

The World's Largest Open Access Agricultural & Applied Economics Digital Library

# This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search http://ageconsearch.umn.edu aesearch@umn.edu

Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C. SECOND EUROPEAN CONFERENCE OF AGRICULTURAL ECONOMISTS

DIJON, SEPTEMBER 1978

## MEDITERRANEAN AGRICULTURAL TRADE PROBLEMS AND THE RELATIVE EFFECTS OF THE EEC POLICIES

#### by

Roberto Pasca Istituto di Economia Facoltà di Economia e Commercio Università di Napoli via Partenope, 36 80121 Napoli (Italy)

#### 1. INTRODUCTION

The aspects which divide Mediterranean countries are considerably greater in number than those which group them together. Whilst there is an abundance of discriminating factors, not solely economic, but also in particular socio-cultural, institutional and political ones, which separate these countries, there is, apart from the geographical element, a common agricultural potential. Pedoclimatic characteristics - fertile soils and dry summers restrict crop production choices in this area to durum wheat, rice, fruit, vegetables, wine, tobacco and olive oil <sup>\*</sup>(Aiello,1970)

-1-

This productive specialization has greatly affected trade flow. Change in consumer pattern, induced by slow economic development. has accentuated the trade deficit of these countries as regards the imports of European agricultural products such as meat, dairy products and fodder crops. In their search for a solution to this problem, Mediterranean countries, especially the less-developed ones, have attempted to increase the export of their agricultural products to Europe. In the utilization of such a stategy, great difficulties come to light concerning the low demand elasticity of these products with respect to imports. This results in the reduction of the productive potential, often quite considerable in this area. Obviously, these are typical problems of those backward countries which try to cope with their own development through foreign trade - obstacles which appear in a deterioration of terms of trade with developed countries, in currency difficulties, and in a gradual fall in competition in the same export sectors.

• I wish to express my gratitude to professor S.Vinci of the University of Naples for his helpful comments.

Econometric models have been developed in the Computer Centre of the University of Naples with the invaluable help of professor Natale Lauro. This research was complted with the collaboration of two of my students: Givanni Alleonato and Carlo Del Ninno.

#### 1.1. Reasons for productive specialization in Mediterranean countries

-2-

Agricultural sectors of specialization use the intensive farming system, which is often also the most limiting system. Usually the preference to other technically feasible crops, such as sugar beet and maize, is because of the higher yields and greater return. Due to the inefficiency of production structure, to the agricultural labour surplus, to the lack of infrastructure, (irrigation in particular), to the limited use of modern equipment etc., labour productivity is still low compared with that of European agriculture. Consequently, agricultural income is very low: in some cases it is close to, if not below, the subsistence level (Aiello, 1975; CEE, 1978; Thorebecke-Pagoulatos, 1975)

There are, as mentioned, many disparities which outnumber the similarities, such as this of agricultural potential. By confining the analysis to the economic field, they concern labour structure, wage levels, job opportunities and labour conditions, availability of infrastructure, level of industrialization, not to mention land tenure and production systems in agriculture itself.

Generally, the southern countries of the Mediterranean Basin are still considered to be backward, even though some of them received enormous benefits from the oil exports. Northern countries are at a considerably higher level of development; but economic gaps between these countries are often wider than those of African countries (CEE, 1978; Coda Nunziante, 1976; Saccomandi, 1975)

Different economic conditions show their effects on their foreign trade structure, particularly in the agricultural sector, therefore an analysis both of the dynamic change in agricultural trade in the Mediterranean area and of the estimated repercussions induced by the main economic policy, supports a division of these countries into three main groups.

A first group could include countries with a relatively higher developed economic structure as well as a higher welfare condition compared to the other Mediterranean nations. The two Mediterranean countries of the E.E.C. (France and Italy) can be included in this group. Rather than a similar agricultural structure, these countries - as far as concerns the Mediterranean regions<sup>(1)</sup> - have similar production patterns, over which the Common Agricultural Policy (C.A.P.) has spread its protective wing.

The other Mediterranean countries could be divided into two further groups: the first including Greece, Spain and Portugal,  $(G._{P}, P.)$ the second all the remaining countries<sup>(2)</sup>. The first group is comprised of these three countries as a result of the close relationship with the E.E.C. and the similar agricultural trade dynamics. If we were to classify them according to the level of development, they, (perhaps with the exclusion of Spain), would be grouped with the other northern countries.

Although their farm structure does not differ substantially from those countries of the Mediterranean regions which are in the E.E.C., productive potential in these three countries can be further exploited. By means of irrigation programmes, agricultural land area could increase by 30,000 hectacres in Greece and by 80,000 hectacres in Spain. Because of the low cost structure of these agricultural systems which produces a higher degree of competitiveness in international markets, it is not difficult to imagine the growth of their role in Mediterranean trade and how it could be encouraged by the future enlargement of the E.E.C.

(2) Analysed by agricultural trade, the remaining countries of the Mediterranean Basin are the following: Greece, Yugoslavia, Malta, Portugal, Spain and Turkey in Europe; Cyprus, Jordan, Israel, Lebanon, Syria in Asia; Algeria, Egypt, Lybia, Marocco and Tunisia in Africa.

-3-

<sup>(1)</sup> Mediterranean areas have been classified by the E.E.C. in regard to those whose average typical agricultural production is at least 40% of the total agricultural production of the area. In France, Mediterranean areas are the following regions: Aquitaine, Languedoc, Provence, Côte d'Azur, Corse, and the following "departments": Andeche, Rhôma. In Italy the following regions are included: Liguria, Toscana, Lazio, Abbruzzi, Molise, Campania, Puglia, Basilicata. Calabria, Sicilia, Sardegna; as well as the provinces of: Vercelli, Novara, Alessandria, Asti, Trento, Pavia, Bologna, Ferrara, Eavenna, Ascoli-Piceno (CEE,1976,1977;CEE,1978).

Even with great disparities, in recent years the remaining Mediterranean countries have shown an increasing trade integration with the E.E.C., which at the beginning was helped by bilateral agreements and has become lately a part of the so called "global approach" adopted by the Community for the third countries of the Mediterranean. These nations are primarily involved in the agricul<u>t</u> ural trade liberalization to be achieved through tariff reductions in particular for those imports submitted to seasonal restrictions (Malassis, 1975; Saccomandi, 1975).

It is now possible to attempt some deductions, which we propose to prove in the following part of this article: 1) Today, on the whole, Mediterranean countries still play a major role both in the agriculture and in the export lead strategy for their own development. This aspect is emphasised in those countries which are richer in surplus resources and which can obtain higher benefits from their low cost production system, (for example, Greece, Israel and perhaps Maghreb). 2) Secondly it appears that agricultural trade in the Mediterranean has scarcely been affected by the close trade relationship between the producing countries and the E.E.C. members, mainly because of persisting political influences, of trade necessity itself, and also of the preferential policies adopted by the E.E.C. for

the Mediterranean countries. 3) Finally the simultaneous interplay of the protectionist E.E.C. policy for its agricultural Mediterranean productions is further agitated by the trade flow of these products, which in a certain sense would have to introduce changes supporting France and Italy in their typical productions. In the immediate future, trade flow in these sectors could be further disturbed by the consequences of E.E.C. enlargement.

-4-

-5-

11.2. CONFLICT OF INTERESTS IN THE MEDITERRANEAN AREA

This produces a picture of agricultural Mediterranean trade which is not simply a free trade scheme as it reveals trade dependence patterns of the southern countries of the Basin with respect to E.E.C. members.

The conflict of interests is further complicated between the single countries involved by this situation.

Inside the E.E.C. itself, two opposite tendencies can be distinguished. Even if all the member countries appear to have a similar behaviour pattern as regards both the political aspect of the enlargement and the need to resettle the agreement's policy for the Mediterranean countries, the economic aptitudes of single countries seem rather different. Continental members decisively support any initiative which will bring trade liberalization in Mediterranean agricultural sectors. This is due to the obvious benefits on their balance of payments and to the consequential possibility to increase exports of their surplus agricultural commodities as well as industrial goods.

Such a position suits those countries aiming to enter into the Community quite well, at least for the expected short term effects.

Opposite interests are shown by the other Mediterranean members and in particular by Italy where the greatest concentration of Mediterranean regions is found. Because of the lack of competitiveness of their production on the foreign markets, including European ones, these countries are supporting a gradual decrease of Community protection, which inevitably will follow future E.E.C. policies, such as the enlargement and the new agreement's policies. (Aiello, 1975; C.E.E., 1978; Malessis, 1975; Saccomandi, 1975).

Such a proposition is based on the coherence which would still be needed in order to inspire future E.E.C. action, as in the past this was developed to build up a complex agricultural policy which also extended its protection to the Mediterranean productions.

Through its price support mechanism, C.A.P., it is said, would produce inefficient resource allocation, differential rents, inflationary pressures ( price increase in certain agricultural productions, wage increase, etc.), all of which would be the main reason for the high cost production system, characteristic of E.E.C. members with respect to third countries of the Mediterranean. (Marsh, 1975; Pasca, 1975; Quaden, 1973; Rossi Doria, 1975).

Therefore a smooth trade liberalization would allow on the one hand sufficient time for the agricultural resettlement of the Mediterranean E.E.C. regions, for instance to receive the benefits following the application of recent Mediterranean measures, and on the other hand to reduce the advantages for the future candidates for membership with respect to France and Italy. This latter hypothesis, which obviously cannot be officially declared, is based on the femsible negative effects which the higher price and income supply elasticity of the candidate countries could determine when compared with the substantial rigidity of export demand.

A consequential price fall, not compensated by the increase in export volume, could imply future difficulties both to surplus production and to the balance of payments of the intended members. Furthermore, the expected cost inflation, which would probably follow the E.E.C. enlargement, could suddenly lessen the export competitiveness of these countries<sup>(3)</sup>.

(3) Cost increase could simply follow wage growth or could be also determined by the higher prices which Greece, Spain and Portugal, once in the E.E.C., will have to pay to buy continental products from other members, or finally could be the logical implication of the extension of the C.A.P. mechanism. In this conflict of intersts, it is very difficult to define a common pattern of behaviour for the other Mediterranean countries, and also for the complications regarding the unique consideration of such countries as a whole. Nevertheless, it seems that their foreign trade role could suffer from the future E.E.C. enlargement. For the Community would have to reform its Mediterranean policy substantially considering the opportunity to increase its aid programme to this development (of third Mediterranean countries) as part of a wider strategy not only confined to tariff reduction agreements.

- - -

- --

2. AGRICULTURAL MEDITERRANEAN TRADE AND TRADE INTEGRATION WITH

#### THE E.E.C.

2.1. TRADE FLOW BETWEEN THE E.E.C.AND THE MEDITERRANEAN COUNTRIES

In the last 15-20 years, trade flow of the third countries of the Mediterranean with the E.E.C. has been increasingly expanding and specializing: today it concerns 45% of both exports and imports. The former, if oil trade is excluded, is concentrating on the typical agricultural commodities, while the latter mainly concerns itself with industrial goods as well as continental agricultural products. By confining the analysis to the agricultural sector, exports towards the E.E.C. increase to 50% of the total exports, while imports remain at the same level<sup>(4)</sup>.

