The Effect Of Price Policy On The Production And Breeding Of large Sheep flocks In Anbar Governorate (Al-Rutba District, an applied model)

A O Mahmoud* and M A Khalaf

Department of Agricultural Economics, College of Agriculture, University of Anbar, Anbar, Iraq.

* Corresponding author’s e-mail: alsalkbys424@gmail.com

Abstract. Livestock constitute an essential and important part of the agricultural sector, and sheep are the mainstay in livestock, as their products come to the fore; Being an essential source of daily food; And because they also have a high nutritional value compared to plant products, and sheep are characterized by being highly efficient in food conversion, as it was mainly relied on the data obtained from the questionnaire form, where a random sample was taken of 20 sheep breeders whose sheep number exceeds 500 head of sheep. The results of this study showed that the transfers of traded inputs (J) with a negative sign, amounting to about (-9008) thousand dinars, which indicate that the social prices of traded inputs (F) are greater than private prices (B), which means that there is real support for the inputs. Stores within the applicable policy. The transfers of local resources (K) came with a negative sign and a value of (18249 -) thousand dinars, which indicates the existence of support for local resources because their value at social prices is higher than their value at private prices, meaning that the protection is negative for the local product, while between the nominal protection coefficient for traded inputs which appeared With a positive value less than the correct one, its value amounted to (0.88), which indicates that the prices of traded inputs are lower than the prices of their international counterparts, and this confirms the existence of real support provided for these inputs by the state, and the cost factor of the local resource (comparative advantage factor) also appeared. With a positive sign, its value amounted to (0.24), which means that the Iraqi product has a comparative advantage and efficiency for its local production of sheep, while between the effective protection factor, which came with a positive value, its value was (0.30), which is less than one. This means that local producers receive their returns in the event that there are The price intervention policy is less than returns in the absence of it, and it showed that it is less than the right one, that is, the commodity system loses its profits in favor of other sectors.
1. Introduction:
Livestock constitute an essential and important part of the agricultural sector, and sheep are the mainstay in livestock, as their products come to the fore; Being an essential source of daily food; And because they also have a high nutritional value compared to vegetable products, and sheep are characterized by being highly efficient in food conversion when compared with the rest of the animals, as the metabolic ratio reaches 2:1, meaning that the bird consumes 2 kg of feed to produce 1 kg of meat, while The feed conversion efficiency in sheep is (13.4 - 1) kilograms, while in cows it is (10.7 - 1) kilograms, meaning that the sheep consumes 13.4 kg of feed to produce 1 kg of meat, while the cow consumes 10.7 kilograms of feed to produce 1 kilogram of meat [1], and on this basis, the production of sheep breeding is of great importance; Because it is one of the main axes of economic and social development not only in Iraq, but also in many Arab countries due to the importance of food as an important source of animal protein, and the availability of the most important basic ingredients for the production of financial and human resources; Thus, supporting sheep breeding is one of the strategies for food security in Iraq, as well as providing job opportunities for human sectors. The problem of research, despite the focused efforts that focused To encourage sheep production and breeding in Iraq during the past three decades, but Iraq still depends on imports to provide meat and animal products such as milk and cheese to consumers. The aim of the research, the research mainly aims to evaluate the agricultural policies for the production and breeding of sheep in Anbar Governorate using the policy analysis matrix - Rutba district, an applied model - in order to know the actual production volume and to reach the extent of efficiency associated with Arab and international production based on the values of comparative advantage in the policy analysis matrix ; To show the impact of these policies on sheep breeding and marketing. The importance of the research, the importance of this study comes to know the comparative advantage of sheep production and breeding in Anbar Governorate, Al-Rutba District, an applied model; To determine in its light the formulation of agricultural policies for planning production, import and export in the livestock sector. The research hypothesis, the study started from the hypothesis that Iraq has the available material and human resources and capabilities, and despite the challenges facing sheep breeding in Iraq, especially the Rutba district, it has a comparative advantage and efficiency in sheep breeding as well as the competitiveness of sheep meat products in the markets of countries Neighboring Arabic. Research methodology, the agricultural policy analysis matrix was used, in which it relied on two types of the following data, which are data that depend on private prices (market prices) and what is known as the special budget. Data that depends on social prices, or economic prices (international prices), which is known as the social budget. Research sample data sources:
The research relied on the primary data obtained through a field survey in the study area. The data was collected through a statistical form prepared for this purpose. This survey included a cross-sectional sample on measuring and analyzing the impact of agricultural policies on raising large sheep flocks in the governorate. Anbar (Al-Rutba district, an applied model), and the number of those included in the sample was (20) A sheep breeder whose flocks are more than 500 heads of sheep.

