June 20, 2011 (Monday) Pre-Congress Seminars

Ministry of Rural Development **Kossuth Lajos tér 11. Budapest V.**
CONFERENCE ROOM **Monday 10:00 – 18:00**

1.4. NEW QUALITY AND SAFETY REGULATIONS AND DEVELOPMENTS ON THE AGRIFOOD AREA

Seminar Chair: Zoltán Kálmán, Ministry of Rural Development, Hungary

17.00 Determinants of Individual Share of Meat and Importance of the Consumption Awareness
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Gaber Shehata has got a lot of professional honors and awards, among others a University Prize for Scientific Encouragement for Universal Year 2003. He has more than 40 publications mainly in the following subjects: econometric studies on the prices and demands of main food commodities in the Arab Republic of Egypt, water supply problems in the Nile basin countries, future outlook of water resources and their use in Libya, fish production in Egypt etc.

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Determinants of individual share of meat and importance of the consumption awareness to protect Egyptian consumers from spoiled or cheated meat consumption

Paper to be presented at the the 55th EOQ Congress, (World Quality Congress) which will be held in Budapest on 20-23 June, 2011.

Determinants of individual share of meat and importance of the consumption awareness to protect Egyptian consumers from spoiled or cheated meat consumption

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ABSTRACT

The main objective of this paper is to present the most important determinants of individual share of meat and the importance of consumption awareness to protect Egyptian consumers from spoiled or cheated meat consumption. Both quantitative and qualitative research techniques are applied. As qualitative research techniques, diagnostic in-depth interviews are used, with the aim to elaborate a structured questionnaire. As quantitative technique a personal survey was organized and the structured questionnaire was completed by (150) household.

Food from animal protein is very important for human health because it provides them by basic requirement; it is one of the components of the major food necessary for human nutrition and the maintenance of health. It is access to sources of animal protein from red meat, poultry and fish, which associated with the demand by increasing population, increasing individual share income, the level of awareness of health and nutrition of the population, increasing the average individual share consumption with about 13.07 , 11.75 , 10.41 kg / year of red meat, fish and poultry in Egypt respectively during the period (1990-2008), while the annual growth rate was about 1.48% , 5.04% and 2.3% respectively, which shows that the rate of increase in population growth exceeded the rate of increase and improve the demand for red meat due to increased incomes as a result of continuous rise in the price of red meat and low average individual share , resulting in the transformation of consumer to the alternatives available in the market of fish and poultry.

The results also reveal the importance of government and consumer protecting associations through executing commercial cheating law, punishment sellers of spoiled or cheated meat, and supply markets with needed commodities, the results referred to expected role of consumption extension to aware Egyptian consumers with marketed meat quality through appointment sufficient numbers of qualified and trained consumption extension workers, that besides preparing food extension programs to diffuse consumption awareness culture. Some recommendations from this research had been discussed to improve the consumption awareness for Egyptian consumers to protect them from spoiled or cheated meat consumption.

Research problem

The red meat as staple food commodity in Egypt has a sufficiency rate, about 73.6% in 2008, with quantity available for consumption of about 1251 tons, while the average individual share was 16.6 kg / year in 2008, an increase an annual rate of about 1.48% during the period (1990 - 2008). Such situation was led to high prices of red meat ,and each transformation of the consumer to alternatives protein available in the markets where the average individual share of these alternatives were about 14.9, 10.8 kg / year in 2008. The annual growth rate was estimated as about 5.04%, 2.3% for fish and poultry respectively during the period (1990-2008) - Table (1).

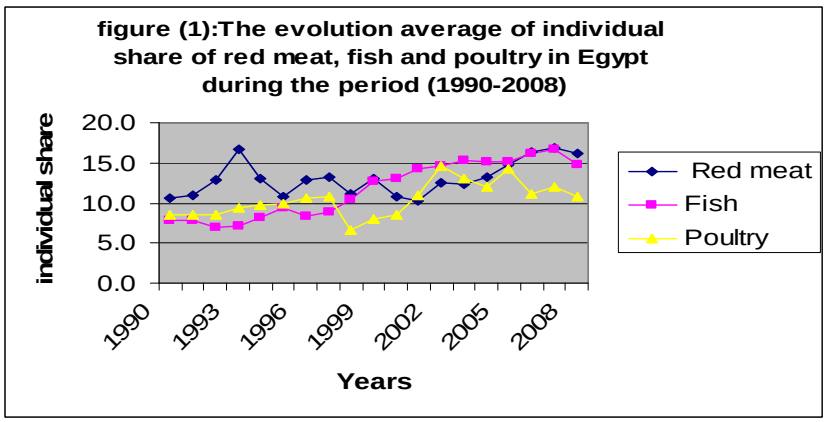
The research problem is confined in the low average individual share animal protein in Egypt, as well as the inability of domestic production to meet the requirements of consumer animal protein, which resulted in lower self-sufficiency ratio of red meat in Egypt from about 86.9% in 1990 to about 73.6% in 2008, and this leads to a lower average individual share meat in addition to a price rise at rates that exceed the increase in the individual share annual income. This resulted in a distortions and a significant increase in the prices of red meat and low demand during the last period. The phenomenon of cheating trade is one of the negative repercussions of economic and social developments in a globalize world, estimated globally at $ (780) billion, or that the volume of commercial fraud, on the level world is about (5-10%) of the volume of world trade, while the volume of commercial fraud in the Arab States about $ (50) million,

