TOURISM AS AN ALTERNATIVE ENGINE OF ECONOMIC GROWTH: THE CASE OF GREECE

A KALDORIAN APPROACH

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Thesis submitted for the degree of Doctor of Philosophy

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November 1991

To my parents

C O N T E N T S

L I S T O F T A B L E S

L I S T O F F I G U R E S

PAGE

AKNOWLEDGEMENTS

There are a number of people I would like to thank for their help towards the conpletion of the present thesis.

First of all, I would like to thank my supervisor Professor M. C. Sawyer (now in the University of Leeds), for his invaluable help and comments on various drafts of the thesis, over a period of more than three years. My thanks are also due to the other two members of the advisory pannel, Dr. T. Hitiris and Dr. B. Stafford (University of York) for their comments and cooperation. I would also like to thank my parents for making this thesis possible, as well as for reading and commenting on the final draft. Finally, all my thanks to Mr. C. Nikas for his constant help and encouragement throughout the preparation of the thesis and, most of all, for always being there for me.

A B S T R A C T

The aim of this thesis is to analyse the developments that took place in the Greek economy, in the period after the end of World War II, within a Kaldorian framework.

The mainstream Kaldorian theory of growth views the manufacturing sector as the "engine" of economic growth.

Evidence suggests that it is very unlikely that manufacturing has ever played this role in the case of Greece and even more so where future evolutions are concerned. Given this, the question rises as to which sector(s) has operated, and will continue to do so in the future, as an alternative or complementary to manufacturing, engine of growth in Greece.

The thesis will, first of all, provide a survey of the Kaldorian theory of growth. It will then proceed to an analysis of the Greek economy as well as to an empirical test of the theory, in the case of Greece, with tourism as an alternative to manufacturing, in the role of leading economic sector. An examination of the conditions under which tourism could operate as an engine of economic growth, both theoretically and in the particular case of Greece will finally follow.

PREFACE

When I first started working on my D.Phil thesis, about three years ago, my initial idea was, basically, to investigate the widely accepted notion of manufacturing' s role as an engine of growth in economic development, for the particular case of Greece.

The theory that manufacturing represents the key leading sector in all types of national economies, irrespective of the particularities of each one, was initially formulated, theoretically, in relation to industrially developed countries, in order to explain, on one hand, the rapid growth of the 1950s-1960s as well as the observed differences in growth rates among countries and, on the other hand, the generalised slow-down in economic growth of the 1970s-1980s. My main objective was to see whether the above theory, was also equally applicable to less developed countries with particular structural characteristics, such as Greece.

My intuition, even long before I started to work on the present thesis, was that, at least in the particular case of the Greek economy, testing this manufacturing driven development type of theory would probably run into a number of difficulties; that, furthermore, it would yield rather different results from those corresponding to most developed economies, mainly because I thought that, for a number of reasons, the Greek manufacturing industry could not be considered as an engine of economic growth, at any point in time, past, present and, possibly future, despite wishful thinking and numerous efforts for the contrary.

From the beginning, the Kaldorian theory of economic growth held a great attraction for me, as I believed that it represented an adequate framework for what I had in mind; on the one hand, the theoretical arguments as to the reasons why manufacturing, in particular among all other sectors and branches of economic activity, was the unquestionable engine of economic growth were summarised and explained very concisely and persuasively. On the other hand, the theory allowed itself to be easily tested empirically, as long as it was conveniently summarised in three simple equations. My initial idea, therefore, was to test the validity of the three Kaldorian growth laws in the particular case of Greece and possibly, to derive certain conclusions as to the role of the manufacturing sector for the

development of the country in question. In the process, however, and especially after the first empirical results, I took this train of thought a little further, as I realised that if manufacturing in Greece did not support the Kaldorian view of an engine of growth, then perhaps, some other economic activity could be considered for this role.

After an application of the three laws to the other two economic sectors (agriculture and services) and considering the role, historical development, size and diversity of the Greek service sector, following some thoughts on comparative advantage related issues and quite a lot of intuition, the Greek tourism sector appeared as a rather promising potential candidate. There was one problem however. Most of the literature dealing with the possibility of tourism playing the role of an engine of growth, either clearly stated or implied that, this applied to the very first or, alternatively, the very advanced stages of economic growth, that is, either before manufacturing took off, or after it started to decline, relatively to previous years and other sectors, while some other economic activity (presumably manufacturing) would have to take over during the intermediate stages of a country's development process. Given that Greece cannot be considered an underdeveloped country any more than an advanced industrial one, this major drawback prompted me to turn to the literature on service economies, post- industrial societies etc (see final conclusions in chapter six for the meaning of these terms), especially with that part of the relevant literature dealing with service economy characteristics in less developed countries and the possibility that certain types of services could act as an alternative (to manufacturing) engine of economic growth, at any level of development. This further reading was, I believe, particularly fruitful and interesting and, to a large extent, its result was the final, concluding chapter of the present thesis. The structure of contents as well as the general line of thought underlying the analysis is described in the short introductory chapter which follows.

INTRODUCTION

For a very long time, economic thought has revolved around the question of which one of the three economic sectors (primary, secondary or tertiary) represents the leading sector in economic development (Eltis, 1988). While Quesnay viewed agriculture as the most productive sector in this role, this is rather the exception, since most other theories (beginning with classical economists like Adam Smith, the Marxian analysis, Rostow, in his stages of economic development and ending with Keynesian and neo-Keynesian economists like Kaldor), consider the progress of the secondary sector and of manufacturing, in particular, as representative of the economic progress of a certain country. In general, these theories define and measure economic development, to a large extent, in terms of the development of the manufacturing sector. In a comparative way of thinking, the preponderance of manufacturing was also defined in terms of its superiority relatively to the other two economic sectors. For many years, the notion of economic development was, in essence identified with the transition of a peasant society to an industrial one, the expansion of the latter being, in many cases, carried out at the expense of the former. Industrial expansion was largely based on the ability of the particular sector to attract and absorb resources from the other (less productive) sectors of the economy and use them more productively, to the benefit of the national economies. Finally, with the introduction of new methods of production, technological innovations, learning by doing, greater specialisation, expanding markets strong forward and backward linkages etc, industrial expansion seemed to be an ever lasting process which, under conditions of rapid adaptability of this sector to these changes, could keep the economy on a dynamic path, moving upwards from one equilibrium point to another.

There seems to be a certain amount of confusion and uncertainty, however, as to the role of the third sector of the economy in this framework, namely services. On one hand, the tertiary was seen as homogeneous, labour intensive, low productivity sector, unable to absorb technical innovations in order to raise productivity, which could serve as an alternative (to agriculture) or complementary pool of surplus labour for the requirements of the manufacturing

sector of production. On the other hand, it soon became clear that the development of the industrial sector was accompanied and, in fact, in certain cases, was enabled by the parallel development of certain branches of the service sector, such as transport, communications, insurance, banks, and at a later stage, information, computer services etc. Some of these activities were characterised by relatively high productivity growth and and an increased ability to absorb technical know-how (eg. information services), in comparison to undeniably low productivity (parasitic one could argue), traditional service activities, such as domestic services, street peddlers etc. This came as somewhat of a contradiction with the traditional view of the service sector as homogeneously unproductive, non-innovating, in relation to manufacturing and growing only in a complementary way to the latter.

After a certain point, industrial expansion is closely linked with an even faster, in some cases, expansion of certain service activities. These activities grow either because they constitute, in a sense, intermediate services, necessary for industrial expansion and are directly "pulled" by manufacturing to which they are closely related (e.g. transport, banks etc), or for other reasons, to be found in comparative advantage considerations or to the benefits of general economic prosperity, largely attributable to industrial development. Consequently, the answer to the question of whether the expansion of manufacturing and services should or actually do move in the same or in opposite directions is not as clear-cut as in the relationship between agriculture and manufacturing which is clearly negative.

The Kaldorian theory of growth was initially developed in the early 1960s, that is, in the prosperous part of what is considered by some authors as "...the most interesting period in economic history" (the period after World War II), (Scammel, 1983, pp. 1-3), in terms of the speed and nature of the structural changes taking place in the international economy.

Kaldor, like other authors in the same, more or less, period, (e.g. Denison, Maddison) observed that, in a framework of a world-wide and unprecedented, in speed, economic growth, the performance of different national economies differed to a large extent, and he attempted to find an explanation for these observed

differences.

Unlike other authors whose analysis was largely based on the Keynesian models and demand factors or on a production function and the importance of supply factors, Kaldor developed a rather more complex analysis, based on the interaction of supply and demand and on the different characteristics of each of the three economic sectors of production.

Using the U.K, in particular, and the developed Western European countries, in general, as a reference point, Kaldor attempted to explain the postwar economic performance of the O.E.C.D countries, in terms of the performance of their manufacturing sectors. The theoretical base of his argument relatively to the leading role of manufacturing, is accompanied by three easily testable equations (the mathematical form of the so called "three growth laws"), which indicate that countries with rapidly growing manufacturing sectors present both higher growth rates of GDP and higher total productivity, thanks to the particular characteristics prevailing in manufacturing (dynamic economies of scale, high productivity, the operation of the Verdoorn's law etc). A more extensive analysis of the Kaldorian theory of growth may be found in the relevant chapter (Ch. I) of the present thesis. What one should keep in mind, though, is that all economic theories, even the most comprehensive ones, are meant to explain phenomena that occur at certain points in time and under specific circumstances. When these circumstances change and especially at times characterised by rapid and unforeseen changes, all theories can very easily become obsolete.

The emergence of the economic recession in the 1970s was accompanied by a prolonged relative decline of the manufacturing sector, which progressively decreased in importance, in many Western European economies, especially as far as its share in total employment was concerned (Ch. II, section D). The tertiary sector, on the other hand, seemed to be tougher, in that respect, during the recession period. This was due, to a large extent, to the dynamism and resilience of certain service activities, e.g. international tourism. One should note, in that respect, that according to Eurostat estimations, in 1990 tourism produced 5% of the EC-12 GDP and employed 6% of the labour force. For some of the individual member states the corresponding figures were much higher (9.4% and 9.3% respectively in

Spain, 9% and 6.9% in France, 7.3% and 7.2% in Greece, 4.5% and 6.4% in Italy and 6.2% and 6.3% Ireland.

This relative decline of the manufacturing sector, mainly in terms of its employment share, and to a lesser extent, in terms of its share in total output, named "de-industrialisation" (as opposed to industrialisation) started to be obvious in a number of West European countries, quite early in the post-war period (in the middle to late 70s). In general, it was seen as a transitional problem of the manufacturing sector which needed restructuring and adjustment in an environment where rapid changes were taking place, mainly in the technological field. Furthermore, one could argue that this relative decline was due, to a large extent, to the decline of several traditional industrial branches, e.g. coal, steel, shipbuilding, textiles, as well as to a shift from mass to specialised production patterns. In any case, few authors would go as far as stating that the "industrial era" was approaching the end, just as the end of the "agricultural era" had come decades earlier and that the time had come to tackle the notion of industry as an engine of growth and open the way for some other economic sector (the third one, perhaps) to assume this role. Whether the optimism of the mainstream view, that the manufacturing sector of the industrially developed Western European countries will flourish again is justified, is a question which, in spite of being very interesting, lies, however, beyond the scope of this thesis.

The present thesis concentrates on the issue of the economic development of Greece, a country which, just as other Western European countries, witnessed the phenomenon of de-industrialisation, in the sense that its manufacturing sector has been shrinking, in recent years, both in terms of its share in total employment as well as in total output, while its service sector has been expanding for a long time. However, the main difference between Greece and the other W. European countries, in that respect, is that Greece is de-industrialising without having ever really developed its manufacturing sector (especially intermediate and heavy industrial branches).

This phenomenon of "de-industrialisation without previous industrialisation" is probably one of the most interesting characteristics of the Greek economy, in the postwar period. Analysing

and trying to find an explanation for it is a quite an interesting exercise which has already been undertaken by a number of authors. The main distinguishing feature between this thesis and the existing literature on the Greek economy, is that in this case, the Kaldorian theory of growth, as described in the first chapter, will serve as the main analytical tool. At first sight, it seems surprising that, as far as I know, there has not yet been a comprehensive and convincing attempt to test the Kaldorian theory for Greece[1] has never been applied and tested before (as far as I know), in the case of the Greek economy. This is probably due to the fact that the main element of the Kaldorian theory, manufacturing, never displayed, in Greece, the features attributed to it by Kaldor.

The two main questions around which the analysis of the present thesis will revolve, therefore, could be defined as follows:
a) Having shown that the industrial sector in Greece was not the dynamic engine of economic growth, the leading sector, in the Kaldorian sense, was there some other sector or specific economic activity which could be said to have played or to have come close to playing that role, in the period of rapid growth (two digit growth rates for certain years in the 1960s)?
b) Furthermore and perspectively speaking, could this or some other sector or specific economic activity be seen as a potential engine of growth or leading sector which could, under certain conditions, pull the Greek economy out of the swamp of economic stagnation and recession it has been in, since the mid 1970s?

Answering the first question implies an analysis of the Greek economy and of its main particularities, in general, a survey of the past and present performance of its industrial sector, and could also include a test of the applicability of the three Kaldorian growth laws in the case of Greece, in the postwar period. Giving a definitive answer to the second question, though, is much harder; fitting any other sector or activity in the place which the Kaldorian theory reserves specifically and solely for manufacturing, is quite difficult

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In a recent paper in Applied Economics by Drakopoulos and Theodossiou (1991), an attempt was made to apply the Kaldorian theory to Greece. The paper is subject to a number of theoretical and statistical problems however, as I have already explained in a comment sent to the above Journal to be considered for publication.

as well as dangerous.

- In the first place, it would require a theoretical framework which would limit the analysis so that it remain within the Kaldorian idea of one sector, among others, assuming the role of leader or growth engine in economic development, while leaving room for other economic activities besides manufacturing to be viewed in this role. This task is most difficult, given that the existing literature on alternative to manufacturing leading sectors is both recent and limited.
- In the second place, being conscious of the step I was about to take, I had to take full advantage of the empirical investigations, in addition to the conclusions derived from the theoretical part of the thesis, in order to help support my argumentation. For a country like Greece, characterised by a high unreliability as well as lack, in many cases, of the necessary data, this was quite a task. In addition to the analysis of the Greek economy, on the theoretical level, the empirical investigation proceeded from the simple regression equations in which Kaldor, initially, summarised his theory, to an application of the laws using a pooling technique with both time-series and cross-section data for Greece and three other (similar in terms of development and general economic structure) Mediterranean countries, namely Italy, Spain and Portugal; finally, for the first time, as far as I know, causality tests were applied to various sectors and sub-sectors of the Greek economy in order to test for the existence and direction of the linkages between them.

The structure of the thesis, largely follows the evolution of my analysis of the subject, as described in both the preface and this short introduction.

Chapter I starts with a general survey of the Kaldorian theory of growth. Chapter II provides a short description of the historical development of the Greek economy, with an emphasis on some particular points and structural characteristics which are believed necessary in order to gain an understanding of the main idea of the thesis and some of its conclusions. Chapter III is devoted to the various empirical investigations of the three Kaldorian growth laws, in relation to three economic sectors of the Greek economy and it also includes some comparisons, as to the applicability of the laws, between Greece and other Mediterranean countries with similar economic structures. Chapter IV deals with the issue of tourism and its

potential role as a leading sector in economic development while, Chapter V deals with the particular issue of the characteristics and the role (both actual and potential) of the tourism sector in Greece. Finally, Chapter VI, the concluding chapter of the thesis, begins with a reminder of the central features of Greek economic development and of what the prevailing situation is like today, followed by a short discussion on service economy related issues, on the basis of which some final ideas and suggested general policy measures for the future are derived.

CHAPTER I

THE KALDORIAN THEORY OF GROWTH

A. INTRODUCTION

The postwar period, especially up to 1973, was marked by very high, relative to pre-war standards, rates of growth in Western Europe (and world-wide). Most of the macroeconomic indicators of the European economies rose to unprecedented levels in comparison to the prewar period. This transformation of the growth process of the West European countries was indicated, in the first place, by a very fast growth rate of GDP, a sharp rise of investment rates and rapidly increasing capital stock, increasing exports and labour productivity and very low rates of unemployment. It was also indicated by a transformation of both output and sectoral employment patterns where the rapidly rising importance of the industrial sector was obvious. Some of these evolutions that took place in the Western European economies for selected years and countries, may be seen in the following tables:

TABLE I. A1: The Evolution of GDP and Investment 1922-1989

Annual growth rate of GDP					Total Gross Domestic Investment as % of GDP				
	Fr.	Ger.	It.	U.K		Fr.	Ger.	It.	U.K
1922-29	5.8	5.7	2.3	4.0	1914-49	-	14.3	13.5	7.6
1951-73	5.0	5.7	5.1	5.0	1961-72	24.6	26.0	20.4	18.3
1974-89	2.3	1.9	2.6	1.8	1974-89	21.6	20.6	22.5	18.0

TABLE I. A2: The transformation of output 1955-1989

Transformation of Output: Annual average growth						
	1955-73			1974-89		
	A	I	S	A	I	S
France	1.5	6.6	5.1	1.0	1.6	3.2
Germany	1.9	6.0	3.8	1.7	1.5	2.7
Italy	2.2	6.4	6.2	1.0	2.8	2.3
U.K.	2.9	2.7	2.4	3.7	0.9	2.7

TABLE I.A3: The Composition of Employment 1957-1989

Transformation and % composition of employment												
	1957			1965			1973			1989		
	A	I	S	A	I	S	A	I	S	A	I	S
France	24.6	37.5	37.9	17.7	39.4	42.9	12.2	39.3	48.5	6.77	29.20	64.1
Germany	16.3	48.0	35.7	10.9	50.4	38.7	7.5	49.5	43.0	5.23	39.35	55.4
Italy	35.6	35.3	29.1	25.6	41.6	32.8	17.4	44.0	38.6	10.25	30.86	58.89
U.K.	4.4	49.2	46.4	3.3	48.1	48.7	2.9	42.6	54.5	3.20	28.98	67.82

A=Agriculture, I=Industry, S=Services

TABLE I.A4: The Evolution of Labour Productivity 1953-1989

Labour productivity (GDP per employee) Annual average % changes					
	1953-61	1961-73	1974-79	1980-85	1986-1989
France	5.0	4.6	2.8	2.4	2.2
Germany	5.2	4.5	3.2	2.0	1.6
Italy	5.5	5.6	1.5	1.2	1.7
U.K	2.0	2.9	1.2	1.9	2.4

TABLE I.A5: The Evolution of Unemployment Rates 1950-1989

Average Annual Unemployment Rates					
	1950-60	1961-73	1974-80	1981-85	1986-89
France	1.3	2.2	4.4	6.8	10.1
Germany	4.1	0.6	3.6	7.2	7.9
Italy	7.9	3.6	6.4	9.6	11.6
U.K	2.5	3.6	5.0	11.1	9.2

TABLE I.A6: The Growth of Exports 1900-1989

Annual Average Growth of exports (volume)				
	1900-13	1913-50	1950-73	1983-89
France	2.8	1.1	8.2	7.8
Germany	4.1	-2.8	12.4	6.2
Italy	2.2	2.6	11.7	8.9
U.K	2.8	0.0	3.9	7.7

Sources Tables I.A1-I.A6
1) Cornwall, 1977.
2) Maddison, 1982.
3) OECD, Economic Outlook, various Issues.
4) OECD, Country Surveys, various Issues.
5) ILO, Labour Statistics, various Issues.
6) EUROSTAT, various Issues.
7) Own calculations.

These rapid rates of economic growth, however, gave way to the beginning of an overall prolonged decline, since the early to mid 70s, indicated by a fall of growth rates and much higher levels of unemployment. This was followed by a falling share of manufacturing in GDP and employment, a decreasing rate of growth of exports and a loss of international competitiveness relatively to the emerging Newly Industrializing Countries (NICs), not to mention the U.S.A and Japan. While in some countries, this recession only lasted for a few years or a decade, (up to the mid 1980s), for other countries, such as Greece, it proved to be more persistent, in terms of slow growth, high inflation and unemployment rates, large balance of payment deficits etc.

The existing theories of economic growth, especially the neoclassical or supply determined ones seemed no longer able to give plausible explanations of these evolutions, compatible with the observed facts. These theories, sticking obstinately to their doctrine of full employment and efficient use of resources (either at any point in time or through slow adjustments to full employment etc), viewed the growth process as determined by the natural rate of increase of economic resources and factors of production, such as labour, capital, technical knowledge etc, which effectively constrained the rate of growth of total output. A fundamental weakness of these theories was their inability to explain observed differences in growth rates among countries, not to mention differences in development levels. In particular, empirical observations suggested that differences in the supply of factors of production, in the postwar period, were simply not substantial enough to explain the remarkable differences in the observed growth rates and levels of development of various European countries (Boltho, 1982, p. 11-23). The growing anxiety during the prosperous years as to the duration of the boom was intensified with the prolonged economic recession, which, in conjunction with the aforementioned failure of traditional theories gave rise to new theories of economic growth; the aim of these new theories was to shed some light on the process and the causes of development as well as to the question of whether there is anything inevitable in the path of rapid growth and subsequent relative decline which many countries experience in the course of development.

Most studies on economic growth of that period seem to suggest that supply factors did not seem to have played a decisive role in the post war period (at least no more so than during previous periods), in explaining differences in growth rates among countries and over time (Boltho, 1982 and Cornwall, 1977), although their permissive role, in economic development is certainly not to be denied (Kindleberger, 1967, p. 14). Labour supply seemed, in effect, plentiful; most Western European countries had large labour reserves available in agriculture, in the sense that, due to underemployment and consequent low productivity, a large part of the labour force could leave agriculture without lowering the total output of the sector (for the importance attributed, initially, to surplus labour in agriculture, see Lewis, 1954); emigration and low productivity personal services acted as a pool of surplus labour for countries

where the share of agriculture in total employment was already very low, e.g the U.K.; capital investment, on the other hand, although it naturally adds to the supply capacity of a country, is in effect a component of aggregate demand. It would seem, therefore, that the explanatory role of the fast economic growth of the West European countries over that period, would probably have to be attributed to demand factors (naturally, taking into account their interaction with supply factors), as stressed by the Keynesian and Neokeynesian theories, the "prescriptions" and policy measures of which, most West European countries adopted in the post war years. A feature of particular interest of the theory, the culmination of which is found in the three Kaldorian "laws" of economic growth, is that the neoclassical view of economic resources being efficiently allocated over time between alternative uses is rejected. Consequently, the process of economic growth is viewed as a process of continuous reallocation of resources (Denison, 1967), which, under certain assumptions, leads to improvements in efficiency and the use of available resources and knowledge (Cripps and Tarling, 1973, p. 1). Different economic sectors are attributed a varying importance in terms of their particular characteristics related to productivity, demand elasticity for their products, their influence on the growth of the economy as a whole and the timing when their expansion becomes crucial for the potential sustained future growth of the country. Some of these elements pre-existed in older theories of economic growth, long before the appearance of the so called "Kaldorian" one. In particular, some of the basic ideas, concerning, in particular, the key role of manufacturing in economic development can be found, among others, in the, otherwise extremely restrictive, Rostowian analysis of the stages of economic development.

B. SOME ALTERNATIVE THEORIES OF GROWTH

During the early stages of development, most countries experience the so called "take off" stage (Rostow, 1971) which marks the beginning of a structural transformation towards rapid self-sustained growth. The agricultural sector which had the largest share in GDP and total employment, gradually begins to decrease in importance; at the same time, one or more manufacturing branches, as indicated by the growth experience of the West European countries in the postwar years as well as by the majority of the "late comers" (relatively to the already industrialised countries) to the development process countries), start to expand at a high rate of growth and increase their share, both in total employment and total GDP. Therefore they are progressively turning into the country's "leading sectors" (Rostow, 1971, p. 14). A necessary precondition for this initial expansion of the manufacturing sector, is the availability of labour and other factor inputs required for production. At that stage of development there are usually vast supplies of labour still employed in agriculture, which is characterised by high levels of "disguised" unemployment. Productivity there, is usually, very low, so that it is believed possible for the manufacturing sector to expand at the expense of agriculture without facing a shortage of labour and without lowering total productivity or output (Lewis, 1954 and Kindleberger, 1967). One exception, in relation to this point, was the U.K., in the 18th century, where agricultural productivity grew first, releasing labour for use in other sectors.

There are a number of different explanations as to the reasons which lead an economy to expand its manufacturing sector at a certain stage of development. Some argue that the initiative is to be found in domestic factors and, especially in the domestic structure of demand which becomes more elastic for manufactured goods than agricultural ones, as per capita incomes start to rise at some point in time (Auerbach, 1988, p. 4), due for example to a rise of productivity in agriculture or to increased exports of agricultural or primary goods in general. Others argue that the preconditions for industrialisation rarely arise endogenously, but usually take the form of intrusions from more advanced countries, with the result that the idea of growth through industrialisation as a path to economic

development, becomes in itself a must for the less developed society (Rostow, 1971, pp. 7 and 36). Others still believe,that the stimulus for industrial development is to be found outside the country, as a result of international trade in an open economy (Rowthorn and Wells, 1987, p. 60). In particular, at a certain stage of development the country undergoes the so called "gastronomical transition" (Houthaker, 1957). Demand for food rises rapidly as per capita incomes start to rise in the economy, but food supply is relatively inelastic. Average productivity and technology levels are usually very low in agriculture and with the exception of a very small number of extremely well endowed countries, imports of primary goods must inevitably rise to satisfy increased demand. The country faces a deficit in its balance of trade (Rowthorn and Wells, 1987, p. 39) and one of the ways to pay for its imports is to industrialise rapidly and try to keep its external balance by either exporting manufactured goods (export led growth), or by substituting home production for imported manufactured goods (import substitution, op. cit., p. 60), which is usually the policy adopted by developing countries during the early stages of development. Both export promotion and import substitution may imply a switching process of production from non-tradeable goods to tradeable ones.

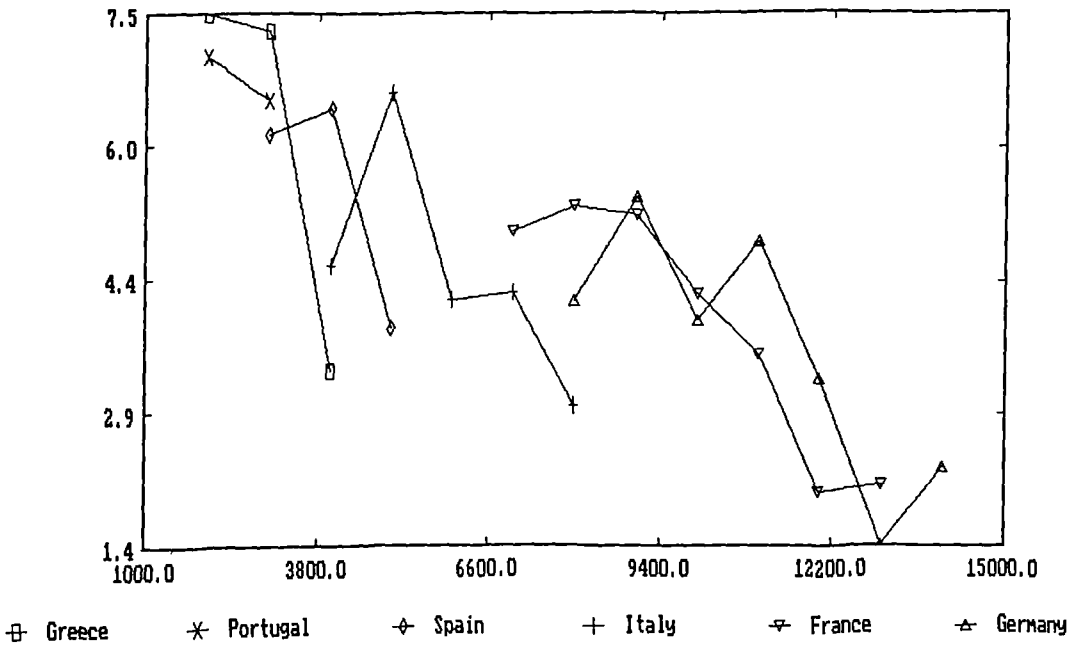
While it would be quite natural to ask whether it is absolutely inevitable for a developing country to start by expanding its industrial (especially manufacturing) sector, it is argued by most authors that even in the rare case where countries do not face such intense balance of payment constraints, they will have to industrialize sooner or later, if their objective is continued rapid growth, because of certain specific structural characteristics (e.g. scale economies, backward and forward linkages, elasticity of supply in relation to demand etc) which, it is believed, are particularly attached to the industrial sector and especially to manufacturing (Rowthorn and Wells, 1987, p. 62). These are supposed to offer great potential for a cumulative and self sustained growth of output and productivity as well as demand, which feeds back on itself to generate further growth of output and productivity and of the economy as a whole. If, at the same time, the country can also manage to be efficient as far as international trade is concerned and faces a growing demand for its exports, the virtuous circle continues indefinitely as both foreign and domestic demand interact to generate

a continuous growth of output and productivity.

> *"An Efficient Manufacturing sector is one which currently and potentially, not only satisfies the demand of consumers at home, but is also able to sell enough of its products abroad to pay for the nation's import requirements"* (Singh, 1977, p. 128)

Empirical observations of the development of the European countries, have shown that a country witnesses extremely rapid rates of growth of GDP at intermediate stages of development and per capita incomes. This trend is confirmed by the following graph, which was computed on the basis of data from some EC countries. The vertical axis represents GDP growth rates while the horizontal one measures levels of per capita income.

Graph I.1



Sources: 1) OECD, National Accounts, 1960-1987.
2) The Greek Economy in Figures.
3) Own Calculations.

It is suggested by the graph and numerous empirical studies (e.g. Chenery and Tailor, 1968, Chenery et. al., 1986), that high rates of GDP growth (above 6%) coincide with low and intermediate levels of per capita incomes, that is, between 1,500$-4,500$, at 1980 prices and exchange rates. The theoretical explanation of this lies in the belief that when per capita incomes rise past the point of the

gastronomical transition, demand for manufactured goods which is very income elastic at this stage of development, also starts to rise rapidly. One of the characteristics particular to the manufacturing sector is that supply is very elastic to changes in demand, provided that the growth of output is not constrained by shortages of inputs. These could either take the form of relative shortages of labour or of relative shortages of intermediate goods (Kaldor, 1966, p. 22). At that particular stage of development, however, shortages of labour should not be a serious problem, as long as industry can always attract "unlimited supplies of labour" from the non-manufacturing sectors or the unemployed, in order to increase production. Shortages of intermediate goods could be a problem at any stage of development, if the country faces a shortage of foreign exchange and cannot finance its imports of such goods. For this reason, it is particularly important for a country, at the early stages of development, to concentrate in the production of goods which have a high elasticity of demand (both domestic and export) (Kaldor, 1966, p. 19), or to have recourse to policies of protection of the home industry (see infant industry arguments, e.g. in Södersten, 1980, pp. 196-200), so as to enable the industrial sector to grow past the early stages protected from foreign competition. One of the ways this could be done (especially in developing countries), is for the government to follow such import substituting policies of protection through tariffs etc, or take upon itself the process of industrialisation through specific organisations for that purpose (such as IRI in Italy or INI in Spain).

The crucial importance of the manufacturing sector for sustained economic growth has been put into a nutshell by Kaldor in his much criticised theory of growth.

C. THE KALDORIAN THEORY OF GROWTH

The Kaldorian theory of growth has its roots in Keynesianism, in the sense that it stresses the importance of the role of demand, rather than supply factors, in economic development and is, furthermore, based on the assumption that industry and, especially the manufacturing sector constitutes the "engine of growth" of the economy.

The role attributed to demand is crucial. Its magnitude and structure are the sole factors which both initiate and constrain industrial development. In the early stages of economic growth, rising demand for manufactured goods from the agricultural sector due to rising per capita incomes, (which are due, in turn, to rising productivity in agriculture), result in a drop of the income elasticity of demand for agricultural goods and a rise in the corresponding elasticity for manufactured goods, since a smaller proportion of the increased incomes is spent on food; depending on the supply response, of the manufacturing sector, this may initiate industrialisation. On the other hand, the fact that more food must be provided because of rising demand may initiate technological innovations in agriculture in order to raise productivity and output, which also stimulates industrial expansion and represents another condition for economic development. As incomes per capita continue to rise in the economy and domestic demand for manufactured goods begins to decline, at higher income levels (when income elasticity of demand rises proportionally more for services), sustained economic growth crucially depends on the elasticity of demand for the country's exports of manufactured goods.

Demand for manufacturing output is the major factor inducing industrial growth and determining employment growth which is considered endogenous, in the sense that it responds to and is determined by changes in demand. There is a fundamental precondition, however, which must be fulfilled for the model to work and for the manufacturing sector to start its initial expansion as well as sustain its rapid growth in the future: While demand is the driving force of the economic system, a flexibility and mobility of the factor inputs necessary to industrial production forms the permissive factor (rather than the cause) of growth (Cornwall, 1977, p. 40). The Kaldorian theory is based on the Lewis model of a dual economy (Lewis, 1954)

consisting of two sectors. One of them (manufacturing) is considered as a potentially rapidly expanding, high productivity, high wage sector with a growing demand for its products. The second one (agriculture and some service activities) is seen as a low productivity, low wage sector with a declining share of demand for its products and a large labour surplus which would be willing to move into the manufacturing sector without expecting a change in the wage differentials between the two sectors. Actually, this is precisely Kaldor's definition of the existence of surplus labour which is indicated if the following three conditions are true (they also correspond to the definition of a dual economy) (Cornwall, 1977, pp. 41-6).

1. The existence of a substantial number of workers willing to undertake mobility patterns between economic sectors (because of productivity and demand interacting to cause an absolute decline in the demand for agricultural labour).
2. A rather rigid inter-industry wage structure that persists in spite of the fact that members of the labour force are willing (and able) to move. This has partly to do with productivity growth and elasticities of demand for the output of the low wage sector. A narrowing of these differences would indicate the gradual exhaustion of surplus labour and, consequently, would predict a slowing down of the growth of the manufacturing sector, due to relative labour shortages, and the transition to maturity in the Kaldorian sense.
3. The existence of an allocative mechanism in the labour market that does not reflect some sort of equalisation of net benefits for workers (i.e. equalisation of wages or job opportunities). The latter condition is, in a sense, derived from the first two, especially the second one which stresses the importance of demand factors as far as the sectoral allocation of the labour force is concerned.

The Kaldorian theory is, therefore, based on the assumption of different sectoral characteristics and different rates of productivity growth by economic sector. The whole process of sustained economic growth depends on the transfer of factors of production, especially labour, from less productive to more productive uses. Capital formation is not considered so fundamental to growth, as long as with demand for output the driving force and availability of labour to manufacturing, capital accumulation will come rather as a consequence than a cause of growth (Kaldor,1968, p. 390). Output

growth in manufacturing causes a cumulative growth of employment and productivity because the manufacturing sector is subject to strong dynamic economies of scale (learning by doing). This, in turn will cause a faster transfer of labour from the surplus sectors to manufacturing and lead to a rise in productivity and output in manufacturing as well as the whole of the economy. Thus, the neoclassical growth theory where resources are considered to be efficiently allocated so that any transfers will cause no rise in productivity or output, since growth is balanced in all sectors and the vision of a world where decreasing or constant returns to scale prevail, is not compatible with the Kaldorian theory. Its basic points, i.e. that manufacturing is the engine of growth of the economy, that the growth of output, through dynamic increasing economies of scale, causes cumulative increases of both employment and productivity and the importance of surplus labour in the sense that the faster the transfer of labour from agriculture or other surplus labour sectors[1] to manufacturing, the faster the growth of the economy as a whole, can be very concisely summarised in Kaldor's three growth laws:

1. Kaldor's First Law

1.1 The Law

Kaldor's first law states that the rate of growth of manufacturing is positively related to the rate of growth of GDP, a proposition whose explanation does not just lie in the fact that, in the developed countries at least, manufacturing output constitutes a large proportion of total output, but in the existence of *"fundamental economic reasons connected with induced productivity growth inside and outside the manufacturing sector"* (Thirlwall, 1983, p. 345, and Kaldor, 1966, p. 3, 1968, p. 386). There are two main reasons behind the close correlation of the rates of growth of manufacturing output

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[1] According to Cornwall (1977, ch. 5), apart from agriculture, some forms of low productivity service activities (which are usually quite significant during the early stages of industrialisation) or migrant labour force, can also act as a pool of surplus labour. A measure of surplus labour is given by the growth of total employment plus the growth of agricultural employment (which is always negative). He concludes that most West European economies in the post war period had surplus labour reserves, which corresponds to the definition of the dual economy.

and GDP.

The first one is related to the fact that during the first stages of economic development when the industrial sector starts to expand, it is able to draw labour from the non-manufacturing sectors and especially from agriculture which is characterised by high levels of open or disguised unemployment, so that labour may be taken away from these sectors without leading to a drop of output and productivity in them (Lewis, 1954). This transfer of labour from agriculture to industry will be the faster, according to Kaldor, the faster is the growth of manufacturing output and the greater the gap between its rate of growth and that of the rest of the economy (Thirlwall, 1983, p. 346). Moreover, the greater the excess of the growth of manufacturing over non-manufacturing output, the faster is the rate of growth of the economy as a whole (Thirlwall, 1983 and Kaldor, 1966, p. 4).

The second reason is related to the existence of increasing returns to scale in the manufacturing sector, which are both static (related to the size of production plants) and dynamic. The dynamic ones are considered to be of greater importance by Kaldor, especially as far as his interpretation of the second law (Verdoorn's law) is concerned. The fast growth of manufacturing output leads to a faster expansion of technical innovations through investment and embodied technical progress (because normally, a fast growth of output will lead to favourable expectations concerning the growth of demand) (Cornwall,1977, p. 128). Furthermore, past levels of output and investment and fast growth will develop a "learning by doing" process and, consequently, greater efficiency in production.

1.2. Empirical Investigations of the First Law

The first law is usually expressed as the regression of total GDP growth on manufacturing output growth. Kaldor's estimates using a cross country sample[2] of twelve OECD economies, over the period 1952-1954 to 1963-1964, gave the following results:

$$GDP = 1.153 + \underset{(0.040)}{0.614QM} \qquad R^2=0.96$$

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[2] Kaldor chose his sample among twelve advanced OECD economies. These are: Japan, West Germany, Italy, France, Netherlands, Denmark, Austria, Canada, Norway, Belgium, United States, U.K.

where GDP=growth rate of GDP
QM=growth rate of manufacturing output and figures in parenthesis represent the standard errors of the coefficients.

The above estimates show a high correlation between the two variables. The coefficient of manufacturing output, indicates that an increase of 1% in the growth of manufacturing output will "cause" an increase of 0.6% in the growth of GDP, which is much higher, according to Kaldor, than would be explained by the fact that manufacturing output sometimes represents a proportion of total output as high as 40%, in certain developed countries (Cripps and Tarling, 1973, p. 21). The fact that the coefficient of the growth rate of output (QM) is less than unity in the above regression led Kaldor to assert that the faster the overall rate of growth of the economy, the greater is the excess of the rate of growth of manufacturing output over that of the economy as a whole (Thirlwall, 1983, p. 348, Cripps and Tarling, 1973, p. 21). In particular, growth rates above 3% characterise economies whose growth rate of manufacturing output exceeds the overall growth of the economy, while slow growing countries are characterised by a rate of growth of manufacturing output lower than that of the economy as a whole, as one may see from the graph of manufacturing output growth and GDP growth based on the regressions results (Cornwall, 1977, p. 125). According to others, however, this is not confirmed by the data, as long as the growth of manufacturing output exceeded the growth of the economy as a whole even in the slowest growing countries, over the period 1950-69 (Vaciago, 1975, p. 235). The correlation between the growth rate of total GDP and that of the excess of the growth of manufacturing over non-manufacturing output is tested in a regression equation of the following form, giving the following results (Thirlwall, 1983) which confirm Kaldor's views: (The same sample of countries is used).

$$GDP = 3.351 + \underset{(0.267)}{0.954}(QM-QNM) \qquad R^2=0.562.$$

where GDP= growth rate of GDP
QM =growth rate of manufacturing output
QNM=growth rate of non-manufacturing output

Kaldor interpreted these relationships as a proof of his belief that the growth of manufacturing output is exogenously determined by demand factors and, at least during the early stages of economic growth, not constrained by shortages of inputs.

According to Kaldor, such a causal relationship from sector output to total output, is only to be found in the manufacturing sector, which, for this reason, represents the "engine of growth" of the economy. Kaldor found virtually no correlation between the growth of agricultural output and GDP, and while there was a strong correlation between the growth of output in the service sector and the growth of GDP, he strongly argued that the direction of causation is different, going from the growth of GDP to the growth of output in the service sector. This is attributed to the fact that demand for services becomes more elastic as incomes rise and as the industrial sector expands and increases its demand for services as intermediate goods (Kaldor, 1966, p. 10-1).

A number of other authors have attempted to re-estimate the first of Kaldor's equations, using the same or different samples and estimation methods (although the most commonly used one is pooling cross section and time series data). Cripps and Tarling (1973) and Cornwall (1977), using the same sample of 12 OECD countries and a slightly longer estimation period, derive approximately the same results. McCombie and De Ridder (1983), perform a similar estimation using U.S state data for the period 1947-63 and their results are very similar to Kaldor's original cross-country ones. They also apply the first law to the service sectors of the 20 largest states and find a coefficient approximately equal to one. Gomulka (1983), estimates the first law using a sample of seven Eastern European countries and he ends up with a lower correlation (R^2=0.51) and a lower b coefficient (0.42), for the manufacturing sector, over the period 1955-75. Vaciago (1975) uses a semi-logarithmic form of the equation and estimates it for 18 countries[3]. He finds that while

> *"There is still a connection between rates of growth of manufacturing output and GDP...we have an excess of the rate of growth of manufacturing output over the rate of growth of non manufacturing output, even for countries with the lowest rates of economic growth (contrary to Kaldor's findings)"* (Vaciago, 1975).

Stoneman (1979) estimated Kaldor's laws using a time series analysis of the British economy over the period 1800-1970 and

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[3]Kaldor's original sample plus Greece, Portugal, Spain, Yugoslavia, Finland, Ireland and Switzerland.

he concludes that his results are not inconsistent with Kaldor's laws but neither do they provide strong support for them.

1.3. Criticisms and Modifications of the First Law

It is argued that econometric estimations of the first law may lead to biased estimates because manufacturing output forms such a large part of total output and that a more correct specification would be to regress the growth of non-manufacturing output on that of manufacturing output (McCombie, 1982, p. 282, and McCombie and De Ridder, 1983, p. 374). However, both specifications lead to approximately the same results, that is, they show a very high correlation between GDP or non-manufacturing output and manufacturing output, as indicated by the following estimates, with a sample of U.S state data (McCombie and De Ridder, 1983):

$$QNM = 1.142 + \underset{(0.080)}{0.550QM} \qquad R^2 = 0.824$$

Another explanation given for the estimated relationship between the variables, as well as a criticism of the cross sectional estimates used to test the first law, is related to the income elasticity of demand which differs with a country's level of per capita income. At relatively high levels of per capita income, demand for services rises relative to that for manufactured goods, which means that, from a cross country perspective, countries with lower per capita incomes will normally witness a faster expansion of their industrial sector in relation to their non industrial one, compared to countries with higher levels of per capita income. It is argued, therefore (McCombie, 1982, p. 283), that the relationship implied by the first law may be just a reflection of the pattern of demand between more developed and less developed countries and that it may be generated by the two outliers included in the sample, namely Japan, which experienced the fastest growth rates in the sample and was rapidly industrializing over the period, and the U.K which, suffering from "premature maturity" was experiencing the slowest growth rates in the sample and there was evidence that it was beginning to de-industrialise.

Another criticism against the implications of the first law, concerns the direction of causation in the regression of total GDP on the output of the different sectors. While Kaldor argues that the

growth of manufacturing output stimulates the growth of the economy and that the growth of output in the service sector is the result of the overall growth of GDP, Wolfe (1968, p. 118) argues that this is by no means certain because the regression of GDP on the service sector output shows a very strong correlation between the two variables as well, and one cannot conclude from the regressions about either the direction of causation or which one of the two variables has the most fundamental influence on the growth of total GDP.

2. Kaldor's Second Law

2.1. The Law

The positive relationship between the growth of productivity and the growth of output in the manufacturing sector is known as the "Verdoorn Law". The Verdoorn law was named after P.J. Verdoorn, who, in 1949, found a positive association between the growth of productivity and output in manufacturing industries (Verdoorn, 1949). In 1980, however, Verdoorn repudiated his law because he discovered that, while the initial specification of the law implied a constant relationship between output growth and productivity growth, in the short term at least, this relationship was not stable (Verdoorn, 1980). However, this repudiation of the law by Verdoorn does not necessarily lead to the repudiation of Kaldor's second law, also known as Verdoorn's law, because it is argued that Kaldor and Verdoorn gave different interpretations to the same relationship (Whiteman, 1987, p. 578). Kaldor argued that the productivity elasticity with respect to output was not constant, but a function of output growth. According to Kaldor, the Verdoorn relationship is related to the behaviour of productivity growth which is dependent on the growth rate of manufacturing production, because of the

> *"existence of economies of scale or increasing returns, which cause productivity to increase in response to, or as a byproduct of, the increase in total output...Productivity tends to grow the faster, the faster output expands... The level of output is a function of cumulative output (from the beginning) rather than of the rate of production per unit of time"* (Kaldor, 1966, pp. 10-1).

and also, the Verdoorn law is a

> *"dynamic rather than a static relationship between the rates of change of productivity and output, rather than between the level of productivity and the*

scale of output - primarily because technological progress enters into it and is not just a reflection of the economies of large scale production...it is a phenomenon peculiarly associated with the so called "secondary activities" - with industrial production, including public utilities, construction, as well, as manufacturing rather than with the primary or tertiary sectors of the economy" (op. cit.).

Output growth in manufacturing also causes the growth of employment in that sector. In fact, the faster the growth of manufacturing output, the faster the rate of growth of employment and the faster the growth of productivity in the manufacturing sector. Both employment and productivity are seen as resulting from the growth of manufacturing output, not the other way around (Kaldor, 1968, p. 386 and 1966, p. 7). The presence of dynamic economies of scale causing cumulative productivity growth, enables the manufacturing sector to have a high elasticity of supply in relation to demand, which leads to a further growth in employment and productivity in manufacturing and, through this, to a further growth in demand. This is how Kaldor understands the endogeneity of employment growth, as determined by output growth.

There are two ways to specify the Verdoorn relationship in Kaldor's view: One is the original Verdoorn specification, i.e. the regression of output growth on productivity growth and the other one is to regress output growth on employment growth. The two equations are mirror images of each other, since the growth of output equals the growth of employment plus the growth of productivity, and they should give similar estimates when applied to the manufacturing sector. The application of this empirical relationship to other sectors is indeed limited, according to Kaldor. The manufacturing sector is the only sector where the rate of growth of output is positively related to both productivity growth and employment growth. For example, in agriculture, productivity may grow faster than output and employment and productivity growth tends to be negatively rather than positively related to employment growth. In the tertiary sector, on the other hand (which, again, is seen as homogeneous), economies of scale are not so prominent and tend to be exhausted more quickly. (Kaldor, 1975, pp. 891-92 and 1966, pp. 16-8). According to Baumol (1967, p. 416), this has a lot to do with the role played by labour in each case, that is, whether it is considered as an instrument, as in manufacturing, or as the end product itself, as in the service sector. In the latter

case, productivity may not grow with decreasing inputs, unless the quality of the product is endangered (see also ch. VI for a more extensive analysis of this argument). Productivity may grow because of growth in consumption caused by the primary or secondary sectors, rather than because of economies of scale or technological change.

The Verdoorn law is considered to be very useful as far as employment implications are concerned by proponents of the Kaldorian theory; that is, one may calculate the Verdoorn elasticity (the elasticity of productivity growth in relation to output growth) and, given that productivity growth equals output growth minus employment growth, it would be possible to calculate how fast output would have to expand in manufacturing in order to absorb a given rate of growth of available labour (Whiteman, 1987, p. 586).

2.2. Empirical Investigations of the Second Law

The usual specification of the Verdoorn law by Kaldor is as the regression of the rate of growth of productivity on the rate of growth of output in manufacturing and of the rate of employment in manufacturing on the rate of growth of manufacturing output. Kaldor's estimates using the same cross-country sample of 12 OECD economies gave the following results.

$$PM = 1.035 + \underset{(0.070)}{0.484}QM \qquad R^2 = 0.826$$

$$EM = -1.035 + \underset{(0.070)}{0.516}QM \qquad R^2 = 0.844$$

where PM=growth rate of productivity in manufacturing
EM=growth rate of manufacturing employment,
QM=PM+EM and the rest of the variables as previously defined.

The Verdoorn coefficient which is found to be less than unity and around 0.5 in every case is enough, according to Kaldor, to establish the existence of strong increasing returns to scale. If the coefficient of the independent variable was close to one or zero in either specification, then it will also be close to one or zero in the other, since the coefficients of the dependent variable in the two equations add up to one. Therefore, there would be no correlation between the two variables in one specification and an indication of constant returns to scale in the other (Bairam, 1987). Each percentage addition to the growth of output is correlated with an approximate 0.5% increase in the growth of productivity and employment (Kaldor,

1968, p. 386, Rowthorn, 1975, p. 10 and 1975b, p. 897, McCombie, 1983 and Thirlwall, 1983, p. 350). In Kaldor's mind there is certainly no question about the direction of causation in the above regressions. It is the growth of output which is the exogenously determined independent variable and which causes cumulative increases in the growth of productivity and is only constrained by employment growth in manufacturing. Productivity and employment growth feed back to cause faster output growth in manufacturing which will continue for as long as the manufacturing sector faces no labour shortages. This is what led Kaldor to his first conclusions about the slow growth of the U.K. being caused by shortages of labour in the manufacturing sector.[4]

The Kaldorian specification of Verdoorn's law, in the form of a regression of output growth on employment growth has been subject to strong criticisms (see section 2.3) and controversies. Probably due to this, few authors have estimated the second law using Kaldor's second specification of it. Following Rowthorn's interpretation of the law, according to which manufacturing output growth is constrained by the growth of employment, most investigators have either estimated the original Verdoorn equation (which corresponds to Kaldor's first regression of manufacturing output growth on productivity growth) or Rowthorn's alternative regression of manufacturing employment growth on productivity growth.

Cripps and Tarling, (1973, pp. 23 and 29), have estimated Rowthorn's specification of Verdoorn's law, using cross country data for industrialised countries, showing that while the Verdoorn law holds until 1966, yielding a coefficient of manufacturing output equal to 0.5, which approximates the one found by Kaldor, in his initial regression of output growth on employment growth, after that there seems to be virtually no correlation between productivity and employment growth in manufacturing. The poor fit of the Verdoorn relationship after 1966 is indicated by an increasing unexplained variation of productivity growth in manufacturing, across countries, compared with earlier periods. After 1966, the correlation between the variables is reduced almost to zero. Several explanations have been forwarded for this phenomenon: Kaldor suggested that it could be

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[4]Later on he seems to agree with Wolfe's comments (1968), that this was not due to the exhaustion of surplus labour but rather to the lack of demand for labour which was due to a lack of demand (mainly export demand) for manufacturing output

attributed to changes in investment behaviour, and to the possibility that productivity increases are no longer generated by fast growth of the manufacturing sector as a whole, but from greater international specialisation in production. Several other explanations have been suggested, however, the most plausible and interesting among them being the following:

1) The Verdoorn relationship, works best when there is a stable relationship between capital and labour inputs over the estimation period. One of the reasons why the law might have broken down after 1966, is the instability of the capital-labour ratio, over time (Thirlwall, 1980, p. 388).

2) In cases where the various demand elasticities are high, the Verdoorn relationship exhibits a good fit because variations in the growth of demand will lead to increased responses of productivity growth and to a positive association between productivity and employment. If, on the other hand, demand elasticities are low, variations in the growth of output would be diminished and the result would be a negative correlation between the growth of productivity and employment. Therefore, the explanation for the poor fit of the Verdoorn law after 1966 could be that demand elasticities for manufactured goods were high until 1966 but have been decreasing since (Cripps and Tarling, 1973, p. 31).

3) Decreasing rates of output growth may not be governed by the same laws as increasing ones. In the short run, at least, it is possible that falls in output may be associated with large increases in productivity. In particular, slow or negative rates of manufacturing output growth (as was increasingly the case after 1966-70) means that the first firms to close down would be the less productive ones. This could very probably have a bad effect on the association between productivity and output (Michl, 1985, pp. 483-4).