2. Materials and working methods:
The research adopted a set of mathematical operations to estimate market distortions, commodities, product protection, and measure the comparative advantage of sheep meat production in Anbar Governorate, during which what is known as the Policy Analysis Matrix (PAM). The policy analysis matrix was built on the basis of the following profit or net income equation: [2].
Profit = Revenue – Cost
= e (P q) Q – e (P t) It – (Pn) In – x
Since:
e = the equilibrium exchange rate of the local currency.
Pq = price of output.
Pt = the price of traded inputs.
The first row of the matrix represents the private market prices (domestic prices) of the commodity system for the total revenue (A), traded inputs (B), the cost of domestic resources (C) and private profits (D). The second row represents the social prices (shadow prices) for each Total revenue (E), the cost of traded inputs (F), the cost of domestic resources (G), and social profits (H). While the third row represents the transformations of the impact of intervention policy and market failure on both Output transfers (I), which is the difference between the domestic market price and the social price of the output, as:

\[ I = A - E \]

Transfers of the cost of traded inputs (J), which is the difference between the cost of traded inputs at the local market price and their cost at the social price.

\[ J = B - F \]

Transfers of local resources (K), which is the difference between the prices of local resources at the local market price and their social price.

\[ K = C - G \]

Net transfers (L) represent the effects of government intervention and market failure on the commodity system.

\[ L = D - H \text{ or } L = I - J - K \]

2.1. Private profitability:

The data entered in the first row of Table (1) represents a measure of private profits, which refers to revenues and costs (trade and local) and which reflect local market prices (private prices) received or paid by farmers and traders, i.e. private profitability (D) is the difference between the total sum of revenue (A) or per unit sold and production costs, which include traded input costs (B) and local resource costs (C) and can be obtained according to the following formula: [3].

\[ D = A - (B + C) \]

2.2. Social profitability:

The data entered in the second row of the Policy Analysis Matrix (PAM) uses social prices, which reflect the value of scarcity or social opportunity costs for each of the factors of production and output, that is, social profitability is the difference between revenues and costs (traded in and local) and assessed at social prices, and can be obtained according to the following formula: [4].

\[ H = E - (F + G) \]

3. Results and discussion:

A random sample was taken that included 20 sheep breeders whose sheep number exceeds 500 heads of sheep, and then the data contained in the questionnaire was entered into the budget table for...
sheep breeding countries No. (2) if it shows the averages of technical transactions evaluated at special prices and prices for the production of one sheep and the need for sheep production. The production requirements included each of the traded materials, which are fuel and feed used by them, barley, bran, fodder dates and hay. It also included reserve materials, medicines and vaccines.

As for the local materials, they included working capital and fixed capital, and included the cost of the extinction of farms, buildings, pumps and machines. Local materials also included work, which was divided into permanent work and temporary work. It also included green fodder, maintenance cost, water, electricity and other expenses as shown in Table No. (2).

Table No (2) Technical parameters of sheep breeding for the production of one sheep in Anbar Governorate.

