# IIANEПILTHMIO OEटLAAIA乏 

 TMHMA MHXANIKQN XQPOTAEIA乏 KAI IEPIФEPEIAKH乏 ANAITYEH乏
## LEIPA EPEYNHTIKQN EPIAEIQN

A EUROPEAN MACRO－REGION IN THE MAKING？ THE BALKAN TRADE RELATIONS OF GREECE＊

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## DISCUSSION PAPER SERIES

# A EUROPEAN MACRO-REGION IN THE MAKING? THE BALKAN TRADE RELATIONS OF GREECE* 



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## 1. Introduction

The process of transition in Central and Eastern European Countries (CEEC) ${ }^{1}$ gives Europe an opportunity to expand but also re-orient economic and especially trade relations. As the artificial barriers in Central and Southern Europe are gradually removed, a larger economic space is created, in which the intensity and the type of economic relations are largely determined by geographical factors such as adjacency and proximity (Peschel 1990, Krugman 1993) and often by historical, cultural and other non-economic preference factors.

As distance related transportation costs will always set limits to the reach of goods and services and therefore to the geographical size of the markets, regional trade areas will be created, within which trade relations will be more intensive, and perhaps of different type. This short of geographical preference or clustering in trade relations, is an efficiency driven process in order for countries to fully exploit opportunities and benefits from exchange. It is also a rational reaction for peripheral countries that attempt to reduce or offset disadvantages of perimetric location or isolation, with respect to the gravity center of Europe.

In parallel with the transition process in CEEC, another equally complex, conflicting and challenging process that is taking place in Europe, is that of economic integration, with major elements the Single European Market, the Maastricht policies towards the Economic and Monetary Union and the enlargement of the European Union. This process, that involves states with different levels of development and different endowments of resources and technology, is considered to generate severe pressure for adjustment to the less advanced Southern European countries (CEC 1991, Amin et.al 1992) that have recently internationalized their economies with unsolved, in most cases, problems of efficient organization of their productive bases.

Especially for Greece, this process has intensified the structural difficulties and has coincided with the contraction of the industrial base of the economy and the concentration of activities in the less exposed to international markets tertiary sector. It has been claimed that an important source of these difficulties is the perimetric

[^1]position of the country with respect to the European economic gravity centers (Petrakos and Zikos 1994). As a result, the recent developments in CEEC and especially in the Balkans should be seen and examined from the stand point of removing isolation and peripherality, by taking advantage of the opening of a large, new and accessible market in which Greece has at least the advantage of proximity. They should also be examined from the standpoint of creating opportunities for a new set of economic interaction with a long term impact on the economic geography of Europe.

The purpose of this paper is to examine, on the basis of existing experience, the trade patterns of Greece with the Balkan countries and especially Albania and Bulgaria. In the next section we examine the general trends in trade, in section 3 we examine the sectoral trade trends, in sections 4 and 5 we examine measures of revealed comparative advantage and intra-industry trade and in section 6 we draw our conclusions. In all sections the trade figures of Greece with the Balkan countries (BCs) are compared to those with the EU countries (EU11) and to figures of total trade.

## 2. General Trends in the Trade of Greece with the Balkan Countries

Trade relations between neighboring countries are by far the most important aspect of economic interaction and cooperation as they generate the well known benefits from exchange and specialization and can be a vehicle for growth and development. Furthermore, trade relations promote more intensive social interaction and understanding between different countries, broaden the area of common interests and in that sense help to maintain peace and stability in a region. In this section, we examine in a comparative basis the evolution, the characteristics and the structure of trade relations between Greece and Albania, Bulgaria and the BCs as a whole for the period 1989-1993 ${ }^{2}$. More specifically we examine the post-1989 trends in exports, imports, volume of trade (VOT) and balance of trade (BOT) of Greece with Albania, Bulgaria and the Balkan countries and make comparisons with the trends in the trade

[^2]of Greece with the other members of the European Union (EU12) and the rest of the world.

### 2.1 Greek Imports and Exports with Albania, Bulgaria and the BCs

The evolution of Greek trade with Albania, Bulgaria and the BCs is given in Table 1 and Figures 1, 2, 3 and 4. From the examination of the data we can make the following observations:

- The value of Greek exports to Albania in USD has increased in the period 19891993 by $572 \%$, accounting in 1993 for $1.5 \%$ of total Greek exports. Figures for the first six months of 1994 (not shown in Table) raise this figure to $2.3 \%$ of total Greek exports.
- The value of Greek exports to Bulgaria in USD has increased in the period 19891993 by $342 \%$, accounting in 1993 for $3.6 \%$ of total Greek exports. Figures for the first six months of 1994 raise this share to $5.4 \%$ of total Greek exports.
- As a result, the joint share of Greek exports to Albania and Bulgaria has reached $5.1 \%$ of total exports in 1993 and $7.7 \%$ of total exports in the first six months of 1994, a far increase from the $1.15 \%$ figure of 1989.
- The value of Greek exports to the BCs in USD has increased in the period 19891993 by $189 \%$, accounting in 1993 for $8.2 \%$ of total Greek exports. Figures for the first six months of 1994 raise this figure to $14 \%$, which indicates a major development in the structure of Greek exports in a short period of time when compared to $3.1 \%$ which is the 1989 figure.
TABLE 1
Trade of Greece with Albania, 1989-93

| YEAR | EXPORTS |  |  | IMPORTS |  |  | Volume Of Trade (VOT) |  | Balance Of Trade <br> (BOT) <br> Value | EXPORTS/IMPORTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Value(in thousand USs) | INDEX | Share | Value(in thousand USs) | INDEX | Share |  |  |  |  |
|  |  |  |  |  |  |  | Value | INDEX |  |  |
| 1989 | 18781 | 100,00 | 0,25\% | 7496 | 100,00 | 0,05\% | 26277 | 100,00 | 11285 | 2,51 |
| 1990 | 17820 | 94,88 | 0,22\% | 12283 | 163,86 | 0,06\% | 30103 | 114,56 | 5537 | 1,45 |
| 1991 | 12212 | 65,02 | 0,14\% | 11876 | 158,43 | 0,06\% | 24088 | 91,67 | 336 | 1,03 |
| 1992 | 41263 | 219,71 | 0,42\% | 18087 | 241,29 | 0,08\% | 59350 | 225,86 | 23176 | 2,28 |
| 1993 | 126315 | 672.57 | 1,50\% | 15432 | 205,87 | 0,07\% | 141747 | 539,43 | 110883 | 8,19 |

> Trade of Greece with Bulgaria, 1989-93

| YEAR | EXPORTS |  |  | IMPORTS |  |  | Volume Of Trade (VOT) |  | Balance Of Trade <br> (BOT) <br> Value | EXPORTS/IMPORTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Value(in thousand US\$) | INDEX | Share | Value(in thousand USs) | INDEX | Share |  |  |  |  |
|  |  |  |  |  |  |  | Value | INDEX |  |  |
| 1989 | 68563 | 100,00 | 0,90\% | 69030 | 100,00 | 0,45\% | 137593 | 100,00 | -467 | 0,99 |
| 1990 | 52965 | 77,25 | 0,66\% | 108097 | 156,59 | 0,70\% | 161062 | 117,06 | -55132 | 0,49 |
| 1991 | 87790 | 128,04 | 1,01\% | 128533 | 186,20 | 0,84\% | 216323 | 157,22 | -40743 | 0,68 |
| 1992 | 167169 | 243,82 | 1,70\% | 161002 | 233,23 | 1,05\% | 328171 | 238,51 | 6167 | 1,04 |
| 1993 | 303362 | 442,46 | 3.60\% | 197571 | 286,21 | 1.29\% | 500933 | 364,07 | 105791 | 1,54 |


|  | EXPORTS |  |  | IMPORTS |  |  | Volume Of Trade (VOT) |  | Balance Of Trade <br> (BOT) <br> Value | EXPORTS/IMPORTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| YEAR | Value(in thousand us\$) | INDEX | Share | Value | INDEX | Share |  |  |  |  |
|  |  |  |  | (in thousand US\$) |  |  | Value | INDEX |  |  |
| 1989 | 239138 | 100,00 | 3,16\% | 383765 | 100,00 | 2,50\% | 622903 | 100,00 | -144627 | 0,62 |
| 1990 | 310093 | 129,67 | 3,88\% | 464716 | 121,09 | 3,03\% | 774809 | 124,39 | -154623 | 0,67 |
| 1991 | 344739 | 144,16 | 3,98\% | 456782 | 119,03 | 2,97\% | 801521 | 128,68 | -112043 | 0,75 |
| 1992 | 390540 | 163,31 | 3,96\% | 319668 | 83,30 | 2,08\% | 710208 | 114,02 | 70872 | 1,22 |
| 1993 | 692545 | 289,60 | 8,21\% | 329455 | 85,85 | 2,14\% | 1022000 | 164,07 | 363090 | 2,10 |

Trade of Greece with the E.U, 1989-93

| YEAR | EXPORTS |  |  | IMPORTS |  |  | Volume Of Trade (VOT) |  | Balance Of Trade <br> (BOT) <br> Value | EXPORTS/IMPORTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Value <br> (in thousand uss) | INDEX | Share | Value(in thousand Us\$) | INDEX | Share |  |  |  |  |
|  |  |  |  |  |  |  | Value | INDEX |  |  |
| 1989 | 4941701 | 100,00 | 65,20\% | 9940061 | 100,00 | 64,72\% | 148817 | 100,00 | -4998360 | 0,50 |
| 1990 | 5095693 | 103,12 | 63,73\% | 12628215 | 127,04 | 65,55\% | 177239 | 119,10 | -7532522 | 0,40 |
| 1991 | 5505757 | 111,41 | 63,51\% | 12869296 | 129,47 | 62,36\% | 183750 | 123,47 | -7363539 | 0,43 |
| 1992 | 6448628 | 130,49 | 65,39\% | 14648034 | 147,36 | 64,56\% | 210966 | 141,76 | -8199406 | 0,44 |
| 1993 | 4718358 | 95,48 | 55,95\% | 13172399 | 132,52 | 63,96\% | 178907 | 120,22 | -8454041 | 0,36 |


|  | EXPORTS |  |  | IMPORTS |  |  | Volume Of Trade (VOT) |  | Balance Of Trade <br> (BOT) <br> Value | EXPORTS/IMPORTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| YEAR | Value(in thousand US\$) | INDEX | Share | Value | INDEX | Share |  |  |  |  |
|  |  |  |  | (in thousand US\$) |  |  | Value | INDEX |  |  |
| 1989 | 7578900 | 100,00 | 100,00\% | 15359478 | 100,00 | 100,00\% | 229383 | 100,00 | -7780578 | 0,49 |
| 1990 | 7996182 | 105,51 | 100,00\% | 19264709 | 125,43 | 100,00\% | 272608 | 118,84 | -11268527 | 0,42 |
| 1991 | 8668518 | 114,38 | 100,00\% | 20636049 | 134,35 | 100,00\% | 293045 | 127,75 | -11967531 | 0,42 |
| 1992 | 9862007 | 130,12 | 100,00\% | 22690419 | 147,73 | 100,00\% | 325524 | 141,91 | -12828412 | 0,43 |
| 1993 | 8433723 | 111,28 | 100,00\% | 20594736 | 134,08 | 100,00\% | 290284 | 126,55 | -12161013 | 0.41 |

Source : Export Research Center
Panhellenic Exporters Association

Figure 1 Greek Exports, Imports, Volume of Trade and Balance of Trade with Albania, 1989-1993


Fiqure 2 Greek Exports, Imports, Volume of Trade and Balance of Trade with Bulgaria, 1989-1993


Figure 3 Greek Exports, Imports, Volume of Trade and Balance of Trade with the Balkans, 1989-1993


Figure 4 Index of Greek Exports and Imports with Albania, Bulgaria, the Balkans, the E.U and the World.



