



## The impact of price policy on the production and marketing of Wheat in Nineveh governorate (Mosul and Telkaif district) as a model for the 2019-2020 agricultural season.

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### Abstract

The research aims to analyze the economic implications of the State's policy in the production and marketing of wheat crops in Nineveh governorate (Mosul and Telkaif judiciary) by comparing private and social prices by adopting the method of the policy analysis matrix and calculating the standards derived from there. The study results showed that the protection measures showed that there was government support and subsidization for producers of this crop. This is apparent when examining the nominal protection coefficient figures for output per dunum (1.327, 1.322, 1.370 and 1.310) for each of the three categories and the entire sample, respectively. Nominal input protection coefficient values were per dunum (0.486, 0.436, 0.487 and 0.474) for each of the three categories and the entire sample, respectively. The comparative advantage indicators showed that the crop in Nineveh governorate (Mosul and Telkaif judiciary) had a comparative advantage and global competitiveness to produce, The value of the special cost ratio per dunum (0.284, 0.318, 0.319 and 0.316) for each of the three categories and the entire sample respectively. The study recommends increasing government support for crops that have a comparative advantage in their production and are globally competitive to achieve self-sufficiency and then reach the export stage.

**Keywords:** price policy, policy analysis matrix, comparative advantage.

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## **Introduction**

Like other economic activities, agricultural production is affected positively and negatively by various economic policies related to production and marketing. Perhaps the most prominent of these policies pursued by the State are price and marketing agricultural policies and agricultural support policies, among the most essential tools for achieving sustainable development in the agricultural sector.

Iraq's price support policy in its various forms has led to a marked increase in agricultural production and thus increased net incomes of agricultural producers; this has prompted producers to improve their production patterns in quantitative and qualitative terms and the incentive of wheat crops with broad government interest in production and marketing. The state subsidised production inputs by subsidizing the prices of seeds, fertilizers, pesticides, machinery, pumps and agricultural machinery and supporting production outputs by purchasing wheat crops from producers above global prices [1].

Found [2] government support for wheat, corn and rice production supplies. Producers earn lower domestic prices than their world prices for the outputs of these crops. In a study [1] to measure the comparative advantage and competitiveness of wheat production in Iraq in 2012 using the policy analysis matrix, Iraq's wheat crop production system is internationally competitive and Iraq has a comparative advantage in its production of all categories and total sample. In research [3] that focuses on the policy analysis matrix for several key grain crops in Iraq, a subsidy was found for production supplies for the rice research crop and synthetic yellow corn Baghdad 3 for 2012 through government support for production supplies. These two crops enjoy the comparative advantage of their production in Iraq.

Found [4] that the country supported the production of wheat and rice from 2003-2016.

There is an efficient production of crops locally. Iraq exhibits a comparative edge in the cultivation of both of these crops. In their search for comparative advantage and market distortions using the policy analysis matrix for the production of wheat in Iraq in 2017. they found [5] that there was a subsidy for production supplies through the Government's equipping producers with production supplies at a low price and supporting production by purchasing the crop from producers at a higher price than the world price.

The [6] published a study to assess the agricultural policy of Egypt's most important crops, wheat, maize and rice, for the period 2000-2017, which shows that the State bears the burden of supporting the production requirements of these crops and that the prices of these crops paid by producers are lower than their prices globally. In a study [7] of the Egyptian cotton crop during the period 2000-2018, the lack of support for production supplies and producers was charging a local price lower than the global price and comparative advantage for the production of this crop locally. According to [8] the 2015 soybean crop production supplies are subsidized. However, by a small proportion there is no support for the crop output to lower the domestic price than the global price and no competitive advantages for the crop in Indonesia. While the study [9] to assess relative advantage and competitiveness through the policy analysis matrix in Urmia explained The region possesses a relative advantage in wheat production, and sunflower, and all crops in the region have competitiveness.

The objective of the research is to measure the impact of the Iraqi Government's agricultural price policy on the production and marketing of wheat crops to reach results that benefit price policymakers and decision-makers in developing strategies for increasing crop production, self-sufficiency, export access and global competition through analysis of the

agricultural policy matrix (PAM) assess private and social profitability and find indicators of comparative advantage and competitiveness. . The problem with research is to know the impact of price policy on the production and marketing of wheat crops because its application leads to distortions in the market due to subsidization of production supplies and support for crop outputs. Here, policymakers need to know the extent to which market prices deviate from economic prices and know the reasons for shortcomings and help decision makers come up with economic processing methods to reduce distortion and increase production efficiency. The importance of research comes from the fact that the wheat crop is an essential source of agricultural income, one of the world's most important food crops, which is essential in domestic and global markets, as well as growing demand for it due to growing population, and the fact that some countries that possess a comparative advantage and are competitive in producing it as a political and economic weapon.