| Input                  | Production Elements | Average Quantity to Produce Sheep from Sheep Meat |
|------------------------|---------------------|--------------------------------------------------|
| Stored input           | First: the fuel     | 30 liters / sheep                                |
|                        | Second: Feed        |                                                  |
|                        | barley              | 97 kg                                            |
|                        | bran                 | 18 kg                                            |
|                        | forage dates        | 18 kg                                            |
|                        | hay                 | 4 kg                                             |
|                        | Third: Back-up materials | 3685 dinars/sheep                                 |
|                        | 1. Ivermectin %1    | 1 ml                                             |
|                        | 2. Ivermectin 2%    | 0.5 ml                                           |
|                        | 3. Oxytetracycline  | 2 ml                                             |
|                        | 4. The tylosin      | 2 ml                                             |
|                        | 5. Lefmisole        | 30 ml                                            |
|                        | 6. Albendazole      | 24 ml                                            |
|                        | 7. Enterotoxemia Vaccine | 1 ml                                                 |
|                        | 8. Smallpox Vaccine | 12ml                                             |
|                        | 9. FMD Vaccine      | 0.5ml                                            |
|                        | 10. Deltamethrin sterilizer | 6.8 ml                                               |
| First: the capital     | 1. Capital          | 80000 dinars/sheep                               |
|                        | 2. Constant factor  | 430000 dinars/sheep                              |
| Secondly: the eruptions| The costs of the deterioration of the construction of the barn and the construction of warehouses, pumps and machines | 13000 dinars/sheep |
| Third: Work            | 1. Permanent work   | 17 hours/sheep                                   |
|                        | 2. Temporary work   | 2.86h/sheep                                      |
| Fourth: green fodder   | (6320) dinars/sheep |
| Fifthly: maintenance   | 1750 dinars/lamb    |
| Sixth: Water and electricity | 2907 dinars/lamb |
| Seventh: Other expenses|                     | 5680 dinars / sheep                               |

Source: Calculated by the researcher based on the data of the questionnaire.
3.1. Calculation of the first row of the policy analysis matrix (special prices):

Table No. (2) shows the elements of the first row of the policy analysis matrix, ie costs, returns and profits calculated at special prices (market prices). Where the total costs of traded inputs (B) for the first category amounted to about 66449 dinars / sheep.

Working capital: - the capital amounted to (80000) dinars / sheep
As for the cost of using the working capital = 0.05 * 80000 = 4000 dinars / sheep.

The fixed capital amounted to (430,000) dinars/sheep. As for the cost of fixed capital = 0.05 * 430000 = 21500, as for the cost of fixed capital = 0.05 * 457150 = 22857, the opportunity cost of capital was estimated by calculating the interest rate of 5% on capital, depending on the interest imposed on loans granted to farmers by the Agricultural Bank.

Destruction: its cost for the first category amounted to (13,000) dinars/sheep.

Green fodder: - the cost amounted to (6320) dinars / sheep.

Maintenance: - the cost amounted to (1750) dinars / sheep.

The cost of water and electricity: - It cost (2907) dinars / sheep.

Marketing: It amounted to (3500) dinars / sheep.

The basic revenues, which represent the sale of sheep, whose weight averaged about 17.5 kilograms, where the average selling price of one sheep of sheep meat at special prices amounted to 180,000 dinars / sheep, and non-essential revenues or the so-called accidental revenues represented by the sale of large heads in the herd. Where the share of the sheep prepared for sale amounted to (10,500) dinars / sheep, as well as the share of the sheep from the change in the size of the herd in the year of the research, the change was negative, and the share of the sheep prepared for sale amounted to 3450 dinars, and the share of the sheep prepared for sale from the sales of milk or its derivatives amounted to (5000). Dinars / sheep, and by summing the basic revenues with the secondary, we get the total revenues of the sheep, which represents the return at special prices (A). By subtracting the total costs of local resources (C) and the total costs of traded inputs (B) from the total return (A), it was possible to determine the private profitability (D), as the private profitability amounted to (44174) dinars / sheep.

Table No. (3) the budget of the sheep prepared for sale (costs of production elements, return and profitability) at special prices.

| Production elements | Price per unit | Quantity of | Cost of the |
|---------------------|----------------|-------------|-------------|
| First: the fuel     | 500            | 30 Liters   | 15000       |
| Second: Concentrated |                |             |             |
| feed                |                |             |             |
| 1- barley           | 350            | 97          | 33590       |
| 2- bran             | 332            | 18          | 5976        |
| 3- dates            | 280            | 18          | 5040        |
| 4- hay              | 450            | 4           | 1800        |
| Third: - Back-up    | 3685           |             | 3685        |
| materials           |                |             |             |
| Fourth: Medications and Vaccines: | | | |
| 1- ivermectin 1%    | 6956/100ml     | 1ml         | 70          |
| 2- ivermectin 2%    | 8000/100ml     | 0.5ml       | 40          |
| 3- Oxytetracycline  | Free           | 2ml         | Free        |
| 4- tylosin          | 6956/100ml     | 2ml         | 140         |
| 5- levamizole       | 15000Liters    | 30ml        | 450         |
| 6- Albendazole      | 12000Liters    | 24ml        | 288         |
| 7- Enterotoxemia    | 15715/100ml    | 1ml         | 250         |
### Vaccine