4) There may have been a relative shortage of labour in manufacturing. The most successful producers may have been forced to find labour within the manufacturing sector itself, by competition in the labour market etc, in countries where the manufacturing sector was still achieving fast rates of growth. In this case, however, Kaldor's contention of premature maturity in the U.K., would not be so serious as it seemed, at the time, because the relative shortage of labour could be circumvented by a redistribution of labour within the manufacturing sector itself, that is, from less productive to more

productive firms (Cripps and Tarling, 1973, p. 32).

Various authors have attempted to estimate the Verdoorn equations and have come up with rather conflicting results. Apart from Cripps and Tarling's (1973) estimates, using Rowthorn's specification, which confirm Kaldor's at least up to 1966, Cornwall (1977) based on Verdoorn's original equation (Kaldor's first equation) and McCombie and De Ridder (1983) using U.S. state data, also came up with results that confirm Kaldor's. The last two authors also applied the second law to other sectors apart from manufacturing and found a poor fit. An attempt of the same authors to estimate Verdoorn's law using time series analysis yields satisfactory results although they seem worried that their equations may be miss-specified. Parikh (1978) attempts to estimate the second law using both Kaldor's and Rowthorn's specification within a simultaneous equation system (in order to determine, if possible, the direction of causation) and he also seems to agree with Kaldor. Kaldor's estimates for the first equation of the law are also substantiated by Vaciago (1975) who estimated the original Verdoorn equation for a sample of eighteen countries over the period 1950-69, although, as for the first law, he finds that a semi logarithmic form of the equation has a better fit. He also found however, that increasing returns had a tendency to "decrease" across countries, in the sense that they were less important in less developed as well as in rapidly growing advanced countries. Michl's cross sectional estimates using Kaldor's original sample over a longer period (1950-80) also substantiate Kaldor's conclusions for the first equation, although with a progressively poorer fit over time. Chatterji and Wickens (1982) and Stoneman (1979), the latter estimating both Kaldor's and Rowthorn's specification, both attempt a time series estimation of the Verdoorn law in the U.K.'s manufacturing sector over the period 1800-1970 and 1961-77 respectively and conclude that the relationship does not hold in the long run. Hildreth (1989), using a cross sectional sample of U.K. regions over the period 1970-83 tests both Rowthorn's and Kaldor's specifications and concludes that there is little support for either equation as a predicitve mechanism of productivity growth in manufacturing.

2.3 Criticisms and Modifications of the Second Law.

The second Kaldorian growth law has attracted numerous criticisms as to its specification and was the object of many vivid

controversies and modifications

The first criticism which should, be mentioned is that, it is believed wrong to regress productivity on output because Kaldor's measure of productivity is equal to the rate of growth of output minus the rate of growth of employment. It is argued, therefore, that if employment growth is very low, (combined with the fact that measurement of employment may be poor and subject to error), then the above specification amounts to a regression of the rate of growth of output on itself, which, clearly, may lead to biased estimates (see for example McCombie, 1982, p. 284, Cornwall, 1977, p. 127). The existence of a significant correlation between manufacturing employment and productivity growth (Kaldor's second equation) is considered (Cornwall, op.cit) to be an indication that the estimates of the first regression (output on productivity) may not spurious. There is a serious controversy, however, as to the specification of Kaldor's second equation of Verdoorn's law, concerning the endogenous or exogenous nature of employment and output growth in manufacturing.

According to Kaldor's interpretation of the Verdoorn estimates, the growth of productivity is only constrained by the growth of employment and growth may continue undisturbed so long as there are enough supplies of labour in agriculture or other less productive sectors of the economy. However, Rowthorn argues (1975, 1975b), that if the supply of available labour for industry's requirements is not unlimited (and in his view, this was the case in some of the countries included in Kaldor's sample), then Kaldor's second equation is wrong and the correct specification would be a regression of employment on productivity growth (PM=a+bEM), instead of Kaldor's twin specification which is correct only in the case of unlimited supplies of labour. Cornwall argues however (1977, p. 127) that if it is the growth of output that determines the growth of employment in manufacturing, then Rowthorn's specification would give even more biased estimates than Kaldor's second equation. On the other hand, Wolfe (1968, pp. 118-22) argues that in case output growth in manufacturing was labour constrained, it might be better to regress the growth of manufacturing output on that of employment; he also argues, however, that slow growth of employment in an industry does not necessarily mean a labour shortage in that industry as it may also mean a low demand for labour or for the products of that industry (as, we shall see in ch. II, this observation corresponds perfectly to the

situation prevailing in Greece). Kaldor strongly disagreed with both Rowthorn's and Wolfe's suggestion. In the first case (1975), he argues that it would be wrong to regress employment growth on productivity growth, since output and not employment is the exogenously determined variable. Furthermore, in his opinion, it is not necessary to have a significant positive relationship between manufacturing employment and productivity, for the Verdoorn law to hold. A sufficient condition for the presence of economies of scale is to have a significant positive relationship between employment and output. In relation to Wolfe's suggestion, he argues that it is inconceivable to have output as the dependent variable in a regression of output and employment (McCombie, 1980, p. 103), as long as it is the growth of manufacturing output which determines the growth of employment in manufacturing during the early and intermediate stages of development and is only constrained (but not determined by it) at much later stages of development, when the country approaches economic maturity (Thirlwall, 1983, p. 354).

Other criticisms of the Verdoorn law concern the fact that it has been usually estimated using cross sectional data and that, once Japan was omitted from the sample the fit was quite poor (Rowthorn, 1975, pp. 14-5). The presence of an outlier such as Japan was even accused of generating the observed relationship between output, productivity and employment. However, in response to this criticism, Kaldor re-estimated his equations without Japan and still found significant relationships (Hildreth, 1989). The use of time series data, on the other hand, may reflect short run cyclical variation of employment, productivity and output, instead of the long run trends (Okun's law) (McCombie, 1983, p. 421). In many cases, pooled data (cross-section and time series) have been used, in an attempt to get more reliable estimates. It is argued, however, that except in the rare cases when labour supply is either perfectly elastic (Kaldor's interpretation) or perfectly inelastic, single equation estimates of the Verdoorn relationship are likely to be biased, since employment and output growth rates may be jointly determined (Bairam, 1987). It has also been argued that the Verdoorn specification is just a mispecified Cobb-Douglas production function, from which the contribution of capital has been omitted (McCombie, 1983, p. 418). Kaldor strongly objects to this view, on the grounds that capital accumulation is a symptom rather than a cause of growth. There have been a few attempts to estimate the Verdoorn relationship

with the inclusion of a variable reflecting the growth of the capital stock or net investment. One of them is by Parikh (1978), who estimated the Verdoorn Law within a simultaneous equation model and another one is by Michl (1985), who argues that market growth may constrain technical progress and productivity growth and that the inability of industry to exploit economies of scale reduces the rate of productivity growth. He therefore, estimated an "augmented technical progress function" derived from the original Verdoorn Law, of the form: PM= a + bQM + cK, where K represents the growth rate of the capital/labour ratio in manufacturing and the other variables are as previously defined. Despite the fact that capital growth was found to be significant in certain cases, in explaining part of productivity growth in manufacturing, it did not, in general, greatly affect the fit of the original Verdoorn Law.

Another controversy arises from the fact that when levels of output are used to estimate the Verdoorn law, there is strong evidence of constant returns to scale, in both Rowthorn's and Kaldor's specification. When rates of growth are used, on the other hand, there is evidence of increasing returns to scale only in Kaldor's specification. This was called the Static-Dynamic Verdoorn law paradox (McCombie, 1982, p. 285) and it gave rise to arguments as to whether the static or the dynamic specification is more correct. Kaldor, however, strongly argues that the relation between productivity, employment and output is a dynamic one. The Verdoorn relationship, as Kaldor interprets it, stresses the importance of the rate of growth of output in determining the rate of growth of productivity rather than the level of output determining the level of average productivity (Cornwall, 1977, p. 126). In this sense, it might be the case that the dynamic rather than the static Verdoorn coefficient is unbiased, as long as the static specification may understate returns because of the omission of the dynamic components which are argued to be so important by Kaldor (op. cit.).

On the other hand, Rowthorn (1975, p. 11) and Gomulka (1983, p. 395) find that productivity differences among countries when cross sectional data are used, can best be explained by the existence of technological gaps and the subsequent diffusion of knowledge than by the Verdoorn relationship. Any closing of the gaps will produce an abnormal rise of productivity in the previously backward countries and this explains the fact that late comers to the development process

exhibit such fast rates of growth.

In spite of the numerous criticisms, however, suggesting that his specification of Verdoorn's law was subject to numerous statistical and theoretical problems, Kaldor did not change his view that his interpretation was the correct one.

3. Kaldor's Third Law

3.1 The Law

The third law which is derived from the other two, states that total productivity growth is positively related to growth of output and employment in manufacturing and negatively related to employment growth outside manufacturing (Thirlwall, 1983, p. 346). The theoretical foundation of this law lies in that as the expanding industrial sector attracts more and more labour from agriculture or other low productivity sectors, this leads to a rise of productivity in: 1) the manufacturing sector through increasing returns to scale and the Verdoorn law; 2) in agriculture as well, because as labour whose productivity was previously very low or equal to zero leaves, output per head rises for the rest of the labour force, which may even be induced to work harder. This causes productivity and output to rise for the economy as a whole (Kaldor, 1968, pp. 387-8, Cripps and Tarling, 1973, p. 25).

3.2 Empirical Investigations of the Third Law

According to Kaldor, the argument that the faster the rate of growth of GDP the faster the transfer of labour from surplus sectors (agriculture and services) to industry can be proved if it can be found that the overall rate of growth of the economy is positively associated with the rate of increase of employment in manufacturing. Kaldor's estimates, using the same sample, give the following results:

$$GDP = 2.665 + \underset{(0.15)}{1.066}EM \qquad R^2 = 0.828$$

which substantiate the hypothesis, unless there is a positive association between GDP growth rates and total employment growth. Kaldor, however, finds no such association.

$$GDP = 4.421 + \underset{(0.994)}{0.431}ET \qquad R^2 = 0.018$$

where ET represents the total employment growth.

Moreover, he succeeds in showing that, while total productivity growth is positively associated with employment growth in manufacturing, it is negatively related to employment growth outside manufacturing.

$$PT = 1.868 + \underset{(0.216)}{0.991EM} \qquad R^2 = 0.677$$

$$PT = 4.924 - \underset{(0.660)}{1.800ENM} \qquad R^2 = 0.427$$

$$PT = 2.899 + \underset{(0.169)}{0.821EM} - \underset{(0.387)}{1.183ENM} \qquad R^2 = 0.842$$

where PT= total productivity growth
ENM= growth of non-manufacturing employment.

He also found that total GDP growth and total productivity growth are negatively related to the growth of employment in the tertiary sector in particular. Despite the fact that services grow together with industry all along industrialisation, because as the industrial sector expands its needs for services as intermediate goods rise (transports, communications etc), the absorption of employment into the tertiary sector hinders the growth of GDP by reducing the potential supply of labour to industry.

The third law has given rise to much less controversy and discussion than the other two (especially the Verdoorn law) and therefore, not so many authors have taken the trouble to estimate it. Most of those who did, however, come up with results that do not differ much from Kaldor's original ones.

3.3 Criticisms and Modifications of the Third Law

Chatterji and Wickens (1982, p. 22) have tried to assess to what extent the transfer of resources from the non-manufacturing to the manufacturing sector raises the overall rate of economic growth. They suggest that account should also be taken of the role of capital. An alternative way to increase economic growth would be to channel new capital expenditures from the non-manufacturing to the manufacturing industries, as well as labour.

McCombie (1980, p. 111), on the other hand, makes the interesting suggestion, that, under the assumption of surplus labour, the growth of employment in the non-industrial sector is due to the

difference in demand for industrial employment and the growth of the labour force. He argues therefore that, as long as the growth in the demand for labour in industry was not large enough in relation to the growth of the labour force to cause a substantial net transfer of labour to industry, (an observation which, again, is perfectly compatible with the Greek case), "the key to the understanding of the differences in productivity growth lies in explaining the large differences between countries in the growth of the demand for output.

D. BEYOND KALDOR *** MATURITY AND DE-INDUSTRIALISATION

The Kaldorian theory of growth as summarised above, seeks to explain the rapid rates of growth which most industrialising countries witness at intermediate stages of development and per capita incomes and their subsequent relative decline at higher levels of both. It is obvious that all three laws on which the theory is based, only apply when industry is faced with "unlimited supplies of labour", at the prevailing wage differential. However, as the economy grows, there comes a time when employment in agriculture, as well as in the informal, low productivity service sector which also serves as an alternative pool of labour, shrinks to such a low percentage of total employment, that it can no longer serve as a pool of employment for the industrial sector, which may start facing a shortage of labour. Consumer demand which used to be very elastic for manufactured goods at lower levels of development and per capita income, is assumed to become more elastic for services than for manufactured goods. The tertiary sector which was growing all along together with industry at the expense of agriculture, begins to expand at the expense of the industrial sector, absorbing the labour shed from industry into new jobs, in order to satisfy increased demand for services. According to Kaldor, this is an inevitable consequence of growth which comes about at high levels of development and per capita incomes.

Economic "maturity" is defined as that stage of development when per capita earnings are equalised in all the sectors of the economy and it is no longer possible to raise total productivity and output by transferring labour (and resources in general), from less productive to more productive uses (Kaldor, 1968, p. 385). The timing of this may vary from country to country but is believed to be around $ 4,000 U.S. of per capita income (at 1975 prices), when agriculture employs approximately 5% of the total employed population (Rowthorn and Wells, 1987, p. 213).

Economic maturity is usually accompanied by a process of de- industrialisation in the country in question, which is defined as a falling share of industry in total employment and/or output (Blackaby, 1978). Despite the fact that, in accordance with the reasons mentioned above referring to particular characteristics of the manufacturing sector, a fall in the share of industry should normally give rise to serious fears about the continuation of an economy's

sustained growth process, the phenomenon of de-industrialisation should be of no particular concern, for countries who have managed to industrialize successfully. In such cases, per capita incomes will normally continue to rise and full employment will be maintained, as long as the expanding tertiary sector will provide new jobs to absorb all the labour which can no longer find employment in the secondary sector (Rowthorn and Wells, 1987, p. 213).

This shift in the employment structure has been normally attributed to the changing structure of demand in favour of services, at higher levels of per capita income. Empirical observations of expenditure and output by sector across different countries and over time however, have shown that expenditure and output of the service sector seem to rise in relation to industry, only when measured at current prices. When measured at constant prices, both expenditure and output of the industrial and service sector seem to indicate a remarkable constancy and stability through time (Fuchs, 1968, p. 37, and Rowthorn and Wells, 1987).

The rise in demand for services as intermediate goods, on the other hand, on the part of the industrial sector, as the latter expands (eg. transport and distribution services, financial services etc), is not enough to account for the impressive increase of the share of the service sector in the total employment of most West European countries, especially during the last two decades. This is attributed to the difference in productivity growth between the two sectors. Because of the Verdoorn relationship and increasing returns to scale in industry, productivity there rises faster than in any other economic sector. Given the observation that the ratio of the output of the service sector to that of the industrial sector remains approximately constant through time, when measured in constant prices (op. cit), the service sector will have to absorb a constantly rising share of employment in order to keep its output growth in pace with that of the industrial sector. As a result, the price of services will rise in relation to that of manufactured goods and if measured at current prices, this will give the impression that both output and expenditure shares rise for the sector of services. Despite the fact that demand elasticity does rise for services at higher levels of development, this substitution effect between industrial goods and services is offset, in a way, by the income effect resulting from the rising relative prices of services (Fuchs, 1968, p. 4). The

consequence is constant shares of output and expenditure between the two sectors over time.

> *"With differential productivity growth, the pattern of employment will shift away from the most dynamic sectors towards those in which productivity is rising more slowly"* (Rowthorn and Wells, 1987, p. 15).

The possibility is suggested (Gershuny and Miles, 1983, p. 42) that this productivity gap between the two sectors and the resulting relative price rise of services will, eventually, generate pressures for technological innovations in the tertiary sector (either as applications of new ideas or in the form of "mechanisation" of services by the use of new industrial products, e.g. computers.) In the long run, this may result in a rise in the growth of productivity in the latter and the flow of employment from industry to services might again be reversed.

In the Kaldorian theory, maturity and de-industrialisation (defined as a falling share of manufacturing in output and employment) appear as logical consequences of growth, related to high levels of economic development which, on their own, need not endanger the further growth of the economy, even though the latter will probably be slower than before. However, de-industrialisation may occur at any stage of economic development, although for different reasons. According to Rowthorn and Wells (1987, pp. 60-2), one reason may be greater international trade specialization. A country which witnesses autonomous improvements in certain non-manufacturing sectors of its economy, or disposes of a comparative advantage in such sectors as tourism or services and primary branches, in general, may decide to concentrate most of its resources in the production of such goods, specialize in exports of such goods and use the receipts in order to pay for its imports of the manufactured goods it requires. Although this, naturally, entails the deterioration of the manufacturing sector of the country in question, it need not endanger its external balance or its future growth (ceteris paribus). Indeed, it would seem slightly irrational for such a country to specialise in producing and exporting heavy industrial goods, when it would be so much easier for it to exploit those sectors in which it has a comparative advantage over other countries. (On the other hand, it would also be unwise for a country to specialise in a sector that does not seem to have any

dynamic growth potential).

De-industrialisation, however, may also occur because of a country's economic failure (op. cit., p. 220). In this case, the industrial sector of the economy is facing a series of serious problems; among other things, (e.g. deficient industrial structure, inefficient production techniques, lack of competitiveness etc), or, to be more specific, as a consequence of these, it is unable to maintain full employment by absorbing labour from agriculture. For a variety of reasons, demand for labour in industry is very low; unemployment rises as labour is shed from industry; industrial employment may decline in absolute numbers as well as a share in total employment; industrial output declines or remains constant, and productivity rises very slowly or remains constant as well. A large part of the labour force leaving agriculture, moves into the tertiary rather than into the manufacturing sector. The service sector increases its importance at the expense of industry as well as of agriculture but is unable to generate enough new jobs to absorb all of the labour shed from the other two sectors. Productivity growth in services, usually rises at very low or even negative rates, as well.

The Kaldorian theory of growth is based on the role of manufacturing; it therefore mainly refers to countries which have already accomplished industrialisation or are in the process of doing so. Countries such as Greece, which have aimed at industrialisation but have failed to achieve it, hardly fit this framework as it is. Generally speaking, the Kaldorian theory is quite specific in terms of the assumptions it is based on and the preconditions a certain country should fulfill for growth to occur. Applying this theory to a country such as Greece, whose particularities we will discuss in the following chapter, perhaps requires several modifications and certainly further discussion.

E. CERTAIN MAIN ASSUMPTIONS UNDERLYING THE KALDORIAN THEORY OF GROWTH *** CONCLUSIONS

1. One of the main assumptions on which the Kaldorian approach to economic development is based, is the existence of large supplies of labour in the non-industrial sectors of the economy. The non-industrial sectors, in Kaldor's view, comprise mainly agriculture (as well as some low productivity personal services), which, as mentioned above, is the main source of surplus labour for the expanding manufacturing sector, during the early stages of development, because of its high levels of disguised unemployment and low productivity. While this assumption was probably valid as far as the Western European countries were concerned at the start of their industrialisation, agriculture should not be seen as the only source of surplus labour in an economy. In many countries of varying levels of development, large proportions of the population are either unemployed or fully or partly employed in various sorts of low productivity activities, generally listed under the heading of "other activities", related to the service sector, such as for example, shoe polishing, car windscreen washing, domestic services etc. There is also the possibility of an increase of the labour force through the addition of people who wouldn't work under different circumstances, but do so due to the increase in wage levels and the existence of job vacancies unfilled (e.g. women, teenagers, people who have retired). These categories could serve as alternative sources of surplus labour, as employment shifts away from agriculture, at the early and intermediate stages of development, provided that demand for labour in the growing industrial sector is high enough to absorb it.

2. While surplus labour will almost certainly exist in some sector or sectors of the economy at any stage of development, it should somehow be ensured that the newly developing industrial sector adopts methods of production which take advantage of the existence of such resources. If, for a variety of reasons (e.g. imitative of foreign industrialisation patterns, legislative or others), the use of capital appears to entrepreneurs to be relatively cheaper or more profitable than the use of labour, demand for labour in the industrial sector may not be enough to absorb all of the employment shed from the lower productivity sectors.

3. The Kaldorian approach to growth is mainly demand oriented and as

such tends in certain cases to over stress the role of demand factors for economic development and partly ignore the role of supply factors. Investment expenditure, for example, is seen as the basic channel through which technological changes enter the economy and enable the industrial sector, in particular, to exploit increasing returns to scale. It is usually seen, however, as responding passively to changes in demand for output, as long as

> *"...if demand is effective, there will be an augmentation of resources, both labour and investable resources,...the growth of the labour force, capital accumulation and technical progress must be regarded as largely endogenous to an economic system, dependent on the strength of demand for a country's products"* (Thirlwall, 1983, p. 343).

While it may be true that supply adjusts to changes in demand and that investment rises automatically to enable increased production, one must not forget that the supply of production factors is necessary, even though permissive, for growth to occur and that, therefore, investment supply must also be forthcoming, for investment to take place. It is argued (Boltho, 1982, pp. 11-5) that, during the postwar period, the European countries were in an advantageous position as far as investment was concerned, because the U.S.A. acted as a "vast reservoir of cheap and abundant technology" which stimulated new investment. In relation to this point, however, a question which requires an answer is, why certain countries, systematically take advantage of available technology to much higher degrees than others, that is, why the diffusion of knowledge is not carried out in a uniform way across countries. One could argue, in relation to this point, that, in order to take advantage of available technologies, a country must posses a minimum level of education and technological know how. If there are large differences in this, among countries, then some countries may not be able to exploit new technologies, even if the latter are available. Another point, related in particular with countries at early or intermediate stages of development, is that for sustained investment to take place, the income distribution must have changed in such a way as to place a large proportion of income in the hands of people willing and able to invest it; also, a fairly developed network of banks and financial institutions must exist, so as to provide a channel through which the money may easily flow from those who have it to those who wish to invest it. This, however, may be somewhat of a problem in less developed countries, as it raises, on the other hand, the problem of "entrepreneurship".

4. The growth of an economy is sometimes viewed as a self perpetuating process, once started; reality has indicated that this is hardly the case. Among other things, the appearance and continuation of growth requires the "existence and successful activity of a social group prepared to accept innovations" (Rostow, 1971, p. 50). In many of the Western European countries, this problem was mainly economic and, "once the economic incentives for industrialisation came into existence, commercial and banking groups moved easily into industrial entrepreneurship" (op. cit., p. 51). In other countries, however, the development of adequate entrepreneurship represents a deeper social process, as long as *"a group must come to perceive it as both possible and good to undertake acts of capital investment"* (op. cit.) The question then arises as to why there are so large observed differences in the existence and efficiency of "entrepreneurship" among countries. Apart from the fact that favourable expectations of entrepreneurs are crucial at any stage of economic development, an additional problem is that of personal attitudes as well as of centrally determined directives and goals. The fact is that individual and social welfare do not always go hand in hand and that in certain cases there may be a dichotomy between the profit maximising decisions of individuals and welfare maximising goals for the economy as a whole.

The Kaldorian theory of growth, although solid and comprehensive theoretically speaking, is in a sense self-constrained. In particular, although certain references are made to countries at lower levels of development compared to the Western European ones, in the Kaldorian approach to growth, no specific attempt is made to modify the analysis so as to take into account the particular structural differences and characteristics of these economies. In a sense, the fact that the theory is based on specific characteristics, related, among others to the structure of demand for goods as well as for labour, to periods of fast rather than slow growth, and to a particular view of the pattern and sequence at which the growth process takes place, which applied to the now industrially developed Western European countries in the 1960s but may not necessarily apply to different countries at different points in time, may invalidate the general applicability of the theory as it was initially developed. Whether this should be seen as a sign that the context of this theory is not applicable to countries such as Greece, will be examined in the following chapters.

CHAPTER II

A BRIEF ECONOMIC HISTORY OF GREECE

A. INTRODUCTION

Having discussed the Kaldorian theory of growth in the previous chapter, we shall now proceed with a brief analysis of the Greek economy, with particular emphasis on the period after the Second World War. Since the Kaldorian growth theory refers, mainly, to industrially developed countries and, furthermore, since Greece hardly qualifies as such, a few theoretical points should be made clear before further proceeding with the analysis.

Economic growth and development is a long, continuous, painful and uncertain, as to the final outcome, process for the countries involved. It should not be seen as a compact, rigid and predetermined succession of events but as consisting of a series of "turning points" or "periods". This, at least, is the concept generally used in economic theory, for analytical purposes, that is, in order to define so called "patterns of development". The most important of these analytical stages is, probably the "take-off stage". The importance of this stage may be justified by the fact that it represents the point of transition of a certain economy from the underdeveloped agricultural society it used to be to the group of the so called developed and industrialised nations.

During the take-off stage, traditional and old fashioned economic and social structures (Rostow, 1971, pp. 7-9) are gradually abolished and their place is taken by new and dynamic ones. Take-off is the stage during which the bases for further economic development are set and the structural characteristics of any such further development begin to stand out. The take-off stage is a point of crucial choices for policy makers as well as the economic agents involved, as far as the future economic performance of the country is concerned; whether these choices are conscious or unconscious, they will greatly contribute to determining whether the country in question will finally be able to "make it" or not. It is at this particular stage of development that the potential future "leading sectors" of the economy start to emerge, that is, those sectors which will be expected to act as the "engine of growth" of the economy and pull the vehicle of economic development.

The take-off stage is, therefore, crucial because the whole economic future of the country depends on certain decisions concerning

the choice of those potential leading sectors. A wise choice of the latter (either by the government or by private economic agents) is immensely important because a country making its first steps towards economic development, usually faces limited funds and productive resources and cannot afford to waste them in uses that contain limited or no growth potential. On the contrary, it should be careful to channel and concentrate them, as much as possible, into those sectors and branches of economic activity where it already has or believes that it might have, in the near future, a comparative advantage. Naturally, this would be much easier to implement in a planned rather than in a market economy. Furthermore, because it is believed that all leading sectors eventually reach a point of saturation where they can no longer act as "engines of growth" and must give their way to new and more dynamic ones if the process of economic development is to continue undisturbed (Rostow, 1971, and 1978), the original sectors in which a country concentrates its resources must possess, besides other characteristics which establish them as leading sectors, strong backward and forward linkages with other sectors (Chenery et.al, 1986, p. 240, Cornwall, 1977, p. 130), which will enable them to pull along other parts of the economy as well; they will, thus, prepare the ground for new leading sectors to succeed them when the time comes. If these linkages are absent, however, the "leading" sector will grow for a time on its own, isolated from the rest of the economy and when, as it eventually must, it reaches its saturation point, there will be no other sector ready to take its place as an engine of economic growth.

The time at which a country finds itself at the point of take-off into self-sustained industrial development, depends on a variety of endogenous and exogenous factors. For most of the countries of W. Europe this stage was reached before World War II. For the U.K. it was triggered off by the industrial revolution and the use of steam power; for Germany it was marked by the middle of the 19th century. In the case of Greece, the relevant literature unanimously suggests that the take-off period coincided with the years after the end of World War II. The logic of this argument is that, if take-off was reached at some time, this could only have been when, after a long period of economically and politically turbulent years, the nature of economic progress and the structural characteristics of the Greek economy became clear. Therefore, if one is interested in analysing the present

situation of the Greek economy as a result of events that took place during the take-off period, one should concentrate mainly in the postwar years. This would facilitate the task of answering certain questions as to how and why economic development took the forms it did and how and why Greece came to present today a series of structural particularities from which it seems unable to escape and which seem peculiar, to say the least, given its stage of development and per capita income.

However, as already mentioned, economic growth is not something compact that happens overnight, but depends on a series of interrelated events. Despite the fact that the take-off stage is of particular importance, it does not represent the beginning of economic growth, but an intermediate stage, as long as its nature depends on the characteristics of previous stages during which the preconditions for take-off were set. Therefore, in order to understand the post war take-off and the economic evolutions following it in Greece, a short background survey of the prewar period would first be helpful.

B. The PREWAR PERIOD

1. Turkish Occupation and Liberation

The Turkish occupation, lasted almost four centuries (15th-19th), and effectively isolated Greece from the evolutions taking place in the rest of Europe, especially the transition from feudalism to capitalism and the industrial revolution marking the beginning of capital formation in industry for most Western European countries.

The 15th century represents the "golden century" of the Ottoman Empire (Mouzelis, 1978, p. 18). The strong central authority of the Sultan prevented the development of a powerful class of land aristocrats by establishing an extremely limited control of their part over the small producers (a fact which naturally favoured the latter). Ownership of the land was organized on a different basis, in comparison to the Western European countries, according to which all land was theoretically in the possession of the Turkish government but, in reality belonged to the peasants provided that they systematically cultivated it (Vergopoulos, 1975, Mouzelis, 1978, p. 19).

The first capital formation in Greece took place during the 16th century and was mainly achieved because of the trade developed by the Greek merchant fleet; this facilitated a very modest development of the handicraft activities which, by the early 19th century contributed around 30% of GDP (Nikolinakos, 1976, p. 26).

After the revolution of 1821 and the liberation of the country, Greece continued, at least for the first fifty years of its independence (1830-1880) to be an intensively agricultural country with insignificant capital formation and a nonexistent industry. Any light industries which had been partly developed during the Turkish occupation had, in the mean time, lost all competitiveness after the industrial revolution in Britain and the use of capitalistic methods of production in industry. The secondary sector consisted mainly of handicraft. Until 1900, Greek exports consisted of agricultural products, especially grapes, figs, lemons and wine, while imports consisted of food and other light consumer goods (Lambos, 1983). Even at the time, the Greek balance of payments was constantly in deficit, as long as exports only managed to cover around 40-50% of imports (Nikolinakos, 1976, p. 34), and the resulting debt was covered by

international borrowing. The resulting inability of the country to pay its debts led it to a declaration of bankruptcy. The main powers of that era (France and Great Britain) where Greece was mainly borrowing from, imposed the "International Economic Control" to the country (mainly referring to the exploitation of state monopolies such as salt and matches) in order to ensure repayment of the loans.

The gradual expansion of the Greek state with the addition of Northern Thessaly, Epirus, Macedonia and Thrace, in the period 1870-1915, following the liberating wars against, mainly, Turkey, almost doubled the Greek territory and population. The impact of this expansion, though, on the structure of the Greek economy was minimal, if any. Most of these new territories were almost exclusively agricultural areas with no industrial base (Vergopoulos, 1975).

The large land properties created during the Turkish occupation were in the first place sold to Greek landowners and after a long and bloody struggle of the peasants were finally distributed to them. This agricultural reform resulted in very small lots because of the large number of claimants (peasants plus refugees from Asia Minor) which led to very low agricultural incomes, over-borrowing on the part of the farmers from the banks (the National Bank of Greece at first and the Agricultural Bank later on), and finally to the loss of the land properties and to internal and external migration (Vergopoulos, 1985, p. 279).

Despite the gradual integration of the Greek economy into world markets, which is indicated in Table II.B1, pre-capitalistic methods of production continued to prevail both in agriculture and industry.

The great bulk of the existing wealth was in the hands of tradesmen who preferred to channel it into trade and commercial activities to which they were used and where profits were safer, rather than go for the risk and unsafe returns of industrial investment.

The end of the 19th and the beginning of the 20th century were marked by a doubling of both the area and the population of the country, as a consequence of the Balkan Wars and the First World War. Together with a relative development of transport networks this led for the first time to the integration and expansion of the domestic market, which represents a basic precondition for the development of either agriculture or industry. At the same time though, the

liberalisation of certain areas and the consequent detachment from the other Balkan markets (especially the Turkish one) simply meant a very difficult and quite uncertain integration.

Table II.B1: Greece's trade with other countries (in % shares).

	1913		1921		1922		1925		1936-38	
	I	X	I	X	I	X	I	X	I	X
U.S.A	1.6	7.8	22.8	18.4	21.9	26.6	23.2	26.6	6.2	15.9
U.K	23.9	23.9	17.0	21.2	14.4	17.0	15.6	7.0	13.3	10.0
ITALY	3.6	3.2	9.0	5.6	8.9	8.3	9.6	16.8	2.2	4.4
GERMAN	7.5	10.2	4.9	14.8	6.0	21.1	7.2	16.4	26.2	35.3
FRANCE	5.9	11.4	7.8	3.1	6.5	5.0	8.0	5.4	1.7	2.9
BELGIUM	1.2	4.3	3.1	1.4	3.3	1.0	3.4	2.0	1.0	1.4
NETHERLANDS	2.5	8.0	2.6	6.8	1.8	6.0	2.4	3.6	2.2	2.8
RUSSIA	19.9	2.4	0.3	---	---	---	0.8	--	2.9	0.6

I=Imports
X=Exports
Source: Nikolinakos, 1976, p. 59.

At about the same time, the government started playing a more active role as far as the economy of the country was concerned and took the crucial decision that Greece must industrialise. Agriculture was seen as the supplier of both primary products and surplus labour to industry, a process which was ensured by policies of low agricultural prices which would at the same time create cheap living conditions for the workers in the cities and would thus lead to low labour costs (Lambos, 1983). A desperate struggle began to acquire foreign capital in order to aid industrial development, mainly through loans and the encouragement of foreign investment (especially from France and the U.K.). This marks the beginning of Greece's gradual integration to W. Europe, as well as a long story of economic and political dependence from abroad (Fotopoulos, 1985).

2. Industrialization During the First Half of the 20th Century

In the first years of the 20th century, the situation in Greece appeared as follows:

The agricultural sector was still the most important one (raisins being the main export). On the other hand, the increase of the Greek territory and population which continued into the 1920s with the destruction of Asia Minor and the crossing over to Greece of a large

number of refugees, coinciding with the final definition of the Greek national borders, after the addition of W. Thrace, the development of the railways and the enlargement of the population in the cities as the result of internal migration, had resulted in a relative expansion of the domestic market. Some of the earnings through trade and commerce as well as part of the foreign capital already flowing into the country began to be timidly invested in industry (Delivanis, 1965, pp. 121-5). However, due to the fact that industrialisation was slow and, in the meantime, the problems faced by the peasants in the countryside were intensified, a large number of them started to migrate abroad, mainly to the U.S.A.

In 1923, after the war and defeat in Asia Minor, the Agricultural Issue was finally solved with the Second Agrarian Transformation (Christodoulou, 1987). The vicious circle (small lots, low incomes, emigration) continued though, despite the modest development of agricultural cooperatives.

With the arrival of the refugees from Asia Minor, the peasant Greek population was enriched with elements of entrepreneurship and some managerial skills, despite the fact that most of them were merchants and demand for capital to be invested in industry began to rise. A number of small local banks was created whose main function was to finance investment for the creation of new small labour intensive, light consumer goods industries (Nikolinakos, 1976, p. 49). Although this led to an initial development of the financial and banking system and resulted in a relative expansion of industry, it also led to the beginning of a long term dependence of the latter on the former. On the other hand, despite the relative progress of industrial development, most of the industrial production continued to be realised in handicraft type industries using outdated production methods.

In the meantime, the Greek government was actively taking part in the attempt at industrialisation, both directly and indirectly. In the first place, from 1830 onwards, it followed a policy of strong tariff protection of the economy from foreign competition, both in order to increase its revenues as well as to protect the development of agriculture and of the infant Greek industry (Babanasis, 1985, p. 44). Until World War II Greece was trying to follow a policy of self-sufficiency, relative import substitution and orientation of the Greek industry towards the home market. This policy was followed, more

or less, all through the period but especially after the outbreak of the economic world crisis of the 1930s . Another source of revenue for the Greek government was taxation, especially indirect taxes which, for a variety of reasons (institutional inefficiency of the tax authorities, tax evasion e.t.c.) seem to be more easily applied and accepted in underdeveloped countries than direct taxes. The ratio of indirect to direct taxes rose through the whole of the interwar period.

Whatever industry was developed in Greece in those early years after World War I, consisted solely of light industry, mainly food processing and production of other consumer goods such as textiles, leather and tobacco (Delivanis, 1965, pp. 121-5, Vergopoulos, 1975). Between 1913 and 1924, capital formation in Greece became quite significant and originated mainly in emigrant remittances and high profits which were mainly invested in industry. The constant devaluation of the drachma (in real terms) after 1920, the governmental policy of tariff protection and the increasing number of entrepreneurs boosted Greek industrialisation whose rates of growth kept increasing until 1939, when domestic industrial production covered about 81% of the domestic demand for industrial consumer goods.

Table II.B2 Increase of secondary sector's production (1924-39). (1938=100)

1924	48	1932	61
1925	50	1933	66
1926	50	1934	76
1927	56	1935	76
1928	59	1936	84
1929	61	1937	91
1930	63	1938	100
1931	65	1939	106

Source: Nikolinakos, 1976, p. 54.

During the 1910s and over the whole intra war period, Greece evolved from an agricultural country to one in which industry was quite important and accounted for 18% of GDP and 15% of the total active population, in 1940. Between 1880 and 1930, the growth rate of the manufacturing sector was the fastest in the economy, probably because of the very low starting point of the Greek manufacturing sector (Vergopoulos, 1975, Fotopoulos, 1985). However, Greece was proving

unable to develop its heavy industry. Foreign capital continued to flow into the country and was invested mainly in works of infrastructure, quarrying, banking and trade. Tobacco trade, which was by then the first export sector of the country, was over 80% under the control of foreign capital which is indicative of the measure of dependence of the Greek economy from abroad (Delivanis, 1965, Nikolinakos, 1976, p. 56). Any loans that the Greek government managed to secure from abroad at unfavourable conditions were not productively invested but served to pay off previous loans or for military purposes.

Greek trade was heavily dependent on agricultural products, mainly tobacco and grapes, although the world-wide crisis of the 1930s was a hard blow to agricultural exports. Because of the very restricted type of Greek exports as well as the low price elasticity of export demand for agricultural products, the Greek balance of trade was very vulnerable to external shocks and continued to be in deficit (which got progressively worse) over the whole of the period, due to a growing difference between imports and exports, while industrial exports continued to be insignificant until well into the 20th century. Greek imports consisted mainly of food, textile yarns (because of the development of the Greek textile industries), basic metals and chemicals, which Greece exported, in part, as primary products and reimported them transformed to intermediate goods (Triantis, 1965). Although the distribution of imports seems to be indicative of industrial development, it also indicates that Greek industrialisation was solely confined to light industry, while heavy industry was too underdeveloped to cover domestic needs. This was, in broad terms, the situation of the Greek economy before the outbreak of World War II.

3. The War and the Reconstruction Period

The second World War left Greece literally in ruins. Industrial production fell to almost one third of its prewar levels, the transport network was almost completely destroyed, unemployment rose and inflation was so high that the quantity of money rose by 5,000,000 times! (Babanasis, 1976, p. 74). The civil war which broke out immediately after the end of World War II multiplied the destructions and prolonged the war period for Greece up to 1949, thus

delaying its reconstruction. Only in 1951 did Greece manage to reach the development level it enjoyed in 1939 (Ellis, 1965, p. 230).

After the end of the war, Greece's major economic target (both as far as the government was concerned, as well as a general public consensus) continued to be its industrialisation, although other pressing problems included the provision of the Greek population with food and housing as well as the reconstruction of the transport network. The capital needed for the implementation of these plans was partly provided by the Marshall plan.

In the meantime, the rural exodus, accelerated because of the war, continued and the peasants arriving into the cities were absorbed at satisfactory rates, in the beginning, by industry, handicraft, commerce and some service activities. This also resulted in a fast growth of the tertiary sector, whose average growth rate rose to 4.7%, in the period 1950-1960.

Investment rates in the Greek economy rose during the first post war years and reached 13% of GDP in 1948, 17% in 1950 and 26% in 1960, thus approximating investment shares in more developed countries (Nikolinakos, 1976, p. 73). However, what was slightly unsettling was not the level of investment but its distribution among the various economic sectors. While investment did not rise in agriculture, it fell in manufacturing and more than 50% of total investment was absorbed in the sectors of constructions-housing and transport (Negreponti-Delivani, 1985, pp. 74-83).

Despite the fact that investment in housing was certainly necessary after the war destructions, it was nevertheless abnormally high compared to that corresponding to other European countries as well as Greek industry. Given the limited resources which are almost always faced by a developing country, this excessive investment in housing proved to be a negative factor for the necessary investments in infrastructure and transport which would facilitate the preparation of the Greek industry for the high rates of growth it enjoyed after 1960. One could say, therefore, that investment in housing slowed down the industrialisation process.

Fixed capital investment in manufacturing increased from about 10% of total investment in the period 1948-1952 to 12.3% in 1953-57 and decreased to 11.1% in 1958-1961 (Nikolinakos, 1976, p. 80). This resulted in the inability of the manufacturing sector to

increase its absorption of labour and as long as peasants kept leaving the countryside because of the unfavourable conditions they faced there, the result was an increase in overseas migration and the further enlargement of the service sector.

Table II.B3 Distribution of investment (%) among sectors 1950, 1955

	1950	1955
Agriculture	11.0	11.5
Manufacturing	15.2	13.8
Transport	24.5	22.0
Housing	31.9	31.8

Source: Nikolinakos, 1976, p. 73.

In 1953 the government proceeded to a 50% devaluation of the drachma with respect to the dollar. At the same time a new legislative framework encouraging foreign industrial investment in the country was adopted (Roumeliotis, 1978). Greece suddenly shifted from a policy of partial import substitution to one of export orientation and was faced with harsh foreign competition. While exports increased in the short term, domestic industry, which was unprepared for such a competition, lost the chance to set the bases for self sustained growth and avoid foreign dependency. Greek investors still continued to prefer branches of consumer goods and light capital goods and domestic industry was still orientated to the production of such goods for the covering of domestic needs. It, therefore, left the heavy industrial branches to the exploitation of foreign investors who, encouraged by the new favourable laws concerning foreign investment, started inserting themselves and progressively controlling vital sectors for the further development of the country. Tariffs and other barriers to imports only covered the goods which could be produced in Greece at the time. This resulted in imports of intermediate goods to rise, increasing the structural deficit of the balance of payments. In this way, despite the fact that, in a sense, the war could have acted as a catalyst for the abolition of traditional and old fashioned industrial structures, the post war Greek economy proved unable to set the right bases for its take-off and for a subsequent self sustained growth.

C. THE GREEK ECONOMY IN THE YEARS OF ECONOMIC PROSPERITY

1. The Characteristics of the Postwar Economic Growth in W. Europe

The years after the end of World War II, especially the period 1953-73 were marked, for all the countries of Western Europe, by impressive rates of growth of GDP in relation to previous years, as shown in table I.A1.

These fast rates of growth came as a result of two factors mainly, the first one being the sharp increase of demand for consumption and investment, as a consequence of the needs not satisfied during the long war period and the second one consisting of a process of structural change within the Western European economies. A main characteristic of this change was the rapidly rising importance of the secondary sector of production, especially manufacturing, both as a share of total employment as well as GDP of the economies concerned, while, at the same time, the corresponding shares of agriculture in total employment and GDP were rapidly decreasing. The changing percentage shares of the three economic sectors in GDP and employment in the EC-9 over the period 1950-1980 may be seen in the following tables:

Table II.C1: Percentage shares of employment per economic sector in the EC (1950-1988).

	1950	1960	1970	1980	1988
Agriculture	25.00	16.49	9.69	7.43	6.47
Industry	41.50	45.34	45.79	38.55	30.96
Services	33.50	38.17	44.52	54.02	62.57

Source: ILO, Annual Labour Statistics, various issues.

Table II.C2: Percentage shares of GDP per economic sector in the EC (1950-1988).

	1950	1960	1970	1980	1988
EEC-9					
Agriculture	16.8	12.4	5.5	4.1	3.8
Industry	41.3	44.8	48.00	43.8	41.2
Services	41.9	42.8	46.5	52.00	55.0

Source: 1) Donges, 1982.
2) OECD, country surveys, various issues.

These evolutions in the secondary sector were made possible by the permissive operation of two supply factors. The first one was that the developing industrial sector had large supplies of labour at its disposition from agriculture[1], where unemployment and underemployment were high and productivity was relatively low. The expanding secondary sector could, therefore, draw on these supplies of cheap labour for its development without lowering productivity or production in agriculture and without raising labour wages. An indication that this was actually happening after the war is that while agricultural employment was decreasing, employment in manufacturing was rising by an average rate of 0.6% over the period 1953-73, while in the years before that it never rose above 0.4% (Boltho, 1982, p. 11-2). The second factor was that, besides the increase in the demand for investment in manufacturing, the availability of capital was also forthcoming as long as through the military aid on the part of the U.S.A (Marshall plan etc.), the Western European countries had access to cheap capital and embodied technical progress which they proceeded to invest in manufacturing (Nikas, 1991). Gross fixed capital investment rates rose rapidly as a whole and especially for the manufacturing sector over the whole period. This, combined with the rapid transfer of labour from the primary to the secondary sector of production, as well as with the economies of scale characterising this sector, resulted in an increase of labour productivity in manufacturing and in the economy as a whole. This increased entrepreneurial profits and led to an increase in production and employment which, through the Verdoorn Law (which, up to 1966, appears to have operated in most Western European countries), resulted in even higher productivity. In the meantime, the rising competitiveness of the Western European countries in world markets, increased their exports of industrial goods. Therefore, in the post war years and until the first oil shock, both domestic and export demand interacted with sufficient supplies of productive resources to

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Although surplus labour existed in other sectors of the economy as well, especially in some low productivity service activities such as domestic services etc., agriculture which still employs approximately 29% of total employment in Greece, constituted the main source of available labour.

create rapid rates of economic growth.

2. Greece: Impressive growth and structural changes

The period 1953-1973 of rapid economic growth in the Western European countries roughly corresponds to the period 1960-1975 in the case of Greece. This delay was largely a consequence of the exogenous factors partly described in the first part of this chapter, as well as of the time lag with which the Greek economy usually responds to changes in the rest of Europe.

During the period 1960-75 the progress of the Greek economy was quite impressive. A casual observer looking at the rates of growth of the main macro economic indicators of the country over a period during which Greece also seemed to be achieving all of the goals usually set by economic policy, (low rates of inflation as well as of unemployment, price stability and no serious balance of payments constraints), would certainly derive the conclusion that Greece was performing an "economic miracle",proceeding with great leaps towards industrial development.

Over the whole period the annual rate of growth of GDP was extremely high for Greece, higher than that of the OECD countries for the same years, with the exception of Japan, as seen in the following table.

Table II.C3 Average annual rates of growth of GDP (1960-1989).

country \period	1960-5	1965-70	1970-3	1973-8	1979-89
Greece	7.9	7.3	7.8	3.6	1.7
Portugal	6.3	6.2	8.6	2.2	3.0
Spain	8.6	6.4	7.2	3.0	2.4
EEC(6)	4.8	4.7	4.5	2.1	1.6

Sources: 1) OECD, Main Economic Indicators, (various issues)
2) Own calculations

Despite the fact that these rapid rates of growth of GDP could be attributed to the fact that Greece's starting point was a much lower development level than that of the Western European countries, they are also higher than the corresponding ones in countries of approximately the same development level, such as Spain or Portugal.

Apart from these impressive rates of overall growth of the economy,

the structural changes which the country undergoes over the period are also indicative of rapid industrialisation. The rapid postwar growth in Greece in particular was characterised by three main elements:

a) The rising importance of the secondary sector of production.

Over the whole period 1960-1978, the secondary sector represented the most dynamic sector of the economy. Manufacturing output rates rose faster than GDP and for the first time in 1962, the share of the secondary sector in GDP was higher than that of the primary sector (although not higher than that of the tertiary).

The secondary sector as a whole, also came first as far as its absorption of investment is concerned, followed by the tertiary sector, while the primary sector seemed unable to absorb new investment. This was probably due to the fact that industrialisation was progressing at the expense of agriculture where low incomes and small size and parcellation of the lots make investment difficult and unprofitable.

Structural changes were also taking place within the secondary sector. While the Greek industry was oriented towards the production of consumer goods and traditional branches, in general, after 1960 it shows a tendency of shifting towards more capital intensive branches of production, while the contribution of labour intensive ones in GDP drops in relation to previous years (Fotopoulos, 1985, pp. 120-7 and 166).

Over the whole period 1960-1975 (especially 1961-65), there seems to be a substitution of capital for labour in Greece (Negreponti -Delivani, 1985, p. 100). While this reduced the rate at which labour was absorbed in the secondary sector, it ought to be considered as a positive evolution as long as it would seem that the economy was shifting to more capital intensive methods of production and setting up the bases for self sustained growth. Despite this slight drop in the labour absorptiveness of industry however, while there were still large reserves of labour in agriculture, unemployment rates did not rise in the country (probably because of already high migration rates). Still another evidence of the rising importance of the secondary sector is the fact that, in the period 1967-71, manufactured products came first in Greek exports rising for the first time above agricultural ones.

b) The evolution of investment rates

In the postwar period investment rates rose fast in the Greek economy. Although domestic savings only managed to cover half of realized investment in 1953, their share in GDP rose fast. It is believed that shortages of savings never represented a binding constraint for investment in Greece . An indication of this is that Greece, presents a quite high propensity (both marginal and average) to save, in spite of its relatively low level of development (Ellis, 1965, p. 33). Savings are largely financed through high invisible earnings and made possible by the adoption of a very conservative consumption pattern, that is, a proportionally low level of consumption, as well as by the of inflow of foreign capital.

Table II.C4: Percentage structure of industrial GDP in Greece in the period 1948-1973 (constant 1954 prices).

	1948	1952	1955	1958	1960	1965	1970	1973
1.Food,Drinks,Tobacco	25.3	22.9	23.3	23.7	21.2	20.8	18.9	16.4
2.Textiles	17.5	18.1	16.0	15.2	13.6	14.1	14.5	16.3
3.Shoes,Clothing,Leather	19.7	18.6	19.6	15.4	14.3	14.2	9.0	8.7
4.Wood products	8.0	7.7	7.6	7.8	7.4	6.9	6.3	6.6
5.Paper products	2.8	3.4	3.9	4.5	5.4	5.8	5.2	4.1
6.Chemicals	10.8	11.8	11.2	10.8	13.6	12.1	11.2	12.5
7.Non metallic minerals	3.6	3.8	5.2	5.6	5.4	6.1	8.5	6.4
8.Basic metals	0.6	1.1	1.6	1.8	2.0	2.2	7.2	6.9
9.Metal products,electric appliances	9.4	8.7	9.5	10.1	11.4	12.6	12.7	14.0
10.Transport equipment	...	1.0	2.2	2.6	3.0	3.0	3.9	5.6
11.Miscellaneous	2.3	2.9	2.6	2.5	2.7	2.2	2.6	2.7
Total	100	100	100	100	100	100	100	100

Sources: 1) Koutsoumaris, 1963.
2) Tsoukalis, 1981.

Private investment constituted the largest part of total investment (see table II D-4) which was greater than domestic savings for most of the period. The financing of investment was mainly based on three sources a) self-financing, b) financing through the Banking system and c) foreign investment funds. In fact, Greece finds itself among the countries enjoying high investment shares. The rate of growth of investment was rather satisfactory as a whole in the postwar period, in the sense that it approximated conditions prevailing in more developed countries, rising from 13% of GDP in 1948 to 23% of GDP in 1967 (Nikolinakos, 1976, p. 73 and Negreponti-Delivani, 1985, p. 66).

Apart from domestic investment, foreign investment also flowed in large amounts in the country over the whole period and, especially after 1973, mainly as a consequence of the laws encouraging it, as well as the devaluation of the drachma, over that period, in order to accelerate industrial development and was especially high in 1962.

Table II.C5: Percentage share of Gross Fixed Capital Investment in GDP (current prices) 1961-1989.

Countries	1961-65	1966-70	1971-75	1976-80	1981-89
EEC-9	23.3	23.3	23.6	21.8	19.8
Greece	20.4	22.6	24.8	23.6	19.1

Sources: 1) Negreponti-Delivani, 1982, p. 306.
2) OECD, Country Surveys, various issues.

Table II.C6: Percentage share of the secondary sector in total investment 1961-1988.

1961	48.4	1980	52.7
1965	54.7	1985	47.06
1970	51.4	1988	54.3
1975	55.3		

Source: 1) The Greek Economy in figures.
2) Own calculations.

