.308	-4.491	-4.274	-5.882***	-5.691***	-5.968***
	Prob..	0.004	0.011	0.000	0.000	0.001	0.000
LnP2	t-statistic	-4.736	-11.989	2.320	-6.198***	-7.913***	-4.994***
	Prob..	0.001	0.000	0.992	0.000	0.000	0.000
LnI	t-statistic	-4.719	-3.528	1.711	-3.911***	-4.029**	-3.862***
	Prob..	0.001	0.063	0.974	0.008	0.026	0.000

Source: Prepared by the researcher based on the Eviews10 program

\*\*\*Significant at 1% level. \*\* Significant at 5% level. \* Significant at 10% level. No Not significant

**Second:** Cointegration (bounds test): This test is based on Fisher's statistic, which is based on the calculated F value and comparing it with the tabular F. If the calculated F is greater than the tabular F, which represents the highest value in the table, the alternative that confirms the existence of cointegration is accepted. However, if the calculated F is less than the

tabular F, i.e. the lowest value in the table, the null hypothesis is accepted, which confirms the absence of joint integration, as in Table (3), which confirms the existence of a long-term equilibrium relationship, i.e. the existence of cointegration between the variables (Al-Abdal, S. A. N., & Al-Ribhawe, I. S. 2016).=

**Table 3.** The cointegration test

ARDL Bounds Test  
Date: 01/31/25 Time: 22:03  
Sample: 2005 2023  
Included observations: 19  
Null Hypothesis: No long-run relationships exist

Test Statistic	Value	k
F-statistic	14.02862	4

Critical Value Bounds

Significance	I0 Bound	I1 Bound
10%	2.45	3.52
5%	2.86	4.01
2.5%	3.25	4.49
1%	3.74	5.06

Source: was calculated by the researcher based on Table 1 and using Eviews10 program

**Third:** estimating the ARDL model in the short run: Several formulas for the function have been estimated, but it was found the double logarithmic formula was the best formula for estimating the individual demand function for table eggs in Iraq during the period (2003-2023) in terms of economic and statistical criteria. It was also found that the best model for estimating the ARDL is the (1,1,2,1,2) model as shown in Table (4), where the table indicates the estimation of the individual demand function for eggs in the

short run using the ARDL model. By observing the function, we notice that all the signals of the independent variables were consistent of economic theory in terms of the signal and significance, as the required quantity of eggs is inversely proportional to the price of table eggs and directly proportional to both the price of the competing commodity, which is dairy, as well as to the individual income and time, which also includes other factors, as shown in Table (4).

**Table 4.** Estimating function of individual demand for table eggs in the short run according to the ARDL model in Iraq during the period (2003-2023).

ARDL Error Correction Regression				
Dependent Variable: D(LQD)				
Selected Model: ARDL(1, 1, 2, 1, 2)				
Case 2: Restricted Constant and No Trend				
Date: 01/30/25 Time: 09:55				
Sample: 2003 2023				
Included observations: 19				
ECM Regression				
Case 2: Restricted Constant and No Trend				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LP1)	-0.726543	0.190567	-3.812523	0.0066
D(LP2)	0.691957	0.256845	2.694064	0.0241
D(LP2(-1))	2.131170	0.577318	3.691501	0.0077
D(LI)	1.362972	0.178713	7.626613	0.0001
D(T)	0.834627	0.126456	6.600124	0.0000
DT(-1))	0.959426	0.557845	1.719878	0.1494
CointEq(-1)*	-0.426176	0.122053	-3.491733	0.0080
R-squared	0.959028	Mean dependent var	0.077823	
Adjusted R-squared	0.938542	S.D. dependent var	0.439698	
S.E. of regression	0.109005	Akaike info criterion	-1.317545	
Sum squared resid	0.142584	Schwarz criterion	-0.969594	
Log likelihood	19.51668	Hannan-Quinn criter.	-1.258658	
Durbin-Watson stat	1.919285			

\* p-value incompatible with t-Bounds distribution.

