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**Article**

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# Regional disparities in Greece: The performance of Crete, Peloponnese and Thessaly



**Yannis Ioannides**



**George Petrakos**

## 1. Introduction

Unequal spatial distribution of economic activity within countries continues to be important despite the significant progress of the world economy during the second half of this century. Interest in spatial processes and inequalities has recently been revived by the influential work of Barro and Sala-i-Martin (1991, 1992, 1995) and others on the trends of convergence or divergence across countries or regions, by the theoretical work of Krugman (1991) on geography and increasing returns, and by the work of Matsuyama (1995a,b) on cumulative processes in models of monopolistic competition. The recent literature is concerned with balanced development and has important implications for regional or development policies. Noteworthy in this context is the argument advanced by Kaldor (1970), namely that unequal regional development within a given country poses more serious intellectual challenges for policy than unequal development internationally. Several studies suggest that the existence of selective tendencies, convergence clubs as in Quah (1996), and asymmetric shocks in various economies have led to the persistence and exacerbation of spatial inequalities within the European Union.

A parallel literature was developed that examines in more detail the consequences of European economic integration – i.e. the Single European Act and the Treaty of Maastricht – on regional inequality. The majority of these studies predicted that the process of European integration would worsen existing regional inequalities. The reasons most frequently cited are location decisions of firms, geographic features and proximity of the various regions to major European markets, persistent differences in the structures of European economies, and existing differences in levels of technological and human capital development (EC, 1991, 1993, Amin *et al.*, 1992, and Camagni, 1993).

A recent report (EC, 1999a) suggests that inequalities across member states of the EU declined in the 1988-96 period, but that intra-national inequalities have intensified, as the gaps between the most developed centres and the less developed regions with respect to per capita income growth rates and levels of income per capita have widened. Thus, it is feared that European economic integration may have been associated with a reversal of the process of regional convergence found by several studies in the 1970s and the 1980s.

The present study sets out to contribute to the debate on the causes and underlying factors of regional inequality by providing evidence from Greece. Section 2 provides a background discussion of Greek national performance and notes the particular role of the Athens metropolis. Section 3 presents trends in key regional indicators and reviews the literature on convergence within Greece. Section 4 gives a comparative analysis of the three regions of Crete, Peloponnese and Thessaly. Section 5 reviews the institutions for regional policy in Greece again with particular reference to the three case study regions. Section 6 presents the conclusions and policy implications of our study.

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*In discussing regional problems in Greece we are looking at cases of a “double periphery”, of lagging regions within an economy that itself lags.*

## **2. Spatial economic structure and change in Greece**

Greece’s underdevelopment relative to the EU average qualifies it as an Objective 1 Region (OIR). These have per capita income levels of less than 75% of the EU average. As a result, in discussing regional problems in Greece we are looking at cases of a “double periphery”, of lagging regions within an economy that itself lags behind the EU average.

### **2.1 Greece in the EU**

Lyberaki (1993) and Petrakos and Pitelis (2000) have shown that Greece was converging towards the EU until the mid-1970s. It started diverging in the 1980s, and remained so until the mid-1990s. During the 1980s, the average annual GDP growth rate was 1.5% in Greece compared with 2.4% in the EU. In that same period, Greece was the only EU country in which most development indicators are not simply worse than the EU average, but also worse than any other single member. As a result, GDP per capita in Greece as compared to EU declined. Relative GDP per capita (EU=100), measured in ECU, increased in the 1960s, reaching its highest value in 1970 and decreased thereafter, with signs of stability in the mid-1990s and a trend reversal apparent in the late 1990s. In 1995, however, Greek GDP per capita in ECU was equal to 45% of the EU average, a figure considerably lower than that of 1981 (53%), 1971 (58%) or even 1961 (49%).

Greece’s poor performance is attributed to several factors. First, the Greek economy is characterised by a sectoral composition reminiscent of LDCs, that is, a high share of agriculture and a low share of industry in GDP. Greece stands out in this regard among all the other Southern EU member states. Manufacturing is also concentrated in such traditional labour-intensive and light-industry sectors such as food, textiles and clothing. These, however, are also sectors that seem to be shifting internationally towards LDCs, because of the significant labour cost advantages to be found there. This has put Greece under double pressure. On the one hand, it is at a disadvantage in markets for modern manufactures compared to other highly industrialised EU countries, and on the other hand it is also at a disadvantage compared to low-wage countries in traditional markets for labour-intensive products. This double pressure, which emanates from increasing international competition, might have been an important factor in the decline of industrial activity in Greece and its concentration in inward-looking sectors.

Several papers have also blamed the performance of Greece on public policy choices. Alogoskoufis (1993) attributes Greece’s sluggish performance to expansion of the public sector in the 1980s, arguing that accumulated deficits crowded out private investment. Lyberaki (1996) considers that the adoption of labour market regulation schemes such as wage indexation, collective bargaining and labour protection laws, especially in the 1980s, was responsible for increasing unit labour cost and for reducing flexibility at the firm level, during a time when the rest of Europe was deregulating. Finally, the anti-multinational corporation slogans and anti-EU rhetoric of the early 1980s may have also played a role, by discouraging foreign direct investment (FDI) in a period where domestic capital formation was declining.

Petrakos and Christodoulakis (1997) follow a different line of thought: They emphasise the impact of geography. They argue that Greece has had to cope with a uniquely unfavourable situation not

found elsewhere in Europe. That is, Greece's location in South-eastern Europe placed it far away from major markets and major European market centres, but a lack of common borders made it physically isolated from other Western European countries. Furthermore, as a result of the cold war, the country's borders were real barriers to communication and trade with neighbouring countries. These conditions distorted economic relations, with serious long-term implications for the economic structure and performance of the country. Isolation and distance from the European core and other Western European countries implied, in general, limited access for its domestic products to large foreign markets. The absence of economic interaction with its neighbours also generated serious disadvantages. Indeed, recent theoretical and empirical research has drawn attention to the importance of geographical factors, such as adjacency and proximity, for trade and development (Krugman, 1991, and Krugman and Venables, 1995). The "missing neighbours factor" in the trade relations of Greece played a key role limiting the country's export markets and thus its potential for export-led growth (Petrakos, 1997).

Distance from the more economically advanced countries of Western Europe may also explain why Greece's trade took on an inter-industry character during a period of extraordinary expansion of intra-industry trade (Petrakos, 1997). Theory suggests that countries trade more with their neighbours and that such trade usually takes an intra-industry character. The lack of trade relations with the other Balkan countries pushed Greece further towards specialising in inter-industry trade with the technologically more advanced western European countries. However, such trade worked rather unfavourably for the industrial development of the country. Greek manufacturing remains dominated by very small production units (Petrakos and Zikos, 1996), with over 93% of industrial firms with less than 10 employees. The average size is 5 employees per firm, by far the lowest in Europe. These small enterprises, often with traditional organisation, are clearly at a disadvantage in exploiting economies of scale.

## **2.2 Greek urban structure**

*An important feature of Greece is the dominance of the metropolis.*

An important feature of Greece is the dominance of the metropolis. The region of Athens has doubled in size in three decades and now comprises nearly 40% of the national population (which is close to 11 million people). Thessaloniki comes second with about 800 000 inhabitants, while Patras, the third largest city of the country, has about 250 000 inhabitants. There are another three or four cities with about 150 000 inhabitants each, followed by several smaller cities typically serving as regional administration centres, with populations ranging from 20 000 to 80 000 inhabitants. Arguably, Greece is characterised by the most concentrated urban structure in Europe.

What factors have contributed to this highly skewed urban structure? Certainly, some of them are related to historically given 'initial conditions.' The gradual expansion of the Greek State from 1821 to 1945 through a series of independence wars has established Athens as the undisputed administrative centre. The influx of refugees from the 1922 war with Turkey helped solidify the pre-eminence of Athens in terms of population, economic activity, culture and entrepreneurship. However, other factors have also played significant roles.

For example, Petrakos and Tsoukalas (1999) found that the rising tertiary sector of the economy exhibited a strong preference for location in the metropolis, while the lack of industrial development did not provide pressures for deconcentration (to cheaper land and less congested areas). Petrakos *et al.*, (2000) also examine the apparent acceleration in the development of smaller cities in Greece during the last decade. It would have been a welcome development if faster growing smaller cities were evenly distributed in space. Their analysis shows, however, that they are largely satellites of the metropolitan centres of Athens and Thessaloniki. Thus, the Athens metropolis seems to have maintained or even increased its dominance on the rest of the economy.