**Materials and Methods**

The research was based on data collected through a questionnaire distributed to a group of farmers for Iraq's wheat crop in Nineveh governorate (Mosul and Telkaif judiciary), which amounted to (181) random samples for the 2019 - 2020 agricultural season, divided into three cadastral categories comprising the first category (77) Farm with less than (100)

dunums, category II (79) farm and space (101 - 1000) Dunum, category III (25) Farm and with more than (1000) dunums. The Agricultural Policy Analysis Matrix (PAM) calculates profitability, which is the difference between revenue and costs. The second is to measure the effects of distorted policies and market failures and set out criteria for government policy interventions and their impact on the commodity system [10]. The matrix was designed based on the following equation: Profit = Revenue – Cost [11]. The equation can be expressed mathematically as follows: Profit = e(P<sub>q</sub>)Q - e (P<sub>t</sub>)It – (P<sub>n</sub>)In - X

As e represents the exchange rate,(P<sub>q</sub>) the output rate,(P<sub>t</sub>) price of traded inputs,(P<sub>n</sub>) price of non-trafficked inputs of local resources, (Q) Production quantity, (It) quantity of inputs trafficked, In quantity of inputs not trafficked with local resources s environment,(X) costs the impact of certain indirect external factors such as lack of information, risk, production methods and inputs that cause environmental degradation [10]. The values of variables in the equation are expressed at the market or private prices (Private Prices) first at social or (Social Prices) Second, the discrepancy in prices signifies the influence of the government's pricing policy. and the market failure that represents remittances (Transfers) [11]. The matrix is composed of three rows and four columns. as shown in table (1).

Table (1) Policy Analysis Matrix Structure.

	Revenue	Costs		Profits
		Tradable Inputs	Domestic Resources	
Private Price	A	B	C	D
Social Price	E	F	G	H
Transfers	I	J	K	L

Source: [11]

The rows of the first matrix consist of the first row, which represents the special prices of both gross return (A), the cost of traded inputs

(B), the cost of non-trafficked domestic resources (C), and extraordinary profits (D), as (D = A-B-C). The second row represents the social prices of both gross return (E), the cost of

traded inputs (F), the cost of non-trafficked resources (G) and total social price profits (H), as  $(H = E-F-G)$ . The third row symbolizes changes or their effects of government policies on both gross revenue (I), traded inputs (J), local resources (K), net profits (L), and (L) represents net transfers and policy effects  $(L = D-H)$ , the difference between private and social price profits. The four columns of the first column (I) represent the difference between the value of the output at the extraordinary and social rates since  $(I = A-E)$  and the second

column (J) are the result pertaining to the difference in net inputs traded in the specific scenario and social prices since  $(J = B-F)$ , The third column (K) represents the net remittances of local resources not traded at private and social rates as  $(K = C-G)$  and, finally, the fourth column (L) which shows the impact of government intervention policy or net transfers as  $(L = H-D)$  [1]. The policy matrix can be used to calculate some transactions in measuring a policy's impact on prices as in Table (2):

Table (2) Some transactions these tools allow us to gauge the influence of interventionist policies on resource efficiency.