This increasing share of the secondary sector in total investment could be explained on the ground of the expansion of investment in constructions (rather than manufacturing) which was increasing in importance. In 1960 the contribution of constructions in manufacturing investment was 33.8%; by 1974 the corresponding share was 64.1% (Negreponti-Delivani, 1985, p. 79).

c) External Relations.

In 1961 Greece signed the Athens Treaty of association with the EC, which marked the country's shift from strong tariff protection to an opening towards external trade. The main characteristic of this treaty was that it provided a faster gradual tariff disarnment for the industrial goods not yet produced in Greece, than for those already domestically produced. The evolutions as far as external trade is concerned followed the corresponding ones of Western Europe, although with a certain time lag. However, the importance of primary products,

agricultural products and food was declining constantly in the post war period, while manufacturing products increased their importance in Greek exports. The percentage of industrial production which was being exported increased from 2% in 1960-61 to 10% in 1975, (Babanasis, 1985, p. 65) while the rate of increase of industrial exports rose from 14.5% in the period 1954-1961 to 30.1% in the period 1962-1975. Industry became the main exporting sector of the Greek economy (Papantoniou, 1979).

The distribution of imports is also indicative of industrial development as long as the importance of food and consumer goods has a falling tendency while the share of capital goods and equipment rises in importance. It would seem, therefore, that in the latter part of the postwar period, imports served as an aid for the industrial development of the country.

Despite the fact that imports were much higher than exports over the whole period and that the balance of trade was constantly in deficit, it seemed that Greece faced little balance of payments constraints (in the sense that it did not have to balance trade) and was always able to import more than what it exported thanks to the prodigious development of its invisibles (earnings especially from remittances and shipping and, later, after 1974, tourism: Tsoukalis, 1981, p. 37), which resulted in the deficit of the balance of current accounts to be much smaller than that of the trade balance.

The balance of invisibles was always in surplus in Greece, which is a characteristic of other southern European countries as well, such as Spain, Portugal and Italy (Glytsos, 1988, pp. 524-5). The most important invisible earning for Greece consisted of emigrant remittances and transport in the beginning of the period, although after 1978 the importance of remittances as a share of invisibles drops (probably because of repatriation) while that of tourism rises.

Having discussed the above three main characteristics of the rapid growth period for the Greek economy, we should now critically assess Greece's performance in that period. The country seemed to be doing really well from all points of view. It was industrialising rapidly as indicated by the rising share of the manufacturing sector and its high rate of growth as well as by the changing structure and the level of exports. Moreover, the country had easy access to foreign

capital equipment as long as its high share of invisible earnings made up for any deficits in the balance of trade. Investment rates were rising rapidly, profits in the manufacturing sector were high, the economy was achieving low rates of unemployment combined with low rates of inflation after the devaluation of the drachma in 1953 and seemed to be proceeding with no serious problems towards economic development. Such indices are often misleading, however, and in the case of Greece, underlying structures and evolutions beneath the smooth surface were much less brilliant than they seemed at first sight.

Table II.C7: Balance of current accounts of Greece 1960-1988 (millions of $ U.S.).

Year	Trade Balance	Balance of Invisibles	Balance of Current Accounts	Balance of Current accounts as % of GDP
1960	-288.5	207.7	-80.8	2.60
1961	-326.9	243.5	-83.4	2.40
1962	-365.9	292.0	-73.9	2.00
1963	-412.5	355.3	-57.2	1.40
1964	-522.9	350.2	-172.7	3.75
1965	-645.4	412.6	-232.8	4.43
1966	-745.4	481.3	-264.1	4.54
1967	-696.7	475.0	-221.7	3.54
1968	-771.9	524.4	-247.5	3.68
1969	-888.2	545.3	-342.9	4.50
1970	-1083.9	673.5	-410.4	4.80
1971	-1302.2	940.6	-361.6	3.79
1972	-1571.6	1203.8	-367.8	3.35
1973	-2800.3	1625.1	-1175.2	8.26
1974	-2821.1	1642.6	-1218.5	7.23
1975	-2916.1	1906.9	-1009.2	5.50
1976	-3328.5	2237.0	-1091.5	5.61
1977	-3887.4	2620.0	-1267.0	4.74
1978	-3007.7	2807.6	-954.8	3.02
1979	-4148.5	3557.6	-1881.4	4.82
1980	-3078.7	3695.9	-2216.1	5.40
1981	-3991.3	3632.9	-2407.7	6.34
1982	-5926.9	4041.8	-1885.1	--
1983	-5385.9	3510.0	-1875.9	--
1984	-5350.8	3220.7	-2130.1	
1985	-6267.9	2992.2	-3275.7	
1986	-5685.8	3913.7	-1772.1	
1987	-6942.5	5723.3	-1219.2	
1988	-7631.1	6674.0	-957.1	

Sources: 1) Babanasis, 1985, p. 171
2) National Accounts, various issues.

Table II.C8: Share of Transport (mostly shipping), Emigrant Remittances and Tourism in Invisibles 1960-1988.

	Remittances	Transport	Tourism
1960	33.1	27.8	18.0
1965	37.6	29.8	19.5
1970	36.2	29.1	20.3
1975	27.6	32.1	23.4
1980	17.5	29.4	28.1
1985	15.2	19.7	27.1
1988	17.1	13.6	23.7

Sources: 1) The Greek Economy in Figures.
2) Own calculations.

While it is true that the secondary sector was increasing its importance, this was not mainly due to the growth of manufacturing, as in the case of the Western European countries, in the postwar period, but to the growth of constructions and housing, in the secondary sector, as well as of the tertiary sector, as a whole. In fact, over the period 1960-78, the branch of housing and constructions absorbed more than 50% of total investment while the corresponding shares in manufacturing were much lower with a tendency to fall after 1976. As a percentage of GDP, Greek manufacturing investment was among the lowest in the OECD countries, even during the 1960-75 "boom" period (3% in Greece, corresponding to 4.5% in the OECD and 5% in the E.C.). Furthermore, since the 1970s Greece's export share of industrial products has fallen by approximately 10% (the lowest among the OECD countries) while industrial imports as a percentage of the total supply of industrial products in the country rose from 46.5% in 1964 to 60% in 1987 (Fotopoulos, 1991, p. 45).

Table II.C9: Percentage distribution of Gross Fixed Capital Investment in the Secondary sector of Production (1970 prices) 1960-89

	Quarrying-Mining	Manufacturing	Energy	Housing	Total
1960-65	1.74	23.46	15.97	58.82	100
1966-71	3.10	24.4	16.68	56.36	100
1972-76	3.67	30.40	15.93	50.27	100
1977-82	7.38	27.05	12.83	52.73	100
1983-89	6.35	30.20	17.70	45.74	100

Source: National Accounts of Greece, (various issues).

Greece presents the highest share of investment in housing among the European countries. In the period after the war, this could be justified, in part, by the reconstruction process and the need to house an increasing population. However, such a high percentage of investment in a branch that has little forward and backward linkages and cannot really act as an engine of growth is quite dangerous in a developing country, especially over such a long period of time. Moreover, in the case of Greece it reflects certain structural problems. In fact, seen from this point of view, the previous analysis concerning high rates of total investment indicates that demand for investment is not small in general, but that the reluctance to invest only concerns the manufacturing sector, while there is a marked preference to invest in sectors, such as housing or the tertiary as a whole.

This preference for the housing sector could be explained first of all, by the fact that it represents safe and fast profits and is, moreover, a type of investment that does not need any degree of entrepreneurial or management skill as in the case of industry where production of new goods is involved (Ellis, 1965, p. 216). Given that Greece never really possessed a true class of entrepreneurs but that this role was played by previous tradesmen (Mouzelis, 1978, p. 54), this would seem a plausible explanation. Another explanation is that investment in housing is relatively independent of imports and import restrictions as it is mainly based on domestic products (Ellis, 1965, p. 219). In addition to that, one has to take into account that in the case of Greece, the strong preference for investment in housing could be explained by the fact that emigrants remittances financed investment in dwellings to a very large extent (Nikas, 1991).

A third explanation is related to the reluctance of entrepreneurs to invest in the manufacturing sector, the restricted alternatives for productive investment in Greece, the inefficiencies of the Greek banking sector and the prevalence of a large number of small sized firms. The latter results from the fact that the domestic industry is still largely orientated to the production of consumer goods and originates in handicraftmanship, therefore, is still organized on a family basis, with approximately 95% of Greek firms employing the owner/employer and only one other person (ELKEPA, 1985). Despite the fact that the banking system in Greece was originally

developed in order to finance industrial development, the initial number of small banks on which industry was heavily dependent, were later organized on an oligopolistic basis and largely owned by the government (Nikolinakos, 1976).

Investment was not constrained by a shortage of savings in the sense that the propensity to save, in Greece, is higher than the propensity to invest. Indicatively, while in 1962 private gross fixed capital investment represented 12.2% of GDP, private domestic savings represented 17.6% of GDP (Ellis, 1965, p. 35). Loans to small firms (which represent the majority) were, however, very difficult to obtain. Banks tended to favour large and already established firms, making industrial investment difficult for the smaller ones and, at the same time, extending the existence of a large number of small and low productivity ones (Donges, 1982, p. 46). Small private (family type) capital found the housing sector as an outlet and this was combined with the social conditions also prevailing in Greece, where the possession of a house or houses automatically raises social status (Ellis, 1965, p. 216).

The reluctance of the private sector to invest in the manufacturing sector can be justified in more than one way. In the first place, the small size of the domestic market, in many cases makes the existence of large firms unproductive and not worth while. This is still another justification for the prevalence of small firms, while most of the large ones operate at less than full capacity because of low domestic (and export) demand for their products (Negreponti-Delivani, 1985, p. 263). The percentage of consumption of domestic manufactured goods in total private domestic consumption was 18% in 1966, went to 26.5% in 1973 and fell to 16.3% in 1978 and to 15.% in 1980 (Negreponti-Delivani 1986b, p. 117). The gap between spending for consumption purposes and production has risen from 15% to 20% of GDP (constant prices) between 1960 and 1989. Furthermore, the average propensity to import in Greece is estimated to be almost double than in the advanced capitalist countries (0.29 vs 0.15, in 1988) and has doubled since the 1950s, while the proportion of imports covered by exports represents one of the lowest worldwide, being 66% in 1938 and dropping to 37% in 1989-90 (Fotopoulos, 1991).

However, it should be noted that the naturally small size of the domestic market is being constantly restricted by governmental tax

policy which due to the high tax evasion has to rely more and more on indirect rather than direct taxes, thus raising the corresponding ratio, all through the post-war period (KEPE, 1990, pp. 68-9). The result is that a disproportionately large part of the tax burden falls on wage-earners, thus, limiting significantly their purchasing power. While this restricts effective demand for the lower income classes, it also serves to shift a large part of it abroad, as the higher income classes usually try to imitate foreign consumption patterns and consume mainly imported goods. On the other hand, Greek entrepreneurs were always orientated towards the production of consumer goods, light capital goods and traditional industrial branches. While the domestic industry was being heavily protected from foreign competition and import restrictions were in force, it was still possible for them to operate with the expanding domestic market in mind.

Policy measures in relation to industry were usually implemented in a short-sighted fashion, independently of a general framework of policy guidelines, and rarely had a set of clear cut goals or directives. This kind of economic policy, which was by all means the product of incompetence rather than a liberal approach to policy making, contributed to prevent domestic industry from becoming competitive, as long as it enabled a large number of non-viable, unproductive firms to be created in the "greenhouse" protected atmosphere of the 1950s. It is argued in the theory of development, that import substitution of light manufactured consumers goods is probably the best development policy alternative during the first stages. However, the subsequent stages which are a must for the future self sustained economic growth of the country involve either the continuation of an import substituting policy orientated towards capital goods and the building of an intermediate goods industry, or the shift to an export led growth, perhaps, based on some comparative advantage (Power, in Singh, 1978, p. 310). Neither of these subsequent alternative policies were efficiently followed in the Greek economy. In 1961 with the EC association agreement and the gradual abolition of tariff protection (Tsoukalis, 1981), the Greek entrepreneurs began to realise that the demand elasticity for their products, largely due to the rising relative price of Greek/Foreign manufacturing products, was small both abroad and at home. Consumers preferred imported goods (Newly Industrialised Countries NICs such as Korea and Taiwan proved to

be very successful in supplying these goods) which were generally cheaper and of better quality (Negreponti-Delivani, 1985, p. 263). In addition to other emerging problems, Greece was beginning to lose its one comparative advantage, that of cheap and abundant supply of (unskilled) labour. Industrialisation was being based on the importation of capital equipment from abroad, which embodied capital intensive (or at least, labour saving) production techniques. The result was that, despite the fact that the country was not facing labour shortages at the time, Greece shifted to relatively labour saving methods of production; had this adoption of labour saving methods caused an increase in investment, the final impact would probably have been an increased demand for labour in the long run and the introduction of technology even in the short and medium run. However, decreasing investment in the manufacturing sector greatly reduced industry's labour absorptiveness,as we may see in the following table[2].

Table II.C10: Growth of available labour force and manufacturing employment 1961-1989.

	Growth of available labour force	Growth in manufacturing employment
1961-1965	2.3	1.0
1966-1970	2.3	0.8
1971-1973	2.7	5.5
1974-1980	2.0	1.2
1981-1986	1.2	0.0
1987-1989	0.7	-0.1

Sources: 1) Eurostat, various issues.
2) Own calculations.

The fact that late comers to the development process have the possibility of importing advanced technology from the already industrialised countries can be both an advantage and a disadvantage, as long as it means the adoption of production techniques not suitable to their factor endowment. While certain countries like Japan managed

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The growth of the availability of labour is measured according to Cornwall (growth of total employment plus growth of agricultural labour force).

to consciously solve this problem by adapting imported capital equipment to their surplus labour economy (Ranis, in Singh 1978, pp. 219-23.) and thus increasing the industrial sector's labour absorptiveness, no such effort was made in Greece. The only reason why Greece managed to achieve low rates of unemployment[3], was that masses of Greek population were migrating abroad over the whole period, helped by the Greek government which signed bilateral agreements with many Western European countries (especially Germany), seeing migration as a "safety valve for unemployment" (Nikas, 1991), as long as Greek industry seemed unable to create more job opportunities at a fast enough rate and did not realize that, by doing so, it was voluntarily sending away valuable human capital. After 1960, Greek industry continued with this shift to capital intensive methods, as long as migration had already produced relative shortages of labour and was pushing wages upward (Negreponti-Delivani, 1985, p. 263), because of an increasing bargaining power on the part of the workers. Therefore, apart from the naturally low demand elasticity of the traditional goods Greece was producing, the country lost its competitiveness because it could not even produce them at lower prices than other less developed countries producing similar goods.

In view of the above, the reactions of the Greek entrepreneurs and their decision not to invest in the manufacturing sector, no matter how large the funds which the banks (through the government) were pressing on them in order to stimulate industrial investment, seem very rational. Despite the high returns of investment in the manufacturing sector (higher than in any other sector as we may see in the following table), Greek investors preferred to invest in housing, tourism and commercial activities (Ellis, 1965, p. 223). Also, despite the fact that profits in industry are higher than what demand for industrial products would justify (mainly because of the

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Before 1981, Greek statistics defined unemployment as all those who declared being out of work and were eligible for unemployment benefits. The result was a considerable underestimation of unemployment in official figures, since underemployment, part time employment, unemployment of young people with no previous employment etc. were not accounted for.Since 1981 (and after the accession of Greece to the EC), the definition of unemployment includes all those who declare unemployed.

substantial tax evasion and tax erosion), these are not reinvested but hoarded or used for consumption of imported goods.

Table II.C11: Marginal Capital-output ratio per production sector.

	TOTAL		AGRICULTURE	MANUFACTURING	HOUSING
	gross	net			
1961-65	3.64	2.99	4.60	2.31	16.10
1966-70	3.71	3.09	6.80	1.60	15.18
1971-75	5.56	4.62	5.76	3.14	15.18

Source: Negreponti-Delivani , 1985, p. 44.

A serious consequence of the development and consumption pattern prevailing in the Greek economy is the structural deficit of its trade balance. Even in the periods when Greece enjoyed high rates of growth of exports, imports followed closely so that the gap between the former and the latter remained the same or widened. One reason for the high share of imports in Greece is the one just mentioned, that is, the unequal income distribution, the low propensity to invest in productive sectors (i.e. manufacturing) and the high profits of the entrepreneurs, as well as high levels of hidden economic activities, the combination of which leads to an increased propensity to import for consumption purposes (Negreponti-Delivani, 1985). The other reason is that Greece never managed to set the bases for heavy industry but left it to the exploitation of foreign capital, orientating itself to light industry, a few medium to large size manufacturing firms (mainly in labour intensive sectors) being the exception. This resulted in the long term dependence of Greek industrialisation on foreign capital and explains why imports rise fast in the "golden decade" of Greek industrialisation. In fact, Greece is a striking combination of an exporter of consumer goods and importer of capital goods (Babanasis, 1985, p. 167). The fact that Greece, although running a structural balance of trade deficit, never had any serious problems of financing it (because of its invisible earnings) contributed to the dependence of the economy from abroad and to the lack of any serious industrial bases. Greece never tried to break its strong dependence on invisible earnings which are considered to be a rather unstable and vulnerable to exogenous shocks element of the balance of payments. Another indication of Greece's dependence from abroad, is its dependence on foreign

investment (Negreponti- Delivani, 1991).

In view of the reluctance of Greek entrepreneurs to invest in branches of heavy industry, the encouragement of foreign industrial investment which concentrates itself in the most dynamic sectors of the economy, robbed Greek industry of any further chance for self sustained growth. Domestic capital remained in the traditional and less productive branches of the economy and when after 1973, foreign investment declined in Greece, so did the growth rates of the economy as a whole (Fotopoulos, 1985, p. 161).

The general conclusion is that, although in the post war period, Greece seemed to follow the evolutions and structural changes taking place in the Western European countries with only a slight time lag, reality was quite different, in its case, because under the surface of most of these changes, traditional and old fashioned structures prevailed which prevented the economy from ever setting strong bases for future growth. Economic policy which consisted mainly of emergency measures and never seemed to have clear directives as to the way the economic and industrial development of the country should proceed (Tsoukalis, 1981, Fotopoulos, 1991), although it usually had a correct grasp of the goals it was aiming at, certainly contributed to this development. The heavy tariff protection of the 1950s was not followed by any sort of decision as to the sectors and particular industries and goods in the production of which the country should concentrate in order to become competitive. Under the justification that it was protecting the infant home industry, it permitted the creation of a large number of non-viable industries and, giving way to the pressures of big established firms, it enabled the development of monopolistic elements which decreased the degree of competition in the market and aided the prevalence of firms with high production costs. This import substitution policy, based on heavy protection, suddenly changed in 1961 with the EC agreement (after being initiated with the devaluation of the drachma in 1953), which resulted in the country facing strong foreign competition for which it had never been prepared.

The fact that remaining tariff protections mainly concerned goods which were already being produced in Greece at the time, while immediately abolished for any other goods, (tariffs for the former had to be abolished at half the rate tariffs for the latter, according to the Association agreement), in fact deprived the country of the chance

to increase and expand its production possibilities under tariff protection in the future and sent it deeper into dependence from abroad. Apart from that, the fact that full employment had never represented a primary goal of Greek economic policy contributed to the massive migration of Greek population abroad and to the low labour adsorptiveness of Greek industry. The non attainment of full employment went hand in hand with high inflation rates, especially after 1974, high degree of foreign dependence and inability for self sustained growth.

D. THE PERIOD OF ECONOMIC RECESSION

1. The Characteristics of the Recession in Western Europe

After 1973, the growth rates of Western European countries started to decline, in relation to previous years. GDP growth rates dropped to almost half of their post war values (from nearly 5% per year in the period 1960-70 to 2.5% in the period 1973-79). Productivity growth decelerated sharply and gave rise to high inflation rates or, where drops in productivity and pressure for higher wages could not be transmitted into higher prices, the share of profits declined accordingly (Boltho, 1982, pp. 21-4). This resulted in unfavourable expectations of entrepreneurs who proceeded to cut down on investment. In fact, investment shares in GDP declined sharply after 1973, all over Europe.

Table II.D1 Investment Ratios (%) in OECD countries 1950-1989

	1950-54	1955-59	1960-64	1965-69	1970-73	1974-79	1980-89
Germany	20.5	23.4	24.5	23.6	24.4	21.2	20.4
Italy	20.2	24.1	27.0	23.8	23.3	20.0	21.3
U.K	13.2	15.3	17.7	20.3	20.3	18.8	17.2
Spain	-	15.9	17.6	22.6	23.0	21.9	21.0
Netherlands	18.7	21.1	22.2	25.2	24.3	20.8	19.8
Sweden	17.5	19.1	21.4	22.	21.8	20.2	21.2
Switzerland	18.7	21.6	26.3	25.3	26.8	23.3	26.2
Greece	-	-	20.3	26.8	29.4	22.9	19.6
OECD EUROPE	17.3	19.9	22.3	23.2	23.7	21.5	20.8

Sources: 1) OECD, Main Economic Indicators, various issues.
2) The Greek Economy in Figures

The overall drop in productivity which characterises the period after 1973, also resulted in a loss of competitiveness as far as the external trade of the Western European countries was concerned. Export growth rates declined leading to even lower investment rates, especially in the manufacturing sector. In fact, in about the same way as the manufacturing sector acted as an "engine of growth" of the European economies in the post war period, it was to a large extent responsible for the generalized structural recession which spread after 1973. The drop of investment rates in the manufacturing sector led to a reduced demand for labour compared to the previous period and resulted in a lower labour absorptiveness of the sector. Expansionary budget

deficit Keynesian economic policies which were pursued by the governments of the West European countries in an effort to prevent a generalized recession could do little to stop inflation rates rising together with unemployment rates and to solve the problem of the resulting stagflation. Labour shed from the other two sectors drifted into the tertiary, whose labour absorptiveness, although high, was unable to cope with the rising labour supply, thus raising unemployment rates.

Table D-2 Demand and Supply of Labour in the E.C.-12, 1950-1989
(Average Annual Percentage Changes)

	1950-55	1955-65	1965-73	1973-79	1980-85	1986-89
Population of working age	0.6	0.6	0.4	0.6	0.7	0.1
Labour Force	0.7	0.4	0.2	0.6	0.7	0.7
Total Employment	1.0	0.6	0.1	0.1	-0.6	1.4

Source: 1) Boltho, 1982, p.163
2) ILO, Annual Labour Statistics, various issues

This long term recession which characterizes the Western European countries since 1973, seems to be related with the constantly falling importance of the manufacturing sector both in terms of output and employment. It is possible that the Kaldorian explanation of the economic crisis, that is, that many Western European countries have reached the point of "maturity", where further expansion of the traditional manufacturing sector can only be achieved at the expense of the rest of the economy, or that income elasticities of demand shift consumer preferences away from manufactured goods and towards services, may account for this stagnation of the manufacturing sector. Furthermore, in terms of the strong backward and forward linkages of the sector in question, which, for this reason is considered as the "engine of growth" of a developing economy, this would account for the general economic stagnation, after 1973, as far as many Western European countries are concerned (Kaldor, 1966, Negreponti-Delivani, 1986).

Since the early 1980s, however, there have been some indications that many European economies may be about to come out of the crisis (the growth rates of GDP and investment are faster for the period 1982-89 than for previous periods after 1973, as indicated by the OECD country surveys). On the basis of the assumption that the

economic recession was a recession of the manufacturing sector in particular and that the "industrial era" may have come to an end, there have been moves to enter a "post industrial stage", based on high technology and services, which could help raise the competitiveness of the Western European countries on the international level. It is probably too soon, however, to comment on the success of this enterprise.

2. The Symptoms of the Economic Recession in the Greek Economy

At first sight Greece seems in this case as well to follow with a short time lag the evolutions in Western Europe. The economic recession which came upon most of Western Europe after 1973 hit Greece in 1974-1975. The symptoms of the crisis in Greece were not very different from those in the Western European countries, although the causes probably differ considerably. In any case, after 1974, the growth rate of GDP and exports dropped sharply, although less than in the E.C. countries over the same period, investment rates declined, especially in the manufacturing sector, inflation rose and so did unemployment, although for a variety of reasons, in the beginning at least, it was lower both in terms of growth rates as well as levels, than those prevailing in Western Europe. In the following table we may see some of these evolutions:

Table II.D3 Evolution of GDP and Investment rates in Greece and the EC countries(average annual % changes), 1966-1989.

	GDP		Gross Fixed Capital Investment	
	Greece	EEC	Greece	EEC
1966-1973	6.84	4.33	5.87	3.42
1974-1989	2.41	2.21	-0.4	1.44

Sources: 1) The Greek Economy in Figures
2) Own calculations

There was also a marked worsening of the country's external relations and current account deficit. One should keep in mind, though, that while the economic crisis seems to have hit the Greek economy with full force after 1974, this may be misleading. In fact, the manifestation of the crisis in Greece coincides with the fall of the military junta and the restoration of democracy in the country.

The Western European economies attempted to deal with the crisis by following the Keynesian recipes (although some governments stated exactly the opposite) of strong governmental intervention in order to boost effective demand, and for a long time, tried to achieve a balance between an "acceptable" unemployment level and an "acceptable" inflation level (Phillips, 1966). When governments, however, were called upon to abandon their role of "night watchmen" and intervene actively into the economies of the Western European countries in order to circumvent a crisis, they apparently failed to do so. The result was a slight shift, during recent years, on the part of some West European countries to conservative governments, following supply-side approaches for the economic issues and giving emphasis on the role of the private sector as a means out of the continuing crisis. In Greece, however, exactly the opposite evolutions took place. The government which took over in 1974, after the restoration of democracy, was a conservative one. It nevertheless, followed Keynesian demand management policies (although it would be more correct to say that it did not follow any kind of policy systematically, Roumeliotis, 1980, pp. 71-6) and intervened strongly in important sectors of the economy. The deceleration of the growth rates of GDP witnessed in 1974, was not particularly alarming in itself. While it fell sharply (by 3.6%) in 1974 and rose by an average of 5.5% between 1975 and 1978, dropping again to a rate of 3% in 1979, which is considerably lower than that enjoyed by the economy in the years of economic prosperity (an average of approximately 7.7%), it still rose faster than the GDP of the E.C. countries over the same period. The latter rose by an approximate average rate of 3% in the period 1975-78 and 2% in 1979 (op. cit., pp. 12 and 67). In the beginning, at least, official unemployment did not represent a very severe problem either. The latter did not take on alarming proportions, in the first place because of emigration and in the second place, because even when repatriation started, the returning migrants usually did not go into paid employment but preferred to go into self-employment or services. In any case, while official figures presented the unemployed as being 2.5% of the total active population it is believed that the true figure was closer to 5% of the latter Roumeliotis, 1980, p. 71). This discrepancy is largely due to the fact that the method used to estimate unemployment (see footnote on page 70) resulted in an underestimation of the latter (Dretakis, 1985,

Negreponti-Delivani, 1991).

What was alarming, however, was the state of the private sector and private investment in particular, after the manifestation of the economic recession Especially after 1975, while total investment continued to rise at satisfactory rates, investment in the manufacturing sector witnessed a very sharp drop. Moreover, while the ratio of private to public investment does not change much over the period, as we may see from the following table, the share of private investment going to the manufacturing sector drops constantly after 1974, while approximately 40% of total private investment was channeled into housing.

The sharp drop of manufacturing investment resulted in an even lower labour absorptiveness of the Greek industry. While in the period 1973-85, the manufacturing sectors of most E.C. countries managed to absorb approximately 45.3% of the total active population and 46.7% of the wage earners, the Greek manufacturing sector barely managed to absorb 26.3% of the total active population and 45.3% of the wage earners (Roumeliotis, 1980, p. 99 and Fotopoulos, 1985). As already mentioned, the causes of this extremely low absorptiveness in labour of the Greek industry, may be found, apart from the low rates of industrial investment, in the high dependency of the Greek economy in general and Greek industry in particular on imported technology and foreign patterns and methods of production, on the unequal income distribution and structure of demand which favours mainly capital intensive products and the lack of entrepreneurship among Greek investors. In any case, it resulted in rising unemployment figures and a fast expanding tertiary sector, as well as to a ratio of wage earners to self employed which is the lowest in Europe (the share of wage-earners in total civilian employment in Greece, was 45.4%, in 1988, compared to an EEC-12 average equal to 54.4%). The tertiary sector managed to increase its share in output from 49.7% to 57% between 1973 and 1988 and its share in employment from 35.6% to 46% over the same period (National Accounts of Greece). While the various Greek governments still officially declared to take a strong interest in the country's industrialisation process, no effective measures were taken to either suppress the emerging service character of the Greek economy and efficiently promote industrial development or alternatively, to consciously promote a service-led growth alternative.

Public investment was still largely channeled to infrastructure projects while productive investment and economic restructuring was largely left to the private sector whose unwillingness in this respect has already been mentioned.

Table II.D4 private and public investment shares within total investment, manufacturing and housing, 1965-88 (%)

	TOTAL I		Share of priv. and pub. I in man.			Share of priv.and pub. I in housing		
	priv.	pub.	Total	priv.	pub	Total	priv.	pub
1965	71.5	28.5	14.29	19.6	0.78	31.5	43.5	1.4
1966	72.3	27.7	13.17	17.8	0.78	30.9	41.6	2.7
1967	68.9	31.1	12.16	17.3	0.54	28.0	39.6	2.2
1968	72.6	27.4	11.99	16.3	0.44	32.1	43.5	2.0
1969	71.3	28.7	11.75	16.4	0.17	32.3	44.7	1.8
1970	71.8	28.2	14.21	19.7	0.11	27.9	38.3	1.4
1971	68.4	31.6	13.90	20.0	0.50	29.3	41.6	2.7
1972	68.9	31.1	14.23	20.5	0.21	32.2	45.6	2.3
1973	72.1	27.9	14.44	19.9	0.32	30.5	41.8	1.2
1974	70.0	29.9	20.02	28.4	0.29	21.3	30.0	0.8
1975	71.9	28.1	17.58	24.2	0.47	27.4	37.5	1.4
1976	73.2	26.8	16.66	21.9	2.31	27.4	36.9	1.4
1977	77.6	22.4	14.65	18.5	1.07	30.7	39.1	1.3
1978	77.4	22.6	13.44	15.7	5.41	33.0	42.2	1.1
1979	77.0	23.0	13.94	17.0	3.47	31.8	40.9	1.4
1980	76.0	24.0	16.07	20.1	3.05	29.4	38.2	1.6
1981	74.0	26.0	16.29	19.8	3.28	25.0	32.7	2.8
1982	71.7	28.3	15.60	20.9	2.07	24.2	33.8	3.2
1983	67.4	32.6	14.70	21.9	1.33	25.4	36.6	2.2
1984	62.0	38.0	15.45	23.1	2.22	21.8	33.9	2.0
1985	60.0	39.8	13.43	19.9	3.60	20.7	33.0	2.1
1986	66.5	33.5	16.03	19.0	9.98	25.4	36.9	2.5
1987	73.4	26.6	18.9	22.5	3.24	28.1	37.1	3.3
1988	74.8	25.2	19.6	25.0	3.76	28.4	36.6	3.9

Sources: 1) The Greek Economy in Figures,
2) Own calculations.

In view of these unfavourable and uncertain evolutions as far as, the industrial sector was concerned, the Greek government proceeded, especially after 1975, to take over what is considered the most important sector of a developing economy, in an attempt to set it back on its feet.

Having, in the first place, acquired the control of the largest part of the banking system through the ownership of the two largest banks of the country, the National Bank and the Commercial Bank of Greece (which in turn own a number of smaller banks), it followed a

policy of continuous grants and loans towards the manufacturing sector which, in the first place, made the already unequal income distribution in Greece even more so, by shifting it in favour of profits (which, of course, would have been all right if profits were re-invested). The reason was that control of what finally became of them was not rigorous enough, thus enabling entrepreneurs to cheat by not investing the whole amount of money granted to them.

Through this policy towards the manufacturing sector, a large number of firms (95% of which were characterised as small and medium size establishments, that is, employing less than fifty workers,in 1981) which were in permanent deficit and would certainly not have been viable otherwise, were artificially sustained. While the private sector was hastily retreating from investment in manufacturing, as we may see from the falling share of private investment in manufacturing within total private investment in table II.D-4, public investment in manufacturing as a share in total public investment rose from 1975 onwards, to three times its initial value of 1965 in 1976 and to more than six times that value by 1978. Instead of closing down, most low productivity, permanent deficit firms, passed into the ownership of banks, as a result of their inability to pay back their debts to them. This results in some of the larger banks acting as investors and owners of firms and effectively controlling a large part of the industrial sector, within the framework of a policy aiming at restructuring the problematic firms. By intervening strongly with the above policy measures, the government was trying to act as a substitute for the private sector in manufacturing and was attempting, with artificial means, to keep going a sector which had never put down adequate means for a self sustained growth, let alone act as a leading sector of the developing Greek economy. This policy, however, of covering the deficits of non viable industrial firms with loans and grants led to the acquisition of an enormous public debt, let alone the fact that the strongly expansionary public policies led to high inflationary pressures in the economy.

Between 1975 and 1978, the average annual rate of growth of the consumer's price index was approximately 13% in Greece (against a 7-12% in the E.C. countries) (Roumeliotis, 1980, p. 14). Greece at the time was both generating high inflation rates through the expansionary economic policies it was following, as well as importing inflation from

abroad by being so very dependent on imports, at a time when the rest of Europe was also suffering from inflationary pressures. The inelastic demand for imported goods is also indicated by the continuous depreciation of the drachma vis a vis the dollar, all through that period. In 1979, the economic situation in Greece deteriorated to such an extent that the government was forced to, officially, abandon expansionary economic policies and, for the first time, follow restrictive ones, in an attempt to deal with both rising inflation and a growing public debt. The problem of unemployment continued not to be too serious, as long as the public sector managed to keep the figures down by hiring more labour than absolutely necessary.

3. The Greek Economy in the 1980s

The expansionary policies followed by the conservative government, since 1975, were interrupted, in 1979, after the second oil shock; in fact, the impact of the second oil shock, on the Greek economy, was harder than that of the first one. By 1980, the conservative government, therefore, officially, had to come up with a very strict policy of austerity. This policy facilitated the Greek Socialist party (Pasok) coming into power in 1981.

Pasok's economic policy was an expansionary one, at least during the first years. In fact, this period was marked by an effort to increase aggregate demand through incomes policies and by a rapid expansion of the role of the public sector and government intervention, in an attempt to restructure the country. The government had to cope with the issue (already mentioned) of the "problematic firms"; in fact, it went as far as nationalizing a number of them in (an unsuccessful, as it proved to be) effort to make them profitable and competitive, mainly in order to avoid the rise in unemployment which would result if the latter were forced to close down. These firms though, persisted in witnessing growing deficits, accelerating, therefore, the size of the public debt. Productivity in the manufacturing sector was greatly reduced, as long as excess labour was employed as a means of keeping unemployment down. It is enough to note that the manufacturing sector reduced its share in output from 21% in 1973 to 18.7% in 1988, while it only reduced its share in employment from 18.9% in 1973 to 18.8% in 1988, which in itself implies that relative labour productivity must

have fallen in the manufacturing sector over that period.

The aggressive policy of the new government as far as the "reconstruction" of the manufacturing sector was concerned, resulted in the private sector further retreating from investment in industry, despite generous grants and incentives by the government (which, in many cases offered to cover up to 60% of new investments) as well as by the E.C. (e.g. the Integrated Mediterranean Programs).

Apart from the declared strong interest in the manufacturing sector, although this was never followed by a sound development plan for this sector, there were also some attempts to reconstruct the agricultural sector, raise productivity and agricultural incomes and help create some backward links for industry through the development of agro-industrial cooperatives as well as restrict the role of middlemen in the distribution of agricultural products. However, due in part to the underdevelopment of cooperative movements in Greece, this was another attempt not crowned by success.

As far as the external relations of the country, over the period, were concerned, one should take into account the relatively recent developments in the international division of labour and the increasing role of the NICs (Hitiris, 1991, pp. 291-317). In this respect,the situation was no better, because of the falling competitiveness of Greek exports abroad and to rising imports, as well as to a drop in invisible earnings caused, on one hand because of the beginning of repatriation and on the other, because of the crisis in the shipping industry. Despite the fact that tourist receipts kept rising, this was not enough to prevent the surplus in the invisibles account to cover a constantly smaller portion of the trade balance deficit, as we may see from the current account deficit which grows after 1973 (Table II.C-7).

The expansionary economic policies followed by the socialist government during the first two years, coupled with the lack of the necessary changes in the tax system (which, due to extremely high rates of tax evasion, limits, by itself the main source of public revenue), and in the country's production base, resulted in high rates of inflation and the blowing of the public debt (both internal and external) out of all proportion by 1985, as we may see in Graph D-1. It has been argued (Fotopoulos, 1991) that the expansionary policy followed by Pasok contributed to a sort of "debt led growth" which was

mainly used to finance the maintenance and expansion of the consumption standards, of a "consumer service society with no industrial base" without doing anything to expand the productive capacity of the country.

These negative evolutions forced the government to slow down on the pursuit of its expansionary policies; a slight improvement of the economy's main aggregates, around the end of 1983 allowed for a repetition of the previously followed expansionary policies, until the end of 1985. Generally speaking, one could say that there was a "stop and go" economic policy pattern, in the early 1980s, determined by economic, as well as non-economic, (e.g. elections) considerations.

1985, is a turning point for the Greek economy, since, it marks the end of the strong "expansionary policy era". The 25% official inflation rate followed by a sharp deterioration of the balance of payments (partly due to the increase in imports caused by the increases in disposable income as well as the drop in foreign exchange earnings from tourism, following President Reagan's travel directive, in 1986) was interpreted by the government as a sign that strict restrictive policy should be employed. In relation to this point, one may note that the implementation of the governmental decision was followed by a large loan on the part of the EC, granted in the late 80s, on the condition that the restrictive policy would be adhered to.

Although it is very difficult to distinguish the net effects which the implementation of this decision had on the basic economic aggregates of the country, it, nevertheless, resulted in a reduction of the real income of wage earners and, consequently, in a drop of effective demand for goods and services. It also seemed to temporarily succeed in slightly reducing the public debt which, however, is still enormously large, both as an absolute number as well as a share in GDP, amounting to 7.9% of the latter in 1979, 42.4% in 1985 and 33.3% in 1989.

A temporary drop of imports was also observed, although a large part of the devaluation of the drachma was outweighed by the constant depreciation of the dollar in relation to most foreign currencies over that period. Furthermore, from 1986 until 1989, a declining inflation rate has been observed (the inflation rate measured as the growth rate of the general consumer price index, was 19% in 1985, 23% in 1986 compared to an average of 3-4% in the other E.C.

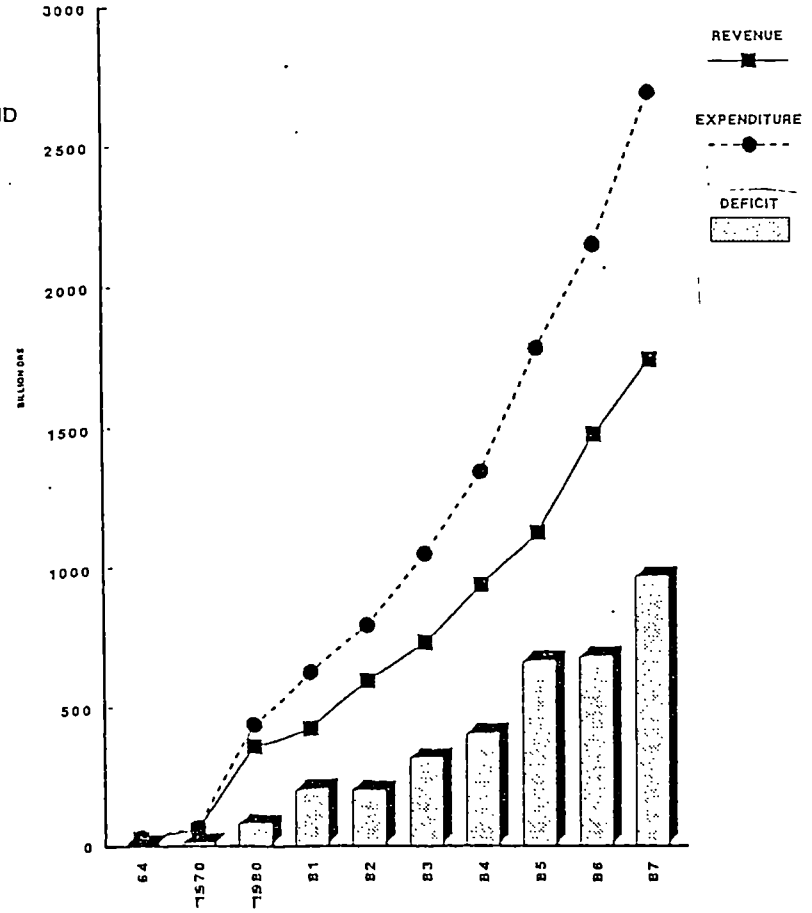
countries and fell to around 12% in 1989, in Greece), although it is hard to tell whether this was achieved because of the restrictive policy and the relative drop in effective demand, as long as, for one thing, it is not at all certain whether inflation, in Greece, is demand pull or structural in nature. In any case, inflation rates, in 1988 had dropped to almost half of what they were in 1985, although the governmental aims at a one digit inflation rate have not been achieved yet.

Apart from these evolutions, the country does not have to face any serious balance of payments constraints or currency reserve problems. This, however, is not due to an improvement of any of the balances constituting the balance of current accounts, but to large autonomous inflows of capital observe since 1985 in the country. In fact, during the last few years, many among the most prosperous Greek firms have been bought by foreign ones (mainly large Western European multinationals), a fact contributing to the above evolution.

Further developments after 1989, will be examined in the concluding chapter of the thesis.

Graph D-1:

REVENUE, EXPENDITURE AND DEFICIT OF THE BUDGET



Source: The Greek Economy in Figures

E. CONCLUSIONS

While it would seem at first sight that the economic recession which came upon the countries of Western Europe after 1973 manifested itself in Greece with the same symptoms and the same causes and explanations, the truth is quite different. Although the symptoms of the recession were similar in both cases, i.e. declining importance of the manufacturing sector, falling rates of investment, rising unemployment, limited competitiveness on the international level, etc, the causes for their appearance is totally different. The Western European countries had all followed a similar pattern of growth at about the same time, passing from agriculture to industry as leading economic sectors, and from industry to high technology and services when the growth potential of traditional industry, as such, had been exhausted. The recession in Western Europe, therefore, could be considered a recession of transition from one phase of capitalistic expansion to another. It was a recession of "maturity" of one leading sector giving its place to another. The recession was, in a way, inevitable, as long as, for a variety of reasons which have already been discussed, it was no longer possible to keep up the fast rates of growth enjoyed in the 1960s on the basis of the expansion of industry.

The case of Greece, however, is very different. One cannot possibly talk of "maturity" and "exhaustion of the growth potential of industry" in the case of a country which never managed to industrialise properly and based whatever industrialisation it was able to achieve on strong protective measures, foreign capital, heavy dependency on imports and strong governmental intervention, and in which, moreover, the secondary sector was, at no point in time, larger than the tertiary. The recession in Greece and the expansion of the tertiary sector does not represent a recession of transition from one leading sector to another, for apart from anything else, Greece never really possessed any truly leading sectors. The ingredients of the economic recession in Greece, existed even during the years of economic prosperity of the country. They could be found in its non integrated economic structure, the absence of significant linkages between sectors, the distorted structure of demand and income distribution, the heavy dependency from abroad which resulted in any industrial expansion and export growth to cause a corresponding rise in imports and a crash

of the balance of payments, etc. The fact that these pre-existing elements only became apparent at about the same time when Western Europe was plunged into a economic recession for entirely different reasons, is the result of the combination of a set of domestic (the fall of the junta and the restoration of democracy, the beginning of repatriation etc.) and international (membership in the E.C., rising importance of the NICs, etc.) coincidences. Furthermore, the acceptance of the fact that the economic recession in Greece is caused by a totally different set of factors than in Western Europe, easily leads to the conclusion that any policy aimed at recovering from the recession should be based on entirely different directives in each case.

It should have become obvious from the above analysis that many of the particular characteristics of manufacturing industry taken for granted by Kaldor and which appear to be necessary for the applicability of the Kaldorian theory, were absent from the Greek manufacturing sector, during both the period of fast economic growth of the country as well as that of economic recession, until today. In particular:

1) Domestic demand for domestic manufactured goods was always characterised by a relatively low elasticity, since:

-wage earners, who represent the group with the most elastic demand for manufacturing products, constitute a very small percentage of total employment, in relation to self-employed, compared to the other Western European countries;

-the prevailing tax-system limits the purchasing power of even this small percentage of wage-earners;

-the prevailing consumption pattern (as well as relative prices) results in a marked preference for imported rather than domestic manufactured goods.

2) For reasons already mentioned, both domestic and export demand for Greek manufactured products was also characterised by a low elasticity.

3) For a variety of reasons, the Greek manufacturing sector was characterised by a low demand and absorptiveness of labour, even in a period when the latter was plentiful (and when, therefore, the Kaldorian "scenario" of the second law, based on availability of labour, could be applicable).

4) As a consequence of 3), which resulted in mass migration abroad, the

pool of available labour to manufacturing shrank, with the result that the Greek manufacturing sector was faced with relative shortages (this case implying a possible shift from Kaldor's to Rowthorn's-labour constrained specification of the second law, see chapter I). These labour shortages led to a further substitution of capital for labour, especially obvious after 1973, when the returning migrants preferred to seek employment in the tertiary sector rather than get a job in manufacturing, for which they were perhaps not even suited any longer, since they had been trained to the different requirements of Western European manufacturing industries.

5) As a consequence of the above, the capital/labour ratio in the Greek manufacturing sector was not stable, over the period 1960-1988. On the contrary, the production process was characterised by either relatively more labour intensive or more capital intensive methods, for different time periods.

On the basis of these observations, therefore, one could argue that the Greek manufacturing sector could not have been an engine of growth for the economy, in any sense of the word, let alone the Kaldorian meaning attributed to it and that, therefore, the application of the Kaldorian theory to it would run into some difficulties.

Having examined certain particular features of the economic structure and development of Greece, we shall now, attempt to combine the preceding two chapters, by proceeding with the empirical investigation of the applicability of the Kaldorian growth theory, in the case of Greece.

CHAPTER III

AN ECONOMETRIC INVESTIGATION OF THE APPLICABILITY OF KALDOR'S GROWTH LAWS TO THE GREEK ECONOMY

A. METHODOLOGY

Following the presentation of Chapter I, dealing with the Kaldorian growth theory and Chapter II, consisting of an analysis of the Greek economy and its particularities, it would, be rather interesting, now, to combine them both, in an empirical application of the theory to the particular case of Greece.

Our attempt at investigating empirically what happened and what could happen to the Greek economy and the Greek industry in particular, in the future, proceeds in a series of steps. The first step is to assess how far the three Kaldorian laws are applicable to the Greek case, and whether manufacturing did represent an engine of economic growth, at least to the extent it did for other countries.

If the answer to the above question was found to be negative or ambiguous, the second step would be to see whether the laws could be applicable to some other sector, with, possibly, the potential to behave as a leading sector, on its own or in a complementary way to manufacturing industry.

The Kaldorian theory was built on the importance of the manufacturing sector, based on certain features very particular to the latter which, it was believed that no other sector could posses. A possible non applicability (absolute or partial) of the Kaldorian laws to the Greek industry could not serve as a basis for substituting some other sector for industry and proceed to derive the same results that Kaldor derived for the manufacturing sector. However, an ambiguous or doubtful applicability of the laws and of the first one in particular (this being, mainly, due to data availability and reliability, as well to the particular importance of the first law as far as engine of growth considerations are concerned), to the Greek case, could serve as an indication of the relative failure of industrialisation, when, moreover, it represented the primary goal set by economic policy over the whole post war period.

One should also take into account the possibility that the application of the Kaldorian theory, in Greece, may not yield the expected results (that is, results corresponding to those found in other countries), not because of the failure of the manufacturing sector to perform as a growth engine, but because the theory was not

designed for countries with the particularities of Greece. It is, nevertheless, plausible to think that if industrialisation had, in fact, succeeded in Greece, the manufacturing sector would present certain features (e.g. dynamic economies of scale, high labour absorptiveness, etc) which might be apparent in the estimated results.

Furthermore, a relative non-applicability of the Kaldorian laws to the Greek manufacturing sector, in combination with the structural particularities of the Greek economy which were described above, could serve as a starting point for an attempt to identify, if possible, certain "Kaldorian" characteristics, usually attributed solely to manufacturing, in some other sector of the economy, which had not enjoyed the favours bestowed upon industry. The existence of analogous features in an economic activity other than manufacturing, could be an indication that economic policy was somewhat misguided, in that respect. As far as future perspectives are concerned, it would, perhaps, suggest that:

- not all of the resources of the economy should be concentrated in sustaining a sector that, would seem unable to stand on its own;
- certain efforts should be undertaken to further organize and develop a sector which would seem to have a greater growth potential, even if (most probably) this is simply the result of the relative failure of the manufacturing sector (negative de-industrialisation: Rowthorn and Wells, 1987).

This does not imply that no further expansion of the manufacturing sector should take place, but that, perhaps, it should no longer represent the primary economic goal, especially at a time when the country would have very little hope (in relation to the 1960s) of becoming competitive in this field, given international evolutions.

The second section of this chapter, consists of an application of the three Kaldorian growth laws to the manufacturing sector of Greece. The estimation period used is 1963-88. However, given that the world-wide economic recession of 1973-74 had strong implications for the Greek economy, as well, a time dummy variable was included in the regressions, where statistically significant, for the period 1974-88, when the difficulties facing the economy, as a whole,

started to become obvious[1].

In the third section of this chapter, the three growth laws are extended to the other two sectors of the Greek economy, namely agriculture, and services. The fourth section consists of an application of the first law to the Greek tourist sector, testing the initial intuition, in an attempt to pinpoint a potential alternative to manufacturing, as an engine of growth, in the particular case of Greece. The application of only the first law to tourism may be justified on the basis of: 1) an almost complete lack of employment data on tourism, which prevents the application of the remaining two laws, an observation which does not apply only to the Greek tourist sector, but, also, to the tourism sectors of many countries; 2) the main objective of the thesis, to question the proposition that manufacturing acted as an engine of growth in the case of Greece. It is argued that a sufficient condition for the engine of growth hypothesis is the validity of the first Kaldorian law (Bairam, 1991, p. 1277).

The fifth section of this chapter consists of an application of the three growth laws to the three economic sectors of Greece, Italy, Spain and Portugal, using pooled time series and cross-section data, in an attempt to determine: 1) whether mainly, the manufacturing and service sectors, of the Greek economy are in some sense "different" from those corresponding sectors to the other three countries and 2) whether the application of the Kaldorian theory to less developed countries (The E.C. Mediterranean countries, in this case) yields different estimates in relation to the original ones found by Kaldor in his sample of industrial countries. The use of a different estimation method than the simple time-series analysis used in the first two sections of the present chapter, in relation to the Kaldorian theory can also be seen as derived from some doubts on the part of numerous authors (see chapter I, criticisms of the three

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A recursive residuals one step Chow test scaled by critical values at the 5% probability level was performed in order to justify the introduction of the dummy variable at 1974. The corresponding graph indicated that there actually was a break at observation 12 (year 1974), for most of the data series of the variables included in the regressions of this chapter.

laws), concerning the possible relative unreliability of the estimates when time series data are used. The other three countries of the sample, namely Italy, Spain and Portugal (where possible, on the basis of data availability) were chosen because they present the greatest resemblance to Greece, in terms of general economic structure, level of development etc.

Section F of the present chapter consists of a series of Sims-Granger causality tests between the various sectors and sub-sectors of the Greek secondary and tertiary sectors, in an attempt to determine the direction of the causal links, if any exist, between them.

B. TESTING THE KALDORIAN THEORY

In the following equations, as well as in the whole of the present chapter, AUTO indicates that there was an attempt to correct the residual autocorrelation indicated by the value of the Durbin Watson (D.W) statistic, by re-estimating the relevant equation using Autoregressive Least Squares. In all the cases where this estimation method (rather than OLS) was used, the R^2 presented is calculated as the square of the correlation coefficient between actual and predicted values of the dependent variable and serves purely as a measure of the goodness of fit of the estimated equation, since the normally used R^2 is biased and, therefore, invalid when autocorrelation is present.