In contrast to the international experience of industrial specialisation of small and medium size cities (Henderson, 1986, 1988), Greek cities exhibit limited industrial specialisation and have similar shares of employment in manufacturing regardless of their size (Petrakos and Economou, 1999). This is less of a paradox when we recognise that Greek manufacturing is mainly oriented towards local demand.

### 3. Regional inequalities in Greece

#### 3.1 Recent trends

We start with the most recent data for the 13 NUTS II Greek regions. Table 1 shows regional GDP per capita in purchasing power parity terms for each Greek region as a share of the EU-15 average. The average figure for Objective 1 Regions (O1Rs) are also shown. Throughout the 1988-1996 period, only two or three Greek regions have figures above the O1R average or even the Greek national average (which is highly skewed due to the presence of Attiki, the Athens region, which is the largest and most developed region in the country). Moreover, some regions - such as Peloponnese - have failed to improve their relative position with respect to the EU-15 even in purchasing power terms.

*Some regions such as Peloponnese have failed to improve their relative position with respect to the EU-15 even in terms of purchasing power parity.*

Table 2 shows regional unemployment data for Greece. Several observations are in order. First, the unemployment rate in Greece has been lower than that of the EU-15 average, but moved closer to it during the last few years. Second, all Greek regional figures are well below the O1R average unemployment rate. Third, the best performing regions have been the island regions of Crete, the Southern Aegean and the Ionian Islands. What those regions have in common is tourism as the main activity of the local economy. The picture for the worst performing regions is mixed. It includes Attiki, Continental Greece (a region adjacent to Attiki that has suffered from industrial decline), Ipeiros (a relatively backward, remote and economically stagnant region), and West Macedonia (a border region that suffered heavily from industrial decline). Fourth, the regional dispersion of unemployment, as measured by the coefficient of variation, shows a downward trend.

However, there are several factors that must be taken into consideration in interpreting Greece's unemployment performance. To remind the reader of only a few, Greece has a low, by EU standards, labour force participation ratio, a high share of population that is still employed in agriculture, and a dualistic industrial sector that offers opportunities for sporadic, irregular or part-time employment.

**Table 1.** Regional GDP per capita (in PPS), EU15=100

	1988	1989	1990	1991	1992	1993	1994	1995	1996
East Macedonia, Thrace	52	53	52	53	55	57	59	60	61
Central Macedonia	58	58	57	58	61	64	65	66	67
West Macedonia	63	63	61	61	59	60	60	61	62
Thessaly	54	57	54	56	56	58	60	61	63
Ipeiros	43	42	39	40	41	43	43	43	44
Ionian Islands	55	54	52	53	55	59	60	61	62
West Greece	48	50	48	50	51	55	56	57	58
Continental Greece	72	72	68	68	64	66	65	65	65
Peloponnese	58	57	55	56	56	57	58	58	58
Attiki	61	62	61	62	66	72	73	75	77
North Aegean	44	41	41	43	45	48	49	50	52
South Aegean	68	67	65	66	68	73	74	75	75
Crete	57	64	61	62	64	68	71	72	72
<b>Greece</b>	<b>58</b>	<b>59</b>	<b>57</b>	<b>58</b>	<b>60</b>	<b>64</b>	<b>65</b>	<b>66</b>	<b>68</b>
Objective 1 Regions	63	64	64	65	65	68	69	69	69
EU-15	100	100	100	100	100	100	100	100	100

Source: European Commission, 1999a

**Table 2.** Unemployment rates, percentage

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
East Macedonia, Thrace	9.0	6.7	5.1	4.8	6.9	6.6	7.4	9.2	9.6	8.3
Central Macedonia	6.8	6.6	5.7	5.5	6.4	7.9	8.2	9.1	8.9	9.2
West Macedonia	6.0	5.7	9.0	7.2	7.4	9.8	9.1	13.2	16.3	13.8
Thessaly	6.9	6.5	7.0	6.2	7.3	7.2	6.9	7.6	7.6	7.5
Ipeiros	5.0	4.0	2.8	8.8	7.4	7.6	8.0	7.2	11.2	10.5
Ionian Islands	3.4	2.8	3.1	3.5	2.5	3.8	3.4	5.3	5.5	6.2
West Greece	7.2	7.2	6.9	7.8	8.6	9.4	10.5	8.2	8.6	7.9
Continental Greece	6.9	5.9	5.8	6.3	10.8	9.5	10.6	9.2	10.3	12.0
Peloponnese	5.8	4.8	5.2	5.0	7.3	5.8	6.3	6.0	6.4	7.5
Attiki	10.0	8.5	7.9	8.9	9.7	11.1	11.1	11.0	11.9	11.6
North Aegean	5.4	5.9	4.2	7.9	4.8	4.3	7.0	4.9	7.1	7.1
South Aegean	5.2	4.4	4.3	3.2	3.5	4.5	3.5	4.8	4.9	4.3
Crete	3.5	2.4	2.2	3.6	3.3	3.5	3.8	4.1	3.4	4.3
<b>Greece</b>	<b>7.7</b>	<b>6.7</b>	<b>6.3</b>	<b>6.9</b>	<b>7.8</b>	<b>8.6</b>	<b>8.8</b>	<b>9.1</b>	<b>9.7</b>	<b>9.6</b>
Objective 1 Regions	15.6	14.5	13.5	13.3	13.9	16.3	17.6	17.5	17.7	17.2
EU-15	9.0	8.3	7.7	8.2	9.2	10.7	11.2	10.7	10.8	10.7

Source: European Commission, 1999a

*Greece has a national agricultural employment share which is twice that of other Objective 1 regions and four times that of the EU-15 average.*

Table 3 allows us to compare basic structural characteristics across Greek regions. It presents the shares of primary, secondary and tertiary employment for each region. Greece has a national agricultural employment share which is twice that of the OIRs and four times that of the EU-15 average. With the

exception of Attiki, and the South Aegean islands (including the island of Rhodes), all other regions have shares of primary sector employment ranging from 25% to 45%. The regions with the highest shares in the secondary sector are West Macedonia (a region with a heavy concentration of energy production), Central Macedonia (including Thessaloniki, the second largest Greek urban agglomeration), Continental Greece (a region in the immediate proximity of Attiki) and Attiki. The two large metropolitan regions and the islands (which specialise in tourism) have the highest shares in the tertiary sector.

**Table 3.** Sectoral distribution of employment, 1997, percentage

	Agriculture	Industry	Services
East Macedonia, Thrace	40.0	17.8	42.2
Central Macedonia	19.6	25.6	54.9
West Macedonia	23.3	33.0	43.7
Thessaly	38.7	17.5	43.8
Ipeiros	30.6	20.4	50.0
Ionian Islands	26.7	16.0	57.3
West Greece	41.6	17.6	40.8
Continental Greece	31.7	27.3	41.0
Peloponnese	43.5	16.9	39.6
Attiki	1.0	25.3	73.8
North Aegean	23.6	20.0	56.4
South Aegean	10.2	20.4	69.4
Crete	37.9	12.3	49.8
<b>Greece</b>	<b>19.9</b>	<b>22.5</b>	<b>57.7</b>
EU-15	5.0	29.5	65.6
Object 1	10.8	27.5	61.7

Source: European Commission, 1999a

### 3.2 Studies of regional convergence or divergence

What does the economic literature tell us about Greek regional convergence trends over the longer term? Petrakos and Saratsis (2000) and Michelis *et al.*, (1996) have examined the convergence of regional inequalities at the NUTS III level and have found that inequalities were reduced in the 1970s and the 1980s. Giannias *et al.*, (1997) also report a reduction in the dispersion of a number of welfare indicator at the Greek NUTS II level. On the contrary, Siriopoulos and Asteriou (1998) found no evidence of convergence to steady-state growth paths, though these different results may well be influenced by data problems.

A number of recent papers have examined the spatial structure of Greek industry. Melachroinos and Spence (1997) noticed a sharp change taking place in the 1980s in terms of the geography of industrial development. The major industrial centres of the country seem to attract capital-intensive manufacturing activities, while peripheral regions seem to attract labour-intensive activities. In fact, Fotopoulos and Spence (1999) show that the spatial distribution of new manufacturing plant openings in Greece is affected by initial conditions related to high labour productivity, past growth performance, population density (which they interpret as indicating agglomeration economies), availability of skilled labour and public spending on infrastructure.