On the whole, trade flow clearly benefits the E.E.C.: trade surplus is more accentuated with those countries whose trade dependence has been traditionally wider (for instance, Maghreb)

If we confine the analysis to the agricultural sector, the situation is the reverse. But there is still an improvement for the third countries of the Mediterranean when it is further restricted to the typical agricultural production. This is because of the E.E.C.'s need for Mediterranean agricultural products which is higher than the third countries' need for continental agricultural goods. Furthermore, the role of agricultural export of third Mediterranean countries towards E.E.C. members appears more and more definite as a result of their expansive competitive capacity within the E.E.C. market itself.

<sup>(4)</sup> Trade relationship of the E.E.C. with these countries is less important: exports to the Mediterranean area are 8% of the total exports (16% within the agricultural sector), while imports count for 11% of the total as well as of the agricultural imports.

TABLE 1. TRADE FLOW BETWEEN THE E.E.C. AND THE MEDITERRANEAN COUNTRIES (AVERAGE 1975/6) - MILLIONS U.C.

% on E.E.C. % on Economic E.E.C. Balance  $\Lambda \% X \qquad \Lambda \% M$ \* Sectors Exports Tot. Exp. Imports Tot, Imp. 2**175/6 175/6** A11 11% 21,165 8% 11,701 +9,464 -0.3 +25.7 Sectors Agric. 11% 1.689 16% 3,155 -1,466 -4.5 +25.3 Sector Med. 24% -1,654 -10.9 +21.1 16% 2,448 794 Agr.Sec.

Table 1. gives a synthetic view of trade flow between the E.E.C. and the Mediterranean countries, from which emerges not only the determining role of the E.E.C. in the foreign trade of these countries, but also the vastness of trade dependence. This dependence seems to be decreasing more recently, because of export stagnation (0.3%) and of high import increase (+25.7%) of the E.E.C. On the whole, the agricultural balance favours third Mediterranean countries in the typical sectors.

2.2. TRENDS IN THE MEDITERRANEAN AGRICULTURAL SECTORS

It can be said that the determining role of the E.E.C. is shown mainly as purchaser of the Mediterranean products<sup>(5)</sup>.

(5) This must be proved, as will be attempted in the next paragraph, whether and to what extent the net importer position of the E.E.C. in these sectors would have negatively affected its Mediterranean regions and would even have benefited other third countries, as the adhering countries. In this case, one could not deduct that member countries' benefits from the C.A.P. policy would actually be overcome by the opposite trade liberalization effects of the agreement's policy. This would mean that, by clearly contradicting the C.A.P. general purposes, the protection measures for the Community Mediterranean production would not be really effective, as they would be overcome by trade preference agreement with Mediterranean countries.

-9-

As it is widely known, typical agricultural production of the Mediterranean area is covered almost entirely by the C.A.P. intervention system, even if their protection measures (tariffs and domestic price support) are generally inferior to that of the continental products (cereals, dairy products, and sugar in particular)<sup>(6)</sup>. (Barbero, 1974; C.E.E., 1976 and 1977).

Secondly, these sectors will reap the benefits from the recent special intervention programme adopted by the E.E.C. to promote a wide agricultural resettlement in the Mediterranean regions, which will also support its agricultural sectors in the view of the enlargement<sup>(7)</sup>. (C.E.E., 1978).

Finally, these agricultural sectors are part of the new agreement policy which will be negociated for the third Mediterranean countries, as a means to open the way to a greater trade liberalization. (Aiello, 1975; Saccomandi, 1976).

Both as a result of the financial effort and of the specific aim of the agricultural intervention policy, it can be said that the E.E.C., with its C.A.P. and its agreement policy, has been gaining a determining role since the mid-sixties in the dynamics of Mediterranean agricultural trade. (Aiello, 1975; Coda Nunziante, 1975, 1976, 1977; Saccomandi, 1976).

(6) Kennedy round agreements of 1968 induced the C.A.P. disparity in protection given to Mediterranean sectors with respect to continental sectors. Through this agreement with the U.S.A. it was decided that the former products could be protected with tariffs only, while to the latter ones could also be applied the variable levy system.

(7) The recently adopted E.E.C. special intervention programme for Mediterranean regions has a budget of 742 millions of U.C. for the finance of recovery programmes in these areas (irrigation, agricultural structure improvement, incentive to transformation, domestic trade improvement, new trade centre especially for fruits and vegetables, aids to producers of olive oil, etc.) Most benefits will go to Italian Mezzogiorno. It must be taken into account that during the long talks, several reductions have been made to the plan, in that field (forestry and technical assistence) mainly concerning Italian agriculture. TABLE 2 - MEDITERRANEAN AGRICULTURAL TRADE WITHIN THE COUNTRIES OF THE MEDITERRANEAN BASIN 1975 (millions of \$)

| exporting<br>countries<br>importing<br>countries | France                           | Italy           | G.Sp.P.        | other Medit.<br>countries | E.E.C.<br>Mediterr.<br>regions | TOT.Mediterr.<br>countries |
|--|----------------------------------|-----------------|----------------|---------------------------|--------------------------------|----------------------------|
| France   |                                  | 457,9<br>(25,9) | 240<br>(113•5) | 340,9<br>(19,2)           | 457,9<br>(25.9)                | 580,9<br>(32.7)            |
| Italy  | 66 <b>,</b> 7<br>(21 <b>.</b> 8) | Ballar          | 73,7<br>(6.8)  | 116,7<br>(8.3)            | 66,7<br>(21.8)                 | 277,3<br>(40.0)            |
| G.Sp.P.  | 14,4<br>(8,6)                    | 18,8<br>(11⊧,3) | (1999-197)     | 8,0<br>(4.0)              | 33<br>(19•8)                   | 41,0<br>(24.7)             |
| other Mediterr.<br>countries                     | 73,4                             | 82,0            | 148,1          |                           | 155,4                          | 303,5                      |
| E.E.C. Mediterr.<br>regions                      | 457 <b>,</b> 9                   | 66,7            | 313,7          | 457,6                     |                                |                            |
| TOT.Mediterranean<br>countries                   | 545 <b>,</b> 7                   | 167,5           | 461,8          | 465 <b>,</b> 6            |                                | •                          |

N.B. In brackets % values on the single area total imports are indicated Source: elaboration from (OCDE, 1959-75 and 1976)

1 1

A brief outline of the agricultural production in Mediterranean sectors is now needed as it concerns member countries of the E.E.C. interested in the C.A.P. (Table 2.) and the third countries interested in the Mediterranean agreements (Tables 3 and 4).

The meaning of the tables is easily understandable. Concerning Table 2, it can be noted that the reduction of the self provision degree in the Mediterranean sectors followed the E.E.C. enlargement to the U.K., Eire and Denmark. Such a situation would have had positive effects on the E.E.C. Mediterranean regions; indeed surplus increased especially in typical producer countries other than for the Italian rice and citrus fruits, whose rates of self provision were declining. As far as regards production trends, the following points must be noted: i) the high production increase of citrus fruits in Italy in the period '55-'74, corresponded, even if in a different dimension, to a wide production decrease in France; ii) there has been a widespread increase of grain (mainly tender wheat) in the E.E.C. and a substantial growth of the rice production in Italy.

iii) despite lack of statistical information, we can also take into consideration the increasing protectionist pressure of the E.E.C. farm policy as concerns firstly olive oil production and secondly rice production. Indeed the so-called protection degree is lowered both in wheat (especially durum wheat) and wine production.

Table 3 shows the production pattern of Mediterranean countries as well as the status of trade agreements with the E.E.C. deduced from the last available information.

An overall yield per hectacre in Greece, Spain and Portugal can be noted only with regard to grain production, even if the gap could be quickly eliminated by the great potential increase especially of Greek and Spanish production.

-11-

TABLE 3 - AGRICULTURAL MEDITERRANEAN SECTORS IN THE INTERESTED E.E.C. REGIONS

| SITC<br>code                 | Economic<br>sectors                   | E.E.C. economic measures   | late of<br>EEC re-<br>gulation    | Product:<br>% annua   | ion(000<br>l rate<br>in brac | ton.'75)<br>of increase<br>kets | Self pr<br>(1968/6 | ovision d<br>9) | legree              | 74/75        |
|------------------------------|---------------------------------------|--|-----------------------------------|-----------------------|------------------------------|---------------------------------|--------------------|-----------------|---------------------|--------------|
|                              |                                       |  |                                   | E.E.C.                | ITaly                        | France                          | EEC 6c.            | EEC 9c.         | Italy               | France       |
| 0.41                         | Wheat                                 | Import levies, no monetary<br>ammounts, in 76/77 aids to<br>backward produc. (60 UC/ton) | 1:/6/67(<br>)                     | 37,902<br>(16.5)      | 9,620<br>(3.6)               | 15,041<br>(5.4)                 | 119<br>(109)       | 106<br>(104)    | 89<br>( <b>9</b> 5) | 192<br>(154) |
| 0.42                         | Rice                                  | Export restitutions, Imp.<br>levies, no monet.ammounts,<br>aids to producers.            | 1/9/67                            | 979<br>(7.8)          | 931<br>(18•3)                | 48<br>(-6.0)                    | 101<br>(104)       | 83<br>(n.a.)    | 218<br>(225)        | 18<br>(45)   |
| 0.51<br>0.51                 | -Fruit(ex.<br>.4 appples)             | a)fresch:import levies<br>(in 76/7 from Greece),<br>several exp.restitutions,            | 1/1/67                            | 14,456°<br>(2.7)      | 7,101 <sup>°</sup><br>(8.3)  | 2,930°<br>(7.6)                 | 85<br>(87)         | 79<br>(80)      | 128<br>(116)        | 95<br>(95)   |
| ŬĨ                           | <u>Citrus</u><br>fruit                | aids to production, import<br>tariff for mandarins from<br>Algeria, export premium;      | 88 99 98                          | 2,752°<br>(4.7)       | 2,733 <sup>°</sup><br>(36.1) | 19 <sup>°</sup><br>(-20.1)      | 50<br>(55)         | 43<br>(n.a.)    | 118<br>(135)        | 2<br>(1)     |
| 0 <b>.54</b><br>(ex.<br>0.54 | Vegetabl,<br>(ex.potat)<br>.1)        | aids and monet.ammounts<br>for tomato preserves  | 1/1/67                            | 26,735<br>(1.6)       | 10,570<br>(2.5)              | 6,475<br>(0.5)                  | 97<br>(100)        | 94<br>(n.a.)    | 113<br>(112)        | 95<br>(95)   |
| 112.                         | 1 <u>Wine</u>                         | Indicative price for imp.<br>Exp.restitut., monetary am.<br>for France. Italy: aids to   | 15/6/68                           | 16,022°<br>(1.4)      | 7,690°<br>(1.2)              | 7,627<br>(1.3)                  | 105<br>(96)        | 103<br>(n.a.)   | 124<br>(110)        | 102<br>(92)  |
| · · · · ·                    | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | private storage and distillation.  | ;<br>;<br>;                       | \$<br>•<br>•          | :                            |                                 |                    |                 |                     | · ·          |
| 121                          | <u>Tobacco</u>                        | Exp.restit., storage aids,<br>aids to producer associat.<br>objective price for prod.    | 1/8/70<br>•                       | 157°<br>(—)           | 93 <sup>°</sup><br>(2•6)     | 51<br>(-1.7)                    |                    | ·<br>·          |                     |              |
| 421                          | •5 <u>Olive</u><br>oil                | Import levies, exp; restit.,<br>aids to producers.                                       | 1/4/66                            |                       |                              |                                 | ,<br>I             | · ·             |                     | ·<br>· ·     |
| E.E.                         | C. Protect:<br>rice 1.8               | Lon degree (EEC price/lower<br>3 (1.4); Wine 1.4 (1.9); ol:                              | interna <sup>.</sup><br>ive oil : | tional p<br>2.1 (1.7) | rice),1                      | 976-7 (1968.                    | -69) : đi          | urum whea       | at 1.45             | (2.13)       |
| • 19                         | 74 <u>So</u>                          | ource : elaborations from E.   | .E.C., 0.                         | C.D.E.                |                              |                                 |                    |                 | - <u></u>           |              |