representing about (6.4%) of the volume of global trade fraud **(http://www.al-jazirah.com / 139647/rj4d.htm, 2010)**, and therefore to the world in general and developing countries in particular to address this phenomenon, so it must be the government role in addressing and combating commercial frauds, not to mention the role that should be done by extension consumer awareness of consumers of the importance of the quality of goods purchased, but it should be noted that these roles are not enough to confront and Fraud Commercial Hence, the importance of the role of consumer protection associations in reducing these crimes organizations in neutral voluntary non-state created by society from all social classes and scientific specialists in various fields and associations, trade unions and chambers of commerce and industry, and represents the above mentioned basic premise behind the conduct of such research to identify the importance of consumer awareness and provide guidance to Egyptian households quality goods marketed and the role of government and consumer protection associations to reduce the marketing of goods in Egypt.

Table (1): Evolution of average individual share of red meat, fish and poultry in Egypt during the period (1990- 2008) (kg / year)

Years	average individual share of red meat	average individual share of fish	average individual share of Poultry
1990	10.5	7.8	8.5
1991	10.9	7.8	8.5
1992	12.8	7.0	8.4
1993	16.8	7.1	9.4
1994	13.1	8.2	9.7
1995	10.7	9.4	10.0
1996	12.9	8.4	10.6
1997	13.2	8.9	10.8
1998	11.1	10.5	6.7
1999	13.0	12.7	8.0
2000	10.8	13.0	8.5
2001	10.2	14.3	11.0
2002	12.5	14.6	14.6
2003	12.4	15.3	13.1
2004	13.2	15.2	12.0
2005	14.8	15.1	14.2
2006	16.3	16.2	11.2
2007	16.9	16.6	12.1
2008	16.1	14.9	10.8
Average	**13.07**	**11.75**	**10.41**
Growth rate	**1.48**	**5.04**	**2.30**

Source: Ministry of Agriculture and Land Reclamation, Economic Affairs Sector, central administration of the agrarian economy**,** **balance of food in Egypt**, the number of sporadic.



Research objectives:

The research aims to study the factors affecting the individual share consumption and production and imports of red meat in Egypt during the period (1990-2008) to determine the main factors affecting the red meat market, identify the nature of the relationship prevailing red meat commodity, forecasting the average individual share of red meat and the red meat price in Egypt until 2020 through the identification of the best standard methods used in the forecasting model ("Box-Jenkins") "Autoregressive Integrated Moving Average" (ARIMA).

The research also aims to identify the role to be played by the government and consumer protection associations to protect of Egyptian household consumption of goods that was from spoiled and cheated goods markets from the viewpoint of those consumers. Identifying the current and expected role of consumption extension to aware the consumer to educate the Egyptian households of the importance of the quality of goods purchase.

Research methodology:

The research will use a form of successive equations (Recursive Equation Model), which consists of the following equations:

$\mathbf{Y_{1t}}$ = F (Y1t-1, X1t, X2t, X3t, X4t, U1t)
$\mathbf{Y_{2t}}$ = F (Y2t-1, X5t, X6t, X7t, U2t)
$\mathbf{Y_{3t}}$ = F (Y3t-1, Y1t, Y2t, U3t)

Where the sample contains two types of two variables (endogenous variables and exogenous variables).

First: (Endogenous Variables)

$\mathbf{Y_{1t}}$ = total average individual share from consumption of red meat, total (domestic + imported) by kilo grams / year.
$\mathbf{Y_{2t}}$ = average individual share consumption of red meat only domestic by kilo grams / year.
$\mathbf{Y_{3t}}$ = average individual share consumption of red meat imported by kilo grams / year.

