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Grækenlands Tiltrædelse af det Europæiske Fællesskab  
Der Beitritt Griechenlands zur Europäischen Gemeinschaft  
Ἡ ένταξη τῆς Ἑλλάδας στὴν Εὐρωπαϊκὴ Κοινότητα  
Greece's accession to the European Community  
L'adhésion de la Grèce à la Communauté  
L'adesione della Grecia alla Comunità europea  
De toetreding van Griekenland tot de Europese Gemeenschap

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Luxembourg, 15 July 1982

Greece's accession to the EEC

The attached joint study was drawn up by Dr Nicolas Kyriazis, while Mr Domenico Morina wrote the section 'Cultural and social development'.

The Directorate-General for Research and Documentation carried out this study to provide a more detailed document for members of parliamentary committees who attend meetings in Greece and for Members of Parliament and other persons interested in this subject.

We hope that this document, which is available in all the Community languages, will foster greater understanding of the major issues connected with Greece's accession to the Communities.

Francis Roy  
Director

# HELLAS



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PART I

A. A SHORT HISTORY OF MODERN GREECE

B. POLITICAL INSTITUTIONS

C. CULTURAL AND SOCIAL DEVELOPMENT

## PART I

### A. A SHORT HISTORY OF MODERN GREECE

Greece participated in the second World War on the side of the Allies after it was attacked by Italy on 28 October 1940. The Greek Army repulsed the Italian attack and in a victorious counter-attack pushed the Italians back into Albania, liberating Northern Epiros which was mainly inhabited by Greeks.

In April 1941 the Germans attacked, after conquering Yugoslavia and conquered Greece. They evacuated the country in 1944, after four years of occupation.

In December 1944, the civil war started, which lasted till 1949, when the communist forces were defeated and constitutional monarchy was introduced.

There followed various governments, mostly of the right. In 1962/63 George Papandreu, as leader of the Center Union, won the elections with a majority of 53% but soon he encountered resistance from King Constantine and the Queen Mother in his reforms. In 1965 he resigned followed by attempts to establish governments by dissidents from the Center Union Party, backed by the conservative E.R.E. Party. However, all attempts failed due to the fact that none of these governments united the necessary majority in Parliament. Finally, new elections were announced for April 1967 but a coup d'état by the Colonels forestalled them. In December 1967 King Constantine fled from Greece, after a failed coup against the junta.

In 1973 there was a failed coup by the Greek Navy, one destroyer under its Commander Pappas (now Chief of Staff of the Greek Navy) escaping to Italy. The dictatorship abolished kingship and proclaimed the republic in June 1973, the dictator Papadopoulos naming himself President. In November 1973 a revolt of students who barricaded themselves in the Polytechnic School of Athens was repressed with bloodshed. A coup d'état threw

Papadopoulos out and Ioannides was the new strong man of the junta.

The junta then tried to interfere in Cyprus staging a coup d'état to overthrow the President of Cyprus, Archbishop Makarios. The Greek coup d'état provoked the invasion of Cyprus by Turkish landing forces who conquered about 40% of the island after sometimes fierce fighting.

Other forces in the Greek Army, notably Generals Davos and Gratzios who commanded the most important forces in the Greek Army, stationed in Northern Greece, intervened and overthrew the dictatorship in July 1974 and charged Constantin Karamanlis, then in exile in Paris, to form a civil government with representatives of all political parties. Actually the socialist (then not yet named PASOK) and the communist party were not represented in the government.

Martial law was abolished and liberty of press and political parties, including the Communist party, which was banned from 1949, were reintroduced. Elections were proclaimed in November 1974, which gave an overwhelming majority to the party of Mr. Karamanlis, Nea Demokratia. In December 1974 a referendum decided on the fate of monarchy in Greece: 70% of the Greeks voted against a return to constitutional monarchy and in June 1975 a new democratic constitution was voted, in which introduced parliamentary democracy with a President as Head of State.

In 1975 Greece asked to accelerate her adhesion to the EEC and the negotiations began the following year. The adhesion act was signed in Athens in May 1979 and Greece became a full Member from the 1 January 1981.

In 1977 Karamanlis' party again won the election but with a much lower majority, while PASOK became the main opposition party. In 1980 Karamanlis was elected by the Greek Parliament as President of the Republic and was succeeded in

the leadership of his party by Georges Pallis, who replaced him also as Prime Minister. In the elections of October 1981 PASOK won and Mr. Papandreu formed the first Greek socialist government. In the new parliament PASOK had 174 seats (48.06% of votes), Nea Demokratia 113 seats (35.91% of votes) and the Communist Party 13 seats (10.89% of votes).

The government of PASOK has to deal with the following difficult problems: revival of the economy which was in a bad state when PASOK came in power with a stagnation of investment and high external debt, finding of a solution to the Cyprus problem and the Greek-Turkish differences and participation or withdrawal from NATO and the status of American military bases in Greece.

The Greek Government has sent a memorandum, dated 19 March, to the Commission, concerning relations between Greece and the Community and asking for certain improvements in the conditions of Greek accession.

On 10 June 1982 the Commission adopted a communication to the Council (prepared by Commissioner Mr. Burke, to whom the matter had been passed), saying that on the whole the EEC could give a favourable reply to the questions posed by the Greek memorandum, while still remaining within the limits of the Treaty and without the necessity for modifications to the conditions of Greek accession.

The Commission invites the Council to decide as follows:

- recognize, as the Greek government requests, the need to confront the particular problems which Greece has to face and to take them into account within the framework outlined by the Commission (see below point 1).
- take note that the Commission will take those decisions which fall within its purview.
- invite the Commission to make appropriate proposals in the areas which fall within the Council's purview.
- agree to adopt fair decisions upon all the proposals already submitted by the Commission and on those which the Commission is called upon to submit within the periods laid down (see below point 2).

The Council should, furthermore, invite the Greek government to remain in contact with the Commission in defining its economic policy and particularly in connection with its five year economic development plan, the terms of which should be compatible with Community objectives and policies.

These proposals to the Council are being made in good time so as to enable the Heads of Government to discuss them, according to the wishes of the Greek government, at the European Council on 28 and 29 June next.



These proposals by the Commission to the Council require the following explanations:

1. The general framework is that the EEC can contribute to the development and solution of Greece's specific problems by application of its policies and not by means of derogations to the Treaties. Protocol VII of the Accession Act indicates that the Institution should do their utmost, within the possibilities offered by the existing instruments, to take account of the specific situation of Greece. The Commission also stresses that the unity of Community law does not mean its uniformity and that specific measures are possible in specific situations, always provided that they are not incompatible with the Treaties and do not represent a step backwards where liberalization or integration is concerned. What is more, application of an act of Community law may be delayed.

2. On several points the replies already exist. Council decisions on common prices and related measures have answered the question of support prices for Greek farmers. Certain structural measures for agriculture have already been proposed. Other structural measures are to be extended to Greece before 31 July. Moreover, replies to several of Greece's problems will be provided by the "integrated Mediterranean programmes".

## B. POLITICAL INSTITUTIONS

Greece is a parliamentary democracy headed by a President. All powers belong to the people and are exercised for their benefit. The State religion is Orthodox Eastern Christianity.

### Executive and Legislative Power

#### The President

Executive power belongs to the President who is elected by the Parliament for a five-year term. He may be re-elected once only. The President represents the State in its relations with other nations. He is commander-in-chief of the armed forces and is empowered to declare war and conclude treaties. The President appoints the Prime Minister and the other members of the government on the Prime Minister's recommendation. The President convenes Parliament once a year and, whenever necessary, may call a special session. In exceptional circumstances he may preside over the Cabinet, convene the Council of the Republic and suspend Parliament for a period not exceeding thirty days. He may dissolve Parliament at the request of the government or with the consent of the Council of the Republic. In exceptional cases he may organize referenda. He has the right of veto over bills adopted by Parliament.

#### The government

The government is composed of the Prime Minister and the ministers who form the Cabinet. The government formulates and administers the general policy of the State in accordance with the laws and the Constitution. The Cabinet must have the support of Parliament and can be dismissed following a vote of no confidence. The Prime Minister is the leader of whichever party holds an absolute majority in Parliament or, failing that, the leader of the party with a relative majority.

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### The Council of the Republic

The Council of the Republic is composed of all former democratic presidents, the Prime Minister, the leader of the opposition and former democratic prime ministers who had the support of Parliament, and is presided over by the President. It meets when the main parties fail to form a government with the support of Parliament and may instruct the President to appoint a prime minister who may or may not be a Member of Parliament. The Council may also authorize the President to dissolve Parliament.

### The Parliament

Parliament consists of a single House with 300 Members who are elected by secret and direct suffrage for four years. Parliament elects its own President. It meets regularly each year for at least five months. Bills adopted by Parliament are ratified by the President whose veto may be overruled by an absolute majority of all MPs. Parliament may indict the President by a motion signed by one-third and adopted by two-thirds of all the Members. Parliament may also indict current or former Members of the government. The accused is then called to appear before an ad hoc tribunal presided by the President of the Supreme Court and made up of twelve judges. Certain legislative acts as specified in the Constitution must be passed by a full House of Parliament, which may only make decisions by an absolute majority of the Members present and never by less than a quarter of the total number of Members. Under the Constitution certain legislative powers may not be exercised by more than two parliamentary committees. Parliament may revise the Constitution according to the procedure laid down.

### The judiciary

Justice is administered through the courts by permanent judges who are fully independent in their office and in their function. The President appoints the judges for life after consulting a judicial council. The judges are bound only by the Constitution and by the law. The courts are subdivided

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into civil and criminal administrative courts set up under special laws. They may not apply laws which are contrary to the Constitution. The highest court of appeal is a special Supreme Court.

Certain laws which were passed before the enactment of the present Constitution and which have not been ruled unconstitutional remain in force, other laws, even where they are contrary to the Constitution, remain in force until they are repealed by other legislative measures.

#### Individual and special rights

All citizens are equal under the Constitution and before the law with the same rights and the same obligations. No title or distinction may be conferred or recognized. Every individual has the right to total protection of life, honour and liberty, irrespective of nationality, race, belief or political opinion. No law may be made retroactive and no citizen may be punished without a regular trial. Freedom of speech, of the press, of association and of religion are guaranteed by the Constitution. Every individual has the right to a free education provided by the State. Everyone has the right to work and all workers have the right to equal pay for equal work, without discrimination based on sex or on any other grounds. The right of association, the right of ownership and the freedom to establish political parties are guaranteed by the Constitution. All citizens aged twenty years or more are required to vote. No one may exercise his rights or freedoms in violation of the Constitution.

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In accordance with its long-established special status, Mount Athos will retain its autonomy within the State of Greece and its sovereignty will remain unchallenged.

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## C. CULTURAL AND SOCIAL DEVELOPMENT

### Education and Culture

#### The educational system

Since 1975 the period of compulsory education has been nine years. Various reforms have recently been adopted to deal with the extremely serious problems in the educational sector in Greece.

The first problem to be dealt with is the fairly high proportion of people who are illiterate or poorly educated. The statistics on illiteracy based on the March 1971 census show that of the 7,302,560 Greeks who were above ten years of age at the time, 1,040,000 - three-quarters of whom were women - could neither read nor write. The statistics also show that 2,431,160 persons had not completed their primary school studies. The vast majority of those persons who are illiterate or poorly educated figure amongst the highest age groups. It is to be hoped that with the increase in the number of primary schools over recent years illiteracy may shortly be a thing of the past.

The second problem, which has paralyzed the educational system for a long time, is the language question. The Colonels' regime rescinded the provisions of the educational reform promulgated in 1964 by George Papandreou's Government and once again introduced the compulsory use, from the final primary school classes onwards, of the purest archaic language<sup>1</sup> in place of demotic (popular language), which is the language of literature and authentic national tradition and the language that is spoken in the home. Bilingualism (purist language - popular language), together with outdated educational programmes, has made a mockery of the efforts made by the educational system and placed a difficult barrier in the way of learning. In 1976 the Government permanently reintroduced the popular language for all educational purposes in primary, secondary and higher schools.

Since 1974 special efforts have been made by the Government in the field of national education. All material and apparatus for schools and universities are to be provided free of charge in accordance with recent reforms.

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<sup>1</sup>The purist language (katharevousa) is supported by conservatives, demotic by liberals and progressives.

### Primary education

Education in primary schools (demotikon) lasts for six years and children are accepted from the age of five and a half. The social prestige of teachers, who are trained in teacher-training colleges, is not very high and their salaries are inadequate. Children advance from primary school to secondary school without taking an exam.

### Secondary education

Secondary education also lasts six years. The first three years are spent in the gymnasion (lower secondary) and the last three years in the Lykeion (upper secondary). To advance from the gymnasion to the Lykeion an examination must be passed in three sections: general, classical, professional and technical. A Leaving certificate is awarded to pupils who complete their studies in the Lykeion.

### Private education

Since there is no division between Church and State, private teaching does not have the same denominational character as in other countries<sup>1</sup>. About 8% of Greek children attend private primary and secondary educational courses. The general level of private education is, for the most part, higher than that of public education. Some private schools or frondistiria prepare pupils for university entrance examinations. The vast majority of pupils who want to go to university attend lessons in frondistiria as well as their courses in the Lykeion.

### University

Entrance to university can only be gained by passing a national university entrance exam. The pass rate is in the region of 30%<sup>2</sup>. Unsuccessful candidates may resit the examination: many of them try to enrol in foreign universities<sup>3</sup>. A recent reform, which is being gradually implemented, allows pupils in upper secondary schools who obtain sufficient marks in their school exams to enter university without taking the entrance exam.

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<sup>1</sup>In Greece religious education is given in all primary and secondary schools, both public and private.

<sup>2</sup>In 1979, out of 74,692 candidates, 23,247 students were admitted to universities and institutes of technology (KATEE), in other words a pass rate of 31%.

<sup>3</sup>According to figures supplied by the Bank of Greece, based on exchange controls, there are 30,000 Greek students abroad.

In Greece there are six universities, one polytechnic and six higher educational institutes, which in 1979 admitted more than 100,000 students. Law No. 875/1979, which limited the period over which students who failed their exams too often could claim a university maintenance grant, was suspended at the beginning of 1980 following a general university sit-in by student action committees. However, this figure is bound to be an under-estimate because many students receive financial aid from their parents abroad which means that they are not included in the Bank of Greece's statistics.

#### Institutes of technology (KATEE)

Institutes of technology, which have developed rapidly in recent years, admit about 33,000 students in 25 teaching centres throughout the whole of Greece.

### HEALTH AND SOCIAL SECURITY

#### Health

The State is making a special effort to deal with health in Greece devoting almost 14% of the budget to health expenditure each year.

#### Doctors

Greece has a large number of doctors, with 204 doctors per 100,000 inhabitants<sup>1</sup>. For several years the Government has been taking measures to limit the number of students enrolling in the medical faculties. It is also making efforts to encourage doctors to enter practice in the provinces because there is an over-concentration of doctors in the Athens - Piraeus region, where almost half of the country's doctors are located.