- These impressive increases come in a period where Greek exports to the EU have decreased in dollar value, because of the appreciation of the drachma which is the outcome of anti-inflationary policies in Greece. Similar trends of declining dollar value of exports (but smaller in magnitude) are also found in total Greek exports.
- The Greek exports to Bulgaria account in 1993 for about $45 \%$ of Greek exports to the BCs and are higher than the Greek exports to Albania (although they grow slower), due to the larger size and the greater capacity of the market in Bulgaria.
- The value of Greek imports from Albania in USD has increased in the same period by $105 \%$.
- The value of Greek imports from Bulgaria in USD has increased in the same period by $186 \%$
- Greek imports from Bulgaria have increased faster and have a higher value in 1993, due to the larger size and the better conditions existing in the Bulgarian economy
- The share of Greek imports from Albania have increased in the 1989-1993 period, but it still remains (in 1993) under 0.1\% of Greek imports.
- The share of Greek imports from Bulgaria has increased almost 3 times in the same period to $1.3 \%$ of Greek imports.
- Greek imports from the BCs as a whole have declined in the 1989-1993 period, a fact that is clearly related with the conflict in former Yugoslavia. As a result the share of Greek imports from the BCs has declined from $2.5 \%$ in 1989 to $2.14 \%$ in 1993.


### 2.2. The Volume and Balance of Trade

As a result of the expansion of exports and imports of Greece with the BCs and especially with Albania and Bulgaria, the volume of trade (VOT) has increased by $439 \%$ in the case of trade with Albania, $264 \%$ in the case of trade with Bulgaria and
$64 \%$ with BCs in the 1989-1993 period (Figure 5). The magnitude of this increase can be better appreciated if compared to the $20 \%$ and $26 \%$ increase in the Greek VOT with the EU and the rest of the World respectively. This explosive expansion of trade between Albania, Bulgaria and Greece indicates that the geographical, historical, cultural or other positive parameters that favor cross-border interaction and trade are to a large extent exploited in the area.

Figure 5 Index of the Greek Volume of Trade (Exports+Imports) with Albania, Bulgaria, Balkans, the E.U and the World.


As expected due to the difficulties of the transition process, but also due to the conflict in Yugoslavia, Greece has increased faster its exports than its imports. As a result, its balance of trade (BOT) is positive and increasing in the case of trade with Albania and has turned from negative to positive in the case of trade with Bulgaria and the BCs.

### 2.3. Export/lmport Ratios

The exportimport ratio measures the value of exports of Greece that correspond to a dollar of imports. A ratio greater than one means that every dollar of imports in Greece
from another country is more than matched by Greek exports to the same country. Therefore, higher than one values indicate a positive for Greece BOT, while lower than one values indicate a negative balance of trade.

Another way to interpret this ratio is to think of it as the degree of relative penetration of a foreign market by Greek products. Looking at the export/import ratio in Table 1, we can make the following observations:

- The Greek export/import ratio with Albania is greater than one and increasing over time.
- The Greek export/import ratio with Bulgaria has turned from smaller than one to greater than one and it is increasing over time. The same holds for the Greek ratio with the BCs.
- The Greek export/import ratio with the EU dropped from 0.5 in 1989 to 0.36 in 1993, indicating that for each dollar of imports from the EU, Greece manages to export to the EU countries products worth only $\$ 0.36$.
- Similarly, and to a certain extent affected by the relative weight of the Greek-EU trade, the export/import ratio of Greece with the rest of the World has declined from 0.49 in 1989 to 0.41 in 1993.

The observations made above, indicate that in the post-1989 period two different in direction processes take place with respect to the Greek performance in international markets. On the one hand there is the deteriorating position of Greek exports in the EU and World markets and on the other hand, there is a successful in all terms, export performance in the neighboring Balkan countries.

Interpreting these facts, it becomes obvious that the competitiveness of the Greek economy in the EU and World markets is at low levels and declining, while its competitiveness in the Balkan countries is in high levels and increasing.

It is interesting to observe in these figures that despite the existence of the single European market and the fact that the Greek products do not face anymore tariff or
non-tariff barriers in the EU, their ability to penetrate the EU market is lower, compared to Balkan and World markets where certain barriers to trade exist. This may be an indication of the difficulties of integration among basically unequal partners and the fact that the qualitative standards of the EU market are higher and more difficult to meet than that of the World (and certainly the Balkan) markets. It may also be an indication that geography is, after all, an important factor that affects the trade performance of a country.

## 3. Sectoral Trends in the Trade of Greece with the BCs.

Besides the examination of the evolution of exports, imports, export/import ratios and the VOT, a question that frequently arises is related to the sectoral structure and composition of trade between two countries. The issues usually examined are those of inter-industry or intra-industry specialization, that is whether two countries tend to specialize and trade products that belong to different industries or tend to trade more intensively products within the same industry. The first is known as inter-industry or Heckscher-Ohlin (H-O) type of trade, while the second as intra-industry type of trade (IIT).

The standard international trade theory has shown that in the case of H-O type of trade, where countries specialize in different products and then exchange them, there are well defined welfare gains for them, known as gains from specialization and gains from exchange. H-O type of relations, however, have also been criticized as suitable only for countries with comparable levels of development, because in the case of trade between a developed and a less developed country, the second will necessarily specialize in primary sector, labor-intensive or raw material-intensive products, missing the opportunity to industrialize and therefore missing the opportunity to develop.

Also the H-O type of trade relations are considered to cause in several cases severe adjustments to the productive base of a country (that attempts to fit within trade relations) as some sectors shrink and some others expand, a process that is usually followed by social friction.

On the other hand, trade within the same industry is usually associated with welfare gains to the extent that consumer preference functions have an additive form, that is, consumers feel better when offered a greater selection of similar products. IIT is not associated with major structural adjustments (as they take place within the industry or even within the firm), it characterizes neighboring countries with similar levels of development and similar tastes.

IIT it is also often used as a measure of economic integration. That is, the higher the level of IIT between two countries, the greater the similarities in their productive bases, the more homogeneous their consumer preferences and therefore the greater the degree of economic integration. On the other hand, the higher the level of $\mathrm{H}-\mathrm{O}$ type of trade between two countries, the higher the possibility to have dissimilar productive bases and development levels.

In this section we will attempt to examine the sectoral structure of trade between Greece and the BCs with an emphasis on the trade of Greece with Albania and Bulgaria, making, where necessary, comparisons with the sectoral structure of trade between Greece and the (rest of the) EU countries and total Greek trade.

### 3.1 Trade by Large Categories of Products

In Tables 2-6 we present aggregate sectoral data for the trade of Greece with Albania, Bulgaria, the BCs and EU, as well as total trade. The aggregate sectors considered are agricultural products (SITC $0+1+4$ ), raw materials (SITC 2), fuels (SITC 3) and industrial goods (SITC 5-8). From the examination of the data we can make a number of observations:

### 3.1.1 Greek Trade with Albania

- Over-time, the Greek exports to Albania are concentrated in the sectors of industrial goods ( $48 \%$ in 1993) and agricultural products ( $46 \%$ 1n 1993). Raw materials have diminished and have almost been eliminated both in value and
share of Greek exports, while fuels are represented with an increasing value but small and decreasing share.
- Greek imports from Albania show a more mixed pattern at the sectoral level. The largest categories are industrial goods ( $46 \%$ in 1993) and fuels ( $30 \%$ in 1993), both showing however significant fluctuations over time. On the other hand the share of agricultural products is increasing over time but remains relatively small ( $15,9 \%$ in 1993), while the share of raw materials decreases in a rather drastic way over time.
- The sectoral trade balances of Greece with Albania are consistently positive in the categories of industrial and agricultural products and negative or mixed in the two other smaller categories. For the entire period 1989-1993, Greece has a positive balance of trade in all except the fuels category where Albania has a positive balance of trade.


### 3.1.2 Greek Trade with Bulgaria

- The largest category of Greek exports to Bulgaria is industrial products (41\% in 1993) and the second largest is agricultural products with increasing over-time value of exports, but fluctuating and relatively stable shares in total exports ( $30 \%$ in 1993). Raw materials maintain a constant value and a diminishing share in Greek exports, while fuels have increased both their value and share ( $24 \%$ in 1993).
- The largest category of Greek imports from Bulgaria is by far industrial products with increasing value and share ( $62 \%$ in 1993). Agricultural products maintain a relatively stable but low share ( $14 \%$ in 1993), while the share of raw materials is declining over time ( $10 \%$ in 1993).
- Sectoral trade balances are mixed over sector and over time. In agricultural production, Greece seems to have a positive and increasing trade balance, while the same holds in the case of fuels. On the other hand, Bulgaria has a positive trade balance in raw materials and also in industrial goods (for the entire period except 1993). Note that the largest contributor to the positive trade balance of Greece in 1993 are agricultural products and fuels, while the largest contributor to the positive Bulgarian balance of trade are raw materials and industrial goods.
TABLE 2 Trade of Greece with Albania, 1989-93 by Large Categories of Products

| SITC | Large categories | 1989 |  |
| :---: | :--- | ---: | ---: |
|  | of products |  |  |
| $0+1+4$ | Agricultural products | 3826 |  |
| 2 | Raw materials | 7232 |  |
| 3 | Fuels | 1323 |  |
| $5-8$ | Industrial goods | 6372 |  |
| $0-9$ | Total | 18781 |  |