Second: (Exogenous Variables)

$\mathbf{X_{1t}}$ = Real retail price of red meat (pounds / kilograms).
$\mathbf{X_{2t}}$ = Real retail price of white meat (pounds / kg).
$\mathbf{X_{3t}}$ = Real retail price of fish (pounds / kg).
$\mathbf{X_{4t}}$ = Average individual share real income of the Egyptian pound.
$\mathbf{X_{5t}}$ = Amount of feed manufacturer (thousand tons / year).
$\mathbf{X_{6t}}$ = Area of green fodder (thousand acres / year).
$\mathbf{X_{7t}}$ = Number of live animals (A header / year).

In addition to the three variables, an Exogenous lag time period of one (Lagged Endogenous Variable), namely:

$\mathbf{Y_{1t-1}}$ = Total average individual share consumption of red meat, total (domestic + imported) in the previous year (Kg / year)
$\mathbf{Y_{1t-2}}$ = Average individual share consumption of red meat only domestic in the previous year (Kg / year).
$\mathbf{Y_{1t-3}}$ = Average individual share consumption of red meat imported in the previous year (Kg / year).

The research will use a method of ordinary least square to estimate all parameters of the model.

***The forecasting model*:**

The study has been used Box-Jenkins (ARIMA) model to forecast the future. The model depends on the extraction of the mean for the study variables to forecast the future, but after calming the data both in terms of contrast, or in terms of directional Overstocks then estimate (random error) in the language with self-regression moving average as in the following formula:

$$Y_{it}=\beta_0+\beta_1 Y_{it-1}+ \beta_2 Y_{it-2}+\text{----}+ \beta_\rho Y_{it-\rho}+\varepsilon_i+ \theta_1\varepsilon_{it-1}+ \theta_2\varepsilon_{it-2}+\text{----}+ \theta\ \varepsilon_{it-q}$$

Autoregressive term (AR) **Moving Average term (MA)**

Data sources:

Research was based on secondary data for periodicals and bulletins issued by the Ministry of Agriculture and Land Reclamation, and the Central Agency for Public Mobilization and Statistics, Arab Organization for Agricultural Development, and the Food and Agriculture Organization (FAO). Questionnaire through personal interviews was used to collect data from (150) respondents randomly selected from Egyptian consumers. In addition to drawing on some research and scientific studies and books related to subject of this research.

SEARCH RESULTS AND DISCUSSION

I: The appreciation of the statistical equations of the form of successive affecting the individual share of red meat total (domestic and imported):

Table (2) refers the best results of the assessment of the statistical model, a Recursive Equation Model:

1 - Factors affecting the overall individual share of red meat, total (domestic and imported):

The first equation in table (2) shows significant influence of individual share of red meat consumption, total (domestic and imported) at the moral level of 1%, which indicates that consumption habits have the greatest impact in influencing the total amount, consumed red meat. Also agreed signal parameters of this function with economic and statistical logic. Estimating the regression coefficients of partial record of transactions, turns out that individual share consumption of red meat, total (domestic and imported) in the previous year in the first instance in terms of its relative impact on the quantity consumed red meat, followed by the retail price of the real red meat, the price of retail real white meat then the average individual share real income in pounds, and assuming the stability of the factors affecting the individual share of red meat consumption, a change in the amount of 1 kg individual share of red meat consumption, total in the previous year leads to change its share of current consumption of about 8.824 kg in the same direction. While the change in the amount of 1 pound in the retail price of the real red meat leads to a change in individual share current consumption of red meat about 4.017 kg in the same direction. It shows that the change in the amount of 1 pound retail price of real white meat leads to a change in individual share current consumption of red meat about 5.497 kilograms in the opposite direction. While the change in the amount of 1 pound individual share real income leads to a change in individual share current consumption of red meat about 4.837 kg in the same direction. The effecting of the real retail price for fish is not significant on consumption individual share of red meat.

2 - Factors affecting the individual share domestic production of local red meat only:

The second equation in table (2) shows significant influence of individual share of local red meat only in the previous year at the moral level of 1%, as agreed signal parameters of this function with economic logic and statistics.

Estimating the standard partial regression coefficients of the estimated coefficients shows that individual consumption share of red meat only local in the previous year in the first instance in terms of its relative impact on the quantity of red meat consumed, followed by local area of green fodder per thousand acres, and the number of live animals per thousand head. Assuming the stability of the factors affecting the individual share of red meat, the local change of 1 kg individual share domestic consumption of red meat in the previous year led to a change in individual share current consumption of about 0.398 kg in the same direction. While the change in a thousand-acre area of green fodder lead to a change in individual share current consumption of red meat the local about 0.144 kg in the same direction. As it turns out that the

change is a thousand animals' leads to a change in individual share current consumption of red meat about local 0.465 kg in the same direction. While did not demonstrate significant impact of the amount of feed manufactured by the average individual share domestic consumption of red meat.