#### Hospitals and clinics

In Greece there are 720 hospitals and clinics providing 59,000 beds. This number is quite small since, to comply with the norms laid down by the WHO, there should be more than 70,000 beds in the country. Private hospitals account for 40% of the total hospital sector. As in many European countries, there is a shortage of nurses in Greece: in 1978 there were 18,000, whereas a minimum of 32,000 were required.

<sup>1</sup> By comparison, in 1978 France only had 147 doctors per 100,000 inhabitants.

## Social security

Responsibility for the general social security scheme for wage earners lies with the Social Security Foundation (IKA) established in 1934. In 1978 there were 1,200,000 workers and employees insured by the IKA<sup>1</sup>.

The total agricultural population (farmers and agricultural labourers) is affiliated to the Agricultural Workers' Organization (OGA) insurance scheme, which in 1976 covered 1,600,000 people.

Civil servants and public employees are covered by the State social security scheme.

In addition to these three major insurance funds, there are 397 special social security bodies in Greece with each professional branch of self-employed workers having its own insurance system. This leads to certain disparities and inequalities in the payment of social benefits. For several years a special effort has been made to simplify and standardize retirement schemes. Thus, in 1978, the IKA adopted the rule of paying old-age pensions after 35 years' service in line with other social security funds. However, the pension scheme for civil servants and affiliated bodies is particularly advantageous because, in addition to their pension rights, they receive on retirement a lump sum which, depending on category, grade or office, can amount to between two and five years' salary.

## THE CULTURAL MOVEMENT

Greece is not just a seafaring nation, but also a country of musicians, poets and artists. Greece's rich history serves as a direct inspiration for artistic creativity which has undergone an unprecedented revival over the last thirty years. Thus, Greece has received two Nobel prizes for literature in the course of the last 20 years.

Greek culture is based on an authentic popular tradition which is inseparable from the political struggle.

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<sup>1</sup> Social security contributions for a wage earner amount to 29% of his total remuneration: 18.75% of this sum is paid by the employer and 10.25% by the employee.



## Prose

Nikos Kazantzakis (1885-1957) can be considered as the greatest novelist of modern Greek literature. Also an author of numerous poems, Kazantzakis only began to write his prose work in 1946 - which bears witness to his attachment to his home, Crete - beginning with Alexis Zorba. He also published Christ Recrucified (1954) and The Little Poor Man of God (1957).

Notable amongst modern authors are Vassilis Vassilikos, the author of Z, Antonis Samarakis, known in France for his novel The Mistake, and Stratis Tsirkas, who wrote Cities Adrift and The Man of the Nile.

Modern Greek literature is trying to achieve a new synthesis. The crisis which it has gone through is in fact the same crisis that the whole of Greece has undergone since independence.

## Music

Byzantine religious music and traditional folk music are the two sources of inspiration for contemporary Greek composers. Manos Hadjidakis and Mikis Theodorakis are clearly the best known Greek musicians abroad. However, Greece also has a large number of other talented composers: Cyprien Katsaris, Loukianos Kilaidonis, Yannis Markopoulos, Thanos Mikroutsikos, Dionysis Savopoulos and Yannis Xenakis.

## Fine Arts

After an extremely long period during which Greek sculpture was limited to copying ancient sculpture, a modern school of sculptors was founded at the beginning of this century with leading exponents such as Takis, Agamemnon Makris and Giorgos Zongolopoulos.

Greek painting has for a long time drawn its inspiration from the final period of the Byzantine era. After Greek independence, the works of numerous painters were characterized by western influences. Today the influences on painting are many: Byzantine art, naive painting, abstract art, etc. The most representative modern Greek painters are Nikos Engonopoulos, Nikos Hatzikyriakos-Ghikas, Tassos Hatzis, Yannis Tsarouchis and Spiros Vassiliou.

## The Press

There are a dozen dailies in Athens and three in Thessaloniki, all of which are distributed throughout the whole of Greece<sup>1</sup>. A total of more than a hundred newspapers are published in Greece. All the Greek

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<sup>1</sup>There is a national press agency (The Athens Press Agency) which distributes its own despatches and, under agreements with the major international agencies, covers all major news events.

dailies follow a distinct political line and tend to express opinions rather than provide news. The Greek press devotes a large part of its coverage to articles on foreign affairs. Numerous papers with copyright agreements produce in full certain articles taken from the international press.

PART II

STOCKTAKING OF ACCESSION

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STOCKTAKING OF ACCESSION

1. Agriculture

The agricultural sector is comparatively more important to the Greek economy than it is in the other Member States of the Community. The agricultural sector contributes 20% to the GNP in Greece compared to 13% in Spain, 16% in Portugal, 9% in Italy and 5% in the Community as a whole. In Greece 21% of the working population is employed in the agricultural sector compared to 26% in Spain, 29% in Portugal, 17% in Italy and 8.7% in the Community as a whole<sup>1</sup>.

About four million hectares are cultivated in Greece, in other words 30% of the country's total area. Productivity in Greek agriculture is considerably lower than the Community average and the climatological conditions do not permit a great deal of product differentiation. However, they are particularly favourable for certain crops, such as citrus fruits, olives, vines, tomatoes, vegetables, peaches and apricots.

The low productivity is due, to a large extent, to the segmentation of farm holdings which, in many cases, prevents mechanization. Approximately 25% of agricultural holdings are smaller than 5 hectares, whereas only 1% of holdings are larger than 20 hectares. Furthermore, 27% of useable agricultural areas are in mountain regions, where only a limited number of crops, such as wheat and vegetables, can be grown and sheep and goats reared.

Agricultural incomes are, on the whole, lower than incomes in the cities, despite the fact that they have increased a good deal in recent years. This has resulted in the migration of the agricultural population towards the cities in Greece and abroad. However, despite migration, there is still a significant level of underemployment of the labour force in Greek agriculture. Under-employment can only be eradicated by significantly reducing the number of agricultural employees to a level somewhere near the average of the other Member States of the Community. However, this is the major problem of the Greek economy. In a period of increased unemployment like today, the other sectors of the economy (industry and services) are not able to absorb the manpower which can be released by agriculture. If such a release were to happen suddenly, unemployment in Greece, which at the moment is still the lowest in the Community, would rise dramatically. Consequently, agricultural under-employment can only be reduced gradually at a rate that will allow industry and the services to absorb the labour force released by agriculture.

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<sup>1</sup> 1977 figures

Greek agricultural exports to the Community increased rapidly during the final years of the Accession Agreement, with the result that Greece has a positive agricultural balance in its trade with the Member States of the Community. This happened, despite Greece's adverse position as regards the transportation of agricultural products, which renders significantly dearer the consumer prices in the European markets (e.g. 70% of the consumer price for oranges on the European markets is the transport cost), because Greece is in a very advantageous position for producing these products.

50 - 53% of Greek agricultural exports go to the Community, while 25 - 30% of Greek imports come from the Community. In the coming years there will have to be an increase in the amount of both exports and imports. In exports following the end of the transitional periods, in imports because of preferential treatment for these products on the Greek market compared to products of third countries, since import duties for Community products are being abolished, while the regulations of the common agricultural policy (CAP) apply to products of third countries.

Production of peaches in Greece accounts for 5% of international production, while Greek exports account for 10 - 11% of the international peach market. 10% of the wine produced is exported, while total Greek exports of agricultural products consist of two-thirds fruit and vegetables, one-quarter tobacco and 6% oil and seeds for producing oil. On the other hand, Greece is deficient in cereals (42% of total agricultural imports), dairy products (12%), beef and veal (8%), while being more or less self-sufficient in potatoes, pigmeat, eggs, poultry and fish.

Integration of Greek agriculture has been more difficult for the Community than integration of Greek industry both because of its relatively larger importance for the Greek economy, and because of the increased competition with similar products of other Member States. Greece is a precedent for the accession of Spain and Portugal. It was therefore agreed that there would be a general transitional period of 5 years for all agricultural products and a transitional period of 7 years for fresh and processed tomatoes, and for fresh and preserved peaches.

During these transitional periods Greek prices must be brought into line with those of the Community and the agricultural policy harmonized accordingly. For this reason a system of compensatory amounts has been brought into operation.

Greek prices were generally lower than those in the Community and the Greek market weaker, as is shown in the following table.

Table 1

Market and/or intervention prices for the crops year 1981-1982.

Only those products are included for which the Greek and Community prices differ (in EUA and in 100 kg).

Product	Greece	EEC - 9	Product	Greece	EEC - 9
<u>TOMATOES</u>			<u>PEARS</u>		
1-20 June	7.18	11.03	July	15.40	12.72
21-30 June	6.72	10.27	August	14.86	12.33
July	5.89	8.88	September	13.99	11.71
August	5.35	7.99	October	13.99	11.71
September	5.65	8.49	November	14.34	11.96
October	6.65	10.15	December	14.86	12.33
November	7.48	11.54	January	15.22	12.59
			April		
<u>PEACHES</u>			<u>TABLE WINE GRAPES</u>		
June	17.55	24.74	August	20.29	19.60
July	16.80	23.61	September	16.38	16.17
September			October		
<u>LEMONS</u>			<u>TANGERINES</u>		
June	21.78	23.58	17-30 November	22.22	26.22
July	22.35	24.21	December	21.81	25.71
August	22.24	24.08	January	21.19	24.95
September	20.97	22.68	February	20.78	24.44
October	20.74	22.43	<u>SWEET ORANGES</u>		
November	17.97	19.38	December	17.11	23.13
December	17.75	19.13	January	15.91	21.36
January	18.21	19.64	February	16.26	21.87
February	17.64	19.01	May	16.43	22.12
March	17.21	19.64	April	16.60	22.37
April	19.13	20.65	May		
May	19.59	21.16	<u>OLIVE OIL</u>	186.97	196.33

Harmonization therefore means increased prices for Greek agricultural products and increased incomes for Greek farmers, but, at the same time, it means that Greek consumers will be worse off. Moreover, during the 5-year transitional period, the Greek market will be opened to a number of imports of agricultural products from the countries with which the Community has signed preferential agreements (ACP, Maghreb, Mashrek, Israel).

The Community's regulations for guaranteeing the price of olive oil and wheat, and the Community's subsidies for processed fruits and vegetables, will be extended in stages to Greek producers. The Community has passed legislation for new market arrangements for cotton, dried figs and grapes, products which are particularly important for Greece (e.g. Greek production of cotton accounts for 99% of the Community's production).

On the other hand, during the transitional period certain national subsidies will be abolished, such as support for the production of fertilizers aimed at reducing prices for farmer buyers because production subsidies conflict with Community regulations.

The co-responsibility levy for milk and dairy products will not be imposed on Greek producers because of the small size, on average, of Greek undertakings. The European Parliament also adopted the Commission of the European Communities' proposal to increase appropriations earmarked for research in the agricultural sector from 18,602,000 EUA to 21,392,000 EUA. The additional appropriations will be used for research in Greece.

Implementation of the CAP in Greece will have the following effects:

1. Incomes - Employment: As mentioned above, higher Community prices and the stronger market organization in the Community, dating from the time when the CAP was implemented in Greece in January 1981 and particularly after it has been fully implemented following the end of the 5-year transitional period, will increase agricultural incomes in Greece, thereby halting the migration of the agricultural population to the cities, thus having a beneficial effect on overall employment in Greece. Furthermore, since the agricultural regions are usually a country's least developed regions, which is particularly true in the case of Greece, the implementation of the CAP is benefiting regional development (by increasing incomes and by maintaining the labour force in these areas) and complementing the Community's regional policy.
2. Prices - Inflation: Increased farm prices have a negative effect on the consumer price index and, in the long run, on inflation. To the extent that Community (which usually means more expensive) imports of agricultural products (beef and veal, dairy products, cereals, etc.) will replace previous

imports onto the Greek market from third countries, the rate of inflation will be adversely affected. On the other hand, insofar as imports from third countries with preferential agreements will not be burdened with Greek import duties or will replace Greek production which is inefficient and more expensive, the rate of inflation will be favourably affected.

3. Production: The CAP's higher prices for certain Greek products may in the long term lead to an increase in Greek production of these products. This is most likely to happen with fruit and vegetable producers. The size of this increase will correspond to production elasticity for these products<sup>1</sup>.

4. Consumption: Higher prices for cereals, olive oil, dairy products and meat may result in reduced demand for these products. Whether or not there is a reduction depends upon the price elasticity of demand for these products<sup>2</sup>. Price elasticity of demand is relatively important for cereals and fruit and vegetables, whereas it should not be so important for meat and dairy products which are influenced more by income elasticity<sup>3</sup>. Per capita meat consumption in Greece is just over two-thirds of the Community average. However, despite increased prices, a rise in meat consumption in Greece can be expected with increased incomes.

On the other hand, for other products increased production and reduced demand due to increased prices may lead to the creation of large surpluses in addition to those which already exist and this will, in the long run, have an adverse effect on the Community budget.

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<sup>1</sup> Production elasticity gives the percentage variation of production at each 1% variation of the price of the product which is produced, or

$$E_{\pi} = \frac{D_{\psi}}{Dp} \cdot \frac{P}{\psi} \quad (\text{production elasticity of supply}) \text{ where } \psi = \text{production}$$

<sup>2</sup> Price elasticity of demand is determined in relation to the previous equation so that  $E_X = \frac{DX}{Dp} \cdot \frac{P}{X}$  where X = demand. However, whereas the previous equation is positive (in other words price increase = production increase), price elasticity of demand is usually negative (in other words price increase = decreased demand).

<sup>3</sup> Income elasticity gives the percentage variation in consumption (or demand) when income varies by 1%. It is usually positive (in other words increased income = increased consumption).



As Table 2 below shows, Greek agriculture is relatively complimentary to that of the Community. The Community will benefit from the integration of the complementary sectors because, in the sectors where the Community has surpluses (meat, dairy products, cereals), Greece's accession means that imports from outside the Community onto the Greek market will be replaced by Community products, resulting in some reduction in Community surpluses. Of course, this reduction will not be very large, because the size of the Greek market is limited, but any reduction in surpluses is desirable as it lightens the burden on the Community's budget.

Table 2

Product	Greek production as % of production of Community of '9'	Level of self- sufficiency of the '9'
Cotton	99	-
Tobacco	51	29
Fresh vegetables	18	94
Olive kernels and seeds	16	20
Sheepmeat	15	63
Rice	12	82
Fresh fruit	11	78

The price increases for agricultural products after the decision of the Council of Ministers in May reached on the average (including monetary compensatory amounts ) 20% for Greek agricultural products. The Greek Minister of Agriculture, Mr. Simitis considered them to be satisfactory.

