# Competitive Performance of the Olive Oil in Tunisia

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**Abstract**— This article presents an application of the method of the Matrices of Analysis Policies (MAP) for the estimate of the total competitiveness of the olive oil. Calculated on the basis of relative data in campaigns (2006-2014), the coefficient of the CRI is lower than the unit what indicates than the country to a comparative advantage in the production of the olive oil and consequently its production should be encouraged.

Keywords—Export produce, Tunisia, domestic resources costs, competitive performance.

### I. INTRODUCTION

The economic world knew a new current which aims to economic opening and the elimination of the barriers which constitute an obstacle with the economic free trade such as the customs rates which are opposed to the commercial exchanges and the regulations which are opposed to the technology transfers. This current was materialized by the concept of universalization which put forward the requirements of the lifting of the barriers under indicated and by supporting the economic free trade there and constitutes a rupture with protectionism.

In this new context, the Tunisian agricultural economics characterized by the protectionism of the State passed to the opening of the markets and the liberalization of the exchanges through an agricultural program of adjustment structural which primarily consists in reducing the subsidies to the inputs and a recourse more and more to the play of the offer and request for the fixing of the prices of the agricultural produce.

To promote the competitive performances of its exported agricultural produce the Tunisian government took measures allowing controlling the production costs thus reinforcing competitiveness on the internal market and that external. But while reinforcing the competitiveness of the agricultural produce one risk to weaken it by the overexploitation of the factors of production such as the consumption of the water of irrigation and the overexploitation of the arable land.

Tunisia as the majority of the countries in the process of development is confronted with the paradox: protected its local resources having undergone a rupture from balances between the equipments and the needs on the one hand and the improvement for the competitiveness of its agricultural produce dictated by savage competition in a world context on the other hand.

Tunisia with limited natural resources adopted policies which aim at a good use of factors of agricultural production such as water and ensures a good management of the local resources thus, namely the invoicing policies of tariffing of the water of irrigation in order to minimize to see removing the subsidy of this factor of production.

These measurements resulted in increases in the production costs of the principal exported agricultural produce. Downward trends of the performances competitivenesses of these products could be interpreted like the direct consequences of the increases observed in production costs.

This paper seeks to consider the competitiveness total of the die olive oil by the means of the tool for analysis of the policies. For this purpose, it will be proceeded, in a first stage, with the development of a methodological step appropriate with the problem arising and, in a second phase, to the application of this step to Tunisian data.

#### II. MATERIAL AND METHOD

## 2.1 Definitions of the concept competitiveness

The examination of the literature treating the concept of competitiveness reveals the absence of a single definition of the term. As, it appears as competitiveness changes with the level of the carried out analysis, the analyzed good and finally the objective of the analysis. Several definitions were proposed by different authors:

To seek to explain competitiveness at the national level is incorrect. What one must include/understand, they are the determinants of the productivity and the growth rate of the productivity. To find solutions, one should focus, not on the whole of the economy, but rather on specific industries or of the segments of industry " (To carry, 1990).

"A competitive industry is that which has the capacity to gain a profit and to maintain a market share domestic and/or international" (Canada Agriculture, 1991).

The advisory group on competitiveness defines competitiveness do not have like an increase in profit and improvement of the market share, it defines it also way qualitative. Competitiveness is seen in the daily life of the people, their work conditions and their standards of living as well as the employment growth.

According to yues crozet (2003) competitiveness is at the same time obviousness and a requirement. It is obviousness on a microeconomic scale. With this intention the firms adopt economic policies to ensure the competitiveness of their products. On a macroeconomic scale competitiveness is a requirement insofar as the country or the area offers same opportunities to the firms.

On the level macroeconomics one can classify the nations according to their level of competitiveness. According to J. schumpter the competitiveness of the firm does not lie only in the prices, it is necessary to take account of the quality of the product, its specialization and its capacity to answer a new need.

According to carrying (1993) the only relevant evidence of competitiveness on the scale macroeconomics is that of the total productivity of the factors.

In spite of this diversity of the definitions, it is necessary to note the two following common aspects:

- i. competitiveness is a relative concept which changes with the level of adopted analysis
- ii. Competitiveness is not a static concept and is closely related to the economic conditions of the country as well as the conditions of the international market.

# 2.2 Measure comparative advantage

The measurement of the competitiveness of the olive oil was made using technique MAP or matrix of analysis of the policies. It is about a technique developed by Monke and Pearson with the courses of the Eighties with an aim of analyzing the structure of the transfers at the macro-economic level and of highlighting the degree according to which these transfers encourage the various intervening actors on the level of a given economy. It also makes it possible to reveal the structure of the competitiveness of a die, segment of die or together of dies.

Technique MAP is based primarily on two countable identities: first rests on the fact that the profit is equal to the difference between products and costs, to evaluate either at the economic prices or at the financial prices, the second consists in measuring the difference between the actual values and the computed values and to deduce from them the differences between the reduced prices and the private prices.

The private prices (financial prices) are the real prices or the observable prices which confront the private agents. The reduced prices (economic prices) also called standard price, are the prices which correspond to a pure competition without failures of market, interventions and distortions.