. :

| TABLE | 4 | - | MEDITE | RRAN | EAN AGI | RICU | LTUR | AL | SECTORS | IN | OTHER | COUNTRIES | OF | THE |
|-------|---|---|--------|------|---------|------|------|----|---------|----|-------|-----------|----|-----|
|       | • |   | BASIN, | NON  | MEMBEI  | l of | THE  | E. | E.C.    |    |       |           |    |     |

| Economic<br>sectors                   | PRODUCTI<br>(% a | ON ,000 ton      | •,1975. yie       | lds:quintal/ha<br>from 1955) | -                       |
|---------------------------------------|------------------|------------------|-------------------|------------------------------|-------------------------|
|                                       | Greece           | Spain            | Portugal          | TOT. G.Sp.P.                 | Other Med.<br>countries |
| Wheat ~                               | 2143°            | _4535            | _646°             | 7324°                        | 28228                   |
|                                       | [23,3]<br>(2,3%) | [14,3]<br>(6,4%) | [13,1]<br>(1,2%)  | (2,1%)                       | (4,5%)                  |
| Rice                                  | 107              | 367              | 130               | 604                          | 1248                    |
| · · · · · · · · · · · · · · · · · · · | (2,8%)           | (-0,3%)          | [39,2]<br>(-1,7%) | (-0,2%)                      | (11,7%)                 |
| Fruit(ex.apples & citrus fr.)         | 1653<br>(4,4%)   | 4835<br>(4,7%)   | 145<br>(-13,3%)   | 6633                         | 15907                   |
| Citrus fruit                          | 778              | 2804<br>[140.6]  | 180               | 3762                         | (1,6%)                  |
|                                       | (6,9%)           | 4,3%)            | (2,4%)            | (4,6%)                       | ·                       |
| Vegetable                             | 2009<br>(3,9%)   | 6860<br>(3,3%)   | 1800<br>(3,3%)    | 1 <del>0</del> 669<br>(3,4%) | 18710<br>(3,1%)         |
| Wine                                  | 486<br>(1,1%)    | 3619<br>(3,8%)   | 1387<br>(0,8%)    | 5492<br>(2,7%) '             | 1500<br>(-11,0%)        |
| Tobacco                               | 85<br>(-0,6%)    | 23<br>(-1,8%)    |                   | 108<br>(-0,9%)               | 423<br>(6,0%)           |
| Olive oil                             | n.a.             | n.a.             | · n.a.            | n.a.                         | 388                     |

Outline of the agreements between E.E.C. and the non member countries of the Mediterranean Basin:

Untill 1972: - association agreements for: Greece(1962), Turkey(1964), Malta, Cyprus, Marocco, Tunisia;

- preferential agreements for all the other Mediterranean countries, with the exclusion of Lybia.
- After 1972: a)<u>general approach</u>: trade agreements for all Mediterr.countr. including Jordan; free trade for industrial goods,gradual liberalization of the agricul. trade;worker free circulation; technical assistence; financial aids;

b)problems concerning agricultural products:tariff reductions for products with seasonal restricthons(60% of the EEC tariff on average):beans, tomatoes,cucumbers,melons,onions,artichokes, grapes,etc.;tariff reductions for wine and preserved products; key-sector in the future trade relationship with the EEC: fresh fruit(Greece),citrus fruit(Spain),wine(Spain & Portugal), oilve oil (Greece).

Source: OCDE,1959-75 and 1976; CEE, 1977 and 1978; FAO, 1976. For more details see: Aiello, 1975; Coda Nunziante, 1975; Saccomandi, 1976.

Table 5 - SOME ECONOMIC INDICATORS FOR THE E.E.C. COUNTRIES AND FOR G.Sp.P. 

|                                 | GNP per emp    | loyee,U.C.1   | 975                   | Agricultur  | e in % of                             | Per-capita            | Agricultur                | al Emploees |
|---------------------------------|----------------|---------------|-----------------------|-------------|---------------------------------------|-----------------------|---------------------------|-------------|
|                                 | All sectors    | Agricult.     | Extra-agr.<br>sectors | <u>1960</u> | 1975                                  | agric.GNP<br>1960=100 | <u>in % of to</u><br>1960 | 1975        |
| FRANCE                          | н — н<br>- н   |               |                       | 9,6         | 5,6                                   |                       |                           |             |
| ITALY                           |                |               |                       | 11,6        | 8,2                                   |                       |                           |             |
| E.E.C. at 9<br>(EEC index =100) | 13382<br>(100) | 6803<br>(100) | 14006<br>(100)        | ·<br>·<br>· |                                       | 250                   | 17,0                      | 8,7         |
| FREECE                          | 6539<br>(49)   | 3053<br>(45)  | 8451<br>(60)          | 21,9        | 14,7                                  | 413                   | 57,0                      | 35,4        |
| 3PAIN                           | 7961<br>(59)   | 3219<br>(47)  | 9302<br>(66)          | 19,5        | 9,8                                   | 358                   | 42,3                      | 22,0        |
| PORTUGAL                        | 4486<br>(33)   | 2317<br>(34)  | 5333<br>(38)          | 25,7        | 12,3                                  | 219                   | 42,8                      | 28,1        |
| <u>Source:</u> CEE, 1978        |                |               | <b>5</b>              |             | , , , , , , , , , , , , , , , , , , , |                       |                           |             |
|                                 |                |               |                       |             |                                       |                       |                           | !<br>•      |
|                                 |                |               |                       |             |                                       |                       |                           |             |
|                                 | · , ·          |               |                       |             |                                       | а<br>1                | 1                         |             |

1 quater-

Finally, Table 4 demonstrates the relationship between the E.E.C. and the three candidate countries on the basis of selected macroeconomic indicators. The inferiority of Portugal is quite clear with respect to the other two countries, whose rate of increase of domestic gross products in agriculture (G.N.P.A.) revealed a great dynamism with respect to that of the E.E.C.

#### 2.3. MARKET QUOTA TRENDS

A more precise analysis of the export repercussion of the different production dynamics in three main sectors (fruits, wine and olive oil) in single countries which have been affected by the E.E.C. policies can be deduced from the study of market quotas acquired by each Mediterranean country in a market of one other country.

If the previous division of groups is maintained, even omitting the group of other Mediterrance countries because of the insignificance of such a vast aggregation of countries in this case, market quotas in France, Italy and in the G.Sp.P. are significantly relevant as concerns trend change between the period 1962-4 and 1973-5.

As regards the French market, Italy and G.Sp.P. increased their market quotas over the other Mediterranean countries, despite the close links still existing between France and the Maghreb countries. In particular, the Italian market quota increases significantly in the wine sector reaching approximately 2/3 of total French imports (an annual growth rate of 34.9%) and gains some points in the olive oil sector, even though its export is little more than 10% of total imports.

Equally the country group G.Sp.P. betters its position in the wine market. On the French market Spain gains as much as other Mediterranean countries, such as Algeria, lose. Change induced in trade structure has determined a net overturn in the wine as well

#### -12-

TABLE 6 - MARKET QUOTAS CONCERNING MEDITERRANEAN AGRICULTURAL TRADE FOR FRANCE, ITALY AND G.Sp.P.

|                              | FI<br>196264 | RUIT<br>1973–75 | % annual<br>rate of<br>increase | W I<br>1962—64 | N E<br>1973-75 | % annual<br>rate of<br>increase | 0 L<br>1962-64 | I V E<br>1973-75 | 0 I L<br>% annual<br>rate of<br>increase |
|------------------------------|--------------|-----------------|---------------------------------|----------------|----------------|---------------------------------|----------------|------------------|--|
| in ITALY:<br>France          | 0,9          | 1,8             |                                 | 76,1           | 78,7           |                                 | 1,4            | 4,1              | 9,7%                                     |
| G.Sp.P.                      | 9,8          | 8,5             |                                 | 6,9            | 13,6           | 6,2%                            | 50,4           | 42,0             | -1,6%                                    |
| Other Med                    | 7,3          | 13,4            | 5,5%                            | 7,3            | 5,4            |                                 | 44,3           | 49 <b>,</b> 0    | 1,0%                                     |
| in FRANCE:                   |              |                 |                                 |                | · · ·          |                                 |                |                  |  |
| Italy<br>GʻSpʻ:P:            | 6,0<br>15,8  | 11,4<br>30,3    | 5,8%<br>5,9%                    | 1,4<br>2,8     | 65,5<br>12,6   | 34,9%<br>13,7%                  | 0,3<br>10,1    | 11,7<br>33,6     | 33,3%<br>10,9%                           |
| Other Med                    | • 37,1       | 22,3            | -4,6%                           | 95,8           | 21,4           | -13,6%                          | 87,0           | 53,2             | -4,4%                                    |
| in G.Sp.P.:<br>France        | 0,8          | 2,2             |                                 | 79,9           | 13,8           | -15,9%                          |                |                  |  |
| France<br>Italy<br>Other Med | •            | 2,2             |                                 | 79,9<br>6,0    | 13,8<br>2,3    | -15,9%<br>- 8,7%                |                | 2,2              |  |

Source: OCDE, 1959-75 and 1976.

-STO 21

in the fruit sector, where the preeminent position of Italy and G.Sp.P. is becoming more and more clear over the other Mediterranean countries.

-13-

Less change occurs in the Italian markets. Changes in market quota in the period under consideration are either very slight or insignificant. An example is the change of the French market quota in the olive oil sector. Nevertheless, the increasing role of other Mediterranean countries in the fruit exports cannot be neglected; neither can the importance, both in volume and in value, of the French export of selected wines. Italian import of olive oil is divided almost equally between G.Sp.P. and the other Mediterranean countries.

On the other hand, Table 4 shows clearly that export penetration in the G.Sp.P. market is either very weak (excluding the French export of wine) or it plummets. (See Appendices A1 and A2).

Therefore, it seems that trade change concerned for the most part French markets. Because of the low domestic importance of the Mediterranean sectors, France does not seem to have suffered significantly from the change. Indeed, Italy suffered a major impact from the international competition on the European markets themselves, and the consequences have been more negative for Italy as they affected main exporting sectors. (Refer in particular to Appendices A11 and A2),

Thirdly, this brief analysis shows the high competitiveness of the G.Sp.P. group in the exporting markets: European as well as French and Italian.

In conclusion, it should be noted that the simple statistical analysis, although useful to derive actual trends, is not sufficient to deduce a complete view of the E.E.C. policy repercussions, which played a determining role in Mediterranean agricultural trade.