The situation in the agricultural sector of the Community changes as follows with the accession of Greece:

1. The Community still has a shortage in products such as citrus fruits, olive oil and certain other kinds of fruits and vegetables. As far as these products are concerned, Greece's accession creates no difficulties in the Community. In products where competition is increased because of Greece's accession (fruit, vegetables, olive oil), the Community's consumers benefit because, as a result of competition, they can pay lower prices or pay the same prices for better quality. The Community's agricultural market, in contrast to the industrial market, is not free but controlled competition existing only on a limited scale. The difficulties of the Community's agricultural market, such as surpluses, are to a large degree due to the weakening of competition. Any increase in competition is therefore beneficial for the Community as a whole.

2. Greece has a shortage in products such as cereals, dairy products, and beef and veal which will be met by Community imports, benefiting the Community through reduction of its surpluses.

3. Only in the case of wine and a few kinds of fruit will accession increase the Community's level of self-sufficiency and surpluses, thereby exacerbating the Community's agricultural problems.

Greece's accession as a whole, and the future accession of Spain and Portugal, contrary to certain opinions, is beneficial for the Community because of the complementarity of the agricultural sectors of these countries with that of the Community.

On the other hand, it is more difficult to assess the overall net result of Greece's 'agricultural accession' to the Community in terms of Greek welfare. The net result will depend upon the following factors:

1. indisputable increase in farmers' incomes.
2. Whether or not there is an increase in consumer prices. On the whole, the implementation of the CAP will result in increased consumer prices adversely affecting overall welfare.
3. Transfer of resources. In its present form the CAP gives more support (with better market regulations) to products from northern regions than to Mediterranean products. Also, because of the CAP's present arrangements large productive units can benefit more easily from it than can small ones. However, for the most part, Greece has small units and cultivated Mediterranean products. This means that the present CAP will result in a net transfer of resources from Greece to the Community, as happened to a certain degree with the Mezzogiorno. A study by the Commission

of the European Communities concerning these matters arrives at the same conclusion. 'this means that under existing conditions the operation of the CAP could result in a net transfer of resources from Mediterranean countries to the richer northern countries'<sup>1</sup>. The effect on welfare is negative.

4. The replacement of imports of agricultural products from outside the Community (which previously were more competitive but are now becoming uncompetitive because of the abolition of Greek import duties on imports from the Community) by Community imports is tantamount to trade diversion<sup>2</sup>, which has an adverse effect on welfare.

With the exception of point 1, the implementation of the CAP in its present form into Greece will have negative consequences for Greek welfare. For this reason reform of the CAP is essential as far as the Mediterranean countries are concerned<sup>3</sup>.

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<sup>1</sup> Commission of the European Communities, DG II, Group of Economic Advisers, 'Analysis of the economic consequences of the south enlargement of the EC by Greece, Spain and Portugal', Brussels, June 1977, page 38

<sup>2</sup> Trade diversion exists when imports from less efficient sources (in other words, imports that are essentially more expensive) replace more efficient (essentially cheaper) imports. This can happen when imports that cost more to produce are cheaper on the final market because import duties on them are abolished whereas they are not abolished on other imports (which were cheaper before) from third countries. In general, all empirical studies agree that the CAP has led to trade diversion, although they reach different conclusions as to the nature of this trade diversion, adversely affecting welfare as a result. In this connection see the following study which brings together the results of many empirical studies on this topic: Erik Thorbecke, Emilio Pagoulatos, 'The effects of European economic integration on agriculture' in Bela Balassa 'European economic integration', North Holland Publishing Company, Amsterdam 1975.

<sup>3</sup> In this connection see 1: A. Pepelasis 'The structure of Greek agriculture and the expected impact upon entering the Community', Agricultural Bank of Greece, Athens, 1977; 2: Commission des CE, délégation pour l'élargissement 'Conséquences de l'élargissement dans le domaine agricole', Bruxelles, 1978 3; A.Ries 'Structure de l'économie agricole de la Grèce et PAC', Institut d'études européennes, colloquy 'La Grèce et la Communauté', Mai 1977; 4: Commission des CE, DG II, Groupe des Conseillers Economiques', 'Analysis of the economic consequences of the south enlargement of the EEC by Greece, Spain and Portugal', Brussels June 1977; 5: M.A.Pizzuti, 'Politique méditerranéenne de la Grèce', colloque 'La Grèce et la Communauté', supra; 6: John Marsh, 'The impact of enlargement on the CAP'. Collège de l'Europe Bruges 1978; 7: N.Kyriazis 'Griechen land:EG - Beitritt: Dynamisierungsimpulse und Struktureffekte für die Wirtschaft', Forschungsinstitut der Friedrich Ebert Stiftung No. 61, Bonn 1978; 8: N.Kyriazis, 'Griechenlands Beitritt zur EG: Auswirkungen auf die Industrialisierung', Bonn 1979.

## 2. The Greek merchant fleet

The Greek fleet is the largest of the Member States fleets and the second largest in the world, after the fleet of Liberia. If the many tankers belonging to Greek shipowners which sail under the Liberian flag are included in the Greek fleet (as part of the Greek owned fleet) then it is the largest in the world. In mid. 1981 the Greek fleet had a total displacement of 71,6 mill. dwt, out of which 28 mio dwt were bulk carriers (39%), 29,9 mio dwt tankers (42%) and 13,6 mio dwt cargo carriers (19% of the total)<sup>1</sup>.

The Community's fleet, following Greece's adhesion represents about one fourth of the world fleet, thereby making the Community indisputably the leading mercantile marine power in the world.

The merchant fleet is one of the most important sectors of the Greek economy both in terms of employment (approximately 120,000 persons) and in terms of its contribution towards the Greek balance of payments (approximately 700 million dollars in 1976, which correspond to 20% of the balance of payments deficit for the same year.

The Greek fleet showed great resilience during the international crisis in the sector and continued to develop while the fleets of other Member States were reduced. The Greek merchant navy is facing undermanning problems because jobs available on Greek ships outnumber the persons seeking employment in this market. That is why, foreign crews are employed on Greek ships. However, there is a Greek law prohibiting the number of foreigners employed in the crews of ships sailing under the Greek flag from exceeding one-quarter of the crew. So the manpower problem on Greek ships has not been solved.

It is doubtful whether the problem will be solved by the possibility of employing crewmembers from Member States (who, with the free movement of labour, are considered as Greeks by Greek law) because the working conditions on Greek ships (salaries, living conditions, etc.) are worse than corresponding conditions in the Member States' merchant fleets. So there is no incentive for seamen from other Member States to look for work on Greek ships.

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<sup>1</sup> See table 3.

TABLE 3

## THE TOP TEN MERCHANT FLEETS mid. 1981

	Total Fleet	m.dwt	Dry Bulk Carriers	m.dwt		Tankers	m.dwt	General Cargo Carriers	m.dwt
1	LIBERIA	147.4	LIBERIA	36.1		LIBERIA	105.2	GREECE	13.6
2	GREECE	71.6	GREECE	28.0		JAPAN	32.0	PANAMA	12.8
3	JAPAN	57.8	JAPAN	19.4		GREECE	29.9	USSR	7.8
4	PANAMA	41.7	PANAMA	13.3		NORWAY	27.1	USA	6.9
5	UK	39.0	UK	8.9		UK	25.9	JAPAN	6.2
6	NORWAY	37.1	NORWAY	8.0		US	17.1	LIBERIA	6.1
7	US	24.4	ITALY	5.3		PANAMA	15.7	CHINA	5.1
8	FRANCE	19.6	CHINA	3.9		FRANCE	15.6	UK	4.2
9	USSR	17.1	INDIA	3.3		ITALY	9.5	SINGAPORE	3.4
10	ITALY	16.0	SINGAPORE	2.5		SPAIN	9.3	W.GERMANY	2.9

NOTES: (i) Tankers, gas carriers and dry bulk carriers of 10,000 dwt plus general cargo carriers including conventional and unitised tonnage of 5,000 dwt plus.

(ii) Tankers includes gas carriers and 50% of combined carriers. Dry bulk carriers includes 50% of combined carriers.

Source: LR Computer

Following accession, Greek sailors are entitled to take advantage of the free movement of labour to seek employment on ships of Member States. If they do this to any great extent, then the situation on the Greek labour market will be aggravated even further. Whether or not this will happen in the coming years depends to a large degree on wage levels on the ships of Member States. As the following tables show, there are quite significant differences.

Table 4

Seamen's monthly salaries in English pounds, December 1975

Country	Mate	Seaman	GNP/per capita	GNP/per capita as % of Greek salaries
Belgium	1.079,49	530,20	4.650	259,8
France	1.207,46	433,83	4.900	273,8
Germany	1.108,00	615,16	5.610	313,4
Denmark	1.190,20	618,31	5.460	305,1
Italy	724,23	399,57	2.510	140,3
England	806,36	310,42	3.100	173,2
Holland	786,45	407,09	4.410	246,4
Greece	700,00	240,00	1.790	100,00

Table 5

Country	Mate A1	Seaman	Mate B2	Seaman
Belgium	154	221	4,76	2,34
France	173	181	5,06	1,82
Germany	158	256	4,05	2,25
Denmark	170	258	4,47	2,32
Italy	104	167	5,92	3,27
England	115	129	3,12	2,06
Holland	112	129	3,66	1,89
Greece	100	100	4,69	2,75

1. A: In these two columns the salary of mates and seamen of Member States is calculated as a percentage of corresponding Greek salaries.
2. B: Relationship of the annual salary of a mate and a seaman to the per capita GNP of the respective country.

Source: I.G.Tzoannos 'The Greek merchant fleet and the EEC', IOBE, Athens 1977, pp. 25-28.

From the two above tables it is clear that there are quite significant differences between the Member States as far as nominal salaries are concerned. However, when real salaries are examined (in other words salaries compared to the cost of living of each country, for which purpose the per capita GDP is taken as an approximate indicator), the difference is much less. Within the context of the Greek economy, Greek sailors are paid comparatively better than their counterparts in other Member States. Furthermore, sailors from third countries, where the salaries are much lower can work in the English, Dutch and German fleets. Finally, when net salaries are taken into account, the difference becomes even smaller because net salaries in Member States are on average 25% lower than gross salaries, while in Greece they are only 10% lower.

From 1975 onwards, salaries in the Greek merchant navy increased more rapidly than in those of Member States because the demand on the part of shipowners increased owing to the growing size of the Greek fleet while, on the contrary, demand in the fleets of Member States was diminishing with the diminishing capacity of their fleets.

Apart from the level of wages, other factors also influence mobility of labour such as the cost of finding out about employment opportunities (which is greater when the person seeking employment leaves his own country), way of life, the difficulty of adapting to different living conditions on foreign ships, the difficulties of communicating in foreign languages, etc.

Openings for employment on foreign ships should not therefore create serious manpower problems in the Greek merchant navy.

The implementation of Community legislation in the Greek merchant navy may increase the cost of moving Greek ships: 1. because the Community lays down more rigorous safety specifications for ships and checks in connection with them. 2. Because the trend towards the equalization of social benefits for seafarers<sup>1</sup> is increasing labour costs on ships.

However, labour costs account for only a small part of the total cost which varies between 25% for ships of between 20,000 and 25,000 tonnes and 4% for ships above 300,000 tonnes. In other words, labour cost are inversely proportional to the size of the ship<sup>1</sup>. Thus an increase of 10% in the labour costs on ships of between 20,000 to 25,000 tonnes increases the total cost by 2.5% and in ships of more than 300,000 tonnes by 0.4%

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<sup>1</sup> See I.G.Tzoannos, op.cit. pp. 30-33

Stricter safety regulations will result in the Greek fleet having to be modernized because the average age of the ships is quite high and more than the average age of Member States' ships<sup>1</sup>. However, modernization of ships means cost reductions in other sectors (such as fuel, because more modern engines are more economical) and a greater degree of automation, which will help to solve the manpower problem.

Accession to the Community means some increased cost for the Greek fleet, but it gives it the chance to compete on equal terms with the other fleets of Member States and the possibility of taking common protection measures, should the need arise, against competition (often not regular competition but dumping) of third countries Eastern countries in particular.

### 3. Regional policy.

On the implementation of the Community's regional policy in Greece there is a protocol similar to Protocol 30 in respect of Ireland. The Community's regional policy supports and strengthens Greek regional policy (as is the case in the other Member States). Aid from the Regional Fund (FEDER) and the European Investment Bank (EIB) is provided only for projects supported by Greek regional policy.

Greece has been divided into 4 regions, denoted by the letters A, B, C and D, according to the degree of their industrial development. Region A includes the industrially developed regions of Athens and Thessaloniki, region D the least developed (essentially under-developed) regions, such as the frontier regions. B and C include intermediate regions.

Depending upon the region, investment incentives are strong, moderate or non-existent (as in the case of A). Consequently, the Greek and Community regional policy is concentrating its main weight in the D and C regions.

EIB resources can be available for region A only when they are to be used for extremely important structural work, i.e. for the construction of a new international airport in Spata because Athens present airport is too small to meet the new demands of air connections with Athens and it could not be extended because there was a densely built-up area surrounding it.

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<sup>1</sup> The average age of Greek ships is: 21.61 for those between 100 and 8,000 tonnes, 13.31 for those between 8,000 and 15,000 tonnes, 11.69 for those between 15,000 and 30,000 tonnes and 6.89 for those above 30,000 tonnes.



The regional situation of Greece can be outlined as follows:

1. There is a large concentration of economic activity (both industrial and services) in a few large towns, mainly in Athens - Piraeus and in Thessaloniki.
2. According to regional development indexes, there are significant regional differences (per capita GNP, employment in agriculture, unemployment).
3. The regional differences are on the increase.
4. Low-level of interdependence between regions and, in some cases, with the centre resulting in the phenomenon of 'subsistence level autarky' in certain regions<sup>1</sup>.

Although Greece has a lower per capita GNP than the Community average, regional difference within Greece, (taking the per capita GNP index) are not much less than those in the Member States of the EEC, even when compared to the most developed states like Germany. As the following table shows, income differences between the richest and the poorest region in Greece are in the ratio of 2.8:1, while in Italy they are 2.6:1 and in Germany 2.5:1. The difference between the Community's poorest region (in Ireland) and its richest region (in Germany) is 1:9. These figures are not altered by Greece's accession since the difference between Greece's poorest region and the Community's richest region is 1:8.7<sup>2</sup>.

Table 6

Country	GNP/per capita 1. average in German marks	2. Lowest	GNP/per capita 3. Highest	Ratio 2 : 3
Germany	11.300	7090	17.480	1 : 2,5
France	10.450	7060	14.450	1 : 2,1
Belgium	9.380	6540	10.390	1 : 1,7
Holland	8.810	6400	10.010	1 : 1,6
Italy	6.310	3220	8.450	1 : 2,6
England	7.390	6270	8.790	1 : 1,4
Greece	4.200	2100	6.000	1 : 2,8
EEC - 9	9.080	3220	17.480	1 : 5,4 1.
EEC - 10	-	2100	17.480	1 : 8,7

1. With Ireland's accession the difference became 1:9 in the Community of 9.  
Source: D. Biehl 'The impact of enlargement on regional development and regional policy in the EC', Bruges, p. 21.

