AN ASSESSMENT OF THE COMMUNITY SUPPORT FRAMEWORK (CSF) FUNDING TOWARDS THE TOURIST SECTOR: THE CASE OF GREECE

LIARGOVAS, Panagiotis^{*} GIANNIAS, Dimitrios KOSTANDOPOULOS, Chryssa

Abstract

The main purpose of this paper is to construct indices of tourist development in the case of 51 prefectures (*nomoi*, NUTS III regions) of Greece and use them for the evaluation of tourist-regional policy. The paper is based on the development of a composite Regional Tourist Development Index that takes into account all aspects of tourist consumption. Our analysis shows that regions with relatively higher tourist development indices received relatively more funds from the Community Support Framework, compared to regions with lower tourist development indices. This finding is in contrast with the European cohesion policy, which aims at convergence between different member states and regions.

JEL classification: R58, R29, R1

Key words: cohesion policy, CSF, tourist development index

1. Introduction

Scientists, policy makers and ordinary people use indices as tools for the assessment of specific situations. Cold or heat, for example, are assessed by looking at the temperature. In economics, we often use indices to assess various characteristics of individuals' economic life. Indices are necessary when the volume of economic, social and natural data is huge. They are designed to simplify (Giannias(1999) p.401-02). In the process of simplification, of course, some information

^{*} Panagiotis Liargovas is Associate Professor at the Department of Economics of the University of Peloponnese (Greece), e-mail: <u>liargova@uop.g</u>, Dimitrios Giannias is Professor at the Department of Economics of the University of Thessaly. Chryssa Konstandopoulos is a graduate of Hellenic Open University and Ph.D candidate at the University of Peloponnese, Dep of Economics.

might be lost. Other problems include lack of appropriate data, overaggregation of too many things resulting in an unclear meaning and certain degree of subjectivity, especially in qualitative indices.¹ Subjectivity enters in two fields: firstly, as regards the choice of representative indices and secondly on the evaluation of the indices results. Any researcher, as an individual who has to choose indices, might have limited knowledge and certain scientific and social background and therefore certain degree of subjectivity is inevitable.²

However, indices represent useful tool which offers а reproducibility and comparability of the results. If indices are based on a coherent methodology they can be used to make comparisons over time and across space, find correlations, monitor changes and trends and asses measures and policy choices.³ Representative indices used in the economic bibliography are: (a) indices of Quality of Life [Hope & Parker (1990, 1995), Hope et al (1991, 1992), Giannias (1996,1997,1998), Roback (1982, 1988), Blomquist et al (1988) and Gyourko & Tracy (1991) kat Royela & Suriñach (2005)] (b) Indices of Competitiveness (International Institute for Management and Development-World Competitiveness Yearbook, World Economic Forum-Global Competitiveness Report) and (c) Indices of Tourist Development [WTO (1993, 1996), Farsari & Prastakos (2002), Giannias (1999)].

Tourism represents one of the main elements of quality of life. It is therefore natural to use tourist indices for the assessment of tourist life. Examples of traditional tourist indices are the number of nights spent in a region/hotel, number of beds available to visitors at hotels, tourist arrivals, etc. The main characteristic of all these indices is that they are quantitative and they do not include aspects from the natural environment and the natural resources.

¹ See Meadows (1998), pp.33-34. ² See Bossel (1999) pp.12-13.

³ Such indices have been used by Ott, (1978), OECD (1993), UN (1999) and World Bank (1997).

The above weakness is filled by sustainable tourist development indices. The term "sustainable tourist development" refers to the quantitative and qualitative development of a region within an economic as well as environmental and socio-cultural framework. Unlike with traditional tourist indicators, sustainable tourism indicators aim at including all environmental and socio-cultural parameters as well as their interrelations within the framework which is determined by the principles of sustainable development. Current research on sustainable tourism indicators (WTO 1993, 1996) is concentrated on definition/estimation of indices for new tourist destinations, that is for regions which have a tourist development.