The variables included in the following equations are all expressed in average annual growth rates (constant prices) and are:

GDP=Gross National Product

GDPA=Output of the agricultural sector

GDPM=Output of the manufacturing sector

GDPS=Output of the service sector

GDPT=Output of the Tourist sector

NM=manufacturing output growth minus non-manufactring output growth

NT=tourism output growth minus non-tourism output growth

EMPA=Employment in agriculture

EMPM=Employment in manufacturing

EMPS=Employment in services

PA=Productivity in agriculture (measured as GDPA-EMPA)

PM=Productivity in manufacturing (measured as GDPM-EMPM)

PS=Productivity in services (measured as GDPS-EMPS)

T= Shift Time Dummy where: T=0 for 1963-73 and
T=1 for 1974-88

TEMPM= Slope time Dummy defined as T*EMPM (T as above).

TNM=T*NM

TNT=T*NT

TGDPT=T*GDPT

1 Kaldor's First Law

One would normally expect a rapidly growing country whose GDP is increasing at an annual average rate of approximately 7% until

the first oil shock in 1973, (as was the case of Greece in the decade 1960-1970) and which, furthermore is draining its economy in order to speed up industrialisation, to present a higher correlation between GDP growth and the growth of its manufacturing output than other, already developed economies, especially when its starts out from a lower development and income level (Ch. I, p. 23) and is trying to catch up with them. In that respect, the application of, especially, the first law in the case of Greece, would be of particular interest. Kaldor's original cross section estimates of 12 OECD economies over the period 1952-1965, yield an R^2 of approximately 0.9 as far as the first law is concerned. In the case of Greece, time series analysis over the period 1963-1988 yields a considerably lower R^2, as we may see in the following regression, which represents the estimated equation for the Greek manufacturing sector.

GDP=a+bGDPM

	Constant	GDPM	T
Coefficient	3.22	0.39	-1.52
T-ratio	2.50	3.89	1.26

R^2=0.75
F=35.5
D.W=1.91

As we may derive from the estimated coefficients, a 1% increase in the growth rate of manufacturing output is associated with 0.4% increase in the growth rate of GDP, during the period 1963-88. The size of the coefficient of manufacturing output is rather low, with respect to estimates of the first law for other countries, although still larger than could be explained by the share of the manufacturing sector in GDP, as long as the latter was equal to 17% in 1960, 21% in 1973 and 18% in 1986. However, the fit of the estimated equation is not as good as one might have expected, with a correlation coefficient of less than 0.8. While the time dummy is not statistically significant in the above equation, it has not been omitted in order to enable the tests presented in the second section of the present chapter. A similar test for the applicability of the first law can be carried out by regressing the rate of growth the excess of

manufacturing over non-manufacturing output on the growth rate of GDP (see ch. I, section 1.2). The estimated coefficients may be seen in the following Table.

GDP=a+bNM

	Constant	NM	T
Coefficients	7.72	0.01	-5.25
T-ratios	8.30	0.09	4.53

R^2=0.59
F=16.87
D.W.=1.59

If the first law were true, one should notice a strong correlation between the excess of the growth of manufacturing over non-manufacturing output and GDP growth (Ch. I, section 1.2). In the above case, however, the coefficient of NM is very low and statistically non significant, at the 95% significance level.

Although testing the first law in the case of Greece proved to be much easier. on the basis of the available statistical data than the other two laws, both of which require the use of sectoral employment data which are much harder to find and less reliable than output data, the estimation of the second and third laws, in the case of the greek manufacturing sector, gave the following results:

2. Kaldor's Second Law

First specification: PM=a+bGDPM

	Constant	GDPM
Coefficients	-0.04	0.74
T-ratios	0.07	10.25

R^2=0.81
F=105.09
D.W.=1.47

AUTO		
Coefficients	0.27	0.71
T-ratios	0.33	7.94

R^2=0.81

Second specification: EMPM=a+bGDPM

	Constant	GDPM
Coefficients	0.04	0.25
T-ratios	0.07	3.43
R^2=0.32		
F=11.79		
D.W.=1.47		
AUTO		
Coefficients	-0.27	0.28
T-ratios	0.33	3.09
R^2=0.36		

One will notice, from the above table, that while both productivity growth and employment growth are positively correlated with output growth in manufacturing, the coefficient for output growth in the second specification of the Verdoorn law is much lower than in the first specification, that is, output growth is closer correlated with productivity growth than with employment growth in the Greek manufacturing industry. A rise of one unit in the growth of manufacturing output implies a rise of 0.7 units in the growth of productivity but of only 0.3 units in employment growth[2]. One could see this as yet another indication of manufacturing's low labour absorptiveness in Greece, even in a period when manufacturing output was growing rapidly. Because of the low growth of manufacturing employment all through the period examined, one could argue that the above regressions are spurious, as long as, in this case, as mentioned in Chapter I, in the first specification of the law, output growth is, in fact, regressed on itself (productivity growth being measured as output growth minus employment growth). Furthermore, one should keep in mind the points made on page 86 of chapter II relatively to the applicability of the Verdoorn's law, in particular, to the Greek

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One will notice that the coefficient for manufacturing output, in both specifications of the Verdoorn's law is outside the limits stated by Hildreth (1988), where $0.41<b<0.57$, b being the coefficient of manufacturing output.

economy[3].

3. Kaldor's Third Law

GDP=a+bEMPM

	Constant	EMPM	T
Coefficients	6.41	0.49	-4.28
T-ratios	5.08	3.06	5.08

R^2=0.71
F=28.44
D.W.=1.88

It seems that, according to the above estimates, the Kaldorian line of thought, that the faster labour moves into manufacturing from other (less productive) economic sectors, the faster is the growth of total output, and productivity, is valid in the case of Greece. One should keep in mind, that while the manufacturing sector, in Greece, had large supplies of unskilled labour available, in the early to mid-60s, it started facing relative shortages of (skilled) labour in the 1970s, largely due to mass emigration to Western European countries (mainly West Germany). This could, partly, serve as an explanation for the validity of the third law over the estimation period.

On the basis of these results, especially as far as the first law is concerned which is of particular interest in the present analysis, both as far as the economic history of Greece as well as future alternatives and perspectives for the economy are concerned, it

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In view of these reservations as to the applicability of Kaldor's specification of the second law to the Greek manufacturing sector and furthermore, in view of the possibility that output growth in the Greek manufacturing industry may have been relatively labour constrained after 1974, Rowthorn's specification of the second law was also estimated in this case, yielding the following results:

Pm= 3.83 + 0.09empm R^2=0.36
(1.56) (0.29)

The above regression was estimated using autoregressive least squares to correct 1st order autocorrelation which was initially present in the residuals. The results are rather poor, indicating no association between productivity growth and employment growth in Greek manufacturing, for the period 1963-88 (The dummy variables for 1974-88 were not significant in this case).

would be interesting to compare the applicability of the three Kaldorian laws in the Greek manufacturing sector, to that in the other two economic sectors in Greece, before going on to comparisons with other countries which started out at a, more or less, similar development level such as Italy, Spain and Portugal. In fact, one could argue that the above results may be due to the type of analysis used or to the existing differences in development levels between Greece and the Western European economies included in Kaldor's initial sample.

C. BEYOND KALDOR'S LAWS: MODIFICATIONS AND EXTENSIONS - COMPARISONS BETWEEN ECONOMIC SECTORS.

Taking into account the particular characteristics of the Greek economy, among others:

-the still very high importance of the agricultural sector (especially as far as its share in total employment is concerned);

-the low importance of the manufacturing sector both in output and employment, despite the high rates of growth enjoyed by the economy in the period 1960-70;

-the "premature" overexpansion of the tertiary sector (premature, in accordance with the belief (Clark, 1950), that the main part of the service sector expands at a later stage, in relation to manufacturing and in response to the latter's development and decline, at much later stages of development);

-high levels of hidden economy and tax evasion etc,

it seemed tempting to start by investigating the applicability of the three Kaldorian laws in other economic sectors apart from manufacturing, such as agriculture and services.

The following Table shows the results of the application of the three laws in the greek agricultural and service sectors.

1. Kaldor's First Law

GDP=a+bGDPsector where GDPsector=output of the agricultural, service and manufacturing sector accordingly.

It is possible to see, in the following table that, while the growth of both agricultural and service output are positively correlated with total GDP growth all through the period 1963-88, the coefficient for agriculture is rather low (0.13). One notices that the coefficient of service sector output is rather large and that the R^2 related to services is higher than for either agriculture or manufacturing. Furthermore, as in the case of manufacturing, the 1973-74 recession does not seem to affect the impact service sector growth has on GDP growth.

	Constant	GDPA	T
Coefficient	7.19	0.13	-4.93
T-ratios	10.49	2.22	5.80
R^2=0.66			
F=22.95			
D.W.=1.55			

	Constant	GDPS
Coefficients	-1.69	1.26
T-ratios	2.40	10.05
R^2=0.80		
F= 101.00		
D.W.=2.14		

The fact that the importance of services in relation to GDP growth is not even higher than indicated, in the case of Greece, could very possibly be due to a general problem concerning official Greek data, and more particularly the output of the service sector which is most probably grossly underestimated especially after 1973, because of the rapidly rising level of the output of hidden economic activities[4]. The fact that hidden economic activities are mainly related to the service sector could be an explanation for the fact that the correlation between GDP growth and the growth of service output is not even greater. One should note, that the Kaldorian hypothesis that the coefficient of service output is not statistically different from one, is not accepted, on the basis of the above estimates. The test of the hypothesis takes the following form:

$$H0: b=1, H1: b\neq 1, \quad \frac{\hat{b}-1}{\hat{sb}} \cong t,\ n-2$$

Consequently, $\frac{1.26-1}{0.124}=2.07$, which is larger than the critical value of t (1.71).

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Three studies that attempted to measure the level of the hidden economy, in Greece, estimated its output as being 25%-40% of official GDP (Pavlopulos, 1987 and Delivani, 1989, 1991).

From the following table, where the estimated coefficients of both equations of the Verdoorn law are shown, it is possible to observe that, as far as the agricultural sector of Greece is concerned, the growth of output seems to explain adequately, at first sight, the growth of productivity, over the whole estimation period, and the size of the coefficient indicates the existence of constant returns to scale. However, as one might have expected, agricultural output growth and employment in agriculture are negatively correlated, as one may see from the second specification of the law. Growth in agricultural output (and productivity) requires a drop in agricultural employment. The time dummy is significant only as far as the shift coefficient is concerned; apparently, after 1974, autonomous productivity growth in agriculture as well as the autonomous rate at which agricultural employment was dropping, were both lower than in the period 1963-73.

2. Kaldor's Second Law

First specification: Psector=a+bGDPsector where: Psector=productivity of each of the three sectors accordingly.

	Constant	GDPA	T
Coefficients	3.61	1.08	-2.18
T-ratios	4.42	14.92	2.15
$R=^2$0.91			
F=125.5			
D.W.=2.59			

	Constant	GDPA	T
AUTO			
Coefficients	3.87	1.02	-2.40
T-ratios	5.39	10.08	2.80
R^2=0.92			

	Constant	GDPS
Coefficients	-65.13	8.70
T-ratios	1.19	0.90
R^2=0.03		
F=0.81		
D.W.=1.15		

AUTO		
Coefficients	-20.20	3.70
T-ratios	0.84	1.01

R^2=0.19

Second Specification: EMPsector=a+bGDPsector

	Constant	GDPA	T
Coefficients	-3.61	-0.08	2.18
T-ratios	-4.42	-1.21	2.15

R^2=0.3
F=0.78
D.W.=2.59

	Constant	GDPA	T
AUTO			
Coefficients	-3.87	-0.02	2.40
T-ratios	5.39	0.28	2.80

R^2=0.32

	Constant	GDPS
Coefficients	65.13	-7.72
T-ratios	1.19	-0.79

R^2=0.02
F=0.64
D.W.=1.15

	Constant	GDPS
AUTO		
Coefficients	20.20	-2.70
T-ratios	0.84	0.74

R^2=0.18

The Verdoorn law, on the other hand, does not seem to apply to the Greek service sector. The coefficient of service output growth is statistically non-significant in both specifications of the second law and the correlation coefficients are very low in both

cases. On the basis of the above results, it would seem that increasing returns of scale are not present in either agriculture or services in Greece (and are rather low in manufacturing). However, especially were the service sector is concerned, one could argue that the estimated coefficients of the Verdoorn law equation are highly unreliable, for a number of reasons.

The first one (more extensively described in the concluding chapter of the present thesis) concerns the argument that quality considerations, which are an integral part of productivity in services, are not taken into account, as long as only quantity measures of productivity (in this case, output growth minus employment growth) enter into the estimation of the second law. In the second place, when estimating the second law, one does not take into account the very high concentration of hidden economic activities in the tertiary sector, in Greece, with the result that employment growth, output growth and, consequently, productivity growth all tend to be biased downwards, and not necessarily equally. The third, and perhaps most important reason is that services include many kinds of activities, many of which have a very low productivity, but they especially include public services. In the case of public services, employment, to a very large extent, grows independently of output. Employment in the Greek public sector, is in a sense "protected" from cyclical fluctuations and recessions. Especially after the beginning of repatriation, state policies involved an increased availability of jobs in the public sector, in order to avoid the problem of unemployment, given the low labour absorptiveness of manufacturing. With the public sector forming an increasing share of GDP in the postwar years, and especially after 1973, it is probably true that when the growth rate of service output decreased after 1973, employment kept increasing at more or less pre-1973 rates. In fact, if one looks at the data on output and employment growth in services, over the period 1963-88, it is possible to see that an average growth rate of service output equal to 6.65% in the period 1963-73 corresponded to a 2.10% rise in service employment over the same period, while a 3.57% average growth rate of service output in the period 1974-88 corresponds to an average growth of service employment equal to 2.65% It would be worth while to estimate the second law for the private service sector only. Unfortunately

however, Greek employment data are available only for the whole of the service sector (public plus private).

Apart from the problems mentioned above, concerning the reliability of the estimates of the second law in all three sectors of the Greek economy, but especially services, another reason why the results may not be indicative, is that a time series analysis is used while, it is suggested, that a cross section one would have been more appropriate. It is argued that a time series analysis of the second law may pick up the effect of Okun's law (cyclical variations in employment and output in each country over time) rather than Verdoorn's law, while it seems that the first and, to a certain extent, the third law face this problem to a much lesser degree, if at all.

3 Kaldor's Third Law.

According to the estimated coefficients in the following table, employment growth in the Greek agricultural sector, is negatively, although not statistically significantly, correlated with total GDP growth. In the Greek service sector, on the other hand, the correlation between employment and GDP growth is positive and statistically significant, up to 1973. After that, as indicated by the sign and significance of the slope dummy, the correlation between employment growth in services and total GDP is reduced almost to 0. This could be attributed, in part, to the increasing degree of hidden economic activities and underemployment in the Greek service sector, after 1974 largely due to the rapid increase in service employment, as long as most returning migrants as well as those who could not find employment in manufacturing ended up in the tertiary sector. In fact, the apparent breakdown of the third law after 1973, in services may be an indication of the "parasitic" nature of a large part of the service sector, in Greece, whose large employment share is, in great part, the consequence of the low labour absorptiveness of the manufacturing sector rather than the result of the service sector's large labour requirements. Also, the points mentioned in relation to the second law, concerning the high concentration of employment in public services (a large part of which is, consequently, underemployed) apply in this case as well.

GDP=a+bEMPsector

	Constant	EMPA	T
Coefficients	7.05	-0.18	-4.88
T-ratios	7.05	0.99	4.87

R^2=0.61
F=18.08
D.W.=1.67

	Constant	EMPS	TEMPS
Coefficients	2.36	2.54	-2.53
T-ratios	3.80	5.75	5.75

R^2=0.59
F=17.56
D.W.=1.46

	Constant	EMPS	TEMPS
AUTO			
Coefficients	2.23	2.57	-2.56
T-ratios	2.98	4.65	4.65

R^2=0.62
D.W.=1.50

D. KALDOR'S FIRST GROWTH LAW AND THE GREEK TOURISM SECTOR

The estimates of the three Kaldorian laws presented in the previous section, indicate a particular behaviour of the Greek service sector; especially on the basis of the first law estimates, since the application of the other two laws to services run into a series of problems, already mentioned above which cast doubt on their reliability, the Greek service sector appears to be of particular importance for the economy, during a period when great efforts were undertaken in order to sustain the industrial sector. It would be worth while, therefore, to take a closer look at the Greek tertiary sector in comparison to the other two economic sectors.

In the first place it would be interesting, to break down the service sector to the activities composing it and look at their relation with the growth of the economy as a whole. In fact, if one were to argue that services could act as an alternative (or complementary) engine of growth to manufacturing, it would be useful to try and specify the kind of services which could have the potential to take on this role, as it is well known that a lot of very different activities are included under the heading of "services".

Due to serious difficulties in breaking down the service sector and finding reliable data over a relatively long time period, for the time being only tourism is included in the analysis and only with respect to the first Kaldorian law, because of a lack of employment data on tourism. The results, however, proved to be very interesting and worth doing some further work on the importance of the tourist sector for Greece, among other things, constructing some proxies or indices of its importance where data are not available, not to mention improving the data collection system for the sector in question.

Tourism certainly represents an activity where Greece has a comparative advantage over other countries. Among other features which will be more extensively discussed in chapters IV and V, it constitutes a special kind of export activity where demand factors are particularly important (demand for tourism is believed to be highly income and price elastic). It also has the advantage of bringing fast and large earnings in foreign currency, thus alleviating the problem of balance of payments constraints and freeing economic resources for

other uses.

One could also say that it is an activity more suited to the habits and way of life of the Greek people who are put off by the hard and restrictive working conditions of paid industrial employment and seem to prefer self employment and employment in services. One problem with seeing tourism as a potential leading sector would be the weakness of any backward and forward linkages between this sector and the rest of the economy. It has been argued, however, that tourism's absorptiveness in labour is quite high (see Ch. IV, section 2). On the other hand, one could argue that the particular development pattern of the Greek manufacturing sector was unable to create strong linkages between it and the rest of the economy anyway, as indicates the absence of any significant intermediate goods industry. One could then argue that the matter amounts to a choice between the relative comparative advantages of the two sectors. In any case, the application of Kaldor's original first equation to the tourist industry, gives impressive results, especially in the second period 1974-1988, when the importance of tourism for GDP growth rises above that of the manufacturing sector, as we may see in the following regressions.

GDP=a+bGDPT

	Constant	GDPT	T	TGDPT
Coefficients	8.71	-0.10	-7.31	0.60
T-ratios	6.51	0.74	5.16	3.42

R^2 =0.81
F=32.12
D.W.=1.72

In the above estimates one notices that the application of the first Kaldorian equation to the Greek tourism sector appears to have a very good fit. Both shift and slope time dummies are significant, indicating that the importance of tourism for GDP growth increases significantly after 1974. In fact, the coefficient for output growth in the tourism sector rises from -0.10 in the period 1963-1973, to 0.5 in the period 1974-1988, while the proportion of GDP growth not explained by tourism drops from 8.71, in the first period,

to 1.4, in the second one. This is perfectly in line with the fact that, as we shall see in Chapter V, the Greek tourism sector only started to grow into one of particular importance for the economy, in the late 60s, early 70s. It would appear that the regression on tourism has, in fact, a better fit than the one corresponding to the Greek manufacturing sector[5]. The fit of the first law applied to the Greek tourist sector, in relation to the corresponding one related to manufacturing, seems even more interesting and impressive if one keeps in mind that during the period 1974-88, the manufacturing sector represented, on average, approximately 17%-18% of GDP while the tourist sector only 4%-5%.

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It has been argued in a recent paper (Bairam, 1991, pp. 1277-80) that the regression of sector output on total output may be spurious because sector output is a part of total output. In order to counteract this, Bairam regresses manufacturing output growth on the growth of 1) agricultural output and 2) service output, in his application of the first law to Turkey, and concludes that manufacturing did play the role of growth engine. The specification by Bairam, applied to Greece, for the period 1963-88, gave the following results:

GDPA= 1.82 + 0.14GDPM R^2=0.01 F=0.38 D.W.=2.5
(0.91) (0.61)

GDPS= 4.48 + 0.25GDPM - 1.6T R^2=0.83 F=58.07 D.W.=1.48
(5.94) (4.33) (2.31)

However, in the above, the implicit assumption that the direction of causality runs from manufacturing to the other economic sectors is rather arbitrary. If one regresses eg. service output growth on manufacturing output growth and extends the above specification of the first law to tourism, one gets the following results:

GDPM= -4.97 + 2.15GDPS R^2=0.79 F=93.7 D.W.=2.01
(3.96) (9.67)

GDPM= 12.32 - 0.09GDPT -11.98T +0.81TGDPT R^2=0.81 F=32.4 D.W.=1.93
(5.36) (0.37) (4.92) (2.75)

GDPA= 1.96 + 0.15GDPT R^2=0.01 F=0.29 D.W.=2.5
(1.00) (0.54)

GDPS= 3.31 + 0.36GDPT R^2=0.56 F=31.08 D.W.=1.57
(7.25) (5.57)

The above results, corroborate the conclusions drawn in this chapter, as well as the results of the causality tests in section F.

The growth rate of tourism output is measured as the growth rate of receipts from tourism in constant prices and, therefore, the variable may be underestimated, since, among other possible measurement errors (eg. foreign exchange transactions on the "black market" rather than through the banking system), tourist receipts include what tourists spend within the country but not their cost of getting there (which is included in the transport account) etc. (Blackaby (ed), 1978).

The superiority of tourism over manufacturing where the regression of the first Kaldorian law is concerned, is further confirmed by the following (encompassing) tests comparing the performance of the two models. Model 1 represents the above regression, that is, the application of the first law to the tourism sector in Greece, while model 2 represents the application of the same law to the Greek manufacturing sector.

Model 1 vs Model 2	Form	Test	Form	Model 2 vs model 1
-1.63	N(0,1)	Cox	N(0,1)	-4.85
1.358	$N(0_2 1)$	Ericson IV	$N(0_2 1)$	3.479
1.455	$Chi^2(1)$	Sargan	$Chi^2(2)$	6.65
1.48	F(1,21)	Joint Model	F(2,21)	4.274
[0.236]	Probability			[0.0277]

Under the null hypothesis that Model 1 encompasses Model 2, the Cox test and the Ericsson IV test are distributed as N(0,1).

The Sargan test is a Wald test of the restricted against the unrestricted form of the model, i.e a test of the validity of using Model 2 instruments for estimating Model 1 (and conversely).

The F-tests test each model against the joint one (the one including all the variables of both models).

All the coefficients relating to model 1 (the regression on tourism) are smaller than those relating to Model 2 (the regression on manufacturing), which confirms the superiority of Model 1 versus Model 2.

A regression of the excess of the growth of tourist over non-tourist output on total GDP growth, further confirms the importance of tourism for overall growth, especially after 1974, as we may see in the following table.

GDP=a+bNT

	Constant	NT	T	TNT
Coefficients	7.97	-0.23	-5.37	0.65
T-ratios	12.67	1.66	6.51	2.62

R^2=0.69
F=16.63
D.W.=1.79

As we may see, after 1974, there is a strong positive correlation between the excess of tourist over non-tourist output growth and total GDP growth, as opposed to the corresponding regression applied to the Greek manufacturing sector, where the coefficient of the excess of manufacturing over non-manufacturing outputy growth was not statistically significant over the estimation period.

It is clear that a more definite impression of the role of tourism in Greece, in the Kaldorian sense, would, probably, require the corresponding estimates relating to the application of the second and third laws to the Greek tourism sector. Their estimation, however, necessitates the use of employment data which, if unreliable for other economic sectors, are simply non-existent for tourism. Even if a proxy for tourism employment could be found, (which would be rather difficult, given the nature of tourism employment, as described in chapters IV and V, and also, the high level of hidden economic activity concentrated in the Greek tourism sector, in particular), one would run into problems of productivity measurement in tourism (see chapter VI for references).

In any case, the estimation of the first law is, I believe, sufficient to determine the impact of the growth of a particular sector on the growth of the economy (in output terms). If the problem of defining an engine of growth is really a question of finding an economic sector or activity whose growth induces and is highly and positively correlated with overall economic growth, then the first of Kaldor's laws should be sufficient to establish this for a particular sector or activity. The other two laws refer to specific characteristics of the sector or activity in question, such as the nature of employment, output and productivity growth, the existence of

economies of scale etc. A sector performing as an engine of growth, on the basis of the first law, should posses the characteristics described by the other two laws. According to Kaldor, the only sector which fulfills all three conditions, is manufacturing. The Kaldorian theory, however, was formulated at a time when a different and, obviously more traditional, view prevailed as to the role of the three main economic sectors. As we shall see more extensively in the concluding chapter of the thesis, services were seen as unproductive and parasitic, on the whole, in relation to manufacturing which was seen as the key sector for a developing economy.

Recently however, different views have been formulated, concerning the structure and performance of the service sector. It has been argued that while some traditional service activities are, in fact, parasitic, less productive etc, there are certain categories of service producing activities which share, or could share, depending on the choice of the production proses, which can be very elastic in services (chapter VI), common characteristics with the manufacturing sector, where scale economies, introduction of new technology etc is concerned.

While the estimation of the second and third law in the Greek tourism sector would be helpful, for the sake of completeness, therefore, the results, even if available, would probably be misleading; the measurement of the variables used (e.g. productivity) is, in fact meant for manufacturing, and does not take into account the particular characteristics of a service activity such as tourism, where employment and productivity growth, for example, should be considered in a somewhat different way, in order to include, among other things, the quality standard of the final output of the sector.

Before going onto examining the particular characteristics of tourism and especially Greek tourism and dealing with the question of whether this sort of economic activity has the potential to act as an, alternative or complementary to manufacturing, engine of growth in Greece, we shall first proceed to a comparison of the fit of the three Kaldorian laws in Greece and three other similar (in their general economic structure) Mediterranean countries, Italy, Spain and Portugal.

E. POOLING CROSS SECTION AND TIME SERIES DATA

This section consists of an application of the three Kaldorian growth laws to the agricultural, manufacturing and service sectors of Greece, Italy, Spain and Portugal, where possible (continuous data on agricultural employment for the whole of the estimation period used were not available for some countries of the sample), using a pooled cross-section and time series estimation method. Apart from the fact that this sort of estimation procedure will give us some information as to the applicability of the Kaldorian theory in the E.C. countries of the Mediterranean basin which present certain structural characteristics different from those corresponding to the other West European economies, it is considered by certain authors as more reliable than time series estimation for each country (Ch. I section 2.3). The estimation method used throughout this section takes into account that the disturbance terms are autoregressive within each country of the sample and heteroskedastic across countries (Kmenta, 1986) and the estimated equations are automatically adjusted for both.

The sample consists of four countries, with 24 observations for each, and an estimation period of 1963-86, since most of the data was not available after that for Italy, Spain and Portugal.

Three shift country dummies are used, where:

D1=0 for Greece, Spain and Portugal and
D1=1 for Italy.
D2=0 for Greece, Italy and Portugal and
D2=1 for Spain
D3=0 for Greece, Italy and Spain and
D3=1 for Portugal.

Thirteen slope country dummies are used for the output and employment of each sector of the countries included in the sample, where:

A1=D1*GDPA	M1=D1*GDPM	S1=D1*GDPS	E1=D1*EMPM
A2=D2*GDPA	M2=D2*GDPM	S2=D2*GDPS	E2=D2*EMPM
A3=D3*GDPA	M3=D3*GDPM	S3=D3*GDPS	L1=D1*EMPS
			L2=D2*EMPS

A recursive residuals Chow test (scaled by critical values) showed that most of the data series of the variables included in the regressions for the three laws, present a "break" at observation 12 which corresponds to the year 1974 of the estimation period, for the four countries of the samples. Therefore, when shown to be statistically significant, a time shift and slope dummy variable is also included in the following regressions, where:

T=0 for 1963-73	TA=T*GDPA	TEM=T*EMPM
T=1 for 1974-88	TM=T*GDPM	TES=T*EMPS
		TS=T*GDPS

Only the dummies which were found to be statistically significant are included in the following regressions. All the equations were initially estimated using all the relevant dummy variables, but those which were shown to be statistically non-significant were dropped from the final models. The R^2 used in the following regressions as a measure of the goodness of fit is the Buse R^2.

1. Kaldor's First Law

GDP=a1+b1GDPsector

	Constant	GDPA	A1	A2	T
Coefficients	6.56	0.18	-0.21	-0.23	-4.20
T-ratios	26.50	8.39	2.35	3.45	12.95

R^2= 0.71
SSE=82.52

	Constant	GDPM	D1	M1	M3	T	TM
Coefficients	5.08	0.27	-4.57	0.95	-0.21	-3.47	0.16
T-ratios	7.27	11.17	9.09	9.90	3.95	4.72	1.84

R^2 =0.87
SSE=93.34

	Constant	GDPS	D2	D3	S2	S3	T
Coefficients	-0.58	1.20	3.07	4.95	-0.68	-1.03	-1.74
T-ratios	1.08	17.13	6.17	7.62	7.33	10.66	4.61

R^2=0.88
SSE=91.95

As far as the above estimates are concerned, one may notice the following points:

-The agricultural sector of the countries included in the sample appears to be similar, where the application of the first law is concerned, for Greece and Portugal. The agricultural sector appears to be of greater importance for these two countries, although the coefficient of agricultural output growth is rather low (0.15) while it becomes negative for Italy and Spain (-0.03 and -0.05 respectively).

-Where the application of the first law to the manufacturing sector of the four countries is concerned, only Greece and Spain seem to share similarities, while the Italian manufacturing sector is very different from the other three. Greece and Spain present a rather high constant term (shared by Portugal) and a coefficient for the growth of manufacturing output equal to 0.27, while for Portugal, the impact of manufacturing output growth on GDP growth is much lower (0.06). The manufacturing sector, on the other hand, seems to be more important for Italy, among the countries of the sample, which presents a slope coefficient of 1.22. These observations, however, only apply up to 1973, since both shift and slope time dummies are significant, indicating that the importance of manufacturing output growth on GDP growth, increases after 1974, for all the countries in the sample.

-The importance of services for GDP growth seems to be highest for Greece and Italy, with a slope coefficient of 1.20, while the impact of service growth on GDP is much smaller for both Spain (0.52) and Portugal (0.17). An important point to notice, however, is that Italy possesses a large and highly important service sector but, at the same time has the most important manufacturing sector among the four countries, where its impact on GDP growth is concerned. Greece, on the other hand, presents a similar with Italy in importance, service sector, but a manufacturing sector which appears to be lagging behind it in importance

2. Kaldor's Second Law

In this and the third law, only the manufacturing and service sectors of Greece, Italy and Spain are considered because of

lack of employment data on Portugal, and the agricultural sector of the three Mediterranean countries.

First specification: Psector=a1+b1GDPsector

	Constant	GDPM	D1	T
Coefficients	-2.64	0.87	2.15	3.41
T-ratios	3.83	16.20	3.82	5.26

R^2=0.94
SSE=65.14

	Constant	GDPS	D1	D2	S1	S2	T	TS
Coefficients	-1.68	0.93	2.16	2.80	-0.56	-0.49	-2.14	0.42
T-ratios	2.62	10.44	3.37	6.27	3.93	4.79	2.71	2.83

R^2=0.96
SSE=52.82

Second Specification: EMPsector=a1+b1GDPsector

	Constant	GDPM	D1	T
Coefficients	2.64	0.12	-3.41	-2.15
T-ratios	3.83	2.23	5.26	3.82

R^2=0.96
SSE=52.87

	Constant	GDPS	D1	D2	S1	S2	T	TS
Coefficients	1.68	0.06	-2.16	-2.80	0.56	0.49	2.14	-0.42
T-ratios	2.62	0.75	3.37	6.27	3.93	4.79	2.71	2.83

R^2=0.77
SSE=52.87

From the above estimates of the second law, one may derive the following conclusions:

-Where the manufacturing sector is concerned, all three countries appear to be similar in relation to the effect of output growth on productivity growth, with a very high slope coefficient of 0.87. Italy has a different (larger) constant term, however, an indication that a larger part of productivity growth in manufacturing cannot be attributed to output growth.

-The second specification of the law seems to apply to a much lesser extent to all three countries of the sample. Output growth induces

employment growth to a much lesser extent than it induces productivity growth. The coefficient of manufacturing output growth is only 0.12, in the second specification, while according to Kaldor, an indication of strong economies of scale in the manufacturing sector corresponds to a value of approximately 0.5 for manufacturing output growth, in the two specifications of the Verdoorn law[6].

Apart from the possibility that these estimates are unreliable because of measurement problems as far as employment figures are concerned, for a variety of reasons (e.g dependent development, imported capital intensive technologies etc), the three Mediterranean countries considered here (as well as Portugal, on which, however, there are no comparable data on employment over the 24 years of the sample), may have developed a manufacturing sector with a much lower labour absorptive capacity than the corresponding sectors of the Western European economies before them. An indication of this could be the massive emigration witnessed by all three countries at about the same period.

-The three countries included in the sample appear to be very different where the application of the Verdoorn law to services is concerned. Greece presents the highest positive correlation between output growth and productivity growth (which is also very significant, statistically, contrary to the corresponding time-series estimation), while both Spain and Italy have a lower coefficient for service output growth.

-Output growth in the Greek service sector appears to be positively related to employment growth, up to 1973, but the coefficient is not

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Rowthorn's labour constrained specification of Verdoorn's law was estimated for the manufacturing sector of Greece, Italy and Spain, in addition to the Kaldorian specification of the law. The results were the following:

$$PM = \underset{(9.45)}{4.24} - \underset{(1.06)}{0.2EMPM} + \underset{(2.9)}{2.1D2} - \underset{(5.4)}{0.9E1} - \underset{(4.81)}{0.8E2} - \underset{(8.3)}{6.7T} + \underset{(1.76)}{0.17TEM} \quad R^2=0.97$$

The time dummy for the period 1974-88 was significant, in this case as far as both shift and slope coefficients of the above regression are concerned. Once again, the results are rather poor. The relationship between employment and productivity growth in manufacturing, appears to be negative in all three countries of the sample, in both periods, although this relationship is not significant for Greece.

statistically significant (at the 95% level). The correlation between service output and employment growth is stronger (as well as statistically significant) for the other two countries. The Situation changes somewhat after 1974, however, since the coefficient of service output, in the first specification, becomes greater that one, for Greece, with the result that, in the second specification, the correlation between output and employment growth turns negative. This is certainly in line with the reservations and explanations put forward in relation to the corresponding time-series estimation of the second law for the Greek service sector, since it was especially after 1973 that the concentration of hidden economic activities rose impressively in the tertiary sector; also, it it possible to say that up to 1973, when output was growing very fast in the tertiary sector, the fast rise in employment did not have a significantly negative impact on service productivity growth. After 1973, however, when the growth rate of the economy, as a whole, as well as of the tertiary sector in particular dropped significantly, the continuous fast rise of employment, due both to the employment policy of the public sector, as well as to the fact that repatriation had started and the returning migrants were massively entering the service sector, independently of the drop in output growth, the effect was a drop in productivity, and a negative correlation between output and employment growth in the Greek service sector, as a whole. According to the above estimates and with all the reservations previously mentioned concerning the reliability of the data, measurement problems, the fact that the service sector is taken, here, to be homogeneous while it is constituted of a large number of different activities etc, the second law seems to apply to Italy and Spain but not to Greece, especially after 1974.

The following observations apply to the estimates of the third law for the manufacturing and service sectors of Greece, Italy and Spain:

3.Kaldor's Third Law

GDP =a1+b1EMPsector

	Constant	EMPM	E1	E2	T
Coefficients	6.27	0.67	-0.58	-0.65	3.61
T-ratios	58.96	7.92	6.65	7.84	8.16

R^2=0.76
SSE=65.48

	Constant	EMPS	D1	D2	L1	L2	T
Coefficients	8.32	-0.44	-2.73	-2.55	0.64	0.57	-3.77
T-ratios	13.07	4.23	4.12	4.09	5.22	3.58	8.03

R^2=0.97
SSE=67.75

-All three countries are different as far as both sectors are concerned. In manufacturing, the correlation of employment growth and total GDP is stronger for Greece, followed by Italy and Spain, in turn, with coefficients of manufacturing employment equal to 0.67, 0.09 and 0.02.

-In services, the correlation between employment growth and total GDP growth is negative for Greece and positive for Italy and Spain. This is in line with the time-series estimation of the second and third laws to the Greek service sector and could probably be justified on the same grounds as for the Verdoorn law. In fact, if the high rate of service employment growth, which, especially after 1974, was independent of output growth, contributed to a drop of the productivity of the Greek service sector, as a whole, one should also expect a negative correlation between employment growth in services and overall growth, in Greece. It would be interesting, on the basis of these results, to break down the service sector into sub-categories and estimate the second and third law for each one separately. However, continuous employment data on separate service activities are not available for Greece. This was the reason why only the first law was estimated for the Greek tourism sector, in particular.

The general conclusion to be derived from this section is that, for the reasons mentioned above,the second and third of the

Kaldorian growth laws cannot be used to derive useful conclusions as far as the service sector of Greece, in particular, is concerned.

On the other hand, it seems to me that the first law can serve this purpose. For one thing, the data included in the estimation of the law are much more reliable than in the other two laws, as long as only output data on the various sectors are necessary. Also, it seems that in this case time series estimation may be used without significantly biasing the estimates, while this, argue some authors (see Ch. I, p. 33), may be the case for the second law. In the estimation of the first law, the regression coefficients seemed, for the most part, to be fairly stable, whether time series analysis was used for Greece, or pooling and cross-section analysis for the four Mediterranean countries of the sample. It would seem, therefore, that it would not be too risky to accept, at least indicatively, the conclusions to which the estimates of the first law lead us. The most important of these indications for future work is that the manufacturing sector seems to be less important as far as its correlation with GDP growth is concerned:

1) In the E.C. Mediterranean countries, with the exception of Italy, in comparison to the industrialised West European countries, in the early 60s.

2) For the Greek economy, in particular, in relation to other economic activities, eg. tourism.

Tourism, in particular, seems to be important in its own right, for the Greek economy, as the close correlation of its growth rate to GDP growth indicates. Given that, in my opinion, it would not be wise for Greece to continue its policy of traditional industrialisation "at all costs" and that it should gradually begin to turn its resources to alternatives, with dynamic growth potential, (which, as we shall see in chapter V, tourism seems to posses), the above indication is important, as far as determining the direction of this shift.

The fact that, as the estimated equations in the present chapter seem to indicate, the first of the three Kaldorian laws seems to apply to services and tourism in particular, just as well, if not better than in the manufacturing sector, is possibly not sufficient to sustain the argument that other sectors, apart from industry could be considered as alternative leading sectors or engines of economic

growth, in the particular case of the Greek economy. In fact, Kaldor himself did not deny that the correlation between GDP growth and service sector output growth could be quite high. He did argue, however, that the one of the reasons why service activities could not possibly be regarded in the same way as manufacturing was that the direction of causality between the two variables ran from GDP growth to service output growth, a feature which, naturally, is inconsistent with the definition of a "leading" sector. The next and last section of the present chapter consists of an attempt to see whether this drawback also applies to the Greek service sector and tourism sector, in particular.

F. TESTING FOR CAUSALITY

1. Introduction

One of many important points underlying the Kaldorian theory of growth is the notion of causality, that is, the existence of causal relationships among the macroeconomic variables involved in the analysis. In particular, where the first growth law is concerned (manufacturing output growth regressed on total output growth), the direction of causality is argued to run from manufacturing output to GDP, not vice-versa. According to the Kaldorian view, the reason for this is to be found in that manufacturing industry, in particular, is subject to strong dynamic economies of scale (see Chapter I) which spread themselves through the whole of the national economy and stimulate overall economic growth, thus, turning manufacturing industry into the major vehicle of economic development. Kaldor is very particular about this point, stressing repeatedly that such a causal relationship from sectoral output growth to GDP growth is only to be found in the manufacturing sector. While it is possible for the output of other sectors to present a high correlation with total output growth (possibly as high as manufacturing) as is usually the case with output growth in the service sector, Kaldor emphasises that the direction of causality is different, running not from sectoral output to total output, as in the case of manufacturing, but in the opposite direction, that is, from GDP to sectoral output growth. He attributes this to the fact that the demand for services becomes more elastic following the rise in incomes brought about by economic development, and also because, the expansion of the industrial sector causes an increase in demand for services as intermediate goods (Kaldor 1966, pp. 10-11).

Faced with criticisms and doubts (Wolfe, 1968, p. 118) concerning the existence and direction of these assumed causal relationships, especially in relation to manufacturing output and total output growth, Kaldor reacted strongly, arguing that whoever doubted the fact that manufacturing output growth "causes" total GDP growth, does not take into account the existence of dynamic economies of scale in the manufacturing sector. While the theoretical framework on which this argument is based may be true, the fact is that, as far as I know, the latter has never been tested empirically, neither by

Kaldor himself nor by any of the other authors involved in these arguments, who limited themselves to extensive discussions about the applicability or non applicability of the laws in various case studies, without however, looking at the direction of causal relations between economic sectors, if such relations do exist.

In the remainder of this section, an attempt will be made to use the direct Granger test approach in order to derive, if possible, certain conclusions about the (causal) inter-sectoral relationships in the case of the Greek economy. The direct Granger test takes the following form (Moore, 1984, p. 153).

$$X_t = \sum_{j=1}^{m} a_j X_{t-j} + \sum_{j=1}^{m} b_j Y_{t-j} + u_t$$

$$Y_t = \sum_{j=1}^{m} c_j X_{t-j} + \sum_{j=1}^{m} d_j Y_t + v$$

Y_t and X_t are assumed to be stationary time series variables and the residuals are assumed to be white noise. Y_t is said to "cause" X_t if some b_j 's are significant and the c_j's as a group are not. If some b_j's and c_j's are significant, then there is a feedback relationship between the two variables. It is important to note, however, that the notion of causality in this type of analysis refers mainly to the predictive power of, say, Y where future values of X are concerned, rather than to the intuitive notion of causality, in which sense, X happens because of Y (Moore, 1984, p. 150). Causality in this sort of test rather means that one of the two variables contains information that helps to better predict the other variable. In fact, in the Granger-Sims approach, a mere precedence in time, of one of the two variables, implies the existence of causality. It is also important to note that this type of test is rather vulnerable to a number of statistical problems (eg. omitted significant lagged values of the dependent variable, autocorrelated residuals, non-stationarity etc), all of which can result in overstressing causal relationships where they exist and/or create the illusion of such relationships where they do not exist. Therefore, all these type of tests (Sims-Granger type of approach) are considered to be rather imperfect vehicles for disclosing causality, if any exists, between time series variables

(Moore, 1984, p. 157).

Even with these shortcomings, however, the Granger-Sims test can be applied in order to test the Kaldorian view of causality. Despite the fact that the latter is based on a deeper and more complex notion of causality than just precedence over time of the development of one economic sector among others, it is clear that a sector has to develop before others, in order to be able to perform the role of "leader" and to "cause" the development of other economic sectors and branches, pulling them along behind it. Despite the fact, therefore, that an indication of the existence of causality between two variables, based on the Granger-Sims test, is certainly not a proof of the existence of causality in the Kaldorian sense, such an indication could serve as a basic precondition for the existence of a Kaldorian type causal relationship between two sectors.

The following variables will be used for the econometric investigations in this section:

GDP=Gross National Product

GDPM=Manufacturing output

GDPA=Agricultural output

GDPS=Service output

GDPT=Tourism sector output (Total earnings)

The output of the service sector is then broken down further into the following categories:

TC=Transport and Communications

Trade

Bnks=Banks and Insurance

Dwellings

Pub-Ad=Public administration

Hth-Ed=Health and Education

Othser=Other Services

All the variables are expressed in constant (1970) drachmas and represent growth rates. All the variables were tested for stationarity and, in fact, all proved to be integrated of order either I(0) or I(1). Therefore, first differences of the growth rates of all the variables were used, in order to perform the Granger test. The estimation period is 1970-1988. The main reason for this (in comparison to the 1963-88 period used earlier) is that, as already mentioned, tourism, which is of particular interest in this case, only

started to gain in importance in the late 60s to early 70s.

The purpose of the following tests was, in the first place, to look at the causal (if any) relations between GDP and manufacturing output growth (as well as with service and agricultural output growth), between manufacturing output growth, agriculture and services and then between manufacturing output growth and the growth of each of the above service branches. The same exercise was then performed between tourist output growth (the growth of total tourist receipts, in drs, was used as a proxy of tourist output) and the output growth of each of the above sectors. Finally, the relation between the growth of tourist and manufacturing output was examined. The direct Granger test approach yielded the results presented in Table I of the Statistical Appendix, where: The figures in round brackets under the estimated coefficients represent the t-ratios. F' represents the F-value of the autocorrelation test, since the D.W statistic is invalid in the case when lagged values of the dependent variable are included in the regression equation. The figure in brackets below it, is the critical value of the F distribution.

All of the results are concisely presented in the following Table. The direction of the arrows indicates the direction in which causality runs from one variable to another. Double arrows ($\leftrightarrow$) indicate feedback.

In some of the cases, the relationships between the various macroeconomic variables listed in the first column of the Table and the output of the manufacturing and tourism sectors, respectively, may be hard to believe. In fact, the results summarised in the above Table may seem to either contradict traditional economic theory or common sense.

Depending on the way one views the consistency and reliability of the direct Granger test approach, an opponent of this approach would probably reject (or cast strong doubts on) the above results, attributing them to the method itself, while a proponent of the method in question, would probably question its applicability in this case, or/and the reliability of the data involved. Evaluation of the direct causality test approach, however, is far beyond the scope of this study. Assuming that both the method itself and its application in this particular case are both reasonably reliable however, we shall now proceed to a critical evaluation and

interpretation of the results.

	Manufacturing GDP	Tourism GDP
GDP	⟷	⟵
GDP Agriculture	⟶	No relationship
GDP Manufacturing		⟵
GDP Services	⟷	⟵
Transport-Communications	⟵	No relationship
Trade	No relationship	⟵
Banks-Insurance	No relationship	No relationship
Dwellings	⟶	No relationship
Public Administration	No relationship	⟵
Health-Education	No relationship	⟵
Other Services	⟶	No relationship
Tourism GDP	⟶	

-The feedback relationship between total GDP growth and manufacturing output growth and most importantly, the one way causal relation between tourist output growth and total GDP growth, contradicts the Kaldorian theory, as far as the leading role of the manufacturing sector is concerned. These relationships, however, in a sense justify the reservations expressed at various points in the present thesis as to whether manufacturing has truly been the "engine of growth" in Greece. In fact, (even if this seems to oversimplify things) tourism seems to have been more successful in this role. The above findings also seem to be in accordance and to corroborate the results of the application of the Kaldorian laws to the Greek manufacturing and tourism sectors.

-The output of the tourist sector seems to have been a very important determining factor as far as predicting the evolution of total GDP growth, as well as the output of the service sector, in general, and health-education and trade, in particular, are concerned.

More specifically:

a) The relationship between the output growth of tourism and services

indicates the leading role of tourism as far as the growth of the tertiary sector, as a whole, is concerned.

b) The relationship between the growth of tourism output and trade seems to make sense. The development of tourism is believed, among other things, to improve the image of an area or country, to open up frontiers, bringing foreigners into contact with different cultures and products, a fact which would normally be expected to have a positive effect on international trade and vice-versa.

-The relationship between the output of tourism and Health and Education seems to indicate that the development of tourism and the consequent increased demand for services requires a higher level of educational and health services in order to ensure an improved quality of the final tourist product.

-The fact that tourist output has no relation whatsoever with the growth of agricultural output, dwellings and other services indicates that tourism did not develop any linkages with these sectors.

-The most important finding, however is the one way causal relation between the output of tourism and manufacturing, which would seem to indicate, however surprisingly, that tourism stimulates growth in the manufacturing sector! This would seem to imply, in fact, that there are indeed, strong linkages running from tourism to manufacturing, in Greece, contrary to what is usually assumed. Obviously, if this is true, it certainly contributes to emphasise the role of tourism, both actual and potential (since growth rates rather than levels are used throughout the analysis), in Greek economic development.

-The failure of the Greek manufacturing sector to act as an engine of growth for the Greek economy is indicated, among other things, by the indication that manufacturing output growth "causes" only the growth of agricultural output and dwellings. Contrary to the Kaldorian view, a very important finding is represented by the indicated relation between manufacturing output growth and total GDP growth. The latter is not a one way causal relationship running from the former to the latter, but one of feedback. The non-conventional structure and development of the Greek manufacturing sector is indicated by the fact that manufacturing output does not seem to be an important determinant of GDP growth. In fact, there seems to be no relationship between manufacturing and either trade or banks and insurance, both of which represent sectors which, according to traditional economic theory, are

stimulated by the growth of the manufacturing sector.

It is difficult to derive definite conclusions on the basis of the above econometric tests alone. However, the above indications (which corroborate the results of the application of Kaldor's laws to Greece) seem to point out that the manufacturing-engine of growth scheme has never been applicable to the Greek economy. Tourism seems to have played this role better but is still far from being what the theory attributes to manufacturing. This could be partly due to the fact that such a role was never even remotely expected of tourism, at least on the part of the Greek policy makers. This is hardly surprising however, given that service-led rather than manufacturing-led development represents a very radical and non-conventional possibility, which is hardly ever considered, while any significant service sector development occurs largely by default, (Riddle, 1986, see also VI). This is especially true for a country like Greece, which is very insecure and heavily dependent, both materially and ideologically on the more developed countries of Western Europe as well as the U.S.A.

Having proceeded to this point of the analysis, the next step is to examine the actual and potential role which tourism can play in economic development. The next two chapters of the thesis are centred around this task, in an attempt to define and pinpoint certain characteristic features of tourism in general and Greek tourism in particular, in an attempt to see under what conditions it would be possible for a tourism-engine of growth scheme to operate in Greece, in the future.

CHAPTER IV

THE ECONOMIC ROLE OF TOURISM

A. INTRODUCTION

The analysis developed in the previous chapters of the present thesis raises the question of whether it would be possible, theoretically speaking, for any other economic sector to act as an engine of growth, in case the manufacturing sector fails to perform as such. The econometric investigation (Ch. III) has indicated the relative failure of manufacturing in that respect in the case of Greece. It has also revealed that tourism has acted equally well (if not better) than manufacturing, in that sense. One could argue though, that these findings are not sufficient to establish the case of tourism as an engine of growth, in general and particularly for Greece. It would be, therefore, necessary to form a theoretical basis concerning the role of tourism in an economy (this will be the task of the present chapter), as well as an application of this theoretical framework in the case of Greece (this being the purpose of the next chapter). The purpose of both chapters is:

1) to examine whether the tourist sector does (or could, in the future) possess certain "Kaldorian type" features which would enable it to assume a role as an alternative (or complementary) to traditional industry, leading sector in economic development;

2) in the particular case of Greece, to see, if possible, under what conditions the tourist sector could play such a role, to a higher degree and in a more conscious and organised way than in the past.

In both this and the following chapter, the emphasis will be on the economic effects of tourism as distinguished from the environmental, social or cultural ones. Also, despite the fact that domestic tourism represents approximately 70-88% of total international tourist movements (WTO, 1982, p. 9), in Greece, international tourism is still far more important than domestic tourism; both chapters, therefore, will deal only with international tourism as this is where the major economic effects of tourism are usually attributed, (this being especially true for Greece) given that domestic tourism mainly results in shifting wealth from one region of the country to another rather than contributing to actual net growth in the GDP of a country (Smith, 1989, p. 23).

Tourism is becoming increasingly appealing as an

alternative (or complementary) route for economic development in both developing and developed countries. Especially for countries at intermediate stages of economic development, however, tourism as a development strategy presents many characteristics which could lead to the transformation of these economies from agricultural to developed and, furthermore, it does not suffer (or, at least, not to the same extent) from the disadvantages of other "traditional" means for economic growth, namely exports of primary products or early development of the manufacturing sector, either through import substitution or export led policies.

In the first case, (exports of primary goods), a view first expressed in 1949/50 by Prebisch and Singer, (see Sarkar, 1986) which comes as a contradiction to that advanced by older economists (e.g. Keynes, Robertson, Clark), argues that developing countries usually find themselves at a serious disadvantage because, they usually depend on one or two exportable agricultural products with a relatively low income elasticity of demand. This, in combination with the fact that the elasticity of demand for goods produced in the advanced industrialised countries is, in general, very high in developing countries, leads to a constant deterioration of their long run barter terms of trade (Bond and Ladman, 1972, p. 38-40).

Some of the disadvantages of developing a domestic manufacturing sector early in the development process, on the other hand are that, among others, the following difficulties can be (and usually are) encountered:

-In the case of an import substitution strategy, developing countries usually have to face the problem of the small size of their domestic market which limits the diversification and the production scale of industry.