Source : Export Research Center
TABLE 3 Trrade of Greece with Bulgaria, 1989-93 by Large Categories of Products

| SITC | Large categories of products | 1989 | 1990 | 1991 | 1992 | 1993 | 1989-93 | 1989 | 1990 | 1991 | 1992 | 1993 | 1989-93 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | (value in thousand US \$) |  |  |  |  |  | (\% structure) |  |  |  |  |  |
| 0+1+4 | Agricultural products | 17282 | 16431 | 19759 | 50347 | 93391 | 197210 | 25,2\% | 31,0\% | 22,5\% | 30,1\% | .30,8\% | 29,0\% |
| 2 | Raw materials | 10370 | 10157 | 17476 | 8327 | 10250 | 56580 | 15,1\% | 19,2\% | 19,9\% | 5,0\% | 3,4\% | 8,3\% |
| 3 | Fuels | 4322 | 4487 | 16313 | 50132 | 73690 | 148944 | 6,3\% | 8,5\% | 18,6\% | 30,0\% | 24,3\% | 21,9\% |
| 5-8 | Industrial goods | 35248 | 21123 | 33856 | 58086 | 125468 | 273781 | 51,4\% | 39,9\% | 38,6\% | 34,7\% | 41,4\% | 40,3\% |
| 0-9 | Total | 68563 | 52965 | 87790 | 167169 | 303362 | 679849 | 100,0\% | 100,0\% | 100,0\% | 100,0\% | 100,0\% | 100,0\% |


|  |  |  |  |  |  | EK | RTS |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SITC | Large categories | 1989 | 1990 | 1991 | 1992 | 1993 | 1989-93 | 1989 | 1990 | 1991 | 1992 | 1993 | 1989-93 |
|  | of products |  |  | e in tho | nd US \$ |  |  |  |  | (\% st | ture) |  |  |
| 0+1+4 | Agricultural products | 13426 | 17539 | 19803 | 23306 | 28066 | 102140 | 19,4\% | 16,2\% | 15,4\% | 14,5\% | 14,2\% | 15,4\% |
| 2 | Raw materials | 15674 | 14933 | 21262 | 26747 | 19591 | 98207 | 22,7\% | 13,8\% | 16,5\% | 16,6\% | 9,9\% | 14,8\% |
| 3 | Fuels | 4392 | 24877 | 14871 | 2380 | 26150 | 72670 | 6,4\% | 23,0\% | 11,6\% | 1,5\% | 13,2\% | 10,9\% |
| 5-8 | Industrial goods | 35538 | 50748 | 72597 | 108569 | 123764 | 391216 | 51,5\% | 46,9\% | 56,5\% | 67,4\% | 62,6\% | 58,9\% |
| 0-9 | Total | 69030 | 108097 | 128533 | 161002 | 197571 | 664233 | 100,0\% | 100,0\% | 100,0\% | 100,0\% | 100,0\% | 100,0\% |


|  |  |  |  | RAD | NCE |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SITC | Large categories of products | 1989 | 1990 | 1991 | 1992 | 1993 | 1989-93 |
|  |  | (value in thousand US \$ |  |  |  |  |  |
| $\begin{array}{\|c\|} \hline 0+1+4 \\ 2 \end{array}$ | Agricultural products | 3856 | -1108 | -44 | 27041 | 65325 | 95070 |
|  | Raw materials | -5304 | -4776 | -3786 | -18420 | -9341 | -41627 |
| 3 | Fuels | -70 | -20390 | 1442 | 47752 | 47540 | 76274 |
| 5-8 | Industrial goods | -290 | -29625 | -38741 | -50483 | 1704 | -117435 |
| 0-9 | Total | -467 | -55132 | -40743 | 6167 | 105791 | 15616 |

Source : Export Research Center
TABLE 4 Trade of Greece with Balkans, 1989-93

|  |  |  |  |  |  | REEK E | ORTS |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SITC | Large categories | 1989 | 1990 | 1991 | 1992 | 1993 | 1989-93 | 1989 | 1990 | 1991 | 1992 | 1993 | 1989-93 |
|  | of products |  |  | lue in tho | and US \$ |  |  |  |  | (\% stru | cture) |  |  |
| 0+1+4 | Agricultural products | 45729 | 100403 | 128752 | 167739 | 229016 | 671639 | 19,1\% | 32,4\% | 37,3\% | 43,0\% | 33,1\% | 34,0\% |
| 2 | Raw materials | 79455 | 70114 | 60640 | 27201 | 48166 | 285576 | 33,2\% | 22,6\% | 17,6\% | 7,0\% | 7,0\% | 14,4\% |
| 3 | Fuels | 15872 | 30057 | 56151 | 71376 | 156782 | 330238 | 6,6\% | 9,7\% | 16,3\% | 18,3\% | 22,6\% | 16,7\% |
| 5-8 | Industrial goods | 90156 | 100772 | 96493 | 123525 | 257450 | 668396 | 37,7\% | 32,5\% | 28,0\% | 31,6\% | 37,2\% | 33,8\% |
| 0-9 | Total | 239138 | 310093 | 344739 | 390540 | 692545 | 1977055 | 100,0\% | 100,0\% | 100,0\% | 100,0\% | 100,0\% | 100,0\% |


Source : Export Research
Panhellenic Exporters Association
TABLE 5 Trade of Greece with the E.U, 1989-93 by Large Categories of Products

| SITC | Large categories of products | 1989 | 1990 | 1991 | 1992 | 1993 | 1989-93 | 1989 | 1990 | 1991 | 1992 | 1993 | 1989-93 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | (value in thousand US \$) |  |  |  |  |  | (\% structure) |  |  |  |  |  |
| 0+1+4 | Agricultural products | 1735585 | 1668434 | 1865205 | 2297486 | 1557941 | 9124651 | 35,1\% | 32,7\% | 33,9\% | 35,6\% | 33,0\% | 34,2\% |
| 2 | Raw materials | 286013 | 255342 | 256633 | 260947 | 215266 | 1274201 | 5,8\% | 5,0\% | 4,7\% | 4,0\% | 4,6\% | 4,8\% |
| 3 | Fuels | 165617 | 231995 | 187729 | 126487 | 60718 | 772546 | 3,4\% | 4,6\% | 3,4\% | 2,0\% | 1,3\% | 2,9\% |
| 5-8 | Industrial goods | 2601948 | 2818724 | 3063497 | 3640128 | 2834787 | 14959084 | 52,7\% | 55,3\% | 55,6\% | 56,4\% | 60,1\% | 56,0\% |
| 0-9 | Total | 4941701 | 5095693 | 5505757 | 6448628 | 4718358 | 26710137 | 100,0\% | 100,0\% | 100,0\% | 100,0\% | 100,0\% | 100,0\% |


|  |  |  |  |  |  | GREEK | T |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SITC | Large categories | 1989 | 1990 | 1991 | 1992 | 1993 | 1989-93 | 1989 | 1990 | 1991 | 1992 | 1993 | 1989-93 |
|  | of products |  |  | value in tho | sand US \$) |  |  |  |  | (\% st | ture) |  |  |
| 0+1+4 | Agricultural products | 1961381 | 2299029 | 2316382 | 2726683 | 2551934 | 11855409 | 19,7\% | 18,2\% | 18,0\% | 18,6\% | 19,4\% | 18,7\% |
| 2 | Raw materials | 221433 | 256116 | 269501 | 258114 | 221732 | 1226896 | 2,2\% | 2,0\% | 2,1\% | 1,8\% | 1,7\% | 1,9\% |
| 3 | Fuels | 68745 | 125473 | 106815 | 133382 | 104518 | 538933 | 0,7\% | 1,0\% | 0,8\% | 0,9\% | 0,8\% | 0,9\% |
| 5-8 | Industrial goods | 7676273 | 9939878 | 10169572 | 11509063 | 10250519 | 49545305 | 77,2\% | 78,7\% | 79,0\% | 78,6\% | 77,8\% | 78,3\% |
| 0-9 | Total | 9940061 | 12628215 | 12869296 | 14648034 | 13172399 | 63258005 | 100,0\% | 100,0\% | 100,0\% | 100,0\% | 100,0\% | 100,0\% |


|  |  |  |  | TRADE | ANCE |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SITC | Large categories | 1989 | 1990 | 1991 | 1992 | 1993 | 1989-93 |
|  | of products |  |  | value in tho | and US \$ |  |  |
| 0+1+4 | Agricultural products | -225796 | -630595 | -451177 | -429197 | -993993 | -2730758 |
| 2 | Raw materials | 64580 | -774 | -12868 | 2833 | -6466 | 47305 |
| 3 | Fuels | 96872 | 106522 | 80914 | -6895 | -43800 | 233613 |
| 5-8 | Industrial goods | -5074325 | -7121154 | -7106075 | -7868935 | -7415732 | -34586221 |
| 0-9 | Total | -4998360 | -7532522 | -7363539 | -8199406 | -8454041 | -36547868 |

Source : Export Research Center
TABLE 6 Total Trade of Greece, 1989-93 by Large Categories of Products

| SITC | Large categories of products | 1989 | 1990 | 1991 | 1992 | 1993 | 1989-93 | 1989 | 1990 | 1991 | 1992 | 1993 | 1989-93 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | (value in thousand US \$ |  |  |  |  |  | (\% structure) |  |  |  |  |  |
| 0+1+4 | Agricultural products | 2303266 | 2366773 | 2639672 | 3293866 | 2500242 | 13103819 | 30,4\% | 29,6\% | 30,5\% | 33,4\% | 29,6\% | 30,8\% |
| 2 | Raw materials | 525722 | 455437 | 456356 | 426333 | 486623 | 2350471 | 6,9\% | 5,7\% | 5,3\% | 4,3\% | 5,8\% | 5,5\% |
| 3 | Fuels | 412201 | 586069 | 773843 | 519481 | 661518 | 2953112 | 5,4\% | 7,3\% | 8,9\% | 5,3\% | 7,8\% | 6,9\% |
| 5-8 | Industrial goods | 4131056 | 4405563 | 4604608 | 5390093 | 4669923 | 23201243 | 54,5\% | 55,1\% | 53,1\% | 54,7\% | 55,4\% | 54,5\% |
| 0-9 | Total | 7578900 | 7996182 | 8668518 | 9862007 | 8433723 | 42539330 | 100,0\% | 100,0\% | 100,0\% | 100,0\% | 100,0\% | 100,0\% |


|  |  |  |  |  |  | GREEK | ORTS |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SITC | Large categories | 1989 | 1990 | 1991 | 1992 | 1993 | 1989-93 | 1989 | 1990 | 1991 | 1992 | 1993 | 1989-93 |
|  | of products |  |  | alue in tho | and US \$1 |  |  |  |  | (\% str | cture) |  |  |
| 0+1+4 | Agricultural products | 2534958 | 2924601 | 2918157 | 3313620 | 3003827 | 14695163 | 16,5\% | 15,2\% | 14,1\% | 14,6\% | 14,6\% | 14,9\% |
| 2 | Raw materials | 868579 | 984927 | 963344 | 752702 | 640738 | 4210290 | 5,7\% | 5,1\% | 4,7\% | 3,3\% | 3,1\% | 4,3\% |
| 3 | Fuels | 1029466 | 1522967 | 2069791 | 2295721 | 2336658 | 9254603 | 6,7\% | 7,9\% | 10,0\% | 10,1\% | 11,3\% | 9,4\% |
| 5-8 | Industrial goods | 10873532 | 13776922 | 14634423 | 16223270 | 14545986 | 70054133 | 70,8\% | 71,5\% | 70,9\% | 71,5\% | 70,6\% | 71,1\% |
| 0-9 | Total | 15359478 | 19264709 | 20636049 | 22690419 | 20594736 | 98545391 | 100,0\% | 100,0\% | 100,0\% | 100,0\% | 100,0\% | 100,0\% |

[^3]
### 3.1.3 Greek Trade with the Balkan countries

The largest categories of Greek exports to the Balkan region as a whole are agricultural and industrial products with a share of $34.0 \%$ and $33.8 \%$ for the 19891993 period respectively. The share of agricultural products is rather increasing over time while the share of industrial is decreasing up to 1991 and increasing thereafter. Raw materials have a continuously increasing and fuels a continuously decreasing share in Greek exports. As a result, fuels is in 1993 the third largest exporting category with $\mathbf{2 2 . 6 \%}$ of Greek exports.