Table (2): Results from the Recursive Equations Model of red meat in Egypt during the period (1990-2008)

item	Model	R^{-2}	F	DW
individual share consumption of red meat overall (local + imported) (kg / year)	$\hat{Y}_{1t} = -44.758 + 8.824 \log\hat{Y}_{1t-1} + 4.017 \log X_{1t} - 5.497 \log X_{2t} - 2.264 \log X_{3t} + 4.437 \log X_{4t}$ $(4.05)^{*}$ $(1.96)^{**}$ $(-2.56)^{*}$ (-1.63) $(2.34)^{**}$	0.914	37	2.4
individual share domestic consumption of red meat (kg / year)	$\text{Log}\hat{Y}_{2t} = -4.148 + 0.398 \log \hat{Y}_{2t-1} - 0.004 \log X_{5t} + 0.144 \log X_{6t} + 0.465 \log X_{7t}$ $(9.52)^{*}$ (-0.58) $(8.31)^{*}$ $(19.5)^{*}$	0.999	4466	0.7
individual share consumption of red meat imports (kg/ year)	$\text{Log}\hat{Y}_{3t} = 0.426 + 0.125 \hat{Y}_{3t-1} + 0.43 \hat{Y}_{1t} - 0.468 \hat{Y}_{2t}$ $(-2.77)^{*}$ $(12.75)^{*}$ $(-10.83)^{*}$	0.967	167.4	2.1

* Significant at the potential level of 1%, ** significant at the potential level of 5%.

Source: Compiled and calculated from: Data Supplement (1) research.

3 - Factors affecting the individual share of imported red meat:

Show the results of estimating the third equation, which obtained through the introduction of (Ŷ1t), (Ŷ2t) estimating equations of the first and the second to the third scale equation (2) significant impact of individual share consumption of red meat imported at the moral level of 1%.

And estimate the regression coefficients of partial record of transactions estimated indicated significant effect of each of individual share consumption of red meat imported in the previous year, individual share total consumption of red meat (local and imported) in the current year, individual share consumption of red meat local in the current year at the moral level 1 %, as agreed signals function parameters with economic logic and statistical increase in individual share consumption of red meat imported in the previous year by about 1 kg, assuming the stability of other factors leading to increased individual share consumption of red meat imported in the current year, about 0.125 kilograms in the same direction, When it turned out that an increase in individual share total consumption of red meat (local and imported) in the current year by about 1 kg to increase the individual share consumption of red meat imported in the current year by about 0.43 kilograms in the same direction with the assumed constant other factors, while showing that the increase individual share consumption of red meat only local in the current year by about 1 kg lead to lower individual share consumption of red meat imported in the current year, about 0.468 kilograms in the opposite direction, assuming the stability of other factors.

II: Forecasting average individual consumption share of red meat in Egypt using the methodology of "Box-Jenkins"

This section aims to forecast the average individual consumption share of red meat and the price of red meat in Egypt until 2020 through the identification of the best standard methods used in the forecasting model (Box - Jenkins "Box-Jenkins") "Autoregressive Integrated Moving Average" (ARIMA), in order to identify possible changes in the evolution of economic variables in the coming years, leading to the formulation of policies and economic plans of the state.

It contains a model to forecast self-arranged downhill Autoregressive Class [AR (P)], the center of a Moving Average error reduction class [MA (q)], and class differences Difference (d). Consists of estimating model [ARIMA (p, d, q)] of the four phases can be clarified as follows:
(Identification Stage - Estimation Stage-Diagnostic Stage - Forecasting Stage)

Identification Stage:

1 - A graph of the original data of the average individual share consumption of red meat and the price of red meat in Egypt is clear that the data of individual share consumption of red meat and the price of red meat in Egypt is not static in terms of contrast.

2 - A chart Correlogram for AC, and PAC, the average individual share consumption of red meat (Fig. 2), the price of red meat in Egypt (Fig. 3), show that the correlation coefficient of self-partial PAC significant, and this mean the rejection of the basic assumption that the sum of squares of individual transactions moral connections, no correlation sequence.