The whole of information which intervenes in calculations is summarized in table 1

TABLE 1
STAMP OF ANALYSIS OF POLICIES MATRIX (MAP)

indicators	income	Cost of the exchangeable factors	Cost of the domestic factors	Profit
Financial Price	A	В	С	D
<b>Economic price</b>	Е	F	G	Н
Transfert	I	J	K	L

Source: Monke, E. A. et Pearson, S.R (1989)

The comparative advantage and the effects of the economic policies can be measured by the two following indicators: the effective coefficient of protection and the interior cost in resource.

The coefficient of effective protection (CPE): this coefficient compares the value added of the exchangeable goods to the financial prices and the value added that this activity in a situation of free trade would have. It is calculated as follows: CPE = (A-B)/(E-F).

If the CPE is higher than the unit the national producers are incited to produce more since the financial added-value is higher than what it would have in situation of free trade. If the CPE is lower than the unit produces it is taxed and the national producers are incited to produce.

The interior cost in resource (CRI): this coefficient measures the cost of a unit of currency produces by an activity in terms of resources interior.

It is calculated as follows CRI: G/(E-F). If the CRY is lower than the unit the value of the interior resources used in the production of a unit of the product is lower than the added-value gained in the activity. This indicates that the country has a comparative advantage in the activity.

The CRY can be compared with the CPE. This comparison would make it possible to see which the activities for which the country has are a comparative advantage and who are favored by the system of intervention of the State.

#### III. RESULT AND DISCUSSION

To build the MAP of the olive oil several assumptions were formulated:

- Assumption 1: the point of reference for the development of the MAP is the firm level
- Assumption 2: calculations all are brought back to the unit thunders
- Assumption 3: the calculated costs are those of the systems of production of the area of the center and the Sahel.
- Assumption 4: the period of selected analysis is spread out of 2006-2014
- Assumption 5: the economic and financial prices of the goods and the services used to express the countable identities of the MAP are those published by the ministry for Tunisian agriculture.
- Assumption 6: the financial prices with the producer are approached by the wholesale prices

The effective coefficient of protection is a better indicator of protectionism. This last informs about the clear protection of the added-value resulting from the transfers.

TABLE 2
THE EFFECTIVE COEFFICIENT OF PROTECTION OF THE OLIVE OIL

2006	2007	2008	2009	2010	2011	2012	2013	2014		
0.96	0.98	1.86	2.01	0.95	1.82	0.93	1.02	1.95		

Table 2 above watch a sometimes positive and sometimes negative protection owing to the fact that the effective coefficient of protection is not stable in time.

The transfers measure the divergence between the economic financial values and values, resulting from various distortions affecting the market of the olive oil such as the taxes, the subsidies.

The total transfer Net measures the difference between the financial profit and the economic profit

TABLE 3
TOTAL TRANSFERS NETS (TTN, DINARS PER TON)

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2006	2007	2008	2009	2010	2011	2012	2013	2014				
293.8	314.9	127.58	919.2	1568	1005.7	215.8	201.85	298.78				

The total transfers Net are positive what means that the producers receive a profit higher than what it should have been in absence of the intervention of the State. This positive transfer is the equivalent of a subsidy on the profit.

It is to be announced that the Net transfer is the sum of two types of transfer: transfer on the products and transfer on the prices of the factors of production.

TABLE 4
TRANSFERS ON THE PRICE OF THE PRODUCT

2006	2007	2008	2009	2010	2011	2012	2013	2014		
-11.85	-58.95	-545.8	-1012	1855	145	2015	603.8	1012		

The transfers on the price of the product are negative between 2006 and 2009 and positive between 2010 and 2014. What means that the income perceived by the producers is lower than it would have had in absence of the intervention of the State between 2006 and 2009. The latter is higher than what it would have had in absence of the intervention of the State between 2010 and 2014.

TABLE 5
TRANSFERS ON THE PRICE OF THE EXCHANGEABLE FACTORS OF PRODUCTION (TPE) AND NON EXCHANGEABLE (TPNE)

	2006	2007	2008	2009	2010	2011	2012	2013	2014
tpe	40.47	52.45	102.4	87.52	28.74	88.2	187.7	90.8	28.8
tpne	-125.5	-374.5	-258.7	-158.5	-198.5	-167	-191.2	-175.5	-151.5

The transfers on the price of the exchangeable factors of production are positive what indicates that the producers are taxed for the use of its factors because they would pay less if it ya not intervention of the State.

The transfers on the price of the non exchangeable factors of production are negative. The producers support a cost weaker than the opportunity cost of the natural resources.

For a given product and being given an adopted technology, the CRI represents the value of the non exchangeable inputs evaluated at their opportunity costs divided by the added-value evaluated at the world prices. This rate makes it possible to show if the production process in place uses in an effective way or not the factors considered.

TABLE 6
THE INTERIOR COST OF THE RESOURCES (CRI)

2006	2007	2008	2009	2010	2011	2012	2013	2014
0.86	0.75	0.54	0.45	021	0.10	0.26	0.55	0.26

It is noticed that the CRI is lower than the unit what indicates than the country to a comparative advantage in the production of the olive oil and consequently its production should be encouraged.

## IV. CONCLUSION

The calculation and the analysis of the indicators of competitiveness and the effects of price policy protection transfer made it possible to conclude the existence from comparative advantage in the production of the olive oil. One can conclude that the producers of the olive oil support a negative transfer on the exchangeable factors of production and profit from a positive transfer on the interior resources.

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