The next section of this paper offers a theoretical framework which justifies the use of a tourist development index, whereas section 3 empirically estimates such an index. Section 4 discusses national and EU policies in favour of tourist sector in Greece. Section 5 uses the index in order to reach conclusions whether the Community Support Framework (CSF) supports the process of regional integration by directing the available funding to the regions with lower tourist development standards, while the last section offers some concluding remarks.

2. Theoretical framework for tourist development index and interpretation.

Consumer theory offers the theoretical framework for the construction and interpretation of a tourist development index. We consider tourists as consumers which form utility maps, face budget constraints and maximize their utility. We assume that they visit well defined homogeneous regions, have identical tastes, and choose locations for their staying such that they could not be made better off by relocating. Finally, we assume that their decision to visit a region is exogenous. Suppose, now, that a tourist has to make a choice between two goods, *vacation* and a composite good *X*. *Vacation* is taking place in various regions which are described by a bundle of characteristics $x_{1i}, x_{2i}, x_{3i}, ..., x_{Ni}$, where x_{ki} is the k characteristic of region i, k=1,2,...N, and N is the number of characteristics. These characteristics are incorporated in the Regional Tourist Development

Index (RTDI). The index does not have the same value, to all touristconsumers because their preferences are not identical. Therefore, the RTDI for a consumer j and a region i can be expressed as following : $RTDI_{ji} = f_j$ (x_{1i}, x_{2i}, x_{3i}, ..., x_{Ni}).

Tourists are also assumed to consume the numeraire good, X, which is a composite good with a price that is equal to one. Therefore, a tourist's total income is spent on two goods: vacation and the numeraire good.

The price of the good "vacation" depends on the number of days spent on vacation and the characteristics of the region, which are reflected in the RTD index: $P_{Vj} = f(D, RTDI_{ji})$, where D is the number of days spent on vacation. Therefore, the price (that is the cost of vacation) is a linear function of the days spent in a specific region i.

Based on the above, the budget constraint that a tourist j faces, can be expressed as following:

 $I_j = V_i PV_j + XPX$ where $PV_j = f(D, RTDI_{ji})$ and PX=1, or: $I_j = Vi PV_j + X$

A tourist j is assumed to solve the following maximization problem: $max U_j(V,X)$ or $max U_j(D, RTDI_{ji},X)$ with respect to: D, $RTDI_{ji},X$ subject to: $I = V_i PV_j + X$

Let $RTDI_{jj}^{*}$, D^{*} , and X^{*} be the solutions to the above utility maximisation problem specifying, respectively, the site within a region consumer j will visit, $RTDI_{jj}^{*}$, the number of days she will stay, D^{*} , and how much of the numeraire good she will be able to consume, X^{*} . As a result of it, the cost of his vacation is: $P_{j}^{*} = P_{j}(D^{*}, RTDI_{jj}^{*}) = R_{j}^{*}$ D^{*} , where $R_{j}^{*} = R_{j}(RTDI_{jj}^{*})$.⁴

 $^{^4}$ Giannias (1999, pp. 403-406), expressed the same problem in terms of an indirect utility function $V_i(.)$

Based on the above, we conclude that for a tourist a ranking of regions based on the maximum utility is equivalent to a ranking of regions based on the values of the regional tourist development index, $RTDI_{ii}$.

Therefore, by applying the above theory, the index can be transformed as following:

$$RTDI_{ji} = \sum_{k=1}^{N} (w_{kj} x_{ki}) / \sum_{k=1}^{N} (w_{kj})$$
 for $i = 1, 2, 3, ..., m$

where x_{ki} is the k characteristic of region i, w_{kj} is the weight of the variable k of a tourist j, N is the number of characteristics and m is the number of regions under consideration. The weights, w_{kj} , are not necessarily the same for different consumers, since individuals may put a different value and perceive in a different way the various regional variables. That is, the regional tourism industry index of a region i will depend on whose weights are used to compute it; for example, if in the above formula the weights of a consumer j are used, RTDI_{ji} is the regional tourism industry index value that consumer j would assign to region i in case she visited it for her vacation. In general, the weights can take any value. For example, they can be all equal to 1/N or be assigned a-theoretically using principal component or survey results.