<sup>1</sup> See Table II - 5 of the statistical annex.

<sup>2</sup> See D. Biehl 'The impact of enlargement on regional development and regional policy in the EC', College d'Europe Bruges 1978, p. 19 and Nikos Vliamos, Nikos Kyriazis 'EC: Regional policy and Greek reality', Naftemporiki 19.7.78.

When 'employment' and 'labour productivity' indexes are examined, regional differences are seen to be greater. There was a high rate of under-employment in some regions and of migration from those regions to the larger centres at home and abroad. Underemployment can be calculated by the following method: we know what the employment levels are in agriculture, industry and the services and we know what the GNP is. These two figures can be used to calculate the productivity in each sector (average) and to make comparisons between sectors. If productivity in each sector equals 1, then it equals the productivity of the whole economy. However, if a sector's productivity is considerably less than 1, this can be seen as an indicator of underemployment in that sector. The result for Greece is: (productivity by sector) agriculture 0.45, industry 1.3, services 1.5. Thus it appears that there is significant underemployment in agriculture. Underemployment in the agricultural regions of Greece, such as Epiros, certain provinces of Macedonia, Thessaly, the Peloponnese and Thrace, are correspondingly higher than average.

Consequently, the main task of the national and Community regional policy is to create openings for employment in these regions with industrial investments or investments in the services sector (mainly tourism).

Accession may have adverse effects on regional development in Greece because increased competition hits, for the most part, the small, less-efficient undertakings. Yet, to a large extent, these are the kind of undertakings which exist in the less-developed regions of Greece. The closure of these undertakings because of increased competition may intensify the employment-underemployment-unemployment problem in these regions.

The aids from the Community's Regional Fund and the EIB are not enough to counteract the adverse regional consequences of accession. Stronger incentives are needed in the field of regional development. These could take the form of reducing the payments which workers and employers in these regions have to make to state social services (insurance, medical care, etc.), soft loans, some tax exemptions and simplification of the procedures for the granting of loans and exemptions in these regions.

Balassa proposes the introduction of the system of regional employment premiums (REP). REP have the advantage that they do not discriminate against undertakings already established in the underdeveloped regions as do other incentives which are granted only to newly-founded undertakings. He also proposes a system of differential wages tax (the lowest rate in the least developed regions) as an additional measure to investment incentives. Unlike investment incentives which only affect capital, this measure has the advantage of restoring the regional policy's balance between the production factors 'capital' and 'labour', which are both directly affected by regional policy measures<sup>1</sup>.

#### 4. Social policy

The European Parliament adopted the Commission's proposal that Greece should be included amongst those countries which receive high rates of assistance from the European Social Fund, with the exception of the regions of Athens and Thessaloniki.

Since 1 January Greece has been represented by 12 members in the Community's Economic and Social Committee.

Since accession the legal status of Greek workers in the Member States has been improved pursuant to Articles 48 and 51 of the Treaty of Rome. A seven-year transitional period has been agreed for the full implementation of the free movement of labour, but Greeks who are already in the Member States receive the same treatment as the workers in those Member States. Thus, for example, they will receive the same treatment as provided for in Directive 1408/71 of the Council of Ministers for Social Security<sup>2</sup>.

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<sup>1</sup> See Bela Balassa 'Structural policies in the European Common Market' in Bela Balassa, op.cit. p. 270

<sup>2</sup> See P.Kravaritou - Maniaki 'Problemes sociaux et adhésion', Institut d'études Européennes, Université Libre de Bruxelles, colloque 'La Grâce et la Communauté', May 1977.

## 5. Accession to the ECSC

Greece joined the ECSC on 1 January 1981 and therefore the provisions of Article 58 (manifest crisis in the steel industry) also apply in Greece. Accordingly production quotas for various steel products have been extended to Greek steelworks. Five Greek steelworks contested the implementation of Article 58 in the European Court on the grounds that the quotas for Greek undertakings were fixed before Greece's accession, in other words without any Greek representatives taking part in the proceedings. The European Court passed judgement in favour of the Greek undertakings, deciding that the Commission and the Greek undertakings should hold new negotiations to establish the quotas in question.

The policy of fixing quotas generally favours weaker undertakings because, within the limits of the production quotas granted to them, they are safe from foreign competition. However, the price is that the very act of curbing competition weakens the incentive to modernize and improve production efficiency, thereby sustaining the inefficient structure of production.

In Greece there are no coal deposits, but there is a considerable amount of lignite. Lignite is not eligible for finance from the ECSC. On the Greek side, steps have been taken and attempts are being made to have lignite included in the ECSC's financial machinery because of the importance it has for Greece.

Steel production in 1978 in Greece was: 600,000 tonnes of iron and 936,000 tonnes of steel compared to the overall production of the Ten for the same period, which was 90.8 million tonnes and 133.5 million tonnes respectively. The per capita consumption of steel in Greece in 1978 was considerably lower than the Community average.

In Greece there is one steel unit with a vertical structure, 'CHALIVOURGIKI'. It has two blast furnaces with a total production capacity of 1 million tonnes per year. There are a further 5 companies which produce cast iron from scrap. Another company uses coils and railway tracks as raw material for producing finished iron products. There are also a number of small undertakings whose overall production capacity is no more than 50,000 tonnes per year<sup>1</sup>.

Despite the fact that Greek iron ore reserves are estimated at 220 million tonnes, iron ore is not exported from Greece because it is of poor quality (low iron content, approximately 35 - 50% compared to 60% in imported iron ore, high content of substances like sulphur, phosphorus, etc. which makes the smelting expensive)<sup>2</sup>.

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<sup>1</sup> See ETBA 'Anatomy of Greek industry', Athens 1976, pp. 468-9

<sup>2</sup> Ibid, pp. 12-15

Demand is met completely by imports, mainly from Australia (approximately 70-75% of total imports) and 25-30% by old iron from Greece itself.

Greece is a net exporter of steel products, with exports reaching 42% of production in 1975. In recent years Japanese penetration on the Greek market has increased (as in the markets of the Member States) replacing, to a certain degree, previous imports from Member States. The percentage of Japanese imports into the Greek market rose from 33% in 1975 to 43% in 1976, while the percentage of imports from countries in the rest of the world for the same period rose from 8% in 1975 to 12% in 1976.

As in the other Member States, the crisis in this sector has resulted in the underemployment of Greek steelworks so that they are operating at 50 - 70% of their capacity.

Other features of the steel industry in Greece: the sector's labour cost is approximately 100% higher than the average for Greek industry, the capital cost is about average and the cost of raw materials is approximately 25% lower than the average for Greek industry<sup>1</sup>.

#### 6. The free movement of workers

A seven-year transitional period has been agreed for the implementation of the free movement of workers because certain Member States (particularly West Germany) were afraid that there would be an immediate rise in the number of Greek workers migrating to those countries and because Greece is a precedent for Spain and Portugal with their large labour forces.

These fears are unfounded because 4 years ago the number of Greeks returning to Greece exceeded the number of those emigrating. In 1978 there were 166,000 Greeks working in the Member States, mainly in West Germany.

At the end of the seven-year transitional period, members of the professions from the Member States (i.e. doctors, dentists, midwives, etc.) will be entitled to practise in Greece. If a significant number of professional persons become established in Greece, competition in this sector will increase considerably and perhaps there will be employment problems in these specialities.

However, there does not appear to be any real danger of this happening as certain factors, such as language, the particular living and working conditions and the generally lower level of salaries and incomes militate against this.

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See Statistical Annex, Table II

## 7. Financial affairs

Since 1 January 1981 the Community system of own-resources has applied to Greece with some temporary structural adjustments which provide for mechanisms designed to ensure that Greece is a net beneficiary rather than a net contributor to the Community budget.

As from 1 January 1981 Greece has to pay its full contributions towards the Community budget based on the Greek GNP (because VAT has still not been introduced in Greece). However, the Community will return part of these contributions: 70% of the total payment in 1981, 50% in 1982, 30% in 1983, 20% in 1984 and 10% in 1985. From 1986 onwards Greece will not receive any further reimbursement.

In accordance with the Sixth Directive concerning the common VAT system, VAT has to be introduced in Greece by 1983. It is to replace a number of consumer taxes which have relatively limited scope (such as turnover tax, etc).

In order to avoid creating financial problems for the state budget, the level of VAT for Greece must be fixed in such a way that it produces more or less the same revenue for the state as the taxes which it is to replace. However, care will also need to be taken to ensure that the introduction of VAT does not have unfavourable effects on consumption (price increases) and on inflation.

It should also be pointed out that indirect taxes, such as VAT, are much more important for the state budget in Greece than direct taxes. (In 1976 the ratio of indirect taxes to direct taxes was 70:30%.)<sup>1</sup>

## 8. Free movement of capital

A five-year transitional period has been agreed before the free movement of capital is finally implemented in Greece. Nevertheless, even at the end of the transitional period Member States will still be able to restrict the export of capital in a number of ways, such as exchange controls, etc. France and Belgium, for instance, make use of a system of this kind.

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<sup>1</sup> See Apostolou, Andreas 'The Greek tax system' unpublished study by the Ministry of Economics, Athens 1976. Georgakopoulos, an Athens University professor carried out an in-depth study on the implementation of VAT in Greece for the Greek Ministry of Economics, Athens 1980.

The consequences of implementing free movement of capital in Greece have not been studied adequately and an in-depth study is needed. The following outline should be seen as a preliminary step in this direction.

The distinguishing feature of Greek policy so far has been its efforts to attract foreign capital for investment by offering particularly favourable conditions. Nothing will change in this sector as a result of accession to the Community because Greece became increasingly open as it stepped up its efforts to introduce foreign capital. Consequently, there is no reason to expect increased foreign investment in Greece just because of accession. As to whether foreign investment in Greece will depend upon other factors which make such investment attractive for foreign capital, e.g. large profit estimates, level of the cost of factors of production (capital, labour, energy, raw materials), breadth of the market, presence of raw materials, existence of infrastructure, distance from consumer centres and transport costs, general economic climate (stability of economic policy, rate of inflation), loan possibilities, general political climate (political stability and firm guarantees to foreign capital that investments will not be nationalized, etc.). Insofar as some of the incentives in Greece have been or will have to be abolished following accession because they conflict with the Community's regulations on competition (such as export and production subsidies), accession may make Greece less attractive for foreign capital investment. What may happen, to some extent, is that the sources supplying the foreign capital may change, with European and Japanese capital replacing American capital to a certain degree. The Japanese in particular may use investment in Greece as a means of reaching the European market, since products from Japanese companies (or joint ventures of Greek-Japanese or Greek-Arab companies) which are made in Greece will be able to enter the markets of the Member States without duties and without quota restrictions.

On the other hand, free movement of capital will open up new possibilities (to a greater or smaller degree depending upon the position which Greek governments adopt after the transitional period) for Greek investors which they did not have before because there were tight controls and restrictions on the export of Greek capital from Greece. As to whether Greek investors make use of this right on a large scale, in other words whether exports of Greek capital to Member States will be significant, depends upon a number of factors:

1. the investors' economic class,
2. the level of capital available for investment within each class,
3. investment incentives,
4. alternative investment possibilities.

The top economic class in Greece consists of ship-owners and large industrialists. The capital which they have available for investment is significant, but the capital of the shipowners in particular has never been subject to national restrictions and could always be moved outside Greece. Free movement of capital existed before for this economic class so that accession will not alter the movement of capital controlled by this class.

The economic class immediately below the top class consists of the remaining industrialists and certain wealthy individuals with operations in other sectors (tourism, banks, insurance companies, etc.). This class also has a significant and reasonably concentrated amount of investment capital. As a rule the family nature of Greek undertakings limits and restricts the use of this capital. For this economic class available investment capital is completely limited to investment in the family undertaking. It seems that individuals in this class never even consider investing outside the family undertaking. Consequently, hardly any increase in Greek exports of investment capital is likely to be made by this class.

The lowest economic class brings together the remaining investors whose backgrounds show great variety (independent professionals, employees in all categories, workers, etc.). This is the class of essential net creditors of every economy (because the other two classes are, as a rule, net borrowers) and, overall, it has the most important amount of investment capital in all economies. However, this capital is not concentrated amongst a few decision-making individuals but is dispersed among many persons each of whom has only a small amount of investment capital.

Following accession this economic class will be afforded new investment opportunities which it did not have before. The behaviour of this economic class will determine whether there is any significant export capital.

There are basically two incentives for investment: the insurance motive and the speculation motive. It is of course quite difficult to distinguish between these two motives in many cases. Nevertheless, the insurance motive, is, on the whole, predominant amongst investors in this class and as a result they prefer to invest in low-return, low-risk options.

The alternatives open to these investors are still to be studied. Essentially they are as follows: depositing in a bank or similar institution investing in the money market, property investment (houses, land, precious metals, works of art, etc.). These 3 basic categories become 6 if divided on the basis of investment at home and abroad. In this way investing in shares in foreign companies on the Greek stock market, as long as the capital is not invested in Greece, and buying works of art imported into the Greek market can be considered as investment abroad (export of capital).



To make this distinction it is essential to know the origin of the object and the final destination of the capital invested rather than the place where it was bought. On the other hand, deposits in foreign banks with branches and operations in Greece cannot be considered as exported capital insofar as these banks reinvest the capital in the Greek economy.

Since the investment incentive in the economic class that we are studying tends to be the insurance motive, the kinds of investment which are generally chosen do not involve any major business risks and yield limited returns. Thus, these investors prefer to deposit in the banking system and, secondly, in property. Investment in the money market is less attractive because the danger of losing or partly losing the capital is greater, particularly when one compares the development of the Greek money market in recent years - characterized by nominal stagnation or even nominal reduction in the value of many securities - with the corresponding rapid growth of inflation which means a significant real reduction in the value of these securities.

Investors in this class could choose the foreign shares market. If such funds were to enter the Greek money market, perhaps markets of this kind would in fact make an appearance. However, such a development will not be any of any great importance because, in the first place, there is not enough capital available on the Greek money market and the Greek stock exchange to make it attractive to foreign companies to introduce their shares onto it and, in the second place, because Greek investors in this class will be hesitant (probably very hesitant) about the shares of foreign companies that are unknown in Greece since they will not be in a position to appreciate the degree of economic solvency and security offered by these foreign company shares.

Investors will be able to invest in the stock markets of Member States. However, this kind of investment involves greater cost for the investor (mainly the cost of acquiring information and following developments) and greater uncertainty (because his knowledge of the economic situation in the Member States will not be as good as his knowledge of the Greek economic situation and his forecasts about future developments will therefore be less certain). Thus it is possible to conclude, given that the amount of capital available to invest by each person in this class is relatively small, that they will not make great use of the possibility of investing in foreign stock exchanges.