Petrakos and Saratsis (2000) have provided the most systematic analysis of the evolution of regional inequalities in Greece. Using regression analysis, they investigate the behaviour of regional inequalities during the business cycle. Petrakos and Tsoukalas (1999) also test the correlation between regional inequalities and macro-economic performance. Their findings support the hypothesis that economic development in each business cycle begins from the two major poles of economic activity, Athens and Thessaloniki. This intensifies inequalities since the spread to the rest of the country is by no means immediate.

*While European level evidence indicates that disparities tend to diminish in periods of strong economic expansion, the findings for Greece tend to indicate the opposite.*

Thus, while European-level evidence indicates that disparities tend to diminish in periods of strong economic expansion, the findings for Greece tend to indicate the opposite. A possible reconciliation of these two apparently contradictory findings could be that economic expansion is more likely to lead to regional convergence in advanced countries with a spatially integrated economic base, while it is more likely to lead to regional divergence in less advanced countries with strong spatial imbalances and a dualistic economic base. This shows that dealing with the less developed regions in Greece is a difficult problem, as the spatial fragmentation of the productive base does not allow for any significant spillover effects to take place.

#### **4. Economic performance in Crete, Peloponnese and Thessaly**

With this background, this section looks at three (NUTS II) regions in more detail. They are Thessaly, a centrally located region, Peloponnese, the southern most part of the Greek mainland, and Crete, which is an island. Peloponnese is included in our analysis because of its relative backwardness and recent stagnation, Thessaly because it is undergoing structural change, and Crete because of its superior economic performance (1).

##### **4.1 Population and geography**

The three boxes summarise a few key features of these regions. They are relatively small by EU standards. Thessaly is the largest of the three regions, with a population of 742 000 in 1997, followed by Peloponnese, with 670 000, and by Crete, with 560 000. There is a highly unequal regional distribution of human capital in Greece, with Attiki dominating the three regions (see Table 4). However, the difference between the three case study regions are not substantial.

**Table 4.** Percentage of population with post-secondary education

Regions	1971	1981	1991
Crete	1.62	1.96	5.57
Thessaly	1.40	1.90	5.54
Peloponnese	1.54	2.04	5.03
Attiki	4.02	5.52	9.34
Greece	2.37	3.30	6.86

Source: National Statistical Service of Greece, Regional Statistics.

1) We have avoided extreme cases of success (such as the metropolitan region of Attiki) and of failure (such as the region of Ipiros), as the factors behind their success and failure are rather obvious. Success in Attiki is mainly related to the process of tertiarisation of the economy, while failure in Ipeiros is related to remoteness and isolation caused by territorial morphology and poor transportation infrastructure. Peloponnese as a NUTS II region excludes the Prefecture of Achaia, which occupies Peloponnese's northwestern corner and historically belongs to it.



### Box 1. Crete

Crete is the largest island in the Greek archipelago, and the country's southernmost region. It is bounded by the Aegean Sea in the north and the Libyan Sea in the south. It contains diversified terrain with high mountains and deep gorges along with valleys and coastal plains. In total mountains cover 49% of the land area (and another 28% is semi-mountainous). Its main city is the fourth largest in the country; however, most of the population live in very small towns and villages.

Surface :8 340 km<sup>2</sup>

Population: 559 300 inhabitants (1996)

Population density: 67.1 inhabitants per km<sup>2</sup>

Largest cities (1991 population): 1. Irakleio (126 907); 2. Chania (68 066); 3. Rethymno (24 064); 4. Agios Nikolaos (8 574).

Crete has developed an economy based primarily on tourism and agriculture. It contains the important archaeological site of Knossos. Tourist developments are mainly located along the northern coast where road communications are also the most developed. It is arguably Greece's most successful region outside the metropolitan areas of Athens and Thessaloniki. GDP per capita in 1996 stood at ECU 13 215 per person (in PPS terms).

Average annual growth rate of GDP (1989-95): 1.95%

Agriculture as a share of GDP (1994): 31.2%

Manufacturing as a share of GDP (1994): 12.7%

Services as a share of GDP (1994): 56.1%

Participation rate (1999): 58.8% (men: 61.1%; women: 49%)

Unemployment rate (1998): 7.1%

Educational attainment of population, aged 25-59 (1997): Less than high school degree: 58%; with high school degree: 28%; with a college degree: 14%.

All three regions under study are characterised by a relatively low rates of urbanisation. The urban population as a share of the total ranges from 35% to 45%, compared to the EU average of about 70%. Two more characteristics concerning the spatial distribution of economic activity within the three regions deserve mention. First, the urban systems in each of those regions differ considerably. Thessaly has two relatively large urban centres of about 150 000 people each (the 5<sup>th</sup> and 6<sup>th</sup> in the national ranking) and two smaller cities with about 50 000 and 30 000 each, respectively. Several towns of about 10 000 each make up the remainder of its urban system. Peloponnese lacks a major urban centre. Its largest city has no more than 50 000 people (15<sup>th</sup> in the national rank), while there are another 4 cities with populations ranging from 10 000 to 30 000. Most of its population lives in very small towns and villages. Crete falls somewhere between Thessaly and Peloponnese. It has a large urban centre of about 150 000 (the 4<sup>th</sup> in the national rank), a second with a population of about 60 000, and two or three more with populations ranging from 10 000 to 25 000 people. Low rates of urbanisation and the few relatively large cities have consequences for the composition of human capital, and suggest little scope for local agglomeration economies.

## Box 2. Peloponnese

Peloponnese is at the southernmost part of the Greek peninsula, separated by narrow isthmus from the mainland. Although principally mountainous (50% of the land area is mountainous, with another 30% semi-mountainous), it also contains valleys with cultivable land. It lacks an urban area of any size.

Surface : 15 510 km<sup>2</sup>

Population: 671 400 inhabitants (1996)

Population density: 43.3 inhabitants per km<sup>2</sup>

Largest cities (1991 population): 1. Kalamata (45 292); 2. Corinthos (27 412); 3. Tripoli (22 463); 4. Sparti (15 531); 5. Nafplio (11 897).

While agriculture is an important factor in the local economy, industry has developed in the northern region close to the metropolitan area of Athens. Though it has a substantial coast line and hosts many archaeological sites (e.g. Epidavros), tourism has not been extensively developed. Much agriculture, particularly in the mountainous south, is involved with olive growing and sheep rearing. The regional economy has stagnated in the second half of the twentieth century and continues to be dominated by rather traditional economic structures. GDP per capita in 1996 stood at EUR 10 627 per person (in PPS terms).

Average annual growth rate of GDP (1989-95): -2.76%

Agriculture as a share of GDP (1994): 30.5%

Manufacturing as a share of GDP (1994): 23.2%

Services as a share of GDP (1994): 46.3%

Participation rate (1999): 50.7% (men 61.9%; women: 39.8%)

Unemployment rate (1998): 8.1%

Educational attainment of population, aged 25-59 (1997): Less than high school degree: 62%; high school degree: 26%; college degree: 11%.

The second feature is that both Thessaly and Peloponnese are characterised by geographical divides. In Thessaly, the eastern plain is more urbanised and developed. This also applies to the northern part of Peloponnese, near Athens. The other parts of Thessaly and Peloponnese are mountainous and rural. Agriculture here involves olives and sheep rearing, with limited scope for future development.

A final comment concerns the distance of the three regions from the major economic centres of the country and from international markets. Peloponnese is closer to Athens than the other two regions. Especially its northern and most developed part could be considered to be at an advantage with respect to proximity to markets. Several industries from Attiki have crossed the regional border and located in the northern part of Peloponnese in order to combine benefits of investment incentives (which are not available in Athens) with a short distance to the metropolis.

### Box 3. Thessaly

Thessaly lies in the middle of the Greek peninsula, and is bounded by the Aegean Sea on the east and mountain ranges that separate it from Epiros on the west. Much of its land area is arable plain. Thessaly is crossed by the main north-south national highway that connects the two metropolitan areas of Athens and Thessaloniki. Its two largest urban areas rank as the fifth and sixth largest in the country.

Surface : 14 050 km<sup>2</sup>

Population: 741 800 inhabitants (1996)

Population density: 52.8 inhabitants per km<sup>2</sup>

Largest cities (1991 population): 1. Volos (115 744); 2. Larisa (113 090); 3. Trikala (46 962); 4. Karditsa (30 289).