3 - Testing Unit Roots: Unit Roots is a test shows whether autocorrelation previously discovered in Correlogram equivalent to one or not, where Ho: ρ1 - 1 = λ = 0 This is a test complementary to test the former, on which are selected first difference of the series time and in case of acceptance of basic hypothesis of the test, and during the ADF test results in table No. (3) Essential hypothesis is accepted existence of unit root and thus original data is not static.

Figure (2)

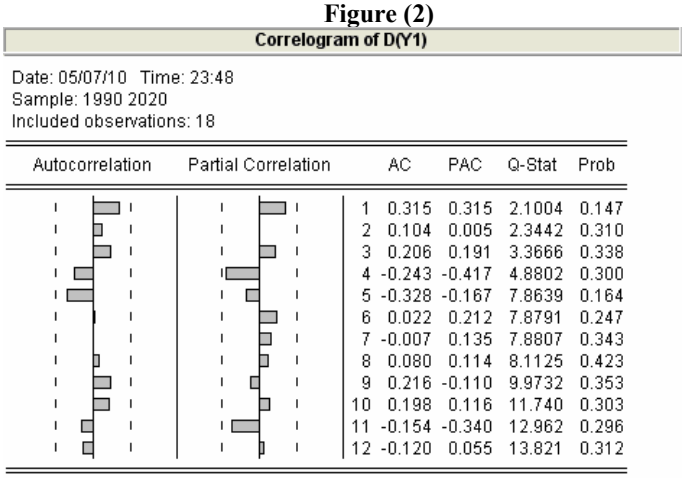


Figure (3)

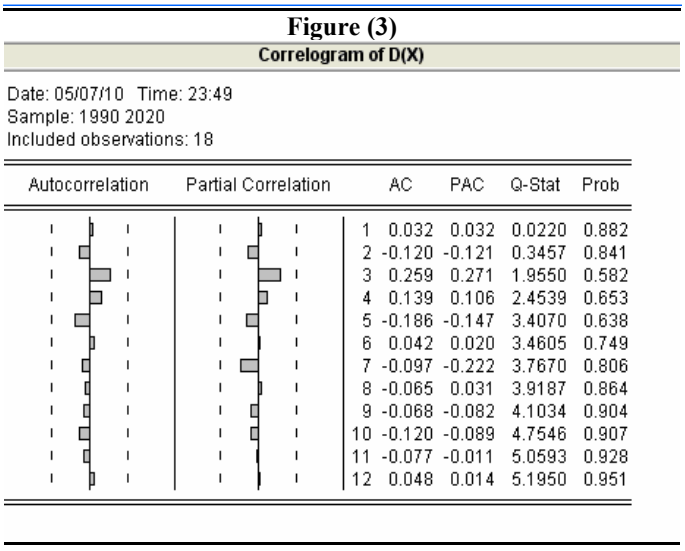


Table (3) test results Augmented Dickey Fuller (ADF) :

Variable	D(1)	D(2)
Individual share consumption of red meat in Egypt	-2.98	-5.04
Price of red meat in Egypt	-3.84	-4.49
Test critical values:5%	-3.1	-3.1

Source: Compiled and calculated from: Data Supplement (1) search using the E-views 6. D (1) = first difference

D (LOG (Y1)) = 0.0448 + [AR (1) = 0.7745, MA (1)]
This is called a model ARIMA (1,1,1)
D (LOG (X)) = 0.073 + [AR (2) =- 1.1243, MA (2)]
This is called a model ARIMA (2,1,2)

$\mathbf{Y_1}$: average individual share consumption of red meat in Egypt.

X: the average price of red meat in Egypt.

Diagnostic Stage:

By examining the models taking the estimated residuals of the models, it became clear that the link between the borders of self-limiting random was not significant and therefore the form is appropriate.

By examining the models that have been estimated from the average individual share consumption of red meat in Egypt, it appeared that the model ARMA (1,1,1) and more convenient through the results of the tests described in table (4), as well as by taking residuals of the model estimated as shown in Figure (4) which shows that the partial autocorrelation, autocorrelation and the form of autocorrelation of the residuals are all located within the 95% confidence means that the autocorrelation between the borders of reducing random was not significant and therefore the form is appropriate.

By examining the models that have been estimated from the average price of red meat in Egypt, it appeared that the model ARMA (2,1,2) and more convenient through the test results shown in Table (4), as well as by taking the estimated residuals of the model as shown in Figure (5) Which shows that the autocorrelation coefficient and the form of partial autocorrelation of the residuals are all located within the 95% confidence means that the autocorrelation between the borders of the indiscriminate reduction was not significant and therefore the form is appropriate.