**Fourth:** estimating the in the long run: By estimating the cointegration model in the long run for individual demand for eggs in Iraq, it was found that the double logarithmic formula was the best of the rest of the mathematical formulas because its criteria were consistent with the economic theory, as well as the best statistically and quantitatively in terms of the significance of the parameters and the significance of the function, and that the individual demand for eggs is affected by a

number of factors, including price factors such as the average price of eggs and the average price of dairy and non-price factors including the average individual income and time, as shown in Table (5), where the required quantity of eggs was inversely proportional to the price of eggs and directly proportional to each of the price of dairy, individual income and time, while the constant was significant and negative, which is consistent with the logic of economic theory.

**Table 5.** Estimating the individual demand function for table eggs in Iraq during the period (2003-2023) in the ong run

Levels Equation				
Case 2: Restricted Constant and No Trend				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
LP1	-0.561276	0.207961	-2.698954	0.0299
LP2	1.711590	0.597920	2.862575	0.0242
LI	1.581188	0.361364	4.375615	0.0033
T	1.868395	0.588248	3.176205	0.0156
C	-67.45736	21.80128	-3.094192	0.0175
EC = LQD - (-0.561*LP1 + 1.7116*LP2 + 1.5812*LI + 1.8684*T - 67.4574)				

**Fifth:** The unrestricted error correction estimation: When the unrestricted error correction model was estimated for the individual demand for table eggs in Iraq during the period (2003-2023), the results were significant for the error correction parameter and were very high, which indicates the quality of the model. It also indicates the

existence of a long-term equilibrium relationship between the variables, as the parameter (-0.42) indicates the individual demand for table eggs in Iraq and that it was consistent with the logic of economic, statistical and standard theory, as the quantity demanded is inversely proportional to the price of table eggs and directly proportional to the

rest of the economic variables, which include the price of dairy, which is the competing commodity for eggs, the average per capita income, and time, as shown in Table (6).

**Sixth: Diagnostic tests for the ARDL model:** (Hassan,R.K. 2016):

1- Test of the autocorrelation problem: This test is conducted to ensure that the model is

free of the autocorrelation problem as in Table (6), where it confirms that the model is free of the autocorrelation problem by accepting the null hypothesis,(0.2804) which states that the problem does not exist and that the probability value is greater than the significance level of 0.05, and rejecting the alternative hypothesis.

**Table 6.** Results of the autocorrelation test

**Breusch-Godfrey Serial Correlation LM Test:**  
**Null hypothesis: No serial correlation at up to 2 lags**

F-statistic	1.657430	Prob. F(2,5)	0.2804
Obs*R-squared	7.574673	Prob. Chi-Square(2)	0.0227

2-Test to detect the problem of homogeneity of variance stability: We note that this test is used to ensure that the model is free from the problem of homogeneity of variance stability through the Breusch-Godfrey test, as shown in Table (7), which shows that the model is free

from the problem of homogeneity stability because the probability value is greater than the significance level of 0.05. Therefore, the null hypothesis was accepted, which states that the problem does not exist, and that the model is stable and homogeneous.