-Export led growth, on the other hand, implies that the manufactured goods produced domestically will have to face the full competition of similar goods produced in the advanced countries, which, in most cases, embody higher quality and technology if not lower prices (Economist Intelligence Unit, 1973, p. 57).

The appeal of tourism as a vehicle for economic development lies in that it does not present these disadvantages, at least not to the same extent. The last two decades have witnessed an

extremely fast growth of travel imports on the part of the developed countries, which is expected to continue and increase still further, because of the rising wealth of the latter. This is mainly due to the fact that tourism is characterised by a high income elasticity of demand, estimated to be greater than one and even greater than two in most developed countries (English, 1986, p. 19).

Another advantage of tourism, especially for developing countries, is that it is a rather diversified product, with each country having something different to offer potential tourists, so that countries engaging in this activity may be able to play a decisive role in the price determination of their tourist product rather than being obliged to accept the terms of trade set by the developed countries.

Perhaps one of the most obvious advantages of tourism, particularly for countries at intermediate stages of development, is that it is a direct earner of foreign exchange, much needed in these countries in order to pay for their rapidly rising imports, especially of intermediate manufactured products. Furthermore, the particular structure of the tourist industry which spreads and intertwines itself throughout the domestic economy could help stimulate investment in other sectors, diversify the economy, help develop a domestic industry of consumer goods and, generally, play a decisive role as far as transforming the economy and speeding up the development process is concerned; among other reasons, the development of the tourist sector provides an extended market for the country's products and also, the gestation period for most tourist investment projects is relatively short (Gearing et al, 1976, p. 15). Moreover, during its early stages of development, the tourism sector is usually relatively labour rather than capital intensive, although, as one may see in section D of the concluding chapter, the particular sector can be characterised either by low or by high capital/ technology/skill intensity, according to the development level, resources etc of the country in question. This feature is particularly suited to the characteristics of developing countries, at the early -intermediate stages of their development, when capital is, usually, scarce and expensive, while labour is cheap and plentiful.

The advantages of developing a successful tourist sector,

however, are not limited to the developing countries only. According to Murphy (1985, p. 2) who argues that "tourism can be seen as the transitory period from an industrial society to whatever future awaits us", they could well be extended to the advanced industrialised countries as well. The relative decline of the manufacturing sector in these countries, especially in terms of employment as well as of output and the falling competitiveness of some, on the international level, as far as their exports of industrial goods are concerned, raises the question of shifting resources to an alternative potential growth industry with a high capacity to absorb labour and an increased competitiveness in the longer run. Tourism is a service activity, compatible with the post-industrial, service oriented stage which, according to this view, the industrialised countries of Western Europe are about to enter; despite various fears about being highly unstable and overdependent on numerous unpredictable and non-economic factors, it seems to be more stable than many merchandise exports as well as surprisingly resilient to economic crises (IUOTTO, 1975).

This may seem like a paradox, in the sense that it would seem to imply that the development of the tourist sector is seen as an alternative development strategy both for developed countries entering the post-industrial stage, as well as an industrialisation-stimulating (or replacing) strategy suited to developing countries. One should keep in mind, though, that the positive effects tourist development is hoped to have in these two different cases are expected to evolve in two different ways. In the case of the less developed countries, the development of the tourist sector is expected to stimulate economic development, in general, through an increased consumer demand and a larger market size for the country's products, which will, hopefully, stimulate the development of sectors and industrial branches producing the goods demanded. In short, in the case of developing countries, tourism is expected to stimulate a sort of import-substituting development strategy, apart from bringing in much needed foreign exchange. In the case of the developed industrial and de-industrialising economies, on the other hand, what is expected of tourism, is to help "fill the gaps" (in terms of employment, GDP growth etc), that are created by the process of de-industrialisation.

Apart from the fact that both 1967 and 1990 were

proclaimed "International Tourism Years", tourism has been characterised as the "Growth Industry of the 21st Century" as well as the largest single item in World Trade (Gearing, 1976, p. 28). Receipts from international tourism are in excess of world exports of merchandise goods, for most years in the period 1958-73 (Economist Intelligence Unit, 1973, p. 55). The growth of international tourist receipts in the period 1963-78 was 13.6% on average, 14.19% in 1988, (current $ U.S.), while the growth rate of international arrivals was 7.7%, in the period 1958-73, despite the oil crisis of 1973, when arrivals dropped sharply but recovered remarkably fast in the next two years growing at an annual rate of 8.8% by 1988. Europe is the main earner as well as spender on foreign travel. At the beginning of the 1980s it registered approximately 70% of total international tourist arrivals, and tourist expenditure by EC residents in 1979 was 100 billion dollars (7% of total private consumption in the same year), while tourist receipts by the EC members in the same year were 99 billion dollars (Commission of the European Communities, 1985, p. 5).

The main problem underlying the attempt to examine the economic role of tourism is that, in order to analyse the economic impact of the development of a particular sector or industry, one should be able to, at least, distinguish and define, if not quantify and measure the sector or industry in question, as well as its components. This is a very hard task where tourism is concerned. The generally accepted definition provided by the World Tourist Organization (WTO) for the international tourist and the tourist sector and product is the following: An international tourist is an individual entering a country that is not his usual place of residence and who spends at least one night in accommodation in the destination country without intending to emigrate there, to find employment or to stay there for more than a year, and who is not a diplomat, a member of the armed forces, a nomad, a refugee or a border worker, a transit passenger or a cruise passenger; but who may be a visitor for recreation purposes, medical treatment, religious or family matters, sporting events, conferences, study, business (lasting for less than a year), an employee of international bodies on a less than a year mission or a national returning home on a temporary visit. The tourist sector comprises all those industrial and commercial activities

producing goods and services wholly or mainly consumed by tourists (Smith, 1989, p. 31).

On the basis of these definitions, however, it is extremely hard to be more specific as far as the size and impact of tourism on the economy is concerned, a fact which is attributed to the high degree of diversification of the industry, its extremely dispersed and unorganized nature and its various and complex linkages with other industries the products of which are consumed by tourists (e.g. manufacturing, retailing, transport, accommodation sectors etc). Tourism as an identifiable industry cannot be found in either national accounts figures or input-output tables. Even if one tries to approximate the tourist product by the quantity of goods and services mostly consumed by international tourists (e.g. accommodation), it would be impossible to distinguish the portion actually consumed by visitors to the country, from the consumption of the normal resident population, given the fact that most (if not all) of the facilities enjoyed and consumed by tourists are shared by the domestic population as well. As a direct consequence of the above, most indices used to measure tourist activity in a country (total receipts, arrivals and nights spent by tourists), are, at best, approximations of the latter. The result of this lack of generally accepted measures and definitions and reliable data, which, even when available, are rarely comparable among countries, as each uses its own method of measurement, and the consequent difficulty in quantifying tourism, leads to a reluctance on the part of both scientists as well as governments to even accept the latter as a real industry (Smith, 1989, p. 8), let alone consider its potential role as a leading economic sector.

B. THE ECONOMIC IMPACT OF TOURISM.

The main areas where the impact of tourism on the economy may be felt are the balance of payments, employment and income generation and regional development. In general, the magnitude of the economic impact of tourism is determined by :

1. The nature and the attractiveness of the main facility of the destination area.
2. The volume and intensity of tourist expenditure.
3. The level of development of the destination area.
4. The size of the economic base of the destination area.
5. The degree to which tourist expenditures recirculate in the destination area.
6. The degree to which the destination area has adjusted to the seasonality of demand inherent in tourism (Mathieson and Wall, 1982, p. 52).

In the following paragraphs, the main areas of the economic impact of tourism will be dealt with, one by one.

1. Tourism and the Balance of Payments

One of the major (if not the primary) role of tourism in economic development is seen as a foreign exchange earner. In some cases (e.g. Greece for some years), foreign exchange earnings from tourism exceeded earnings from any other single industry. It seems, furthermore, that receipts from tourism are more stable, with less fluctuations over time, than commodity exports (especially of primary goods), this having a stabilizing influence on the balance of payments (Erbes, 1972, p. 35, Eurostat Statistics, various issues), although one could argue that tourism could still be the source of some instability, given its high sensitivity to exogenous shocks.

The role of tourism as a foreign exchange earner is particularly important for countries at intermediate stages of development, usually characterised by fast rates of growth, especially of the manufacturing sector. The rapid development of the latter, usually coincides with a phase when industries of intermediate goods necessary for production are very underdeveloped or even nonexistent.

As a consequence, these products will have to be imported from advanced countries, causing imports to rise sharply in the developing economy. This raises the question of how the country will pay for its imports, as shortage of foreign exchange is usually another characteristic of developing economies. Earnings of foreign exchange from tourism could help considerably in alleviating this problem, and besides enabling imports and reducing the dependence on foreign loans, they could also induce increased capital formation and, consequently, a faster overall rate of economic growth (Gray, 1972, p. 141). Tourist receipts as a percentage of total exports can serve as an index of the importance of tourism as an export industry in a country, while tourist receipts as a percentage of total imports indicates the importance of tourism for financing imports (Goodall et. al., 1988, p. 115). Tourist receipts as a share in the exports and imports of the E.C. countries, over the period 1970-1988, may be seen in the following table. This table provides data for all 12 EC members since 1970, although some of them joined the Community later.

TABLE IV.B1 Tourist receipts as a share in exports and imports EC-12, 1970-1989.

	1970		1975		1980		1985		1988	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
Belgium-Luxemburg	3.0	3.0	2.8	2.9	2.5	2.7	2.9	3.0	3.7	3.7
Denmark	-	-	-	-	6.7	7.7	7.4	8.0	9.3	8.9
France	8.2	8.8	6.4	6.6	6.0	7.4	7.3	8.1	7.7	8.2
Germany	5.1	4.4	3.7	3.1	3.4	3.4	3.7	3.2	3.3	2.6
Greece	9.9	30.2	11.7	27.4	16.4	33.5	14.0	31.4	19.9	45.1
Ireland	11.3	17.1	6.9	8.2	4.2	5.6	5.6	5.1	6.4	5.3
Netherlands	3.1	3.6	3.1	3.1	2.1	2.2	2.3	2.2	2.8	2.7
Portugal	14.9	24.9	9.3	12.2	12.1	24.7	14.5	19.9	15.1	22.8
Spain	35.6	70.3	21.4	45.3	20.4	33.6	26.2	32.4	27.5	41.6
U.K.	4.7	5.3	4.6	5.7	5.9	6.2	6.3	6.8	5.8	7.5
EC-12	7.1	7.6	5.7	6.1	5.8	6.6	6.8	7.0	7.1	7.2

(1): International Tourist receipts as % of total imports
(2): International Tourist receipts as % of total exports
Source: 1) U.N. Statistical Yearbook, various issues
2) Own calculations

As we may see from the above table, tourism appears much more important for the Mediterranean countries, as a share of both

imports and exports. From 1975 onwards, Spain and Greece represent the two E.C. countries where tourism is the main export industry and also helps pay for the largest share of total imports. In 1970, Spain came first, with tourist receipts forming 35.6% of total export earnings and paying for 70.3% of total imports. While Greece came third as far as its share of tourist receipts in total exports, after Portugal, it came second after Spain where the share of tourism in imports was concerned. By 1980 Greece comes first among the E.C. countries as far as its share of tourism receipts in both exports and imports is concerned. In 1988, on the other hand, Greece still has the largest share of tourist receipts in exports, (45%) among the twelve E.C. countries. The four Mediterranean countries, Greece, Spain, Italy and Portugal present a share of tourist receipts in total exports and imports which is much higher than the EC-12 average for all of the years shown in table IV.B1.

It has been argued, however, that, in order to estimate the true effect of tourism on the economy of a country and especially on its balance of payments, one should look at the net effect of tourism, that is tourist receipts minus expenditure of the country on foreign travel abroad. Even under this assumption, which is not accepted by most authors, the Mediterranean countries would probably still be the greatest net gainers from tourism, given the fact that their tourist expenditure abroad is among the lowest in the EC (UN Statistical Notebook). It is argued, however, that balance in all the accounts of the balance of payments (including the travel account) is by no means necessary, since any attempt to achieve such a balance would result in no trade at all, except in those items where two way trade would be possible (Gray, 1972, p. 89).

On the other hand, tourism may have negative as well as positive effects on the balance of payments. It is possible that tourist receipts may "leak" outside the country. The net receipts from tourism for a country will depend on three factors:

1. The propensity to import of the tourist exporting country.
2. The percentage of expatriate labour employed.
3. The nature of the country's capital investment (Mathieson and Wall, 1982, p. 53-60).

The propensity to import is the proportion of each unit of

tourist expenditure which is transferred to another area for the purchase of goods and services. Imports can be either direct or indirect. Direct imports are represented by imports of goods or services consumed directly by the tourist or used by the tourist sector. Indirect imports are imports of raw materials, manufactured goods and services for domestic producers who provide goods and services to the tourist sector. The volume of imports will depend on the extent to which the demand for these goods and services can be met domestically (op. cit., p. 60). In some developing countries, the import content of tourism may be as high as 80%, greatly reducing the benefits of tourism on the balance of payments. In some other countries where the manufacturing industry and the economic base are fairly developed, like Greece, Yugoslavia etc, the import content of tourism is estimated to be around 10-20% (Cleverdon, 1979, p. 30), or lower. The import content of tourism may also depend on the consumption pattern adopted by international tourists visiting the country. If, for example, they feel adventurous and decide to sample domestically produced goods (e.g. particular drinks or food specialties etc), the imports of foodstuff and beverages for tourists will decline and, furthermore, if, on return to their country of origin, the tourists decide to continue consuming these particular products, there might even be scope for the destination country to increase its exports to the tourist generating countries. If, on the other hand, tourists insist in consuming goods with which they are familiar from their own countries, the receiving country will have to increase its imports of these goods in order to meed tourist demand; moreover, the consumption pattern of the tourists may be partly transferred to the domestic population, thereby, permanently increasing certain imports for the tourist exporting country. This is rather a remote possibility, however, and could, perhaps, be applicable in eg. a very small island economy with a small resident population and very little diversification of the economy, which, under these circumstances might be totally dependent on the life-pattern of international tourists. Small developing countries, for obvious reasons (eg. the size of their domestic market which limits the scale of production, the lack of developed intermediate goods industries etc), usually tend to have a higher import content

for tourism while, larger developed countries are usually fairly diversified with a complex system of backward linkages supporting the tourist sector, so that their import content tends to be rather low.

The percentage of expatriate labour employed in tourism is another cause for leakages to occur from the country (Mathieson and Wall, 1982, p. 61). Expatriate labour is more likely to be necessary in developing countries at the highest ranks (eg. managerial positions) due to a lack of skilled domestic labour, although developing countries deciding to specialise in international tourism could concentrate in training their labour force so as to eventually take on such positions; it is also sometimes found at the lowest ranking jobs, in the developed countries, where emigrants tend to take over low skilled, low pay positions, unwanted by the domestic labour. Remittances on the part of the foreign workers to their countries of origin, would tend to diminish the net receipts from tourism in the receiving country. Naturally, this phenomenon is even more marked when the domestic tourist sector is constituted to a large extent by multinational enterprises (e.g. hotel chains such as Hilton).

The nature of the capital investment in the tourism exporting country is another factor that determines the proportion of tourist receipts that will finally stay in the country (op. cit., p. 62). The share of the tourist sector controlled by foreigners is of crucial importance to this effect. Either because of the need to finance the development of the tourist sector at the early stages, especially in developing countries, or because of the emergence of multinational hotel chains, a large part of the tourist sector may find itself under foreign control. This is bound to have a negative effect on the balance of payments for two main reasons:

1. Foreign investors will usually tend to use equipment (building materials, furnishings, food, beverages, cutlery etc) with which they are familiar from their own countries and which they will tend to import in the absence of relevant import restrictions.
2. Foreign owned firms, especially multinationals, usually transfer a large proportion of (if not all) their profits to their country of origin.

It results, therefore, that foreign ownership of the tourist sector will have to be limited to a minimum or, at least,

strictly controlled, in order to minimize the negative effects which a large import content of tourism may have on the balance of payments of countries investing in the development of their tourist sector.

2. Tourism and Employment

The generation of new jobs is another area where the role of tourism development may be important. Because of the nature of the tourism industry whose primary role is the provision of various services to the tourists, this necessarily involving a lot of direct personal contact between the latter and those employed in the sector, tourism has been characterised by many authors, a labour rather than capital intensive activity. Although the high unemployment rates prevailing in most western industrialised countries and the consequent necessity to create new jobs outside industry which seems unable to absorb more labour, makes this particular feature of the tourist sector very attractive to developed countries as well, it seems especially important for developing countries. In fact, the latter, usually, have to rely for the development of their manufacturing sector on western, capital intensive technology, for various reasons analysed in previous chapters of the thesis (chapters I and II, in particular), with the consequence that the industrial sector can be of little help in creating employment for the generally abundant supply of labour in these economies (English, 1986, p. 38). While it would be possible to argue that this may also be true for tourism it is believed, in general, that it is possible for the latter to rely on domestic resources (both capital, technology and labour) much more than the manufacturing sector, partly because (see also section C of chapter VI) tourism (in particular, the type of development of the tourist sector, i.e. more or less capital/ skill/technology intensive) is much more adaptable than manufacturing to the conditions prevailing in the economy at various stages of development. Another feature of tourism particularly suited to developing economies is that, during the initial stages of its development, the tourist sector requires mainly unskilled labour, while it only starts requiring more skilled labour which is not so abundant in developing countries, at later stages of development (Mathieson and Wall, 1982, p. 43). One of the

reasons is that, one could hardly assume a high demand for skilled labour on the part of the tourist sector in a "virgin" field, (in terms of general development level, existing infrastructure etc), at least during the first stages of the sector's development. At higher levels of development, however, as more advanced information technology is used and the nature and quality of the services provided is transformed, it is plausible to assume that the tourism sector will require progressively more skilled labour (Poon, 1989, p. 16). The impact of tourism on employment in both developed and developing countries, could also be of major importance at the regional rather than at the national level, as a solution to the employment problems of areas where it would be very difficult, if not impossible, to develop a manufacturing sector, due to lack of resources but which, nevertheless, present the necessary characteristics for the development of a successful tourism sector (e.g. islands or declining industrialised areas) (Medlik, 1979, p. 21).

Some authors, however, question the argument that tourism is more labour intensive than other industries and consequently that it is more efficient in creating employment, because of the highly capital intensive demands it makes on infrastructure, especially at the initial stages of its development (Erbes, 1972, p. 80 and Cleverdon, 1979, p. 40). However not only tourism, but other economic sectors as well, will benefit from the existing infrastructure once it is created and in any case it has been estimated that approximately seven times less investment is needed for the creation of one job in tourism than in the manufacturing sector (Commission of the European Communities, 1985, p. 23).

According to the British Tourist Authority report, despite the fact that employment in the economy tended to remain static or even decline in the 1970s, employment in tourism increased during the same period. According to the same report, tourist generated employment is a major source of employment in the EC, which is moreover expanding in relation to other sectors (British Tourist Authority, 1981). The following table shows an estimate of the number of full time job equivalents generated by tourist receipts in the EC countries in 1985. The latter was approximately 7.4 million. In

absolute terms, France, Germany, Italy, the U.K. and Spain had the highest level of employment, accounting for 84.7% of the total. However, when expressed as a percentage of total civilian employment, employment was highest in Spain (9.1%) followed by Portugal (8.6%), France (6.9%), Greece (6.9%), Italy (6.7%), Ireland (5.8%), Germany (5.1%), BLEU (4.7%), Denmark (4.4%), U.K. (4.4%) and Netherlands (3.3%), while the percentage of EC-12 was 6.0% (Commission of the European Communities, 1985, p. 6).

Table IV.B2 Full time job equivalents generated by tourism receipts, EUR(12), 1985.

	(000s)	(% of EUR-12 total)
BLEU	180	2.4
Denmark	114	1.5
France	1487	20.2
Germany	1300	17.6
Greece	260	3.5
Ireland	62	0.8
Italy	1405	19.0
Netherlands	172	2.3
Portugal	355	4.8
Spain	980	13.3
UK	1081	14.6
EUR(12)	7396	100.0

Source: Commission of the European Communities, 1985, p. 5

Despite the fact that, as a service industry, tourism has been criticised because of its relatively low labour productivity, it seems that, in recent years, the number of employed increased less than tourist spending. It would seem that, in terms of the ratio of tourism's share in total output, over its share in total employment, in 1990, the productivity of the tourist sector is higher in Spain, France, Greece and Ireland and lower in Italy, among the EC member-states (Introduction, p. 6). Naturally, one should view these estimates with some caution, due to the high levels of hidden employment (and hidden economic activities, in general) concentrated in tourism.

The impact that the development of the tourist sector may have on employment depends on a number of factors: First of all, it depends principally on the absolute magnitude of direct tourist

spending in the region. In the second place, it depends on the size of the employment multiplier, the strength of backward linkages (Bond and Ladman, 1972, p. 44), the extent to which the industry employs non resident labour and on the type of employment offered (Brownrigg and Greig, 1976, p. 7).

Due to the high degree of diversity of the tourist industry and the fact that the development of the latter creates employment not only in the sector in question but, also in other economic sectors and industries, it is very hard to define what one means by employment in the tourist sector. One of the most complete and comprehensive definitions is given by Tempelman (1975). According to the author, employment in the tourist sector may be distinguished into primary and secondary:

Primary employment is created directly by the demand for tourist services which create the revenues of tourist development. Secondary employment is created throughout the economy by the spending and respending of the incomes earned from primary employment. Primary employment may be further distinguished into direct and indirect employment: Direct employment is created in the tourist industry by the provision of various services directly to tourists (accommodation sector, restaurants, travel agencies etc). Indirect employment is generated in other sectors of the economy which supply goods and services to those who serve the tourists directly (e.g. builders, food and drink suppliers etc) (Van Houts, 1979, p. 114 and Medlik, 1979, p. 10).

It is obvious from this definition that the size of the primary direct employment depends on the size of tourist expenditure in a destination area, that is on the size of the tourist market. The number of new jobs created in primary indirect employment, on the other hand, will depend on the strength of the backward linkages between the tourist sectors and other industries which, in turn, will depend on the existence and development level of intermediate and final goods industries and on their ability to meet the demand of the tourist sector, as well as on the import content of the tourist product. Finally, the size of the secondary employment depends on the size of the tourist employment multiplier, that is, the ratio of the primary employment created by a given level of tourist expenditure to

the secondary employment created by the same level of expenditure.

Assuming that one accepts this definition of tourist employment, which as mentioned above is one of the completest encountered in the relevant literature, one runs into tremendous difficulties when attempting to measure the exact level of tourist employment in an economy. The first difficulty arises from the extreme diversity of the various activities involved in forming the tourist product and the consequent difficulty in defining the sector, which results in a question as to which of the numerous jobs encountered in the various industries should be included in tourist employment. The difficulty becomes even greater if one takes into account that many of the existing jobs in clearly tourism or tourism related industries, such as catering, entertainment etc, may be generated by the expenditure of the inhabitants of the destination area rather than by the expenditure of tourists (Schmidhauser, 1979, p. 106). Apart from this, there are two other major problems as far as measuring tourist employment is concerned:

A. Most types of tourism are highly seasonal. The fact that the tourist product cannot be stored but must be consumed immediately when produced, combined with the fact that most destination areas mainly offer holiday tourism which can only be enjoyed during certain months of the year, causes demand to be highly seasonal, usually peaking during the summer months and being lower during the rest of the year. This particularity of tourism should naturally be expected to have some implications for the nature of tourist employment, at least as far as the decision to enter, the type of employment attracted and its mobility are concerned, despite the fact that, according to the WTO (World Tourist Organisation) only 25% of tourism employees are victim of this seasonality (Van Houts, 1979, p. 116). Various remedies against the seasonal nature of tourism have been suggested, most of which aim at prolonging the tourist season. Some of these are mentioned below:

1. Development of different forms of tourism apart from holiday tourism which suffers the most from seasonality, such as conference tourism, winter tourism etc. This would have the effect of prolonging the tourist season and taking some of the pressure off the summer months.

2. Longer vacation time which would allow splitting or second holidays; staggering of holidays, e.g. no summer closure of the schools; sabbaticals, winter "sun-breaks" etc, which would all have the same effect as point 1 (Okawa, 1971, p. 25 and British Tourist Authority, 1981, pp. 4 and 18).
3. Price variation of tourist services according to the level of demand during different parts of the year (Gray, 1972, p. 143)
4. Development of "permanent tourism" for retired people and their families, which would also have the advantage of attracting friends and relatives as potential tourists (Economist Intelligence Unit, 1973, p. 63).

B. A large proportion of employment in the tourist sector consists of part-time or secondary (e.g. female) employment. Tourism may also attract employment on a part time basis from other sectors, e.g. agriculture, whose seasonal nature is complementary to tourism. In general, tourism is considered as an industry requiring low skilled labour, especially at the initial-intermediate development stages, with the result that it is used by young people, unemployed or part time workers as a sort of second choice job or one from which they will eventually move on to other sectors or to better paid jobs in the same sector. As a consequence, the mobility of tourist employment is very high. It was estimated (Van Houts, 1979, p. 116), that in some developing countries, the whole hotel staff is being completely changed every three years, due to the high mobility of labour in this sector.

As a consequence of these difficulties in accurately measuring employment in the tourist sector, either there are no available data or the existing employment data are highly unreliable. In the absence of data on tourism employment the share of tourism in the GDP of a country may be used as an approximation of primary tourism employment. That is, assuming that a given level of expenditure sustains a given level of employment, one attributes to tourism the share of total employment analogous to the one which would be generated by its share in GDP, to account for primary employment and then uses an employment multiplier to estimate the level of secondary employment. Another way to approximate the level of employment in tourism is to assume that it is a function of the total

number of beds. In Switzerland, for example, this was estimated to be 0.4 of an employed person per bed (Schmidhauser, 1979, pp. 107 and 112).

3. Tourism as an Income Generator

The importance of international tourist expenditure as far as the economy of a country is concerned, may also be assessed through its impact on the GDP of the country considered. The following table shows the contribution of international tourist receipts to the GDP of the EC countries, in 1985.

Table IV.B3 Tourist receipts as % of GDP, EUR(12), 1970-1987.

	BLEU	DEN.	FR.	GER.	GR.	IRE.	IT.	NETH.	PORT.	SP.	UK.	EUR(12)
1970	0.5	-	1.1	0.8	1.9	4.5	1.4	1.2	3.8	4.5	0.8	2.0
1985	3.2	3.4	2.1	1.7	5.5	4.2	3.2	2.0	7.0	6.1	2.2	2.7
1987	1.1	2.3	1.5	0.7	5.0	3.3	1.6	1.3	6.5	7.6	1.6	2.9

Source: 1) Commission of the European Communities, 1985, p. 4.
2) UN Statistical Notebook, various issues.
3) Own calculations.

The share of tourism in GDP is highest, as we may see, for Spain and Portugal, followed by Greece, for 1985 and 1987, thus, highlighting once again, the importance of the tourist industry for the economies of the Mediterranean countries. Despite the fact, however, that the percentage of tourist receipts in the GDP of a country is a strong indication as to the importance of its tourist market, it is not an exact indication as far as income generation for the country is concerned. The effects of tourist expenditure on income, resemble a lot, although they do not coincide with, the effects of tourism on employment, which were examined in the previous paragraph, in the sense that they can, also, be distinguished in primary and secondary, direct and indirect. In order to estimate the contribution of tourism to the generation of direct income, one must, first of all, deduce from the gross tourist receipts, any "leakages" of income from the regional or national economy towards the rest of the world, which would reduce the net income that would finally stay

within the economy. Potential leakages may include (English, 1986, p. 25 and Erbes, 1972, pp. 73-4):

1. The import content of consumer goods and services directly sold to the tourist, e.g. imported food or drink, cosmetics, petrol etc. This category of leakages also includes expenses for publicity abroad etc.
2. The import content of goods and services sold to the tourist industry by other sectors. This means that one must know the proportion of the product of these sectors represented by goods and services sold to the tourist sector, that is, the specific structure of the intermediate purchases of the tourist sector.
3. The import content of capital goods for the tourism sector, (e.g. import content of hotels, elevators, taxis, buses).
4. The import content of governmental expenditure for the infrastructure requirements of the tourist sector, e.g. airports, roads, electricity, sewage etc.
5. Foreign exchange payments to factors supplying services for the national tourist sector, These could include, among others, remittances of foreign workers employed by the tourist sector, profit transfers abroad on the part of foreign owned firms, payments to foreign tour operators.

One should bear in mind, that the leakages mentioned above reflect the structure of the economy in general and do not, generally, arise directly from the tourist industry, as it is plausible to assume that incomes earned in tourism are likely to be spent in much the same way as those earned, for example, in the manufacturing sector, including the same sort of balance between expenditure on domestically supplied goods and on imports (IUOTO, 1975, p. 10).

Once it is possible to estimate tourist earnings net of import content of tourism without being stopped by unsurmountable difficulties concerning the availability of data, the determination of the industries to be included in the definition of the tourist sector etc, the result is the income generated in the tourist industry by international tourism.

The direct revenue created by the initial tourist expenditure to the tourist industry, will be spent, eventually, to pay for the salaries of the various workers employed in the industry, to replenish the stocks of the various tourist establishments etc, thus,

creating additional indirect incomes. These additional direct and indirect incomes will also be spent and respent within the economy in order to purchase goods and services produced by other sectors, thus inducing an increased overall economic activity, and at each round of spending some of these incomes will leak outside the economy, until, gradually, the impact of the initial expenditure on national income dies out (Mathieson and Wall, 1982, pp. 64-5). One of the ways most often used to estimate the total income (direct, indirect and secondary) generated by one unit of initial tourist expenditure, is the Keynesian income multiplier (Goodall and Ashworth, 1988, p. 120). The latter can be defined as the number by which the initial tourist expenditure must be multiplied, in order to obtain the total cumulative income effect for a specific period of time (usually one year: Mathieson and Wall, 1982, p. 64). The tourist income multiplier is usually expressed in the following form (Erbes, 1972, pp. 90-2, Murphy, 1985, p. 91):

$$TIM = \frac{1 - TPI}{MPS + MPI}$$ where,

TIM=Tourism income multiplier
TPI=Propensity to import of the tourist sector which is measured by the ratio of total imports of the tourist sector to the total expenditure of international tourists (Erbes, 1972, p. 90).
MPS=Marginal propensity of the residents to save rather than spend their earnings.
MPI=Marginal propensity of residents to import.

The size of the multiplier varies from case to case, depending on the size and complexity of the economy and the consequent need of both tourists and residents to rely on imported goods (IUOTO, 1975, p. 10), as well as the residents' propensity to save rather than spend (Murphy, 1985, p. 91). In general, the higher the country's propensity to import, the higher will be the leakage of income outside the economy and the lower the multiplier. The smaller the economic base and diversification of the economy, the more reliant it will be on imports, leading to a low value of the multiplier. The latter is also influenced by the internal structure of the economy and the

strength of the internal linkages between the various economic sectors. The greater they are, the less likely it will be that supplies will be required from outside the economy and, therefore, the greater the value of the multiplier. A low import content and the existence of an intermediate goods industry, possessing strong linkages with the tourist industry and able to meet the demand of the sector, is of particular importance. Even if, at the initial stages of tourist development tourist demand is mainly satisfied through imports, a stable long run demand of this sort should, under normal circumstances, lead to the development of import substituting industries for the production of these goods.

As far as the short term economic impacts of tourist expenditure are concerned, multipliers can provide a lot of useful information as far as (Mathieson and Wall, 1982, p. 71):

1. Identifying weak linkages in the economy (in the sense that a relatively high increase in tourism expenditure leading to a relatively low GDP growth, would imply weak linkages between the tourist sector and total output).
2. Provide information on the degree to which such objectives as maximising income and employment and minimising foreign exchange losses are being met.
3. Identify areas in the economy which need stimulation and others which bring large benefits and should be expanded.

The use of multipliers, however, is limited, as far as long term economic analysis is concerned, because they assume that the structure of the economy remains unchanged and that, without tourism, all factors of production used in tourism would be unemployed which is obviously, not the case. Multipliers imply that the total income generated and the net income impact of tourism are the same (Erbes, 1972, pp. 90-2). It is believed, however, that there are two conditions which tourism must fulfill in order to have a net impact on National Income (Erbes, 1972, pp. 76-7).

1: The ratio costs in foreign exchange of the foreign exchange earned/receipts in foreign exchange, must, obviously, be less than one.

2: The foreign exchange earnings attributable to tourism must imply that total earnings are higher than what they would have been if the

country possessed no tourism sector. There are three ways to express this condition:

a) The ratio of net tourist earnings to the cost in national currency must be higher than for other sectors. This condition, however, is not easily applicable because other export sectors usually do not export such a high share of their product compared to the tourist sector, where in some cases, nearly the whole output of the sector may be exported.

b) The value of a local product sold by the tourist industry to tourists must be higher than that of the same product on export markets. It seems that this condition is fulfilled in many cases of adverse terms of trade.

c) For the same input of factors of production, net foreign exchange earnings by the tourism sector must, either be higher than foreign exchange earnings by other sectors, or higher than foreign exchange savings of industries producing import substitutes. In most cases, apparently, (Erbes, 1972, p. 77), tourist receipts net of import content earned with the same inputs, are higher than foreign exchange savings of industries producing import substitutes with the same (or higher) import content, since the latter are, usually, subsidised by tariff protection, while the export sector, especially tourism, usually has little or no protection.

In conclusion, there are reasons to suppose that if the first condition is satisfied, the tourist industry, in developing countries, may earn more foreign exchange than import substituting industries (Erbes, 1972, p. 77). Compared with other export sectors, the case is rather inconclusive, but may well be in favour of tourism as a net income generator, given the fact that demand for tourist services is rising faster than for most export products.

4. Tourism and Regional Development

Apart from its favourable effects on the national economy as far as mainly the balance of payments and generating income and employment is concerned, it is considered that tourism may have a particularly important role to play on the regional level as well. At this stage the analysis will rather be brief, since regional aspects

will be extensively analysed with reference to the case of Greece.

Most countries, irrespectively of whether they are industrially developed or not, usually are somewhat of a "dual" nature, both in the sense of development level and economic performance. The group of their relatively backward regions though is not homogeneous, since it may include regions with different kinds of problems. We should, therefore, distinguish,

- regions which have not been developed yet, at least not as much as the rest of the country (e.g. rural areas, islands etc);
-regions which have been developed in the past but which are now lagging behind, as far as the average development level of the country is concerned, usually because the demand for their products has been declining, either because of changing consumption patterns or changing production techniques or both (e.g. declining industrial regions in developed countries).

It is supposed that, because of the fact that the observed distribution of tourist development is highly uneven and could be directed away from industrial centres, to relatively low income regions with a lower development level than the average of the country, it may help reduce regional disparities and imbalances as well as promote decentralisation (English, 1986, p. 37, Williams and Shaw, 1988, p. 7).

The economic impact of tourism on the regional level can be felt in same areas as on the national level, i.e concerning mainly, income and employment generation and can be measured in the same way, provided regional data are available. However, the net impact of tourist development on regional income and employment depends on a slightly different set of factors and, most importantly, on the structure of the regional economy and on the type of tourism developed in the region. In the case of the national economy, the net impact of tourism on income and employment depends primarily on the import content of the tourist product and on the leakages of receipts outside the economy, as well as on the percentage of expatriate labour employed. On the regional level, the same set of conditions apply as well, but with some differences:

-First of all, the backward linkages between tourism and the other economic sectors tend to be rather weak on the regional level, due to

the much lower degree of diversification of the regional economy, compared to the national one (Brownrigg and Greig, 1976, pp. 7-9). -Furthermore, this lack of diversification of the regional economy causes the costs for the development of the tourist sector to be higher, as long as all infrastructure investment required for the development of the tourist sector has to be solely or mainly attributed to tourism in the absence of external economies and benefits spread among various different industries and economic sectors (Gray, 1972, p. 156).
Consequently, at the regional level, both the import content and the costs incurred by the tourist sector are likely to be much higher than at the national level and the net impact of tourism on income and employment much lower. This, however, depends on the size and structure of the regional economy. The larger it is, the more diversified it is likely to be, the less dependent on tourism and the more able to use local resources in the tourist industry rather than import them.

The type of tourism developed and the type of tourists attracted by a region will also have a different impact on the regional level of income and employment (Williams and Shaw, 1988, pp. 7-10 . It is argued that if the aim of the policy makers is the narrowing (and hopefully the elimination) of regional disparities, depending on which part of the international tourist market is being served (e.g. high or low income tourists), tourist development in less-developed regions which could be attractive to tourists, should rather be low level and small scale, so as to be well integrated in the region's structure and development level, in order to use the maximum level of local resources and labour. It is believed that if the level of tourist development is low enough in this case, it may even rely a hundred per cent on local suppliers and labour. If, on the other hand, the aim is to achieve the fastest possible rate of overall growth, then, tourist development should be planned on a high level and large scale basis which would have the effect of attracting higher spending tourists. This type of tourist development is more likely to rely heavily on foreign investors and know-how, supplies from outside the region and a high ratio of non regional labour with the result that a form of internal migration might develop (Chow, 1980, p. 602,

Williams and Shaw, 1988, p. 10).

The gradual economic integration of the European countries, widens the meaning of the national and regional level. The "harmonious development of all regions in the Community" is included in the Rome Treaty as one of the main goals of the EC. Therefore, another way to look at the role of tourism as far as narrowing regional disparities is concerned, would be to examine its role in relation to its contribution to economic convergence within the EC. It has been supported that the fact that tourism grows faster for low income countries (e.g. the Mediterranean countries whose share in world receipts and arrivals rises faster than the EC average), even if one could support that in a sense, this happens by chance, argues in favour of the fact that tourist development contributes to reducing the regional disparities within the EC framework (Yannopoulos, 1987, p. 2). It seems, however, that this is true, in real terms, only up to 1980. After that, the share of Southern Europe in World receipts and arrivals seems to remain stable.

The main explanation for that given by the author (op. cit.) is that the kind of tourism developed by the Mediterranean countries (mainly holiday tourism due to their climate) is highly elastic to the disposable income of the tourist generating countries as well as to relative prices. It would also be possible to argue that tourism, in these countries, was income elastic only during the 1970s-80s, or only for certain income brackets which are no longer applicable to some West European countries. There is also an element of the tourist destinations gradually widening, for tourists from North-Western Europe, e.g. a spread from Spain and Italy, initially, to Greece, Turkey and parts of Africa. The economic recession in Western Europe and the fact that economic integration in the EC implies some sort of wage and price convergence among its members which has an adverse effect on the competitiveness of the EC Mediterranean countries in comparison to non-EC Mediterranean countries, could also, in part, explain this trend.

Due to their inherent comparative advantage as far as tourism is concerned, however, these countries could still adopt policies which would make them more competitive. Their main options appear to be a higher degree of vertical integration of their tourist

industries which would enable them to receive a larger share of a given level of world receipts, Horizontal differentiation of their products through the development of new forms of tourism less vulnerable to seasonality, disposable income and relative prices (e.g. conference tourism), and greater price competitiveness through a well planned pricing policy (Yannopoulos, 1987, pp. 11-30).

Apart from these policy options, if the above argument is true, it would certainly have significant policy implications on the macro-level, which will be discussed in the last chapter of the thesis.

C. DEMAND AND SUPPLY OF TOURISM.

1. The Demand for Tourist Services

Given the nature of the tourist industry and the particularities associated with it, the problem of forecasting the demand for tourist services and matching the level of demand with the level of supply for each period, appears more critical and far more complicated where tourism is concerned than for most other goods and services.

Tourism has been characterised as a particular case of an export industry whose whole product is consumed on the spot. A major particularity of the tourist product, however, is that, being a service activity, once produced, it must be consumed within a given period of time. It differs from most traditional goods in that it cannot be stored or stocked in order to be consumed at some later date, if faced with deficient demand. Production, sale and consumption are, therefore, identical in tourism, precisely because the product, as a whole, is non storable. The problems faced by the hotel industry arise mainly from this fact, because the production and distribution of tourist services only happens at the time of demand for them. The seasonal nature of tourism results in that, whatever part of the tourist product is not consumed, represents a loss to those producing and distributing tourist services. It is clear, therefore, that for a country specialising (or intending to specialise) in the production of tourist services, correctly forecasting the demand for its tourist product becomes a major issue.

This is especially true for countries specialising in "holiday tourism" which, for obvious reasons, represents the most seasonal type of tourism as well as the most vulnerable one to both economic and non economic changes and shocks. A precise knowledge of the factors influencing the demand for tourist services would be an invaluable tool as far as policy measures for the development of the tourist sector are concerned. Unfortunately, however, it seems that most major tourist forecasting models are not really very successful as far as explaining and forecasting tourist flows are concerned (simple random walk models seem to, in fact, perform better in

predicting tourist flows for the next couple of years, than expensive complex ones: Witt, 1990, p. 10).

The heterogeneous, perishable and intangible nature of the tourist product, and its sensitivity to changing market conditions, implies that the sector could benefit strongly from intensive use of information technology. The latest applications to tourism, in this field, include satellite printers, enabling tickets to be issued directly at the point of demand, toll free numbers and computerised reservations systems which would enable hotels to communicate late vacancies to travel agents, thus, selling all, or at least, most of their output, as well as allowing potential customers to catch this sort of bargains. Because the tourist product cannot be inspected before it is bought, information technology such as videos and video brochures broadcasting various information about specific destinations could be immensely useful (Poon, 1989, pp. 97 and 190). Apart from increasing the efficiency and productivity of the tourist sector, adoption of these new technologies will also lower the cost of provision of tourist services and improve their quality. The fact that information technology seems to be especially suited to services in general (and international tourism, in particular), because of the intangible nature of these products, comes as a contradiction to traditional thinking where services are seen as parasitic and as depending on the manufacturing sector for their development. On the contrary, under this angle of view, services can be seen as a source of growth on their own, with the ability to improve traditional activities and to generate new ones and with, obviously, considerable effects on the manufacturing sector of a post-industrial society (Poon, 1989, p. 94).

Due to the particular nature of the tourist product, a number of difficulties arise when attempting to model the demand for tourism by directly applying traditional consumer theory.

First of all, the tourist product, contrary to the assumptions of traditional consumer theory, is not homogeneous. It is highly heterogeneous, most countries specialising in tourism having something different to offer potential consumers. This combined with the changing nature of international tourism, where a large share of tourists are now planning their own trips instead of relying on

package tours and are travelling for a combined variety of reasons (including health, cultural, social, etc) instead of only holiday tourism, results in that efficient marketing of different destination areas may lead to their increased competitiveness in the tourist industry and to their acquisition of a larger share of the tourist market.

In the second place, tourism is considered to be a "luxury" good and is to be found relatively high in the hierarchy of goods, with a high income elasticity of demand. The demand for tourism tends to rise much faster than income, at relatively high levels of the latter. It has been estimated that the threshold, in terms of income, where tourism expenditure begins to feature in household budgets of the tourist generating countries, is around 500$-1,000$ (1970 prices, Young, 1973, p. 35). The fact that tourism is a luxury good, highly sensitive to changes in disposable income, results in that the propensity to consume tourist services has been observed to rise in booms and drop in recessions. Furthermore, the demand for tourism is highly elastic to changes in non-economic factors, such as political crises, changes in preferences and expectations etc, all of which are unpredictable factors, making the correct and accurate forecasting of consumer demand for tourism a very hard task (Gray, 1972, pp. 50-1, Schulmeister, 1979, pp. 94-6).

Apart from the unpredictable and non-modelable effects which exogenous factors may have on the demand for tourism, various socioeconomic factors have been shown to be related somehow, to the propensity to travel. Table IV.C1 shows the relation of some of these with the demand for holiday tourism abroad.

Apart from income which is the single most important factor positively related to the demand for tourism, it has been shown that, especially when competition among different destinations and the orientation of demand enters into the picture, there is a number of other factors influencing the demand for holiday tourism as well.

Relative prices between different destination countries as well as between a prospective destination country and the country of origin of tourists seem to play an important role, although it has been argued that, because of incomplete information prior to travelling, they influence the length of stay in a given country

rather than the decision to visit the country in question (Schulmeister, 1979).

Table IV.C1 Determinants of the Demand for Tourism (1).

Factor	Influence on travel
Income	Positively related
Education of head of household	Positively related
Occupation " " "	Positively related to status
Paid vacation	Positively related
Urbanisation	Negatively related
Age of head of household	" "
Life cycle	Negatively related to child impedance and age
Race	Non whites less active
Sex	Males more active

1. Refers to the U.S.A.
Source: Young, 1973, p. 31.

The distance of a prospective destination country from the major tourist generating countries, which has a major effect on transportation costs, is another factor which influences the decision to visit a particular country. It has been argued, that, especially where holiday tourism is concerned, distance is one of the main reasons why the Southern European countries are preferred on the part of Western European tourists to most Third World countries, as long as, in terms of climate, at least, both groups of countries have similar things to offer. Weekly working hours also seem to affect the decision to travel, since fewer working hours free more time to travel.

Other factors which have been shown to be related to tourism are, the income distribution in the tourist generating country or countries, (the more equal it is, the more people will be able to travel), price differences in terms of the currency of the tourist generating country, i.e. exchange rates (Gray, 1972, p. 50), private consumption which may be either positively or negatively related to the demand for tourism depending on whether tourism is considered a complementary or substitution good (Schulmeister, 1979, p. 95), etc.

An interesting thing about all the variables mentioned above as being related to the demand for tourism, with the possible

exception of relative prices, is that not one of them depends or is controllable by the destination countries. All of them are related to the tourist generating countries, a fact which, as far as demand forecasting and policy measures on the part of destination countries is bound to raise some difficulties. Given that the production of tourist services is mainly demand-led and that demand for international tourism is mainly generated in the major tourist generating countries, this, also raises the question of dependence of the destination countries on the tourist generating countries, at least where the most popular type of tourism, holiday tourism is concerned. This, will be dealt with, among others, in the following paragraph.

2. The Supply side of tourism

The supply side of the tourist industry, consists mainly, as one would expect, of the basic tourist resources and attractions of the destination country considered, whether these represent sunny, sandy beaches or cultural heritage or both or whatever else. In order, however, to make these basic resources more attractive, more enjoyable and more easily accessible to potential tourists, a high level of capital investment is required, for the development of a whole network of supporting and complementary facilities; these are necessary in order to meet tourist requirements and to enable the particular region of tourist development to support a larger population than normal, for part of the year, in spite of the fact that many tourists are attracted by "unspoiled" places, with lower levels of obvious capital investment.

Investment in the tourist sector may be distinguished into three categories: 1) infrastructure investment, 2) investment in the accommodation sector and 3) investment in the non-hotel branch. Where infrastructure is concerned, which may be seen as an extensive and highly indivisible type of fixed capital investment, tourism can be a heavy user of capital, in relation to other sectors (Erbes, 1972, p. 12). Sometimes, the capital investment necessary for the infrastructure requirements of the tourist sector is so considerable (e.g. investment in airports and national airlines which will provide

easy access to the destination considered, roads, sewage and electricity installations to provide for tourists etc) that individual businessmen or even the private sector as a whole, would be rather unlikely to provide them on their own without state assistance. As a consequence, it is usually the government which is called upon to provide all the necessary infrastructure requirements of the tourist industry, as well as its promotion abroad through advertising and the financing of tourist offices , while the private sector is left with the task of providing the bulk of tourist facilities and services such as accommodation, catering etc. Typically, the private sector initiates and leads the process of tourist development, while the government provides the necessary financial assistance and accommodates the demands and requirements of the former (Helber, 1987, p. 17). This sort of policy, however, usually results in two major disadvantages:

1. In the first place, when the planning and spatial distribution of tourist development is left to the private sector, this may result in a highly scattered and uneven pattern of development, as well as to the inefficient use of resources, duplication of facilities, (Murphy, 1985, p. 17), over or under estimation of the tourist market and consequent over or under investment etc. The latter is particularly important, because of the seasonality of tourist demand, as overinvestment may result in very low occupation rates (sometimes lower than one half of the installed capacity), and consequently in an abnormally high capital-output ratio for the tourist industry (Erbes, 1972, p. 12). It may furthermore result in the saturation of already congested regions rather than in the development of retarded ones, as long as private investment will tend to concentrate itself in already developed regions where the necessary basic infrastructure is relatively abundant. Underinvestment,on the other hand, may result in unrecoverable losses, if demand proves to be higher than anticipated.
2. The danger of high dependence on the tourist generating countries may become even more acute. The particular structure of the tourist industry, where the product is immobile and has to be "bought" before it is actually "consumed" (the prospective tourist has to book and pay for his trip before he can actually see what he has bought by visiting the country he has chosen), results in that the market place of the

tourist product, where demand and supply of tourism are confronted, consists of the "retailers" of the tourist product, that is the tour operators. Here, however, the destination countries usually find themselves at a disadvantage because it is very rare for the big tour operators to be located in the destination countries. For a variety of reasons, the most important of which is probably that demand may be better observed and met where it is generated, they are usually positioned in the tourist generating countries. Because of the particularity of the tourist product mentioned above (immobility), tour operators have the additional advantage that they are in a position, not only to satisfy the demand for tourist services, but to shape it, as well, up to a point and to direct it towards particular destinations which seem more profitable to them. By being able to orientate tourist flows to specific destinations, they are in a position to dictate, up to a point, their terms to the destination countries, especially as far as pricing policies, standards of tourist services and the type of tourism (mass or high class) are concerned. The fact that the tourist sector, usually, in most countries, consists, mainly, of small family owned units scattered all over the place and competing strongly between them for a larger share of the tourist market, the fragmented and disorganised nature of the industry, especially as far as the labour force is concerned, where, due to the seasonality of demand trade unionism is very underdeveloped, makes the imposition of their terms on the destination countries even easier for the large tour operators. Again, because of the disorganised and fragmented nature of their national tourist sectors and the difficulty in communicating decisions on public policy to all the agents involved (Cleverdon, 1979, p. 103), destination countries, usually, cannot promote the vertical integration of the supply side of the tourist industry and are obliged to accept these terms in order to be included in the list of potential destinations of the tour operators.

The conclusion to be derived from the above is that, if tourism is to be seen as a major growth sector in a country, planning is crucial. (Cleverdon, 1979, p. 103, Murphy, 1985, p. 33). Generally speaking and, for reasons mentioned above, state intervention is imperative where the tourist sector is concerned, in order to help

ensure a more efficient operation of the sector. State intervention usually implies planning, even in a market economy. Planning, however, is also necessary where the private sector is involved in the tourist sector, for reasons also mentioned above, especially in the case of developing countries, where, usually, low entrepreneurship (although the exact definition of this term is still undetermined: Barton and Lischeron, 1991), and know-how, raise the need for more guidance and support of the private sector, on the part of the State. In order to help counteract the problems mentioned above, the government, apart from providing assistance to the private sector, should assume an additional role where tourist development is concerned: It should plan and lead the process of tourist development and stimulate the interest of the private sector (assuming that the latter will respond when profits start to flow), within a comprehensive tourist development plan which would chart a course of action in order to facilitate private investment consistent with the predetermined goals and objectives (Murphy, 1985, p. 18). There are certain major issues which a government should consider in formulating such a plan:

-The government would have to decide the rate of growth desired in the tourist sector as well as its importance in the national economy and the way tourist development will fit in with plans for the regional development of the country. It will have to decide, for example, whether tourism will be considered a major or a complementary growth industry, whether it should be concentrated in already developed areas with existing infrastructure or in underdeveloped regions in order to iron out regional imbalances etc (Robinson, 1976, p. 194).

-It should draw a summary of the regions of the country and of the attractions and resources of each. Land zoning would be necessary, in order to promote regional development and direct different types of investment (e.g. tourist or industrial) to those regions where this type of development would be most profitable (Cleverdon, 1979, p. 110).

Depending on whether fast growth or a slower and more selective one is desired, the tourist market of the country would have to be segmented and the tourist product of the country or of different regions would have to be differentiated, in order to attract different categories of tourists, (a large volume of low spending tourists or a

smaller number of high spending tourists), according to the planned objectives and carrying capacity of the country or region in question (Murphy, 1985, p. 20).

In formulating its tourist development plan, the government would also have to decide the respective roles of the public and private sectors as well as the roles of local and foreign capital (Gearing and Swart, 1976, Robinson, 1976, p. 194). Foreign investment in the national tourist sector may have the advantages that it would bring in considerable know how and that foreign investors would be less likely to overestimate the local tourist market than local investors and thus the danger of excessive installed capacity and low occupancy rates could be somewhat counteracted, but it also has the disadvantage that it decreases the share of net benefits to a country or region (Gray, 1972, p. 153).