The small amount of available capital in conjunction with the higher cost and the greater risk and uncertainty almost completely exclude this possibility.

However, investment in the banking system of Member States where there is lower inflation (greater monetary stability) is in keeping with the insurance motive and there could be increased export of capital for this reason. Nevertheless, here too the higher cost (of getting information and following developments) is off-putting. Moreover, as these investments can be considered indirect, unlike direct investments in the stock exchange, there is more chance of their being restricted or even blocked by the Greek State.

Investments in property, works of art, gold, etc., are not considered as investments proper like those in the stock exchange, which means that the State will have more power to block them. The state is empowered to prohibit investments particularly in precious metals, as happens in some Member States where the market in gold, etc., is not a free one. In this case, too, the higher cost of investment abroad, coupled with the low level of available capital, act as a restraint.

Thus it can be concluded that the free movement of capital in Greece will not, under normal circumstances, result in a major export of Greek capital to Member States. Of course a situation of domestic economic or political inertia or crisis could strengthen such a trend<sup>1</sup>.

#### 9. Entry of the drachma into the European Monetary System

The drachma, like the English pound (which nevertheless is in the EMS basket, unlike the drachma) has not entered the European Monetary System (EMS). The Greek Government will have to decide in the future whether the drachma is to enter the EMS, perhaps together with the entry of the peseta and the escudo, when Spain and Portugal enter the Community.

The drachma has already been introduced into the Paris stock exchange but, since the bidding and demand for drachmae in Paris is small and there are still tight exchange controls in Greece, the Bank of Greece, in cooperation with the Greek Monetary Committee, is continuing to fix the price of the drachma as before in relation to EUA and the other currencies.

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<sup>1</sup>. See Nikos Kyriazis 'The free movement of capital following Greece's accession to the EEC', Naftemporiki, 9 June 1979.

The consequences of the entry of the drachma into the EMS have not been studied but this should be done before the decision on the matter is taken. The following thoughts should therefore be considered as preliminary step in this direction.

The EMS has operated satisfactorily up till now, creating a region of monetary stability which assists exchanges and forecasts. On the other hand, in the same period the Greek economy has been characterized by high rates of inflation (25% in 1980) with a corresponding fall in the value of the drachma in relation to the EUA (20% from March 1979 to March 1980) and to the currencies of the Member States.

Thus there are grounds for asserting that the entry of the drachma into the EMS will mean tighter monetary control for Greece, reduction in the rate of inflation and the option of monetary and economic stability. The benefits of monetary stability are well-known and beyond dispute: facilitation of trade and international exchanges in particular, better forecasting and easier programming, less insecurity and less business risk.

For a small economy, such as the Greek economy, entry into a monetary union or zone, such as the EMS, has the following advantages;

1. The production and exports of a small economy are less differentiated than those of a large economy. External shocks, such as a change in international demand or in price levels, have a greater effect on a small undifferentiated economy than on a large economy. By entering a monetary zone the intensity of these effects is reduced because within this monetary zone there is a pooling of reserves, in other words some of the effects are borne by the other Member States.
2. For the same reason changes in international prices or price balances have a greater effect on domestic prices resulting in greater price fluctuations. Entry into a monetary zone moderates these fluctuations.
3. Small economies with a small monetary area are far more vulnerable to speculation against their currency. Entry into the EMS with the currency support mechanisms which have been provided for safeguard the drachma from speculation of this kind<sup>1</sup>.

There are also arguments against entry connected with the cost which this decision involves. However, this cost, which is the cost of adjustment, is medium-term whereas the benefits are long-term.

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<sup>1</sup> See Herbert Christie, Michele Fracchianni 'European monetary union: rehabilitation of a case and some thoughts for strategy' in 'One money for Europe', Macmillan, London 1978, p.8.

1. There is support for the view that a negative relationship exists between the rate of inflation and the level of unemployment. The entry of the drachma into the EMS means a reduced rate of inflation in Greece, in other words reduced employment (increased unemployment). In accordance with this theory it is logical that the aim of providing employment should be tackled by an extensive monetary policy involving increased inflation in the long run. However, the existence of this positive relationship between employment and the rate of inflation (which is known as the Phillips function) has been called into question, particularly in the light of modern empirical studies which draw the conclusion that, in the long term, the level of unemployment is independent of the rate of inflation. The Phillips function holds true only when there is money illusion in the workforce but this is no longer the case. Thus, in the long-term, as increased rate of inflation does not mean reduced unemployment and this argument against the entry of the drachma into the EMS is shown to be fallacious<sup>1</sup>.

Stagflation(simultaneous inflation and unemployment) provides further ample proof of the invalidity of the Phillips function.

2. It has been posited that governments gain from inflation because they collect an 'inflation tax' owing to increased direct and (to a lesser degree) indirect taxes insofar as the tax rates are not adjusted to the cost of living. Nominal incomes, as opposed to real incomes, increase and are placed in a higher tax brackets with higher tax rates. In this way, thanks purely to inflation, state revenues are automatically increased without any new tax being imposed. Inflation benefits borrowers and the State is a net borrower. Finally, partial monetary instability affords the State greater short-term manoeuvrability to satisfy various demands, such as wage increases, etc.

The view that the State benefits from inflation does not seem to be correct according to recent empirical studies in the USA and West Germany. These studies show inflation to have the effect of increasing the State's overall expenditure more rapidly than its overall income

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<sup>1</sup> In the short-term an unexpected acceleration in the rate of inflation can temporarily reduce unemployment. However, the social cost of an unexpected acceleration in the rate of inflation is great because economic units adjust to fluctuations in the rate of inflation by using resources, which means that these resources are not available for other uses. Adjustment to fluctuations in the rate of inflation is tantamount to a waste of resources. See H. Christie, M. Fratianni, op.cit. p. 23-24.

(taking into account the 'inflation tax') so that the state debt is increased accordingly<sup>1</sup>. Consequently, this argument against entry of the drachma into the EMS is also, to say the least, doubtful. Even if it were correct, it is based on the contention that the state monopoly over the control of the money supply is corrupt. This is not acceptable in a democratic state and a greater degree of transparency concerning state revenue is desirable. If, in fact, deceleration in the rate of inflation reduces state revenue (without further reducing state expenditure, which is the conclusion that modern empirical studies reach) and increases the state deficit, then the hidden inflation tax should be replaced by a corresponding increase in taxation apparent to all taxpayers.

3. Entry of the drachma into the EMS means a partial loss of monetary independence and of the possibility of drawing up of autonomous monetary policy because entry into the EMS imposes de facto restrictions on expansive monetary policies which differ to any great degree from the monetary policy of the stronger currencies of the EMS. Otherwise, the drachma will not be able to remain within the limits of fluctuation imposed by the EMS.

However, this argument does not appear to stand up because, in the present conditions and the present international economic system, a small country, particularly a small country like Greece which, to a large extent, is dependent upon imports of capital goods and fuel, does not have the opportunity to pursue a truly independent and autonomous monetary policy. External pressures are very strong and independence is merely apparent.

For Greece an autonomous monetary policy means choosing, as the result of an expansive monetary policy, a policy of devaluing the drachma. The basic argument of this policy (in addition to its practical simplicity and the arguments for strengthening employment and the 'inflation tax' referred to above) is that 'a cheap drachma means stronger exports'.

However, even this opinion, which was once accepted as correct, is now seriously disputed. Today countries with strong currencies such as Germany, Holland and Sweden occupy a stronger position in the matter of international exports. For countries like Greece, which depends directly on imports of capital goods and fuel, the policy of devaluing the drachma is wrong because it increases disproportionately the cost and expenditure for these imports.

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See David Laidler 'Difficulties with European monetary union' in 'One money for Europe' op. cit. p. 59 and Peter Kohnert, Nikos Kyriazis 'Inflation and state expenditure', Oikonomikos Tachydromos, 31 August 1978, where the results of empirical research on this matter in Western Germany are presented; and Roland Vaubel 'Minimizing imbalances in monetary union' in 'One money for Europe' op. cit. p. 110.

A vicious circle is created: deflation increases import prices, with the result that the country's external balance of payments is made worse since exports do not increase correspondingly seeing that the cost of production is increased because of the greater cost of the imported production factors. Increased petrol prices in domestic currency strengthens inflation. Inflation is, in part, imported and the effect of the imported part of inflation increases according as the drachma weakens against the currencies of the countries from which it imports (in the case of petrol, the American dollar). Increased rates of inflation and an increased balance of payments deficit lead to a new devaluation of the drachma and the cycle starts over again.

For this reason, the policy of devaluing the drachma is incorrect; entry into the EMS and the corresponding stability which it promises is a better solution.

The conclusion of the above argument is that, after a preliminary examination of the subject, it is better for the drachma and the Greek economy if the drachma enters the EMS rather than remaining outside. Moreover, there is the possibility of choosing a greater margin of fluctuation for a limited period, such as the Italian lira's 6%<sup>1</sup>.

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<sup>1</sup>See N. Kyriazis "Drachma and EMS" in Review of the European Communities, vol.2, number 4, Oct.-Dec. 1981.

P A R T   I I I

G R E E K   I N D U S T R Y

## Greek Industry

### 1. The theory of economic integration

The intensification of competition following the abolition of import duties resulting from accession to an economic union where there is free movement of goods, as in the Community, has consequences for the size of undertakings in every sector of any country joining that union. And the change in the size of its undertakings influences the country's production potential. In most industrial sectors in Greece there are economies of scale<sup>1</sup>. By taking advantage of these and improving the size of productive units in consequence of increased competition, competitiveness is improved as unit costs of production<sup>2</sup> are reduced.

When a country is integrated into an economic union the size of its undertakings are affected in three ways.

1. By expansion of the market
2. By increased competition
3. By differentiation of incomes and therefore of demand.

Point N° 1 is of no great importance for Greece because, thanks to the Association Agreement, accession does not essentially change the situation which previously existed. The provisions of the Association Agreement were such that most Greek industrial products (with a few exceptions, i.e. in the textile sector) could be exported to the markets of Member States duty free and without quantitative restrictions.

On the other hand, the Greek market was protected (and still is protected for the so-called 'sensitive' industrial products until expiry of a five-year transitional period) by (high or relatively high) import duties. That situation has been changed by accession (and by the gradual reduction of duties during association) placing Greek industry in competition with that of the Community. This competition is putting pressure on Greek units to increase their size, take advantage of the economies of scale and introduce new organization and technology, thus benefiting the cost, efficiency and competitiveness of Greek undertakings<sup>3</sup>.

It is difficult to estimate the effect of changes in income resulting from accession. Such changes could lead to a reduction in revenue from profits, as competition could squeeze profit margins that were high in Greek industry because of tariff protection.

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<sup>1</sup> See Table III.2 of the statistical annex

<sup>2</sup> See Annex I

<sup>3</sup> See Annex I



Market segmentation has a negative effect on competition. In the Greek markets where there is market segmentation, small units receive a degree of protection and are more likely to survive despite their small size.

Market segmentation can be due to the following factors:

1. Labour market segmentation involving the exploitation of groups who receive lower wages than those current on the rest of the market. Such groups are unskilled workers, young people, foreign workers, women, etc.
2. Regional segmentation in areas where the intensity of foreign competition is relatively reduced owing to the undeveloped infrastructure (communications, etc.)
3. Segmentation due to specialization. Because of intense specialization these producers gain a kind of monopolistic position in what is usually a limited sector of the market<sup>1</sup>.

## 2. The structure of Greek industry

The structure of Greek industry is characterized by modern, relatively large, internationally competitive units co-existing with many small units of low efficiency whose equipment is usually old. This situation indicates that there is market segmentation in Greek industry.

Small and medium-sized industrial enterprises play an important role in the Community, both from the point of view of employment and production. In the Community, undertakings with up to 500 employees are placed in this category, whereas in Greece, in accordance with the Greek statistical service's classification, undertakings with 100 or more employees are classed as large industries. Of the 200 largest industries in Greece the last 120 each had less than 499 employees in December 1977; they were classed in the 200-499 employee category<sup>2</sup>.

The percentage of total employment accounted for by undertakings with less than 500 employees was: Greece 88.4% (1973), Italy 67% (1971), Netherlands 61% (1973), Belgium 57% (1970), West Germany 50.52% (1967), France 49% (1971) and England 32% (1972).

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<sup>1</sup> According to the theory of economic integration; see Cavanagh, Cathal 'Note on the estimation of the effects of economic integration' unpublished study by the Commission of the EC, Brussels, March 1977; Edwards, Geoffrey; Wallace, William; Tsoukalis, Loukas 'A wider European Community', Federal Trust Paper, 1977; Hummen, Wilhelm 'Greek industry in the EC: Prospects and problems', German Development Institute, Berlin 1977; Meade, James 'The theory of customs unions' North Holland Publishing Company, Amsterdam 1955; Scitovsky, Tibor 'Economic theory and Western European integration' Amsterdam 1958; Takayama, Akira 'International trade' Holden, Rinehard and Winston Inc. 1972

<sup>2</sup> See 'The 200 largest Greek industrial enterprises' in Industrial Review, December 1977, pp. 35-38

Since the trend towards concentrating production has continued and is still continuing, these percentages will have changed, meaning that the percentage of persons employed in undertakings of less than 500 employees will have fallen. However, the ratio between Member States should not have changed significantly.<sup>1</sup>

Increased competition following accession will result in the closure of a number of small Greek undertakings unable to respond. To the extent that the resources thus released (labour and capital) can be absorbed by other more competitive undertakings, Greece will benefit by having its industrial structure streamlined and its overall competitiveness increased. In the readjustment phase there could be some problems, such as increased unemployment, but these problems (the economic cost of readjustment) are medium-term while the benefits are long-term. Measures aimed at preserving the structure of Greek industry as it is at present (measures in favour of small and medium-sized undertakings) are unsound, unless they are simply measures which facilitate readjustment. The beneficial results which it was believed could be achieved by accession will be achieved only if competitive forces are set free to change the structure of Greek industry, making it more competitive and efficient in the long run. It would be a contradiction on the one hand to support accession and to praise its positive results while asking, on the other hand, for protective measures to preserve the present structure (by curbing the free play of market forces).