Figure (4)

Correlogram of Residuals

Date: 05/08/10 Time: 00:15
Sample: 1992 2008
Included observations: 17
Q-statistic probabilities adjusted for 2 ARMA term(s)

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
		1	0.164	0.164	0.5450	
		2	-0.138	-0.170	0.9561	
		3	0.096	0.159	1.1691	0.280
		4	-0.320	-0.429	3.7173	0.156
		5	-0.412	-0.249	8.2966	0.040
		6	-0.041	-0.091	8.3460	0.080
		7	-0.060	-0.109	8.4624	0.133
		8	-0.017	-0.051	8.4724	0.205
		9	0.181	-0.088	9.7934	0.201
		10	0.171	0.018	11.138	0.194
		11	-0.093	-0.262	11.607	0.236
		12	-0.086	-0.159	12.085	0.279

Figure (5)

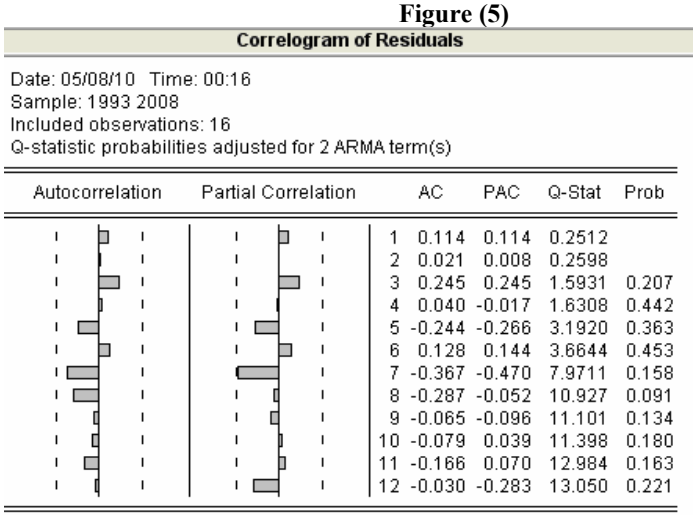


Table :(4) Standards and tests to select the best forecasting models

Variable	Model	Measures – statistical tests	
		RSME	U.Thiel
Average individual share consumption of red meat	(1,1,1)	3.75	0.094
The average price of red meat	(2,1,2)	0.69	0.023

Source: compiled and calculated from: Data Supplement (1) search using the E-views 6.

U-Theil Inequality Coefficient

$$Theil\text{ - U - Inequality Coefficient} = \frac{\sqrt{\sum_{1-T+1}^{T+h} (\hat{Y}_t - Y_t)^2 / h}}{\left[\sqrt{\sum_{1-T+1}^{T+h} (\hat{Y}_t^2) / h} + \sqrt{\sum_{1-T+1}^{T+h} (Y_t^2) / h}\right]}$$

U-Theil using to test the extent to which estimated values fit values with the actual values and the extent to imitate with the reality of the data, where:
h: reflect the length of the smooth
u: ranging from ($0 \leq u \leq 1$), and there is a complete forecasting when $u = 0$

Forecasting Stage:

The forecasting results of average individual share consumption of red meat in Egypt set out in table (5), it was about 21.4 kg / year in 2012 and then increased to about 30.6 kg / year during 2020. As we see from the results, we can forecasting a price of red meat in Egypt that it was about 47.2 pounds / kilograms in 2012 and then increased to about 89 pounds / kilograms, in 2020. The results indicated that the model ARIMA (1,1,1) is the best model for the average individual share consumption of red meat in Egypt and the model ARIMA (2,1,2) is the best model for the average price of red meat in Egypt Arabic, has shown the results on the efficiency of these models and estimates of landmarks in the process of forecasting based on the analysis of residuals (error) The results have been as close as possible to reality.

Table (5): The results of better forecasting models using dynamic methodology "Box-Jenkins"

year	Average individual share consumption of meat In Egypt (Kg / year)	Average price of red meat in Egypt (Pounds / kg)
2010	19.589	36.14
2011	20.474	37.092
2012	21.402	47.232
2013	22.375	53.563
2014	23.393	47.662
2015	24.459	48.314
2016	25.575	64.324
2017	26.743	73.969
2018	27.965	62.605
2019	29.243	62.475
2020	30.58	87.996

Source: compiled and calculated from: Data Supplement (1) search using the E-views 6.