The most famous case of state intervention in the tourist sector, is in Spain, where, to a certain extent, development is tourist-led. In this case as well as in the case of most countries where the tourist sector was turned into a major growth industry, a ministry of tourism or a similar national organisation was created in order to plan and promote the development of the tourist sector, and accommodate its particular requirements, taking into account its particular structure and its need for different treatment where economic policy is concerned.

One should keep in mind, that the various particularities of the sector, especially where its structure of ownership is concerned, consisting of a large number of independent small to average family units, could have the advantage that if the government found a way to get over the major difficulty of communicating its policy plans to the various agents involved, its planning for the development of the sector could be more effective and efficient than in the case of a smaller number of bigger, organised, and stronger units. However, efficient communication with and control of the various units involved in the production and distribution of tourism would call for a high degree of decentralisation. Unfortunately, while this may be possible in relatively advanced economies, it is virtually unheard of in less developed countries which intend to exploit their comparative advantage in the provision of tourist services, as all

government services tend to be highly centralised.

Having seen the rather significant role that the development of the tourist sector may play in the economies of both developed and developing counties, we may now turn to the specific issue of the actual and potential role of tourism as a leading sector in Greek economic development, which will be dealt with in the following chapter.

CHAPTER V

THE ROLE OF THE TOURIST SECTOR IN THE GREEK ECONOMY

A. INTRODUCTION: HISTORICAL DEVELOPMENT OF THE TOURIST SECTOR AND THE ROLE OF THE STATE

The present chapter consists of an application of the theoretical analysis of the previous chapter to the development of the tourist sector in Greece; an understanding of its particular features as well as the problems, difficulties and inefficiencies involved, is attempted, in order to examine the possibility for tourism to perform as a leading sector in the economic development of the country.

The development of the tourist sector in Greece is relatively recent; in fact, this sector only achieved any significant proportions in the late 1960s, when a number of new destinations, i.e. Portugal, Spain and Yugoslavia made their appearance in the international tourist mass market. This rather late development may be attributed to factors such as: the distance of the country from the major tourist generating countries of Western Europe, (and the fact that, in order to reach Greece, by road at least, tourists, usually, have to pass through other competitor countries, i.e. Yugoslavia or Italy); the absence, until then, of any significant infrastructure able to support tourist development; the strong political turmoil in the post-war period which both delayed and acted as a setback for the development of Greek tourism (Robinson, 1976, p. 330).

The Greek government first expressed an interest in tourism in 1953, when foreign exchange shortages started to impose pressures on the economy after the end of the Marshall plan aid (although the devaluation of the drachma and the consequent inflows of foreign currency relieved these pressures to a certain extent: Logothetis, 1982, p. 25). The development of the tourist sector though started later, in 1960, accelerating especially after 1970 (when industrial growth rates started to decline). Between 1951 and 1964, the State invested heavily in infrastructure projects, in an attempt to restructure the country after the devastation of World War II and the civil war that followed it. The bulk of public investment was then channeled into construction and housing projects, while the "first investment crisis" (stagnation in investment) that hit the economy between 1958 and 1964 (Vaitsos in Tzannatos, 1986, p. 74), was

expressed in a relative passivity of the private sector and a general reluctance on its part to invest in dynamic branches such as manufacturing or any major tourist projects (Komilis, 1986, p. 167). The major part of private investment, during that period, was also absorbed by the housing sector (see chapter II).

Tourism started featuring in plans and policies for economic development, after 1960, when its potential for growth was beginning to be realised (Alexandrakis, 1975, p. 174). However, tourism was only seen as a major source of foreign exchange, as a means of covering the growing deficit of the balance of payments; public policies, both before and after 1974 (restoration of democracy), were aimed at very short-run goals, i.e. at a rapid maximisation of tourist earnings in order to pay for increasing imports and outweigh the limited competitiveness of the country's visible exports on world markets. The development of the tourist sector was especially emphasized after the imposition of the dictatorship in Greece (April 1967), when a simultaneous emphasis on constructions and housing was used in order to "heat up the economy" (Leontidou, 1988, p. 82). Increased interest in infrastructure, constructions, housing and tourism on the part of the Junta can be explained by the freezing of the EC association agreement. During the last years before the imposition of the military regime, the Greek economy had been increasingly shifting to trade with the EC countries. When this option was very much limited after the imposition of the dictatorship, the government's options where the industrial sector, trade etc were concerned shrunk significantly. Consequently, it was, in a sense, forced, in the first place to start trading heavily with the former communist countries and, in the second place, to shift its resources elsewhere. The resulting emphasis on the development and promotion of the Greek tourist sector was incorporated in both five year development plans of the economy (1966-70, 1968-72). The main goals set in both plans (which highlight the aims of tourist development mentioned above), were (Alexandrakis, 1975, p. 177):

1) The acceleration of tourist development,

2) The improvement of the seasonal distribution of tourism,

3) The maintenance or increase of the average length of stay and per capita expenditure,

4) Attraction of high income tourists,

5) The development of the tourist sector within a regional development plan.

The implementation of these plans through EOT (National Tourist Organization), which, since it was founded in 1950, is the executive body responsible for the formulation and implementation of governmental tourist policy, included among other things, total investment in tourism targeted at 500 million $ (current prices) for the five year period 1966-70, with the State leading the way and providing the necessary infrastructure and support, while the private sector would undertake accommodation investment. In order to acquire the necessary capital, special concessions were granted to all private investors who wanted to invest in the hotel industry, in the form of tax and depreciation allowances (Singh, 1978, p. 131), irrespectively of origin, location or kind of investment. The average annual growth rate of loans rose from 11.3% in the period 1960-66 to 26.7% in the period 1967-73 (Komilis, 1986, p. 166). The result was that due to:

a) The extremely favourable attitude of the State towards private investors, even including, in certain years an up to 50% State guarantee on investment loans;

b) The general (and more specific to tourism) development of infrastructure due to public projects before 1965 and;

c) The rapidly growing demand for tourism both in Europe and in the Mediterranean countries during the early 60s;

there was a rising interest and a marked shift of the private sector towards investment in the tourist industry, between 1965-7 and 1974 (Komilis, 1986, p. 167 and KEPE, 1987, p. 52). In contrast to this shift on the part of the private sector, public investment in tourism declined during the dictatorship and the expanding hotel industry, in many cases, was not supported by a corresponding expansion of infrastructure (Komilis, 1986, p. 167 and Leontidou, 1988, p. 85). As far as foreign investment is concerned, the following table indicates that it rose very sharply in 1968, when it accounted for 66.1% of total foreign capital investment in all the sectors of the Greek economy. In the period 1957-70, foreign investment in tourism accounted for 23% of the total investment in the sector and was mostly concentrated in hotel businesses in coastal areas (Alexandrakis, 1975, p. 178).

Table V.A1: Public and Private Investment in Greece, 1957-70, (000s drs)

	Public[1]	Private[2]	private, domestic	foreign[3] %	Total
1957	1100	300	134	8.74	15340
1958	6600	5100	889	7.06	12589
1959	8500	8400	635	13.62	17535
1960	8500	8400	47	0.28	16947
1961	10400	7900	407	2.18	18707
1962	6900	15100	1208	5.21	23208
1963	7300	10300	229	1.28	17829
1964	4000	8100	1391	10.31	13491
1965	7800	9100	844	4.76	17744
1966	9700	10700	1151	5.34	21551
1967	6800	17600	0	0.00	24400
1968	8100	35100	84430	66.15	127630
1969	13100	57400	13468	16.04	83968
1970	14100	65900	6100	7.08	86100
1957-61	35100	30100	2112	3.14	67312
1962-67	42500	70900	4823	4.08	118223
1968-70	35300	158400	103998	34.93	297698

1. Financed by the Government and the National Tourist Organisation, including infrastructure.
2.Financed by Banks only
3.Foreign investment projects approved by the Ministry of Coordination.
Source: Alexandrakis, 1975, p. 177.

As far as the regional development and distribution of tourism is concerned, one could say that public policy did very little to promote it. Before 1967, policy makers were simply not concerned about it, that being absolutely compatible with the general inefficiency and lack of objectives and directives, characterising regional economic policy in Greece (for a critical evaluation of the latter, see M. Negreponti- Delivani, 1986, pp. 112-5). Incentives granted to private investors met criteria of investment viability. High guarantees had to be given before loans were granted and as a consequence, most tourist investment projects were concentrated in the larger cities or in areas where some sort of tourist development had already taken place. The main reason for this was the higher land values there (which were able to cover the guarantees requested by the banks) as well as already existing infrastructure, which made investment prospects there more profitable. During the dictatorship, loans did not have to meet

criteria of investment viability, but the extreme generosity of the State where private investment was concerned, while, in a sense, promoting decentralisation and regional development, resulted in that large hotel units were built in areas were still deficient tourist demand and lacking infrastructure could not support them. The consequence was a relative oversupply of tourist services, which made the country very vulnerable and dependent on the pressures of large tour operators abroad (EOT, 1985, p. 24).

After 1974, when democracy was restored in Greece, the economic potential of tourism was increasingly realised and its further development featured in both subsequent five year plans for economic development (1976-80 and 1983-87). The first of these plans (but especially the second one) expressed some concern about regional development, decentralisation and decongestion of congested areas. Under law 289/1976, the government attempted to favour investment projects in less developed regions, by introducing various incentives such as tax exemptions, governmental guarantees etc. However, like in the period 1968-74, the result was the development of large, non viable units, in regions where neither the existing infrastructure nor demand were developed enough to support them. In 1978, therefore, under law 849/78, tourist investments were excluded from the favourable treatment granted to the industrial sector, in an attempt to remedy the above situation. However, until the late 1970s, the development of a competitive tourist sector, in comparison with the corresponding sector of competitor Mediterranean countries, had not as yet been achieved, mainly due to the lack of a comprehensive and consistent development plan and to an inefficient set of incentives (KEPE, 1987, p. 56).

The second five year plan (1983-87) emphasized the development of small, family sized units rather than large ones, discouraged foreign investment and continued to promote the decentralisation and regional distribution of tourist services, by pursuing increasing self-administration of the regions as well as the gradual decentralisation of EOT (Greek Tourism Organisation). Law 1262/82 aims at promoting investment in less developed regions and deterring it in already congested ones. To this effect, the country is divided, by the above law, into three areas and different investment incentives are

applied according to their different needs. Tourist investments are treated in the same way as industrial ones (once again!) and grants are introduced instead of tax and discount exemptions (Leontidou, 1988, p. 86). However, the fact that loans still have to meet criteria of investment viability, which, in general does little to promote regional development, as most investment projects tend to be concentrated in already developed regions, indicates that tourist development was still meant as a fast way of earning foreign exchange in order to cover up for deficits incurred by other economic sectors.

The new five year plan for economic development (1988-1992) pointed to a further decentralisation and "privatisation" of the tourist sector and delimited new areas for tourist development (Leontidou, 1988, p. 86). These provisions, however, have not been implemented yet, due to the recent multiple elections in Greece, a fact which makes the identification and evaluation of recent and future policy trends related to tourism, rather difficult.

B. THE ECONOMIC IMPACT OF TOURISM

1. Tourism as a Leading Sector of the Greek Economy

Despite the highly inefficient, discontinued and conjectural governmental policies where the development of the tourist sector is concerned, the latter appears to be one of the most dynamic and rapidly growing sectors of the Greek economy.

In 1960, when Greece first made its appearance in the international mass tourist market, 400,000 foreign tourists visited the country. In 1965, the above figure had already doubled to 847,000 arrivals, reaching 1,407,500 in 1970. In the next ten years, the number of total foreign arrivals grew by more than four times (4,532,400 in 1980) and reached 6,885,000 in 1986 and 7,717,500 in 1988. In the period 1967-81, only two countries in the EC experienced a greater growth in their share of international tourist arrivals than the general increase: The U.K. with a 167.8% increase compared to 1967 and Greece, with an extraordinary increase of 790% and 30% of international tourism arrivals recorded in the country (Commission of the European Communities, 1985, pp. 131-2). Accommodation capacity from 60,000 beds in 1961 to 359,377 in 1986 (an increase of 498%) in order to cope with increasing demand, but there is still a relative shortage of beds in the summer period, while a lot of the capacity remains idle during winter. Receipts from tourism as a percentage of GDP rose from 1.22% in 1960 to 1.95 in 1970, and 5.5% in 1988. During the period 1972-88, Greece, Portugal and Spain have the highest relation between tourist receipts and GDP, that is, more than twice the EC average (O'Hagan, 1986, pp. 4-8). Furthermore, tourism paid, on average, for more than 14% of total imports (23% of manufacturing imports) and represented more than 33% of total exports of goods and services, through the period 1970-88. It is obvious that Greece more than meets Bryden's definition of a "tourist country"[1]. Over the

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1

A tourist country is one where tourist receipts exceed 10% of visible exports. Of the European countries, only Greece, Yugoslavia, Israel and Spain meet this condition (Cleverdon, 1979, p. 49).

period 1972-88, Greece and Spain have the highest percentage of tourist receipts in exports of goods and services among all the EC countries.

The following tables indicate the above trends, especially in comparison to the performance of the Greek manufacturing sector.

Table V.B1: The development of the Greek Tourism Sector, 1960-88

	(1)	(2)	(3)	(4)	(5)	(6)
1960	300.8	49.3			16.5	
1965	847.0	107.6	181.5	118.2	17.4	5
1970	1407.5	193.6	66.1	79.9	22.9	31.6
1975	2840.1	643.6	101.7	232.4	43.4	89.5
1980	4795.9	1733.5	68.8	169.3	58.5	34.7
1986	6885.0	1834.2	43.5	5.8	54.3	-7.1
1988	7717.5	2140.0	12.0	16.6	55.2	1.6

(1): Total Foreign Arrivals (000s)
(2):Total Receipts from International Tourism, million $ U.S. (Constant 1970 prices)
(3):Annual Average % growth of (1)
(4):Annual Average % growth of (2)
(5):Average Daily Expenditure of Foreign Tourists in Greece, $ U.S. (constant 1970 prices)
(6):Annual Average % growth of (5)
Sources: 1) The Greek Economy in Figures.
2) Own calculations.

The evolution of the number of total foreign arrivals, tourist earnings in current $ and average daily expenditure (total earnings/total number of nights spent in the country) may be seen in graph V.B1:

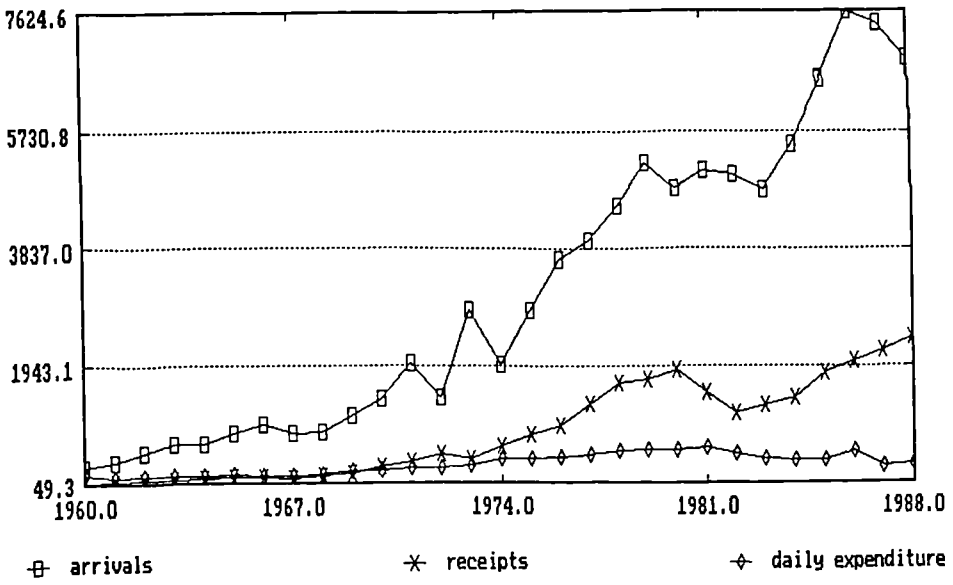
Table V.B2: The Development of the Greek Tourism Sector 1960-1988

	Manufacturing output % of GDP	Tourist Receipts % of GDP	% of exports	% of import
1960	14.2	1.22	23.6	9.7
1965	15.0	1.82	32.5	10.5
1970	19.0	1.95	31.6	11.3
1975	20.8	3.11	31.7	12.6
1980	21.3	4.25	42.3	15.8
1986	18.7	4.92	39.6	7.8
1988	19.3	5.50	45.1	19.9

Source:1) Own Calculations
2) U.N. Statistical Yearbook

Graph V.B1

The Evolution of International Tourism Receipts, Arrivals and Average Expenditure



Source: 1) The Greek Economy in Figures
2) U.N. Statistical Yearbook , various issues
3) Own calculations

Despite the fact that the years 1967 and 1974 represented a severe setback for Greek tourism, (the former because of the dictatorship and the latter because of the oil crisis and political turmoils related to Cyprus), indicated by a sharp drop in the number of arrivals, the tourist sector showed a remarkably fast recovery as both arrivals and receipts shot upwards after each crisis. Both total earnings (in U.S $) and arrivals drop again between 1979 and 1988 (possibly a combined effect of the second oil shock, President Reagan's travel directive of 1986 and the fact that inflation in Greece was rising, by then, at a faster rate than in most EC countries, the major tourist generating countries for Greece, apart from the U.S.A.), but rise again from 1984 onwards.

One should keep in mind, when viewing these figures, that foreign nights spent in Greece (as well as total foreign arrivals and receipts) are grossly underestimated because only those spent in hotels and registered rooms for rent are included. However, as mentioned in numerous parts of this thesis and the present chapter, in

particular, unlisted rooms and accommodation units have been growing very fast in Greece and, moreover, a very large part of the foreign tourists visiting the country, prefer the latter to the former; it has been estimated (for 1990), that while nights spent in hotels and other registered accommodation units have dropped by 30%, in comparison to previous years, they have risen by more than that, as far as non-registered units are concerned (Papandropoulos, 1991).

Despite the impressive increase in Greek tourism during the period 1960-88 and especially after 1970, and in spite of various surveys conducted by European tour operators which forecast that the Greek tourist market is growing in importance and will continue to claim even larger shares of international tourism in the future (Commission of the European Communities, 1985, pp. 150 and 158), there is still much scope for improvement (KEPE, 1987 and EOT, 1985). Apart from the relative oversupply and congestion of tourist services in the summer period and the fact that the seasonal distribution of tourism is more marked in Greece than in most other European or Mediterranean countries, a major problem is that the length of stay is lower than in most other countries and average daily expenditure of tourists is very low by world wide standards. In 1960, the latter was 13$ compared to 29$ in Israel, 16.8$ in Portugal, 15.7$ in Spain, 12.2$ in Yugoslavia and 13.7$ in Turkey (Alexandrakis, 1975, pp. 155-7). From then onwards, while both the number of arrivals and total nights spent in the country are increasing rapidly, average daily expenditure remains stable, grows slowly or even decreases for some years. Greece seems to be increasingly attracting low income tourists, while the small size of the country does not favour the development of mass tourism like in Spain. Apart from trying to develop new forms of tourism in order to deal with the problem of high seasonality, Greece should try to attract higher income tourists and especially return tourism which has proved to be a very important source of tourism for the country. It has been observed, that most tourists who visit the country once, tend to return at least once more, while most tourist coming to Greece are influenced by the experience of friends or relatives and very few of them rely on travel brochures (Leontidou, 1988, p. 90).

The analysis in the rest of this chapter, will correspond, in terms of sections, to the analysis carried out in chapter IV, that

is, the influence of tourism on various macroeconomic variables of the Greek economy will be examined in turn. The next section will deal with the effects of tourism on the Greek balance of payments, while its effect on income generation, regional development, employment etc, will follow.

2. Tourism and the Balance of Payments

It was mentioned in the previous section that tourism growth was largely seen, on the part of the various Greek governments, which were almost always characteristic of their short-sighted view of things, as a source of foreign exchange which would help cover the structural *deficit of the balance of payments*. What remains to be seen, here, is the performance of the tourist sector as far as this specific role is concerned. It has been shown that tourism has, in general, a stabilising effect on the balance of payments of the EC member countries (where a stabilising effect is one where a surplus or a deficit in the balance of goods and services excluding tourism is eliminated or reduced by tourism) for most years in the period 1972-85, except in the cases of the U.K. and Ireland; in six of the member states, i.e. Germany, Greece, Italy, the Netherlands, Portugal, and Spain, tourism had a stabilising influence in every year since 1972 (a fact which reflects their natural advantages as tourist destinations) (O'Hagan, 1986, p. 12). The following table shows the effects of tourist receipts on the Greek balance of current accounts, as well as their share in current account receipts, payments and invisible earnings (million $ U.S): It is possible to see, in Table V.B3 that, apart from certain setbacks in 1967-68, 1974 and 1982-83, the reasons for which have already been mentioned, tourism steadily increases its contribution to total invisible receipts as well as current account receipts, despite the impressive increase in the country's export earnings during that period. Also, tourist receipts seem to be increasing their share in the country's payments abroad, as well as in invisible receipts, during the period 1960-88.

Table V.B3 The Greek Balance of Current Accounts and Tourism 1960-1988

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1960	-45.8		-95.1		8.6	10.2	18.0
1961	-49.5		-112.0		10.7	11.3	19.6
1962	-50.0	483.6	-126.0	294.2	10.4	12.2	20.0
1963	-36.1		-131.5		11.5	12.7	21.0
1964	-171.3		-262.2		9.7	11.5	19.0
1965	-267.3		-374.9		9.2	12.2	19.6
1966	-259.0		-402.4		11.0	13.8	22.6
1967	-224.5	52.8	-351.3	60.6	9.4	11.4	19.2
1968	-252.9		-373.2		8.3	10.2	16.7
1969	-348.2		-497.7		8.9	11.3	19.0
1970	-408.6		-602.2		9.8	12.4	20.4
1971	-344.2		-649.5		13.4	15.9	23.6
1972	-401.5		-794.2		13.8	16.1	24.5
1973	-1191.5	134.1	-1706.4	165.7	11.1	15.0	23.5
1974	-1145.2		-1581.2		8.1	10.7	18.7
1975	-956.7		-1600.3		11.0	13.5	23.6
1976	-932.0		-1755.7		12.9	15.7	27.2
1977	-1079.2	131.6	-2059.8	146.8	13.4	16.3	28.0
1978	-957.9		-2284.2		15.8	18.6	32.1
1979	-1881.4		-3543.7		14.2	17.0	29.3
1980	-2216.1		-3949.6		13.9	16.2	28.1
1981	-2421.0		-4302.0		13.7	16.7	29.0
1982	-1885.1		-3412.3		12.5	14.9	25.0
1983	-1875.9	47.8	-3051.6	19.0	10.2	12.1	21.0
1984	-2130.9		-3442.9		11.1	13.5	24.8
1985	-3375.7		-4703.7		10.2	14.9	27.1
1986	-1772.0		-3606.3		14.3	16.6	28.1
1987	-1219.2	-45.9	-3487.3	-7.0	14.7	15.8	26.4
1988	-1957.1		-3353.2		14.1	16.1	23.7

(1): The Balance of Current Accounts
(2): Average Annual % growth of (1)
(3): (1) minus tourist receipts
(4): Average Annual % growth of (3)
(5): % share of tourism in total payments
(6): " " " " " " receipts
(7): " " " " " invisible receipts
Sources: 1) Singh, 1984, p. 97.
2) Bank of Greece p. 224.
3) Own calculations.

It is obvious, from the above table, that tourist receipts have a highly stabilising influence on the balance of current accounts, whose deficit would have been much higher and growing at a faster rate without the existence of foreign exchange earnings from

tourism. It seems quite obvious, then, that the development of the tourist sector had a highly beneficial influence on the Greek balance of payments. However, there are two points which must be kept in mind:
1. Foreign exchange receipts from tourism are quite likely to be grossly underestimated. The main reason for this is that foreign exchange receipts are usually estimated by the

> "*banking system, since tourists are supposed to change foreign currency at the bank counters. The bank method, however, may well result in an underestimation of actual receipts, for tourists may sell currency directly while purchasing goods and services. The receiver has an economic incentive to encourage this for in an exchange control system he can later sell the foreign currency at a premium in the black market*" (Singh, 1984, p. 61).

In that case, which, until recently, was typical of the Greek economy, the positive effect of tourist receipts on the Greek balance of payments is also underestimated.
2. What was examined above, was the "gross impact" of tourist receipts on the balance of payments. While it is considered wrong to subtract foreign exchange expenditure on the part of the country's residents abroad (unless it is caused by foreigners expenditure in the country), from total tourist receipts, in order to get the net tourist balance, one should, however, as mentioned in the corresponding section of the previous chapter, subtract the total foreign exchange cost of tourism from total tourist earnings in order to get the net impact of tourism on the balance of payments.

As far as the second point is concerned, it has been argued and it is generally believed in Greece, that the foreign exchange costs which should be attributed to tourism, are rather small. The estimation of the foreign exchange cost of tourism is a very complicated task, because what one should do, is to identify all the services and goods consumed by tourists and provided both by the private and the public sectors, estimate their production cost, decide what part of that cost should be attributed to foreign tourism rather than to the local population and, finally, compare the latter figure to foreign exchange earnings from tourism. A very interesting study by B.P. Singh (1984) attempts to estimate the net impact of tourism on the balance of payments, on just the above lines. Although, in some

cases, the method used is rather arbitrary (e.g. when the author decides on the import coefficients to be applied to the various sectors), it could hardly be otherwise, given the chaos prevailing both in the definition of "tourism" (and, consequently, in relation to the industries which should be included in the tourist sector), as well as in the available data. Unfortunately, while the study was published in 1984, the period considered is only up to 1978 (probably because of the time lags with which data-series become available in Greece) and, as far as I know, no similar survey has been carried out in Greece, since. However, even if slightly outdated, and apart from whatever reservations one could have as to the accuracy of the final figures, the end result, as presented in the following table, is very indicative as far as the net impact of tourism in the 70s is concerned, and could, perhaps, serve to extend certain conclusions to the period after 1978.

The net impact of tourism on the Greek balance of payments is calculated by subtracting the negative impact (foreign exchange expenditure) from the positive impact (total receipts). The net impact, as we may see, increases seven times in the nine years considered (from 169.98 $ millions to 1185.89 $ millions in 1978). Also, the benefit in foreign exchange per person per year increases approximately seven times as well, because an increasing inflow of foreign exchange was received by a more or less constant Greek population. The negative impact of tourism, as a percentage of total receipts is 10-11% for the whole period, which means that, even after paying for the cost of foreign tourism, 90% of total earnings still stay within the country (Singh, 1984, p. 179). The following figures also imply that every unit of foreign exchange spent on tourism, raises 10 times that as far as total receipts are concerned, which is not at all negligible. In relation to total imports, the foreign exchange cost of tourism represents approximately 1.5% on average during the period 1960-1978.

It seems therefore, that tourism served well its role of helping to cover Greece's growing current account deficit. Whether the fast growth of tourism can still continue at the same rate, given the extreme concentration of the tourist industry in Greece, as well as other problems already mentioned, such as relative oversupply,

dependence on foreign tour operators, seasonality, low per capita spending, low average length of stay etc, is something which still remains to be seen.

Table V.B4: Net Impact of Tourism on the Balance of Payments.

Year	Tourist receipts	Foreign exchange* expenditure (million drachmas)		Net receipts or net impact of tourism (million dollars)	Per capita net benefit of tourism (dollars)	Foreign exchange expenditure as a % of tourist receipts	Tourist receipts per tourist night (dollars)	Foreign exchange expenditure per tourist night (dollars)
		A	B					
1970	193.6	23.62	23.95	169.98	19.33	12.20	25.2	3.08
1971	305.3	30.35	31.17	274.95	31.10	9.94	27.2	2.70
1972	292.7	38.19	38.99	354.51	39.88	9.72	27.9	2.71
1973	514.9	50.45	52.60	464.45	52.02	9.80	32.8	3.21
1974	447.6	50.46	64.41	388.14	43.31	13.28	43.8	5.82
1975	643.6	71.66	74.08	571.94	63.23	11.13	43.4	4.84
1976	823.7	94.28	94.37	729.42	79.57	11.45	39.6	4.53
1977	980.6	110.58	114.75	870.02	93.87	11.28	48.2	5.44
1978	1326.3	140.41	141.66	1185.89	126.83	10.59	37.98	5.76

Notes: * 1. A estimates are based on the pricing of fuel in the case of rented cars, private cars, tourist buses, yachts, and taxis in terms of equivalent crude, while B estimates are based on the pricing of fuel as a direct import.

2. All other columns use the estimates only when required.

Source: Singh, B.P, 1984, p. 178.

3. Tourism and Employment

The impact of tourism development on employment is, along with its impact on income, the most difficult to estimate accurately, the main reason being the extreme diversification and dispersion of jobs related to the tourist sector, which makes identification hard, as well as because of high levels of hidden and part-time employment in the sector. The highly seasonal nature of tourism which results in the creation of a large number of jobs during peak periods (usually

summer) and in a large number of lay-offs during the idle months (usually winter), is another factor which, apart from the usual problems related to employment data, makes the estimation of the number of full time jobs which could be attributed to tourism rather problematic.

In the case of Greece, it has been estimated that, in 1966, 23,500 direct and indirect jobs could be attributed to tourist development, while that figure had risen to 26,100 in 1970, 50,000 in 1984 and 200,000 in 1987. It is estimated that the labour force employed in hotels, restaurants, recreational and cultural establishments as well as transport, grew from 6.1% to 10.5% of total employment in the period 1971-81 (KEPE, 1987).

The estimation of employment generated by tourism in Greece, faces certain additional problems, mostly related to the structure of the economy in question.

As in most countries, the Greek tourist sector is constituted of a large number of small family sized and family owned units, employing on average 2.2 to 3.3 employees (Leontidou, 1988, p. 96), depending on the nature of the unit (e.g. accommodation, restaurants etc), and this figure has not changed considerably since 1971. Seasonal variations in employment are very marked and this does not seem to improve with time (Komilis, 1986, p. 131 and Leontidou, 1988, p. 80). In the larger cities, where tourism does not, usually, only depend on the weather, employment is more or less normally distributed all year round. This is not so, however, in the smaller regions (e.g. in the islands) where tourist demand as well as employment rise sharply during the summer months and drop off in winter. These seasonal variations in employment and the differences between large and small tourist centres, may be seen in graph I (Statistical Appendix) which shows the monthly distribution of hotel employment in Greece. Employment figures are based on the number of insured hotel employees. The first two figures represent the monthly variation in employment, in the two larger Greek cities, Athens and Thessaloniki, while the third and fourth figures show corresponding variations in employment in two well known Greek islands, Rhodes and Corfu. Similarities and differences are rather obvious: While monthly fluctuations in hotel employment are also clear in the cases of Athens

and Thessaloniki, with employment rising from August to September, declining from October to April and picking up again slightly in May, these seasonal fluctuations are much sharper in the case of both Corfu and Rhodes. In both islands, employment starts slowly climbing in April, shoots up to its peak in August, then starts on a slow decline in October and drops very sharply during February and March.

While employment data on tourism can be assumed to be more reliable (as far as that can be true for employment data, especially Greek data, given moreover, that tourism is especially attractive for hidden and part-time employment), in the larger cities, because employment controls are more efficient and seasonality is lower, tourist employment is certainly grossly underestimated in the smaller and less developed regions, e.g. the islands. The reason for this is twofold: In the first place, the larger cities do not only cater for foreign tourism, but domestic tourism, commercial purposes etc, as well, and tourism is largely based on big hotel units which, usually, operate all year round (not just in summer) and employ a number of full time employees which are officially declared as such, are insured and have, for the most part, tourism as their main or only occupation. The practically negligible seasonal fluctuations in the larger cities, is also a factor resulting in more stable employment structures. In the less developed Greek regions, however, seasonality is very acute and tourism is virtually nonexistent in winter. Agriculture is the only other sector apart from tourism, which has been, in any sense, developed in these regions, as, mainly due to geographical reasons, industry is practically nonexistent. Most of the population is employed in agriculture and is officially registered as farmers or fishermen. Seasonality however, is also very marked in agriculture, although in a way complementary to tourism, with labour shortages during spring and fall and relative surpluses during the summer (Alexandrakis, 1975, p. 107). The result is, that during the summer months, most of the active population turns to the provision of tourist services, especially accommodation, by transforming their houses or extensions of them, into rooms for rent, a large number of which is undeclared. This is especially true for a large part of the female labour force, officially registered as housewives or farmers. Despite the fact that female participation in the labour force has

decreased slightly, between 1961 and 1981, largely due to the sharp drop in agricultural employment, over the period 1960-70, in the country as a whole, it has increased in sectors related to tourism (Lentidou, 1988, p. 97). This applies especially to the accommodation sector, as the job of renting rooms to tourists and providing other minor services such as breakfast etc, comes "naturally as an extension of the household" (Leontidou, 1988, p. 98).

It is obvious, therefore, that employment in the Greek tourist sector is underestimated by a very large (and increasing) number of employees, especially in the smaller and peripheral regions of the country, for reasons explained above. It has been observed, as a confirmation of this, that the ratio of total nights spent by tourists in Greece, to the total number of "official" hotel employees, tends to increase sharply in the peak (summer) months (Komilis, 1986). This can only mean, either that the quality of the services provided to tourist deteriorates during the peak season, since a stable number of employees is called upon to cater for a much larger number of tourists, or that these additional needs are covered by people employed (or underemployed) in other sectors, e.g. agriculture, or by young and unskilled workers (the latter account for about one quarter of the total number of workers employed in tourism), such as students or even foreign tourists!

4. Tourism and Income Generation

As far as the contribution of the Greek tourist sector to national income is concerned, apart from looking at its contribution to GDP growth, in relation to other sectors, one could also, derive some conclusions from the evolution of its contribution to the output of the tertiary sector. In the following table, one may see the evolution of tourism's contribution to GDP growth and tertiary sector output growth, in comparison to the corresponding performance of the manufacturing sector, over the period 1960-1988.

As we may see from the table, while, as one would expect, the percentage contribution of tourist receipts, both to total GDP and to the output of the tertiary sector, is smaller, in absolute terms than the contribution of manufacturing output to GDP and to the output

of the secondary sector, when we look at the growth rates of the above figures, tourism grows much faster than manufacturing, both as a percentage of GDP and as a percentage of sectoral output. The contribution of tourism receipts to GDP growth grew at an average rate of 8.0% in the period 1960-1988, compared to an average growth of 1.1% for the manufacturing sector, while the contribution of tourism to the output of the service sector grew on average by 3.5%, compared to a growth of 0.6% for manufacturing output as a percentage of secondary sector output, over the same period.

Table V.B5: Evolution of the output of the tourism and manufacturing sectors in Greece, 1960-1988.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1960-65	1.64	9.0	14.4	1.0	3.25	9.76	55.4	0.02
1965-70	1.99	8.1	16.8	4.84	3.93	4.60	56.7	1.99
1970-75	2.99	9.2	20.0	1.87	5.94	0.71	61.8	1.73
1975-80	3.99	6.8	21.3	0.49	7.61	2.88	65.0	-0.1
1980-85	4.05	-4.4	20.1	-2.33	7.38	-0.42	65.8	-0.1
1985-88	4.77	7.8	19.5	-3.01	8.37	5.40	77.1	-2.5

(1): % share of tourism output in GDP
(2): Average Annual % growth of (1)
(3): % share of manufacturing output in GDP
(4): Average Annual % growth of (3)
(5): % share of tourism output in tertiary sector output
(6): Average Annual % growth of (5)
(7): % share of manufacturing output in secondary sector output
(8): Average Annual % growth of (7)
Source: 1) The Greek economy in figures.
2) Own calculations

The above table is quite indicative as to the dynamism of the tourist sector in Greece, as far as income generation is concerned, keeping in mind that the import content of tourism is low in comparison to other sectors, especially manufacturing, whose imports grew steadily at approximately the same rate as exports. An even more indicative measure of the impact of tourism on income generation would probably be the value of the tourist income multiplier in Greece.

As far as I know, there have been very few attempts to estimate the value of the tourist income multiplier in the Greek

economy in the past, let alone in recent years. In the remaining part of this section, I will attempt to estimate the value of the tourist income multiplier for the period 1960-1988, based on the multiplier formula presented in chapter IV. The tourist multiplier is assumed to be equal to:

$$TIM=\frac{1-TPI}{MPS+MPI}$$, where,

TIM= Tourist income multiplier
TPI=propensity to import of the tourist sector (measured as total imports of the tourist sector over total tourist earnings)
MPS= Marginal propensity to save of the region's population
MPI= Marginal propensity of the region's population to consume imported goods.

Obviously, the major difficulty one faces when trying to estimate the value of the multiplier is related to the estimation of the import content of the tourist sector, or, in other words, the estimation of the total foreign exchange cost of tourism. I decided to solve this problem by using the total foreign exchange cost of tourism as estimated by Singh (1984), and presented in table V.B4, in the second paragraph of the present section. Unfortunately, the period used by Singh, only covered nine years (1970-78), but after the necessary calculations were done, the propensity to import of the tourism sector appeared to be remarkably constant, ranging from 0.10 in the period 1970-1974 to 0.11 in the period 1975-1978. I therefore, decided to use a marginal propensity to import equal to 0.11, over the whole period 1960-1988. This may seem slightly arbitrary, but I do not think that there is any reason to suppose that the import content of the Greek tourist sector changed significantly after 1978. After this problem was solved, the rest of the calculations was relatively straightforward. The marginal propensity to save of the Greek population was calculated as MPS=1-MPC where MPC is the marginal propensity to consume (out of net national income) in Greece. The marginal propensities to save and to import in general, and the marginal propensity to import of the tourist sector in particular, as well as the estimated value of the tourist income multiplier, is presented in the following table:

The value of the tourist income multiplier, according to the following calculations, was highest for the periods 1965-70 and 1980-85. It is slightly lower during the 1970-75 and 1975-80 periods and, again, drops slightly after 1985. However, most of these fluctuations are very small, while the average value of the multiplier for the whole period 1960-1978 is equal to 1.65, implying that a one unit rise in foreign exchange earnings from tourism, will cause an increase in direct and indirect income of approximately one and one half times greater.

Table V.B6: The Greek Tourism Income Multiplier, 1960-1988

	TPI	MPS	MPI	$\frac{1-TPI}{MPS+MPI}$
1960-65	0.11	0.30	0.28	1.53
1965-70	0.11	0.29	0.21	1.78
1970-75	0.11	0.27	0.28	1.61
1975-80	0.11	0.26	0.29	1.61
1980-85	0.11	0.17	0.34	1.74
1985-88	0.11	0.13	0.41	1.64

Source: 1) Singh, 1984.
2) The Greek Economy in figures.
3) Own calculations.

The above estimations are compatible with an estimation of the Greek tourist income multiplier found in Bryden (1973, p. 73-4), according to which the latter was approximately equal to 1.4-1.7 in the 1970s.

5. Tourism and Regional Development

In order to evaluate the impact of tourist development on each of the Greek regions, one would, optimally, have to go all through the analysis made on the national level, on the regional level as well. However, due to the non availability of most of the necessary data, as far as the Greek regions are concerned, one will have to deduce the impact of tourist development on the regional level, from the evolution of indirect factors, such as the regional distribution of the demand and supply of tourist services, new jobs created by tourism etc.

The regional distribution of tourism in Greece, seems to follow the pattern of concentration observed in the Greek economy, in general. In fact, the largest part of total economic activity, related to all three economic sectors, as well as the largest part of the total Greek population is mainly concentrated in one or two regions, namely, the Greater Athens area and the Greater Thessaloniki area. Tourism might have been expected to break this pattern, in the sense that a number of less developed regions have such a natural comparative advantage in tourism, as to absorb a large part of total tourist flows. It seems, however, that both the demand and the supply of tourism, follow a definite pattern, concentrating mainly in three or four regions of the country and, that this pattern has changed very little, if any, since 1973, despite various plans and policies aiming at the decentralisation and decongestion of already developed regions and the development of new destinations. In fact, as far as the supply of tourist services is concerned, the Greater Athens area and the island of Rhodes absorbed 41% of new hotel bed places in the period 1963-73 and 32% in 1983 (Komilis, 1986, p. 102 and Leontidou, 1988, p. 98). The Greater Athens area and the Dodecanese absorbed 67% and 53% respectively of the total new hotel bed places in 1973 (Komilis, 1986, p. 102).

It is possible to see the regional distribution of hotel beds in Greece, from 1963 to 1973, in Graph II of the Appendix. It is clear that the supply of tourist services is concentrated in three regions, the Greater Athens region, the Greater Thessaloniki region and the island of Rhodes.

Even after 1983, when development law 1262/82 started to operate, the main objectives of which were to provide financial incentives that would attract new investment projects away from congested regions and towards new regions possessing some growth potential, the above pattern of concentration was not significantly broken. In fact, from 1983 to 1988, the bulk of new investment projects under law 1262/82 were absorbed, mainly, by three regions, namely, the regions of the South Aegean Islands, the Ionian islands and Crete, which, together, absorbed 49.7% of total investment projects planned under the above development law. The following table shows the regional distribution and percentage share of each region,

both in total tourist investment and in total investment in all three economic sectors, planned under law 1262/82, as well as the number of new jobs created (or to be created for investment projects that have not been completed yet), through these investments.

Table V.B7: Investment projects planned under Law 1262/82, 1983-88.

Regions	Investment in Tourism (drchs)	% in the country's total	Investment in all three sectors	% in the total
1.East Macedonia and Thrace	9,398,673,052	4.4	70,886,344,841	10.8
2.Central Macedonia and Thessaloniki	15,044,104,593	7.1	114,655,679,748	17.5
3.West Macedonia	1,458,400,000	0.7	12,263,189,809	1.9
4.Epirus	6,040,141,648	2.8	25,072,738,326	3.8
5.Thessaly	10,887,712,921	5.1	45,682,075,762	6.9
6.Ionian Islands	17,837,654,932	8.4	23,423,591,391	3.6
7.Western Greece	5,315,906,805	2.5	42,346,937,799	6.4
8.Continental Greece	9,512,690,989	4.5	82,586,772,809	12.6
9.Attica	12,048,177,149	5.5	25,214,029,271	3.0
10.Peloponese	8,389,476,545	4.0	44,841,328,454	6.8
11.North Aegean	15,692,710,464	7.3	24,114,329,348	3.6
12.South Aegean	62,028,997,299	29.1	70,698,096,016	10.8
13.Crete	43,701,086,035	20.6	62,005,926,089	9.4
Total	217,870,084,218	100.0	656,539,902,844	100.0

Source: 1) Stavros, 1989, p. 27-29.
2) Own calculations.

From the figures in tables V.B7 and V.B8, one may observe that the incentives granted by law 1262/82 only succeeded, to some extent, to draw new investment projects, both in tourism and in the other economic sectors, away from the congested region of Greater Athens. However, new tourist projects, investment in all three sectors and new jobs created still follow a clear pattern of concentration. In fact, where new tourist projects and new jobs in tourism are concerned, the South Aegean region and Crete, absorb nearly 50% of both. Where all three economic sectors are concerned, the regions of Central Macedonia and Thessaloniki, Continental Greece and the regions of the South Aegean and Crete benefit the most.

Table V.B8: New Jobs created by Law 1262/82, 1983-88

Regions	In tourism	% in the country total	In all three sectors	% in the country total
1.East Macedonia and Thrace	1,611	4.80	18,277	14.4
2.Central Macedonia	2,188	6.52	24,304	19.1
3.West Macedonia	214	0.63	2,997	2.4
4.Epirus	1,018	3.12	5,091	3.9
5.Thessaly	1,580	4.7	7,429	5.8
6.Ionian Islands	3,240	9.6	4,566	3.6
7.W. Greece	948	2.8	8,729	6.9
8.Continental Greece	1,769	5.2	14,737	11.6
9.Attica	1,008	3.0	3,115	2.4
10.Peloponese	1,764	5.2	8,355	6.6
11.North Aegean	2,395	7.1	4,759	3.7
12.South Aegean	8,770	26.1	10,917	8.6
13.Crete	7,044	20.9	14,089	11.0
Total	33,546	100.0	127,365	100.0

Source: Same as Table V.B7.

Investment in tourism is heavily concentrated in the coastal areas and, among these, in those regions traditionally preferred by tourists. Other forms of tourism which could be initiated in different, equally attractive regions of the country, such as winter and mountain tourism in the regions of Western Macedonia or Epirus do not seem to attract investors. Apart from contributing to a more balanced type of regional development however, where tourism is concerned, this would have had the additional benefit of attracting "second year tourists" (Stavros, 1989, p. 109), that is, tourists who visit Greece for the second or third time (this type of tourism constitutes a rather large part of Greek tourism, as already mentioned above) and who would like to see different places within the country and get away from the over congested, during the summer months, traditional tourist centres.

Foreign direct investment in Greek tourism, also follows a strong concentration pattern, although, from the following table, it is clear that foreign investors believe that investment projects in the more developed regions of the country are more profitable, probably because of the higher level of development of infrastructure and services in general, as well as because of the larger market size

(both in terms of population and of purchasing power) in those regions.

Table V.B9: Foreign Direct Investment in Tourism by region, 1975-84

Regions	Cost of investment($)	% in country total
1.Greater Athens	44,630,000	27.57
2.Remainder of Central Greece and Eubea	3,745,000	2.31
3.Peloponese	45,643,410	28.19
4.Ionian Islands	------	---
5.Epirus	5,940,000	3.66
6.Thessaly	3,000,000	1.85
7.West-Central Macedonia	48,000,000	29.65
8.East Macedonia-Thrace	------	---
9.Aegean Islands	9,000,000	5.56
10.Crete	1,900,000	1.17
Greece	161,858,410	100.00

Source: C. Nikas, unpublished paper for the IRISS project on tourism and regional development

The relatively high percentage of foreign investment in the region of Western and Central Macedonia may be misleading because Chalkidiki, the major tourist destination of Macedonia (as far as both domestic and foreign tourism is concerned) is included, and the bulk if not the total of foreign investment in the region is channeled there, not towards the less developed areas of the region.

Apart from the regional concentration of tourist services, the demand for foreign tourism seems to follow exactly the same pattern, at least up to 1980, as one may see from the regional concentration of foreign hotel nights, in the period 1963-73. since 1981, however, this pattern slightly changes, with tourists showing a preference for the islands and especially for Crete, Corfu, the Dodecanese and Chalkidiki rather than for the large cities of Athens and Thessaloniki. These evolutions may be seen in Graph III of the Statistical Appendix.

In conclusion, one could say that the regional distribution of tourism in Greece has not improved significantly over the years, as far as promoting the development of new destinations and new types of tourism is concerned. Although the concentration of

tourist supply and demand shifts away from the regions of Athens and Thessaloniki, decentralisation is not achieved, because both demand and supply concentrate themselves in three or four coastal regions, which were already developed as far as tourism was concerned, as long as they served as traditional tourist destinations for years. In any case, these newer mass destinations within Greece, are also becoming rapidly over congested during the summer months, as to be practically non-viable, especially during July and August, the peak of the tourist season in Greece.

6. Tourism and its Linkages with the Rest of the Economy

One of the main arguments against a heavy reliance on the tourist sector for the development of a country, concerns the "suspicion" that tourism has very weak backward and forward linkages with other economic sectors. It has been argued that tourism only presents certain backward linkages with branches such as handicrafts and souvenirs which can do very little as far as improving the country's economic structure and competitiveness is concerned.

Given that tourism is a service product, mainly designed to meet final consumer demand, it would be surprising if it presented any forward linkages with other industries. Where backward linkages are concerned, however,there is first of all the problem as to how these are measured. The obvious way would be to use an input-output table, trace the distribution of total tourist receipts to various industries and apply the inverse coefficient of each sector to the share of tourist earnings received by each, in order to find the total backward linkages of the tourist industry. The problem with this method, though, is that the sectoral breakdown used in the input-output tables of the Greek economy, at least, does not permit the identification of the industries included in tourist spending. The category of "other services" which would be the closest proxy to tourism, includes, among others, education, domestic services, civil engineering etc, all of which are believed to have little or no backward linkages (Alexandrakis, 1975, p. 183), and therefore, any estimation based on this sectoral breakdown would probably bias and underestimate any linkages found for tourism. Attempts to measure the

linkages of the tourist industry using multipliers (income and employment multipliers, in particular), indicate that these are very widespread, ranging from transport, retailing, wholesaling, to manufacturing and agriculture. Earlier approaches, attempting to measure the backward linkages of the tourist sector in Greece, using 1960 data (Alexandrakis, 1975), suggested that the latter are weaker than in the manufacturing sector but stronger than one would expect, including dynamic effects such as the appearance of industries producing basic metal products for hotel construction, leading to a decrease of such imports (Leontidou, 1988, p. 100).

One would expect tourism to have relatively widespread linkages in Greece, at least if one looks at the matter in relation to the linkages presented by other sectors. The reason for this, is that tourism in Greece has a rather low import content, (Cleverdon, 1979, p. 30, Singh, 1984) contrary to other sectors, and especially in relation to manufacturing. It seems, therefore, to rely largely on domestic resources for its development. One would expect tourism to have rather marked linkages with sectors such as transport and communications (although most of the capital and machinery used in these sectors is imported from abroad), light manufacturing branches producing consumer goods, and especially with constructions. The latter however is a sector that is already "overgrown" in Greece and further development due to tourism would probably not be considered a benefit. However, the fact that the tourist sector seems to use domestic resources, rather than imported goods, comes as a happy contrast to the manufacturing sector; despite the fact that manufacturing exports shoot up after 1966 manufacturing industry did not manage to develop any significant linkages with the rest of the economy, as long as no intermediate goods industry worth of the name was ever developed in Greece. On the contrary, the very fast growth of Greek manufacturing exports was followed by an equally fast growth of manufacturing imports, especially imports of intermediate goods which were re-exported, after being subject to a minimum of value added.

C. DEMAND AND SUPPLY OF TOURISM

1. The Demand for Tourism in Greece

According to economic theory, the main exogenous factors influencing the demand for tourist services, are per capita incomes of tourists and relative prices. In fact, various studies[2] estimate the income elasticity of demand for tourism to be approximately 1.8, while the price elasticity of the demand for tourist services was estimated as ranging from -2.5 to -3.0, for most OECD countries (Paraskevopoulos, 1981, p. 104). In the following table one may see a grouping of almost all known empirical studies (both published and unpublished) on tourism as well as the dependent and independent variables used in each case.