3. Empirical estimation of the Tourist Development Index

In this paper we construct a tourist development index for 51 Greek prefectures (*nomoi*), which takes into consideration aspects that affect tourist demand. The index takes the following form:

$$RTII_{kj} = \sum_{k=1}^{34} (W_{kj} X_{ki}) \sum_{k=1}^{34} W_{kj}$$

for i=1,2...51, where x_{ki} is the kth characteristic of region i, w_{kj} is the weight of the characteristic k of a tourist j. We focus on 34 characteristics in each region. These characteristics can be classified in seven categories:

- 1) Natural characteristics: Y_{1j} = average temperature in July (in Celsius, 2005), Y_{2j} = amount of rain in July (mm, 2005), Y_{3j} = number of national parks (2004), Y_{4j} = number of sea parks (2004), Y_{5j} = number of wetlands protected by Ramsar Convention (2004), Y_{6j} = number of protected areas (under the European network Natura, 2004), Y_{7j} = number of marines that received a blue flag (2005), Y_{8j} = number of beaches that received a blue flag (2005).
- 2) Urban characteristics: Y9j= population density, (residents per sq Km. 2004), $Y_{10j}=$ Urban population in total population (2004).
- 3) Cultural characteristics: Y_{11j} = number of museums (2005), Y12j= number of ancient and Byzantine monuments (2005), Y_{13j} = number of modern monuments (2005).
- 4) Transport and Telecommunication infrastructure: Y_{14j} = number of state international air ports (2004), Y_{15j} = number of state domestic air ports (2004), Y_{16j} = number of city airports (2004) Y_{17j} = number of ports (2004), Y_{18j} = number of taxis per 1000 inhabitants (2004), Y_{19j} = number of buses per 1000 inhabitants (2004), Y_{20j} = number of traffic accidents per 1000 inhabitants (2004), Y_{21j} = number of main telephone lines per 1000 inhabitants (2004).
- 5) Health infrastructure: Y_{22j} = number of beds per 1000 inhabitants (2004), Y_{23j} = number of medical doctors per 100 inhabitants (2004), Y_{24j} = number of dentists per 1000 inhabitants (2004), Y_{25j} =number of pharmacies per 1000 inhabitants (2004).
- 6) Tourist infrastructure: Y_{26j} = number of beds in hotels per 1000 inhabitants (2004) Y_{27j} = number of beds in four star hotels per 1000 inhabitants (2004) Y_{28j} = number of hotels per 1000 inhabitants (2004) Y_{29j} = number of nights spent in hotels by foreign visitors per inhabitant (2004) Y_{30j} = number of nights spent in hotels by domestic visitors per inhabitant (2004).
- Socioeconomic characteristics: Y_{31j}= Gross domestic product per capita (in €, 2004), Y_{32j}= Unemployed persons per 1000 inhabitants (2004), Y_{33j}= number of high school pupils per 1000 inhabitants (2004), Y_{34j}= number of elementary pupils per 1000 inhabitants (2004).

A tourist development index that takes into consideration all the above aspects of tourist demand could be taken to be equal to the mean of these variables. However, a mean cannot be computed directly, because of differences in the units of measurement of the above variables. Therefore, these variables need to be scaled before a mean is computed. To be more specific, the above variables for each region are scaled from 0 to 100 using the following transformations:

1)
$$y_{ij}^* = 100 (Y_{ij} - Y_{ijmin})/(Y_{ijmax} - Y_{ijmin})$$

where, y_{ij}^{*} is the transformed variable, Y_{ijmin} is the minimum value of Y_{ij} , and Y_{ijmax} is the maximum value, for i = 1, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17, 18, 19, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 33, 34 that is, for all variables that have a positive relationship with tourist development and for all j, and

2)
$$y_{ij}^* = 100 - [100 (Y_{ij} - Y_{ijmin})/(Y_{ijmax} - Y_{ijmin})]$$

where, y_{ij}^{*} is the transformed variable, Y_{ijmin} is the minimum value of Y_{ij} , and Y_{ijmax} is the maximum value, for i = 2, 9, 10, 20, 32 that is, for all variables that have a negative relationship with tourist development and for all j.