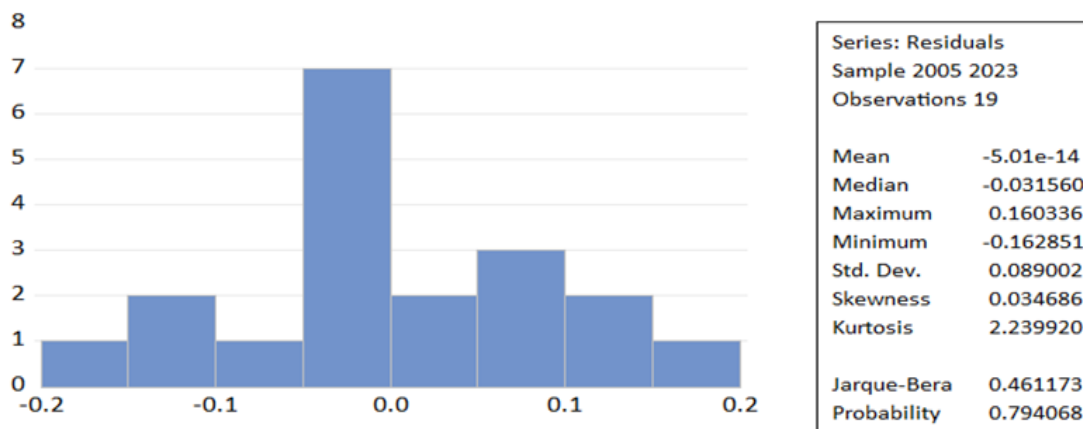
**Table 7.** Results of the homogeneity stability test

**Heteroskedasticity Test: Breusch-Pagan-Godfrey**  
**Null hypothesis: Homoskedasticity**

F-statistic	1.058506	Prob. F(11,7)	0.4883
Obs*R-squared	11.86617	Prob. Chi-Square(11)	0.3738
Scaled explained SS	0.998535	Prob. Chi-Square(11)	0.9999

3-Normal distribution test of residuals: This test is used to know whether the variable is normally distributed around the arithmetic mean or not, as noted in Figure (1), which shows that the study variables are normally

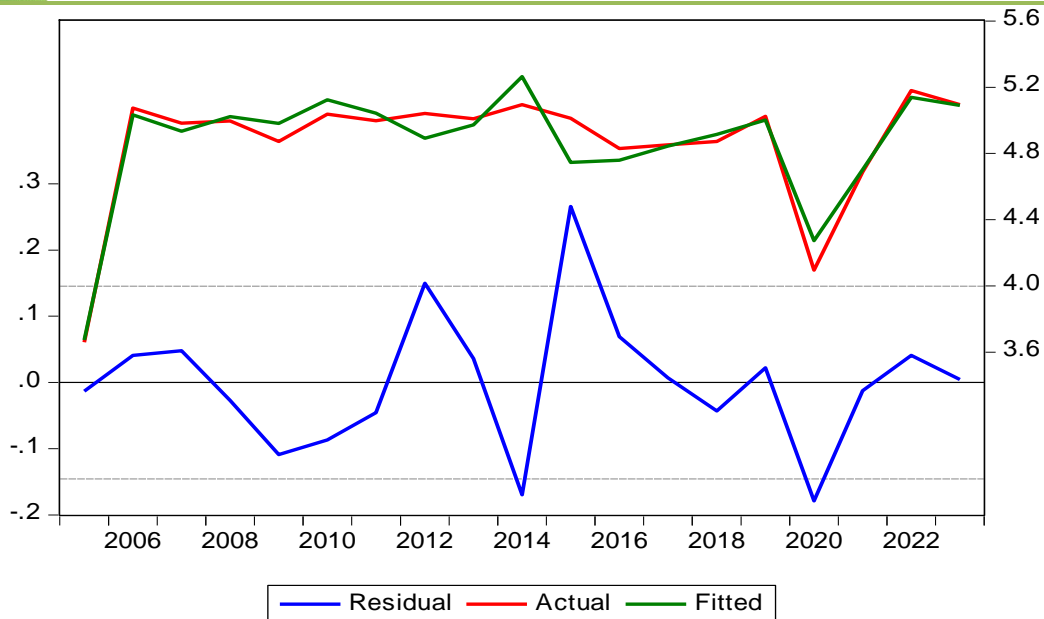
distributed around their arithmetic mean, which has a probability value greater than the significance level of 0.05. This means accepting the null hypothesis, which states that the variables have a normal distribution.