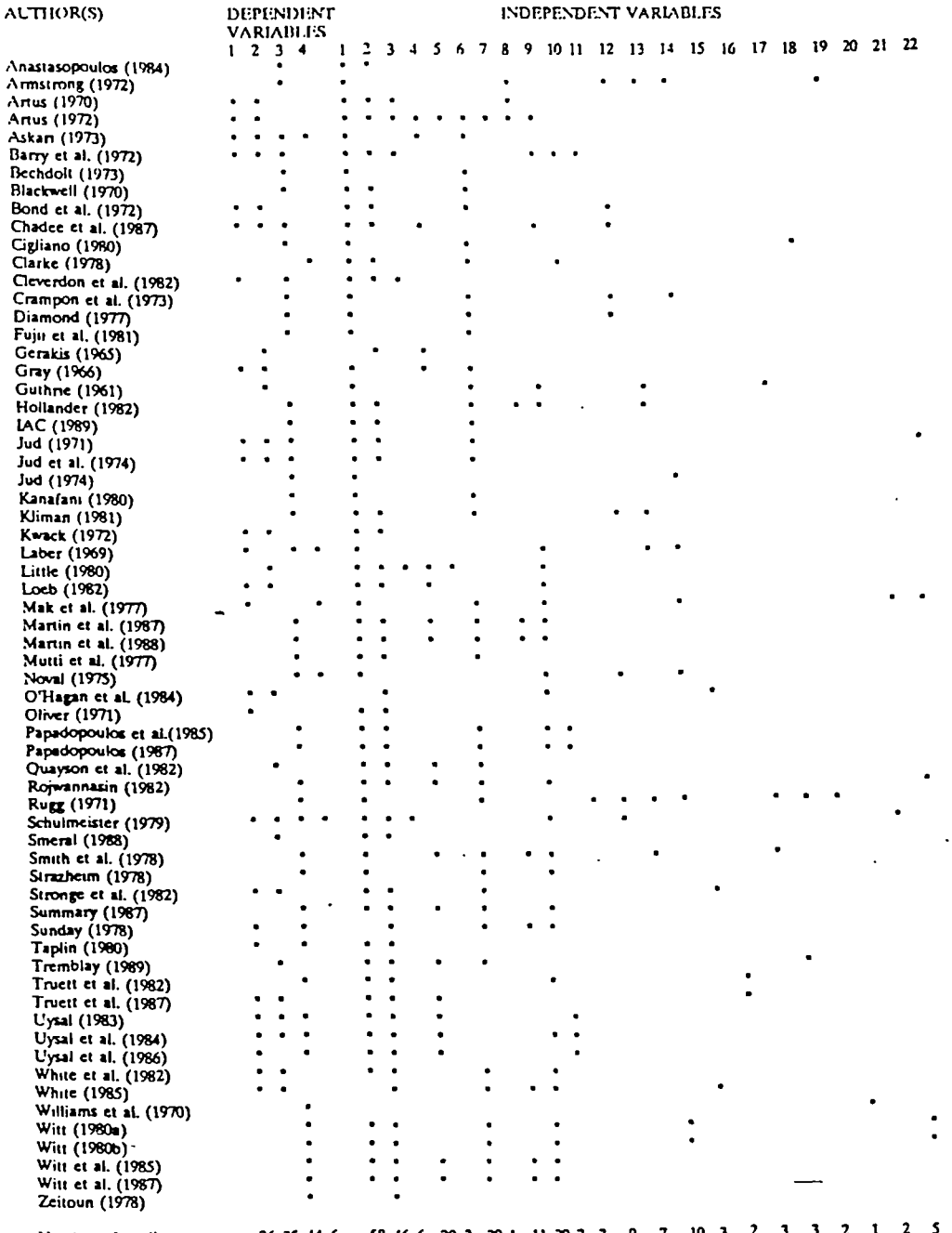
Other determining factors of tourist demand include the distance of the destination country from the main tourist generating countries, the travel cost involved in getting there, average weekly working hours and paid holidays which determine the available free time one has for travel, various macroeconomic variables such as unemployment or inflation in the tourist generating countries, because, presumably, they influence expectations about future incomes, status etc, consumption patterns in the tourist generating countries etc. Apart from these demand side factors, certain supply side variables are supposed to influence the demand for tourism, such as the capacity of the destination country to accommodate visitors, the level (or growth rate) of investment in tourism and infrastructure projects, the development level of the destination country and its attractions etc.

2

For some econometric investigations of the demand for tourist services in Greece as well as other OECD countries, see 1) Paraskevopoulos, 1981, 2) Komilis, 1986, 3) Schulmeister, 1979.

Table V.B10

PREVIOUS EMPIRICAL STUDIES



LEGEND:

DEPENDENT VARIABLES
1. Tourist expenditures
2. Tourist receipts
3. Tourist numbers
4. Length of stay

INDEPENDENT VARIABLES
1. Income (ability to pay (unemployment)/economic activity
2. Relative prices
3. Lagged relative prices
4. Exchange rates
5. Lagged exchange rates
6. Transportation costs
7. Lagged transportation costs
8. Trends
9. Disturbance factors (dummy variables)
10. Marketing expenditure
11. Weather index
12. Population
13. Ethnic attraction/cultural ties
14. Distance/travel time
15. Total tourist expenditure
16. Supply factors (hotel rooms, government assistance)
17. Trade/business links
18. Travel restrictions
19. Tourist appeal
20. Explanatory variables are hypothesized but are not tested empirically
21. Demographic factors
22. Previous visits

Source: Crouch, 1990, p. 4

Most studies which have attempted to model the demand for tourism (using either time series or cross section data or a combination of both), express the dependent variables of the estimated models, either in terms of the total number of tourist nights spent in the country of destination or as the total number of tourist arrivals (measured at ports, airports and other similar entry points), or, sometimes, total tourist earnings from foreign tourism, received by the destination country. In the following table one may see the distribution of the income and price elasticities of demand for tourism, as estimated in each of the studies included in the above table.

The view taken in this section is that, from a policy aspect point of view, what is most important, apart from the total number of arrivals, is the average length of stay of foreign tourists in Greece, as well as their average expenditure per day or per tourist. The reason for this is, that during the last years, despite the fact that Greece's share in the international tourist market has not significantly diminished and despite the fact that the number of foreign tourists visiting the country each year continues to grow at a rather satisfactory rate (although not so fast as in the 1970s), the average length of stay of foreign tourists in Greece as well as their average per capita expenditure in dollars, is not rising, as we may see from table V.B12.

Table V.B11

FIGURE 1: FREQUENCY DISTRIBUTION OF INCOME ELASTICITIES

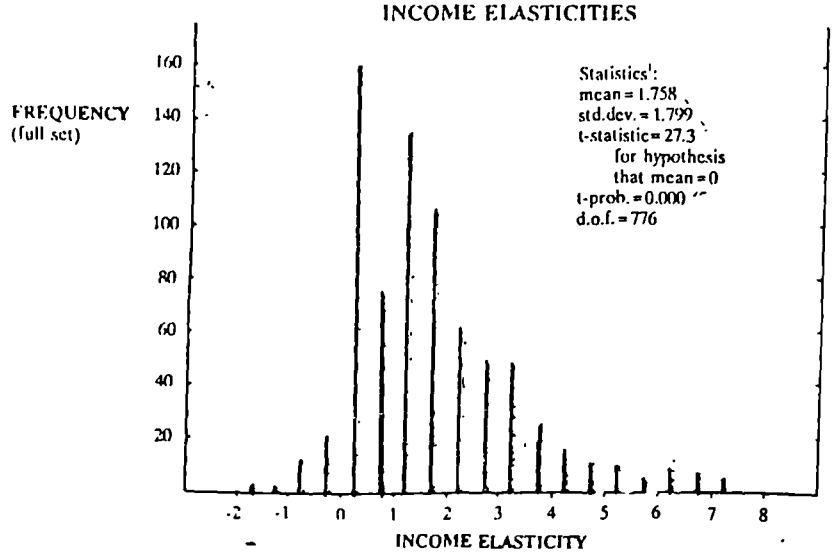
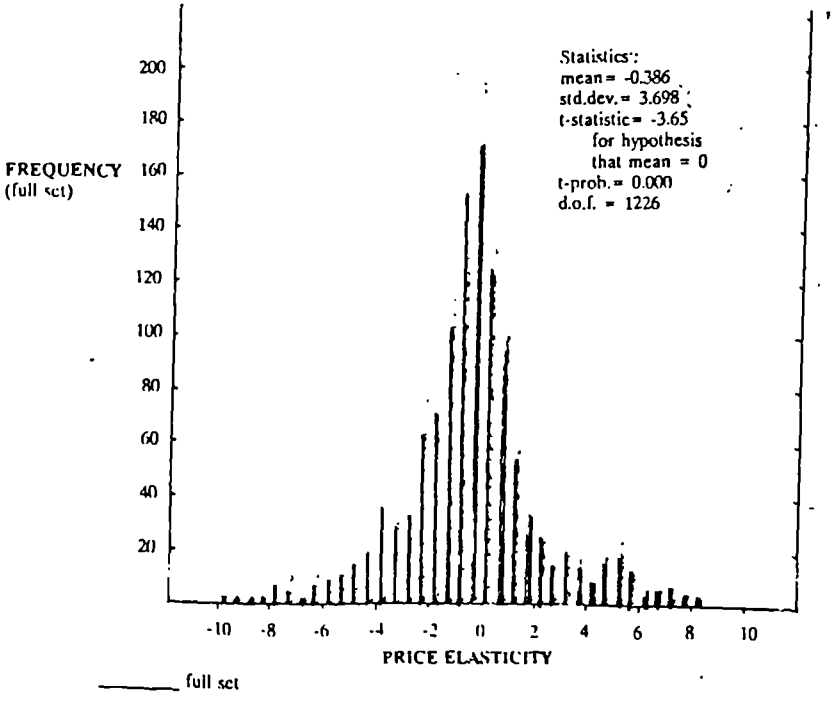


FIGURE 2: FREQUENCY DISTRIBUTION OF PRICE ELASTICITIES



Source: Crouch, 1990, p. 6

Table V.B12: Average Length of Stay and Average Expenditure of Foreign Tourists in Greece, 1960-88

	Average stay (days)	Average per capita expenditure (Constant $ U.S)
1960	7.9	163
1965	6.7	127
1970	7.3	137
1975	3.7	226
1980	5.1	361
1985	4.6	217
1988	5.2	302

Sources: 1) Economicos Tachidromos, November 1990, p. 94
2) United Nations Statistical Yearbook
3) Own Calculations

In order to see which variables determine the average length of stay and average expenditure of foreign tourists in Greece, as well as their decision to visit the country, three model specifications were estimated. In the first model, the dependent variable is represented by the number of foreign tourist arrivals in Greece. The dependent variable of the second model is represented by the average length of stay of foreign tourists in Greece, while the dependent variable of the third model is the average daily expenditure of foreign tourists in the country. Given the fact that approximately 70-80% of the foreign tourists visiting Greece are either Americans or EC residents, an attempt was made to estimate the above models separately for the two groups of countries in order to pick up possible differences in the tastes and attitudes of tourists of different nationalities. While this was possible for the first two models, with rather interesting results, it was not possible for the third model. The reason for this is that, while the data on arrivals and tourist nights spent in the country are broken down by country of origin of the tourists, this is not the case for tourist receipts which are only found in the form of total yearly earnings.

The estimated models and their interpretation are presented below. The estimation period used is 1962-1988.

Model I

a. Applied to tourists from the EC countries

The form of the final model was:

$$\underset{}{\text{Log(ECARVS)}} = \underset{(35.7)}{5.69} + \underset{(8.5)}{2.29}\text{Log(PcY1)} - \underset{(3.98)}{1.3}\text{Log(U)} - \underset{(0.75)}{0.38}\text{Log(gr/med\$)} - \underset{(2.06)}{0.34}\text{D}$$

$R^2=0.96$ $F(4,21)=161.29$ D.W=1.80

The dependent variable of the model represents the number of arrivals from the EC countries to Greece. The independant variables included in the model are:

PCY1: Lagged value of the per capita income of EC residents

U: Unemployment rate in the EC

gr/med$: Ratio of the index of consumer prices in Greece to the index of consumer prices in Italy, Spain and Portugal, in dollars.

D: Dummy variable picking up the influence of political unstability in Greece. It takes the value of 0 for all years except for 1967 (Junta), 1974 (Greek-Cypriot crisis) and 1986 (president Reagan's travel directive).

All the variables are expressed in logarithms.

Per capita income is, as one might have expected, the most significant variable. In fact, the coefficient of this variable seems to agree with other empirical estimates (Paraskevopoulos, 1981), indicating an income elasticity of demand for tourism equal to 2.2 for the EC tourists. What is rather interesting is that relative prices (between Greece and its other Mediterranean competitors) do not seem to influence the number of EC tourists that decide to visit the country. This could be explained by the fact that Greece is seen as a "differentiated" product, perhaps not just as a holiday destination with plenty of sun and sea but, also, as a place with significant cultural attractions (historical, archaeological etc), which cannot be found elsewhere. Another interesting point is that the unemployment rate in the EC is a very significant deterrent factor where tourist demand is concerned, with an elasticity of -1.32. Obviously, a rising unemployment rate implies uncertainty about the future and rather unfavourable consumer expectations as to future employment, income,

paid vacations etc. Exogenous factors such as political unstability in Greece, also influence adversely the demand for tourism on the part of EC residents, as one may see from the significance of the dummy variable included in the model. Working hours per week, consumer prices in the EC and consumptions patterns were tried as well, in the above model, but they were either not significant or had the wrong sign.

The same model estimated for American tourists has slightly different implications. The final model takes the following form:

Model I:

b) Estimated for U.S.A tourists

$$\begin{aligned}\text{Log(USARVS)} = &-14.84 + \underset{(1.95)}{6.19}\text{Log(GDPPC1)} - \underset{(9.86)}{1.7}\text{Log(IPUS)} - \underset{(3.11)}{6.38}\text{Log(WHUS1)} - \\ &\underset{(4.3)}{-1.21}\text{Log(gr/med\$)}\end{aligned}$$

$R^2=0.96$ $F(4,21)=158.92$ D.W=1.65

The fit of the model is quite satisfactory and both the D.W statistic and the other tests show no autocorrelation. The dependent variable is again represented by the number of U.S arrivals this time. All the independent variables are, once again, expressed in logs and represent:

GDPpc1: Lagged value of per capita GDP of American residents

gr/med$: Relative prices between Greece and the other Mediterranean countries.

IpUS: Index of consumer prices in the U.S.A

wh-US1: Lagged weekly working hours in the U.S.A

As one would normally expect, per capita GDP is the most significant explanatory variable, with an elasticity of 6.19. Interestingly and contrary to EC tourists, Americans are not put off by a rising unemployment rate but rather, by inflation as indicates the coefficient of the index of consumer prices in the U.S.A. Working hours per week (with a one year lag) also seem significant, as long as when they rise, the number of U.S tourists coming to Greece drops. Interestingly, American tourists seem to think of tourist services in

Greece and its neighbouring Mediterranean competitors, Italy, Spain and Portugal, as, very close substitutes since, when relative prices rise in Greece, the number of U.S arrivals drops significantly. Could this mean that Americans are more interested in "sunlust" tourism than Europeans who prefer to combine their holidays with other forms of sightseeing?

The second type of model which was estimated separately for each group, has the average length of stay as the dependant variable and takes the following form for the EC tourists:

Model II.

Estimated for EC tourists

$$\begin{aligned} \text{AvstayEC} = &-139.1 + 0.27\text{avstayEC1} - 2.97\text{wh-ec} - 0.15\text{expnightpc} \\ &(2.3)\quad (1.5)\qquad\quad (2.2)\qquad (1.56) \\ &-42.6\text{gr/med\$1} + 7.38\text{sizegr/ec} - 5.26\text{pcYec} \\ &(2.26)\qquad\quad (3.2)\qquad\quad (3.1) \end{aligned}$$

$R^2=0.71$ $\quad F(6,19)=8.12$

The dependant variable in this case is the average length of stay (in days) of EC tourists in Greece. The independant variables are:

AvsatyEC1: Lagged average length of stay of EC tourists.

Wh-ec: Weekly working hours in the EC.

gr/med$1: Lagged value of relative consumer prices between Greece and the other Mediterranean countries.

sizegr/ec: Relative size of Greece to the EC, in terms of population.

PCY: Per capita income of EC residents.

The lagged value of the dependant variable is not significant at the 95% level, but its presence in the model eliminates first order residual autocorrelation. The D.W. statistic is invalided in this case, but the coefficients of the test for autocorrelated errors show that autocorrelation has been eliminated:

F1(1,18)=0.08 [0.78] F2(2,17)=0.10 [0.9] F4(4,15)=0.15 [0.95]

F1-F4 indicate the F values for autocorrelation of 1st to 4th order and the values in square brackets indicate the critical value.

Weekly working hours seem to influence the average length

of stay while this was not the case as far as arrivals were concerned. The interesting thing is, that while relative prices were not significant where arrivals were concerned, they do influence significantly the average length of stay of EC tourists, shortening it whenever relative prices in Greece rise. Perhaps this could be attributed to the fact that prices (and relative prices) are only really felt when one actually visits a country rather than beforehand. Daily expenditure is not statistically significant but it has the correct sign, as the natural thing to do would be to shorten one's stay when daily expenditure rises. The relative size (in terms of population) of Greece to the EC seems to be very significant as far as the average length of stay of EC tourists is concerned. The larger the country, the longer the stay. This could be due either to the fact that a larger country takes longer to see, or that a smaller country gets easier over congested in peak tourist periods, thus making one's stay uncomfortable or even disagreeable. The most impressive point, however, is the sign and significance of the per capita income of EC tourists. In fact, the sign is negative, indicating that rising incomes in the EC shorten the stay of EC tourists in the country. This is rather surprising at first sight but it could be explained by the possibility that with higher incomes, EC tourists decide to visit more than one country during their holidays rather than spend all of their available time in just one country.

The same model, applied to the U.S.A tourists takes the following form:

Model II

Estimated for U.S tourists

$$\begin{aligned} \text{Log(avstayUS)} = {} & 14.03 - 031D + 0.18\text{Log(pcYus)} - 2.03\text{Log(wh-us)} \\ & (2.99)(-2.39)\ (2.86)\qquad\qquad (1.72) \\ & -0.88\text{Log(expnightpc)} + 0.88\text{Log(beds/arvs)} \\ & (4.74)\qquad\qquad\qquad (3.89) \end{aligned}$$

$R^2=0.922$ $\qquad$ $F(5,20)=47.77$ $\qquad$ $D.W=1.72$

The dependant variable in this model is the average length of stay of American tourists in Greece. Again, one may see the differences in their tastes and attitudes in relation to European

tourists. The independent variables included in the model are:

D: Dummy variable for political unstability, same as for Model I applied to EC tourist.(Value equal to 0 for all years except 1967, 1974, 1986)

pcYus: Per capita income for U.S. residents.

Wh-Us: Weekly working hours in the U.S.A

Expnightpc: Nightly expenditure of foreign tourists in Greece.

Beds/Arvs: Ratio of total bed places available in Greece to the total number of foreign tourist arrivals

All variables are expressed in logarithms.

Surprisingly and contrary to what happens to the EC tourists, political crises do not seem to influence the decision of American tourists to visit Greece, but they do influence negatively their length of stay there. Per capita income, on the other hand is significant, and positive in this case, indicating that higher incomes mean a longer stay in the country. One explanation for this, could be that the greater distance which Americans have to face when travelling to Europe, which may imply that they prefer to spend all of their holiday in one country once they get there, rather than waste time and money travelling around. Weekly working hours influence both arrivals and length of stay adversely. Again, it seems that American tourists are more price- conscious than Europeans, for their daily expenditure is of much greater importance to them. When the latter is high, they choose to spend less time in the country. A very interesting thing about the above model is that it is the only one which could incorporate a supply variable. The accommodation capacity of Greece, expressed as the number of beds divided by the total number of tourists, is of great significance, as a relative shortage of beds would mean a shorter stay for American tourists. Despite the fact that two supply side variables were tried in all four models presented here, (investment in the tertiary sector and number of beds over arrivals), this is the only model where one of them proved to be significant without causing any statistical problems. One could argue, therefore, that where arrivals are concerned, it is the demand for tourist services which creates their supply, both as far as European and American tourists are concerned. While the length of stay of EC tourists does not depend on supply variables either, Americans do take

into account supply side variables where their length of stay is concerned.

The fit of the model is, again, quite satisfactory and the D.W tests indicate no residual autocorrelation.

The last model which was specified and estimated is common to both groups of countries as long as the available data did not make possible a breakdown like in the case of the previous models. Here, the dependent variable is represented by the average daily expenditure per foreign tourist in Greece. The final model takes the following form:

Model III

Estimated for Both EC and U.S tourists

$$Expnightpc = -264.06 + 1.02IPCY + 4.17\,(C/Y) + 0.31Indxgr\$$$
$$(3.88)\quad (4.59)\quad (3.05)\quad (11.99)$$

$R^2 = 0.98$

IPCY: Average index of per capita income for U.S and EC residents

Indxgr$: Index of consumer prices in Greece in $ U.S

C/Y: Average ratio of final private consumption to income in the EC and U.S.A.

The above model was estimated using autoregressive least squares, in order to correct for the autoregression present in the initial estimates. The R^2 shown above is the correlation coefficient between actual and predicted values of the dependent variable.

The fact that the great majority of foreign tourists in Greece are either American or originate from EC countries (70-80%) implies that the inclusion of total receipts to total nights as the dependent variable particular only to the U.S.A and the EC, should not bias significantly the estimated coefficients.

The index of per capita income influences positively the average daily expenditure of foreign tourists. Naturally, high consumer prices in Greece, cause higher daily expenditures. However, where policy aspects are concerned, one should keep in mind that high relative prices tend to imply shorter length of stay where European tourists are concerned, and fewer arrivals where American tourists are

concerned. On the other hand, while higher incomes imply a higher average daily expenditure for both nationalities, they also tend to imply a shorter length of stay for the Europeans, although they do mean a larger number of arrivals for both nationalities. An interesting point in this last model is that when consumption rises as a percentage of income, daily expenditure on tourism rises as well, which seems to imply that expenditure on tourism and private consumption are rather complementary than competitive items.

2. Supply of Tourist Services in Greece

Measuring the supply of tourism services in a country faces certain difficulties, the main one being that there is a problem of definition of what one means exactly, by the term "supply of tourist services". In fact, a warm and sunny climate, large stretches of sandy beaches, clear sea, hospitality of the residents, interesting food etc, and any similar factors which help to attract tourists, but are exogenous, in the sense that they are independent of private or public sector current decisions, may be included in the country's supply of tourist services, just as much or, perhaps, more than the number of beds, recreation facilities, restaurants etc, which are made available for tourists. As a consequence, it would be helpful to distinguish the total supply of tourist services into two broad categories (Komilis, 1986, p. 12).

1) Supply resources of a region or country which are not directly related to tourism, but which determine the nature and direction of such tourist-related activities, through their ability to attract tourists (e.g. the climate, landscape, beaches, cultural heritage etc).

2) Supply resources which are demand oriented and depend on private or public sector investment decisions (e.g. accommodation establishments, amusement centers, museums and, generally speaking, all kinds of services which are developed in order to satisfy tourist demand.

Although the first category of supply resources represents the "primary tourist product" which attracts tourist demand from abroad and enables a country to develop its tourist sector, but remain relatively stable over time, the second category of tourist resources

may be seen as a "by-product" of the first and their growth rate may be said to depend on the demand of foreign tourists. It is, however, the combination of these two categories of supply resources which constitute the total supply of tourist services of a country and determine the size of foreign tourist flows. Different kinds of tourists visit a country or different regions of a country for different reasons and, while the main ones are likely to be the existence of a combination of the first kind of resources (in the case of Greece, at least), it is obvious that the existence or absence as well as the quality standard of a whole network of supporting man-made activities, such as the general infrastructure, accommodation establishments, transport services etc, will substantially affect both the size and pattern of international tourist flows.

The Greater Athens area and a limited number of other regions suffer from an extreme concentration of supply services (man-made rather than natural), in Greece. This concentration pattern, furthermore, grows worse rather than better with time (Komilis, p. 167). Where the number of beds in all accommodation establishments are concerned, the Greater Athens area possesses 21.41% of the total, while, 57.32% of all tourist related industries, 43.85% of all recreation establishments, 56.7% of the total urban population (1971 census), 43.35% of tertiary sector employment and 43.71% of all tourist related employment was concentrated in that region, in 1978. This trend is still moving in the same direction. The degree of concentration is by far highest for the Greater Athens region, followed to a much lesser extent by the Thessaloniki-Chalkidiki region (the second largest Greek region in terms of population and economic activity), the Dodecanese Islands and the Cyclades Islands. One look at section 2.5 of the present chapter and graph II of the Appendix, will satisfy the reader as to the stability and continuity of this concentration pattern of tourist supply, in Greece. While Greece is the only EC country whose accommodation capacity continues to grow at a very fast rate (it tripled between 1970 and 1985), while that of the EC as a whole has been leveling out if not declining, Greece and France are the only two member countries to witness such a high level of geographic concentration on the supply side of tourism (Commission of the European Communities, 1985).

This high growth rate of the country's accommodation capacity, however, creates serious problems of excess capacity and low occupation rates in nearly all regions with the exception of the Ionian Islands, Corfu and Crete where average occupation rates equal 50% in the last years, while the average occupation rate in the country is approximately 30-40%. Although, where the country as a whole is concerned, this is mainly due to a very fast rate of growth in the accommodation sector (especially of undeclared units), in the Greater Athens area it is rather due to a decline in tourist demand because of the over congestion of the city which can make one's stay unpleasant there, especially in the summer (KEPE, 1987, p. 43).

However, the official growth rates attributed to the country's accommodation capacity (9.5% a year in the period 1973-1987) is largely underestimated when one takes into account that, the official accommodation capacity of the country only represents 30% of the total, the rest being undeclared units whose growth is much faster than that of the official sector, especially, as one would expect, in the regions that suffer from the highest seasonality in tourist demand, such as the islands, the Chalkidiki region etc. It goes without saying that the existence of such a large number of undeclared accommodation units in the country, raises a series of problems as to the normal operation of hotels, the main one being the appearance of a sort of "unfair" price competition between officially declared and undeclared units, during the peak periods, as to which will be able to afford the offer of the lowest price. On the other hand, this extremely large percentage of undeclared accommodation units is the main reason behind the existence of such a large hidden economy where the tourist sector is concerned. It contributes to major forms of tax evasion and leakages of foreign currency from the total tourist revenue of the country (which, as a result, are also underestimated), as well as all the other tourist indicators, e.g. total nights spent, average length of stay etc). Furthermore, the existence of this large part of the accommodation sector which the Government is unable to control or categorise according to some internationally adopted system (e.g. the star system), may (and in fact does) lower the average quality standards of the services provided. In fact, while the standards of most Greek hotels are considered to be satisfactory where

infrastructure and equipment is concerned, the quality of the services provided lags far behind that of most developed tourist countries in Western Europe, especially in comparison to other Mediterranean ones. This problem becomes more acute in the less developed regions of the country where skilled tourism employees are hard to find (KEPE, 1987, p. 42), or too expensive to employ on a permanent basis, given high seasonality and low occupation rates. This relatively low standard of services provided to foreign tourists, combined with increasing costs, price competition within the country as well as with the ability of large foreign tour-operators to dictate (to a large extent) their terms as far as prices, quality standards etc are concerned, leads to a decrease of the country's tourist sector competitiveness on the international level.

D. CONCLUSIONS

From the extensive analysis of the development of the Greek economy, in various parts of the thesis (especially pp. 70-71), it should be rather obvious by now that, Governmental intervention and planning were not very successful in Greece. While this was rarely due to a lack of targets, the measures and sets of incentives which were adopted in order to achieve these objectives were, more often than not, unsystematic, disorganised and circumstantial, in the sense that they were never really integrated in a complete, comprehensive and long term development plan. There is no reason why tourism, in particular, should be an exception to this rule and, in fact, it was no exception. Despite the fact that tourism was seen as a major source of foreign exchange and as a possible solution to the country's balance of payments constraints and despite the State's strong interest and very substantial support, especially were developing infrastructure and providing incentives to the private sector were concerned, the overall development of the tourist sector evolved in a rather haphasard way. This was an indication of a rather cloudy understanding of what was really expected of tourism, the time span in which this should be expected and the best way in which it was to be achieved. The result was, as we have seen, a very uneven regional distribution of tourism, with large non viable units in regions with a high seasonality of demand, low occupation rates and a lack of skilled employees, as well as an over concentration of supply in a few regions, while no measures were ever taken in time, to prepare new less developed regions to succeed the former, as poles of attraction of foreign tourists. Furthermore, the fragmentation and disorganisation of the Greek tourist sector, and the resulting large hidden tourist economy (estimated to be as high as 60-70%, in the accommodation sector, at least), creates a series of additional problems and inefficiencies, leading, among others, to an overdependance on foreign tour operators and often resulting in prices too low to cover costs, low occupation rates of hotels, low average stay of foreign tourists, low quality of services provided etc.

However, despite these problems and deficiencies, the tourist sector, in Greece, seems to be among the most dynamic and

efficient ones in the economy and still far from realising its full growth potential. Despite the fact that tourism is internationally seen as a very volatile, uncertain and extremely sensitive to exogenous unforeseeable shocks activity, with Greek tourism being no exception, as indicate the major setbacks caused by the Junta, the Greek-Cypriot crisis, president Reagan's initiative and, almost certainly, the recent developments in the Gulf, and Yugoslavia, both demand and supply of Greek tourism have been growing rapidly.

Undoubtedly, despite the fact that tourism is a relatively recent economic sector in Greece (its active development started in the late 60s to early 70s), its contribution to the economic development of the country has been an important one (section B of the present chapter). In the first place, it seems to have fulfilled the primary function which was expected of it, that is, to relieve the country's balance of payments constraints and enable increased imports (especially, of intermediate manufactured goods). Its overall impact on the balance of current accounts is large and positive, with very low leakages abroad. Apart from that, tourism's contribution to employment and income generation is quite important, both in absolute as well as in relative terms, with tourism growing much faster than manufacturing, both as a percentage of GDP as well as a percentage of sectoral output (of the tertiary and secondary sector, respectively).

Despite the fact that demand (in terms of arrivals and total receipts) for tourist services has been growing rapidly in Greece, and as indicated in the econometric investigation, depends on the usual factors referred to in economic theory, with a few variations, according to specific tourist nationalities, there are, nevertheless, certain problems which should be considered if the Greek tourist sector is to increase its competitiveness and efficiency on the international level, as well as exploit its full potential for growth.

The first and most important problem which, furthermore, seems to be structural, is that Greece attracts mainly low to middle income tourists and any attempt to sustain or increase total tourist receipts implies a shift to mass tourism, with consequent problems of congestion, due to the country's small size and development level (in terms of infrastructure), concentrated (in a very few regions) tourist

supply and inadequate quality of the services provided. The second problem, related to the first, is the short average length of stay of foreign tourists. Seasonality of tourist demand in Greece, is among the highest in the EC countries (Leontidou, 1988, p. 81, Buckley and Papadopoulos, 1986, p. 94) and this, obviously, leads to problems of oversupply, low prices etc, resulting in major losses of revenue for the tourist industry. If the country decided to shift its attention from mass low income tourism to selective, higher income tourism, this would serve both the purpose of sustaining a given level of tourist receipts (or, even increase it), while the carrying capacity of the country would be substantially decongested, in the peak summer months. Naturally, this would necessitate some sort of market segmentation and regional diversification of the Greek tourist product, so that different regions would be able to attract different types of tourists, according to each regions resources, in terms of natural surroundings, as well as infrastructure and general development level.

Conclusively, one could say, that in spite of the many difficulties and problems faced by the tourist sector (although it would be hard to mention any sector in Greece, with no problems), its most encouraging and promising feature is that it has managed to evolve in a very important and growth stimulating activity, in spite of the fact that it was never subject to any kind of consistent planning and that State intervention where it was concerned, was never strong enough, competent enough, long term or sufficiently organised, in terms of targets, means and policy measures.

CHAPTER VI

CONCLUDING CHAPTER

SERVICE LED GROWTH AS AN ALTERNATIVE DEVELOPMENT STRATEGY: SUGGESTED POLICY MEASURES

A. INTRODUCTION

In the first four chapters of the present thesis, we have looked, in turn, at the Kaldorian theory of economic growth, the starting point of the whole analysis; we then, went on to examine the economic performance of the Greek economy, especially in the period after World War II; an attempt was made to see whether the three Kaldorian laws analysed in the first chapter of the thesis, were applicable, in their original form, to the Greek manufacturing sector, in comparison to other Mediterranean countries which started out, in the 1950s-60s, at approximately the same development level as Greece.

Both the econometric investigation and the theoretical survey of Greece's postwar development indicated that for a variety of economic, political, social etc factors, which have been mentioned in previous chapters, the Greek manufacturing sector never played the role of an "engine of economic growth" or "leading sector" in the economy of the country. Given these indications, the next step was to try and trace the economic sector(s) or branch(es), if any, which could have played such a role in Greece's postwar development. The service sector which, over the period 1950-1988 was producing, on average, approximately 50% of the country's GDP and employing approximately 33% of the total active population, was the next candidate. However, due to the extreme diversity of activities listed under "services", some of which have a very low productivity, tourism was, perhaps a little arbitrarily, chosen (although the choice was based on numerous indicators and seen in retrospect it seems to have been a good one) as a service activity where Greece has always had a strong comparative advantage. In the light of the analysis of the previous chapters, especially chapters III, IV and V, the Greek tourist sector could, potentially, be seen as a leading sector both as far as past as well as future economic development is concerned.

An application of the Kaldorian growth laws to the Greek tourist sector was rather encouraging and a survey of the evolution of the tourist sector in Greece gave some insights to the problems and deficiencies as well as strengths and possibilities of the latter. However, before one goes on to suggesting that tourism should be considered as a Kaldorian type engine of economic growth, in the case

of Greece, given all the direct and indirect information and indications of the previous chapters which, probably point in such a direction, there is one fundamental question which must be asked, even if the answer is far from being obvious, and this will be one of the main objectives of this chapter. The question is: Is it possible for a country like Greece (or for any country, for that matter) to shift to a more "advanced" stage of development (given that in traditional "stage theory", a country passes from agricultural to industrial to a service economy, in that order, on its road to "maturity"), before completing a "less advanced stage"? In simple words, is it possible for a country to base its further development on one or more service activities before (or without ever) sufficiently developing its industrial sector and especially its manufacturing sector? Is it feasible for a country to successfully become "post-industrial" without first being "industrial"? The answer to this question was not to be found in the relevant literature, according to which service or post-industrial economies are those which, as the name indicates, have "fully completed" their industrialisation stage and, finally, faced with declining industrial sectors, shift to the development of services as a source of employment and as an industry which, at higher development (and income) levels, is assumed to have a higher elasticity of demand, in comparison to traditional industrial products.

Greece, however, can in no case be considered as belonging to the category of "mature" economies. It represents a rare case of a country de-industrialising without having successfully industrialised and in which services have, historically, played a far more important role than the manufacturing sector. Any possibility of answering the above question can only lie in the country's own economic history, present situation and future perspectives. These points will be briefly examined in the second section of this chapter. The latter also consists of an effort to sketch the future perspectives of the Greek economy, apart from referring to its present situation, so that this can serve as a basis for suggested policy measures (section D), applicable to the present and future of the economy. Section C will deal with the major issue of whether it is possible for an economy (at intermediate stages of development, which is the case of Greece) to

rely on its service sector for further development, that is, whether, contrary to traditional economic theory and the Kaldorian theory, in particular, "service led" growth represents a possible development strategy. Section D will, finally, examine under what conditions this could represent an alternative development path, in the particular case of Greece and will deal, in the light of the previous sections, with suggested policy measures for the future

B. THE BACKGROUND, THE PRESENT SITUATION AND THE FUTURE PERSPECTIVES OF THE GREEK ECONOMY

After World War II and the civil war that followed it, the Greek economy witnessed a period of impressive growth rates. Apart from GDP, productivity and investment were rising fast, in all three economic sectors, and labour, plentiful and cheap because of rapid urbanisation, was easily absorbed in the secondary and tertiary sectors. Despite the fact that industrialisation was the primary target set by Greek governments though, the private sector expressed a marked preference for investment in sectors others than manufacturing, whose investment share, in relation to that of constructions, housing and the service sector as a whole, was surprisingly low, for a country at that stage of development (see Ch. II). This, combined with increased internal migration towards the cities and with the adoption of imported, relatively capital (rather than labour) intensive methods of production, in the manufacturing sector, gradually diminished the latter's labour adsorptiveness. An indication may be a comparison between the evolution of the capital/labour ratio in manufacturing and the latter's employment increase: In 1961, the average capital/labour ratio in manufacturing was equal to 81,116 (drs) while the growth of employment in comparison to the previous year was equal to 4.05%. In 1970, these figures equaled 182,824 drs and 2.1%, respectively, while in 1980 they equaled 327,185 drchs and -1.6, respectively.

The opening of the Greek economy to international trade (following the 1953 major devaluation of the drachma and the 1961 association agreement with the EC), and the consequent harsh competition facing the relatively newly established Greek industrial sector, had the effect to frighten off any potential Greek entrepreneurs. The latter instead, opted for the relative security of traditional consumer goods branches, oriented towards the home market, as well as for the faster and less risky returns of investment in services, construction and housing.

However, Greece continued to witness very fast, overall, growth rates, over the period 1960-75 (higher than the other OECD countries in the same period), while it managed to keep inflation and unemployment rates quite low (see chapter II, section C.2). Structural

changes were also taking place in the economy, as the importance of agriculture declined, both in output and employment, while that of the secondary sector rose rapidly. Within the secondary sector, a slight shift from traditional to more capital intensive branches could be observed but, unfortunately, this was mainly due to the fact that foreign investors, encouraged by favourable legislation (see Ch. II, pp. 60-62) expressed a preference for these branches, while Greek investors still shied away from the manufacturing sector, or preferred the traditional consumer goods branches. In fact, a close look at the rising importance of the secondary sector, indicates that this was mainly due to constructions, whose share in manufacturing investment rose from 33.8% in 1960 to 64.1% in 1974 (which, in fact, represents the period of Greece's "rapid industrialisation"!)

In spite of agonised attempts on the part of the various Greek governments to induce private domestic (as well as foreign) investment in the manufacturing sector, under the circumstances described above, the decision of Greek entrepreneurs to "ignore" manufacturing, was a rather wise one on the micro level (although it had negative consequences on the macro one). Largely due to the premature policy shift in 1953-1961, Greece was unable to fully pursue, an import substituting (especially of capital goods) policy, thus, leading to the creation of an intermediate goods industry; it was also unable to follow a dynamic export led industrialisation, as long as its main comparative advantage, cheap and abundant labour, was being lost. Instead, whatever industrialisation was achieved, was based on massive imports of intermediate capital goods, foreign investment in dynamic branches and constant "pushing" on the part of the State.

After 1974, the inefficiencies of Greek industrial development started to become alarmingly apparent, as foreign direct investment declined in the economy, thereby reducing overall growth rates, while labour shortages (especially of skilled labour) pushed wages upwards, inflation and unemployment rates rose and the problems of the structural balance of trade deficit were emphasized (Ch. II, section D.2).

Unlike the case of the industrially developed Western European countries where the economic recession could be explained in

terms of the inability of the secondary sector for further expansion, in the case of Greece, the recession cannot possibly be attributed to any theory of "Kaldorian Maturity", simply because the country never really managed to industrialise. It should, rather, be attributed to the gradual impact of structural factors within the Greek economy, the main ones being the pattern of development which resulted in the low labour adsorptiveness of the Greek manufacturing sector, the dependence of Greek industrialisation from abroad and the particular structure of consumer demand which led to the adoption of the specific development pattern (for a more extended analysis, see chapter II).

All through the postwar period, and while Greek manufacturing was receiving massive (if inefficient) state support, in the hope of turning it into an "engine of growth" and transform Greece into an "industrial nation", the service sector was growing in importance. This was obvious both in terms of output as well as employment; services with no effective state support whatsoever, were evolving into a sector of major importance for Greece.

Tourism, in particular, especially after the decline of other invisible earnings, was expected, mainly by Greek policy makers, to eliminate the trade balance deficit, caused to a large extent by the imports of the manufacturing sector, although it was never considered nor was it ever prepared for anything more than a source of foreign exchange, which, along with the rest of the economy was expected to help the manufacturing sector along.

If the definition of "leading sector" should be used to indicate a sector which manages to grow into one of substantial importance, in terms of earnings, employment generation, international competitiveness, backward linkages etc., for a country, then this title should rather be attributed to tourism, in the case of Greece, than to manufacturing, as we have seen all through the present thesis and, especially, in chapters II and III.

The only remaining difficulty is, however, the reluctance of traditional growth theory to move away from the lure of manufacturing industry, as a source of growth, and consent to base a development process on a service activity, especially one which is considered to be so unstable and volatile as tourism.

The recent developments and the possible perspectives of the

Greek economy should be examined in the light of a broader framework. One should try and integrate them in the recent world and European conjunctures and perspectives which could be summarized in three main points:

1) The increasing internationalization of the World economy: The latter is manifested by a worldwide reduction of tariffs, increasing capital movements among countries and the emergence or the increasing importance of pre-existing trade organisations such as the E.C., E.F.T.A.

2) Radical changes concerning the nature of industry and the new industrial revolution: The latter is based on a significant *modification of traditional* production patterns, selective rather than mass production, extensive use of high technology in all economic fields and a major shift to services rather than traditional manufacturing industries. On the basis of this assumption we could, perhaps, deduce two observations as far as the place and the timing of this industrial revolution. As far as the place is concerned, contrary to the first industrial revolution, the central weight moves from the European continent towards the U.S.A and Japan. This, naturally, represents a negative evolution for Europe which seems to be lagging behind in the technological race, as its attempts to catch up with the U.S.A and Japan seem to become all the more difficult. The second refers to the expectation that the "new industrial revolution" will be complete by the end of this century (Yiannitsis, 1984). The above two observations concerning the recent world and European evolutions lead to a third one:

3) The new international division of labor: In the same way as heavy industry was the distinctive feature of the old division of labour, in the new international division of labor this role will be played by services and high technology. The appearance of declining industrial branches such as the steel industry, the car industry or the shipbuilding industry which, for a long time represented the "jewel of the crown" for a number of industrially developed economies, means that the challenge for the economic centres of the old division of labor may be summarised as follows: One either manages to adapt oneself to the new facts or one's importance and weight in the new international division of labor are strongly doubted.

As far as the position of the Greek economy in these recent evolutions on the World and European level is concerned, the situation may be summarized in two main points:

a) Greece in relation to the E.C. Here one must take into account the progress of economic integration, leading to a single European market, to be achieved by 1992, which implies the inability to pursue any sort of protective policies or policies of strong governmental intervention especially as far the industrial sector is concerned.

b) Greece in relation to the generalised liberalisation of trade and the possibility for increased cooperation between countries. This is derived, in the first place, from the fact that an increasing number of even non-European countries would like to join the E.C. and in the second place, from the closer economic relations the E.C. is currently developing with other economic organisations such as E.F.T.A as well as with the countries of Eastern Europe.

Given the old international division of labour and the recent evolutions, it is evident that Greece can no longer be considered a NIC (Newly Industrialising Country), because of its rising labour cost in relation to them (Tsoukalis, 1981) and naturally not an industrial country. Assuming that the new international division of labour will imply a shift of the already developed industrial economies towards branches of high technology, certain branches of heavy industry which do not require advanced technology but, on the other hand, are not labour intensive, will have to move somewhere.

Assuming that under the New International Division of Labour three groups of countries will emerge, the first concentrating in high technology industrial branches, the second in low technology industrial branches and the third in labor intensive branches, the question is whether Greece would be able to fit in one of these groups. It appears that Greece could only possibly fit in the second group of countries given that it is neither industrially developed nor a NIC.

It is in fact possible, that branches of heavy industry which are now considered technologically outdated, would abandon the centre and move towards countries of the periphery. It is also possible that, large multinational firms would split their production

in two parts, the first requiring high technology which they would keep for themselves, the second being more traditional, which they could move to technologically less advanced countries. To the extent, however, that the latter methods are not labour intensive ones, there would be no incentive to move production to the source of the cheapest labour available (represented by the third group of countries), but, possibly, towards countries of the semi-periphery, which might represent possible markets for the goods produced. The choice of such countries, on the other hand, would probably be based on certain criteria that would not include all of them with the same probability but those which would, in the first place, already posses a promising existing industrial base. Countries like Spain and Italy could be promising candidates for such an enterprise. The question is whether Greece could possibly be included as a candidate as well.

It is true that, after 1985, Greece seems to become, once again, attractive to foreign capital (Petrochilos, 1989). In fact, it was mentioned above that in the last few years there have been large capital inflows to the country. However, the answer to the question whether this could be considered as a positive indication for the possibility of production of heavy industrial branches moving towards it, is probably negative. The reason is that the inflows of foreign capital in Greece after 1985, mainly concern takeovers of Greek firms by foreign ones or portfolio investment consisting of the purchase of already existing shares in the stock market (Fotopoulos, 1991). This could be attributed to the fact that the implementation of the austerity program of 1985 resulted in a 100% profit increase (because of the effective suppression of production costs), with the result that many shares which for many years had not been yielding any returns started doing so. In many cases, this was extended to the purchase of whole firms (purchase of 100% of their shares). These evolutions, however, were rarely followed by new investment despite the fact that a very favourable framework was provided as a result of increased grants and incentives from the government in order to encourage private investment in manufacturing, as well as from the E.C, mostly as part of the Integrated Mediterranean Programs. In fact, the increase in investment rates never corresponded to the large increase in industrial profits.

On the threshold of 1992, a number of large multinationals, specialising mainly in the branches of processed food and drinks production, proceeded to another form of integration by buying similar Greek firms, among the most prosperous ones (e.g. Metaxa brandy producers). The fact that, thus, foreign currency reserves rise within a country for which this had always been a problem, is certainly a positive evolution as far as its balance of payments is concerned. Under this form, however, it does not represent any perspective for further development. The whole transaction amounts to a change in the ownership of profitable and viable Greek firms which managed to survive the crisis and which could probably survive the strong competition within the E.C. As long as different ownership of the same firms does not, normally, give rise to any sort of optimism as far as industrial development is concerned, this fact does not in the least change any of the conclusions reached above, although, naturally, the possibility for marginal changes or improvements should not be ruled out. However, on the basis of the above observations one would rather tend to rule out the possibility of any really revolutionary big scale modifications which could form the potential for any worth mentioning further industrialisation, particularly when the lag in relation to the more advanced countries is constantly growing in this respect.

One could, perhaps argue that matters are liable to change with the achievement of the single European market in 1992, after which all restrictions concerning capital movements among European countries will be abolished. However, this only means that any restrictions preventing foreign investment will be abolished, not that incentives will be granted to attract it. Given the fact that the legislative framework concerning foreign capital in Greece is considered among the most favourable existing ones, such a liberalisation can only mean one change: That European capital will be able to enter freely in the branches where access was prohibited for it in the past. Actually, the transactions in the Athens stock market suggest that there are only three branches in the Greek economy, European capital seems to be interested in, namely Banks, Insurance Companies and Tourism, all of which belong to the service sector. With the demise of both the agricultural and the industrial sector, services represent the only economic sector which could still hold any

growth potential for the economy if Greece decided to concentrate in its development in such a way as to acquire in time a comparative advantage in relation to it.

Having analysed the emerging European and international framework, we can, now, briefly examine the latest developments in the Greek economy. The growing public debt in recent years (23% of GDP in 1990) represents a pressing problem for Greece (Fotopoulos, 1991).The conservative government elected, in April 1990, adopted a very strict restrictive policy, aiming at a reduction of this public debt. These measures though, did not succeed in sufficiently reducing it and, by the end of 1990, Greece had to apply for another loan to the E.C. which was finally granted, in February 1991. The present economic policy is based on an effort to encourage the development of the private sector, at the expense of the public one, through deregulation of the market and privatisation of certain public firms (especially the "problematic" ones), in a desperate effort to increase public revenue and reduce their negative impact on the public debt.

What the restrictive policies (or stabilisation programs, as they are called) of the Socialist government, in 1985, the all party government and the conservative government had in common, was the lack of any clear directives on economic development. In all three cases, austerity programs were said to be followed by economic restructuring development measures which, in fact, never came. The new element brought in by the conservative government is the shrinking of the public sector, both in terms of its economic activity and its role as a planner. All the perspectives and the hopes for economic development seem to have been left to the private sector, in spite of the fact that it was the private sector's unwillingness and failure to promote economic development, in the 1960s and the 1970s which caused the over expansion of the public sector.

What remains to be seen, therefore, is whether this option will be justified by the future performance of the private sector and the Greek economy, in general.

C. SERVICE LED GROWTH: A POSSIBILITY FOR DEVELOPING COUNTRIES?

1. Developed Countries and the Prospect of a "Service Economy"

A growing concern on the part of a number of developed countries has, relatively recently, been the increasing shift of production and employment towards services rather than manufacturing activities. Some concern has been expressed that a number of Western European countries (besides the U.S.A and, more recently, the Eastern European countries), are following a process of de-industrialisation and are increasingly transforming themselves from industrial economies, into "post- industrial" or "service" economies.

The former (industrial economies) are characterised by facts such as that production, employment and consumption are mainly centred around goods and where extreme specialisation and division of labour are major aims in order to raise productivity, capture new markets and enjoy the benefits of scale economies.

The latter (service economies) are characterised by the facts that approximately 50% of the labour force is employed in industries producing services rather than goods, production and consumption of the latter (or of service-substituting durable goods) increase their share in the total and that quality (rather than quantity) considerations and personal contact between producers and consumers in the market place, accompanied by a rise in self-employment in relation to paid employment, gradually take the place of increased mechanisation, division of labour and maximisation of quantitative productivity measures.[1]

The main reasons put forward in order to explain this shift of economic activity toward services in the developed countries, are the following:

1) As an economy progressively reaches higher levels of development and per capita income, demand elasticity for services increases in

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For the transformation of an industrial economy into a "service" economy and the differences implied, see among others, Gershuny 1983, p. 118, Fuchs 1968, Petit 1966, p. 6)

relation to goods, resulting in an increasing output share of services. This explanation, however, is somewhat invalidated by the empirical observation that, in constant prices, the output share of services remains more or less stable over time, while the employment share of services is the one to witness more impressive increases (Fuchs, 1968, Gershuny, 1983). This observation accounts for the fact that the following reason is considered to be more plausible:

2) According to this explanation, productivity in the service sector rises much more slowly than in manufacturing because of the (assumed) high labour intensity of services and their relative inability to exploit economies of scale and technological, productivity raising innovations. As a result, services become progressively more expensive in relation to manufactured goods and this, combined with the fact of relatively higher demand elasticity for services at higher income levels, accounts for the fact that a proportionately larger share of consumer income will have to be spent on services. The assumed lower productivity of services, and their limited ability to substitute labour for capital, is believed to account for the fact that in order to increase output, the service sector must absorb increasing amounts of labour (Gershuny, 1983, p. 119).

The concern expressed by the advanced countries, in view of these evolutions, are understandable if one takes into account certain common prejudices concerning the growth of services. Economic policies followed in the old industrial countries, seem to be biased against service expansion because it is believed that the low productivity and high labour intensity of services undermines rapid economic growth; the increasing shift to services is considered to be one of the main reasons for the slow growth and relative stagnation they have been suffering during the last decade, in comparison to the impressive growth they enjoyed during the rapid growth of their manufacturing sectors (Riddle 1986, p. 2). In the light of their own past experience, industrial countries have virtually come to equate rapid economic development to the growth of manufacturing, which they consider to be the key to development. Their view that service development somehow competes with manufacturing development, (i.e, in terms of labour availability) and the relative decline of the manufacturing sector, does a lot to enhance this bias.

2. Stages of Growth and Less Developed Countries

Stage theories of economic growth have mainly been developed by economists originating in the "old industrial countries" (eg. Rostow) and consist of a set of general "rules", a "guide to development" for the newly industrialising countries, based, for the most part, on the history of economic development of today's advanced economies. The fact that these past experiences have been generalised in a sort of universal development pattern, as a series of well defined consecutive steps in time, which all counties would have to pass, in the same order, sooner or later, once they entered the development process, explains, to a great extent, why manufacturing was traditionally seen as the engine of economic growth, while the role of services was virtually ignored in economic development. In fact, the expansion of services is believed to be a characteristic of post-industrial societies and of little interest for developing countries. The relevant terminology (post-industrial, service economy, de-industrialisation etc), seems to suggest that services are not important in their own right, but only in relation to manufacturing. Under the assumption that all countries follow (or should follow) the development pattern of the Western European countries (and the U.S.A), it is clear that services are expected to expand only after industrialisation, in order to facilitate industrial development as well as provide jobs for the part of the labour force which manufacturing cannot accommodate (Riddle, 1986). Services, therefore, have traditionally been seen as "residual" in relation to manufacturing, relatively unproductive and unemployment or underemployment concealing. The fact that most of the countries which entered the development process with a short or longer time lag in relation to the "first comers" to development, found themselves dependent on the latter in all sorts of ways, including a "helping hand" (both material as well as theoretical) as to how they should proceed in order to, eventually, catch up with the "leaders", resulted in that advanced country notions about development stages were transferred to the "second" and "third" comers to development. Consequently, the political leaders of the latter proceeded to take them through the same steps, emphasising the importance of the same

"key sectors", on the way.

As a consequence of this, governmental policies inspired by the development patterns of advanced countries, may bias productivity growth in favour of manufacturing, in many less developed countries (LDC's), either by channeling investment into manufacturing while starving services of capital and enabling faster productivity growth in manufacturing or by encouraging large scale production in manufacturing while allowing small-scale production to remain in the service sector (Gemell, 1982, p.124). In some LDC's, inefficient and low productivity manufacturing sectors are supported by governmental subsidies etc, mainly because manufacturing is seen as central to economic development.

However, while traditional stage theories of economic development proved to be very useful as a simple and rather mechanistic method of summarising the common features and steps taken by today's advanced economies, in the past, and integrating them into a common development path, they do not seem to be as useful in explaining some of the characteristics to be found in less developed countries, today, or in predicting short or medium term growth patterns (Petit, 1986, p. 22).