ID	Parameter name	Statement	the law	value limits
1*	Nominal Protection Factor for Production (Output) NPCO	This coefficient measures the extent to which local prices deviate from their social counterparts.	$NPCO = \frac{A}{E}$	$NPCO > 1$ product receives support. $NPCO < 1$ Product incurs taxes. $NPCO = 1$ indicates a neutral and fair policy.
2*	Nominal Protection Coefficient for Output Input (Input) NPCI	Measures the impact of price policy on production requirements	$NPCI = \frac{B}{F}$	$NPCI > 1$ production accessories bear taxes. $NPCI < 1$ production accessories receive support.
3*	Effective Protection Coefficient EPC	Measures the level of protection of the commodity system	$EPC = \frac{A-B}{E-F}$	$EPC > 1$ Having support and protection for producers. $EPC < 1$ There are taxes on producers.
4*	Social profitability Coefficient PC	Measures intervention policy on profits from the commodity's intervention policy system	$PC = \frac{D}{H}$	$PC > 1$ Commodity System benefits from the intervention policy for greater profits. $PC < 1$ Commodity System loses profits to other sectors of the economy.
5*	- Product subsidy ratio PSR	It indicates the reflection of distortions in the policy of intervention and market failure	$PSR = \frac{L}{E} * 100$	$PSR > 1$ commodity system has competitiveness. $PSR < 1$ The commodity system is taxed in favor of consumer support.
6*	special cost ratio PCR	Indicates the yield that enables the farmer to continue to produce	$PCR = \frac{C}{A-B}$	$PCR > 1$ loss for product. $PCR < 1$ product makes profits.
7*	Local supplier cost factor (comparative advantage) DRC	Measuring the efficiency of domestic production in the global market	$DRC = \frac{G}{E-F}$	$DCR > 1$ There is no comparative advantage in producing this crop locally. $DCR < 1$ has a comparative advantage in local crop production. $DCR = 1$ reach tie point.

Source: 1\*[2], 2\* [12], 3\*, 5\* and 7\* [3], 4\* [10], 6\* [13].

## Results and Discussion

### First Grade Calculation (Special Prices):

The first row items are calculated at market prices or actual prices at the farm door, which are traded inputs, non-traded inputs (local

resources) and returns and profits as shown in Table (3), The total cost of traded inputs, including seeds, composted fertilizer, urea fertilizer, pesticides and fuel per dunum for the three categories and total sample, was

approximately (45.787, 44.982, 55.857 and 52.859) dinars/dunum, respectively. The total costs of non-trafficked inputs (local resources), consisting of land, capital, human labour, mechanical work, mechanical harvesting, repair cost, sustainability of machinery and equipment, marketing and administrative costs, mechanical cleaning of the sum of the three denominators and total sample, are estimated at (121.442, 140.131, 144.931 and 141.968) dinars/dunum, respectively. The land rental allowance was calculated as alternative opportunity costs for the farms of the study area, and the opportunity costs of capital by taking the interest rate of the capital 10% by agricultural banks. The state price per ton of wheat crop for the first, second and third grade was (560,000, 480,000, 420,000) dinars/tons, respectively. The average price per ton for the

wheat crop sold to the state was 487,000 dinars/ton, while the total return per ton for each of the three categories and the entire sample was (534.984, 528.561, 545,000 and 540.968) dinars/ton, respectively. The revenue per ton of wheat is equal to the sale price of one ton of wheat. In the case of calculation of the income of one dunum, the revenue for the sale of wheat beans includes (main production) plus the value of hay and straw field residue (secondary production) and extraordinary profitability was estimated by subtracting the total costs of traded inputs and the costs of non-trafficked inputs (local resources) from the total return calculated at market price (private prices). This was the highest extraordinary profitability per dunum in the third category and per ton in the first category.

Table (3) Special production costs, revenue and profitability of the crop for the three categories of wheat producers in Mosul and Telkaif district for the 2019-2020 agricultural season

Statement	Production element	First category		Second category		Third category		Second Third	
		The cost of the production component (dinar/dunam )	The cost of the production component (dinar/ton)	The cost of the production component (dinar/dunam )	The cost of the production component (dinar/ton)	The cost of the production component (dinar/dunam )	The cost of the production component (dinar/ton)	The cost of the production component (dinar/dunam )	The cost of the production component (dinar/ton)
Inputs traded (B)	Seeds (Kg)	10.120	12.537	9.777	11.653	9.279	10.311	9.516	10.811
	Compound fertilizer (Kg)	16.290	20.180	18.218	21.713	24.392	27.102	22.478	25.538
	Urea fertilizer (Kg)	9.887	12.248	8.957	10.676	9.272	10.303	9.248	10.506
	Pesticides (Liter)	2.036	2.556	1.927	2.297	2.236	2.485	2.157	2.451
	Fuel (Liter)	7.454	9.234	6.103	7.274	10.678	11.864	9.458	10.745
Total inputs stores		45.787	56.755	44.982	53.613	55.857	62.065	52.857	60.051
Entries are not traded (C)	The earth	14.704	18.215	15.972	19.036	16.106	17.895	15.977	18.152
	Capital share	15.617	19.345	17.548	20.915	17.266	19.185	17.210	19.552
	Human Labor (hour)	12.000	14.865	13.500	16.090	12.749	14.166	12.859	14.609
	Mechanical Work (hour)	17.759	22.000	18.750	22.347	20.924	23.250	20.104	22.841
	Mechanical harvesting (hour)	20.266	25.105	22.631	26.973	20.751	23.056	21.123	23.999
	Maintenance and repair	5.413	6.705	9.163	10.921	14.111	16.325	12.420	14.111
	Marketing and administrative costs	18.307	22.679	23.934	28.526	25.457	28.286	24.619	27.970
Mechanical cleaning (hour)	17.376	21.648	18.633	21.464	17.567	19.518	17.656	20.059	
Total non- traded entries		121.442	150.562	140.131	166.272	144.931	161.681	141.968	161.293
Total costs of input traded & non-traded		167.229	207.317	185.113	219.890	200.788	223.746	194.825	221.344
Return (A)		471.871	534.984	483.541	528.561	510.031	545.000	501.579	540.968
Private profitability (D)		304.642	327.667	298.428	308.761	309.243	321.254	306.754	319.624