The weights of the scaled variables y_{ij}^* were based on a questionnaire during the period 26 April and 10 May 2006. In this questionnaire, 50 tourists of various nationalities and ages were asked to value on a 0-100 scale (multiple of 5) the importance of each one of the above 34 variables. The average weights for each variable were used to compute the index.

Table 1 presents the weights of each variable, while Table 2 presents the distribution of tourists according to nationality and age.

Variable	Weight	Variable	Weight	Variable	Weight
Y_{lj}	75	Y_{13j}	85	Y_{25j}	70
Y_{2j}	60	Y_{14j}	50	Y_{26j}	50
Y_{3j}	80	Y_{15j}	85	Y_{27j}	40
Y_{4j}	80	Y_{16j}	45	Y_{28j}	40
Y_{5j}	60	Y_{17j}	65	Y_{29j}	30
Y_{6j}	60	Y_{18j}	20	Y_{30j}	80
Y_{7j}	85	Y_{19j}	45	Y_{31j}	45
Y_{8j}	85	Y_{20j}	50	Y_{32j}	35
Y_{9j}	75	Y_{2lj}	45	Y_{33j}	35
Y_{10j}	60	Y_{22j}	65	Y_{34j}	70
Y_{IIj}	55	Y_{23j}	85		
\overline{Y}_{12i}	85	Y_{24i}	85		

Table 1.Weights based on each variable used

Note: Results of the questionnaire which took place between April 26 and 10 May 2006 at the International Airport of Athens.

	15-20	20-30	30-40	40-50	60+	Total
	yrs	yrs	yrs	yrs	yrs	
Greece	2	2	3	3	2	12
USA	0	0	0	2	3	5
GB	0	1	1	2	2	6
France	0	1	2	2	0	5
Germany	0	0	1	1	3	5
Cyprus	0	0	3	0	0	3
Spain	0	3	1	0	0	4
Czech R.	0	1	1	0	0	2
Hungary	0	1	0	0	0	1
Ireland	0	1	2	0	0	3
Belgium	0	0	1	0	0	1
Austria	0	0	0	0	2	2
Malta	0	1	0	0	0	1
Total	2	11	15	10	12	50

Table 2.	Distribution	of tourists	according	to age and	nationality

Note: Results of the questionnaire which took place between April 26 and 10 May 2006 at the International Airport of Athens.

Based on Tables 1 and 2 we make the following remarks: 1) Quality of the sea water and tourist infrastructure are the most important variables of tourist demand. On the other hand, socio-economic variables as well as telecommunications infrastructure appear to be the less important. 2) The high marking on variables such as number of beds per 1000 inhabitants or/and number of four star hotels per 1000 inhabitants combined with the high marking of natural environment and climate (e.g. number of national parks, number of sea parks, number of blue flags) is explained by the switch of demand from mass tourism towards specialized tourism. 3) Younger tourists are attracted to natural characteristics and more specifically to the quality of the sea (beach), whereas older tourists pay more attention to cultural characteristics and health infrastructure.

Table 3 presents the results of the estimations of RTDI. The first column shows the region, the second the value of the index and the third the relative ranking of region. According to the results, the first position is covered by Vioitia, followed by Korinthia, Dodekanese, Evrytania and Lasithi. Voitia and Korinthia do not surprise us because they both have a high score in GDP per capita, since these regions are close to Athens and a large number of industries are located there. The results for the rest of the regions are also expected, since these regions are traditionally considered as tourist attractions. Finally in the last position there are regions are: Xanthi, Serres, Rodopi, Drama, Ilia, and Arta. Our results are in line with those found in Giannias (1999), using different ample data, variables and geographical structures.