For that reason, the following paragraph is devoted to the construction of an econometric model in order to supply an answer to such questions and to outline more precisely the complex interplay of trade change in these sectors.

#### 3. E.E.C. POLICY EFFECTS ON MEDITERRANEAN AGRICULTURAL TRADE

#### 3.1. ECONOMETRIC MODEL

Because the expected effects both of the C.A.P. and the Mediterranean agreement policy - which, as mentioned, directly affects agricultural production in this area - would have on the one hand improved protection for member Mediterranean countries and on the other hand increased trade liberalization in this area, it seems important to prove the overall net effect of these policies.

An estimate of the "ex post" effects on trade flows and then on benefit allocation within involved countries could be deduced by the combined result of trade divertion (T.D.) and trade creation (T.C.). It is generally agreed that as a consequence of either protectionist or liberalization policies, trade flow analysis would have to generate gross trade divertion for single countries interested in the intervention policy. If it is then possible to locate net trade divertion, it could be determined which Community policy has actually overcome the other.

Secondly, within the E.E.C. itself, or within the agreement area, trade flow analysis could determine resource allocations which produce trade creation ( substitution of single country domestic production for imports ) in favour of one or more countries  $\binom{8}{}$ .

A precise measure of T.D. and T.C. would require the estimate of the actual volume of each item trade diverted or trade created,

(8) In theory, eventual trade creation following intervention policies adopted in customs union would have to effect only that part of domestic production which could no longer be produced for either technical or economic reasons. In other words, it can be said that expected T.C. effects would have to be limited to the typical production of each country, so that benefits could be equally distributed within the union (Pasca - Paternò, 1978).

------

-14-

multiplied by the cost differential, if the supply elasticity is infinitely elastic in each member country. Apart from the question relating to the availability of the necessary data for computing cost differentials, the empirical determination of such an estimate presents methodological difficulties (Balassa, 1967; Ouattara, 1973).

In the several attempts to estimate "ex post" and "ex ante" T.D. and T.C. effects developed in recent years, the method suggested by Balassa is one of the best.

This method suggests that T.D. and T.C. can be deduced from a comparison of ex post income elasticities of import demand in intra-area trade (i.e. among countries forming the same customs union, as the E.E.C. Mediterranean countries protected by the C.A.P.) and in extra-area trade (i.e. imports of union members from nonmember countries, as for instance imports of France from G.Sp.P. and vice-versa)<sup>(9)</sup> for periods preceding and following the application of either protectionist or trade policies. (Bahagwati, 1974; Josling, 1969; Ouattara, 1973; Pasca-Paternò, 1978; Thorebecke-Pagoulatos, 1975).

(9) By following the Balassa arguement, a gross trade creation can be distinguished from a 'proper' trade creation. The former refers to an increase of the union trade, irrespective of whether it depends on a substitution fordomestic or foreign sources of supply; the latter implies a shift from domestic to another member source of supply and is close to Viner's definition.

In this analysis we refer to gross trade creation in a slightly different manner: i.e. when there is no precise evidence of a shift from domestic to another member source of supply (e.g. it can be the case of a T.C.proved for Italy with respect to the E.E.C. on the whole, without any possibility to locate which member country has benefited. Indeed the concept of 'proper' T.C. is used with the same meaning, even if we prefer to call it 'net trade creation'.

-15-

In order to measure trade effects we have estimated two import demand equations (one referring to the period preceding the policy intervention and the other following it ) for each Mediterranean sector and for each area (France, Italy and G.Sp.P.) with respect to each other plus the E.E.C. on the whole.

In the chosen model, we refer to a demand equation of a single commodity imported by a specific country as function of total imports of the same commodity and of the relative term of trade:

$$\mathbb{X}_{k}^{j} = \mathbb{b}_{0} \left(\mathbb{X}_{i,t}^{T}\right)^{b_{1}} \left(\mathbb{E}_{i,t}^{px_{j,t}^{j}}\right)^{b_{2}}$$

After the logarithm transformation, it assumes the following linear expression:

$$\ln \mathbf{k}^{\mathbf{J}_{\mathbf{i},\mathbf{t}}} = \ln \mathbf{b}_{0} + \mathbf{b}_{1} \ln \mathbf{k}^{\mathbf{M}_{\mathbf{i},\mathbf{t}}} + \mathbf{b}_{2} \ln \left(\frac{\mathbf{k}^{\mathbf{p}\mathbf{x}_{\mathbf{i},\mathbf{t}}}}{\mathbf{k}^{\mathbf{p}\mathbf{m}_{\mathbf{i},\mathbf{t}}}}\right)$$

Where the following notations are used:  $M^{j}_{k i,t}$  = import value of country i from country j, at time t, for the k commodity;

pm<sup>j</sup> = import price index of the country i from the country j, k i,t at time t, for the k commodity.

(i = France, Italy, Greece + Spain + Portugal; j = E.E.C., France, Italy, Greece + Spain + Portugal;

k = wheat, rice, fruit, vegetables, wine, tobacco, olive oil).

The first independent variable has been chosen as a proxy variable of the disposable income, i.e. the total imports of a single commodity, not only for the difficulty of obtaining homogenous statistical data but also to use a variable in which both income and world price effects are embodied.

#### 3.2. COMMODITY ANALYSIS

Assuming that income elasticity of import damand would remain unchanged in the absence of any intervention policy (either C.A.P. or agreement policy), T.D. and T.C. impacts -for E.E.C. countries as well as for G.Sp.P.- can be deduced from the intertemporal comparison between propensities to import. In other words, once the increasing trade integration E.E.C-Mediterranean countries is proved<sup>(10)</sup> it is necessary to evaluate which of the two policies has actually prevailed: either the C.A.P. with its protectionist measures (i.e. T.D. which benefits E.E.C., eventually with intra-area T.C.) or the agreement policy with its liberalization effects concernig G.Sp.P. (i.e. T.D. and eventually T.C. in favour of G.Sp.P.).

In the interpretation of the results of the econometric analysis, previous statistical considerations will be taken into account (see also: Aiello, 1975; CEE, 1976 and 1977; CEE, 1978; Saccomand, 1975).

# A - Wheat<sup>(11)</sup>

Because of the lack of data regarding trade flows for Italy and for G.Sp.P., it is not possible to determine precisely the trade effects and then which of the two policies has actually prevailed.

(10) A further proof of the fact that E.E.C. policies dd generate repercussions on Mediterranean agricultural trade is revealed by the T.D. effects which are always present in our analysis between the first\_and the second period.

(11) Because of problems concerning data availability, econometric analysis includes both durum and tender wheat, even if only the former is actually considered a Mediterranean product. Nevertheless, as concerns France, C.A.P. seems to have shown low efficacy because of the fall of the propensity to import from E.E.C countries. Such a deduction is strengthened by the wide decrease in the French self provision degree (see table 3). But it is also true that this fact collid be the combined effect of an increase in domestic production and of a decrease in consumption. Indeed French production has steadily increased at the annual rate of 5.4% in the period 1955-1974, even if such an increase remains inferior to that of the Community on the whole (table 3).

The higher dynamism of French exports both to Italy and to G.Sp.P. gives a futher proof of the production increase (see Appendix A.1.).

The main role of France in this sector( particularly in the tender wheat trade) emerges also from the intertemporal comparison of the propensities to import for Italy and G.Sp.P.

B - Rice

Econometric analysis brings about very different results in this sector.

Italy is the greater producer and exporter, even if the other Mediterranean countries registered a substiantial production increase in the last fifteen years (Tables 3 and 4).

It is easy to understand why neither T.D. nor T.C. is registered for Italy, while a T.D. is proved from G.Sp.P. in favour of the E.E.C.

Furthermore, even if the improvement of trade exchange Italy-France suggested favourable effects for the former, econometric analysis would show a T.D. from France in favour of non member countries, other than G.Sp.P.

Such a situation can probably be explained by the fact that the increase in French consumption -which is shown by the fall of the self provision degree, table 3- has determined not only an increase in imports from Italy but also an increase of imports from third

countries (other than G.Sp.P.), perhaps from Turkey.

C - Fruit<sup>(12)</sup>

Trade effect analysis appears more difficult in this sector as comparison between propensities to import is never significant for Italy while it seems significant only in one case for G.Sp.P. (see the "Chow tests", Chow, 1960).

Nevertheless, mainly referring to the results obtained for France, and to the previous statistical analysis, a T.D. from the E.E.C. to G.Sp.P. can be demonstrated. It emphasises the superiority of the agreement policy with respect to the C.A.P.

It is also possible to locate the origin of the T.D. within the E.E.C., taking into account the deterioration of the trade deficit France - G.Sp.P., which is at least thirty times larger than the Italian one.

Such a wide trade deficit is perhaps the consequence of a relevant increase to the French propensity to consumption, not fulfilled by the production increase. Indeed, French production has grown in the last ten years at a rate very close to the Italian one (the highest in the E.E.C., as mentioned in table 3).

The only element that seems to contrast with such an analysis could be the significant increase of the G.Sp.P. propensity to import from France, for there is evidence of a T.D. in favour of France. But it can be hypothesised that, because of the wide statistical aggregation, this trade effect is the result of an increasing demand to import fruit productions not typically Mediterranean.

-19-

<sup>(12)</sup> The aggregate 'fruits' of the O.C.D.E. statistics (O.C.D.E., 1959-1975) does not fit in perfectly with the Mediterranean production. Even if apples have been excluded and trade flows are registered only to Mediterranean countries, sometimes -especially for imports from the E.E.C.- import values can include other kinds of fruit.

A further evidence of the T.D. in favour of G.Sp.P. can be indirectly found in the increasing difficulties of Italian exports to G.Sp.P. markets (Table 6), in the substantial stability of the self provision degree in Italy, despite the high production increase (Table 3).

As regards G.Sp.P., there is clear evidence both of its production growth and of its infiltration into European markets. It is necessary to make a distinction within the three countries. The average value is kept down by the fall in Portuguese production (an annual decrease of approximately 13%), while Greek and Spanish production have registered an average annual growth rate of 4.5% (Table 4).

As concerns the fruit sector, on the whole, it can be said: i) that the liberalization effects induced by the agreement policy have actually overcome protectionist repercussions;

ii) that Greece (for fresh fruits) and Spain (for citrus fruits) received the greater benefits as their infiltration in the French markets increased significantly;

iii) that the increasing competitiveness of Greece and Spain is seriously damaging E.E.C. Mediterranean regions, as regards not only French and Italian markets in exports, but also their domestic markets.

#### D - Vegetables

In this sector, with the exclusion of France, comparisons of propensities to import for Italy and G.Sp.P. suggest a prevalence of C.A.P. effects on those of the agreement policy.

Production has increased in the last ten years at an average annual rate of 1.6% in the E.E.C. and of approximately 3% in the other Mediterranean countries.

The high demand increase, especially in France, has been the main reason for the improvement of trade balance both in Italy and in G.Sp.P. Nevertheless the comparison between propensities to import shows a T.D. in favour of the E.E.C. on the whole and of

-20-

#### France in particular.

In conclusion, while there are precise indications as regards Italy and G.Sp.P. (evidence of T.D. in favour of the E.E.C. and also of a T.C. in favour of Italy), the same cannot be said for France. Despite the overall T.D. which directly benefits France, statistical analysis supports also the evidence of a T.D., limited perhaps to the Mediterranean production only, which indeed benefits G.Sp.P., as was the case for fruit.