The largest category of Greek imports from the Balkan countries is industrial goods with an increasing share after 1991, equal to $60.2 \%$ for the entire 1989-1993 period. Agricultural products is the second largest importing category with an $18.8 \%$ share for the period 1989-1993 and diminishing trends, followed by fuels with an $11.2 \%$ and raw materials with a $9.8 \%$ share of total Greek imports. The share of raw materials is over time declining, while the share of fuels is fluctuating.

The Greek balance of trade with the other Balkan countries is improving over time in all sectors. It turned from negative in 1989 to positive in 1990 and thereafter in agricultural products, it is consistently positive (except 1992) in raw materials, it turned from negative in the 1989-1991 period to positive in the 1992 and 1993 for fuels and also turned from negative in the 1989-1992 period to positive in 1993 for industrial goods. For the entire 1989-1993 period the negative balance of trade in industrial goods is more than offset by the positive balance of trade in all other categories. Following these trends, the most likely projection for the near future is that Greece will run a positive and perhaps increasing balance of trade with the other Balkan countries in all sectors of production with the greatest one being in the agricultural and the fuel sectors.

### 3.1.4 Comparisons with the sectoral trends in the EU and Total trade of Greece

Comparing the sectoral structure of Greek trade with Albania, Bulgaria and the Balkan region as a whole, to that with EU and the World (total trade) we can make the following observations:

- The general orientation of the Greek trade structure is maintained in all cases. Greece has higher export than import shares in agricultural products and lower export than import shares in industrial products in all cases (Greek trade with Albania, Bulgaria, BCs, EU and total) under examination.
- An important differentiation is that the sectoral distribution of trade is smoother and more balanced with the Balkan countries than with the EU or the World. On the Greek exports side, fuels tends to become a significant category, while on the Greek import side the share of industrial products is not so dominant in the trade with Albania, Bulgaria or the Balkan countries as a whole.

More analytically the comparisons for each one case show that:

- The structure of Greek exports to Albania compared with that to EU and total Greek exports is characterized by a higher share of agricultural products, which is in accordance with the urgent needs of Albania to cover food shortages and the needs generated by the existing level of development in Albania.
- The structure of Greek imports from Albania is differentiated from the EU and total Greek imports structure in that it has a relatively higher share of fuels and lower share of industrial products.
- The structure of Greek exports to Bulgaria is differentiated from that to EU and the World, in that it has a relatively higher share of fuels and lower share of industrial products.
- The structure of Greek imports from Bulgaria in the aggregate categories is very similar to the structure of total Greek imports and also similar to the structure of Greek imports from EU.
- The structure of Greek exports to the Balkan countries is differentiated from the structure of Greek exports to EU countries in that it contains a lower share of industrial products and a higher share of raw materials and fuels.
- The structure of the Greek imports from the Balkan countries is differentiated from the structure of the Greek imports from the EU countries in that it has also a lower share of industrial products and a higher share of raw material and fuels.


### 3.2 Trade by 1-Digit SITC sectors

In Tables 7-10 we present data on Greek trade with Albania, Bulgaria, the BCs and EU as well as total Greek trade by 1-digit SITC categories for the period 1989-1993. From the analysis of the Tables we can make the following observations:

### 3.2.1 Greek Trade with Albania

The largest exporting category of Greece to Albania in the 89-93 period is manufactured goods (22\%), followed by food (19\%) and beverages and tobacco (18\%).

The largest importing category in Greece from Albania in the 89-93 period is mineral fuels ( $37 \%$ ), followed by crude materials ( $17 \%$ ) and manufactured goods ( $15 \%$ ).

This type of economic relations tends to indicate a rather inter-industry type of specialization and trade between Greece and Albania.

### 3.2.2 Greek Trade with Bulgaria

The largest exporting category of Greece to Bulgaria in the 89-93 period is fuel (22\%), followed by food (17\%), misc. manufacturing (15\%) and manufacturing goods (13\%).

The largest importing category of Greece from Bulgaria in the $89-93$ period is manufacturing goods (31\%), chemicals (16\%) crude materials (14\%) and food (14\%).

This type of exchange allows for some intra-industry trade (IIT), especially in the sectors of food and manufacturing goods

The largest exporting sector of Greece to the Balkan countries is food (23\%), followed by fuels ( $17 \%$ ), manufactured goods ( $15 \%$ ) and crude materials. The largest importing sector of Greece from the BCs is manufactured goods (32\%), followed by food (18\%), chemicals (14\%), mineral fuels (11\%) and machinery and transportation equipment (11\%).

This type of sectoral trade structure, allows for significant intra-industry trade, especially in the food, fuel and manufactured goods sectors
3.2.4 Sectoral Companisons of Greek Trade with Albania, Bulgaria, the Balkan countries, the EU and the World.

The main sectoral differences between the trade of Greece with the Balkan countries on the one hand and the EU and the World on the other are:

- Greece in sector 1 (beverages and tobacco) has a much better export performance to Albania and Bulgaria than to EU and the World.
- Greece in sector 3 (mineral fuels) has a much better export performance to Bulgaria than to the EU and the rest of the World
- Greek total imports and imports from the EU are very concentrated in the sectors 5 - 8 (industrial products) while Greek imports from Albania and Bulgaria have a smaller share of industrial goods and a higher share of raw material and fuels.
TABLE 7 Trade of Greece with Albania by SITC Sections ( 1 - Digit Level ), 1989-93

| GREEK EXPORTS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1989 | 1990 | 1991 | 1992 | 1993 | 1989-93 | 1989 | 1990 | 1991 | 1992 | 1993 | 1989-93 |
| SITC | SECTION | (value in thousand US \$) |  |  |  |  |  | (\% structure) |  |  |  |  |  |
| 0 | Food and live animals | 757 | 111 | 687 | 7447 | 32363 | 41365 | 4,0\% | 0,6\% | 5,6\% | 18,0\% | 25,6\% | 19,1\% |
| 1 | Beverages and tobacco | 3069 | 3728 | 1688 | 6593 | 23466 | 38544 | 16,3\% | 20,9\% | 13,8\% | 16,0\% | 18,6\% | 17,8\% |
| 2 | Crude materials inedible | 7232 | 4406 | 2362 | 2051 | 1078 | 17129 | 38,5\% | 24,7\% | 19,3\% | 5,0\% | 0,9\% | 7,9\% |
| 3 | Mineral fuels, etc. | 1323 | 743 | 606 | 4624 | 4559 | 11855 | 7,0\% | 4,2\% | 5,0\% | 11,2\% | 3,6\% | 5,5\% |
| 4 | Animal, vegetab.oils, fats | 0 | 42 | 4 | 847 | 3301 | 4194 | 0,0\% | 0,2\% | 0,0\% | 2,1\% | 2,6\% | 1,9\% |
| 5 | Chemicals, etc. | 689 | 996 | 937 | 2387 | 4624 | 9633 | 3,7\% | 5,6\% | 7,7\% | 5,8\% | 3,7\% | 4,5\% |
| 6 | Manuf.goods, class.by mat. | 5265 | 6665 | 4027 | 9745 | 23742 | 49444 | 28,0\% | 37,4\% | 33,0\% | 23,6\% | 18,8\% | 22,8\% |
| 7 | Machinery and transp.equip. | 177 | 896 | 868 | 4924 | 23397 | 30262 | 0,9\% | 5,0\% | 7,1\% | 11,9\% | 18,5\% | 14,0\% |
| 8 | Misc.manufactured articl. | 241 | 218 | 1026 | 2645 | 9594 | 13724 | 1,3\% | 1,2\% | 8,4\% | 6,4\% | 7,6\% | 6,3\% |
| 9 | Commod.not elsewhere clas | 28 | 15 | 7 | 0 | 191 | 241 | 0,1\% | 0,1\% | 0,1\% | 0,0\% | 0,2\% | 0,1\% |
| 0-9 | Total | 18781 | 17820 | 12212 | 41263 | 126315 | 216391 | 100,0\% | 100,0\% | 100,0\% | 100,0\% | 100,0\% | 100,0\% |
| GREEK IMPORTS |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 1989 | 1990 | 1991 | 1992 | 1993 | 1989-93 | 1989 | 1990 | 1991 | 1992 | 1993 | 1989-93 |
| SITC | SECTION | (value in thousand US \$ ) |  |  |  |  |  | (\% structure) |  |  |  |  |  |
| 0 | Food and live animals | 585 | 910 | 945 | 1131 | 2368 | 5939 | 7,8\% | 7,4\% | 8,0\% | 6,3\% | 15,3\% | 9,1\% |
| 1 | Beverages and tobacco | 20 | 2 | 159 | 1528 | 82 | 1791 | 0,3\% | 0,0\% | 1,3\% | 8,4\% | 0,5\% | 2,7\% |
| 2 | Crude materials inedible | 3091 | 2884 | 2153 | 1627 | 1214 | 10969 | 41,2\% | 23,5\% | 18,1\% | 9,0\% | 7,9\% | 16,8\% |
| 3 | Mineral fuels, etc. | 58 | 3160 | 5668 | 10615 | 4668 | 24169 | 0,8\% | 25,7\% | 47,7\% | 58,7\% | 30,2\% | 37,1\% |
| 4 | Animal, vegetab.oils, fats | 28 | 0 | 0 | 21 | 5 | 54 | 0,4\% | 0,0\% | 0,0\% | 0,1\% | 0,0\% | 0,1\% |
| 5 | Chemicals, etc. | 1418 | 1498 | 1523 | 1172 | 283 | 5894 | 18,9\% | 12,2\% | 12,8\% | 6,5\% | 1,8\% | 9,0\% |
| 6 | Manuf.goods,class.by mat. | 1823 | 3547 | 899 | 785 | 2773 | 9827 | 24,3\% | 28,9\% | 7,6\% | 4,3\% | 18,0\% | 15,1\% |
| 7 | Machinery and transp.equip. | 1 | 3 | 28 | 124 | 615 | 771 | 0,0\% | 0,0\% | 0,2\% | 0,7\% | 4,0\% | 1,2\% |
| 8 | Misc.manufactured articl. | 472 | 279 | 501 | 1084 | 3424 | 5760 | 6,3\% | 2,3\% | 4,2\% | 6,0\% | 22,2\% | 8,8\% |
| 9 | Commod.not elsewhere clas | 0 | 0 | 0 | 0 | 0 | 0 | 0,0\% | 0,0\% | 0,0\% | 0,0\% | 0,0\% | 0,0\% |
| 0-9 | Total | 7496 | 12283 | 11876 | 18087 | 15432 | 65174 | 100,0\% | 100,0\% | 100,0\% | 100,0\% | 100,0\% | 100,0\% |