(accol and	s to the value of the mae	•)
NUTS III region	Value of RTII	Ranking
Voiotia	954.85	1
Korinhtia	583.45	2
Dodekanese	510.32	3
Evrytania	483.03	4
Lasithi	456.62	5
Thessaloniki	456.29	6
Lesvos	448.53	7

Table 3, Regional Tourist Development Index, RTDI (according to the value of the index)

Fokida	443.08	8
Cyclades	438.86	9
Halkidiki	438.44	10
Kozani	431.26	11
Attica	429.81	12
Fthiotida	411.06	13
Arcadia	408.19	14
Rethimno	404.18	15
Lefkada	404.07	16
Evoia	400.20	17
Chania	376.02	18
Iraklion	369.01	19
Florina	366.99	20
Grevena	364.84	21
Corfu	358.97	22
Kastoria	357.73	23
Kefalonia	356.51	24
Kilkis	345.33	25
Chios	343.40	26
Kavala	341.33	27
Magnisia	339.70	28
Ioannina	337.81	29
Samos	336.67	30
Larisa	336.42	31
Evros	335.25	32
Zakinthos	329.05	33
Achaia	325.19	34
Argolida	324.45	35
Imathia	322.48	36
Preveza	319.20	37
Lakonia	304.81	38
Thesprotia	297.92	39
Karditsa	297.84	40
Trikala	296.21	41
Pella	287.11	42
Aitoloakarnania	282.25	43
Pieria	282.22	44
Messinia	278.02	45
Xanthi	269.84	46

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Serres	268.08	47
Rothopi	254.23	48
Drama	249.00	49
Ilia	246.97	50
Arta	244.67	51

4. The CSF funding of the tourist sector in Greece

In an international environment that is growing ever more competitive, the future of tourism in Greece necessarily depends to a large degree on improving the quality of the sector's infrastructure and services and enriching and diversifying the product offered to tourists. These urgent priorities are the basic strands of Greece's (and EU's) tourist policies. Work to put these policies into practice has been financed in the past mainly with funding from the 1st 2nd Community Support Frameworks (1989-1993 and 1993-1999 respectively). More recently, the European Union supported the Greek tourist sector through the 3rd CSF (2000-06). Regarding the 3rd CSF, activities and funding relating to tourism have been incorporated into the Operational Programme "Competitiveness", the main features of which are encouragement of entrepreneurialism, innovation and quality, elements that are essential if Greek tourism is to become more competitive. More specifically, the main policy goals being implemented within the framework of "Competitiveness" are as follows:

• Improving the quality of services offered throughout all sectors associated with the tourist product and maintaining its quality levels.

• Enriching the make-up of the tourist product by creating an infrastructure and organising specialised products which will attract demand for alternative forms of tourism.

• Reducing the seasonality of tourism.

• Promoting the country as a tourist destination more effectively.

• Reorganising training programmes for those involved in the tourist industry.

Table 4 depicts per capita investment financing of CSF 3rd to the tourist sector in the 51 Greek prefectures during the period 2000-04, for which data was available. According to Table 4, CSF funding shows a high degree of concentration. More specifically, seven Greek

regions (Halkidiki, Zakinthos, Samos, Lasithi, Dodekanisos, Cyclades and Lefkada) absorbed 55.6% of total funding. The next 17 regions absorbed 36.1%. Finally, the majority of regions (27) absorbed only 8.3% of total funding.

Ranking	, , , , , , , , , , , , , , , , , , ,	Per capita CSF funding in	Per cent of
0	Region		total
1	Chalikidiki	1,000.62	14.0%
2	Zakinthos	700.65	9.8%
3	Samos	504.12	7.0%
4	Lasithi	500.05	7.0%
5	Dodekanese	486.05	6.8%
6	Cyclades	404.85	5.6%
7	Lefkada	388.60	5.4%
8	Kerkira	344.73	4.8%
9	Argolida	289.77	4.0%
10	Kefalonia	252.37	3.5%
11	Ilia	170.09	2.4%
12	Rethimno	159.30	2.2%
13	Chios	157.78	2.2%
14	Iraklion	147.20	2.1%
15	Preveza	142.82	2.0%
16	Chania	132.99	1.9%
17	Fthiotida	128.94	1.8%
18	Evoia	123.42	1.7%
19	Pieria	110.24	1.5%
20	Evrytania	95.66	1.3%
21	Messinia	89.85	1.3%
22	Lesvos	84.70	1.2%
23	Lakonia	79.49	1.1%
24	Kavala	79.10	1.1%
25	Arkadia	58.92	0.8%
26	Aitoloakarnania	57.94	0.8%
27	Thesprotia	50.02	0.7%
28	Fokida	48.73	0.7%
29	Trikala	48.10	0.7%
30	Achaia	47.06	0.7%
31	Kilkis	43.71	0.6%