Thessaly is distinguished by its agriculture and manufacturing. The latter is important in the regional economy, although it has declined in the 1980s and the early 1990s. There is intensive agriculture on the eastern plain; however, most produce is exported to other regions for processing. GDP per capita in 1996 stood at EUR 11 429 per person (in PPS terms).

Average annual growth rate of GDP (1989-95): 0.27%

Agriculture as a share of GDP (1994): 34.5%

Manufacturing as a share of GDP (1994): 22.4%

Services as a share of GDP (1994): 43.1%

Participation rate (1999): 52.1% (men: 64.7%; women: 39.9%)

Unemployment rate (1998): 10.7%

Educational attainment of population, aged 25-59 (1997): Less than high school degree: 64%; high school degree: 22%; college degree: 14%.

Thessaly lies in the middle of Greece. It is about 3-4 driving hours away from Athens and 2-3 hours away from Thessaloniki. These distances may have exceeded a threshold, allowing the development of two large urban centres and a significant industrial base. The eastern part of Thessaly is crossed by the main north-south national highway, providing relatively good access to the large markets of Athens and Thessaloniki. Access to the western and north-western part of Greece, however, is limited due to poor east-west transportation links, and a mountain range separating eastern from western Greece. Another disadvantage of the region is that despite its size, urban population and export potential, it lacks a major airport.

Crete is an island quite isolated from the mainland. This has, on the one hand, led to a relative autonomy of its regional market and, on the other, prompted an early search for policies to overcome isolation. As a result, in addition to an effective system of sea links with Athens, Thessaloniki and the major islands, Crete already has two airports with scheduled domestic and international flights, and numerous international charter flights during the tourist season. Exporters of agricultural products use air freight with an increasing frequency. Therefore, Crete has found

ways to overcome considerably its distance from the mainland, and to improve its access to major domestic and international markets.

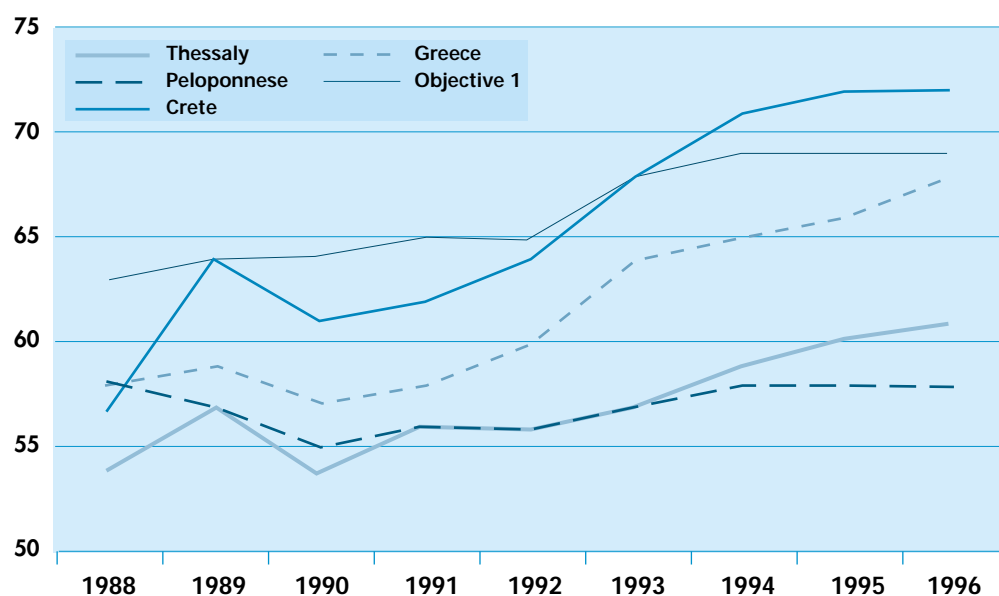
**Geography and transport infrastructure have affected the three regions in different ways.**

Overall, geography and transport infrastructure have affected the three regions in different ways. Geography would seem to confer Peloponnese an advantage with respect to the Athens metropolitan market, and Thessaly an advantage in the sense of being a central place in Greece. Territorial morphology and poor transport infrastructure, however, limit these advantages for the southern part of Peloponnese and the western part of Thessaly, those regions' less developed areas. Nonetheless, Crete seems to have developed effective transportation links and thus has overcome its geographic isolation.

## 4.2 Comparative performance of the three regions

Figure 1 (which is based on Table 1) plots gross domestic product per head in purchasing power parity relative to the EU-15 average. Crete has made most progress, having increased on this scale by 15 percentage points. Thessaly has reduced its distance from the EU average (by 7 percentage points), while the Peloponnese has made no progress at all. In terms of the national average, Thessaly has slightly declined while Peloponnese has deteriorated by as much as 10 percentage points.

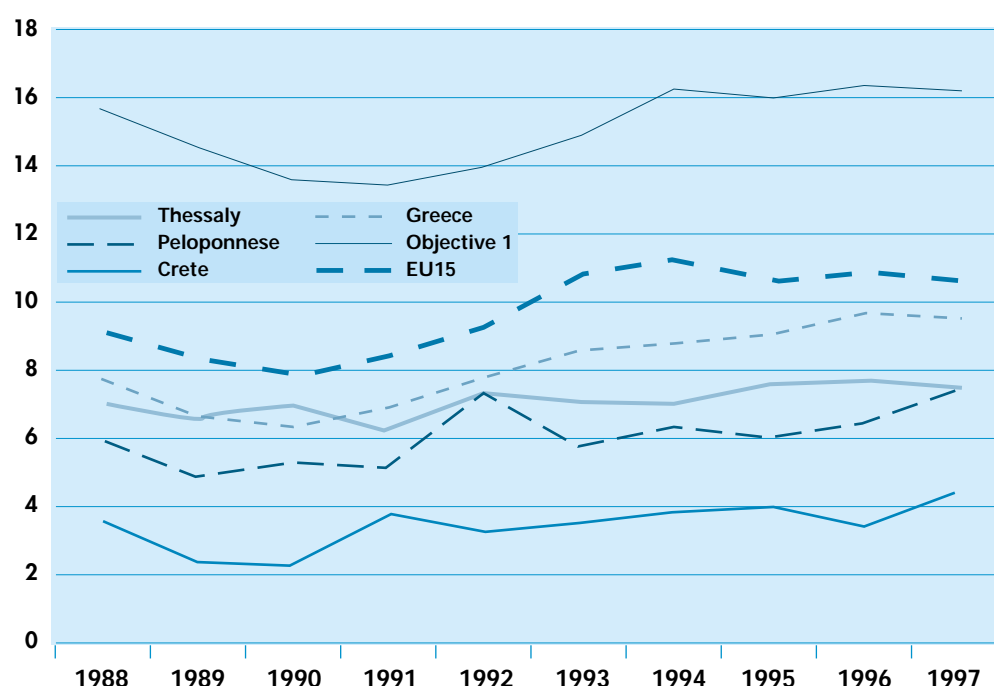
**Figure 1.** GDP per capita in PPP, EU-15 = 100



Source: From Table 1.

Figure 2 presents unemployment data. Among the three regions, Thessaly has the highest unemployment figure, due to the decline of its industrial base during 1988-97. Peloponnese has slightly lower rates than Thessaly's, while Crete has much lower, and generally stable, unemployment rates throughout the period.

**Figure 2.** Unemployment rates, percentage



Source: From Table 2.

Figures 3 and 4 combine productivity and employment data to give an overall picture of relative performance. Productivity changes are in relation to EU average, while employment changes are in percentage terms. Following Camagni (1993), we can link the first (upper, right hand side) quadrant of the figures with a “virtuous economic cycle”, as relative productivity growth is associated with employment growth. The second (lower, right hand side) quadrant may be interpreted as “assisted development,” as employment growth is associated with a relative decline in productivity. The third (lower, left hand side) quadrant may indicate a “vicious economic cycle”, as declines in productivity are associated with employment cuts. Finally, the fourth quadrant may be interpreted as “economic restructuring”, as employment cuts lead to relative productivity growth.