Several forecasts about Greek industry following accession can be made in the light of the experience of Ireland, where the industrial structure is not so different from that of Greece and where industry received high tariff protection until 1973. In Ireland there were no signs of a large increase in the number of undertakings forced to close because of increased competition following accession. Consequently, there was no problem of increased unemployment because of accession.<sup>2</sup>

The percentage of Greek undertakings with less than 10 employees was 51.8% in 1958 and this fell to 39.8% in 1973. The percentage of medium-sized undertakings (medium-sized in Greek terms) with between 10-50 employees remained about the same in this period; the percentage of large undertakings with 50 or more employees rose from 27.9% in 1958 to 39% in 1973. From 1958 to 1973 200,000 new jobs were created in Greek industry, 120,000 of which (60% of the new jobs) were absorbed by large units with 50 or more employees. Between 1963 and 1976 productivity rose at a rate of 9% per year compared to 5.4% per year between 1952 and 1962. This rate was the highest of all the OECD countries with the exception of Japan where the rate was 11%.<sup>3</sup>

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<sup>1</sup> See Table II.4 of the statistical annex

<sup>2</sup> See Dermot Mc Aleese 'Outward-looking policies, manufactured exports and economic growth: The Irish experience' AUTE Conference, Swansea, March 1977

<sup>3</sup> See Giorgos Kalamotousakis 'Greece's accession in the EC' - 'Mediterranean countries and the EC' Conference, Lesbos, September 1977, page 7

Industrial investment also increased rapidly during the period which followed the signing of the Association Agreement with the Community. In 1965 the level of investment, at 1960 prices, was 144% higher than the level in 1960. Between 1965 and 1975 investment increased still further by 74%. 40% of private investment (or one-third of the total of private and state investment) was directed into the house-building sector. Sometimes this investment is seen as non-productive because it does not increase productive potential. However, this is an important sector because it increases demand for products in almost all the other industrial sectors. This sector is also extremely important for increasing the mobility of labour<sup>1</sup>.

The weaknesses of Greek industry are as follows:

1. There are many inefficient industrial units, some of which will not survive the increased competition from the Community.
2. There are many labour-intensive units which, in the Community, are capital-intensive. Because of the low capital-intensity in Greece and the small size of undertakings their cost structure is uncompetitive.
3. The degree of specialization and vertical production are, with few exceptions, minimal.
4. Greek industry is concentrated in a few areas (Athens - Piraeus, Attica - Corinth, Boeotia, Chalkis, Thessaloniki, and, to a lesser degree, Patras, Volos, Larissa and Heraklion).<sup>2</sup> The remaining regions of Greece are industrially underdeveloped. There are significant differences in the standard of living between the developed and underdeveloped regions. Furthermore, the excessive concentration of industry in small regions like Attica and Thessaloniki has created serious problems of atmospheric pollution and environmental damage.

An economic policy to strengthen the restructuring influence of increased competition following accession would have to include the following points:

1. A policy for merging small undertakings in order to increase their size and make it possible to take advantage of economies of scale. Since most Greek undertakings have a turn-over well below 15 million dollars (the level fixed by the Commission so as not to interfere with competition), the motives for bringing about mergers in Greek industry are not in conflict with the Community's rules on competition.
2. A regional policy for the development of the less-developed regions.
3. Reorientation of small undertakings to gain a greater degree of specialization in producing a smaller number of products. Specialization has the same effect as market segmentation, in other words it is a means of protection against increased competition.

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<sup>1</sup> See Dermot Mc Aleese 'Outward-looking policies, manufactured exports and economic growth: The Irish experience', AUTE Conference, Swansea, March 1977

<sup>2</sup> See Table T1 - 5 of the statistical annex

4. Cooperative organizations should be formed to promote small undertakings' selling and procurement activities in given sectors. Undertakings which participate in these organizations can retain their independence. The organization representing them will be better placed to collect statistics and information on market trends, new technologies etc. It can also represent small undertakings in the raw materials market (a very substantial market) and promote exports, obtaining better terms, reducing costs, etc.<sup>1</sup>
5. In the field of technology Greece is dependent on foreign countries and this dependency will continue. However, attempts should be made to step up technological research within Greece and to concentrate it in a few sectors (research specialization).

Greece has important scientific potential. Many Greek scientists have studied and worked abroad and are therefore acquainted with recent technological developments. Furthermore, there have been satisfactory research results in certain sectors in Greece, such as Larko's use of their own technological method to refine nickel. At the moment Greece spends only 0.2% of its GNP on research, a very low percentage compared to other Member States.<sup>2</sup>

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<sup>1</sup> See Dem. Chalikias 'Economic development in Greece and the balance of payments', Bank of Greece, Athens 1963, page 10

<sup>2</sup> See G.B. Patikis 'Development problems of Greek industry' Bank of Greece, Athens 1976, page 26

### 3. Size of undertakings in Greek industry

In the following section the standard size of undertaking in Greek industrial sectors is compared with the standard size of undertaking in the corresponding sectors of certain other countries.<sup>1</sup>

1. Food industry: The sector's standard size of undertaking<sup>2</sup> is between 1-4 employees, which accounts for 38% of the total number of employees. The standard size is the same in Italy, France and Germany (27%, 33% and 22% respectively) while in Holland the number of employees is 50-99 (22%), and in Belgium, the USA and Japan the number of employees is 100-499, corresponding to 31%, 41% and 22% of the total number of employees respectively. In Greece the sector presents significant economies of scale up to 1.39 in certain fields. By increasing the size of undertakings, the competitiveness of this sector - which generally seems to be relatively dynamic, especially as regards products which use Greek raw materials (fruit, etc.) - could be significantly increased.
2. Drinks industry: Here again economies of scale are important (1.30), in other words an increase in the average size of undertakings could significantly reduce the unit cost. There are good prospects, too, for units which use domestic raw materials and produce an internationally known product (i.e. ouzo) or brand (i.e. Metaxa). Standard size 100-499 (25.5%).
3. Tobacco industry: Standard size: 100-499 (29.4%). This sector will only be affected by accession if there is a change in demand towards western-style tobacco and cigarettes.
4. Textiles: One of Greek industry's most important sectors, which continued to expand while contracting in the Member States. Standard size: 100-499 in France (42%), Italy (33%), Belgium (44%), Germany (41%), Greece (34%), USA (42%), Japan (22%). Only in Holland is the standard size 1,000 or more. The textiles sector accounts for approximately 25% of Greece's total industrial exports. Here again there are economies of scale (1.17). Despite the fact that the standard size of undertaking is the same in Greece as it is in most industrial countries, there are still quite substantial differences at the top end: the largest undertaking in the sector in Greece (PIRAIKI-PATRAIKI) had a turn-over of 60 million dollars in 1973 compared to 963 million dollars for Coats Patons (England), Tootal (England) 499 million dollars, Groupe Agache Willot (France) 490 million dollars, Sollfuss Mieg (France) 355 million dollars, Lainière de Roubaix (France) 294 million dollars, and Delden (Germany) 299 million dollars. However, in the medium term the sector's competitiveness in the Community will remain high.

<sup>1</sup> The comparison is based on Tables II.1, II.2 and III.2 of the statistical annex

<sup>2</sup> A sector's standard size of undertaking refers to the average size of undertaking in which the majority of the sector's employees are employed

5. Footwear-Clothing: Because of the individual nature of taste and demand, market segmentation in this sector is important for the survival of small undertakings. Standard size: 1-4 France (29%), Italy (49%) and Greece (45%), 100-499 in the remaining countries with the exception of Japan (20-49) and Holland (50-99). Economies of scale are not particularly important.
6. Wood-Cork: Although economies of scale are fairly significant (1.22), this sector is not particularly important for Greece. Standard size is also 1-4.
7. Furniture: In this sector, as in the preceding sector, Greece has no competitive advantage. Economies of scale are not particularly significant (1.09).
8. Paper industry: In this sector Greece is dependent upon imports of raw materials. The standard size of undertaking in Greece and the other countries is 100-499, though the percentage of undertakings of this size in Greece (25%) is smaller than in the other Member States. Economies of scale are relatively small (1.09).
9. Printing-Publishing: The Greek language allows undertakings in this sector an almost monopolistic position on the Greek market, protecting it from competition. The standard size in this sector in Greece is 100-499 with 25.1% of the total number of employees.
10. Pelts and furs: The pelt-processing sector, which operates together with the footwear sector, is relatively dynamic. The fur sector, on the other hand, is not particularly important. Economies of scale are small (1.07).
11. Plastics-Rubber: In this sector the standard size for all industrialized countries is above 1,000 people, in other words there is a prevalence of large industrial units. However, in Greece the standard size is 100-499, with 33% of the total number of employees. Economies of scale are relatively significant (1.18) which means that an increase in the size of Greek undertakings will increase their competitiveness.
12. Chemical industry: In this sector there is, internationally, a large degree of specialization. Increased competition following accession will strengthen the trend towards specialization which is already being noted in the Greek chemical industry. The standard size of undertaking is 100-499 for France, Italy, Belgium and Greece and 1,000 or more for Holland, the USA and Japan. The largest undertakings in all those countries are many times larger than the largest Greek undertakings. Economies of scale are amongst the highest in Greek industry (1.24), in other words there are significant margins for reducing costs and increasing the average size of Greek undertakings.

13. Petrol products and coal industry: Greece is a net exporter of petrol products. Exports in this sector are important, coming directly behind exports in the textile and clothing sector. This sector is capital-intensive.
14. Non-metallic minerals: This sector comprises products manufactured from raw materials of non-metallic minerals such as marble, fire-resistant materials, cement, glass, ceramic goods and sanitary ware. Overall, this is one of the most competitive sectors of Greek industry, with high exports. The standard size of undertaking is 100-499 with the exception of the Netherlands, where it is smaller (50-99). Here also there are relatively significant economies of scale (1.16), which means that increasing the average size of Greek undertakings would have beneficial results for the competitiveness of this sector.
15. Metal processing: This sector processes the metals produced from Greek ores such as aluminium, copper, nickel, etc. In all countries, including Greece, undertakings are large, with 1,000 or more employees. Nevertheless economies of scale are here too in the order of 1.18.
16. Finished metallic products: In this sector the standard size varies from 1-4 in Greece (41%) to 100-499 in France, Italy, Belgium, Germany and the USA. The units in this sector in Greece are exceptionally small compared to those in other industrialized countries. Nevertheless, even here there are relatively significant economies of scale (1.18).
17. Machinery: Here again in Greece the standard size is very small (1-4) compared to that of other industrialized countries. On the other hand, economies of scale are significant (1.22).
18. Electrical machines: Standard size in Greece is 100-499, for other industrialized countries 1,000 and above. Economies of scale are relatively significant (1.22).
19. Transport: Essentially there are no productive units in Greece with the exception of the shipyards, which are relatively competitive and are coping satisfactorily at the moment with the crisis in the sector. The other undertakings are mainly repair or, for the most part, assembly enterprises. Thus, while the standard size for other industrialized countries is 1,000 or more, in Greece it is 1-4. Economies of scale are significant (1.21).
20. Remaining industries: This sector is not very important in Greece, but it does include some competitive sectors such as jewellery making. A study based in the comparison of numbers of employees is, of course, rather one-sided because it fails to take into account differences in the level of capital. Thus, for example, an undertaking in Germany in

the same employment category as a Greek undertaking in the same sector could have much more capital and belong to a different category on the basis of its level of capital. Unfortunately, however, there are no figures for making comparisons on the basis of capital. On the other hand, economies of scale (which are valid for a simultaneous increase in capital and labour) provide an accurate yardstick for the increase in a sector's competitiveness (reduction of costs) when the size of the sector's undertakings is increased.



## ANNEX I

### ECONOMIES OF SCALE, UNIT COST AND SIZE OF UNDERTAKING

Economies of scale, unit cost and size of undertaking.

That the unit cost is reduced when advantage is taken of economies of scale can be demonstrated as follows:

Production function is neo-classical, in other words labour can be substituted by capital and vice versa.

1.  $Y = f(L, K)$  where  $Y$  = production  
 $K$  = capital  
 $L$  = labour

For the sake of simplicity we shall take the special case of the COBB-DOUGLAS function, where

2.  $Y = L^a K^b$  where  $a$  = elasticity of production of labour  
 $b$  = elasticity of production of capital

and  $a + b = s$  homogeneity degree or scale elasticity

Cost function is:

3.  $C = w.L. + r.K.$  where  $C$  = cost  
 $w$  = wage  
 $r$  = rate of interest

The unit cost of production is:

$$4. \frac{C}{Y} = \frac{w.L. + r.K.}{L^a \cdot K^b}$$

Economies of scale mean:  $s = a + b > 1$

In other words, when the level of production is increased by a coefficient  $\lambda$  (where  $\lambda$  is greater than 1), output increases more than proportionally.

$$\frac{C}{Y} = \frac{\lambda.w.L. + \lambda.r.K.}{(\lambda L)^a \cdot (\lambda K)^b} = \frac{\lambda(w.L. + r.k)}{\lambda^{a+b} L^a K^b} = \frac{\lambda}{\lambda^{a+b}} \cdot \frac{wL + rK}{L^a K^b}$$

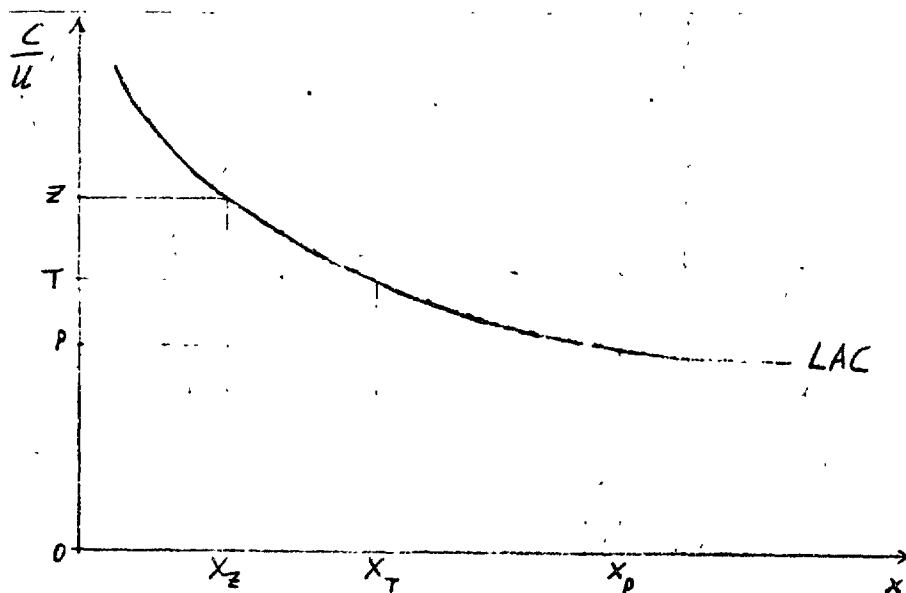
Since  $a + b > 1$ , we have

$$\frac{\lambda}{\lambda^{a+b}} < 1, \text{ or the expression}$$

$$\frac{\lambda}{\lambda^{a+b}} \cdot \frac{wL + rK}{L^a K^b} < \frac{wL + rK}{L^a K^b}$$

The left part of the expression is the unit cost after taking advantage of economies of scale and is less than the right part, which is the unit cost before taking advantage of economies of scale.<sup>1</sup>

The existence of import duties protects the domestic market and reduces competition, and this has a negative effect on the size of a sector's undertakings, as the following graph clearly shows:



Where  $\frac{C}{u}$  = unit cost

LAC = diminishing cost function

OP = price level in the economic union

OZ = price level on the domestic market, before accession, where PZ is the import duty

OT = price on the domestic market after accession, without duty, where PT is the transport cost

Consequently, when OZ is the market price, units whose unit cost is lower than OZ can survive. The size of undertakings is shown by the product XZ. After the abolition of import duties, the market price is OP (or OT if there are transport costs) and undertakings with costs greater than OT are forced to close.