**Figure 1.** Results of the normal distribution test of residuals

4-Model quality check test: This test is conducted to check the model by comparing the real value with the estimated value as in

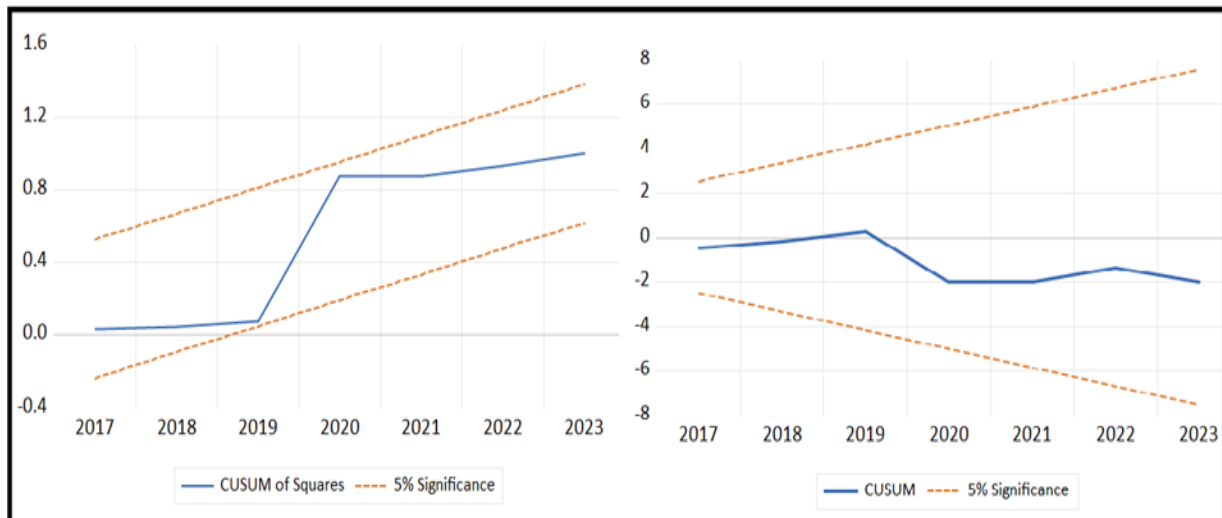
Figure (2), which shows that the real value is very close to the estimated value, indicating that the estimated model is good and accurate.



**Figure 2.** Results of the model quality test

5- Structural stability test of the model: This test is used by testing the stability of the residuals CUSUM and the stability of the residuals squares CUSUMSQ. It was found that both the residuals and the residuals

squares fall within the critical limits at the significance level of 0.05 and the estimated model is found to be structurally stable during the study period as in Figure No.



**Figure 3.** Cumulative sum test and cumulative sum square of the residuals

Source/ calculated using Eviews 13

**Types of elasticity:** Elasticity is the degree of response of the dependent factor to changes that occur in the independent factors. Accordingly, elasticity were obtained in the long term and the short term. There are three types of elasticity: price elasticity of demand, income elasticity of demand, and cross- price elasticity. It was concluded that the quantity demanded is inversely proportional to the price, so it came with a negative sign, which indicates the inverse relationship between the price of eggs and their price is consistent with

economic theory, a change 10% in the price of eggs will lead to a decrease in the quantity demand by( 7.3% ,5.6%) invers way . As for income elasticity, it is directly proportional to the quantity of individual demand, so it came positive This means that a 10% change in income, with other variables remaining constant, leads to a change in demand by (13.3%, 15.8% ) This change is a shift in the demand curve, meaning that a 1% increase in income, with the price remaining the same, will increase the quantity demanded by(1.36%, 1.58% ) This indicates that eggs are a natural

and necessary commodity. . As for cross-over elasticity, this means that if the price of dairy increases by 1%, the demand for eggs will increase by (0.69%, 1.71%). was also positive

to confirm the direct relationship with the quantity of individual demand for eggs in Iraq in the short and long run, Table(8) . (10).