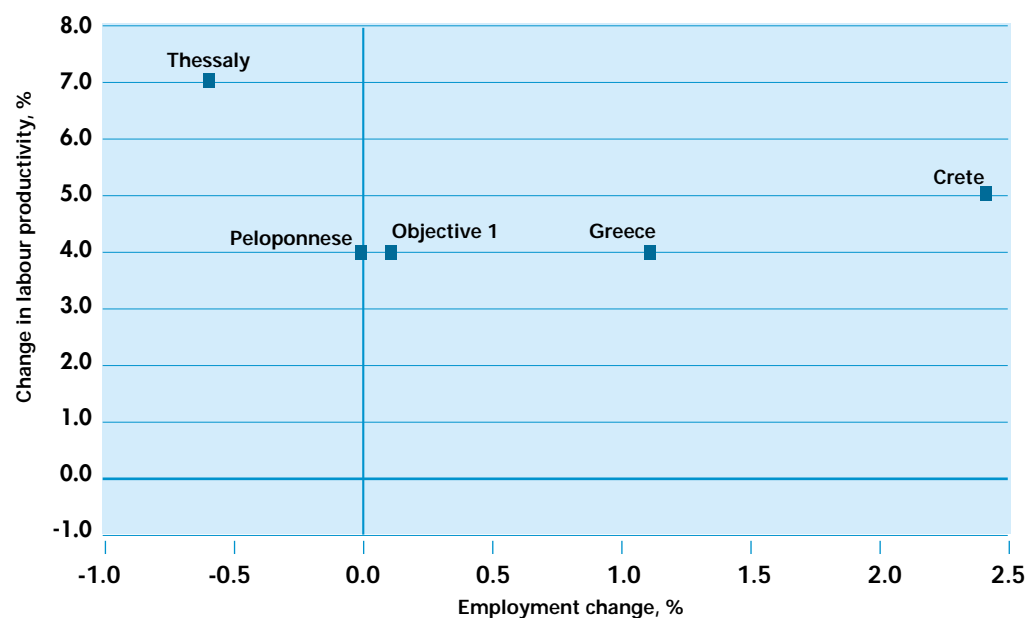
During 1988-93 (Figure 3), Greece, OIRs and Crete all combined positive productivity changes with positive employment changes in a “virtuous economic cycle”. Thessaly combined positive relative productivity growth with negative employment growth. It faced this “economic restructuring” as many of its firms belonged to sectors that have been under severe pressure from international competition, including textiles, metallurgy, clothing and automobiles. Peloponnese lies at the margin, combining positive growth with zero employment growth.

During 1993-97 (Figure 4), the picture changes considerably. Crete continues to do better than OIRs, but does not dominate Greece. The other two regions have switched quadrants. Thessaly has moved from the “restructuring” phase to the “assisted development” phase, possibly thanks to the policies aimed at combating rising unemployment in industrially declining areas. On the other hand, Peloponnese has moved to the “vicious cycle” quadrant, experiencing a deterioration of its position in relative terms.

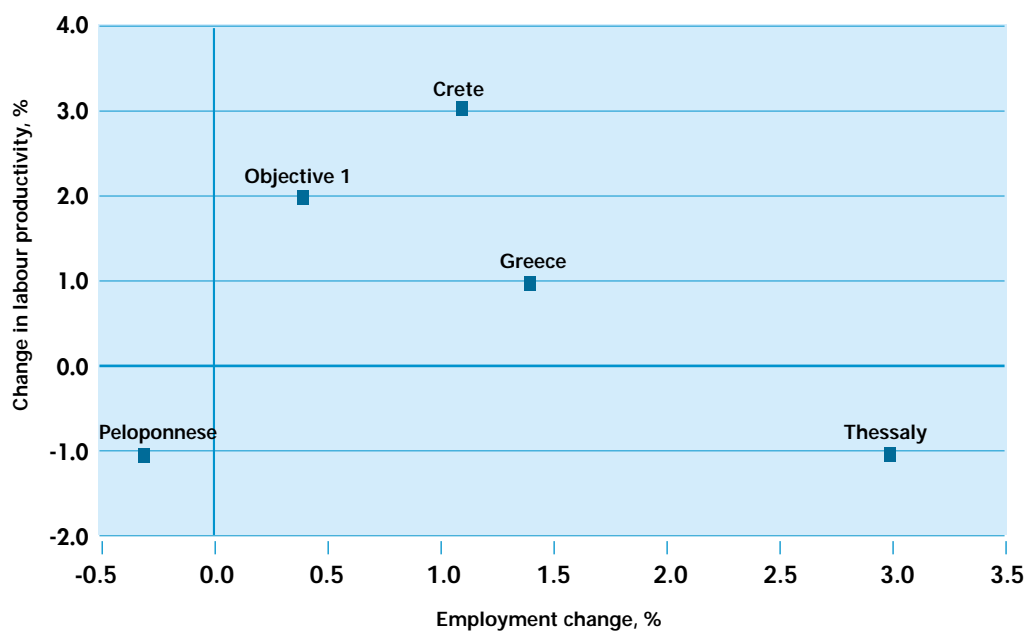
*Overall, Crete clearly stands out because of its better performance throughout the entire period. On the other hand, Peloponnese stands out for its poor achievement.*

Overall, Crete clearly stands out because of its better performance throughout the entire period. On the other hand, Peloponnese stands out for its poor achievement.

**Figure 3.** Productivity and employment change, 1988-93



**Figure 4.** Productivity and employment change, 1993-97



### 4.3 Firm size and sectoral factors

One explanation of the different performance comes from economic structures. Table 5 reports firms size in each of the region. Thessaly has by far the largest industrial base, though it has been hit by crisis. Linkages with agriculture have not been fully exploited. Though there is intensive growing of industrial agricultural products on the eastern plan, most products are exported to other regions as raw materials.

Table 5 shows that Peloponnese has almost the same average industrial firm size as Thessaly, though firms are concentrated in the northern part (near Athens), and there is a low overall firm density. Industry in the southern and central parts of the region tends to be small traditional units basically serving local demand. As in the case of Thessaly, local processing of agricultural products - which would increase local value added - is very limited. With the exception of firms serving the needs of the Athens metropolitan area, the industrial export base of the region is small. A serious impediment to further industrial development is the lack of urban services, as the cities of the region have not grown during the last few decades, perhaps because of the agglomeration shadow of Athens. Towns are very small and not conducive to industrial development.

Crete is quite different, and appears to be more of a service economy (it has more firms in trade and services, and considerably higher turnover for these firms than seen the other two regions - see Table 5). This difference has arisen from the development of tourism. Large-scale investment in hotels in Crete has taken advantage of good climatic conditions (a prolonged summer session), sunny beaches, clean waters and picturesque villages and transformed the island to an international summer resort. Tourism in the Peloponnese is run typically from outside the region and involves day trips from Athens to visit historical monuments. Thessaly's tourism is primarily domestic, as it lacks the advantages of a prolonged summer season and historical monuments. In both regions accommodation differs from Crete, in that it is provided mostly by small-scale family-run businesses that offer limited services and recreation facilities. Figure 5 summarises the tourist capacity of the regions.

**Table 5.** Firm size, 1994

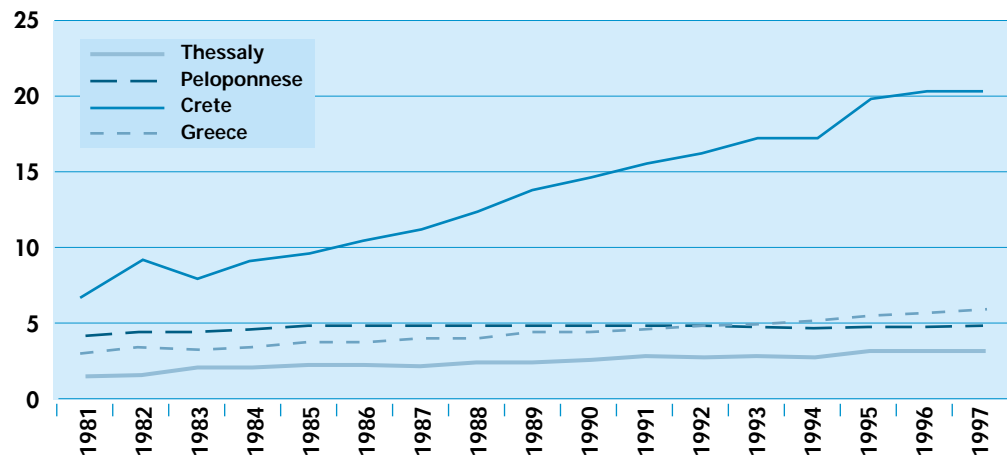
	Number of firms	Turnover (million GRD)	Turnover/firm (million GRD)	Turnover/1000 residents (million GRD)
<b>Industry and Construction</b>				
Thessaly	2,571	298,495	116.1	406
Peloponnese	1,594	184,446	115.7	278
Crete	2,305	205,808	89.3	375
Greece	51,190	10,720,410	209.4	1026
<b>Trade and Services</b>				
Thessaly	2,821	112,989	40.0	153
Peloponnese	2,424	82,050	33.9	125
Crete	3,609	285,024	79.0	518
Greece	49,913	6,947,398	139.2	667

Source: National Statistical Service of Greece, Regional Statistics

*Crete presents the best available - although far from ideal - example of a regionally integrated economy.*

The other two sectors in Crete either serve local demand, or feed the tourist industry with local inputs. Thus, Crete presents the best available - although far from ideal - example of forward and backward linkages among sectors and the best available example of a regionally integrated economy.