#### E - Wine

All the empirical results obtained from the various models suggest that economic consequences of the Mediterranean agreements have been more effective than those of the C.A.P. protectionism. Even if there is clear evidence of the benefits received by Italy in its trade relationship with France, econometric analysis emphasises still further trade advantages of G.Sp.P. Their weight in the European markets is quickly increasing (Table 5), probably at the expense of the other countries of the Mediterranean, whose production is rapidly falling.

The extent at which wine production increases in G.Sp.P. (Spain in particular) is substantially greater than the Italian and the French one. The same trends are shown by export flows. A certain shift from foreign to domestic source of the demand is in evidence in the increase of the self provision degree in Italy and in France (Table 3).

Finally, it seems that the decreasing role of France and Italy in the wine sector has been seriously affected by the reduction of the E.E.C. protectionism, fallen from 1:.9 to 1:.4.(Table 3) F = Tobacco

Trade effects again benefit the E.E.C. and particularly Italy -- in this sector. Indeed Italy is the only country-which registered production increase in recent years<sup>(13)</sup>, even if it still has a

(13) It must be pointed out that production increased significantly in the Mediterranean countries too (other than G.Sp.P.) in the last

-21-

trade deficit with G.Sp.P.

On the whole, it can be said that E.E.C. policy - specially by means of its more recent measures - has guaranteed enough protection to the Italian tobacco crops against the Mediterranean competitors.

#### G - Olive Oil

Because of the lack of data, econometric analysis can be developed only for France and Italy.

Overall repercussions seem to have benefitted the E.E.C. and Italy in particular<sup>(14)</sup>. Italian market quota is increased in the French market, where there is also some evidence of the increasing weight of G.Sp.P. (Greece and Spain in particular).

Statistical analysis shows that such an international competitiveness of G.Sp.P. is rapidly growing, even if it grows at an extent lower than those of fresh fruit and wine sectors. As in the wine trade, the most damaged countries seem to be mainly the other Mediterranean nations<sup>(15)</sup>.

fifteen years.

اند د د اند مربق میشوند ا

(14) It must be noted that olive oil is one of the most protected sectors within C.A.P., as far as cereals and dairy products are concerned.

(15) Tables 4 and 6 show that these countries have registered an overall production decrease, as well as a declining role in foreign trade. In the French market - one of their most important foreign markets - they suffered relevant losses in market quotas.

-22-

#### Tableau 7 : COMPARAISONS ENTRE LES PROPENSIONS À IMPORTER ET DEDUCTIONS SUR L'IMPACT DES POLITIQUES CEE

|                |          |       | СВ           | E     |              | l <sup>;</sup> | FRI                 | NCE   | .            |       | IT    | ALI   | E            | 1    | G     | e p   |              | DEDUC                 | TIONS SUR LES EFFI        | ETS CEE                        |
|----------------|----------|-------|--------------|-------|--------------|----------------|---------------------|-------|--------------|-------|-------|-------|--------------|------|-------|-------|--------------|-----------------------|---------------------------|--------------------------------|
| •              |          | . 52° | ₽ <b>]</b> ° | ۵     | Chow<br>Test | ьł°            | ָ <mark>b]</mark> ⁰ | Δ     | Chow<br>Test | ъf    | ь]°   | Δ     | Chow<br>Test | ьf   | ьł°   | Δ     | Chow<br>Test | effets<br>commerciaux | pays / région<br>favorisé | politique CEE<br>prédominante  |
| BLE :          | France   | 2,34  | 6,41         | -4,07 | 4,6          | <b>_</b>       | ' <b>-</b>          | -     |              | n.d.  | n.d.  | n.d.  | -            | n.đ. | n.d.  | n.d.  | -            | TD brut               | tiers (sauf GEP)          | faible efficacité              |
| •              | Italie   | 1,19  | 0,20         | 0,99  | 4,1          | 1,42           | 1,17                | 0,25  | 0,6*         | -     | -     | -     | -            | n.d. | n.d.  | n.d.  |              | TD brut               | CEE                       |                                |
| · ,            | GEP      | 0,78  | 0,34         | 0,44  | 3,5          | n.d.           | n.d.                | n.đ.  | -            | n.đ.  | n.d.  | n.đ.  | -            | -    | - 1   | · _   | -            | TD brut               | CEE                       | } PAC ± £111cacé               |
| RIZ 1          | France   | 0,96  | 3,34         | -2,38 | 15,6         | -              | -                   | -     | · _          | n.d.  | n.d.  | n.đ.  | -            | n.đ. | n.d.  | n.đ.  | -            | TD brut               | tiers (sauf GEP)          | faible efficacité              |
|                | Italie · | 1,13  | 0,61         | 0,52  | 3,5          | n.đ.           | n.đ.                | n.d.  | -            | -     | · 😐   | -     | -            | n.d. | n.d.  | n.d.  | -            | -                     | _                         | de la PAC                      |
|                | GEP      | 1,04  | 0,21         | 0,83  | 6,8          | n.đ.           | n.d.                | n.đ.  | -            | n.đ.  | n.đ.  | n.d.  | -            | -    | -     | -     | -            | TD brut               | CEE                       | légère efficacité<br>de la PAC |
| FRUITS :       | France   | 1,80  | 3,06         | -1,26 | 3,4          | -              | -                   | -     | -            | 1,83  | 1,91  | -0,08 | 12,2         | 1,39 | 1,52  | -0,13 | 4,6          | TD                    | GEP                       | efficacité accord              |
|                | Italie   | 2,08  | 1,29         | 0,79  | 1,2*         | 1,27           | 1,10                | 0,17  | 0,4*         | - 1   | -     | . 6   |              | 1,83 | -0,01 | 1,84  | 3,8          | TD                    | GEP                       | efficacité accord              |
|                | GEP      | 3,00  | 0,46         | 2,54  | 1,9*         | 2,37           | -0,07               | 2,43  | 5,9          | 3,54  | 0,59  | 2,95  | 0,3          | -    | -     | -     | -            | TD                    | France                    | efficacité PAC                 |
| LEGUMES :      |          |       |              |       | <b>.</b>     |                |                     |       |              |       |       |       |              |      |       |       |              |                       |                           |                                |
|                | France   | 1,46  | 1,61         | -0,15 | 0,13         | -              | -                   | -     | -            | 0,75  | 0,90  | -0,15 | 3,6          | 1,37 | 2,02  | -0,65 | 0,4^         | léger TD              | tiers (sauf GEP)          | · · · · ·                      |
|                | Italie   | 0,97  | 0,22         | 0,75  | 14,0         | 1,35           | 0,29                | 1,06  | 13,6         | ~     | -     | -     | -            | 0,57 | 0,47  | 0,1   | 5,9          | a) TD; b) TC de I     | a) CEE; b) Fr.            | }                              |
|                | GEP      | 1,22  | 0,19         | 1,03  | 20,3         | 2,03           | 0,66                | 1,37  | 8,9          | 2,66  | 0,21  | 2,45  | 3,9          | -    | -     | -     | -            | a)TD; b)TC de GEP     | a) CEE; b) It.            | }                              |
| VIN :          | France   | 0,84  | -0,53        | 1,37  | 167,7        | -              | -                   | -     | ·<br>_       | 2,16  | -0,78 | 2,94  | 21,4         | 0,82 | -0,63 | 1,45  | 27,6         | }                     | GEP                       | }                              |
|                | Italie   | 0,96  | 1,14         | -0,18 | 9,0          | 0,93           | 1,14                | -0,21 | 11,0         | -     | -     |       | -            | 2,40 | -0,50 | 1,9   | 3,5          | TC brut de Fr,        | Italie                    | } efficacité                   |
|                | GEP      | 0,24  | 0,96         | -0,72 | 4,0          | 0,27           | 0,97                | -0,7  | 7,0          | 0,43  | 1,01  | -0,58 | 4,7          | -    | -     | -     | -            | } TC net              | GEP                       | } des accords<br>}             |
| TABAC :        | France   | 1.57  | -0.79        | 2.36  | 34.0         |                | _                   | _     |              | n. đ. |       | n.đ.  | -            | n.đ. |       | . 4   | _            | TD brot               | CEP                       |                                |
|                | Italie   | n.d.  | n.d.         | n.d.  | _            | n.d.           | n.d.                | n.d.  | _            |       |       | _     | -            | 0.13 | 0.59  | -0 46 | 0 7*         | ID DIGC               | CBE                       | }                              |
|                | GEP /    | 0,63  | 0,01         | 0,62  | 5,0          | n.d.           | n.đ.                | n.d.  | -            | 9,01  | -2,56 | 11,57 | 18,0         | -    | -     | -     | -            | TD, peut-être TC      | Italie                    | } efficacite PAC               |
| HUILE D'OLIVE: |          |       | 0.75         |       |              | ¢.             | · ·                 |       |              |       |       | 0 77  |              |      |       | •     |              |                       | <i>1</i> 7                |                                |
|                | France   | 1,17  | 0,72         | 0,45  | 14,9         |                | -                   | -     | -            | 1,32  | 0,79  | U,5J  | 7,0          | n.d. | n.d.  | n.đ.  | -            | légers TD et TC       | a) CEE, b) It.            | efficacité PAC                 |
|                | Italie   | 0,52  | 1,99         | -1,47 | 2,0          | 1,76           | 1,38                | 0,38  | 4,5          | -     | -     | -     | -            | n.d. | n.d.  | n.d.  | -            | TD brut               | tiers                     | de la PAC                      |
|                | GEP      | n.d.  | n.d.         | n.d.  | -            | n.d.           | n.d.                | n.d.  | -            | n.đ.  | n.d.  | n.d.  | -            | -    | -     | -     | -            | .*                    | :                         |                                |

N.B. Les phénomènes de TD et de TC sont dérivés de la comparaison entre les variations intertemporelles, en tenant compte du Chow Test.

🛠 : La valeur du Chow Test n'atteint pas la significativité de 95%.

#### 4. CONCLUDING REMARKS

The increasing trade integration between E.E.C. members and the other Mediterranean countries has at the beginning given great support to the hypothesis of the determing role played by both the agricultural and agreement policies of the Community since the mid-'60's.

Even if it can be said that the increasing trade integration within the Mediterranean Basin is the result of a set of objective factors (needs for production specialization, political and economic influences pre-EEC, geographical elements, etc.), both statistical and econometric analysis clearly demonstrates that trade flows of the typical agricultural products have been affected by the E.E.C. policies.

Such an influence has been evident since the mid-sixties in two different forms:

- a) on the one hand the E.E.C. policy was created also to protect its Mediterranean products, mostly in the backward regions, from the increasing competitiveness of the third Mediterranean countries, by means of various protectionist measures extended gradually to the Mediterranean sectors;
- b) on the other hand, as a part of the external agreement policy, an opposite action has been developed toward a trade liberalization in several agricultural trades within the Mediterranean area.

Conflicts between the two policies become actual rather than hypothetical, also because they often reflected differente political and economic views within the E.E.C. members themselves.

In the near future political as well economic influences of the E.E.C. policies on the Mediterranean agricultural trade flows could only increase as consequence of the enlargment to Greece, Spain and Portugal.

Mediterranean regions of the present Community could not only be preoccupied by such an institutional change, which would imply higher competitiveness for the candidate countries, but it could also determine greater negative repercussions on the foreign trade of the other countries of the Basin.