The size of undertaking increases and becomes X<sub>P</sub> (or X<sub>P</sub> if there are transport costs). The transport costs, like import duties, are a form of protection for domestic production. Market segmentation has exactly the same results.<sup>2</sup>

<sup>1</sup> See Nikos Kyriazis 'Griechenlands Beitritt zur EG', supra. p. 120

<sup>2</sup> See German Development Institute: 'Greece's entry into the Common Market: Effects on the development of the Greek small and medium scale industry', Berlin 1977, pp. 36-38

A N N E X   I I

Statistical Tables

The sectors of Greek industry and their code number

20	Food
21	Beverage
22	Tobacco
23	Textiles
24	Footwear and Clothing
25	Wood and Cork
26	Furniture
27	Paper
28	Printing and Publishing
29	Hide and Pelts
30	Rubber and Plastics
31	Chemicals
32	Oil and Coal
33	Non-metallic Ore
34	Base Metals
35	Finished Metal Products
36	Mechanical Engineering
37	Electrical Engineering
38	Transport
39	Other Industries

II. Employment and firm size in Greece and in the European Community  
Table II.1. Standard firm size, by country (2) and sector

Industrial sector	France		Italy		Netherlands		Belgium		Fed. Rep. of Germany		Greece		United States		Japan	
20	1-4	(33%)	1-4	(27%)	50-99	(22%)	100-499	(31%)	1-4	(22%)	1-4	(38%)	100-499	(41%)	100-499	(22%)
23	100-499	(42%)	100-499	(33%)	1000 +	(31%)	100-499	(44%)	100-499	(41%)	100-499	(34%)	100-499	(42%)	100-499	(22%)
24	1-4	(29%)	1-4	(49%)	50-99	(33%)	100-499	(29%)	100-499	(30%)	1-4	(45%)	100-499	(44%)	20-49	(22%)
25	1-4	(25%)	1-4	(59%)	50-99	(30%)	20 - 49	(30%)	1-4	(25%)	1-4	(53%)	100-499	(30%)	20-49	(28%)
26	1-4	(41%)	1-4	(38%)	50-99	(33%)	20 - 49	(24%)	100-499	(34%)	1-4	(56%)	100-499	(41%)	20-49	(22%)
27	100-499	(45%)	100-499	(36%)	50-99	(29%)	100-499	(39%)	100-499	(45%)	100-499	(25%)	100-499	(46%)	100-499	(25%)
30	1000 +	(29%)	1000 +	(24%)	1000 +	(24%)	1000 +	(37%)	1000 +	(33%)	100-499	(33%)	1000 +	(34%)	1000 +	(36%)
31	100-499	(34%)	100-499	(28%)	1000 +	(37%)	100-499	(35%)	-		100-499	(32%)	1000 +	(37%)	1000 +	(33%)
33	100-499	(32%)	100-499	(29%)	50-99	(37%)	100-499	(32%)	100-499		100-499	(23%)	100-499	(36%)	100-499	(26%)
34	1000 +	(67%)	1000 +	(41%)	1000 +	(50%)	1000 +	(70%)	1000 +	(66%)	1000 +	(54%)	1000 +	(54%)	1000 +	(42%)
35	100-499	(25%)	100-499	(31%)	50-99	(24%)	100-499	(31%)	100-499	(32%)	1-4	(41%)	100-499	(37%)	20-49	(23%)
36	100-499	(36%)	-		1000 +	(25%)	100-499	(28%)	1000 +	(39%)	1-4	(25%)	1000 +	(33%)	100-499	(28%)
37	100-499	(30%)	1000 +	(59%)	1000 +	(67%)	1000 +	(65%)	1000 +	(48%)	100-499	(19%)	1000 +	(53%)	1000 +	(40%)
38	1000 +		-		-		-		1000 +		1-4	(31%)	1000 +		1000 +	

(1) Standard firm size is defined as the category of firm that accounts for the largest share of employment in each individual sector. This does not necessarily mean that the majority of firms in that sector fall into this category. The figures in brackets refer to the percentage of total number employed accounted for by this category of firm.

(2) The statistics for the Community countries, Japan and the United States refer to 1963, those for Greece to 1973.

Source : (a) Commission of the European Communities "Industrial Policy in the Community", Brussels 1970, Table 9, p. 99 and Table 2 of the statistical annex.

(b) Statistical Yearbook of Greece, Athens 1976, Table X-4, p. 220-221.

Table II.2 Distribution of firms by size according to the number employed and by branch of economic activity.  
(Total for all categories in each sector = 100.00)

Indu- strial sector	Percentage of firms employing							1000 and over
	1 - 4	5 - 9	10 - 19	20 - 49	50 - 99	100 - 499	500 - 999	
20	37.8	14.2	8.9	11.6	7.9	17.3	2.3	-
21	19.8	10.6	11.1	12.7	9.5	25.5	10.8	-
22	1.1	1.6	3.8	12.2	14.5	29.4	20.4	16.8
23	10.1	8.1	8.7	13.0	10.1	34.4	10.9	4.5
24	45.0	11.9	10.8	12.9	6.0	10.1	0.7	2.5
25	52.8	16.5	8.4	7.0	2.8	5.8	-	6.6
26	55.5	16.6	10.6	9.2	4.0	2.3	1.9	-
27	4.9	8.2	10.9	11.9	11.0	14.8	10.2	18.0
28	24.1	14.6	14.4	15.1	6.7	25.1	-	-
29	33.5	29.1	16.2	9.2	8.5	3.5	-	-
30	15.1	8.8	12.2	19.9	10.8	33.1	-	-
31	5.7	5.9	6.8	15.1	11.1	32.4	11.0	12.8
32	3.6	3.5	7.1	16.5	10.9	41.8	16.5	-
33	22.3	15.0	11.8	16.1	6.3	23.1	5.5	-
34	0.3	0.4	0.8	2.2	1.7	13.6	27.5	53.5
35	40.9	11.2	8.6	9.8	7.1	14.7	5.2	2.6
36	24.5	15.9	15.4	19.1	7.2	14.4	3.4	-
37	17.2	9.0	7.1	9.9	9.3	18.7	16.7	13.0
38	30.9	8.0	4.7	6.3	5.5	11.4	9.4	23.8
39	47.4	15.2	11.6	12.5	6.1	7.1	-	-
20 - 39	30.4	11.8	9.4	11.7	7.4	17.7	5.8	5.8

Source: J. Hassid, 'Greece and the European Community', IOBE, Athens 1977, Statistical Annex p. 68-69.

Table II.3 Average number of persons employed by category and by sector in Greek industry (1973)

Firms employing

Sector	0-9 persons	10-49 persons	50 persons and over
20	2,5	19,3	131,5
21	1,5	19,1	165,4
22	8,6	24,2	188,5
23	2,9	20,1	182,5
24	1,8	19,0	138,2
25	2,1	17,6	187,8
26	2,2	17,5	100,5
27	4,1	18,9	243,1
28	2,9	18,4	136,8
29	3,2	16,3	82,9
30	2,6	20,8	136,4
31	3,4	22,1	197,6
32	4,1	21,2	186,1
33	3,0	19,6	176,4
34	5,1	23,9	583,1
35	2,0	18,7	155,8
36	2,9	19,3	129,3
37	2,2	20,0	220,0
38	2,2	19,5	314,9
39	2,0	18,7	123,5
20-39	2,3	19,3	177,2

Source: 'Small-scale industry' CPER, Athens, June 1976, p.17

Table II.4 Number of firms and persons employed in all industry and percentage distribution by category (1973)

Category (No of persons employed)	Number of firms	Percentage share	Total number employed	Percentage share
0 - 2	82.069	67,6	114.000	18,9
3 - 9	31.410	25,9	142.000	23,3
10 -49	6.629	5,5	127.000	21,1
50 -99	645	0,5	44.000	7,4
100 -499	534	0,4	107.000	17,7
500 +	78	0,1	70.000	11,6
Total	121.357	100	604.000	100

Source: Idem Table II.3.



Table II.5 Regional distribution of firms and percentage share of employment by category (1973)

Firms employing

Region	0 - 9		10 - 49		50 and over	
	% of firms	% of employed	% of firms	% of employed	% of firms	% of employed
Greater Athens	90,4	36,0	8,2	23,8	1,4	40,2
Rest of central Athens	94,4	-	4,0	-	1,6	-
Macedonia	93,1	41,0	5,6	23,5	1,3	35,5
Peloponnesos	93,9	38,0	5,2	19,2	0,9	42,8
Thessaly	95,4	50,0	3,9	19,5	0,7	30,5
Crete	97,8	72,5	2,0	15,2	0,2	12,3
Thrace	97,2	73,9	2,6	14,4	0,2	8,7
Epirus	97,2	68,2	2,3	13,8	0,5	18,0
Islands	97,9	71,6	1,8	11,6	0,3	16,7
Total	93,5	42,2	5,5	21,1	1,0	36,6

Source: "Statistical Yearbook of Greece", Athens 1976, Table X-2, p.218 and 'Small-scale industry' see above, Tables 3.4 and 3.5 of the statistical annex.

Table III. Principal features of Greek industry

1. Numbers employed and value added (1973)

Industry	Employment in all industry		Employment in large scale industry <sup>1</sup>		Value added in large scale industry	
	No. of persons employed	in % <sup>3</sup>	No. of persons employed	in % <sup>4</sup>	in thousand drachmae	in % <sup>5</sup>
Overall	604.042	100	301.407	100	67.937.082	100
Food	89.285	14,8	40.049	13,2	7.431.656	10,9
Beverages	12.307	2,0	8.208	2,9	2.521.642	3,7
Tobacco	9.049	1,5	8.495	2,8	1.499.421	2,2
Textiles	68.419	11,3	53.375	17,7	10.921.361	16,0
Clothing and footwear	72.030	11,9	21.464	7,1	2.530.729	3,7
Wood and Cork	34.406	5,7	8.727	2,8	1.743.314	2,5
Furniture	29.445	4,9	5.976	1,9	813.809	1,2
Paper	7.971	1,3	6.817	2,2	1.687.771	2,4
Printing and Publishing	15.963	2,6	8.765	2,9	1.633.881	2,4
Leather	13.061	2,2	3.034	1,0	82.757	0,1
Rubber and Plastics	15.832	2,6	10.292	3,4	2.686.053	3,9
Chemicals	20.255	3,4	17.571	5,8	5.719.746	8,4
Petroleum and coal products	3.765	0,4	3.085	1,0	2.903.414	4,2
Non-metallic minerals	37.465	6,2	20.564	6,8	4.739.879	6,9
Basic metals	7.859	1,3	7.676	2,5	6.312.142	9,2
Metal products	47.850	7,9	19.383	6,4	4.255.925	6,2
Machinery (non-electrical)	23.697	3,9	9.902	3,2	1.509.618	2,2
Electrical machinery	30.473	5,0	19.552	6,4	4.329.780	6,3
Transport	52.808	8,7	24.136	8,0	3.820.667	5,6
Miscellaneous	12.102	2,4 <sup>6</sup>	3.335	1,1	470.517	0,7

<sup>1</sup> Large-scale industry in Greek statistical yearbooks means those branches of industry in which all firms employ 10 persons and over.

<sup>2</sup> There are no statistics for value added in industry as a whole.

<sup>3</sup> As a % of total employment, for 1973.

<sup>4</sup> As a % of total employment in large-scale industry, for 1973.

<sup>5</sup> As a % of total value added in large-scale industry, for 1973.

<sup>6</sup> The last figure is obtained by subtracting all the others from 100.

III.2. Labour productivity  $a = \frac{v}{A}$ , gross investment  $I^B$ , gross investment per person employed  $k' = \frac{I^B}{A}$ , returns to scale  $s$ , elasticity of substitution and capital intensiveness of workers by sector (1973)

Sektor	$a = \frac{v}{A}$ in thousand <sup>1</sup> drachmae <sup>1</sup>	in %	$I^B$ in thousand <sup>2</sup> drachmae <sup>2</sup>	in %	$k' = \frac{I^B}{A}$ in thousand <sup>3</sup> drachmae <sup>3</sup>	in %	s	k in thousand <sup>4</sup> drachmae <sup>4</sup>	$\sigma$ 5)	$k'$ in %
20	185,56	82,2	2250438	12,1	56,192	91,1	1,00 b.1.39	89,58	0,61 b.1.75	64,50
21	307,21	136,4	659626	3,5	80,363	130,1	1,30	261,33	1,00	188,16
22	167,44	74,2	180941	1,0	21,299	34,5	-	95,33	-	68,64
23	204,61	90,7	3001970	15,1	56,242	91,1	1,17	159,66	2,63	114,96
24	117,90	52,0	376093	2,0	17,522	28,4	1,08	8,08	2,50	5,82
25	199,73	88,4	651493	3,5	74,644	120,9	1,22	37,09	2,78	26,70
26	136,17	60,4	150974	0,8	25,233	40,8	1,09	11,80	2,00	8,50
27	247,53	109,8	339589	1,8	49,815	80,7	1,09	436,00	-	313,92
28	186,40	82,7	225022	1,2	25,672	41,7	1,12	54,75	3,59	39,42
29	159,11	70,7	46174	0,2	15,218	24,6	1,07	19,92	4,17	14,34
30	260,95	115,8	499921	2,7	48,573	79,6	1,18	149,68	1,00	107,77
31	325,52	144,4	1328974	7,1	75,634	122,5	1,24	579,40	1,00	417,17
32	941,13	418,2	1753246	9,4	568,313	921,1	-	1410,26	-	1015,39
33	230,49	102,2	2264286	12,2	110,109	178,3	1,16	265,18	1,42	190,93
34	822,32	365,3	1333243	7,2	173,699	291,5)	1,18	1648,84)	1,00	1187,16
35	219,56	97,3	1042291	5,6	53,772	87,0)	-	93,74)	-	60,29
36	152,45	67,5	348454	1,9	35,191	56,9)	1,22	36,37)	2,50	26,19
37	221,44	98,2	918495	4,9	46,977	76,2)	-	81,77)	-	59,87
38	158,29	70,2	1083530	5,8	44,982	72,9	1,21	85,28	2,50	61,40
39	141,08	62,7	138285	0,7	41,464	67,3	1,00	16,12	1,49	11,61
20-39	225,39	100,0	18592865	99,7	61,686	100,0	1,16	138,86	2,33	100,00

Notes on III.2.