**Figure 5.** Hotel capacity: Number of beds per 100 inhabitants.



## 5. Regional policies in Greece

What was the impact of regional policy on these outcomes? After sketching the institutional framework in Greece, we discuss the application of investment support schemes, the effectiveness of EU programmes, and the impact of public investment.

### 5.1 The institutional framework

Historically, Greece has been characterised by a highly centralised system of public administration. All important decisions about the allocation of funds and the provision of regional infrastructure have been made centrally by the national government in Athens.

Regional administration (at the NUTS II level) did not exist prior to the mid-1980s. The heads of the regional administration units are appointed by the national government, while the regional councils mainly advisory bodies are made up of local public officials, such as prefects, mayors and representatives of professional organisations. Despite local participation, regional administration is not really an autonomous layer of government, but rather a branch of the central government administration, with a specific mission related to EU programmes.

Prefectural Administration (the NUTS III level, *nomoi*) was until 1994 also a branch of the central administration, with Prefects appointed by the government. Since 1994, the prefect and the prefectural council are elected in local elections, and in that sense they do comprise a new form of local government. This institutional change should be seen as a positive development towards governmental decentralisation. However, many unresolved issues, including the division of responsibilities and above all intergovernmental fiscal relations, generate tensions among the different levels of public administration and limit the potential contribution of local administration to promotion of local and regional development.



The bottom layer of administration are cities, towns and villages (NUTS V). This is the oldest form of local administration in Greece, with mayors and city councils being elected by their constituencies to administer the local provision of public services and infrastructure. This level is the most experienced and best funded. However, its ability to deal with local problems has been hampered, until recently, by the existence of numerous villages with very small populations ranging from 100 to 500 residents. Problems of fragmentation and ineffectiveness of the lower level administration have been addressed by recent legislation (the Kapodistrias Project), that imposed compulsory consolidation of small municipalities (in close proximity to one another) into larger administrative units. This was met, of course, by fierce opposition.

*The organisation of public administration has hampered the effectiveness of regional policy.*

In sum, certain aspects of public administration hamper the effectiveness of regional policy. First, despite recent efforts to decentralise, the lower levels of administration are either appointed by the central government, or are dependent on it financially. Second, local government is both under-funded and highly fragmented. Even if many problems, such as funding and jurisdictional and legislative conflicts, had been addressed, public administration would still not be very effective, as it lacks sufficient scale to ensure efficient provision of public goods and to implement local development policies. Moreover, in prefectures that contain large urban centres, there is no clear division of jurisdiction between the mayor and the prefect. Because of these problems, there is growing support in favour of administrative reform, which should reduce the number of administrative units at both the NUTS II and NUTS III level. More specifically, it is argued that the number of prefectures should be reduced to about 30 (from 51, at present) and the number of Regions should be reduced to about 6-7 (from 13, at present).

Despite these problems, Greece has, during in the 1990s, launched a number of important regional initiatives aiming at mobilising local resources and fostering growth. Several prefectures, regions, or even municipalities designed development plans intended to draw on local strengths and to address the restructuring of their local economic base. Of course, several of these plans were rather naïve, and lacked realistic objectives and clear policy instruments. Nonetheless, the fact that local initiative was mobilised to a fairly large extent and in a far more organised manner than ever before augurs well for the future.

## **5.2 Regional investment incentives**

A main avenue of support for lagging regions has come through subsidies for new private investment. The framework for public assistance to business investment in Greece is currently provided by Law 2601/98 of 1998, though similar legislation was first passed in 1982 (2). The assistance provided includes grants, loans, interest subsidies and tax allowances. The country is divided in four support zones, designated by A to D, and each prefecture is assigned to one of these zones. Zone A includes Athens and Thessaloniki. Here firms receive practically no support. Assistance increases from Zone B to Zone D.

There are a number of other eligibility criteria in addition to location. Investment projects qualify if they exceed a minimum size, take place in particular sectors of the economy (initially industry and mechanised agriculture, but in the latest legislation services and trade were also included), and satisfy certain conditions in terms of production processes adopted (new technologies, environmental protection, etc.) and of new employment created.

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2) I.e. Law 1262/82 of 1982 which was subsequently amended by Law 1892/90 of 1990.

Several papers have attempted to examine the impact of investment incentives on regional development. Petrakos *et al.*, (1993) show that regional investment incentives constitute the least important factor in attracting investment and increasing employment, while Petrakos and Tsoukalas (1997) conclude that incentives can be effective in attracting investment only in combination with the special facilities provided by designated "Industrial Areas." Georgiou (1991) argues that the influence of incentives on the redistribution of investment in favour of the most heavily favoured areas was probably not decisive. Petrakos and Saratsis (1999) reached similar results, as they found no evidence that higher regional investment incentives lead to higher growth rates of GDP per capita. In fact, the failure of regional investment incentives to promote development in favoured regions is apparent as the regions most favoured by the incentives continue to be the least developed ones, nearly 20 years after the introduction of the first comprehensive investment law (Law 1262/82). Even if the incentives do contribute to the creation of new jobs in those regions, as reported by Vagionis and Spence (1994), it is by no means certain that this will lead to faster economic growth.

Table 6 presents the classification of the prefectures of Thessaly, Peloponnese and Crete according to investment support zones they belong to, and the assistance they receive for investment projects. This table shows that the most favoured region is Peloponnese, which has most prefectures in the highly subsidised Zones C and D. The least favoured region is Thessaly, which has two of its prefectures (though counting for more than 60% of the population) in Zone B. Crete is between the other two.

**Table 6.** Classification of the prefectures of Crete (CR), Peloponnese (PE) and Thessaly (TH), according to investment incentives zones

Zone	Period 1983-90 Law 1262/82		Period 1990-98 Law 1892/90	
	Rate of subsidy	Prefectures	Rate of subsidy	Prefectures
A	0	-	0	
B	10-25%	Magnesia (TH) Larisa (TH) Iraklio (CR) Korinthias (PE)	15%	Magnesia (TH)* Larisa (TH)**
C	15-40%	Trikala (TH) Karditsa (TH) Chanion (CR) Rethimnou (CR) Lasithiou (CR) Lakonias (PE) Argolidos (PE) Arkadias (PE)	25%	Part of Larisa (TH) Trikala (TH) Karditsa (TH)** Chanion (CR) Rethimnou (CR) Lasithiou (CR) Lakonias (PE) Argolidos (PE) Arkadias (PE)**
D	20-50%	Mesinias (PE)	35%	Mesinias (PE) Part of Karditsa (TH) Part of Arkadia (PE)

\* Except for a small part in zone C.

\*\* Except for a small part in zone D.

\* Partly characterised as industrially declining regions after 1996 and receiving further support (zone D)

Source: Ministry of National Economy, Greece

Tables 7 and 8 present the resulting sectoral and regional distribution of private investment projects that have received assistance. During the period from 1982 to 1990 (Law 1262/82), Crete was the recipient of 13% of total investment at the national level, while Thessaly and Peloponnese have received about 5-6% (Table 7). Investment activity in Crete was heavily concentrated in the tertiary sector of the economy (tourism), accounting for 21% of the total investment made in this sector. Crete also attracts investment projects that are larger than the national average and nearly double in size than those in Thessaly and Peloponnese.

The picture in the second period 1990 to 1995 (Law 1892/90) differs from that in the first in several important ways (see Table 8). First, Thessaly received a higher share of total investment than Crete, though Peloponnese is still last in the list. Second, we see that Crete now focuses more on industry than services. Third, Thessaly has managed to attract relatively larger investment projects than the other two regions, especially in industry and agriculture. The industrial decline that hit Thessaly in the late 1980s and early 1990s generated pressures for restructuring, which have apparently been facilitated by the investment incentive laws and especially their provisions for special assistance to industrially declining regions.