**Table 8.** Shows the long-run and short-run elasticity of the individual demand for eggs in Iraq for the period 2003-2023

elasticity types	price elasticity	Cross-elasticity	income elasticity
Short run	-0.73	0.69	1.36
Long run	-0.56	1.71	1.58

Source: Researcher's work based on short-run and long-run equations

## CONCLUSION

As a result of what both the short-run and long-run elasticity of demand showed us, we conclude that eggs are a natural and very necessary commodity for the Iraqi consumer, as they cannot be dispensed with, even if their prices rise, the consumer will work to reduce a small part of them, because the nature of the Iraqi consumer uses eggs in many of his home meals at all times, as he consumes eggs for breakfast as a basic commodity and for lunch and dinner as a secondary commodity that is included in many popular foods for consumers, and this is what the price elasticity of demand showed us, as for the income elasticity, it showed that eggs are a commodity with high satiation for the consumer's income in the short and long term, as follows (1.36, 1.58) respectively, meaning that they are inelastic to changes in income because the elasticity coefficient is less than 1%. Based on what has been concluded, the researcher can recommend working to support egg production projects and working to achieve self-sufficiency in it as it is a necessary and important commodity for the consumer and that increasing local production works to increase the supply of eggs so that it is available at subsidized prices that the consumer can buy, as well as working to use scientific methods when preparing production plans to modernize production methods in order to achieve the set goals, including working to reduce the imported quantities of eggs to work to increase the demand for local eggs, by increasing customs duties to the level that ensures equal competition and working to implement the quota and leave system .

## CONFLICT OF INTEREST

The authors declare that they have no conflicts of interest.

## AUTHOR/S DECLARATION

We confirm that all Figures and Tables in the manuscript are original to us. Additionally, any Figures and images that do not belong to us have been incorporated with the required permissions for re-publication, which are included with the manuscript.

Author/s signature on Ethical Approval Statement.

Ethical Clearance and Animal welfare Funds:

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## تقدير دالة الطلب الفردي على بيض المائدة في العراق بأستعمال نموذج ARDL للمدة 2003-2023

نور عيدان حسن، سعاد حسين علي

قسم الاقتصاد الزراعي/ كلية علوم الهندسة الزراعية/ جامعة بغداد

### المستخلص

يهدف البحث الى تقدير دالة الطلب الفردي على بيض المائدة في العراق للمدة (2003-2023) ، ومنها تم حساب مرونة الطلب حيث انها تحدد العلاقة النسبية بين السعر والكمية. استند البحث الى منهج الحدودي للتكامل المشترك باستخدام نموذج ARDL في تقدير دالة الطلب المستهلك ونتيجة لما اظهرته لنا كل من مرونة الطلب في الاجل القصير والاجل الطويل نستنتج بان البيض سلعة طبيعية وضرورية جدا للمستهلك العراقي حيث انه لا يمكن الاستغناء عنها حتى اذا ارتفعت اسعارها، فان المستهلك سوف يعمل على تقليل جزء قليل منها، وهذا ما اظهرته لنا مرونة الطلب السعرية (-0.73,-0.56) أما المرونة الدخلية فقد اظهرت لنا بانها سلعة ذات اشباع عالي بالنسبة لدخل المستهلك بالاجلين القصير والطويل وكالاتي (1.58، 1.36) على التوالي اي انها سلعة طبيعية جيدة للتغير في الدخل لان معامل المرونة اكبر من 1%. وبناء على ما تم استنتاجه يستطيع الباحث ان يوصي بالعمل على دعم مشاريع انتاج البيض والعمل على تحقيق الاكتفاء الذاتي منه كونه سلعة ضرورية ومهمة بالنسبة للمستهلك وان زيادة الانتاج المحلي يعمل على زيادة المعروض من البيض لكي يكون متوفر وباسعار مناسبة يتمكن المستهلك من شرائها.

**الكلمات المفتاحية:** مرونة الطلب، البيض المحلي، سلعة ضرورية، خطط انتاجية، مستوى الأشباع.