III: The role to be played by the government to protect Egyptian consumers from consumption of spoiled and cheated goods from the viewpoint of those consumers:

Table (6) refers the role to be played by the government in the protection of Egyptian consumers consumption of bad food cheated mentioned by respondents, where possible, arranged and sorted according to relative importance from the point of view as follows:

Table (6) the relative importance of the role of government to protect Egyptian consumers from consumption of spoiled and cheated goods from the viewpoint of the respondents

the mouthpiece of the government's role	frequency	% *
1 - a lot of campaigns for police surveillance on the market	82	54.7
2 - the actual application of the law of commercial fraud and consumer protection	79	52.7
3 - tighten sanctions on the production, sale and distribution of spoiled and cheated goods	71	47.3
4 - Non-sale items of unknown origin in any way	66	44.0
5 - Consider commercial fraud, a crime involving moral turpitude	51	34.0
6 - awareness of consumer households through various media	40	26.7
7 - tighten control over the ports of import	27	18.0
8 - the quarantine customs duties to the fullest in the control of imported goods	18	12.0

* Percentage is calculated from the total number of respondents (150) Quested.

It is already clear need for the Government to implement all or some of these roles to protect consumers from falling into the consumption of bad food cheated which adversely affect the health and security, in particular roles associated with the control of markets, and law enforcement fraud trade for violators, and tighten the sanctions imposed on the production, sale and distribution of spoiled and cheated goods.

V: The role of consumer protection associations in reducing the marketing of spoiled and cheated goods from the viewpoint of Egyptian consumers:

Consumer protection associations are concerned with consumer interests in all areas that could be the provision of goods or services as a threat to his health safety and currency has released a consumer protection law number (2) for 2008, which provided in Article (2) which does not prejudice the fundamental rights of consumers namely:

1 - requirements of consumer goods of different medicines, water, housing, health care, proper nutrition, education, culture, training, and services in the areas of finance and banking, electricity, insurance, transport, energy, communications, tourism and other services of interest to consumers, 2 - to ensure consumer safety and health when he uses the product Outlki services, 3 - to obtain information and guidance and advertising

right for all the offers of its products and services, 4 - education and awareness of their rights and responsibilities, economic and guidance in terms of consumption and means of development on an ongoing basis to be able to exercise, 5 - ensure the exercise of their rights to choose the most appropriate product and service available to him in the market, according to his wishes, 6 - represented by his association and heard the views of my actors, which means interests, 7 - ensure a healthy environment and healthy for life people who care for them (Khalaf, 2008).

Table (7) refers the role should be played by consumer protection societies to limit the marketing of spoiled and cheated goods mentioned by respondents who heard all of these associations, where possible arranged descending order according to the relative importance from the point of view as follows:

Table (7) relative importance of the role of consumer protection societies to reduce the marketing of goods from spoiled and cheated goods from the view of respondents

Expressive language on the role of consumer protection associations	frequency	% *
1 - Connect the needs of consumers of goods that the deficit in the market to those responsible so that can be provided.	39	26.0
2 - to be a link between consumers and punish those responsible for the commercial fraud.	28	18.7
3 - Extension leaflets for the guidance of consumers on the methods of commercial fraud and distributed them.	26	17.3
4 - Strengthening the role of these associations and enable them to provide public awareness and control required for the markets of goods and services.	21	14.0

* Percentage is calculated from the total number of respondents (150) Quested.

It is clear from the above that should work to promote and consolidate and strengthen the role of these associations, as well as increase their numbers and because of their importance in protecting consumers from fraudulent trade, which are exposed, this is as relevant in the delivery of the needs of consumers of goods not available in the markets to the relevant authorities so that provided.

VI: The current and expected role of consumption extension to aware of Egyptian consumers by importance of the quality of goods purchased:

In connection with the current role consumption extension to aware of Egyptian families by importance of the quality of goods purchased have found no extensions specialists in this area, but there are some female extension workers in rural development are doing some interviews with the wives of heads of Egyptian households and provide all the information they need guidance and advice and to answer some queries on the quality and consumption of food commodities and a half, durable and durable goods. With regard to the expected role to aware the consumer to educate Egyptian families the importance of the quality of goods purchased, it noted respondents some of the proposals would make to guide consumer has an important and effective in this area, it has been possible to arrange these proposals Descending from the viewpoint of the respondents also described the in table (8) as follows:

Table (8) the anticipated role of the consumer extension to educate Egyptian consumers the importance of the quality of goods purchased from the viewpoint of the respondents

Proposals	frequency	% *
1 –Provide sufficient numbers qualified and trained workers and extension who specialize in the field of consumer extension	61	40.7
2 - Preparation of extension programs, food for Egyptian households to spread the culture of consumer awareness	59	39.3
3 - interest in holding extension seminars and meetings of the guidelines to educate Egyptian families with consumer aids consolidation of some of the guidelines	46	30.7
4 - attention to the preparation and distribution of press publications and guidance to increase consumer awareness of Egyptian families	40	26.7
5 - Preparation of extension programs for diseases transmitted by unsafe food	36	24.0
6 - Preparation of extension programs for the residual effects of pesticides and dangerous to human health	30	20.0

7 - Preparing treatments programs of the good agricultural practices and transactions of post-harvest	24	16.0

* Percentage is calculated from the total number of respondents (150) Quested.