Therefore we believes that a structural analysis of the Mediterranean trade flows would require the study of the probable effects of the E.E.C. policies; that for suggesting ex post evaluation on which policy (either C.A.P. or agreements) has actually overcome the other, for analysing the way in which benefits have been allocated within the interested countries and finally for supplying a wider knowledge useful to formee future events.

Empirical results, obtained in particular for France, Italy and Greece, Spain and Portugal all toghether, have been deduced from an appropriate statistical and econometric analysis.

Briefly the following conclusion remarks can be made:

- i) Agricultural Mediterranean trade seems to have been very much affected by the E.E.C. policies; but they have seldom brought about the expected benefits for its Medimeterranean regions.
- Inde effects take the form of trade divertion which in some cases benefits E.E.C. members (definitely for vegetables, perhaps for rice and partially for oilive oil) ( see also Pasca-Paternò, 1978), in others benefits the G.Sp.P. group (certainly for wine, summer fruit and citrus fruit, perhaps in part for olive oil too). In one case (wheat) a TD in favour of non Mediterranean third countries is proved. Generally, by confining always the analysis to the typical products of the Mediterranean Basin, the other nations of the area (with the exclusion of G.Sp.P.) are the only countries to have been negatively affected by the repercussions of the E.E.C. policies.
- iii) In particular economic analysis supports the hypothesis of an increasing competitiveness of candidate countries (i.e.G.Sp.P.), in E.E.C. markets themselves. At least in wine sector (Greece and Spain), in fresh fruit(Greece), in citrus fruit(Spain) and

perhaps in oilive oil sector net trade benefit estimates indicate the predominance of the agreement effects on those created by the C.A.P.

Furthermore there is still evidence of a trade creation for wine sector in favour of G.Sp.P., which probably originated in France.

- iv) Within the E.E.C., benefits from trade creation are distributed between France (vegetables) and Italy (tobacco).
- v) While intra-E.E.C. economic effects of the Common Agricultural Policy seem to have widened the gap between continental and Mediterranean regions, by mostly concentrating trade benefits in the former (Pasca-Paternò, 1978), this article shows that the two member countries (France and Italy) have been negatively affected in no more than two or three economic sectors of the seven taking into account.

As a consequence of future E.E.C. enlargment to the most competitive countries (at least Greece and Spain), further trade divertion, and perhaps trade creation, in favour of the candidate nations can be expected, even if it is now very difficult to foresee what will be the ultimate net balance of the benefits.

Nevestheless it can be said that:

a) if the E.E.C intends to preserve the interests of its Mediterranean regions in the long term, the enlargment policy must be carefully negociated in order to lessen the expected short term negative effects, specially in the wine, fresh fruit and oilve oil sectors;
b) if a certain trade equilibrium with the other Mediterranean countries has to be kept, in order to maintain economic as well as political order in the Basin, the E.E.C. will have to "reinvent" all its agreement policy for these countries to find the way to compensate them for the inevitable negative effects which will follow the enlargment.

Because of the conditioning role of the E.E.C. policies on the Mediterranean trade, which will be further increased as consequence of the enlargment, it then clear that a solution for a future trade equilibrium in this area cannot be reached without an overall co-ordination of the Common Agricultural Policy with the other external policies, such as the enlargment policy and the preferential agreement policy for non member Mediterranean countries.

-26-

#### BIBLIOGRAPHY

[1] C. Aiello,"L'agricoltura mediterranea: esigenze di armonizzazione", <u>Realtà</u> del Mezzogiorno, marzo, 1970.

-26-

- [2] C. Aiello "Gli accordi mediterranei della Comunità Economica Europea e i loro riflessi sul Mezzogiorno", Unione Italiana delle C.C.I.A.A., luglio, 1975
- [3] B. Balassa "Trade Creation and Trade Diversion in the European Common Market" The Economic Journal, 1967, vol. 77°.
- [4] J. Bahagwati, "La teoria pura del commercio internazionale" in F. Caffè, "Il pensiero economico contemporaneo", Angeli, Milano, 1974, vol. II
- [5] G. Barbero "L'agricoltura nella politica economico-sociale della CEE", <u>Rivi-</u> sta di Economia Agraria, 1974, nº2.
- [6] CEE "Notizie sulla politica agricola comune: 12 anni di notizie sulla PAC 1963-75", Bruxelles, luglio, 1976; "Notizie sulla politica agricola comune: la Comunità Europea per lo sviluppo delle sue regioni mediterranee", dic.,1977.
- [7] CEE, Commissione, "Aspetti economici e settoriali- Analisi presentata dalla Commissione a completamento delle riflessioni relative ai problemi dell'ampliamento", Bruxelles, 27 aprile 1978.
- [8] CEE "Linee direttrici per lo sviluppo delle regioni mediterranee della Comunità, nonchè misure nel settore agricolo", G.U. CEE del 22.2.1978.
- [9] G.C. Chow "Tests of Equality between Sets of Coefficients in Two linear Regressions" Econometrica, 1960, nº 3.

[10] G. Coda Nunziante "la politica mediterranea nel quadro della politica della CEE", Rivista di Economia Agraria, 1975, nº 3.

[11] G. Coda Nunziante "Les contradictions Nord-Sud au sein de l'Europe", Sessions d'etude sur l'Agriculture dans le rapports euro-mediterraneens, 1976.

- [12] G. Coda Nunziante "L'agricoltura mediterranea nella Comunità Economica Europea", Convegno su: Il problema agricolo alimentare italiano nella Comunità Economica Europea, Firenze, aprile, 1977.
- [13] G.W. Dean e V. R. Collins "Trade and Welfare Effects of EEC Tariff Policy: A case Study of Oranges", Journal of Farm Economics, novembre, 1966.
- [14] FAO, "Production Yearbook", 1976, vol. 30°.
- [15] INEA, "Annuario dell'agricoltura italiana", 1959-75
- [16] ISTAT, "Annuario di Statistica Agraria", 1959-75.
- [17] T. Josling "Agricultural Policies in Developed Countries: a Review"<u>Journal</u> of Agricultural Economics, 1974,n°2.
- [18] T. Josling "Formal Approach to Agricultural Policy", Journal of Agricultural Economics, 1969, n°2.

[19] J.Johnston Econometric Methods, New York, McGraw H-ill, 1963

- [20] R.G. Lipsey "The Theory of Customs Unions: A Gneral Survey", <u>The</u> <u>Economic Journal</u>, 1960, vol. 70°.
- [21] L. Malassis "Agricultura e sviluppo del Mediterraneo", <u>Rivista di</u> Economia Agraria, 1975, nº3.
- [22] J. Marsh "Nuove idee per la politica agricola europea", <u>Rivista di</u> Economia Agraria, 1976, n.3, vol. 31°.
- [23] OCDE Trade by Commodities, Serie C, anni 1959-1975.
- [24] OCDE: Trade by Commodities, Serie B, 1976.
- [25] OCDE <u>Statistics of Area, Production and Yield in OCDE Countries</u>, Parigi, aprile, 1976.
- [26] Ouattara A.D., "Trade Effects of the Association of African Countries with the European Economic Community", IMF Staff Papers, n°2, July, 1973.
- [27] R. Pasca, "Libero scambio, protezionismo e riconversione dell'agricoltura", Rivista di Economia Agraria, vol. 30°, n°4, 1975.
- [28] R. Pasca-R. Paternò, "Analisi econometrica delle ripercussioni del protezionismo comunitario sulla domanda di importazione di alcuni prodotti agricoli in Italia", Rivista di Economia Agraria, vol. 31°, 1978, n°1.
- [29] G.Quaden <u>Parité pour l'agriculture et disparité entre agriculteurs</u>, L'Aia, Martinus Niinhoff, 1973.
- [30] M. Rossi Doria "Crisi e riforma dell'agricoltura comunitaria", <u>Rivista</u> di Economia Agraria, vol.30°, 1975, n°2.
- [31] V. Saccomandi "Crisi economica, integrazione europea e politica agricola comune nel periodo 1973-1976", <u>Rivista di Economia Agraria</u>, vol.31°,1976, n°
- [32] V. Saccomandi "Gli accordi mediterranei e la politica comune" <u>Rivista di</u> Economia Agraria, 1975,nº3.
- [33] E. Thorebecke-E. Pagoulatos "The Effects of the European Economic Integratio on Agriculture" in B. Balassa, <u>The European Economic Integration</u>, Amsterdam, North Holland, 1975.

### A.1. - MEDITERRANEAN AGRICULTURAL TRADE BETWEEN ITALY, FRANCE AND G.Sp.P.

|                |             | ÍTAT.          | TA - FRANC |          |         |  | P       | <u></u><br>897ਤ |         | 5D                  |
|----------------|-------------|----------------|------------|----------|---------|--|---------|-----------------|---------|---------------------|
|                |             | Fynore         | Tmpore     | r        | Expor   | Tmport                                 |         | Evnor-          | Twpor-  | Solda               |
|                |             | tations        | tations    | Solde    | tations | tations                                | Solde   | tations         | tations | DOTGE               |
|                |             |                |            |          | ,       |  |         |                 |         |                     |
| Blé            |             | 1)<br> }<br> } |            |          | •<br>-  |  |         |                 | ·       |                     |
| ;              | 59/61       | -              | -          |          | 48      |  |         | 593             | -       |                     |
| · · ·          | 66/68       | 87             | 23 731     | -23 731  | 77      | 4 940                                  | - 4 863 | 8_674           | 5 086   | 1 412               |
|                | 74/76       | 248            | 127 205    | -126 957 | 957     | 10 257                                 | -9 300  | 17 - 599        |         | 17 599              |
| Riz            |             |                |            |          |         |  |         |                 |         |                     |
|                | 59/61       | 453            | 172        | 281      | 161     | 811                                    | - 650   | · _             |         | -                   |
| ·····          | 66/68       | 9 116          | 1 289      | 7 827    | . 14    | 3 115                                  | -3 101  | 2               | 216     | 214                 |
|                | 74/76       | 39 482         | 5 707      | 33 775   | 11729   | 6 227                                  | 5 502   | 47              | 249     | -242                |
| Fruits         | <u>م</u> وا |                |            |          |         |  |         |                 |         |                     |
|                | 59/61       | 7 231          | 203        | 7 028    | 49      | 1 261                                  | -1 212  | 7               | 16 675  | -16 668             |
|                | 66/68       | 30 909         | 468        | 30 441   | 108     | 2 455                                  | -2 347  |                 | 62 348  | <b>-62</b> 332      |
| • •            | 74/76       | 89 022         | 1 967      | 87 055   | 1 997   | 9 790                                  | -7 793  | 906             | 203 779 | -202 873            |
| Légunes        |             |                |            |          | ₩       |  |         |                 |         |                     |
|                | 59/61       | 5 034          | 172        | 4 862    | 19      | 811                                    | -792    | 142             | 4 230   | -40 <sup>1</sup> 88 |
| · ·            | 66/68       | 17 335         | 1 289      | 16 046   | 4       | 3 116                                  | -3 114  | 303             | 19 975  | -19 672             |
|                | 74/76       | 36 995         | 5 707      | 31 288   | 242     | 6 227                                  | -5 985  | 4 873           | 48 727  | <b>∸</b> 43 €54     |
| Vin            |             |                |            |          | -       |  |         | ·               |         |                     |
|                | 59/61       | -              | -          |          | · _     | -                                      |         | -               | -       |                     |
|                | 66/68       | 4 556          | 9 096      | -4 540   | 57      | 544                                    | -487    | 626             | 8 858   | -8 232              |
|                | 74/76       | _174_589       | 38 787     | 135 798  | 115     | 8 689                                  | -8 574  | 1 460           | 30 892  | -29 432             |
| Tabac          | 59/61       | 132            | 11         | 121      | 442     | 3 002                                  | -2 560  |                 | 4 157   | -4 157              |
| -              | 66/68       | _              | · _        | _        | 136     | 3 068                                  | -2 932  | -               | 4 971   | -4 971              |
|                | 74/76       | 4 219          | 132        | 4 087    | 534     | 5 347                                  | -4 813  | -               | 4 031   | -4 031              |
| <u>Euile</u>   |             |                |            |          |         | ······································ |         |                 |         |                     |
| <u>D'olive</u> |             |                |            |          | •<br>•  |  |         |                 |         | · 21. ·             |
|                | 59/61       | 24             | 715        | -691     | 43 422  | 43 422                                 | -43 422 | -               | 540     | -540                |
|                | 66/68       | 186            | 1 719      | -1 533   | -       | ·33 <sub>718</sub>                     | -33 718 | · -             | 2 447   | -2 447              |
| _              | 74/76       | 6 631          | 7 190      | -559     | -       | 98 382                                 | -98 382 | -               | 18 244  | -18 244             |
|                |             |                |            |          |         |  |         |                 |         |                     |