| Type               | Price per ml | Quantity | Total |
|--------------------|--------------|----------|-------|
| 8- Smallpox Vaccine | 12000/100ml  | 12ml     | 120   |
| 9- FMD Vaccine     | Free         | 0.36ml   | Free  |
| 10- deltamethrin   | Free         | 6.8ml    | Free  |

**Total**: 66449

#### Total cost of traded inputs: 66449 + 81377 = 148826

### Local input

| Type                          | Number | Price | Value  |
|-------------------------------|--------|-------|--------|
| Working capital               | 80000  | % 5   | 4000   |
| Fixed Capital                 | 430000 | 5%    | 21500  |
| Permanent work                | 1000   | 23 hour | 17000 |
| Temporary work                | 2000   | 2.86 hour | 5720  |
| Green fodder                  | 6320   |       | 6320   |
| WATER and electricity         | 2907   |       | 2907   |
| Maintenance                   | 1750   |       | 1750   |
| Marketing expenses            | 3500   |       | 3500   |
| Other expenses                | 5680   |       | 5680   |

**Total cost of inputs**: 81377

**Total costs**: 66449 + 81377 = 148826

### Incidental revenue

| Type                        | Number | Price | Value  |
|-----------------------------|--------|-------|--------|
| Big Head Sales              | 30     | 14000 | 10500  |
| Selling milk and its derivatives |       |       | 5000   |
| Change in the value of the herd |       |       | -3500  |

**Basic revenue selling sheep**: 180000

**Total revenue**: 192000

**Own net profit = revenue - costs**: 147826 - 192000 = 44174

### Source

The sheep's share of incidental income was calculated as follows:

- **Big Head Sales**: 30 x 14000 = 10500
- **Selling milk and its derivatives**: 5000
- **Change in the value of the herd**: -3500

**Basic revenue selling sheep**: 180000

**Total revenue**: 192000

**Own net profit = revenue - costs**: 147826 - 192000 = 44174

### 3.2. Calculation of the second row of the policy analysis matrix (social prices):

Social prices reflect the price of the commodity in the local currency in the absence of distortions in the exchange rate of the local currency against the foreign currency, as well as if the markets are in perfect competition and the economy is in perfect equilibrium, the prevailing prices represent social prices. And due to the lack of conditions in the Iraqi economy due to the continuation of government intervention policies in the agricultural sector, market prices do not represent equilibrium prices (shadow prices) [5].

The global price of the best types of Al-Naimi sheep in Saudi Arabia for the year (2020) was approved, which reached the average price according to [6], in which the average weight of the sheep reached 17.5 kilograms, and the average price of the sheep with the weight of a sheep was estimated at about (291) dollars / Sheep and by adding the costs of transportation and insurance and the commission of marketing agents from abroad to the borders, which was estimated at about (30) dollars / sheep and when this price is adjusted to the equilibrium exchange rate of the Iraqi dinar against the US dollar determined by the public auction of currencies managed by the Central Bank of Iraq, which amounted to (1460) dinar / dollar approximately as an average for the year (2020). Taking into account the cost of transportation and loading amounted to (468,660) dinars / sheep, and by adding the
sheep's share of incidental revenues (the value of milk and its derivatives, sales of large heads and the change in the value of the herd) we get the social price of the sheep, as the value of the social return (E) reached (480660) dinars / Sheep.