Source: Export Reseaich Center
TABLE 8 Trade of Greece with Bulgaria by SITC Sections ( 1 - Digit Level ), 1989-93

|  |  | 1989 | 1990 | 1991 | 1992 | 1993 | 1989-93 | 1989 | 1990 | 1991 | 1992 | 1993 | 1989-93 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SITC | SECTION | (value in thousand US \$ |  |  |  |  |  | (\% structure) |  |  |  |  |  |
| 0 | Food and live animals | 14951 | 14546 | 13858 | 22559 | 54665 | 120579 | 21,8\% | 27,5\% | 15,8\% | 13,5\% | 18,0\% | 17,7\% |
| 1 | Beverages and tobacco | 1947 | 1579 | 5599 | 27541 | 37169 | 73835 | 2,8\% | 3,0\% | 6,4\% | 16,5\% | 12,3\% | 10,9\% |
| 2 | Crude materials inedible | 10370 | 10157 | 17476 | 8327 | 10250 | 56580 | 15,1\% | 19,2\% | 19,9\% | 5,0\% | 3,4\% | 8,3\% |
| 3 | Mineral fuels, etc. | 4322 | 4487 | 16313 | 50132 | 73690 | 148944 | 6,3\% | 8,5\% | 18,6\% | 30,0\% | 24,3\% | 21,9\% |
| 4 | Animal, vegetab.oils, fats | 384 | 306 | 302 | 247 | 1557 | 2796 | 0,6\% | 0,6\% | 0,3\% | 0,1\% | 0,5\% | 0,4\% |
| 5 | Chemicals, etc. | 3064 | 1751 | 2719 | 6619 | 14377 | 28530 | 4,5\% | 3,3\% | 3,1\% | 4,0\% | 4,7\% | 4,2\% |
| 6 | Manuf.goods,class.by mat. | 27093 | 7277 | 16873 | 12618 | 27391 | 91252 | 39,5\% | 13,7\% | 19,2\% | 7,5\% | 9,0\% | 13,4\% |
| 7 | Machinery and transp.equip. | 729 | 2330 | 3864 | 10808 | 32108 | 49839 | 1,1\% | 4,4\% | 4,4\% | 6,5\% | 10,6\% | 7,3\% |
| 8 | Misc.manufactured articl. | 4362 | 9765 | 10400 | 28041 | 51592 | 104160 | 6,4\% | 18,4\% | 11,8\% | 16,8\% | 17,0\% | 15,3\% |
| 9 | Commod.not elsewhere clas | 1341 | 767 | 386 | 277 | 563 | 3334 | 2,0\% | 1,4\% | 0,4\% | 0,2\% | 0,2\% | 0,5\% |
| 0-9 | Total | 68563 | 52965 | 87790 | 167169 | 303362 | 679849 | 100,0\% | 100,0\% | 100,0\% | 100,0\% | 100,0\% | 100,0\% |
|  |  |  |  |  |  | REEK IMP | RTS |  |  |  |  |  |  |
|  |  | 1989 | 1990 | 1991 | 1992 | 1993 | 1989-93 | 1989 | 1990 | 1991 | 1992 | 1993 | 1989-93 |
| SITC | SECTION |  |  | lue in tho | and US \$) |  |  |  |  | (\% str | cture) |  |  |
| 0 | Food and live animals | 12930 | 17082 | 19430 | 21775 | 26408 | 97625 | 18,7\% | 15,8\% | 15,1\% | 13,5\% | 13,4\% | 14,7\% |
| 1 | Beverages and tobacco | 156 | 94 | 48 | 29 | 79 | 406 | 0,2\% | 0,1\% | 0,0\% | 0,0\% | 0,0\% | 0,1\% |
| 2 | Crude materials inedible | 15674 | 14933 | 21262 | 26747 | 19591 | 98207 | 22,7\% | 13,8\% | 16,5\% | 16,6\% | 9,9\% | 14,8\% |
| 3 | Mineral fuels, etc. | 4392 | 24877 | 14871 | 2380 | 26150 | 72670 | 6,4\% | 23,0\% | 11,6\% | 1,5\% | 13,2\% | 10,9\% |
| 4 | Animal, vegetab.oils, fats | 340 | 363 | 325 | 1502 | 1579 | 4109 | 0,5\% | 0,3\% | 0,3\% | 0,9\% | 0,8\% | 0,6\% |
| 5 | Chemicals, etc. | 10978 | 15800 | 22080 | 23688 | 33452 | 105998 | 15,9\% | 14,6\% | 17,2\% | 14.7\% | 16,9\% | 16,0\% |
| 6 | Manuf.goods,class.by mat. | 17002 | 25066 | 36724 | 62909 | 68979 | 210680 | 24,6\% | 23,2\% | 28,6\% | 39,1\% | 34,9\% | 31,7\% |
| 7 | Machinery and transp.equip. | 6668 | 7896 | 9724 | 13750 | 12532 | 50570 | 9,7\% | 7,3\% | 7,6\% | 8,5\% | 6,3\% | 7,6\% |
| 8 | Misc.manufactured articl. | 890 | 1986 | 4069 | 8222 | 8801 | 23968 | 1,3\% | 1,8\% | 3,2\% | 5,1\% | 4,5\% | 3,6\% |
| 9 | Commod.not elsewhere clas | 0 | 0 | 0 | 0 | 0 | 0 | 0,0\% | 0,0\% | 0,0\% | 0,0\% | 0,0\% | 0,0\% |
| 0-9 | Total | 69030 | 108097 | 128533 | 161002 | 197571 | 664233 | 100,0\% | 100,0\% | 100,0\% | 100,0\% | 100,0\% | 100,0\% |

Source: Export Research Center
TABLE 9 Trade of Greece with Balkans by SITC Sections ( 1 - Digit Level ), 1989-93

|  |  | 1989 | 1990 | 1991 | 1992 | 1993 | 1989-93 | 1989 | 1990 | 1991 | 1992 | 1993 | 1989-93 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SITC | SECTION | (value in thousand US \$) |  |  |  |  |  | (\% structure) |  |  |  |  |  |
| 0 | Food and live animals | 34150 | 84275 | 101791 | 92877 | 142374 | 455467 | 14,3\% | 27,2\% | 29,5\% | 23,8\% | 20,6\% | 23,0\% |
| 1 | Beverages and tobacco | 7882 | 15088 | 25275 | 72419 | 80269 | 200933 | 3,3\% | 4,9\% | 7,3\% | 18,5\% | 11,6\% | 10,2\% |
| 2 | Crude materials inedible | 79455 | 70114 | 60640 | 27201 | 48166 | 285576 | 33,2\% | 22,6\% | 17,6\% | 7,0\% | 7,0\% | 14,4\% |
| 3 | Mineral fuels, etc. | 15872 | 30057 | 56151 | 71376 | 156782 | 330238 | 6,6\% | 9,7\% | 16,3\% | 18,3\% | 22,6\% | 16,7\% |
| 4 | Animal, vegetab.oils, fats | 3697 | 1040 | 1686 | 2443 | 6373 | 15239 | 1,5\% | 0,3\% | 0,5\% | 0,6\% | 0,9\% | 0,8\% |
| 5 | Chemicals, etc. | 7211 | 8679 | 11520 | 17131 | 36650 | 81191 | 3,0\% | 2,8\% | 3,3\% | 4,4\% | 5,3\% | 4,1\% |
| 6 | Manuf.goods,class.by mat. | 71147 | 57307 | 48921 | 42023 | 69537 | 288935 | 29,8\% | 18,5\% | 14,2\% | 10,8\% | 10.0\% | 14,6\% |
| 7 | Machinery and transp.equip. | 2366 | 8430 | 12917 | 22558 | 77409 | 123680 | 1,0\% | 2,7\% | 3,7\% | 5,8\% | 11,2\% | 6,3\% |
| 8 | Misc.manufactured articl. | 9432 | 26356 | 23135 | 41813 | 73854 | 174590 | 3,9\% | 8,5\% | 6,7\% | 10,7\% | 10,7\% | 8,8\% |
| 9 | Commod.not elsewhere clas | 7926 | 8747 | 2703 | 699 | 1131 | 21206 | 3,3\% | 2,8\% | 0,8\% | 0,2\% | 0,2\% | 1,1\% |
| 0-9 | Total | 239138 | 310093 | 344739 | 390540 | 692545 | 1977055 | 100,0\% | 100,0\% | 100,0\% | 100,0\% | 100,0\% | 100,0\% |
| GREEK IMPORTS |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 1989 | 1990 | 1991 | 1992 | 1993 | 1989-93 | 1989 | 1990 | 1991 | 1992 | 1993 | 1989-93 |
| SITC | SECTION | (value in thousand US \$) |  |  |  |  |  | (\% structure) |  |  |  |  |  |
| 0 | Food and live animals | 87498 | 88957 | 88127 | 46839 | 44787 | 356208 | 22,8\% | 19,1\% | 19,3\% | 14,7\% | 13,6\% | 18,2\% |
| 1 | Beverages and tobacco | 206 | 158 | 2903 | 2041 | 333 | 5641 | 0,1\% | 0,0\% | 0,6\% | 0,6\% | 0,1\% | 0,3\% |
| 2 | Crude materials inedible | 41256 | 42689 | 41332 | 40425 | 26154 | 191856 | 10,8\% | 9,2\% | 9,0\% | 12,6\% | 7,9\% | 9,8\% |
| 3 | Mineral fuels, etc. | 23127 | 70488 | 72549 | 19754 | 32736 | 218654 | 6,0\% | 15,2\% | 15,9\% | 6,2\% | 9,9\% | 11,2\% |
| 4 | Animal, vegetab.oils, fats | 1074 | 784 | 485 | 1531 | 2036 | 5910 | 0,3\% | 0,2\% | 0,1\% | 0,5\% | 0,6\% | 0,3\% |
| 5 | Chemicals, etc. | 40643 | 56149 | 61674 | 51449 | 55664 | 265579 | 10,6\% | 12,1\% | 13,5\% | 16,1\% | 16,9\% | 13,6\% |
| 6 | Manuf.goods,class.by mat. | 126311 | 138462 | 131541 | 111557 | 120162 | 628033 | 32,9\% | 29,8\% | 28,8\% | 34,9\% | 36,5\% | 32,1\% |
| 7 | Machinery and transp.equip. | 56006 | 55388 | 44219 | 32308 | 30992 | 218913 | 14,6\% | 11,9\% | 9,7\% | 10,1\% | 9,4\% | 11,2\% |
| 8 | Misc.manufactured articl. | 7625 | 11641 | 13952 | 13764 | 16591 | 63573 | 2,0\% | 2,5\% | 3,1\% | 4,3\% | 5,0\% | 3,3\% |
| 9 | Commod.not elsewhere clas | 19 | 0 | 0 | 0 | 0 | 19 | 0,0\% | 0,0\% | 0,0\% | 0,0\% | 0,0\% | 0,0\% |
| 0-9 | Total | 383765 | 464716 | 456782 | 319668 | 329455 | 1954386 | 100,0\% | 100,0\% | 100,0\% | 100,0\% | 100,0\% | 100,0\% |