The above demonstrates the importance of considering these proposals and try to implement so that the consumption extension an active role with the Egyptian families, particularly those associated with the need Provide sufficient numbers adequate and trained guides and guides for the advancement of this area because of its great importance and play an important role for the security and safety of Egyptian consumers.

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Appendix

Average individual share consumption of red meat and the retail price and quantity of feed manufactured in the area of green fodder in Egypt during the period (1990- 2008).

Year	Y1	Y2	Y3	X1	X2	X3	X4	X5	X6	X7
1990	12.24	10.11	2.13	5.26	2.11	2.97	1340.8	1100.6	2678	11403
1991	12.11	10.16	1.95	4.92	2.13	2.82	1179.4	1142.5	2607	12016
1992	11.00	9.03	1.96	4.83	2.07	2.72	1232.7	1226.4	2623	12434
1993	11.06	8.71	2.34	4.78	2.08	2.39	1145.6	1761.3	2701	13061
1994	10.74	8.56	2.18	3.87	1.74	1.91	1008.3	1970.5	2757	13045
1995	11.84	9.97	1.87	5.27	2.47	2.60	1496.0	2102.5	2637	13496
1996	11.77	10.31	1.47	5.84	2.56	2.58	1614.0	1977.5	2574	13496
1997	11.89	10.25	1.64	5.10	2.35	2.36	1505.6	1907.9	2543	13788
1998	12.15	10.47	1.69	5.04	2.42	2.35	1529.0	1572.4	2758	14104
1999	12.64	10.53	2.10	4.74	2.40	2.21	1565.6	1609.2	2693	14581
2000	13.00	10.68	2.32	4.59	2.41	2.13	1567.0	1407.4	2648	14944
2001	11.72	10.58	1.14	4.63	2.81	2.16	1616.7	1570	2758	15635
2002	13.33	11.70	1.63	5.25	2.54	2.31	1731.9	1437.9	2855	16364
2003	13.93	12.54	1.39	4.97	2.60	2.54	1766.1	1285.2	2852	16889
2004	13.34	11.69	1.66	4.72	2.14	2.87	1644.6	1379.2	2726	17281
2005	14.68	11.99	2.69	5.17	2.07	1.79	1683.2	1431.4	2435	17610
2006	16.32	12.19	4.13	4.45	1.79	1.81	1635.9	1401.5	2472	17956
2007	16.97	12.51	4.46	4.18	1.91	1.70	1657.3	1149.8	2666	18852
2008	18.13	12.25	5.88	5.85	2.06	2.16	1760.3	1139.3	2383	18938
Average	**13.10**	**10.75**	**2.35**	**4.92**	**2.25**	**2.34**	**1509.5**	**1503.8**	**2651**	**15047**

Source: - Central Agency for Public Mobilization and Statistics, Monthly Bulletin of the average food prices at the consumer in Egypt, the number of sporadic.

- Central Agency for Public Mobilization and Statistics, **bulletins consumption of goods in Egypt today**, the number of sporadic.
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Y1t = Total average individual share consumption of red meat, total (domestic + importing) Kg / year.

$\mathbf{Y_{2t}}$ = Average individual share consumption of red meat only local Kg / year.

$\mathbf{Y_{3t}}$ = Average individual share consumption of red meat imported Kg / year.

$\mathbf{X_{1t}}$ = Real retail price of red meat in pounds (pounds / kilograms).

$\mathbf{X_{2t}}$ = Real retail price of white meat in pounds (pounds / kg).

$\mathbf{X_{3t}}$ = Real retail price of fish in pounds (pounds / kg).

$\mathbf{X_{4t}}$ = Average individual share real income of the Egyptian (pound).

$\mathbf{X_{5t}}$ = Amount of feed manufacturer (1000 tons / year).

$\mathbf{X_{6t}}$ = Area of green fodder (1000 acres / year).

$\mathbf{X_{7t}}$ = Number of live animals (A header / year).