Source: Calculated from the hands of the two researchers based on the questionnaire, the General Company for Grain Trade, and the General Company for Agricultural Supplies

### Second Grade Calculation (Social Prices):

In the process of building the policy matrix, social prices prevailing in society are used by adjusting the global prices of traded inputs and taking the export price of F.O.B and the import price of C.I.F for them, we get social prices or shadow prices. Border prices that are close to social prices are used to determine the shadow prices of traded inputs and table (4) shows how global prices of wheat crops are converted to the social equity value of import at the farm door. The global wheat price for 2020, representing the F.O.B export price recorded in the Central Bank's bulletins, was used (270) \$/ton. It was converted to the import rate of the country C.I.F after adding the cost of transportation and insurance to the borders of

the country and then multiplied through the equilibrium exchange rate between the Iraqi dinar and the United States dollar based on Central Bank data which reached approximately 2020 (1190) Iraqi dinar/dollar [14] and here we get the import price. After the cost of transportation, Loading and unloading at the port are included, the main stores and silos are calculated, and the equal value of the import of wheat tons is calculated. The social price per ton of wheat at the farm gate is calculated after factoring in transportation costs from the farm to the main storage facilities and silos, which represents the social return per dunum (E) amounted to (355.355, 365.663, 369.878 and 382.638) dinars/dunum for category I, II and III and total sample respectively.

Table (4) Conversion of World Wheat Crop Prices to Equal Social Import Value at Farm Gate for Agricultural Season 2019-2020

Statement	First Category	Second Category	Third Category	Total sample
Export price per ton of global Wheat FOB in dollars (dollars.ton <sup>-1</sup> )	270	270	270	270
the cost of transportation and insurance up to the borders of the country (port) in dollars (dollars.ton <sup>-1</sup> )	40	40	40	40
The import price of the country in dollars (dollars.ton <sup>-1</sup> )	310	310	310	310
Balance exchange rate (dinar.dollar <sup>-1</sup> )	1190	1190	1190	1190
The import price for the country in Iraqi dinars (thousand.tons <sup>-1</sup> )	368.900	368.900	368.900	368.900
The cost of transport, loading and unloading from the port to the main warehouses in Iraqi dinars (thousand dinars.ton <sup>-1</sup> )	40000	40000	40000	40000
Equal value of import (thousand dinars.ton <sup>-1</sup> )	408.900	408.900	408.900	408.900
Transport costs from the farm gate to the main stores (thousand dinars.ton <sup>-1</sup> )	18.250	20.756	19.870	19.625
The social price per ton of Wheat at the door of the farm (thousand dinars.ton <sup>-1</sup> )	390.650	388.144	389.030	389.275

Source: [14], [15], and study sample data.

Table (5) shows the matrix results for producing one dunum and one ton of wheat at the social prices of wheat producers in Nineveh province for the productive season (2020). The overall expense of traded inputs (F) at social prices per dunum was about (94.186, 103.250, 114.623 and 111.361) dinars/dunum for each of

the three categories and the entire sample, ranked by cost.