After calculating the first row of the matrix for the technical transactions of feed, medicines, vaccines and fuels at local prices, the elements of the second row are calculated. Table (3) shows the total costs, returns and profits calculated at social prices. Global prices are converted to local prices by means of the standard conversion factor to know the social prices (the silhouette of replacing the world price of these inputs or their shadow price, the border price of Ukrainian barley is (230) dollars and in addition to the addition of its transportation costs, which were estimated at about 50 dollars per ton, then the price of one ton of fodder is multiplied by the official exchange rate, in order to obtain the price per ton of the frontier feed.

Since the price of one ton of barley at the border price = (230 + 50) x 1460 dinars / dollar = 408800 dinars per ton, and since the sheep needs 97 kg, its social cost becomes 39,654. Sheep dinar.

As for the bran, the imported price in the Iraqi market is (280,000) dinars / ton, and the cost of the bran required for one sheep has reached (5040) dinars / sheep. As for the price of social fodder dates, it was estimated at about (280,000) dinars / ton. The cost of dates for one sheep was 5040 dinars / sheep.

As for imported medicines, vaccines and sterilizers, the total price for the production of one sheep within the General Veterinary Authority for the first and second categories amounted to (3000) dinars / sheep.

The import price per barrel of kerosene oil reached the main stores at a rate of (90) dollars / barrel [7]. and by adjusting it to the exchange rate of the local currency, its cost amounted to (131,400) dinars / barrel. The liter is (610) dinars / liter and the cost is (18300) dinars / sheep.

As for the reserve materials, the cost amounted to (3424) dinars / sheep.

3.3. Local Resources (G) included:

Capital: The cost of social working capital has been calculated by adding the amount of the internationally established interest rate according to the indicators of the World Bank, considering that Iraq is one of the middle-income countries where the interest rate is (0.08) of the capital, the cost amounted to (6400) dinars / sheep. As for the fixed capital, the interest rate on it was (0.08), and the cost amounted to (430,000) dinars / sheep.

Destructions: The total cost amounted to (13,000) dinars / sheep.

Work: Due to the difficulty of transferring work working in the field of sheep breeding in the short term to other fields, the local price was adopted as the social price for the hour of work, which amounted to (1000) dinars / hour for permanent work, where the cost amounted to (17,000) dinars / sheep.

As for temporary work, the hourly price was estimated at (2000) dinars / hour, and the cost was about (5720) dinars / sheep.

Green fodder: Due to the difficulty of determining the prices of imported green fodder and the lack of trading in these fodders, the special price was adopted as a social price, amounting to about (6320) dinars/sheep.

Water and Electricity: Water and electricity are local resources, and because of the difficulty in determining their import values, the private price was adopted as a social price, as its total cost amounted to (2907) dinars / sheep.

Maintenance: Special prices were adopted as social prices, so the cost amounted to (1750) dinars/sheep.

Marketing: Special prices were adopted as social prices, so the cost amounted to (3500) dinars / sheep.

Social profits: The social price of sheep reached (468660) dinars / sheep, and by adding the sheep’s share of incidental revenues (the value of milk and its derivatives, sales of large heads and the change in the value of the herd), we get the social price of the sheep, as the value of the social return (E) amounted to (480660) dinars. / Sheep, and by subtracting the total costs of local resources (C) and the
total costs of traded inputs (B) from the total return (A), it was possible to determine the social profitability (H), as the social profitability reached (309287) dinars / sheep.

Table No. (4) the budget of the sheep prepared for sale at social prices (costs of production elements, return and profitability).