Source : Export Research Center
TABLE 10 Trade of Greece with the E.U by SITC Sections ( 1 - Digit Level ), 1989-93

|  |  | 1989 | 1990 | 1991 | 1992 | 1993 | 1989-93 | 1989 | 1990 | 1991 | 1992 | 1993 | 1989-93 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SITC | SECTION | (value in thousand US \$ |  |  |  |  |  | (\% structure) |  |  |  |  |  |
| 0 | Food and live animals | 1175155 | 1179165 | 1454103 | 1550318 | 1091338 | 6450079 | 23,8\% | 23,1\% | 26,4\% | 24,0\% | 23,1\% | 24,1\% |
| 1 | Beverages and tobacco | 226203 | 217578 | 225126 | 247832 | 206027 | 1122766 | 4,6\% | 4,3\% | 4,1\% | 3,8\% | 4,4\% | 4,2\% |
| 2 | Crude materials inedible | 286013 | 255342 | 256633 | 260947 | 215266 | 1274201 | 5,8\% | 5,0\% | 4,7\% | 4,0\% | 4,6\% | 4,8\% |
| 3 | Mineral fuels, etc. | 165617 | 231995 | 187729 | 126487 | 60718 | 772546 | 3,4\% | 4,6\% | 3,4\% | 2,0\% | 1,3\% | 2,9\% |
| 4 | Animal, vegetab.oils, fats | 334227 | 271691 | 185976 | 499336 | 260576 | 1551806 | 6,8\% | 5,3\% | 3,4\% | 7,7\% | 5,5\% | 5,8\% |
| 5 | Chemicals, etc. | 119813 | 123689 | 133363 | 163690 | 147327 | 687882 | 2,4\% | 2,4\% | 2,4\% | 2,5\% | 3,1\% | 2,6\% |
| 6 | Manuf.goods,class.by mat. | 1198040 | 1189820 | 1279581 | 1385194 | 910436 | 5963071 | 24,2\% | 23,3\% | 23,2\% | 21,5\% | 19,3\% | 22,3\% |
| 7 | Machinery and transp.equip. | 136195 | 180696 | 186586 | 235106 | 230940 | 969523 | 2,8\% | 3,5\% | 3,4\% | 3,6\% | 4,9\% | 3,6\% |
| 8 | Misc.manufactured articl. | 1147900 | 1324519 | 1463967 | 1856138 | 1546084 | 7338608 | 23,2\% | 26,0\% | 26,6\% | 28,8\% | 32,8\% | 27,5\% |
| 9 | Commod.not elsewhere clas | 152538 | 121198 | 132693 | 123580 | 49646 | 579655 | 3,1\% | 2,4\% | 2,4\% | 1,9\% | 1,1\% | 2,2\% |
| 0-9 | Total | 4941701 | 5095693 | 5505757 | 6448628 | 4718358 | 26710137 | 100,0\% | 100,0\% | 100,0\% | 100,0\% | 100,0\% | 100,0\% |
|  |  |  |  |  |  | REEK IMP | RTS |  |  |  |  |  |  |
|  |  | 1989 | 1990 | 1991 | 1992 | 1993 | 1989-93 | 1989 | 1990 | 1991 | 1992 | 1993 | 1989-93 |
| SITC | SECTION |  |  | value in tho | and US \$) |  |  |  |  | (\% str | cture) |  |  |
| 0 | Food and live animals | 1708271 | 1945891 | 1837498 | 2288265 | 2089079 | 9869004 | 17,2\% | 15,4\% | 14,3\% | 15,6\% | 15,9\% | 15,6\% |
| 1 | Beverages and tobacco | 214690 | 284589 | 304570 | 389891 | 423542 | 1617282 | 2,2\% | 2,3\% | 2,4\% | 2,7\% | 3,2\% | 2,6\% |
| 2 | Crude materials inedible | 221433 | 256116 | 269501 | 258114 | 221732 | 1226896 | 2,2\% | 2,0\% | 2,1\% | 1,8\% | 1,7\% | 1,9\% |
| 3 | Mineral fuels, etc. | 68745 | 125473 | 106815 | 133382 | 104518 | 538933 | 0,7\% | 1,0\% | 0,8\% | 0,9\% | 0,8\% | 0,9\% |
| 4 | Animal, vegetab.oils, fats | 38420 | 68549 | 174314 | 48527 | 39313 | 369123 | 0,4\% | 0,5\% | 1,4\% | 0,3\% | 0,3\% | 0,6\% |
| 5 | Chemicals, etc. | 1352420 | 1633207 | 1693640 | 1887832 | 1796008 | 8363107 | 13,6\% | 12,9\% | 13,2\% | 12,9\% | 13,6\% | 13,2\% |
| 6 | Manuf.goods,class.by mat. | 2514451 | 2977394 | 2896385 | 3011137 | 2604824 | 14004191 | 25,3\% | 23,6\% | 22,5\% | 20,6\% | 19,8\% | 22,1\% |
| 7 | Machinery and transp.equip. | 2839538 | 4008384 | 4189700 | 4980602 | 4375489 | 20393713 | 28,6\% | 31,7\% | 32,6\% | 34,0\% | 33,2\% | 32,2\% |
| 8 | Misc.manufactured articl. | 969864 | 1320893 | 1389847 | 1629492 | 1474198 | 6784294 | 9,8\% | 10,5\% | 10,8\% | 11,1\% | 11,2\% | 10,7\% |
| 9 | Commod.not elsewhere clas | 12229 | 7719 | 7026 | 20792 | 43696 | 91462 | 0,1\% | 0,1\% | 0,1\% | 0,1\% | 0,3\% | 0,1\% |
| 0-9 | Total | 9940061 | 12628215 | 12869296 | 14648034 | 13172399 | 63258005 | 100,0\% | 100,0\% | 100,0\% | 100,0\% | 100,0\% | 100,0\% |

Source: Export Research Center
TABLE 11 Total Trade of Greece by SITC Sections (1-Digit Level ), 1989-93

Source : Export Research Center

Overall, the most apparent difference in the sectoral structure of Greek trade with the BCs on the one hand and the EU or the World on the other is the greater diversification and sectoral spread of Greek exports in the first case and the relatively higher concentration in the second. Almost $75 \%$ of Greek exports to the EU belong to 3 sectors, while in the case of Greek exports to the Balkan countries 6 sectors have a significant share in exports (that is, close or greater than 10\%). This indicates that Greek production sectors that after 15 years of EU membership have not succeeded, for a number of reasons, to show a significant export performance in the European market, find now a second opportunity to expand their activities by increasing their exports to the neighboring countries.

## 4. Measures of Revealed Comparative Advantage (RCA)

In an attempt to further analyze the 1-digit SITC data of Greek trade with Albania, Bulgaria and the BCs, we have estimated in Table 12 and present in Figure 6 the sectoral coefficients of Revealed Comparative Advantage (RCA) for the Greek exports to Albania Bulgaria, the BCs and the EU. The RCA coefficients are measured as a share of a sectors' i exports to a country j , divided by the share of sector' i total exports $\left\{R C A=\left(X_{i j} / X_{j}\right) /(X i / X)\right\}$. A value of RCA coefficient greater than one $(R C A>1)$ in a sector, indicates a better exporting performance than average and therefore a specialization or a comparative advantage (CA). From the examination of the Table we can make the following observations:

- The Greek exports to Albania appear to have a strong and stable or increasing CA in sectors 1 (beverages and tobacco) and 7 (machinery and transportation equipment), a declining CA in sector 2 (crude materials) and a weak and fluctuating CA in sectors 5 (chemicals) and 6 (manufacturing goods).
- Greek exports to Bulgaria appear to have a strong CA in sector 3 (fuels), an increasing CA in sectors 1 and 7, a declining CA in sector 2 and weak and fluctuating CA in sector 5 (chemicals).

TABLE 12
The coefficient of Revealed Comparative Advantage
for the Trade of Greece with Albania, Bulgaria, Balkans and the E.U. RCA , ALBANIA

| SECTORS | $\mathbf{8 9}$ | $\mathbf{9 0}$ | 91 | $\mathbf{9 2}$ | 93 | $\mathbf{1 9 8 9 - 9 3}$ |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| $\mathbf{0}$ | 0,19 | 0,03 | 0,25 | 0,85 | 1,29 | 0,92 |
| $\mathbf{1}$ | 3,34 | 3,78 | 2,43 | 2,42 | 2,96 | 3,05 |
| $\mathbf{2}$ | 5,55 | $\mathbf{4 , 3 4}$ | 3,67 | 1,15 | 0,15 | 1,43 |
| $\mathbf{3}$ | 1,30 | 0,57 | 0,56 | 2,13 | 0,46 | 0,79 |
| $\mathbf{4}$ | 0,00 | 0,06 | 0,01 | 0,37 | 0,73 | 0,48 |
| $\mathbf{5}$ | 0,92 | 1,42 | 1,97 | 1,52 | 0,79 | 1,10 |
| $\mathbf{6}$ | 1,11 | 1,59 | 1,47 | 1,07 | 0,94 | 1,01 |
| $\mathbf{7}$ | 0,29 | 1,19 | 1,65 | 2,49 | 2,95 | 3,03 |
| $\mathbf{8}$ | 0,06 | 0,05 | 0,37 | 0,27 | 0,31 | 0,27 |
| $\mathbf{9}$ | 0,05 | 0,04 | 0,03 | 0,00 | 0,11 | 0,05 |
| TOTAL | 1,00 | 1,00 | 1,00 | 1,00 | 1,00 | 1,00 |

RCA, BULGARIA

| SECTORS | 89 | 90 | 91 | 92 | 93 | 1989-93 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 1,05 | 1,35 | 0,71 | 0,64 | 0,91 | 0,85 |
| 1 | 0,58 | 0,54 | 1,12 | 2,49 | 1,95 | 1,86 |
| 2 | 2,18 | 3,37 | 3,78 | 1,15 | 0,59 | 1,51 |
| 3 | 1,16 | 1,16 | 2,08 | 5,69 | 3,10 | 3,16 |
| 4 | 0,12 | 0,15 | 0,13 | 0,03 | 0,14 | 0,10 |
| 5 | 1,12 | 0,84 | 0,79 | 1,04 | 1,02 | 1,04 |
| 6 | 1,56 | 0,58 | 0,85 | 0,34 | 0,45 | 0,59 |
| 7 | 0,32 | 1,05 | 1,02 | 1,35 | 1,69 | 1,59 |
| 8 | 0,29 | 0,79 | 0,53 | 0,70 | 0,70 | 0,66 |
| 9 | 0,72 | 0,64 | 0,20 | 0,07 | 0,14 | 0,22 |
| TOTAL | 1,00 | 1,00 | 1,00 | 1,00 | 1,00 | 1,00 |