Table (5) Production Costs at Social Prices, Revenue and Profitability of the Crop for the Three Wheat Producers Categories in Mosul and Telkaif district for the 2019-2020 Agricultural Season

Statement	Production element	First category		Second category		Third category		The cost of the production component (dinar/dunam)	The cost of the production component (dinar/ton)
		The cost of the production component (dinar/dunam)	The cost of the production component (dinar/ton)	The cost of the production component (dinar/dunam)	The cost of the production component (dinar/ton)	The cost of the production component (dinar/dunam)	The cost of the production component (dinar/ton)		
Inputs traded (F)	Seeds (Kg)	16.080	18.497	15.239	16.271	15.239	16.271	15.125	16.420
	Compound fertilizer (Kg)	39.300	43.190	41.228	44.723	47.402	50.112	45.488	48.548
	Urea fertilizer (Kg)	22.449	24.774	21.483	23.202	21.798	22.829	21.774	23.337
	Pesticides (Liter)	11.583	12.076	11.447	11.817	11.756	12.005	11.766	11.971
	Fuel (Liter)	15.204	16.984	13.853	15.024	18.428	19.614	17.208	18.495
Total inputs stores		104.616	115.521	103.250	111.037	114.623	120.831	111.361	118.771
Entries are not traded (G)	The earth	24.704	29.215	25.972	29.036	26.606	28.895	25.977	29.152
	Capital share	22.572	25.775	23.521	26.639	28.279	27.368	24.611	27.171
	Human Labor (hour)	12.000	14.865	13.500	16.090	12.749	14.166	12.859	14.609
	Mechanical Work (hour)	17.759	22.000	18.750	22.347	20.924	23.250	20.104	22.841
	Mechanical harvesting (hour)	20.266	25.105	22.631	26.973	20.751	23.056	21.123	23.999
	Maintenance and repair	5.413	6.705	9.163	10.921	14.111	16.325	12.420	14.111
	Marketing and administrative costs	18.307	22.679	23.934	28.526	25.457	28.286	24.619	27.970
Mechanical cleaning (hour)	17.376	21.648	18.633	21.464	17.567	19.518	17.656	20.059	
Total non- traded entries		138.498	167.992	155.481	181.996	166.444	180.859	159.369	179.912
Total costs of input traded & non-traded		243.114	283.513	258.731	293.033	281.067	301.690	270.733	298.683
Return (E)		355.355	390.650	365.663	388.144	369.878	389.275	382.638	389.275
Private profitability (H)		112.241	107.137	106.932	95.111	88.811	87.585	111.905	90.592

Source: Calculated by researchers based on the questionnaire and Table 4.



Profitability at social prices (H) per dunum was about (112.241, 106.932, 88.811 and 111.905) dinars/dunum for the three total categories. The matrix results indicate that the wheat crop is earning special profits (D) positive and social profits (H) positive. In contrast, the extraordinary profits earned per dunum for three categories and the entire sample are much higher than social profits. This indicates the government support received by wheat producers in Nineveh governorate.

Research results of the Policy Analysis Matrix (PAM): Tables (6) and (7) show the results of the Policy Analysis Matrix (PAM) of Iraq's wheat crop in Nineveh Governorate for the

production season 2020, based on Tables (3) and (5) show that the yield transfers (I) were positive for the three categories and the total sample was (116.516, 117.878, 140.153 and 118.941) dinars/dunum, respectively.

This indicates significant state support for the production of wheat crop for the production season 2020 due to the government's policy of intervention by purchasing the crop from producers at high prices and the failure of the market as a result of high costs of trafficked (C) and non-trafficked (local) (G) inputs at social prices for the costs of trafficked and non-trafficked (local) inputs at private prices.

Table (6) Results of the Policy Analysis Matrix for One Dunum Wheat Crop in Mosul and Telkaif district in Nineveh Governorate for the 2019-2020 Agricultural Season.

Possession class	Statement	Revenues	Costs		Profits
			Tradable Inputs	Domestic Resources	
First Category	Private Prices	471.871(A)	45.817(B)	121.546(C)	304.508(D)
	Social Prices	355.355(E)	94.186(F)	138.498(G)	122.671(H)
	Transfers	116.516 (I)	-48.369(J)	-16.952(K)	181.837(L)
Second Category	Private Prices	483.541(A)	45.303(B)	139.508(C)	298.730(D)
	Social Prices	365.663(E)	103.250(F)	155.481(G)	106.932(H)
	Transfers	117.878 (I)	-57.947(J)	-15.973(K)	191.798(L)
Third Category	Private Prices	510.031(A)	55.860(B)	144.934(C)	309.237(D)
	Social Prices	369.878(E)	114.623(F)	166.444(G)	88.811(H)
	Transfers	140.153 (I)	-58.763(J)	-21.510(K)	220.426(L)
Total sample	Private Prices	501.579(A)	52.859(B)	141.972(C)	306.748(D)
	Social Prices	382.638(E)	111.361(F)	159.369(G)	111.905(H)
	Transfers	118.941 (I)	-58.502(J)	-17.397(K)	194.843(L)

Source: Prepared by researchers based on tables (3) and (5).