SOURCE : Nos études à partir de (23, 24)

T



| Modèle<br>🔨 vena       | s (pro-<br>nce im-                        |                   | СЕ               | Е                 |                |                  | FRAI            | NCE              |                |    | ITA | LII |                |                |                | GE               | P      | •          |
|------------------------|---|-------------------|------------------|-------------------|----------------|------------------|-----------------|------------------|----------------|----|-----|-----|----------------|----------------|----------------|------------------|--------|------------|
| Produi<br>(desti<br>pé | ports<br>ts<br>nations<br>riodes)         | bo                | pl               | b2                | R <sup>2</sup> | bo               | b1              | b <sub>2</sub>   | R <sup>2</sup> | bŋ | bl  | b   | 2 <sup>I</sup> | λ <sup>2</sup> | p <sup>0</sup> | bl               | b2     |            |
| BLE                    | { <u>1<sup>e</sup>p</u>                   | -72,20<br>(2,37)∿ | 6,41<br>(2,14)∿  | 1,72<br>(0,57)    | 0,52           |                  |                 |                  |                |    |     | i   |                |                |                |                  |        | - <b>T</b> |
| France                 | 2 <sup>e</sup> p                          | -18,98<br>(1,85)° | 2,34<br>:(3,57)* | -0,04<br>(0,03)   | 0,72           |                  |                 |                  |                |    |     | •   |                |                | · .            | •                |        |            |
|                        | $\left\{ \frac{1^{e}p}{1} \right\}$       | 230,67<br>(0,73)  | 0,20<br>(0,08)   | -48,33<br>(0,75)+ | 0,18           | -13,22<br>(0,18) | 1,17<br>(0,33)  | 1,60<br>(0,14)   | 0,03           |    | .•  |     |                |                |                |                  |        |            |
| Italie                 | 2 <sup>e</sup> p                          | 5,90<br>(0,65)    | 1,19<br>(3,73)*  | -2,03<br>(1,34)+  | 0,76           | -3,72<br>(1,27)+ | 1,42<br>(7,25)* | -0,56<br>(2,42)* | 0,93           |    |     |     |                |                |                |                  |        |            |
|                        | { <u>1<sup>e</sup>p</u>                   | 6,31<br>(1,02)+   | 0,34<br>(0,60)   | -0,50<br>(0,36)   | 0,05           |                  |                 |                  |                |    |     |     |                |                |                |                  |        |            |
| G E P                  | { <u>2<sup>e</sup>p</u>                   | -13,28<br>(2,44)* | 0,78<br>(1,36)+  | 2,88<br>(1,81)°   | 0,73           | 11               | 1               |                  |                |    | · . |     | ·              | •              |                |                  |        |            |
| RIZ                    | { <u>1<sup>e</sup>p</u>                   | -28,93<br>(6,87)* | 3,34<br>(8,55)*  | 0,99<br>(2,13)∿   | 0,91           |                  |                 | ;                |                |    |     | Ĩ   |                |                |                |                  | -<br>- |            |
| France                 | {_2 <sup>e</sup> _p                       | -4,52<br>(6,93)*  | 0,96<br>(8,03)*  | 0,83<br>(2,73)*   | 0,99           | • •              |                 |                  |                |    |     |     | :              | . 1            |                |                  |        |            |
|                        | { <u>1<sup>e</sup>p</u>                   | 3,41<br>(0,31)    | 0,61<br>(1,36)+  | -1,12<br>(0,66)   | 0,31           | ·                |                 |                  |                |    |     |     |                | 1              |                | i                |        |            |
| Italie                 | 2 <sup>e</sup> p                          | 8,06<br>(1,56)°   | 1,13<br>(3,67)*  | 0,87<br>(1,00)+   | 0,74           |                  |                 |                  |                |    |     | ;   | <b>.</b> .     |                |                | -<br>-<br>-<br>- |        |            |
|                        | $\left\{ \frac{1 \mathbf{p}}{1} \right\}$ | 6,40<br>(1,38)+   | 0,21<br>(0,97)+  | -0,65<br>(0,62)   | 0,15           |                  |                 | ,                |                |    |     |     |                | :              |                | 1                | !<br>! |            |
| GEP                    | $2^{e_p}$                                 | -1,58<br>(0,22)   | 1,04<br>(2,37)   | -0,03<br>(0,03)   | 0,53           |                  |                 |                  |                |    |     |     |                |                | •              | a<br>n<br>k y    |        |            |

|                           |                          |                   |                 |                  |                |                   |                 |                  | a. a.          | ;<br>             |                 |                  |                | 3                 |                  |                 | ••             |
|---------------------------|--------------------------|-------------------|-----------------|------------------|----------------|-------------------|-----------------|------------------|----------------|-------------------|-----------------|------------------|----------------|-------------------|------------------|-----------------|----------------|
| ۰.                        | (                        | Annexe            |                 | <u> </u>         |                | egressic          | n_des_eq        |                  |                |                   |                 |                  |                |                   | <u>s)</u> (sui   | te)             |                |
| Modèles<br>venan          | (pro-<br>ce im-<br>ports |                   | ĊE              | Е                |                |                   | FRAI            | NCE              |                | -<br>-<br>-       | ΙΤΑΙ            | LIE              | i.             |                   | GE               | P               | -              |
| Produit<br>(destin<br>pér | s<br>ations<br>iodes)    | p0,               | <b>b</b> 1      | b <sub>2</sub>   | R <sup>2</sup> | b0                | bl              | b2               | R <sup>2</sup> | b <sub>0</sub>    | b1              | b2               | R <sup>2</sup> | b <sub>0</sub>    | b <sub>1</sub>   | b2              | R <sup>2</sup> |
| FRUITS                    | { <u>1<sup>e</sup>p</u>  | -31,84<br>(3,02)* | 3,06<br>(5,08)* | 0,79<br>(0,91)+  | 0,89           | 4 .               | · · ·           |                  |                | -16,61<br>(2,44)∿ | 1,91<br>(2,92)* | 0,58<br>(1,48)°  | 0,92           | -11,49<br>(3,78)* | 1,52<br>(5,55)*  | 0,60<br>(4,20)* | 0,96           |
| France                    | 2 <sup>e</sup> p         | -4,58<br>(1,21)+  | 1,80<br>(5,31)* | 1,74<br>(1,94)∿  | 0,81           |                   |                 |                  |                | -9,34<br>(4,16)*  | 1,83<br>(9,27)* | 0,76<br>(4,99)*  | 0,92           | -8,38<br>(5,43)*  | 1,39<br>(13,12)* | 0,36<br>(1,95)∿ | 0,96           |
|                           | { <u>1<sup>e</sup>p</u>  | -6,73<br>(1,04)+  | 1,29<br>(1,31)+ | 0,22<br>(0,15)   | 0,50           | -2,68<br>(0,42)   | 1,10<br>(1,90)° | 0,70<br>(1,26)+  | 0,55           |                   | · .             |                  |                | 5,51<br>(2,62)∿   | -0,01<br>(0,01)  | 0,42<br>(2,41)∿ | 0,74           |
| Italie                    | 2 <sup>e</sup> p         | -19,83<br>(2,20)∿ | 2,08<br>(3,48)* | 0,97<br>(1,16)+  | 0,65           | -6,00<br>(0,62)   | 1,27<br>(1,67)° | -0,30<br>(0,62)  | 0,60           | •                 |                 |                  | -              | -11,23<br>(1,20)+ | 1,83<br>(2,24)∿  | 0,02<br>(0,11)  | 0,71           |
|                           | { <u>1<sup>e</sup>p</u>  | 3,38<br>(0,26)    | 0,46<br>(0,38)  | 0,93<br>(0,75)+  | 0,29           | 3,81<br>(0,46)    | -0,07<br>(0,10) | -0,23<br>(0,24)  | 0,01           | -1,51<br>(0,04)   | 0,59<br>(0,16)  | -0,21<br>(0,06)  | 0,05           |                   |                  |                 |                |
| GEP                       | 2 <sup>e</sup> p         | -17,45<br>(3,42)* | 3,00<br>(4,79)* | -1,21<br>(1,31)+ | 0,79           | -21,32<br>(4,54)* | 2,37<br>(9,49)* | 0,84<br>(1,08)+  | 0,94           | -26,74<br>(2,39)* | 3,54<br>(2,46)* | 0,42<br>(0,49) ∋ | 0,64           |                   |                  | · ·             |                |
| LEGUMES                   | { <u>1<sup>e</sup>p</u>  | 9,98<br>(3,38)*   | 1,61<br>(9,12)* | 0,40<br>(1,17)+  | 0,95           |                   |                 |                  |                | -4,35<br>(1,70)°  | 0,90<br>(3,32)* | 0,67<br>(2,69)*  | 0,91           | -12,62<br>(1,58)° | 2,02<br>(2,88)*  | -0,35<br>(0,26) | 0,65           |
| France                    | 2 <sup>e</sup> p         | -6,55<br>(0,54)   | 1,46<br>(1,88)∿ | -0,05<br>(0,06)  | 0,40           | 1                 | • •             |                  |                | -0,20<br>(0,11)   | 0,75<br>(6,22)* | 0,23<br>(0,75)+  | 0,86           | -6,51<br>(3,69)*  | 1,37<br>(6,92)*  | -0,04<br>(0,19) | 0,93           |
|                           | { <u>1<sup>e</sup>p</u>  | 4,27<br>(1,24)+   | 0,22<br>(1,53)° | 0,39<br>(0,59)   | 0,32           | 10,36<br>(2,88)*  | 0,29<br>(1,47)° | -1,61<br>(2,79)* | 0,71           |                   | ,<br>,          |                  |                | -1,80<br>(0,53)   | 0,47<br>(1,67)°  | 0,94<br>(1,50)° | 0,59           |
| Italie                    | 2 <sup>e</sup> p         | 0,37<br>(0,17)    | 0,97<br>(6,91)* | -0,42<br>(1,86)° | 0,91           | -4,46<br>(1,17)+  | 1,35<br>(6,60)* | -0,55<br>(0,92)+ | 0,87           |                   |                 |                  |                | 2,38.<br>(1,95)∿  | 0,57<br>(4,78)*  | -0,24<br>(0,25) | 0,78           |
|                           | { <u>1<sup>e</sup>p</u>  | 5,22<br>(6,84)*   | 0,19<br>(2,27)∿ | 0,01<br>(0,04)   | 0,64           | -10,94<br>(3,28)* | 0,66<br>(5,25)* | 2,32<br>(3,58)*  | 0,89           | -5,46<br>(0,24)   | 0,21<br>(0,15)  | 1,49<br>(0,59)   | 0,27           |                   |                  |                 |                |
| GEP                       | 2 <sup>e</sup> p         | -2,76<br>(1,77)°  | 1,22<br>(9,47)¥ | -0,38<br>(2,15)∿ | 0,93           | -14,43<br>(1,75)° | 2,03<br>(3,93)* | 0,14<br>(0,16)   | 0,87           | -30,26<br>(4,19)* | 2,66<br>(4,75)* | 1,86<br>(2,47)*  | 0 <b>,</b> 77  |                   |                  |                 |                |
|                           |                          |                   |                 | · · ·            |                |                   |                 | ,                | 1              | ·                 | ·               | ····             | •i             |                   | <b>,</b>         |                 | •              |