RCA, BALKANS

| SECTORS | 89 | 90 | 91 | 92 | 93 | 1989-93 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 0,69 | 1,34 | 1,33 | 1,12 | 1,04 | 1,10 |
| 1 | 0,67 | 0,88 | 1,29 | 2,80 | 1,85 | 1,74 |
| 2 | 4,79 | 3,97 | 3,34 | 1,61 | 1,21 | 2,61 |
| 3 | 1,22 | 1,32 | 1,82 | 3,47 | 2,89 | 2,41 |
| 4 | 0,33 | 0,09 | 0,19 | 0,11 | 0,26 | 0,19 |
| 5 | 0,76 | 0,71 | 0,86 | 1,15 | 1,14 | 1,02 |
| 6 | 1,17 | 0,79 | 0,63 | 0,49 | 0,50 | 0,65 |
| 7 | 0,30 | 0,65 | 0,87 | 1,20 | 1,78 | 1,36 |
| 8 | 0,18 | 0,36 | 0,30 | 0,45 | 0,44 | 0,38 |
| 9 | 1,22 | 1,24 | 0,35 | 0,08 | 0,12 | 0,49 |
| TOTAL | 1,00 | 1,00 | 1,00 | 1,00 | 1,00 | 1,00 |
| RCA , E.U |  |  |  |  |  |  |
| SECTORS | 89 | 90 | 91 | 92 | 93 | 1989-93 |
| 0 | 1,14 | 1,14 | 1,19 | 1,13 | 1,17 | 1,16 |
| 1 | 0,94 | 0,77 | 0,72 | 0,58 | 0,70 | 0,72 |
| 2 | 0,83 | 0,88 | 0,89 | 0,94 | 0,79 | 0,86 |
| 3 | 0,62 | 0,62 | 0,38 | 0,37 | 0,16 | 0,42 |
| 4 | 1,43 | 1,41 | 1,32 | 1,38 | 1,54 | 1,42 |
| 5 | 0,61 | 0,62 | 0,62 | 0,67 | 0,67 | 0,64 |
| 6 | 0,96 | 0,99 | 1,03 | 0,98 | 0,96 | 0,99 |
| 7 | 0,84 | 0,84 | 0,79 | 0,76 | 0,78 | 0,79 |
| 8 | 1,06 | 1,11 | 1,19 | 1,20 | 1,34 | 1,18 |
| 9 | 1,13 | 1,04 | 1,08 | 0,81 | 0,77 | 0,99 |
| TOTAL | 1,00 | 1,00 | 1,00 | 1,00 | 1,00 | 1,00 |

Source : Export Research Center
Panhellenic Exporters Association

Figure 6 Revealed Comparative Advantage (RCA) coefficients for trade of Greece with Albania, Bulgaria, Balkans and the E.U, 1989-1993.


- Greek exports to the Balkan countries appear to have a strong CA in sector 3 (fuels), an increasing CA in sectors 1 (beverages and tobacco), 5 (chemicals) and 7 (machinery and transportation equipment), a decreasing CA in sector 2 (crude materials) and a weak and fluctuating in sector 0 (food).
- These specializations appear to be complementary to those developed with the EU where Greece appears to have a CA in sectors 0 (food), 4 (oils and fats) and 8 (miscellaneous manufacturing articles).

This analysis reveals two points with significant long term implications for the trade relations of Greece. It indicates that Greece has expanded its trade in the Balkans in such a way that more production sectors can expand their activities because of trade, getting a comparative advantage in the new market that was not available before. Moreover Greece appears to have CA in more sectors ( 6 in total) when trading with its Balkan neighbors, than when trading with the other EU members (3 sectors).

## 5. Measures of Intra-Industry Trade (IIT).

Measures of IIT are usually estimated in an attempt to find the share of the total trade of a country with another country or a group of countries that takes place within sectors (rather than between sectors). On the basis of these estimates conclusions can be drawn about the existing type of trade relations with all the implications about the structure and the required adjustments in the production base as well as the type and the strength of the specific ongoing process of economic integration.

In order to get reliable results, estimates of IIT are usually based on 3-digit SITC sectors, since estimations based on more aggregate data tend to overestimate the IIT share of trade, while estimations based on more detailed data tend to underestimate it. In this study, our purpose is not so much to correctly estimate the actual level of IIT between Greece and the Balkan countries, but rather to compare in broad lines the Greek IIT shares with the BCs, to the Greek IIT shares with the EU and the World. As a result, in order to avoid cumbersome and unnecessary at this point calculations, we have based our estimates on 1-digit SITC data, on the understanding that out coefficients will be an overestimation of the true ones.

Table 13 and Figure 7 present IIT coefficients for Greek trade with Albania, Bulgaria, the BCs, EU and total trade, estimated from the standard Grubel-Lloyd equation. From the examination of the data we can make the following observations:

- For the entire period $89-93,38 \%$ of the Greek-Albanian, $51 \%$ of the GreekBulgarian, $68 \%$ of the Greek-Balkan, $54 \%$ of the Greek-EU and $56 \%$ of the total Greek trade was of an intra-industry character, that is trade within (1-digit SITC) sectors.
- On a comparative basis, the Greek-Albanian trade has the lowest share of intraindustry and therefore the highest share of inter-industry ( $\mathrm{H}-\mathrm{O}$ ) type of trade. Even more, the share of IIT of Greece with Albania declines over time. These facts are compatible with standard trade theory as the low level of development in Albania does not allow for different type of specialization and a higher share of IIT.

The trade of Greece with Bulgaria is characterized by a higher IIT coefficient. About half of the Greek-Bulgarian trade takes place within industries in the 89-93 period, with significant however fluctuations over time.

TABLE 13
The Intra-Industry Trade Coefficient for the Trade of Greece with Albania, Bulgaria, Balkans, the E.U and World.

IIT , ALBANIA

| SECTORS | 1989 | 1990 | 1991 | 1992 | 1993 | $1989-93$ |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 0 | 87 | 22 | 84 | 26 | 14 | 25 |
| $\mathbf{1}$ | 1 | 0 | 17 | 38 | 1 | 9 |
| 2 | 60 | 79 | 95 | 88 | 94 | 78 |
| $\mathbf{2}$ | 8 | 38 | 19 | 61 | 99 | 66 |
| $\mathbf{4}$ | 0 | 0 | 0 | 5 | 0 | 3 |
| $\mathbf{5}$ | 65 | 80 | 76 | 66 | 12 | 76 |
| $\mathbf{6}$ | 51 | 69 | 37 | 15 | 21 | 33 |
| 7 | 1 | 1 | 6 | 5 | 5 | 5 |
| 8 | 68 | 88 | 66 | 58 | 53 | 59 |
| 9 | 0 | 0 | 0 | - | 0 | 0 |
| TOTAL | 50 | 56 | 50 | 41 | 21 | 38 |

IIT , BULGARIA

| SECTORS | 1989 | 1990 | 1991 | 1992 | 1993 | $1989-93$ |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| $\mathbf{0}$ | 93 | 92 | 83 | 98 | 65 | 89 |
| $\mathbf{1}$ | 15 | 11 | 2 | 0 | 0 | 1 |
| $\mathbf{2}$ | 80 | 81 | 90 | 47 | 69 | 73 |
| $\mathbf{3}$ | 99 | 31 | 95 | 9 | 52 | 66 |
| $\mathbf{4}$ | 94 | 91 | 96 | 28 | 99 | 81 |
| $\mathbf{5}$ | 44 | 20 | 22 | 44 | 60 | 42 |
| $\mathbf{6}$ | 77 | 45 | 63 | 33 | 57 | 60 |
| $\mathbf{7}$ | 20 | 46 | 57 | 88 | 56 | 99 |
| $\mathbf{8}$ | 34 | 34 | 56 | 45 | 29 | 37 |
| $\mathbf{9}$ | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 65 | 30 | 52 | 24 | 40 | 51 |

IIT , BALKANS

| SECTORS | 1989 | 1990 | 1991 | 1992 | 1993 | 1989-93 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 56 | 97 | 93 | 67 | 48 | 88 |
| 1 | 5 | 2 | 21 | 5 | 1 | 5 |
| 2 | 68 | 76 | 81 | 80 | 70 | 80 |
| 3 | 81 | 60 | 87 | 43 | 35 | 80 |
| 4 | 45 | 86 | 45 | 77 | 48 | 56 |
| 5 | 30 | 27 | 31 | 50 | 79 | 47 |
| 6 | 72 | 59 | 54 | 55 | 73 | 63 |
| 7 | 8 | 26 | 45 | 82 | 57 | 72 |
| 8 | 89 | 61 | 75 | 50 | 37 | 53 |
| 9 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 58 | 63 | 69 | 54 | 51 | 68 |

IIT, EU

| SECTORS | 1989 | 1990 | 1991 | 1992 | 1993 | $1989-93$ |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| $\mathbf{0}$ | 82 | 75 | 88 | 81 | 69 | 79 |
| $\mathbf{1}$ | 97 | 87 | 85 | 78 | 65 | 82 |
| $\mathbf{2}$ | 87 | 100 | 98 | 99 | 99 | 98 |
| $\mathbf{3}$ | 59 | 70 | 73 | 97 | 73 | 82 |
| $\mathbf{4}$ | 21 | 40 | 97 | 18 | 26 | 38 |
| $\mathbf{5}$ | 16 | 14 | 15 | 16 | 15 | 15 |
| $\mathbf{6}$ | 65 | 57 | 61 | 63 | 52 | 60 |
| 7 | 9 | 9 | 9 | 9 | 10 | 9 |
| $\mathbf{8}$ | 92 | 100 | 97 | 93 | 98 | 96 |
| $\mathbf{9}$ | 15 | 12 | 10 | 29 | 94 | 27 |
| TOTAL | 56 | 54 | 57 | 54 | 49 | 54 |

IIT, WORLD

| SECTORS | 1989 | 1990 | 1991 | 1992 | 1993 | $1989-93$ |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| $\mathbf{0}$ | 83 | 78 | 90 | 86 | 81 | 84 |
| $\mathbf{1}$ | 79 | 85 | 85 | 83 | 95 | 86 |
| $\mathbf{2}$ | 75 | 63 | 64 | 72 | 86 | 72 |
| $\mathbf{3}$ | 57 | 56 | 54 | 37 | 44 | 48 |
| $\mathbf{4}$ | 25 | 43 | 92 | 24 | 30 | 41 |
| $\mathbf{5}$ | 30 | 26 | 26 | 26 | 28 | 27 |
| $\mathbf{6}$ | 69 | 61 | 63 | 68 | 63 | 65 |
| $\mathbf{7}$ | 11 | 11 | 11 | 12 | 15 | 12 |
| $\mathbf{8}$ | 90 | 98 | 99 | 99 | 98 | 99 |
| $\mathbf{9}$ | 41 | 47 | 41 | 62 | 74 | 52 |
| TOTAL | 58 | 55 | 57 | 55 | 56 | 56 |

Source : Export Research Center
Panhellenic Exporters Association

The overall share of IIT between Greece and Bulgaria is very close to that between Greece and the EU and the total Greek trade. This relatively high figure is explained by the higher level of development (compared to Albania) and the greater proximity of Bulgaria to Greece (compared to EU).

Paradoxically, the IIT figure for the Greek-EU countries trade is consistently lower than that for the Greek-Balkan countries and total Greek trade for the period 89-93. To the extent that the IIT coefficient is an indication of economic integration, this means that 15 years of membership in the EU (EC), have not brought the Greek economy closer to the EU than the World economy, since Greek-EU trade relations basically retain an inter-industry character. This becomes even more clear when one considers that our IIT estimates are upwards biased (so that the real share of IIT with the EU is even lower). This type of integration is probably explained by the large distance (and the lack of adjacency) separating Greece from the other EU members as well as the significant Greek differences from the production structure of the average EU country.