*It is clear that the investment incentives have not succeeded in directing more, or larger projects to Peloponnese, which is the region furthest behind.*

**Table 7.** Distribution of private investments, 1982-90 (Law 1262/82), percentages

Investments (regional shares)				
Sector	Primary	Secondary	Tertiary	Total
Greece	100	100	100	100
Crete	5	6	21	13
Peloponnese	8	7	3	5
Thessaly	13	7	5	6
Investments (sectoral shares)				
Sector	Primary	Secondary	Tertiary	Total
Greece	8	46	46	100
Crete	3	22	75	100
Peloponnese	13	62	25	100
Thessaly	16	51	33	100
Average size of investments (Greece=100)				
Sector	Primary	Secondary	Tertiary	Total
Greece	100	100	100	100
Crete	97	52	122	108
Peloponnese	100	75	59	64
Thessaly	64	90	64	64

Source: Ministry of National Economy, Greece

**Table 8.** Distribution of private investments, 1990-95 (Law 1892/90), percentages

Investments (regional shares)				
Sector	Primary	Secondary	Tertiary	Total
Greece	100	100	100	100
Crete	5	4	14	6
Peloponnese	6	4	4	4
Thessaly	9	7	3	6
Investments (sectoral shares)				
Sector	Primary	Secondary	Tertiary	Total
Greece	3	78	19	100
Crete	3	51	46	100
Peloponnese	5	76	19	100
Thessaly	5	86	10	100
Average size of investments (Greece=100)				
Sector	Primary	Secondary	Tertiary	Total
Greece	100	100	100	100
Crete	134	68	114	86
Peloponnese	67	63	103	67
Thessaly	130	151	48	122

Source: Ministry of National Economy, Greece

Overall, Crete and Thessaly have attracted larger amounts of private investment than Peloponnese. Crete is preferred by services, although a recent shift in favour of manufacturing is evident. Thessaly is preferred by industry and especially larger-scale industry. It is clear that the structure of investment incentives has not succeeded in directing more, nor larger, projects to Peloponnese, which is the region furthest behind.

*FDI has tended to concentrate primarily in the Athens and Thessaloniki regions.*

Foreign direct investment (FDI) is often thought to play a particular role in economic growth, particularly when there is scope for technological “catch-up”. Unfortunately, there are only a few studies of the regional distribution of FDI in Greece. Papandos (1999) has compiled data from the Ministry of National Economy (MNE) for the period 1988-1991. This is shown in Table 9. During the 1988-1991 period, the bulk of FDI went to Zone A, which includes the Attiki and Thessaloniki prefectures (and where there is no special assistance under the investment incentives legislation). The regions of Thessaly, Peloponnese and Crete received less than 1% of FDI each. This distribution is largely explained by the sectoral distribution of FDI, which includes mostly services (such as banking and insurance) or trade.

**Table 9.** Distribution of inward FDI flows to investment zones, 1988-91

Year	Zone			
	A	B	C	D
1988	92%	5%	3%	-
1989	58%	20%	22%	-
1990	78%	22%	-	-
1991	87%	13%	-	-

Source: Papandros (1999), MNE (1994) and own calculation.

Unfortunately, the MNE has not collected information on the spatial distribution of FDI since 1991. The only data available now are from the Hellenic Centre for International Investment (ELKEDE, a newly established public service to foreign investors interested in Greece) and these only include projects in which the Centre itself had an active involvement. This data shows the border region of Thrace (a special border zone with higher incentives than even Zone D) has attracted considerable investment activity in the last few years. However, this must be interpreted with caution since the investment projects reported by ELKEDE do not include investments by some large investors (especially in the banking sector), who obviously feel they do not need assistance in deciding where to invest (3).

Overall, the data indicate that FDI (and especially projects attracted by the tertiary sector of the economy which are the majority) have tended to concentrate primarily in the Athens and Thessaloniki regions. They also indicate that the particularly favourable financial incentives granted to the region of Thrace may have started to pay off, by attracting some international investment activity in industry, perhaps also because of the opening up of Greece's northern borders. In any case, the regions of Thessaly, Peloponnese and Crete do not seem to benefit significantly from FDI. Apparently, FDI is mainly associated with the tertiary sector (services, banking, insurance, trade) which enjoys significant economies of agglomeration

### 5.3 Infrastructure

Funding from the central government also comes for public works. This is done via the Programme of Public Investment (PPI). Although PPI funds are supposedly allocated to regions according to "objective criteria," such as population or level of development, Crete has benefited to a greater extent. In 1995, Crete received GRD 79 million per 1 000 inhabitants, 44% more than Thessaly, and almost double the figure for Peloponnese. A similar discrepancy can be seen over a number of years.

*The evidence does not point to an impressive regional impact from infrastructure investment.*

It is often argued that infrastructure constitutes a necessary precondition for regional development. However, the evidence does not point to an impressive regional impact from infrastructure investment. Vickerman *et al.*, (1999), for example, observe that regional development policies aimed at creation of infrastructure in lagging regions have not been very successful in reducing regional disparities in Europe. A number of attempts have been made to evaluate regional

3) For example, the magnitude of the annual FDI inflow in the 1988-91 period as reported by MNE is around GRD 140 billion, while the annual sums in the 1996-1998 period reported by ELKEDE is only around GRD 30 billion.

infrastructure policies in Greece. Several papers (e.g. MNE, 1993, and Petrakos *et al.*, (1993) report evidence that better infrastructure is associated with higher levels of development. Petrakos and Saratsis (1999), however, investigated the impact of the initial level of regional transport infrastructure on the rate of growth of GDP per capita and found no significant effect. These seemingly contradictory results may be because the existence of good infrastructure is associated with higher levels of development, but it does not ensure further improvement, since this depends on additional economic and structural factors.

We have already noted that a critical factor for Crete was the establishment of effective transportation links to overcome its geographic isolation. In particular, the building of the two international airports permitted the development of the international tourist industry. On the other hand, the existence an airport in the southern part Peloponnese with regular flights to Athens has not so far worked out as a major transport link.

#### 5.4 EU programmes

*A number of large EU-funded infrastructure projects are under way -it is not clear whether they will eventually have favourable impacts on all of the regional economies involved.*

The support from the EU has also been substantial. For example, from 1989 to 1993 the EU's First Community Support Framework (CSF I) spent ECU 1.9 billion in Greece, or some 2.7% of Greek GDP. The Second Community Support Framework (CSF II) for the following six year (1994-99) was some ECU 3.0 billion or 3.7% of Greek GDP.

Table 10 gives the allocation of funds under the CSF II to the three regions under examination. It shows each region receiving from ECU 730 to ECU 810 per head. The regions have exhibited a different mix of priorities in development policies, but there is generally a significant role for infrastructure, human development, and tourism.

**Table 10.** The allocation of CSF II Funds to Crete, Peloponnese and Thessaly, 1994-99

	Crete	Peloponnese	Thessaly
Share of national population	5.2%	5.9%	7.1%
Share of regional CSF II funds	6.0%	6.7%	8.5%
Total funds for the 1994-99 period, ECU	435 300	440 300	560 900
Funds per head, ECU	810	727	767
Allocation of funds, percentage:			
Rural development	13.0%	9.1%	17.1%
Infrastructure	23.2%	11.9%	16.6%
Industry	4.9%	0.6%	3.6%
Human resources	23.3%	17.9%	19.4%
Urban development	0.4%	2.0%	1.4%
Investment	-	16.2%	11.1%
Support of SMEs	5.7%	0.5%	0.3%
Environment	9.8%	6.3%	8.2%
Local Development	6.6%	13.8%	15.7%
Tourism	12.2%	20.6%	6.5%
Total	100.0%	100.0%	100.0%

Source: Community Support Framework of Greece (1994-1999).

Note, however, that only 30% funds for this period (1994-99) were allocated directly to the 13 Greek regions. The remaining 70% were allocated via multi-sectoral national-level programmes that included some very large projects. In several cases (notably the Athens Metro), these have favoured Athens. A number of other large transport projects under way are likely to have impacts on the three case study regions. They will improve the accessibility of central and southern Peloponnese to Athens and to the rest of Greece, and the accessibility of (mainly western) Thessaly to Athens and Thessaloniki. Although these projects are expected to contribute to the national economy, it is not clear whether they will eventually have favourable impacts on all of the regional economies involved. Indeed, adverse effects are also possible. Improved transportation networks linking large urban centres may intensify disparities, as it will be easier for producers in centrally located regions to invade peripheral markets previously protected by remoteness.