In fact, several developing countries today, appear to have most of the characteristics of "service economies", while still being at lower stages of development, or even at the pre-industrial stage, something which traditional stage theories would find rather hard to explain. Numerous empirical studies seem to imply that, surprising as it may seem for traditional thinking, a number of LDC's today, follow a very different path and present very different characteristics from today's developed countries in the past.

3. "Service Economy" Features in Today's LDC's

Traditional theories of economic growth and the experiences of developed countries, imply, among other things that, during the first and intermediate stages of development, surplus labour from agriculture (as well as from low productivity personal services, which are quite important at the early stages of development) is absorbed at increasing rates by the expanding industrial sector. As the

manufacturing sector rises in importance and increases its share in both GDP and employment, the traditional, low productivity service sector declines in importance. At later stages, either when capital is increasingly substituted for labour in manufacturing or, when the latter starts on a process of relative decline, the expanding service sector, now consisting not so much of low productivity personal services but rather of information or skill intensive ones, takes over as far as absorbing labour shed from manufacturing (Park and Chan, 1989, pp. 200-1). In fact, it would be possible to say that, according to traditional growth theories, the manufacturing and service sectors follow similar but inverse U shaped development curves, through time; manufacturing starts from a very low starting point, rises in the intermediate development stages and then declines, while services start from a rather high share in GDP and employment, decline in the intermediate stages when the manufacturing sector increases its share and then rise in importance again, when the manufacturing sector starts declining but having now transformed themselves into (or increasingly including) "new" activities, in terms of productivity, capital/technology/skill intensiveness, exploitation of scale economies and organisation.

In fact, in developed countries, the growth of employment in manufacturing was shown to be negatively correlated to the growth of employment in services, implying some sort of competitive relation between the two sectors. This, however, only seems to be true for the developed Western European countries. In most other cases, labour seems to shift from agriculture into manufacturing and services, simultaneously, and the growth of manufacturing and service employment are positively correlated (Riddle 1986, p. 43). Furthermore, while the role of agriculture rather seems to conform to traditional economic theory, being negatively correlated with other economic growth variables and does not appear to promote growth at any level of development, the role of the manufacturing sector appears to be rather mixed (op. cit., p. 64-72). Empirical studies seem to suggest that, in a large number of less developed countries, increased proportions of manufacturing GDP were not significantly associated with economic growth. On the other hand, service GDP was significantly associated with economic growth factors in low income countries while service

exports were positively associated with growth in lower middle and upper middle income countries (the latter grouping includes Greece). Furthermore, changes in per capita GNP are positively associated with the growth of the manufacturing sector only in the lower middle income countries. In all the other cases examined, rising per capita GNP levels were positively associated with service GDP. Most importantly, while a significant positive correlation between the growth of manufacturing GDP and total GDP growth which is essential if one is to argue that manufacturing represents the economic growth engine, is mainly present in developed industrial countries, while more rapid growth in the service sector rather that in manufacturing (as suggested in the Kaldorian theory), is found to be what makes the difference between low growth and high growth countries.

In a number of LDC's the output share of services is as high as 60% (in Greece it was 51% in 1960 and rose to 57% in 1988, in constant prices, corresponding to 23.1% and 19.3% in manufacturing, for the same years), while their service share of employment is compatible with the definition of a service economy (in Greece it was 26% in 1960, and 47% in 1988, corresponding to 13.8% and 18.8% in manufacturing, for the same years). In any case, the dispersion of the share of services as far as both employment and output are concerned, between developed and less developed countries, is far less than in the case of the other two sectors (Katouzian, 1970, p. 364).

Irrespectively of the doubts one may have concerning the interpretation of the above points, one cannot deny that the early role of services in many developing economies today, is far more important than in today's developed economies, in the early and intermediate stages of their development (Gemell, 1982, p. 181). The mere existence of a group of developed countries in an increasingly international world economy exhibiting a whole network of inter-relations and inter-dependencies among countries at different levels of development, is probably sufficient to explain the emergence of a variety of factors in today's LDC's which may lead to the early development and increased economic importance of their service sectors. One should keep in mind, however, that the causes resulting in this situation, are very different in the developing countries in relation to those prevailing in the advanced, de-industrialising

countries.

The most obvious factor explaining this evolution, is probably the demonstration and imitation effect which the existence of a group of developed countries triggers off in the less developed ones; the latter see no reason not to enjoy certain services existing in the advanced countries, which however, were unheard of, (or in any case, very underdeveloped) in the latter, when they were at the development levels of today's LDC's. This is enhanced by the, usually, very unequal pattern of income distribution to be found in developing countries, which enhances the aforementioned imitation effect and an increased consumption of services (Katouzian, 1970, p. 373).

Another reason for the high importance of services as a share in both output and employment in today's LDC's could be expressed as a result of "negative de-industrialisation" (versus positive de-industrialisation, in the case of successful industrially developed countries, see Rowthorn and Wells, 1988), in the sense that an inefficient and non-competitive manufacturing sector may induce a shift to services as a choice of necessity.

The openness of today's economies and increasing economic relations among countries, imply that, in order to be competitive in world markets, LDC's must promote their most competitive sectors in the most efficient manner; one way of doing this is for them to make use of the best services available (Shelp, 1989, p. 7).

Still another argument concerning the impressive growth of service activities in contemporary developing countries concerns the observation that developing countries, today, probably have a greater incentive to trade than countries developing in the past, because this, historically, was the main activity of their middle classes, apart from the fact that incentives and opportunities to trade are more numerous in our increasingly international world economy, than in the past.

The role of the State and the size of the public sector in developing countries in the last two decades, which is quite different and probably more important than it was in the past, is another reason for the early expansion of services in the LDC's. It is generally accepted that the public sector increased both in size and importance, on the international level, after World War II. This phenomenon is

even more marked for the less developed countries than for the developed ones, as long as, for a variety of reasons (related to the economic dependence, economic structure, development patterns adopted by these countries etc), the former seem to rely less on the interaction of market forces and more on State intervention than the latter. Considering that the growth of the public sector implies a corresponding growth of service activities, since the main part of governmental organisations consist of services, this is still another explanation for the important role of the service sector in today's LDCs.

Yet another reason which explains the early shift of some developing countries to services is a notion which, only relatively recently has come to be applied to anything else apart from merchandise trade, that of a comparative advantage in services. The fact that Greece and other Mediterranean countries have specialised in tourism which represents for them a major export, could be attributed to a comparative advantage these countries have in the provision of tourist services. One way of revealing any such autonomous developments in the trade of services, is to look at the ratio of a country's exports of services to exports of goods (xs/xg). An increase in this ratio is, usually, evidence of increased specialisation toward trade in services.

It is argued that these trade orientations could be explained by comparative advantage considerations (Petit, 1986, p. 96). It is also argued, however, that the gearing of these countries to tourism (Katouzian, 1970, p. 382) is not only attributable to comparative advantage, but most importantly, to the rising demand for leisure and recreational services on the part of the developed countries, which pushes the former to specialise in tourism, the demand for which is an increasing function of per capita incomes and leisure in advanced economies.

All of the above reasons, could probably contribute, among others to explain to some extent, the fact that a number of developing countries seem to "have skipped" the industrial stage, partly or entirely and to become service economies before they were fully fledged industrial economies (Shelp, 1989, p. 7). However, despite the evidence that service activities are far more important to the

economies of developing countries than one would have thought likely, on the basis of the past experience of the developed world, at early stages of its development, today's LDC's are still trapped in the traditional "manufacturing driven" models of economic growth imported from the developed countries. Their policy makers, even in case they had the insight to realise the possibility of a growth path based on a comparative advantage in services, rather than goods, would probably find it very hard to implement such a process, since there is hardly any theoretical literature in dynamic service led growth to guide them.

Before one accepts the alternative of service led growth for developing countries, however, it is necessary to tackle the main argument used against excessive growth of services on the part of developed countries. As we mentioned in the beginning of this section the main reason why economic policy in advanced countries seems to be biased against service growth is the belief that, in relation to manufacturing, services are less productive, less liable to exploit scale economies and technical innovations and, because they are considered to be labour intensive they are believed to promote underemployment and disguised unemployment.

If this view of services is correct, then, obviously, the growth of services as well as any service led development pattern should probably be discouraged, as long as the low productivity and high labour intensity of services would imply that the latter would become increasingly more expensive, in relative terms, and therefore detrimental in terms of the main macroeconomic policy objectives. If, however, it could be shown, somehow, that services are not, necessarily, less productive or more labour intensive than other economic activities, nor necessarily backward in their ability to make use of new technologies, then, perhaps, some of the analysis against service development would be invalidated (Stanback, 1979, p. 14).

Before proceeding with this sort of analysis, it would, perhaps, be wise to open some sort of "parenthesis" in order to tackle the question of "What is so special about manufacturing that it is considered inconceivable for a country to skip the relevant stage? Does the development of the manufacturing sector transform the economy in question or its people, in a way indispensable for any sort of

future self-sustained economic growth? And finally, is the manufacturing sector the only sector to posses these characteristics?" According to the Kaldorian theory, the manufacturing sector is central to the development process and the only sector suited to perform as an engine of growth, mainly because of its ability to exploit dynamic economies of scale and adopt technological innovations which will help to raise productivity and lower costs; also, because of the high income elasticity of demand for manufactured products (coupled with high elasticity of supply); increased division of labour and learning by doing in extended markets; changing attitudes towards work (from agricultural home/family based underemployment to paid productive employment) and strong backward and forward linkages running from manufacturing to other sectors of economic activity, all of which contribute to form a virtuous cycle of development which will throw the economy into rapid self-sustained growth. In traditional thinking, services do not posses these crucial attributes, they are labour intensive, relatively unable to substitute labour for capital or exploit new technology, they are backward looking, relatively unproductive and induce underemployment. The main problem here, probably, lies in the (implicit) assumption that the service sector is homogeneous and consists only of activities which all share the above characteristics. Furthermore, the assumed homogeneity of the service sector is frequently identified with its traditional, relatively unproductive part, i.e. the part of the service sector that usually develops before industrial take-off and consists mainly of personal services such as shoe-shine boys, street sellers, domestic servants, wind-screen wipers etc, which do employ labour best employed elsewhere, leading to the view of the service sector as an additional pool of surplus labour available for manufacturing.

However, the service sector also includes a group of activities for the product of which demand grows rapidly, is highly income elastic (supply being also price elastic) and is expected to follow the same trend in the future (eg. financial services, international tourism etc). Furthermore, this group of activities can be a very heavy user of new technologies (especially information/computer technology), is also quite capable of exploiting economies of scale and, in fact, it could be argued that, this group

of service activities is no different from manufacturing save that the former produces services while the latter produces tangible goods. One could say, that for a variety of reasons, some of which were mentioned above, these services which only started to increase in importance after the decline of the manufacturing sector, in the advanced industrial countries, develop much earlier, simultaneously or even before manufacturing, in some of today's LDC's. In this respect and if one views the service sector as comprising two distinct groups of activities, one which represents old-fashioned, low productivity, labour intensive services and one which involves dynamic skill/information intensive, highly demand elastic services, there is no reason why a country deciding to specialise in the latter group should be less competitive, on the international level than a country which follows the traditional route and concentrates on developing its manufacturing sector. This should be true irrespectively of whether the decision is a voluntary choice based on comparative advantage considerations or one of necessity based on the failure of manufacturing to evolve into a competitive sector.

It has been widely recognised that productivity in services is extremely hard to assess and measure. While in manufacturing industries, productivity is a quantitative measure of output per worker, in services, such a definition would lead to an underestimation of productivity because one has to consider quality as well as quantity measures of output. An important characteristic of most services, the interaction and personal contact involved between producers and consumers, who, in some cases, have to cooperate in producing the final service together, implies that, perhaps, the high labour content of services contributes to higher qualitative (rather than quantitative) effectiveness. In fact, instead of defining and measuring service productivity as output per man hour, perhaps a more appropriate definition would be "maximising output of acceptable quality while minimising costs of the production process" (Holmstrom, 1985, p. 103, Riddle, 1986, p. 68-72). According to this view and because of the interaction involved, between producers and consumers which makes it harder to substitute labour for capital in services to the same extent as it is possible in manufacturing, as service output grows, so must inevitably employment grow, without necessarily

inducing underemployment or lower productivity, provided that employment is demand induced and not residual (Baer and Samuelson, 1981, p. 508, Bhalla 1970, p. 521).

Empirical investigations concerning the estimation of productivity in the service sector, in comparison to the other two sectors (Riddle, 1986, p. 73), have come up with the following results:

-When traditional static measures of productivity are used (output per labour input), productivity is lower in the service sector only in the case of the developed industrial countries and only for 1981 in the period 1977-1981. While the productivity growth of the service sector is shown to decline with rising GNP, it nevertheless remains higher than in the other two sectors (agriculture and manufacturing) in all other cases. For developing countries, in particular, the service sector is shown to be more productive than the other two sectors, implying that, given the labour concentration in agriculture, every worker who moves out of it, is most productive if employed in the service sector.

-When output per capital input is used as a static measure of productivity, while services are, on the whole, not as productive as the other sectors, the difference in productivity is not so significant to justify the terms of "non productive", "parasitic" etc, often attributed to services.

-When dynamic measures of productivity are used (changes over time rather than levels), the following results are derived: When changes in output per labour input is used, as a productivity measure, as workers move from other sectors into the service sector, rather than into manufacturing, they produce a proportionately higher percentage of GDP.

-When changes of output per capital input is used as a productivity measure, increased capital investment in manufacturing is shown to be most productive, in relation to other sectors, only for the developed industrial countries, while it is most productive in the extractive sector in the lower, lower middle and upper middle income countries.

The most common argument concerning the lower productivity of services lies in the argument that the latter are highly labour intensive (which is the reason put forward for the fact that services

are cheaper in the poor countries (Bhagwati, 1985)) and have a very limited capacity for introducing technological innovations. A counter-argument for the latter observation is that technological innovations were rarely meant to be applicable to the service sector. Since the industrial revolution, most of the engineering and scientific advances have raised productivity in the goods producing sector (Stanback, 1979, p. 32). However, the service sector becomes more and more dependent on information technology and capital or human capital (skilled labour), which, in the first place, contribute to increase the efficiency and improve the quality of "old" (traditional) services[2] and later on, to create improved or totally transformed services (Poon, 1989, Riddle, 1986, Stanback, 1979).

The argument that all services are labour intensive and make poor use of capital is rather misleading, as long as a number of services (including tourism and finance) can be produced in a very capital or information intensive way but also (and quite competitively) in a much more traditional, labour intensive way. This, in fact, is what makes certain services suitable to countries of different development levels and endowments. The fact that the span of capital/labour ratios adequate to produce a given service is much broader than in the case of goods, allows a developing country with a comparative advantage in a particular service activity, to specialise in the production of that service: First in a way requiring low capital, human capital or information input; then, as the country's capital/labour ratio increases or as the labour force acquires additional skills and knowledge, rather than switch to another more capital or information intensive type of service specialisation, as it would have to do with the production of goods, simply produce the same service, in a more capital, information or skill intensive way (Lanvin, 1989, p. 112).

The analysis of this section, so far, has indicated the

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For a distinction of services into old, new and complementary, see Katouzian (1970).

general need for an updated theoretical framework on economic development and it's stages, which would incorporate the relatively recent phenomena of "de-industrialisation after industrialisation" for the developed countries and "de-industrialisation before industrialisation" for countries such as Greece. It would be very optimistic and, in fact, beyond the scope of this thesis to fill such a gap. What the findings of the analysis so far could be interpreted as, is that economic theory and, especially the rather recent contributions, is not as "dogmatic" as it seems at first sight, on the sequence economic development can follow in terms of passing from one stage to the other.

In particular, the analysis indicated that there is scope for services to play a decisive role in development, especially for countries presenting characteristics such as those of the Greek economy. In the following sections of this chapter therefore, an effort will be made to exploit this "allowance" of the theory as far as the particular case of Greece is concerned.

D. TOURISM AS AN ENGINE OF GROWTH IN GREECE: PRECONDITIONS AND SUGGESTED POLICY MEASURES

The main objective of the previous section was to provide a theoretical basis for the argument that, under certain circumstances, it is possible for a developing country to skip, partly or completely, either as a result of a conscious choice or as a matter of necessity, the stage of industrialisation which has been considered as the "key" stage in most patterns of economic development.

It was suggested that not all forms of service activities are, necessarily, worse than manufacturing, in terms of productivity, labour/capital/skill intensity, exploitation of new technologies and scale economies etc. Consequently, there is no valid reason to reject the possibility that a country possessing (or developing) a comparative advantage in one or more service activities (preferably belonging to the group of "dynamic" service activities rather than those which represent the traditional view of services as unproductive, labour intensive, unemployment concealing etc), would be worse off, internationally, in terms of growth rates or competitiveness than if it had stuck to the development of an inefficient and sluggish manufacturing sector.

Furthermore, it has been argued, all through the present thesis, that the manufacturing sector, in Greece, was never what it was expected to be (by policy makers and the people, alike), despite considerable (although rather misdirected) efforts, on the part of the various Greek governments during the post-war years. It would probably be possible to argue that, given a different set of policy measures and directives, the Greek manufacturing sector could (or should) be given still another chance to play its expected role as an engine of economic growth. The result would be rather doubtful, given international developments and, especially, Greece's membership in the EC, which, obviously, considerably limits any individual policy measures which might have been considered necessary. In any case, the question whether the Greek manufacturing sector could still be able to "make it" or not, under what circumstances and whether any such attempt would be still worth while, is not the primary objective of the present thesis and of this chapter, in particular, given the

limited length of both. The main idea is to argue that, if all else fails, there would still be the alternative for Greece to pursue the development of its tourist sector, in a rather more organised and planned way than in the past with the possibility of holding a competitive position in the new international division of labour.

The general conclusion that one derives from chapter IV of the present thesis is that, tourism, since its early development stages, in the 1960s, represents, in all respects, a very important sector in the Greek economy. Despite its impressive achievements and fast growth, however, the Greek tourist sector is not as efficient or as competitive as it might have been. The main reason behind the numerous problems and deficiencies of the sector in question which have been extensively described in Chapter IV of the thesis, is that tourism was always regarded as a residual activity in Greece, serving mainly short-term goals, such as relieving balance of payment constraints and operating as a handy source of foreign exchange. Consequently, its development was never really integrated in a comprehensive development plan of the Greek economy as a whole but evolved in a rather piecemeal way, and was largely left to the initiative of the private sector with no real effort on the part of the State to coordinate and organize the activities of the latter, into a complete tourist package. However, despite the various difficulties mentioned, it has been suggested that if Greece finally decides to come to terms with the inability of its manufacturing sector for self-sustained growth, in the future and finds itself in a position of looking for an alternative engine of growth, then tourism would be a rather promising candidate.

The first step, therefore, for tourism to start playing an active part as an engine of economic growth would have to be a true acceptance of the possibility that the future growth potential of the manufacturing sector could be rather limited and the consequent consideration of tourism as a strategic, "key" growth sector. The second condition that would enable tourism to play its new role better than in the past, would certainly have to be the pinpointing and understanding of the problems and difficulties facing the sector as well as the drafting of possible solutions, according to the target outcome, in each case.

The problems facing the Greek tourist sector could be placed in two groups, the first one including those that were, in a sense, caused or emphasized by governmental actions and policy measures, the second one comprising those that are inherent to the nature of tourism and are faced by all or most countries that decide to develop tourism as a major economic activity. Factors which can be listed under the first group are the following:

1. The existing system of grants and loans for tourist investment. This resulted in numerous large scale projects, relative oversupply and congestion in certain regions which did not posses the necessary infrastructure, while not enough incentives were given for the gradual preparation of new tourist centres to succeed the first.

2. The extremely high percentage of undeclared accommodation units and hidden economy, in general, which undermines any quality standards of the services provided, as well as any attempt to organise and control the tourist sector.

3. The fact that, for a variety of reasons, among which one could also mention the poor quality of the services provided, Greece attracts, mainly, low to middle income tourists with a shorter length of stay and lower per capita expenditure than most other European and Mediterranean tourist countries, a fact which also contributes to the over-congestion of tourist regions during the summer months, as long as the country needs to attract ever increasing numbers of tourists in order to earn a stable, more or less, amount of foreign exchange.

4. The considerable lack of skilled labour force (including managerial staff) trained specifically to meet the needs of the tourist sector, resulting probably, among other reasons, from the fact that employment in the tourist sector is considered as a residual activity, even by those employed in it, with a large part of the labour force being unskilled workers, students, foreigners, farmers, housewives etc, working on a part-time, second-job basis.

Factors under the second group, most of which have been analysed in Chapter IV, could include the following:

1. Seasonality in the demand for tourism, which was dealt with extensively in Chapter IV of the thesis, and constitutes, as we saw, a particular problem for Greece which has not invested as much as other tourist countries in developing other forms of tourist apart from

traditional sun-and-sea holiday tourism.

2. Low occupation rates in many hotels, which are the result of relative oversupply, too large units in regions that do not have the carrying capacity for them, as well as of the large number of undeclared rooms which, usually, offer lower prices.

3. Overdependence of the national tourist sector on large tour-operators abroad, resulting in a substantial restriction of the policy measures available for the re-organisation of the sector (i.e. price determination etc).

4. Very incomplete communication and feedback between the private and the public sector involved in tourism. Given the nature of the tourist sector, the fact that the final tourist package offered to the tourists is comprised of numerous different activities, most of which are provided by the private sector, which, however, needs to be controlled, organized and guided by a central authority in order to achieve the best and most efficient results possible, this is of paramount importance.

The main objectives of a consistent policy towards tourism, given the problems and inefficiencies of the sector in question, should be, in the first place, to increase the competitiveness of the sector, on the international level and to integrate its development within a complete, long term development plan of the country as a whole, taking into account the characteristics, needs and growth potential of different regions. Given that tourism is an activity which is carried out, for the most part, by the private sector but which necessitates very close cooperation between the latter and the public sector, most of the policy measures adopted would, probably, have to be part of a scheme of indicative planning, consisting, mainly, of incentives/ disincentives towards the private sector. A considerable part of the necessary measures to bring the performance of the Greek tourist sector closer to the desired one, however, would have to be undertaken by the State (this also being the case for the manufacturing sector to be successful), due to the global and large scale character of these measures.

1. In the first place, the country should be divided into a number of regions of primary and secondary tourist importance. The main criteria for this distinction should be the development level of the region,

the degree of congestion, available resources, existing infrastructure and whether there are any other alternatives for its development. Industrially developed regions, regions where infrastructure is unable to support the existing level of tourist development and which have already reached or are about to reach saturation point should be included in the second category and further tourist expansion should be strongly discouraged; at the same time, necessary measures should be taken in order to upgrade the existing infrastructure and, consequently, the quality of the services provided. On the other hand, underdeveloped regions, especially declining agricultural ones or mountainous and island regions with little or no alternative uses should be included in the first group and new integrated investment projects for tourist development there should be encouraged.

2. On the basis of the above division of the country into regions of primary and secondary tourist importance, supply of tourist services and the scale of new tourist projects should be carefully planned accordingly. For example, large scale holiday centres would be a mistake in a small traditional region which can only support a limited number of visitors without becoming congested and totally lose its initial character. This observation would suggest, on one hand, the existence of general limits on the possibility of using tourism as the only engine of growth and, on the other hand, emphasises the need for an efficient and well planned regional policy which would help to spread out tourist development over the country, in the best possible way.

3. Again on the basis of the above distinction, a careful analysis of the characteristics of each region should be made, followed by an assessment as to what type of tourism each region is best suited to attract, eg. holiday versus conference tourism, winter tourism versus summer tourism, limited high income tourism or mass low-middle income tourism etc.

4. Having specified the regional elements of the suggested tourism policy, we further discuss the strategy to be followed. Generally speaking, regional development in the past was pursued in most countries in a "growth pole" context. The "growth pole" approach of regional development was introduced by F. Perroux (see Peroux, 1955). The basic point of this approach was that regional development could

be pursued by an individual investment project in a backward region, which could operate as a growth pole, in the sense that it would induce further investment and economic activity. For a number of years this approach seems to have dominated in the policies of many countries, and especially in the E.C. regional policy. This policy however did not prove to be successful, at least relatively to what was expected of it, mainly because it was based on an individual project rather than a more comprehensive and general plan for action. The integrated programs for regional development (the most recent E.C. policy) seem to serve this purpose better. The idea behind integrated programs, which should be extended and applied to the Greek tourism regional policy, is that for the development of a certain region, a series of investment projects (including infrastructure and specific economic activities), integrated into a comprehensive plan is required.

5. Improving the quality of the services provided is a matter of primary importance if the Greek tourist sector is to increase its competitiveness and efficiency on the international level. Apart from an organised attempt to control and suppress the large hidden economy of the sector and to list all of the existing accommodation and recreation units according to a standard system such as the star, so as to provide some sort of warranty of service quality in relation to price, the state should also initiate an educational and training scheme specifically for employees in the tourist sector. The lack of suitably skilled labour force, in most regions, the short-term, residual nature of employment in tourism represents a major setback to quality and efficiency, particularly given the fact that personal contact between the buyers and the sellers of the tourist product is a most important element of the final tourist package.

6. A carefully planned, well organised advertising campaign, especially abroad but also within the country, is a must for an even remotely successful tourist sector. A crucial point here is that the Greek tourist product should be diversified from that of competing Mediterranean countries. The advertising campaign should have to move away from the traditional sun-and-sea holiday element, which is attractive, obviously, but can be found more or less the same in any Mediterranean country. It would have to be enriched with other

elements particular to the country and Greece is a sufficiently diversified country to be able to attract many different forms of tourism. With the new information technology now available, it should be possible, through video tapes, computerised information etc, to reach out to the different segments of the international tourist market, thus fighting seasonality as well as promoting the development of regions which posses different features. In fact, while Greece is rather backward in this field, a number of its competitors, i.e Turkey, Yugoslavia, Spain, etc, seem to attribute a great deal of importance to efficient advertising of their tourist product.

7. Increased regional decentralisation of the activities of the National Tourist Board should be advocated and a stronger feedback relationship between the private sector and the public authorities in each region should be encouraged as far as tourist related issues are concerned.

As far as specific measures of indicative planning are concerned, one could suggest, among others, the following:

1. The radical modification of the existing system of grants and loans which, up to now, has only succeeded in promoting development in already congested regions while doing very little as far as promoting investment (and moreover, the right sort of investment, suited to the particular nature of each region) in *under-endowed areas*.

2. Provision of incentives that would encourage the private sector to invest in projects in accordance with the development plan (integrated program) of a certain region while the launching of tourist projects which dot fit in with the latter (i.e. low quality services or large scale investment in congested regions) should be strongly discouraged or even prohibited.

3. Improved access to financial assistance, which would have to be somewhat restructured so as not to encourage solely large scale projects (on the grounds of viability), but small family type units, which would be able, perhaps, to ensure higher occupation rates over time. The establishment of a special "Tourism Bank", which would grant loans on the basis of other criteria apart viability of the project (such as the specific needs of a certain region), could be a step in this direction.

E P I L O G U E

Although the present thesis touches on a number of economic fields, it should not be considered as a study on development, industrial or post-industrial economics or on the economics of tourism, since it was not meant to (and does not) provide a complete, into depth analysis of either one of them.

The main objective of the present thesis, however, was rather ambitious, as it consisted, mainly, of a hope and a wish to contribute into shaking and modifying a way of thinking that has been deeply rooted in the mentality of Greeks.

Since the creation of the modern Greek state (1830s) and especially for more than forty years now, since the early 1950s when the Greek economy entered the process of development, until today, the majority of the Greek people, from simple workers to high ranking policy makers, have fostered a vision of Greece, someday becoming a strong industrial power. During the last decade, however, it has become more and more obvious, to a wide range of people, that Greece is as far away from achieving such a goal as it ever was and that, more likely than not, this vision has reached its limits. Old fashioned industrial structures; production of, mainly, traditional, low value added goods; lack of an intermediate goods industry; low propensity to invest and high propensity to import in manufacturing; the structure of demand which, even despite recent policy measures discriminates against domestically produced goods; these, combined with external factors, such as growing international economic integration, changing international division of labour, elasticity of demand for exports etc, all of these, more extensively discussed in Chapter II of the present thesis, contribute to the gradual realisation that Greece is not about to wake up, shortly, as an internationally competitive industrial power.

The implication, however, of trying to move, for so long, towards a specific goal which was paramount in the minds of all the parties involved in Greek economic development is that, once it starts to become obvious that this goal is not about to be achieved, things, naturally, come to a standstill, as long as there are no other obvious alternatives for growth.

This is what the main contribution of this thesis is all about. Not only to suggest an alternative to industrial development,

in case the failure of the latter becomes even more obvious than it already has, but also, to provide a theoretical and empirical economic basis to justify the choice of this alternative, in case it proves necessary to consider it seriously in he future.

The possibillity of having to turn to tourism, in order to pursue economic development, has been suggested, from time to time, in Greece, given that its role as a source of income was always obvious enough. These suggestions, however, usually, made this alternative to sound as the result of a frightful failure, raised rather demoralising visions of Greece acting as the domesting servant of the developed world and, more often than not, served as an incentive to multiply the efforts towards industrial development, if failure to do so meant having to accept such a dismal alternative.

The message of the present thesis is that the suggested alternative might not be so dismal, after all; that it will not, necessarily cast Greece into the role of servant to the developed world, for given a new international division of labour among countries, this could be seen as country A (Greece, in this case), providing a specific service or group of services for which country B has a high elasticity of demand, in exchange for goods or services provided by country B and demanded by country A. This thesis also tries to argue that shifting productive resources to the tourist sector does not, necessarilly, mean that the country is condemned to underdevelopment and stagnation; on the contrary, according to the development level of the country and of the tourist sector, in particular, and also, according to the type of available resources (manpower and know-how included), tourism could be pursued, either in the more traditional, labour intensive way which is actually followed in Greece, or in a more skill-intensive, high-technology way which, through higher productivity growth, economies of scale and greater efficiency, could contribute to give the country a new dynamism and impetus for growth. This point is strengthened by the assumption that international demand for tourism is expected to continue its rapid growth, in the future, while demand for traditional industrial goods similar to those produced in Greece, is more likely to remain stagnant or even decline.

The role that tourism is capable of playing in economic development was investigated, both generally and specifically for Greece, in Chapter IV and V of the thesis. In chapter VI, I attempted

to take the theoretical issues surveyed in chapter I and tested in chapter III, a step further by discussing, among other things, the conditions under which it would be possible for tourism to act as an alternative engine of economic growth, in Greece; some, rather general policy measures were suggested, which would enable tourism to play this role in a more efficient and competitive manner. Given that the originality and the main concern of the thesis lies in the formulation of the idea of tourism as an alternative (or complementary to manufacturing) engine of growth, in the case of Greece, and moreover, given the limitations of the thesis, a comprehensive development plan for tourism as a leading sector in Greek economic development was not taken any further. Having launched the idea, I will leave this task to others, or to myself, if in the future of the Greek economy proves to necessitate such a radical shift.

STATISTICAL APPENDIX

TABLE I: CAUSALITY TEST RESULTS

Dep. vbl.	a1	DGDPM1	DGDPM2	DGDP1	DGDP2	DGDPA1	DGDPA2	R^2	F	F'
DGDPM	-1.41	-1.86	-0.77	2.1	0.96			0.81	15.28	0.16
	(1.77)	(5.89)	(1.9)	(4.55)	(1.38)					(0.85)
DGDP	-0.62	-0.66	-0.10	0.56	0.04			0.66	6.88	0.01
	(1.13)	(3.05)	(0.36)	(1.71)	(0.08)					(0.99)
DGDPM	-1.44	-0.82	-0.54			0.11	-0.03	0.58	4.86	0.48
	(1.23)	(3.75)	(2.61)			(0.67)	(0.19)			(0.5)
DGDPA	0.23	-0.15	0.18			-0.77	-0.18	0.53	4.09	17.11
	(0.12)	(0.45)	(0.55)			(2.98)	(0.71)			(0.00)

Dep.vbl.	a1	DGDPM1	DGDPM2	DGDPS1	DGDPS2	DGDPT1	DGDPT2	R^2	F	F'
DGDPM	-1.12	-1.58	-0.46	3.00	-0.49			0.69	8.12	0.01
	(1.12)	(4.48)	(1.13)	(2.68)	(-0.38)					(0.92)
DGDPS	-0.38	-0.36	-0.06	0.68	-0.35			0.56	4.47	0.12
	(1.1)	(2.97)	(0.44)	(1.76)	(0.8)					(0.88)
DGDPM	-2.00	-1.08	-0.85			0.05	0.12	0.66	7.03	0.09
	(1.87)	(4.99)	(3.78)			(1.08)	(2.32)			(0.76)
DGDPT	-2.05	-1.66	-0.12			-0.20	-0.05	0.30	1.54	0.48
	(0.35)	(1.41)	(0.09)			(0.75)	(0.20)			(0.5)

Dep.vbl	a1	DGDPM1	DGDPM2	DTC1	DTC2	DTrade1	Dtrade2	R^2	F	F'
DGDPM	-1.29	-1.19	-0.88	0.57	-0.58			0.63	6.13	0.19
	(1.16)	(4.47)	(3.23)	(1.35)	(1.55)					(0.66)
DTC	-0.61	-0.4	-0.11	0.24	-0.42			0.56	4.5	1.24
	(0.9)	(2.46)	(0.66)	(0.92)	(1.88)					(0.28)
DGDPM	-1.25	-0.92	-0.17			0.28	-0.57	0.61	5.62	0.05
	(1.1)	(2.77)	(0.48)			(0.66)	(1.3)			(0.82)
DTrade	-0.65	-0.27	0.24			-0.21	-0.76	0.53	4.01	0.85
	(0.74)	(1.04)	(0.88)			(0.65)	(2.21)			(0.37)

Dep.vbl.	a1	DGDPM1	DGDPM2	DBnks1	DBnks2	DDwel1	DDwel2	R^2	F	F'
DGDPM	-1.01	-0.76	-0.46	0.3	0.48			0.68	7.67	0.5
	(0.61)	(0.29)	(0.37)	(0.6)	(0.35)					(0.49)
DBnks	-0.51	-0.15	-0.19	-0.89	-0.49			0.47	3.16	8.17
	(0.26)	(0.44)	(1.56)	(3.37)	(1.35)					(0.01)
DGDPM	-1.71	-1.12	-0.68			2.48	-2.25	0.7	8.17	0.01
	(1.7)	(5.35)	(3.41)			(2.14)	(2.18)			(0.9)
DDwel	-0.44	-0.04	0.04			0.77	-0.48	0.39	2.25	2.85
	(1.4)	(1.05)	(1.01)			(2.05)	(2.34)			(0.11)

Dep.vbl.	a1	DGDPM1	DGDPM2	DPubAd1	DPubAd2	DHth-ed1	DHth-ed2	R^2	F	F'
DGDPM	-1.42	-0.85	-0.61	0.12	0.00			0.53	4.0	0.15
	(1.09)	(3.54)	(2.32)	(0.19)	(0.00)					(0.7)
DPubAd	-0.49	0.11	-0.11	-0.39	-0.5			0.57	4.83	0.65
	(1.0)	(1.22)	(1.15)	(1.64)	(2.2)					(0.43)
DGDPM	-1.33	-0.79	-0.47			0.57	0.06	0.6	5.28	0.00
	(1.16)	(3.5)	(2.1)			(1.44)	(0.13)			(0.97)
DHthEd	0.26	0.05	0.05			-0.34	-0.88	0.59	5.11	0.22
	(0.49)	(0.52)	(0.52)			(1.8)	(3.79)			(0.64)

Dep..vbl	a1	DGDPM1	DGDPM2	DOthser1	DOthser2	R^2	F	F'
DGDPM	-1.71	-1.19	-0.35	78.5	-0.55	0.73	9.91	0.00
	(1.77)	(6.16)	(1.76)	(2.75)	(1.43)			(0.97)
DOthser	-0.01	-0.008	-0.001	-0.23	-0.00	0.71	8.67	0.01
	(1.68)	(5.13)	(0.86)	(1.01)	(2.65)			(0.65)

Dep.vbl.	a1	DGDPT1	DGDPT2	DGDP1	DGDP2	DGDPA1	DGDPA2	R^2	F	F'
DGDPT	-2.03	-0.27	0.07	-2.09	-1.89			0.23	1.06	0.17
	(0.33)	(0.84)	(0.21)	(0.82)	(0.76)					(0.68)
DGDP	-0.89	0.04	0.08	-0.85	-0.83			0.49	3.37	0.00
	(1.31)	(1.3)	(2.22)	(3.02)	(3.03)					(0.95)
DGDPT	-0.66	-0.58	-0.2			1.32	0.91	0.31	1.61	0.01
	(0.12)	(2.31)	(0.83)			(1.63)	(1.13)			(0.93)
DGDPA	0.45	0.02	-0.08			-0.81	-0.21	0.54	4.11	2.07
	(0.25)	(0.32)	(1.02)			(3.07)	(0.79)			(0.17)

Dep.vbl.	a1	DGDPT1	DGDPT2	DGDPS1	DGDPS2	DTC1	DTC2	R^2	F	F'
DGDPT	-2.32	-0.33	0.01	-3.8	-1.83			0.24	1.12	0.1
	(0.38)	(1.17)	(0.06)	(1.00)	(0.51)					(0.75)
DGDPS	-0.59	0.02	0.03	-0.6	-0.59			0.4	2.42	0.02
	(1.4)	(1.2)	(1.8)	(2.3)	(2.4)					(0.9)
DGDPT	-3.05	-0.24	0.02			-2.66	-0.81	0.28	1.4	0.2
	(0.5)	(0.84)	(0.07)			(1.37)	(0.53)			(0.66)
DTC	-0.74	0.0	0.03			-0.26	-0.62	0.4	2.36	0.52
	(0.93)	(0.11)	(0.92)			(0.99)	(2.99)			(0.48)

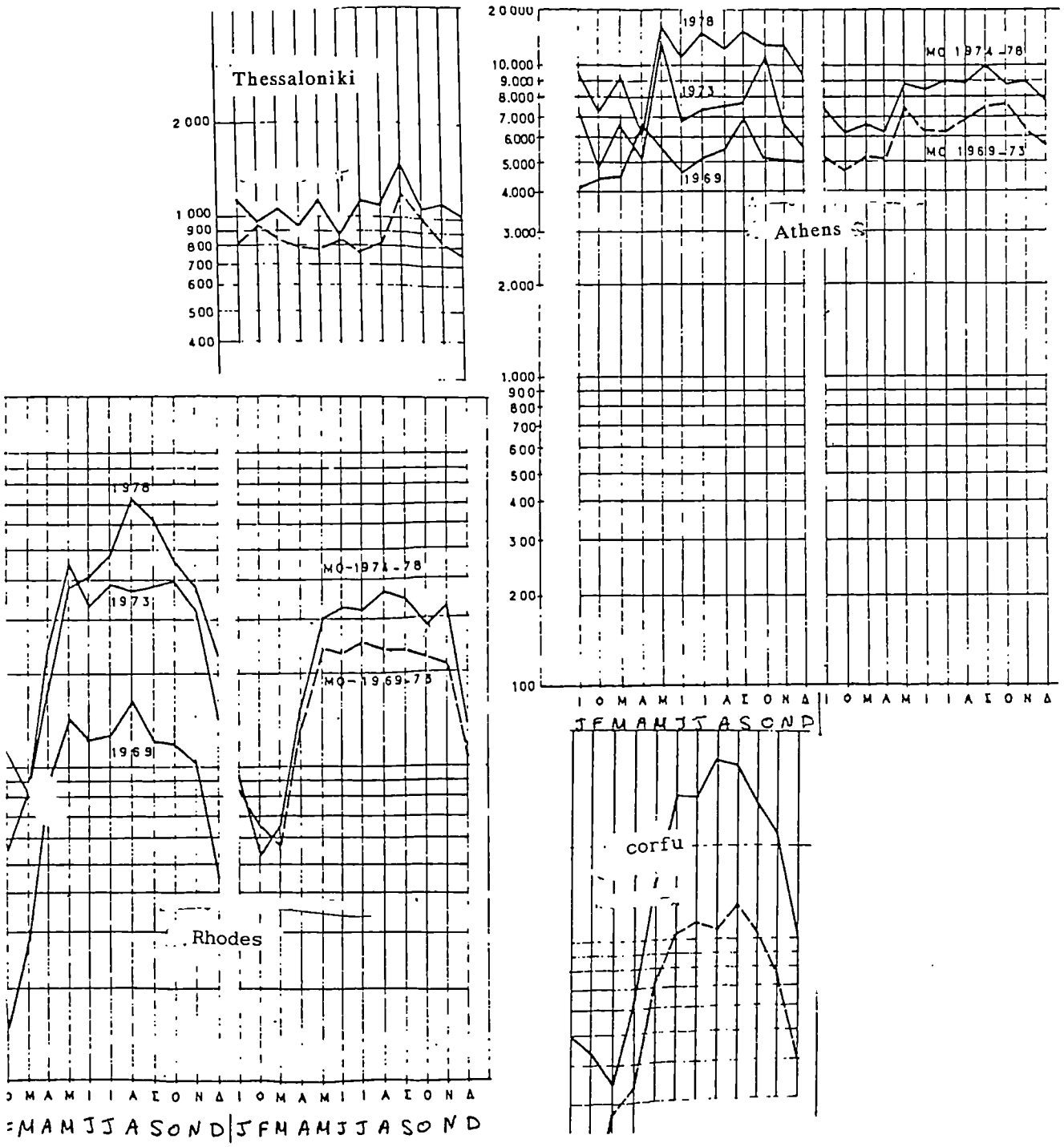
Dep.vbl.	a1	DGDPT1	DGDPT2	DTrade1	DTrade2	DBnks1	DBnks2	R^2	F	F'
DGDPT	-1.43	-0.41	-0.04	-1.96	-1.31			0.3	1.55	0.00
	(0.25)	(1.69)	(0.19)	(1.5)	(0.99)					(0.95)
DTrade	-0.89	0.03	0.08	-0.7	-0.59			0.57	4.74	0.41
	(-1.07)	(1.06)	(2.26)	(3.6)	(-3.06)					(0.53)
DGDPT	0.13	-0.43	-0.09			1.18	1.38	0.31	1.58	0.21
	(0.02)	(1.67)	(0.38)			(1.53)	(1.19)			(0.65)
DBnks	-0.23	0.01	-0.07			-0.86	-0.56	0.49	3.47	4.71
	(-0.12)	(0.13)	(0.93)			(3.4)	(1.48)			(0.04)

Dep.vbl	a1	DGDPT1	DGDPT2	DDwel1	DDwel2	DPubAd1	DPubAd2	R^2	F	F'
DGDPT	-1.6	-0.37	-0.02	-9.4	3.13			0.3	1.56	0.97
	(0.29)	(1.46)	(0.09)	(1.59)	(0.51)					(0.34)
DDwel	-0.27	0.01	0.01	0.23	-0.34			0.43	2.72	0.02
	(1.43)	(1.44)	(1.29)	(1.15)	(1.66)					(0.89)
DGDPT	1.91	-0.36	0.03			3.03	5.65	0.41	2.44	0.25
	(0.36)	(1.55)	(0.15)			(1.24)	(2.29)			(0.62)
DPubAd	-0.55	-0.005	-0.05			-0.66	-0.75	0.63	6.19	0.2
	(1.28)	(0.27)	(2.8)			(3.3)	(3.71)			(0.66)

Dep.vbl	a1	DGDPT1	DGDPT2	DHth-ed1	DHth-ed2	DOthSer1	DOthSer2	R^2	F	F'
DGDPT	-0.7	-0.39	-0.18	0.68	1.4			0.2	0.89	0.1
	(0.1)	(1.5)	(0.7)	(0.34)	(0.62)					(0.89)
DHthed	0.08	0.02	0.05	-0.31	-0.86			0.7	9.33	0.04
	(0.18)	(1.1)	(2.71)	(2.18)	(4.9)					(0.84)
DGDPT	-1.1	-0.63	-0.21			90.6	-1.8	0.2	1.01	1.69
	(0.18)	(1.79)	(0.79)	(		(0.58)	(0.71)			(0.2)
DOthS	-0.005	0.00	-0.00			-0.32	-0.006	0.2	0.9	2.18
	(0.45)	(0.01)	(0.68)			(1.00)	(1.13)			(0.16)

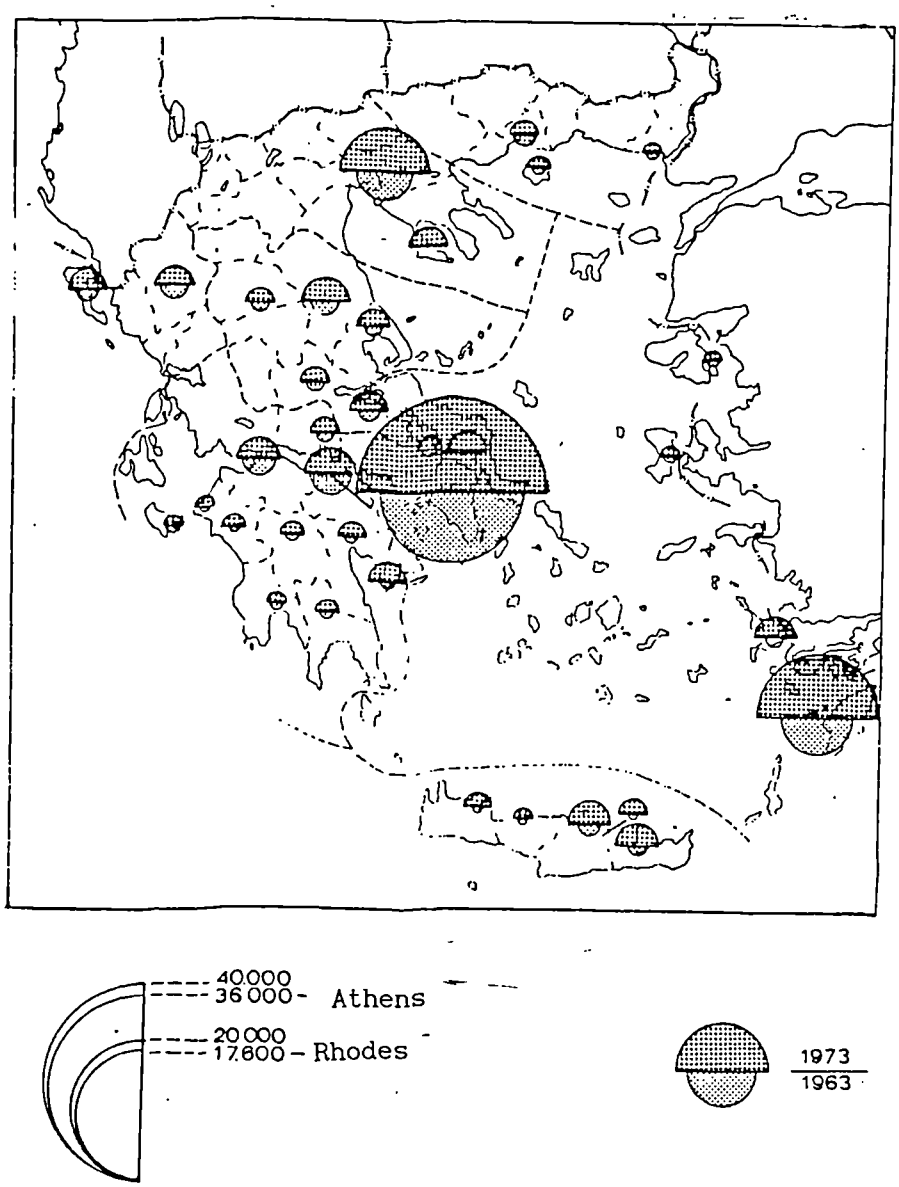
GRAPH I

Monthly Fluctuations in Hotel Employment, 1969-1978



Source: Komilis, 1986.

Graph II
Regional Distribution of Hotel Beds, 1963-73

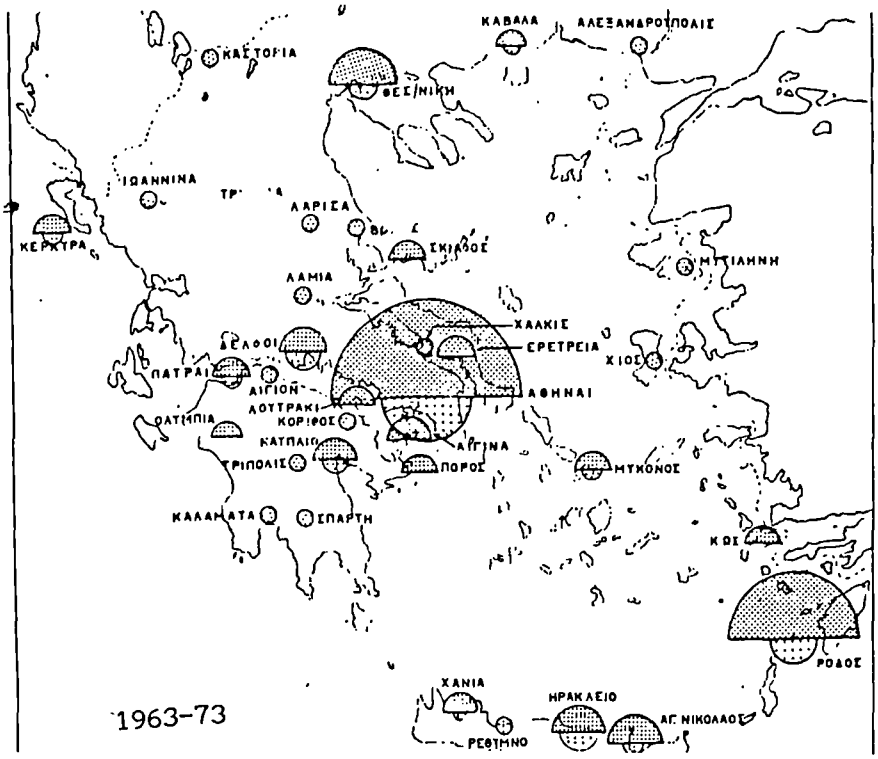


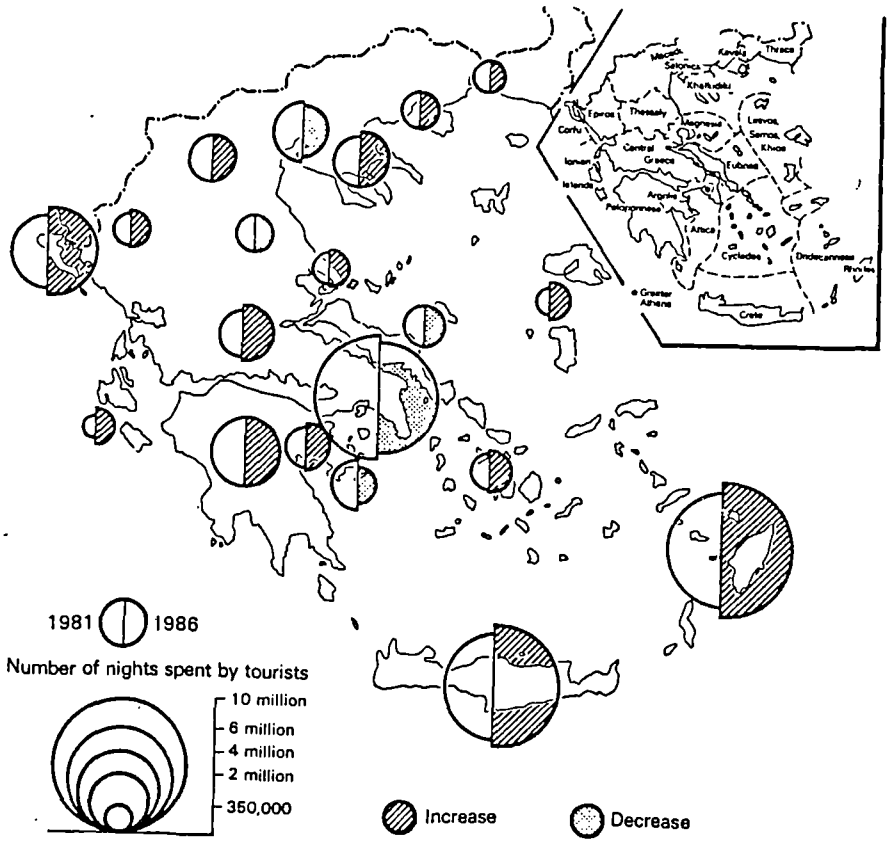
Source: Komilis, 1986.

GRAPH III

Regional Concentration of Overnight Stays in Greece, 1963-73

1981-86





Sources: 1) Komilis, 1986

2) Leontidou, 1988.

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