| Tradable Inputs | Production elements | Price per unit | Quantity of sheep production | Cost of the production element dinars / sheep |
|-----------------|---------------------|----------------|-------------------------------|---------------------------------------------|
| B               | First: the fuel     | 610 dinars     | 30 Llitars                   | 18300                                       |
|                 | Second: Concentrated feed | 408.8 dinars | 97                           | 39654                                       |
|                 | 1- barley           | 280 dinars     | 18                           | 5040                                        |
|                 | 2- bran             | 280 dinars     | 18                           | 5040                                        |
|                 | 3- dates            | 500 dinars     | 4                            | 2000                                        |
|                 | 4- hay              | 3424           |                               | 3424                                        |
|                 | Third: - Back-up materials | 6956 /100ml | 1 ml                         | 70                                           |
|                 | Fourth: Medications and Vaccines: | | | |
|                 | 1- ivermectin 1%    | 8000/100ml     | 0.5 ml                       | 40                                           |
|                 | 2- ivermectin 2%    | 6956/100ml     | 2 ml                         | 140                                          |
|                 | 3- Oxytetracycline 20% | 6956/100ml | 2 ml                         | 140                                          |
|                 | 4- tylosin          | 15000/L        | 30 ml                        | 450                                          |
|                 | 5- levemizole       | 12000/L        | 24 ml                        | 288                                          |
|                 | 6- Albendazole      | 15715 /100ml   | 1 ml                         | 250                                          |
|                 | 7- Enterotoxemia Vaccine | 12000/100ml | 12 ml                        | 120                                          |
|                 | 8- Smallpox Vaccine | 40000/100ml    | 0.5 ml                       | 200                                          |
|                 | 9- FMD Vaccine      | 15000/L        | 6.8 ml                       | 102                                          |
|                 | Total               |                |                              | 75457                                        |
| local input     | First: the capital  | 80000          | 8%                           | 6400                                         |
|                 | 2- Fixed Capital    | 430000         | %8                           | 34400                                       |
|                 | Secondly: - Excitations | 13000        |                               | 1300                                         |
|                 | Third: Work:        |                |                              |                                              |
|                 | 1- Permanent work   | 1000           | 17 hour                      | 17000                                       |
|                 | 2- Temporary work   | 2000           | 2.8 hour                     | 5720                                        |
|                 | Fourth: green fodder| 6320           |                               | 6956                                        |
|                 | Fifthly: - water and electricity | 2907 |                               | 4810                                        |
|                 | Sixth: maintenance  | 1750           |                               | 1390                                        |
|                 | Seventh: Marketing expenses | 5680 |                               | 6450                                        |
|                 | Eighth: Other expenses | 3500        |                               | 3500                                        |
|                 | Total cost of traded inputs |         |                              | 99626                                       |
|                 | Total costs Revenue |                |                              | 174583                                      |

Incidental Revenue
Big Head Sales
Selling milk and its derivatives

| Incidental Revenue | Type | number | price  | value |
|--------------------|------|--------|--------|-------|
|                    |      | 30     | 200000 | 14910 |

Incidental Revenue
Selling milk and its derivatives

| Incidental Revenue | Big Head Sales | Selling milk and its derivatives |
|--------------------|----------------|----------------------------------|
|                    |                | 30                               |
|                    |                | 200000                           |
|                    |                | 14910                            |
|                    |                | 7500                             |
It is noted from Table (4) that the social costs of traded inputs amounted to 754,583 dinars per sheep, while the value of the local resources needed for the sheep, valued at shadow prices, amounted to about 99,626 dinars per sheep. As for the revenues at social prices, it amounted to 468,660 dinars for the marketed sheep, in addition to its share of the incidental revenues, bringing the value of the total revenues of the marketed sheep to about 483,870 dinars. Thus, it can be said that in the case of adopting social prices, the sheep will have a social profit of about 309,287 dinars.

3.4 Discuss the results of the policy analysis matrix

After the costs and returns have been calculated and evaluated at private and social prices, on the basis of which a policy analysis matrix can be built, estimates are made for the elements of the matrix, and indicators of private profitability (D) and social profitability (H) can be extracted and transfers of both revenue (I), costs of traded inputs (J) and local resources (K) as well as net transfers (L). It is also possible to specify the modifications that occur to the elements of the matrix in the event of a specific policy proposal.

Table No (5) Policy analysis matrix for the production of one sheep in dinars in Anbar Governorate, Rutba District.

| Details          | Revenues   | Costs          | Profit  |
|------------------|------------|----------------|---------|
|                  |            | Tradable inputs | Domestic resources |         |
| Private price    | A          | B              | C        | D       |
|                  | 192000     | 66449          | 81377    | 44174   |
| Social price     | E          | F              | G        | H       |
|                  | 483870     | 75457          | 99626    | 309287  |
| Transfer         | I          | J              | K        | L       |
|                  | -291870    | -9008          | -18249   | -265113 |

Source: Prepared by the researcher based on the table (4).