1.0

N.B. Entre parenthèses figurent les t-Student, de significativité + : 70%; ° : 90%; ∿ : 95%; \* : 97,5%.

|                           |                          | •                 |                              |                  |                                       |                                       |                  |                  |                | •                 |                  |                      |                |                    |                  |                  |                |
|---------------------------|--------------------------|-------------------|------------------------------|------------------|---------------------------------------|---------------------------------------|------------------|------------------|----------------|-------------------|------------------|----------------------|----------------|--------------------|------------------|------------------|----------------|
|                           |                          | Annexe            | <u>3</u> : <u>Coe</u>        | <u>fficient</u>  | s_de i                                | régression                            | on des é         | guations         | de de          | emande d          | <u>importa</u>   | tion (1 <sup>e</sup> | <u>et 2</u>    | périod             | <u>es)</u> (su   | lte)             |                |
| Modèles<br>venan          | (pro-<br>ce im-<br>ports |                   | СЕ                           | Е                | · · · · · · · · · · · · · · · · · · · | 4 1<br>1                              | FRA              | NCE              |                | -                 | ITA              | LIE                  | -              |                    | GЕ               | <b>P</b>         |                |
| Produit<br>(destin<br>pér | s<br>ations<br>iodes)    | b0                | b <sub>1</sub>               | b2               | R <sup>2</sup>                        | bŋ                                    | b1               | b <sub>2</sub>   | R <sup>2</sup> | bŋ                | b <sub>1</sub>   | b2                   | R <sup>2</sup> | b <sub>0</sub>     | bı               | b <sub>2</sub>   | R <sup>2</sup> |
| ¥IN<br>-                  | { <u>1<sup>e</sup>p</u>  | 14,73<br>(3,93)*  | -0,53<br>(1,63)°             | -0,06<br>(0,66)  | 0,47                                  | · · · · · · · · · · · · · · · · · · · |                  |                  | •              | -0,11<br>(0,01)   | -0,78<br>(2,39)∿ | 2,95<br>(1,13)+      | 0,54           | 12,47<br>(1,71)°   | -0,63<br>(2,12)∿ | 0,64<br>(0,57)   | 0,48           |
| France                    | {2 <sup>e</sup> p        | -12,44<br>(2,87)* | 0,84<br>(2,02)∿              | 2,43<br>(6,57)*  | 0,94                                  |                                       |                  |                  |                | -23,07<br>(2,05)∿ | 2,16<br>(2,48)∿  | 1,28<br>(1,86)°      | 0,61           | 8,16<br>(1,48)°    | 0,82<br>(2,87)*  | -1,39<br>(2,55)* | 0,82           |
|                           | $\frac{1^{e}p}{1}$       | -1,27<br>(8,06)*  | 1,14<br>(38,36) <del>;</del> | -0,06<br>(0,83)+ | 0,99                                  | -0,96<br>(1,63)°                      | 1,14<br>(72,44)* | -1,15<br>(0,79)+ | 0,99           |                   |                  |                      |                | 2,51<br>(1,23)+    | 0,50<br>(3,11)*  | -0,19<br>(1,13)+ | 0,86           |
| Italie                    | 2 <sup>e</sup> p         | 0728<br>(0,61)    | 0,96<br>(19,21)#             | -0,02<br>(0,24)  | 0,99                                  | 0,25<br>(0,57)                        | 0,93<br>(23,62)≯ | -0,02<br>(0,47)  | 0,99           |                   |                  |                      |                | -22,54<br>(12,58)* | 2,40<br>(4,19)*  | 1,37<br>(1,95)°  | 0,90           |
|                           | $\frac{1^{e_{p}}}{1}$    | 0,42<br>(2,32)*   | 0,96<br>(57,22)#             | -0,12<br>(3,42)* | 0,99                                  | 0,09<br>(0,15)                        | 0,97<br>(27,30,* | -0,06<br>(0,39)  | 0,99           | -2,35<br>(1,70)°  | _1,01<br>(3,18)* | -0,11<br>(0,35)      | 0,78           |                    |                  |                  |                |
| GEP                       | 2 <sup>e</sup> p         | 4,45<br>(4,05)*   | 0,24<br>(0,70)               | 0,23<br>(0,42)   | 0,70                                  | 3,12<br>(1,26)+                       | 0,27<br>(2,18)∿  | 0,51<br>(0,70)   | 0,53           | -1,74<br>(1,31)+  | 0,43<br>(0,60)°  | 0,56<br>(0,90)+      | 0,93           |                    |                  |                  |                |
| TABAC                     | { <u>1<sup>e</sup>p</u>  | 14,29<br>(2,47)*  | -0,79<br>(1,45)°             | -0,09<br>(0,96)+ | 0,23                                  | ·                                     |                  |                  |                |                   |                  |                      |                |                    |                  |                  |                |
| France                    | 2 <sup>e</sup> p         | 0,89<br>(0,12)    | 1,57<br>(2,70)*              | -1,48<br>(6,74)* | 0,97                                  |                                       |                  |                  |                |                   |                  |                      |                |                    |                  | ۰.               |                |
|                           | <u>{1<sup>e</sup>p</u>   |                   |                              |                  |                                       |                                       |                  |                  |                |                   |                  |                      | -              | 2,50<br>(0,62)     | 0,59<br>(1,80) v | -0,03<br>(0,05)  | 0,29           |
| Italie                    | 2 <sup>e</sup> p         |                   |                              |                  |                                       |                                       |                  |                  |                |                   |                  |                      | i i i          | 8,00<br>(1,06)+    | 0,13<br>(0,23)   | 0,28<br>(0,70)+  | 0,46           |
| e p                       | <u>{1<sup>e</sup>p</u>   | 6,66<br>(2,00)v   | 0,01<br>(0,09)               | -0,17<br>(0,41)  | 0,03                                  |                                       |                  |                  |                | 60,15<br>(15,03)* | -2,56<br>(3,79)* | -6,50<br>(1,43)+     | 0,75           |                    |                  |                  |                |
| GEP                       | 2 <sup>e</sup> p         | 3,89<br>(1,31)+   | 0,63<br>(3,07)*              | -0,80<br>(2,40)∿ | 0,81                                  |                                       | , ,              |                  | -              | -84,62<br>(3,39)* | 9,01<br>(3,06)*  | -2,51<br>(1,43)+     | 0,87           |                    |                  |                  |                |
| N.]                       | B. Ent                   | re paren          | thèses f                     | igurent          | les t-                                | -Student                              | , de sig         | nificati         | vité           | + : 70            | k; °: 9(         | )%; ∿ : 9            | 95%; #         | k : 97,59          | 5 <b>.</b> .     | , , i            |                |

| Modèles<br>venan<br>Produit<br>(destin<br>pér | (pro-<br>ce im-<br>ports<br>s<br>ations<br>iodes)                  | Annexe bo   | 3 : <u>Coe</u><br>C E<br>b <sub>1</sub> | E<br>E<br>b <sub>2</sub>            | s de         | régressic<br>b <sub>0</sub>       | FRAN<br>b <sub>1</sub>             | U <u>ations</u><br>CE<br>b <sub>2</sub> | <u>de d</u>  | <u>emande d</u>                       | ITA                                | <u>L</u> IE                         | <u>et 2</u>  | e période | 5) (su:<br>G E<br>b <sub>1</sub> | ite et f<br>P<br>b <sub>2</sub> | <b>in)</b><br>R <sup>2</sup>          |
|---|--|---|---|-------------------------------------|--------------|-----------------------------------|------------------------------------|---|--------------|---------------------------------------|------------------------------------|-------------------------------------|--------------|-----------|----------------------------------|---------------------------------|---------------------------------------|
| <u>HUILE D</u>                                | $\{\frac{1^{e_{p}}}{2^{e_{p}}}\}$                                  | -14,78<br>(0,52)°<br>1,66<br>(0,33)   | 0,72<br>(0,74)+<br>1,17<br>(4,06)*      | 2,67<br>(2,11)∿<br>-1,23<br>(1,42)+ | 0,54         |                                   | ļ<br>                              |   | -            | -18,25<br>(1,70)°<br>12,38<br>(1,86)° | 0,79<br>(0,80)+<br>1,32<br>(5,85)* | 3,38<br>(2,20)∿<br>-3,89<br>(2,66)* | 0,62<br>0,88 |           | ·<br>·                           |                                 | · · · · · · · · · · · · · · · · · · · |
| Italie  | $\left\{ \begin{array}{c} 1^{e} p \\ 2^{e} p \end{array} \right\}$ | -4,73<br>(3,29)*<br>19,93<br>(0,86)+  | 1,99<br>(5,57)*<br>0,52<br>(0,57)       | 5,24<br>(2,60)°<br>-3,76<br>(1,33)+ | 0,89<br>0,68 | 1,73<br>(2,18)<br>1,56<br>(2,11)∿ | 1,38<br>(3,08)*<br>1,76<br>(5,64)* | -1,31<br>(0,83)+<br>-7,48<br>(3,36)*    | 0,76<br>0,86 |                                       |                                    |                                     |              |           | · .<br>·                         |                                 |                                       |
|   |  | The second se |   |                                     |              |                                   |                                    |   |              | 1                                     |                                    |                                     | :            |           |                                  |                                 |                                       |
|   | ,  |   |   |                                     |              |                                   |                                    |   |              |                                       |                                    | · · · ·                             |              |           |                                  |                                 |                                       |
|   | (  | 1 T   |   |                                     |              |                                   |                                    |   |              |                                       |                                    |                                     | · ·          |           |                                  |                                 |                                       |
|   | ( :<br>!   |   | · · · ·                                 |                                     |              | t                                 |                                    |   |              |                                       |                                    |                                     |              |           | :<br>:                           |                                 |                                       |