Figure 7 Greek Intra-Industry Trade (IIT) shares with Albania, Bulgaria, Balkans, the E.U and the World, 1989-1993.


These figures also indicate that the Greek trade relations in the Balkans have a greater intra-industry component than the Greek-EU or the total Greek trade relations. This fact is probably explained by proximity, similar consumer preferences and tastes, or the technology level capacity and requirements of the two markets. Although it is rather early to draw any firm conclusions and further examination of this issue is certainly necessary, it seems that this development in Greek-Balkan trade relations has two significant implications.

First, it allows for the expansion of economic relations in a more sectoraly diversified manner, without exerting pressure for a strict H-O type of specialization that would perhaps require severe structural adjustments in the Balkan region. This gives some room to restructuring policies to reorganize productive resources within sectors, maintaining existing specializations and avoiding major sectoral shifts of resources that could generate structural unemployment and reduce the diversity of the production base.

Second, it offers Greece the missing component in its trade relations, that is crossborder trade of strong intra-industry character that would balance and ameliorate the implications of the existing inter-industry type of specialization and trade with the distant EU markets.

## 6. Summary and Conclusions

The economic geography of Europe is changing in a fundamental way by the forces of a two-dimensional integration process. On the one hand is the enlargement of the European Union, the operation of the Single European Market and the Maastricht policies towards the Economic and Monetary Union, usually understood as an efficiency driven process and a European response to the challenges posed by global markets. This process however, is known to generate severe pressure for adjustment to the European periphery, consisting of countries with weak economic structures and an unfavorable index of strategic location in the new European space. On the other hand, the process of transition, putting itself a tremendous pressure to Central and East European economies for structural and institutional change, eliminates gradually a historical divide with long-lasting implications for the future European spatial regularities and dynamics.

This new reality in Europe, with all its complexity, conflict and rapid change, has generated, for the first time in the post war period, conditions that provide a real opportunity to the countries in the Balkan peninsula to remove barriers that for decades restricted economic and social interaction.

The main findings of this study indicate that, on the basis of the accumulated experience, the development of economic relations in the region is mutually beneficial and generates the conditions for the formulation of an alternative paradigm of intraBalkan economic relations. As the artificial barriers in Central and Southern Europe are gradually removed, a larger economic space is created, in which the intensity and the type of economic relations are largely determined by geographical factors such as adjacency and proximity, by membership in economic or trade unions and often by historical, cultural and other non-economic preference factors. Given that distance related transportation costs will always set limits to the reach of goods and services
and therefore to the geographical size of the markets, regional trade areas will be shaped, within which trade relations will be more intensive, and perhaps of different type. This short of geographical preference or clustering in trade relations, is an efficiency driven process as countries seek to fully exploit opportunities and benefits from exchange. It is also a rational reaction for perimetric countries that attempt to reduce or offset disadvantages of perimetric location or isolation, with respect to the gravity center of Europe.

After some 40 years of separation by military blocks (and assuming that the Bosnian war will stop soon) a large regional market of 60-70 million people in Southeastern Europe is shaped, including Greece (a EU member), Albania, Bulgaria, Romania and the territory of ex-Yugoslavia, where significant opportunities for cooperation, specialization and trade exist. To the extent that geography plays a role in shaping preferences in economic interaction (something clearly evident by the bulk and type of relations between countries in Northwestern Europe), a regional market will gradually emerge in the Balkans, driven by distance (of the countries in the region from the European core), size and proximity (to each other). The main characteristic of this new market is the existence of intensive economic relations, especially between countries with common borders, such as Albania and Greece and Bulgaria and Greece.

The basic characteristic of the Greek-Albanian and Greek-Bulgarian trade relations is the fast expansion of the volume of trade with both countries and the high increase they recorded in their share of total Greek trade. Due to the difficulties of the transition process in Albania and Bulgaria, Greece runs a positive and increasing trade balance with both countries and has a greater than 1 and increasing exportimport ratio. On the contrary, the exportimport ratio of Greece with the EU and the World is significantly smaller than 1 and declining, indicating a growing balance of trade deficit. As a result, in the post-1989 period the performance of the Greek economy in international markets has a dual character, since its competitiveness in the (relatively distant) EU and World markets is low and declining, while its competitiveness in the neighboring Balkan countries is in high levels and increasing.

Measures of Revealed Comparative Advantage (RCA) indicate that Greece appears to have comparative advantages in more 1-digit SITC sectors when trading with its Balkan neighbors than when trading with the EU countries. An interesting fact is that
the specialization that Greece has developed with the Balkan countries are complementary to those developed with the EU.

On the other hand, measures of intra-industry trade (IIT) indicate that Greece and the Balkan countries as a whole have a relatively high share of IIT compared to the share of Greek trade with the EU and the World. To the extent that the IIT figures indicate the degree of integration between two areas or countries, the integration of Greece with the EU remains after 15 years of membership at low levels, since trade relations basically maintain an inter-industry character. This H-O type of integration, which is probably explained by the large distance separating Greece from the other EU countries, implies that from the efficiency point of view, Greece could seek a parallel in nature and complementary to that with the EU, integration process, based on the advantages generated by geographic and other non-economic preference factors, as well as the needs of the Balkan neighbors that accrued from the transition process.

From this analysis two points become in our view clear and deserve consideration from the policy making point of view, the first one concerning Greece and the second, all the countries in the region. For the first time after its membership in the EU, a real opportunity is given to Greece to effectively deal with the difficulties and the pressures imposed by the process of European integration on its economic structure. This opportunity is related to the prospect of gradually re-composing the economic space in its vicinity with the creation of a regional Balkan market, in which it will have a central and highly influential role. For the first time also in the post-war period, a real opportunity is given to the Balkan countries to interact and cooperate without systemic or military block barriers, leaving the level and type of their relations to be an affair of markets, preferences and geography.

From the strategic point of view, the long-term interests of Greece and the other countries in the region require stable relations, successful implementation of the policies of transition and a policy mix promoting the unification and coherence, of the European economic space, the development of the European Southeastern region and the facilitation of cross-border cooperation. Since Greece, from all the other Balkan countries, has the higher "degrees of freedom" in influencing policies for the region, it has also the greater responsibility for promoting them.

The appropriate policy mix should include a steady and energetic support to the efforts of all Balkan countries to join in the future the EU, according to the progress they make in the requirements and the criteria set. This policy is a cornerstone for the future of the Balkan region and it is the only one that allows in the long run the unification of the Balkan and European space and the better accessibility and connection of Southern with Northern and Western Europe.

The impact of this policy will be of great important for Greece. First, it leads to the removal of isolation from the EU countries with the unification of the European economic space with long lasting implications. Second, it shifts in the long run the gravity center of the EU to the south and east and contribute to the creation of a sizable regional market. Existing evidence shows that this market improves the terms of economic integration for Greece since it allows specialization and comparative advantage in different sectors than those existing with the EU and provides a large market to a number of Greek products, that because of distance and strong competition, are unable to penetrate the North European markets.

The impact of this policy, the promotion of regional cooperation and integration in the Balkans and the strengthening of economic relations of the other countries with Greece is also beneficial for them, irrespectively of the support that Greece may provide to them in the EU decision making bodies.

For these countries the process of internationalization is in fact a process of integration among unequal partners that leads in several cases to a shrinking production base and a shift of specialization and comparative advantage to traditional and labor or material-intensive sectors. It seems that Greece provides a market which is closer, offers opportunities for intra-industry trade (which reduces pressures for severe sectoral shifts in production) and has in general lower standards and requirements than the Western European ones and greater room (due to preferences influenced by cultural and historical ties) for the exporting industries of neighboring Balkan countries.

The impact of these trends and policies may also be beneficial for the EU, that may at least find a possible answer to the peripherality condition of its southeastern part. Letting geography to drive economic relations and trade preferences and allowing or encouraging the formation of regional markets with significant intra-regional activities
at the edges of the single European space (that is anyway too large to be homogeneous), is a possible way to promote a spatial spread of development and avoid further concentration of activities and power to existing core regions, that would require a greater effort and allocation of resources in the form of structural and regional policies to be impeded. Given that a Europe of macro-regions is slowly emerging, the attraction of the bulk of international mobile investment to the technologically advanced Western European countries can only be balanced by the Balkan region on the basis of intensive relations, emerging markets opportunities and a strategic development plan that will reveal the new role of the region in connecting Europe with the Mediterranean basin and the Black Sea countries.

The observers of the international economic relations have noticed that the process of internationalization and liberalization of the markets, coexists with increasing trends of regionalization at all geographical levels. Regional economic areas, agreements or unions appear with an increasing frequency in all parts of the world, giving each one of them a different speed and content in the process of internationalization of economic relations. Despite questions about their viability and future, these trends are based on a real need for cooperation of countries with geographic proximity, common cultural or other characteristics and mutual trust. Given the perimetric position of the Balkans with respect to Western Europe and the strategic importance of their size, the possibility of the creation of a Balkan regional market in which Greece will participate as the only EU member, a Balkan country and the more developed country in the region has to be seriously examined. Although political analysts will, correctly note that the history of Balkan relations does not offer a suitable framework for the promotion of such a strategy, we must all agree that our future must be determined not only from the past, but mainly from the willingness of nations to take advantage of existing opportunities for growth and prosperity.

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[^1]:    ${ }^{1}$ For a discusion of the characteristics of this process see Hare(1991), Roland(1993), Wetzman(1993), Jackson and Bilsen(1994), Swinnen(1994), Jackson and Biesbrouck(1995), Jackson and Petrakos(1995), Jackson, Koltay and Biesbrouck(1995).

[^2]:    ${ }^{2}$ For the pre-1989 period see Charalambidou, Christodoulakis and Penglis(1993) and Christodoulakis and Penglis(1993). For the first years of transition see Dimelis and Gatsios(1994), while for an early assessment of transition on EU trade see CEC(1993).

[^3]:    | SITC | Large categories | 1989 | 1990 | 1991 | 1992 | 1993 | $1989-93$ |
    | :---: | :--- | ---: | ---: | ---: | ---: | ---: | ---: |
    |  | Of products | (value in thousand US \$ |  |  |  |  |  |
    | $\mathbf{0 + 1 + 4}$ | Agricultural products | -231692 | -557828 | -278485 | -19754 | -503585 | -1591344 |
    | $\mathbf{2}$ | Raw materials | -342857 | -529490 | -506988 | -326369 | -154115 | -1859819 |
    | $\mathbf{3}$ | Fuels | -617265 | -936898 | -1295948 | -1776240 | -1675140 | -6301491 |
    | $\mathbf{5 - 8}$ | Industrial goods | -6742476 | -9371359 | -10029815 | -10833177 | -9876063 | -46852890 |
    | $\mathbf{0 - 9}$ | Total | -7780578 | -11268527 | -11967531 | -12828412 | -12161013 | -56006061 |

    Source : Export Research Center
    Panhellenic Exporters Association