When observing the results of the Policy Analysis Matrix (PAM) shown in Table (4), it turns out that the average revenue of the sheep produced in this category amounted to about 192,000 dinars / sheep, while its social value amounted to about 483,870 dinars / sheep. The costs of producing sheep at special prices amounted to about 66,449 dinars as costs for traded inputs, in addition to a cost of 81,377 dinars for local inputs or resources, i.e. at a cost of 147,826 dinars / sheep whose average weight in this category was 17.5 kg.

As for social prices, it was found that the production costs for one sheep in this category were about 17,083 dinars, representing the costs of traded inputs about 75,457 dinars / sheep, while the costs of local inputs needed to produce the sheep in this category, according to shadow prices, were about 99,626 dinars / sheep, and that profitability at social prices reached About 309,287 dinars per sheep.

As for social prices, it was found that the production costs for one sheep in this category were about 17,083 dinars, representing the costs of traded inputs about 75,457 dinars / sheep, while the costs of local inputs needed to produce the sheep in this category, according to shadow prices, were about 99,626 dinars / sheep, and that profitability at social prices reached About 309,287 dinars per sheep.

As these estimates indicated, through the transfers of each of the yield (A), traded inputs (B), and local resources (C), the transfers of return (I) were negative and their value was -291870 thousand dinars, which represents the difference between the return at special prices (A) and the return at social prices (E), which indicates that domestic producers receive lower returns if private prices are selling prices compared to social returns. While the transfers of traded inputs (J) appeared with a negative sign, amounting to about (-9008) thousand dinars, which indicates that the social prices of...
traded inputs (F) are greater than private prices (B), meaning that producers get these inputs at less than their social prices, which means that there is real support for traded inputs within the policy. The transfers of local resources (K) came with a negative sign, with a value of (-18249) thousand dinars, which indicates the existence of support for local resources because their value at social prices is higher than their value at special prices, while the result of special profitability (D), which amounted to about (44174) thousand dinars, that the production of sheep meat in Anbar province achieves special profits for local producers, which are less than the profits that could be achieved if social prices prevailed in the market, as the social profitability (H) had a positive value of (309287) thousand dinars, meaning that the product The local will make profits if the social prices are the selling prices, i.e. it can be said that there is an implicit tax on this product, and the net transfers (L) came with a negative sign, amounting to about (-265113) thousand dinars, which indicates that the impact of the overall policy adopted by the state It is not in the interest of local sheep meat producers in the short term, ie it has a negative impact on sheep breeders.

3.5. Measuring the impact of intervention policy (protection coefficients and comparative advantage):

Relying on the estimations of the policy analysis matrix shown in Table (5), it is possible to reach some indicators through which the effect of government intervention policy on prices can be measured, which include protection factors and comparative advantage, which are shown in Table (6), as follows:

Table No (6) Protection factors and comparative advantage of sheep production in Rutba district.

| Coefficients                        | Mathematical Formula | Value |
|------------------------------------|----------------------|-------|
| Nominal Protection Coefficient for Outputs | NPCO = \( \frac{A}{E} \) | 0.39  |
| Nominal Protection Coefficient for Inputs | NPCI = \( \frac{B}{F} \) | 0.88  |
| Effective Protection Coefficient | EPC = \( \frac{A - B}{E - F} \) | 0.30  |
| Profitability Coefficient         | PC = \( \frac{D}{E - F - G} \) | 0.14  |
| Producer Subsidy Ratio            | PSR = \( \frac{L}{E} \times 100 \) | -0.54 |
| Private Cost Ratio                | PCR = \( \frac{A - B}{E} \) | 0.64  |
| Domestic Resource Cost Coefficient | DRC = \( \frac{G}{E - F} \) | 24.0  |

Source: Prepared by the researcher based on the table (5).

First: the nominal protection factor of the outputs, NPCO

The nominal protection factor for outputs came with a positive value less than the correct one, which amounted to (0.39), which means that local producers receive lower prices for their products than international prices (social prices), meaning that the current policy represents an obstacle to the expansion of domestic production due to the restrictions imposed on the market Sheep, which made the locally produced sheep sold at about 39% of its social value in the Iraqi market.