There is by now a growing body of information on the effectiveness of these programmes. For example, the implementation of the CSF I has been analysed by Economou (1997), Bougas (1994), Lyberaki (1996), and others. The CSF I was associated with a lower than desired impact on GDP growth in Greece, and registered, in fact, the lowest impact among all EU countries with comparable development problems and programmes. While the impact of CSF I on the annual GDP growth rates of Spain, Portugal and Ireland has been estimated by the European Commission at 0.7%, 1.0% and 0.7%, respectively, for Greece it is only 0.3%. These differences are despite the fact that the EU contributions for Greece were comparable to those for Portugal (where it was 3.1% of GDP), and greater than those for Spain (0.8% of GDP).

Factors that might explain the failure of CSF I to have a substantial impact include the fact that the CSF "Regional Operational Programmes" were actually not much more than lists of unrelated programs selected by a clientist political process. Second, they were dominated by small projects. Such fragmentation satisfied political needs or popular demand, but had only marginal economic effects. Third, several of the projects had small budgets and remained incomplete after the end of the Programme, thus having minor impact. "Soft" initiatives, networks, innovative actions and supportive services that encourage synergies were also largely absent<sup>5</sup>. Another important issue is often the lack of clear policy objectives at the regional level.

*The Greek experience provides ample support for the notion that planning for development at the regional level depends critically on the quality of regional and local administration.*

Crete has reportedly designed its CSF Regional Operational Programmes in a relatively more effective and coherent way than Thessaly, while those of the Peloponnese have been criticised as being vague and lacking specific goals (KEPE, 1997). At the implementation level, a recent report (EC, 1999c) suggests that Crete and Thessaly are among the regions that have done best in this connection (along with Attiki), while Peloponnese is experiencing delays in some parts of its programmes. The Greek experience provides ample support for the notion that planning for development at the regional level depends critically on the quality of planning know-how and on the quality of human resources, that are employed by regional and local administration and are engaged in the planning process.

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<sup>4</sup>) To be fair, there is ample scope for learning-by-doing and catching-up in the implementation of the CSFs in Greece. CSF II is estimated by the European Commission to have a significantly higher impact on GDP growth (~1%) than CSF I (~0.3%) and a better internal structure. Unfortunately, its impact on regional disparities in Greece has not been discerned yet.

## 6. Conclusions

This paper has established a baseline of information for understanding the economic performance of the regions of Greece. We have stayed away from factors that go beyond economics and geography broadly construed. Perhaps, as we are about to conclude, it is appropriate to venture briefly into history. Crete, Peloponnese and Thessaly, the three regions that the paper has focused on, do have regional identities of their own that go back in history. Peloponnese is one of the founding regions of the modern Greek State, Thessaly joined Greece fifty years later in 1878, and Crete joined Greece in the early 1900s. They are not mere administrative subdivisions.

The literature we have reviewed has identified a number of factors in operation that have influenced the prospects of Greece for balanced regional development. A first finding points towards a possibly adverse impact of European integration on the regional industrial base of Greece. This has become apparent in regions with concentrations of larger (by Greek standards) industrial enterprises. The case of Thessaly, and other regions, which have experienced de-industrialisation in recent years, suggest that the process of economic integration might have had pronounced effects upon the regional concentration of manufacturing activity. Although similar tendencies are also apparent in Attiki and to some extent in Thessaloniki as well, the rapid increase of the tertiary sector of those two metropolitan areas has helped offset possible impact on employment, which was not the case in at least some of the other regions.

A second finding concerns the dependence of regional inequality on the business cycle. This finding explains at least part of regional convergence patterns during a decade of recession in the Greek economy. It also implies that economic recovery begins mainly in the major centres of economic activity and does not diffuse automatically to the periphery. This generates a policy problem that is hard to tackle, as the efforts aiming at national convergence to EU-average levels may be accompanied by undesirable increases in disparities among the regions of the country.

A third finding concerns the characteristics of those regions which have done relatively better. The evidence shows that a critical share of manufacturing, presence of capital intensive enterprises and of high quality human resources, and the development of tourism, are factors conducive to regional growth in Greece.

While these findings apply generally, our specific analysis of the characteristics of Crete, Peloponnese and Thessaly have revealed a number of additional factors that have contributed to differences in performance among the three regions. Initial conditions with respect to geography and climate may have lasting effects on the structural characteristics. This is in agreement with the notion, recently reaffirmed by the theories of new economic geography, that regional economic development is a path-dependent process.

The analysis has raised an interesting issue with respect to the role of geography in economic development. Although distance from the major world markets is always a disadvantage, proximity can be considered an advantage only under specific conditions. That is, by applying the results of Krugman and Venables (1995) in a regional context, we can argue that proximity to large markets (or metropolitan regions) facilitates growth only if differences in development levels and structures are not too pronounced. Otherwise, it leads to a penetration of product markets by the more



dynamic enterprises of the more advanced region. These differences may explain why Peloponnese has failed to take advantage of its proximity to Athens, but Athens has taken advantage of its proximity to Peloponnese. It appears that distance from Athens has enabled Thessaly and Crete to offset the “curse” of proximity to the metropolis and to develop minimum urban infrastructure.

Lack of spatial and sectoral integration of the economy at the regional and national levels appears also to be hampering performance. As noted before, the process of economic growth has been known, in general, to be associated with increasing regional disparities, because linkages between the metropolis and periphery are poorly developed. Finally, policies (or the lack of policies) have played a role. The success of Crete in overcoming geographical isolation, by developing effective transportation and by taking advantage of its potential in tourism is a noteworthy lesson. The failure of Peloponnese to fully exploit its historical heritage as a tourism resource is at least in part due to poorly designed or implemented policies.

Table 11 illustrates these points in a qualitative fashion, with a ranking of the three regions on a relative scale of 1 to 3 with respect to a number of factors that include initial conditions, market processes and policies. Although this scoring method is rather crude, and alternative rankings (such as including different factors or assigning special weights to the most important of them) would affect results, the relative ranking is telling. Peloponnese rarely receives the top ranking (three stars) and Crete rarely receives the bottom ranking (one star). Thessaly is in an in-between position, often nearer the top rather than the bottom of the scale.

**Table 11.** Factors influencing the performance of the regions

Factors Influencing performance	Relative Rating		
	Thessaly	Peloponnese	Crete
<b>“Economic variables &amp; initial conditions”</b>			
Agricultural development (traditional/extensive versus mechanised/intensive)	***	*	**
Local processing of agricultural products (forward linkages to industry)	**	*	***
Industrial development (small-scale versus large-scale)	***	**	*
Services (development of tourism)	*	**	***
Overall structure, and degree of regional integration of activities	**	*	***
Urbanisation	***	*	**
Location & accessibility to Athens	**	***	*
<b>“Policy variables”</b>			
Investment support for the private sector	**	***	*
Strategic transport links	*	**	***
Public investment	**	*	***
Demonstrated capacity to effectively implement development programmes (e.g. CSF)	**	*	***
*** Highest relative rating	* Lowest relative rating		

*Regional policy must be sensitive to the needs and special circumstances of regions. It will probably not succeed unless current administrative structures are reformed.*

Regional policies implemented the last two decades have not succeeded in reversing the highly concentrated pattern of spatial development in Greece. Yet, despite - or because of - all these conditions, the role of regional policy in Greece is today as important as ever. Perhaps, we have learned three lessons from the Greek experience. First, regional spending must be sensitive to the needs and special circumstances of regions. Second, regional policy must enhance the capabilities of local governments and civic organisations to exercise initiative. And third, regional policy will probably not succeed unless governmental administrative structures of Greece are reformed, by the design of more efficient administrative units and by the improvement of the human resources available to local and regional administration. This should have major consequences for the design and implementation of future Regional Programmes.

Addressing the broader questions associated with regional policy requires a better understanding of the behaviour of individuals and firms and their responses to policy variables. Thisse (2000) argues persuasively that the design of regional policy must account creatively for the underlying economic fundamentals that are responsible for perceived "regional imbalances." In a second best world, some regional imbalances are inevitable, and others are desirable. In addition to the problems we have already identified, the design of regional policy in the Greek context would be facilitated by a better understanding of these macroeconomic foundations. However, such analyses have yet to be conducted.

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