Table 4.Per capita CSF funding to the tourist sector (2000-04) (ranking and as per cent of total)

32	Magnisia	42.89	0.6%
33	Korinthia	32.69	0.5%
34	Attiki	27.31	0.4%
35	Voiotia	25.73	0.4%
36	Rodopi	22.89	0.3%
37	Ioannina	14.76	0.2%
38	Larisa	14.56	0.2%
39	Thessaloniki	12.99	0.2%
40	Grevena	12.63	0.2%
41	Imathia	10.83	0.2%
42	Kastoria	8.41	0.1%
43	Xanthi	3.84	0.1%
44	Florina	3.67	0.1%
45	Pella	2.93	0.0%
46	Evros	2.55	0.0%
47	Kozani	1.20	0.0%
48	Serres	0.91	0.0%
49	Drama	0.14	0.0%
50	Arta	0.00	0.0%
51	Karditsa	0.00	0.0%

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Source: data base all media (2006).

5. CFS funding and Tourist development: an assessment

Given that the third CSF focuses on integration, we would like to investigate whether EU and Greek policy makers support this process by directing the available funding to the regions with lower levels of tourist demand. This criterion is justified for reasons of efficiency and possibly fairness. Our first task was to identify a way of comparing tourist development in the Greece. This information is then coupled with the per capita EU funding for regional tourist development allocated to each region, allowing us to determine whether the funding supports the regions that need it most. The above criterion will be met if the sum of the tourist development index and the per capita CSF funding based rankings equals m+1 for each region, where m is the number of regions.⁵ If the sum of the two rankings is less than m+1 for

⁵ In our case m=51.

a region, this region is receiving relatively more than it deserves. On the other hand, if the sum of the two rankings is greater than m+1, this region receives relatively less than it deserves. Table 5 shows that the first condition is satisfied only for Preveza. The second condition is satisfied for Dodekanese, Lasithi, Chalkidiki, Cyclades, Lefkada, Evrytania, Rethimno, Lesvos, Corfu, Fthiotida, Samos, Iraklion, Kefalonia, Chania, Zakinthos, Evoia, Korinthos, Fokida, Voiotia, Chios, Arcadia, Argolida, thessaloniki, Attiki amd Kavala.. These regions are over-financed. The last condition is satisfied for Kilkis, Kozani, Magnisia, Ilia, Lakonia, grvena, Pieria, Achaia, Florina, Kstoria, Mesinia, Thesprotia, Ionanina, Aitoloakarnania, Larisa, Trikala, Imathia, Evro, Rodopi, Pella, Xanthi, Karditsa, Serres, Drama and Arta. These regions are under-financed.

	Per capita CSF		
	funding (ranking)	RTDI (ranking)	Total
Chalikidiki	1	10	11
Zakinthos	2	33	35
Samos	3	30	33
Lasithi	4	5	9
Dodekanese	5	3	8
Cyclades	6	9	15
Lefkada	7	16	23
Kerkira	8	22	30
Argolida	9	35	44
Kefalonia	10	24	34
Ilia	11	50	61
Rethimno	12	15	27
Chios	13	26	39
Iraklion	14	19	33
Preveza	15	37	52
Chania	16	18	34
Fthiotida	17	13	30
Evoia	18	17	35
Pieria	19	44	63
Evrytania	20	4	24
Messinia	21	45	66
Lesvos	22	7	29