- 1 Labour productivity has been calculated for large-scale industry only, as there are no statistics for value added in industry as a whole. Figures are based on data from Table III.1.
- 2 The statistics for gross investment are taken from Table X-7, p. 226-7 of the Statistical Yearbook of Greece. No data are available for depreciation. Gross investment includes machinery, building, transport, furniture, office fittings, land and other provisions.
- 3 For large-scale industry, as a % of the average for all industry.
- 4 Calculated from data in Table III.1, column 1 and Table IV-1 column 1 (figures in brackets expressed as  $u = \frac{K}{A}$  in thousand drachmae per person employed).
- 5 The elasticity of substitution  $\sigma$  is defined as  $\sigma = \frac{\delta(\frac{A}{K})}{\delta(\frac{1}{Z})} \cdot \frac{1}{Z}$  or assuming the theory of marginal productivity:  $\sigma = \frac{\delta(\frac{A}{K})}{\delta(\frac{\partial Y / \partial A}{\partial Y / \partial K})} \cdot \frac{\partial Y / \partial A}{\frac{A}{K}}$

Source: Table III-1, Statistical Yearbook of Greece X-7, p. 226-7, Die "kleinindustrie", Table 9.1 of the statistical annex

Table III.3

Exports and imports by sector of Greek industry  
(1974, at current prices)

Sector	Exports in million drachmae	Exports in %	Imports in million drachmae	Imports in %	Exports as a % of imports
20	4 570	11,2	5.735	5,7	20,1
22	327	0,8	235	0,3	138,6
22	76	0,1	15	0,02	162,5
23	5.558	13,6	3.053	3,5	162,1
24	3.717	9,1	430	0,5	864,4
25	359	0,9	1.702	2,0	20,9
26	44	0,1	53	0,1	50,0
27	262	0,6	1.043	4,5	6,8
28	100	0,2	290	0,3	34,5
29	1 574	3,9	1 325	1,4	128,2
30	185	0,5	1 157	1,3	16,0
31	3.052	7,5	12.305	15,5	27,9
32	5.352	13,3	2 450	2,9	215,0
33	2.485	6,1	1.124	1,3	221,2
34	9.672	23,7	12.304	14,3	78,6
35	1.308	3,2	2.070	2,8	55,2
36	376	0,9	19.509	22,7	1,9
37	879	2,2	7 555	8,8	11,6
38	370	0,9	7 247	8,5	5,1
39	495	1,2	2.255	2,6	21,9
20					
20-39	40.732	100,0	96.010	100,0	47,4

Source: Tables VI a - VII b, p. 25-28, 'Basic metal industries'  
CPER, Athens July 1976

Table IV.

## The capital structure of Greek industry

## IV.1

Gross capital stock of joint stock and limited liability companies by industrial sector and average annual rate of growth for the period 1958 to 1973 (at constant 1958 prices)

Industrial sector	Fixed capital stock before depreciation (1973) in million as a % of drachmae(1973) -- total		Percentage of total capital by sector
20 Food	7119 (7973) <sup>1</sup>	9,6	9,5
21 Beverages	2800 (3105)	3,7	3,7
22 Tobacco	765 (858)	1,0	1,0
23 Textiles	9751 (10921)	13,1	13,0
24 Clothing and footwear	520 (552)	0,7	0,7
25 Wood and cork	1140 (1276)	1,5	1,5
26 Furniture	319 (347)	0,4	0,4
27 Paper	3114 (3483)	4,2	4,2
28 Printing and Publishing	782 (876)	1,0	1,0
29 Leather and skins	231 (259)	0,3	0,4
30 Rubber and plastics	2112 (2365)	2,8	2,8
31 Chemicals	10346 (11588)	13,8	13,8
32 Petroleum and coal products	4785 (5359)	6,4	6,4
33 Non-metallic minerals	8655 (9918)	11,6	11,6
34 Basic metals	11463 (12861)	15,3	15,3
35 Metal industry	3531 (4011)	4,8	4,8
36 Machinery (non-electrical)	770 (862)	1,0	1,0
37 Electrical machinery	2227 (2494)	3,0	3,0
38 Transport	4021 (4503)	5,4	5,4
39 Other	1211 (1315)	1,6	1,6
20-39	74897 (83872)	-	100,0

Source: Georg F. Koutsoumaris 'The financing and development of industry'  
IOBE, Athens 1976, p. 26-27.

<sup>1</sup>The capital stock of joint-stock and limited liability companies accounted in 1973 for 90% of all industry (cf. Koutsoumaris op. cit, p. 13).

Estimates of the fixed capital stock of all industry (in brackets) are based on the above figure and on the further assumption that it applies across the board.

Tabel IV. 2

Percentage of total gross investment (column II), annual average rate of growth in gross fixed capital stock (column III) and in production (column IV) and production elasticity of capital (column V) for each sector (1958-1973)

Industrial sector	II in %	III	IV	V (1)
Chemicals (31), Petroleum and coal products(32)	19,7	15,1	16,4	1,09
Basic metal ind. (34)	16,4	25,7	25,9	1,01
Non-metallic minerals (33)	12,0	15,7	13,1	0,83
Metal industry (35), Electrical (37) and non-electrical mach. (36)	8,6	14,5	11,2	0,77
Textiles (23)	12,5	12,8	9,1	0,72
Transport (38)	5,5	20,0	12,3	0,61
Paper (27), printing and publishing (28)	5,3	19,0	10,6	0,56
Food (20), beverages (21) and tobacco (22)	13,5	12,3	6,1	0,50
Wood and cork (25), furniture (26)	2,1	30,9	10,9	0,35
Leather (29), rubber and plastics (30) other (39)	3,6	21,8	7,6	0,35
Footwear and clothing (24)	0,8	38,6	4,9	0,13
Total (20 - 39)	100,0	15,8	10,3	0,65

(1) The production elasticity of capital is calculated as a quotient of the rate or growth, for

$$E_{Y(K)} = \frac{w_Y}{W_Y} = \frac{\frac{Y_t}{Y_t}}{\frac{K_t}{K_t}} = \frac{\frac{dY_t}{Y_t}}{\frac{dK_t}{K_t}}$$

Source: see IV.1.

Table IV. 3

Capital productivity by sector, at constant 1958 prices.

Industrial sector	Capital productivity		
	1955-67	1968-73	1959-73
Food (20), beverages (21), tobacco (22)	0,68	0,46	0,54
Textiles (23)	0,67	0,82	0,77
Clothing and footwear (24)	6,04	4,00	4,35
Wood and cork (25), furniture (26)	2,88	1,79	2,05
Paper (27), printing and publishing (28)	0,47	0,60	0,54
Chemicals(31), petroleum and coal(32), Non-metallic minerals (33)	0,50	0,58	0,56
Basic metals (34)	0,22	0,84	0,54
Metal industry (35), non-electrical (36) and electrical machinery(37)	1,12	1,08	1,09
Transport (38)	0,46	0,37	0,35
Leather & skins(29), rubber & plastics (30) other (39)	0,37	0,72	0,27
Total (20-39)	0,55	0,75	0,68

Source: see IV.1, p. 125

Table IV.4 Capital output ratio by sector at constant 1958 prices.

Industrial sector	Capital output ratio		
	1955-67	1968-73	1959-73
20, 21 and 22	1,47	2,17	1,95
23	1,49	1,22	1,40
24	6,17	4,20	4,72
25 and 26	2,88	0,55	0,43
27 and 28	0,47	0,60	0,54
29 and 30	0,37	0,72	0,27
31 and 32	0,50	0,58	0,56
33	0,50	0,58	0,56
34	0,22	0,84	0,54
35 and 36	1,12	1,08	1,09
37	0,46	0,37	0,35
38	0,37	0,72	0,27
39	0,37	0,72	0,27
Total	0,55	0,75	0,68

1. Calculated as follows: capital productivity

Table IV.5. Return on capital by sector for the period 1959 - 1973.

Sector	Before depreciation, in % 1), 2)			Net profit in % 3)		
	1. Minimum	2. Average	3. Maximum	1. Minimum	2. Average	3. Maximum
20	18,2	6,1	98,0	12,0	77,8	3,5
21	18,2	6,1	98,0	12,0	77,8	3,5
22	18,2	6,1	98,0	12,0	77,8	3,5
23	18,2	6,1	98,0	12,0	77,8	3,5
24	18,2	6,1	98,0	12,0	77,8	3,5
25	18,2	6,1	98,0	12,0	77,8	3,5
26	18,2	6,1	98,0	12,0	77,8	3,5
27	18,2	6,1	98,0	12,0	77,8	3,5
28	18,2	6,1	98,0	12,0	77,8	3,5
29	18,2	6,1	98,0	12,0	77,8	3,5
30	18,2	6,1	98,0	12,0	77,8	3,5
31	18,2	6,1	98,0	12,0	77,8	3,5
32	18,2	6,1	98,0	12,0	77,8	3,5
33	18,2	6,1	98,0	12,0	77,8	3,5
34	18,2	6,1	98,0	12,0	77,8	3,5
35	18,2	6,1	98,0	12,0	77,8	3,5
36	18,2	6,1	98,0	12,0	77,8	3,5
37	18,2	6,1	98,0	12,0	77,8	3,5
38	18,2	6,1	98,0	12,0	77,8	3,5
39	18,2	6,1	98,0	12,0	77,8	3,5
Total	18,2	6,1	98,0	12,0	77,8	3,5

1 The left-hand columns of the minimum, average and maximum return on capital before and after depreciation show the return on capital by sector as a % of the average for all industry.

2 & 3

Fixed capital at end of year at current prices, less depreciation up to end of previous year plus the average turnover capital (incl. reserves) as at the beginning and end of year, expressed as a % of capital employed.

Source: see IV.1., p. 138-139

## IV. 6

Table IV. 6 Ratio between debts plus provisions and capital plus reserves in joint-stock and limited liability companies by sector (1973)  
in million drachmae at current prices

Sector	Debts plus provisions	Capital plus reserves	<u>Debts + provisions</u> <u>Capital + reserves</u>		D 1
20	12.340	5.110	2,415	116,1	
21	4.823	1.724	2,798	135,4	
22	2.182	934	2,336	113,1	
23	17.271	8.804	1,962	95,0	
24	1.887	777	2,429	117,6	
25	1.862	1.304	1,428	69,1	
26	602	417	1,444	69,8	
27	3.909	1.528	2,558	123,8	
28	964	889	1,084	52,5	
29	581	328	1,771	85,7	
30	3.520	1.981	1,777	86,0	
31	10.547	7.617	1,385	67,0	
32	11.464	1.588	7,219	394,4	
33	7.991	5.379	1,486	71,9	
34	11.611	5.897	1,969	95,3	
35	6.134	3.341	1,836	88,8	
36	1.732	885	1,957	94,7	
37	7.688	3.262	2,357	114,1	
38	9.120	4.407	2,069	100,0	
39	350	253	1,383	66,9	
20 - 39	116.578	56.425	2,066	100	

Source : See IV.1., Table 16 of the statistical annex.

<sup>1</sup> Ratio of debts + provisions / capital + reserves as a percentage of the industrial average.



Table V. Return on capital and capital costs by sector of Greek industry (1973)

	1. Borrowed capital in million drachmae	2. Financial outlay at current prices	3. Cost of borrowed capital (2) in % (=2:1)	4. Return on capital (1) in %	5. (3)	6. = (4-3) in %
20	11.069	503,6	4,5	7,8	91,8	3,3
21	4.185	261,0	6,2	8,0	126,5	1,8
22	2.040	61,3	3,0	6,1	61,2	3,1
23	15.959	994,8	6,2	10,8	126,5	4,6
24	1.592	73,8	4,6	9,9	93,9	5,3
25	1.694	78,7	4,6	14,9	93,9	10,3
26	543	21,3	3,9	9,5	80,0	5,6
27	3.868	190,9	4,9	7,7	100,0	2,8
28	866	34,4	4,0	10,3	81,6	6,3
29	528	33,9	6,4	8,4	130,6	2,0
30	3.259	150,9	4,6	11,5	93,9	6,9
31	9.790	509,6	5,2	8,2	106,1	3,0
32	9.157	416,8	4,5	12,4	91,8	7,9
33	7.460	272,9	3,7	6,9	75,5	3,2
34	11.759	531,8	4,5	10,1	91,8	5,6
35	5.695	278,9	4,9	13,4	100,0	8,5
36	1.656	81,8	4,9	7,2	100,0	2,3
37	6.860	354,5	5,2	9,9	106,1	4,7
38	8.156	344,5	4,2	5,2	85,7	1,0
39	330	14,2	4,3	10,6	87,8	6,3
20-39	106.486	5.209,4	4,9	-	100,0	-

(1) As a % of total price, i.e. capital plus reserves + liabilities.

(2) As a % outlay = debts plus provisions. (Source : See IV.1. Tables 18 and 19 of the statistical annex.

(3) Cost of liabilities as a % of the industrial average.

Table VI The cost situation of Greek industry

Percentage breakdown of various types of cost in large-scale industry (1973)

Industrial sector	Wages and salaries	Raw materials and machinery	Fuels and electric energy <sup>1</sup>	Miscellaneous Capital costs <sup>2</sup>	
20-39	12,1	52,2	2,8	6,8	26,1
20	8,2	64,1	1,4	8,8	17,1
21	8,8	58,5	1,1	7,3	24,3
22	8,2	69,0	0,3	5,5	17,0
23	12,6	51,1	1,7	7,3	27,3
24	16,4	54,6	0,4	5,7	22,9
25	12,6	53,3	1,8	3,1	2,2
26	19,3	49,5	0,8	3,7	26,7
27	11,4	50,9	4,5	5,3	27,9
28	24,6	39,8	0,8	8,2	26,6
29	10,9	66,0	0,8	4,0	18,3
30	14,2	43,6	2,0	5,2	35,0
31	12,6	40,4	3,2	10,1	33,7
32	3,1	69,5	2,5	1,7	23,2
33	16,9	21,5	13,4	12,9	3,3
34	7,2	42,5	8,9	7,1	34,3
35	12,7	53,5	1,5	4,6	27,7
36	19,6	50,5	0,9	6,0	23,0
37	12,2	58,3	0,7	3,8	25,0
38	31,5	39,2	1,0	4,4	23,9
39	19,3	45,1	0,9	0,7	34,0

<sup>1</sup>The percentages given for energy costs relate to the period prior to the oil crisis and oil price increases, and are therefore well below current levels. The actual percentages must be considered to be several factors higher than those shown.

<sup>2</sup>'Capital costs' is a broad term covering not only net profit and the cost of borrowed capital, but also the costs of services rendered to the industrial sector by third persons. The Greek statistical yearbooks do not show the cost of such services separately. A similar presentation is found in 'The development of Greek industry' Michael Gevetsis, Athens 1975, p. 152.

Source: Author's calculations based on the data from the Statistical Yearbook of Greece, 1976, tables X-5 and X-6, p. 222-225.

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