For transfers of traded inputs (J), both dunum and ton have negative and converging values. This suggests that the cost of inputs exchanged at local prices is lower than those exchanged at social prices, confirming a real subsidy for these inputs from the Government. Transfers of non-traded inputs (local resources)

(K) resulted in negative values for the three categories and the entire sample and came per dunum (-16.952, -15.973, -21.510 and -17.397) dinars/dunum, respectively, indicating a subsidy for non-traded inputs (local resources) by the State.

Table (7) Results of the policy analysis matrix per ton of wheat crop in Mosul and Telkaif district in Nineveh governorate for the 2019-2020 agricultural season.

Possession class	Statement	Revenues	Costs		Profits
			Tradable Inputs	Domestic Resources	
First Category	Private Prices	534.984 (A)	56.756 (B)	150.576 (C)	327.652 (D)
	Social Prices	390.650 (E)	115.521 (F)	167.992 (G)	107.137 (H)
	Transfers	144.334 (I)	-58.765 (J)	-17.416 (K)	220.515 (L)
Second Category	Private Prices	528.561 (A)	53.993(B)	166.272(C)	308.295(D)
	Social Prices	388.144 (E)	111.037(F)	181.996(G)	95.111(H)
	Transfers	140.417 (I)	-57.044 (J)	-15.724(K)	213.184(L)
Third Category	Private Prices	545.000 (A)	62.076 (B)	161.038(C)	321.894(D)
	Social Prices	389.275(E)	120.831(F)	180.859(G)	87.585(H)
	Transfers	155.725 (I)	-58.755 (J)	-19.821(K)	234.309(L)
Total sample	Private Prices	540.968 (A)	60.053 (B)	161.299(C)	319.618(D)
	Social Prices	389.275(E)	118.771(F)	179.912(G)	90.592(H)
	Transfers	151.693 (I)	-58.718(J)	-18.613 (K)	229.026(L)

Source: Prepared by researchers based on tables (3) and (5).

Net transfers (L) per ton were (220.515, 213.184, 234.309, 229.026) dinars/ton for the three categories and the entire sample according to the order. This indicates that the state's total interventionist policies and market practices favoured the wheat crop producers for the production season 2020.

Measuring the impact of the intervention policy:

After Computing the components of the matrix (PAM), we can now measure the impact of the government's price intervention assessing the policy by estimating various economic indicators, including transactions related to comparative advantage [3]. table (8) and (9) show these transactions:

Table (8) Protection Transactions and Comparative Advantages of Wheat Crop with Dunum in Mosul and Telkaif district in Nineveh Governorate for the 2019 - 2020 Agricultural Season

Transactions	Mathematical formulas	Absolute value of the first category	Absolute value of The second category	The absolute value of the third Category	The absolute value of the Total sample	Notes
Nominal protection coefficient of output	$NPCO = \frac{A}{E}$	1.327	1.322	1.378	1.307	Policy achieves support and protection for producers, and the farmer benefits from subsidizing the price of the product to the crop.
Nominal protection coefficient of input	$NPCI = \frac{B}{F}$	0.437	0.435	0.487	0.474	There is a real subsidy through the government's price policy, which supports and protects producers.
Effective protection coefficient	$EPC = \frac{A-B}{E-F}$	1.699	1.670	1.779	1.654	The government supports producers of wheat crops.
Coefficient of social profitability	$PC = \frac{D}{H}$	2.714	2.791	3.482	2.741	The commodity system benefits from the policy of government support to achieve special profits greater than social profits.
Product subsidy rate	$PSR = \frac{L}{E} * 100$	54.143%	52.452%	59.594%	50.922%	There is a government subsidy and no indirect taxes on wheat crop producers, i.e. the government intervention policy favoured crop producers.
Special cost ratio	$PCR = \frac{C}{A-B}$	0.284	0.318	0.319	0.316	Crop production can compete.
Domestic resource cost factor	$DRC = \frac{C}{E-F}$	0.552	0.592	0.652	0.587	The judiciary of Mosul and Tekev in Nineveh governorate has a comparative advantage in the wheat crop production and can compete globally.