Table 5. Rankings of Per capita CSF funding and RTDI

Lakonia	23	38	61
Kavala	24	27	51
Arkadia	25	14	39
Aitoloakarnania	26	43	69
Thesprotia	27	39	66
Fokida	28	8	36
Trikala	29	41	70
Achaia	30	34	64
Kilkis	31	25	56
Magnisia	32	28	60
Korinthia	33	2	35
Attiki	34	12	46
Voiotia	35	1	36
Rodopi	36	48	84
Ioannina	37	29	66
Larisa	38	31	69
Thessaloniki	39	6	45
Grevena	40	21	61
Imathia	41	36	77
Kastoria	42	23	65
Xanthi	43	46	89
Florina	44	20	64
Pella	45	42	87
Evros	46	32	78
Kozani	47	11	58
Serres	48	47	95
Drama	49	49	98
Arta	50	51	101
Karditsa	51	40	91

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The sum of the rankings that is used above, provides a criterion, which indicates:

- that the allocation of the examined CSF funds may not support an integration of the tourism sector of Greece, since some regions seem to receive more funding than what they deserve and some less, and
- that, if an integration is supported, (i) this will not be fair (in the sense that a less developed region receives always more funding

than a more developed one), and (ii) that is possible to increase the efficiency of the programme through reallocating funds across regions.

To conclude what is the exact situation, we must first investigate if the funding supports an across regions integration.

Overall, if the available funding and its allocation support an integration process, the Regional Tourist Development index (RTDI) and the CSF funding of each region should be negatively correlated. This correlation has been computed and found to be equal to +0.13. This implies that the above funding programme does not support the criterion of convergence between Greek prefectures. In addition to the above we can position the Greek regions on a convergencedivergence mapping taking deviations from their means of tourist development and per capita funding respectively. This is depicted in Figure 1. Regions are then positioned in quadrants A, B, C and D. Regions falling in quadrant A are regions which have both tourist development index and per capita funding above average. Such regions are: Dodekanese, Lasithi, Halkidiki, Cyclades, Lefkada, Rethimno and Iraklion. In quadrant B there are regions with tourist development index below average and per capita financing above average. Such regions are: Kerkira, Samos, Chios, Kefalonia, Zakinthos, Argolida, Preveza, and Ilia. In quadrant D we position regions with tourist development index above average and per capita financing below average. Such regions are: Evritania, Fthiotida, Evoia, Korinthos, Fokida, Voiotia, Arcadia, Achaia, Kozani, Lesvos, Thessaloniki, Chania and Attica. Finally in quadrant C there are regions in which both indices are below average, such as Kilkis, Magnisia, lakonia, Grevena, Pieria, Florina, Kastoria, Messinia, Thesprotia, Ioannina, Aitoloakrnania, Larisa, Trikala, Imathia, Evros, Rodopi, Pella, Xanthi, Karditsa, Serres, Drama, Kavala and Arta. The majority of these regions are border regions. The above analysis shows the type of tourist-regional policy which is followed in Greece during the last years, supported by the EU.



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This is in accordance with the notion of "national championship" and the creation of strong regional poles of tourist development, which indirectly and in a latter stage could generate development in less touristically developed regions. It is not, however, in accordance with the notion of "convergence", because in such a case it would strengthen the less developed regions. This remark shows a contradiction that exists when compared with the EU cohesion policy which aims to the decrease of inequalities among member states.

6. Conclusions

Indices are often used for the description of various characteristics of individuals' economic life. The volume of economic, social and natural elements that economic agents have at their disposal is enormous. Therefore, the use of indices is fully justified. In addition, microeconomic theory and especially consumer theory offers a framework for the use of such indices.

With the use of tourist development indices we evaluated the type of tourist-regional policy that was followed by Greek policy makers with the assistance of the EU structural funds: it is in line with the notion of "national championship" and the creation of strong poles of tourist development which could have some externalities and assist the development process of less developed areas.

The empirical analysis showed that the distribution of investments of the third Community Support Framework is in favor of the more touristically advanced prefectures (*nomoi*). It supports a process of divergence among different prefectures (*nomoi*).

The above finding is in contrast with the European regional policy, which aims at convergence between different member states and regions. Through its cohesion policy, the European Union supports less developed regions, that is regions (NUTS II) with a GDP per head which is less of 75% of the EU average. Prefectures are smaller administrative units compared to regions but the process of convergence should also be followed.

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