Second: the nominal protection factor of the input NPCI

The nominal protection coefficient of traded inputs refers to the effect of the state’s intervention in the markets of traded resources used in the production of sheep, which appeared with a positive value less than the correct one, amounting to (0.88), which indicates that the prices of traded inputs are lower than the prices of their international counterparts, and this confirms On the existence of real support provided for these inputs from the state.
Third: Effective Protection Factor (EPC).

As for the effective coefficient of protection, it is a measure of the state’s total interventions in the sheep market, and it appeared with a positive value of (0.30), which is less than one. This means that local producers receive their returns in the event of the price intervention policy being less than the returns in the absence of it, meaning that the value the value added at private prices is less than the value added at social prices. And the effect of the interventionist policy according to the procedures currently adopted was the result that the breeder achieves profits at special prices less than the profits that he can achieve when prices prevail, and it can be said in general that the state’s intervention in the sheep production and marketing system was directed to the interest of the Iraqi consumer.

Fourth: Profitability coefficient, PC

The profitability coefficient represents the private profits attributed to the social profits in the commodity system. It came with a positive sign of (0.14). It indicates that sheep breeders receive profits representing 14% of the profits that they can achieve in the absence of state intervention in the sheep market in Iraq, and that the fact that the coefficient of profitability is less than the correct one means that the commodity system loses its profits in favor of other sectors due to the effect of the state's interventional policy in the system of that commodity.

Fifth: Producer Subsidy Ratio, PSR

The producer subsidy ratio can be interpreted in the light of the indication of this ratio and its value. If it is positive, it indicates that the commodity system obtains subsidy for producers. But if its value is negative, it indicates that the policy of abandonment leads to an implicit tax imposed on the system of production and marketing of that commodity. The product has a negative sign and a value of (-54%), meaning that there are disincentives and taxes facing the local product and the lack of real support for it.

Sixth: The percentage of special costs, PCR.

This criterion expresses an indicator of the level of ability of the local product to compete when its value is positive, while it indicates the inability of local breeders to compete in the market and that the percentage of private costs in both categories came with a value less than the correct one, as its value was (0.64), which indicates that the net added value (VA = AB) obtained at special prices exceeds the costs of the local resources used in production, i.e. investment in sheep breeding projects achieves remunerative private profits for local investors, meaning that this commodity system has the ability to compete, and this confirmed the positive profitability (D) which appeared with a positive signal.

Seventh: The cost of the local supplier, DRC.

It is an indicator of the relative advantage that the commodity system possesses. Whenever its value is less than one, it indicates that there is a comparative advantage in the country in the production of this commodity to the level of competitiveness in foreign markets [8]. This indicator is (0.24) also, which is less than one. This means that Al-Rutba district in Anbar governorate has a comparative advantage in sheep production and efficiency in the use of local resources and its shops, and that this production is socially profitable. Expansion and investment in this sector helps raise the level of national income in general and can play a role in balancing the trade balance or in reducing the level of deficit that occurs in it.

4. Conclusions:

The estimates showed through the transfers of each of the yield (A), traded inputs (B), and local resources (C), as the transfers of return (I) for the first and second categories were negative, which represents the difference between the return at private prices (A) and the return at social prices (E), This indicates that domestic producers receive lower returns if private prices are selling prices compared to social returns. The transfers of traded inputs showed (J) with a negative sign, which indicates that social prices of traded inputs (F) are greater than private prices (B), meaning that producers get these inputs at less than their social prices, which means that there is real support for traded inputs within the policy followed. The net transfers (L) came with a negative sign, which indicates that the effect of the overall policy adopted by the state is not in the interest of the local
sheep meat producers in the short term, ie it has a negative impact on the sheep breeders. Investment in sheep breeding projects provides foreign currencies for the benefit of the trade balance, based on the value of the local resource cost factor (comparative advantage factor), and on this basis we infer that Anbar Governorate enjoys a comparative advantage. There is a subsidy for traded inputs based on the value of the nominal protection factor for traded inputs, and this confirms the existence of real support for these inputs from the state. Investment in sheep breeding projects achieves special profits that are remunerative for investors and has a competitive ability at the local level, based on the value of the private costs ratio.

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