Source: Prepared by researchers based on tables (6) and (7).

Table (9) Protection Transactions and Comparative Advantages of Wheat Crop Per Ton in Mosul and Telkaif district in Nineveh Governorate for the 2019 - 2020 Agricultural Season

Transactions	Mathematical formulas	Absolute value of the first category	Absolute value of the second category	The absolute value of the third Category	The absolute value of the Total sample
Nominal protection coefficient of output	$NPCO = \frac{A}{E}$	1.343	1.361	1.400	1.389
Nominal protection coefficient of input	$NPCI = \frac{B}{F}$	0.491	0.482	0.513	0.505
Effective protection coefficient	$EPC = \frac{A-B}{E-F}$	1.738	1.713	1.801	1.777
Coefficient of social profitability	$PC = \frac{D}{H}$	3.085	3.246	3.667	3.528
Product subsidy rate	$PSR = \frac{L}{E} * 100$	56.449%	55.038%	60.797%	58.835%
Special cost ratio	$PCR = \frac{C}{A-B}$	0.314	0.350	0.334	0.335
Domestic resource cost factor	$DRC = \frac{C}{E-F}$	0.610	0.656	0.673	0.665

Source: Prepared by researchers based on tables (6) and (7).

From the outputs above, we conclude that there is government support for the producers of the wheat crop in Iraq for the fact that the return and profit of dunums and tons at special prices is greater than the return and profit of dunum and tons at social prices. and costs per dunum and ton at special prices are less than costs per dunum and ton at social prices, Agricultural price policy protects producers in terms of subsidizing production prices and subsidizing production input prices, and the absence of indirect taxes on producers. The judiciary of Mosul and Telkaif in Nineveh governorate has a comparative advantage in crop production and is globally competitive because of the efficient use of domestic resources in crop production and the low opportunity costs of resources. The unique relative cost coefficient values indicate that the local investor's profits are achieved.

Based on the study's findings, we recommend that the State import more supplies sufficient for farmers and the timing required to make greater use of the State's support policy. This supports for crops that the country has a comparative advantage in production and is globally competitive to achieve self-sufficiency and then reach the export stage. The introduction of modern production methods that reduce costs and increase profits, including the introduction of improved seed and high-productivity items that are resistant to weather conditions and injuries, the restoration of agricultural land and the encouragement of farmers to increase the area cultivated with wheat crops, thereby improving wheat food security.

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## أثر السياسة السعرية في إنتاج وتسويق محصول القمح في محافظة نينوى

### (قضائي الموصل وتلكيف) أنموذجاً للموسم الزراعي 2019 – 2020

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#### الملخص

يهدف البحث الى تحليل الاثار الاقتصادية المترتبة على سياسات التدخل الحكومي في انتاج وتسويق محصول القمح في محافظة نينوى (قضائي الموصل وتلكيف) من خلال المقارنة بين الاسعار الخاصة والاجتماعية باعتماد اسلوب مصفوفة تحليل السياسة وحساب المعايير المشتقة منها، واطهرت نتائج الدراسة الى ان مقاييس الحماية اوضحت وجود دعم حكومي واعانة للمنتجين لهذا المحصول وهذا واضح من قيم معامل الحماية الاسمي للمخرجات اذ بلغت للدونم الواحد (1.307، 1.378، 1.322، 1.327) للفئات الثلاثة واجمالي العينة على الترتيب، اما قيم معامل الحماية الاسمي للمدخلات بلغت للدونم الواحد (0.435، 0.437، 0.487، 0.474) للفئات الثلاثة واجمالي العينة على الترتيب، ووضحت مؤشرات الميزة النسبية الى تمتع المحصول في محافظة نينوى (قضائي الموصل وتلكيف) بميزة نسبية وقدرة تنافسية عالمية لانتاجه، اذ بلغت قيم نسبة التكاليف الخاصة للدونم الواحد (0.284، 0.318، 0.319، 0.316) للفئات الثلاثة واجمالي العينة على الترتيب. توصي الدراسة بزيادة الدعم الحكومي المقدم للمحاصيل التي يتمتع البلد بميزة نسبية في انتاجها وله القدرة على المنافسة عالمياً، من اجل تحقيق الاكتفاء الذاتي ثم الوصول الى مرحلة التصدير.

**الكلمات المفتاحية:** السياسة السعرية، مصفوفة تحليل السياسة، ميزة نسبية.