

INTERNATIONAL TOURISM IN THE COASTAL REGIONS OF FIVE MEDITERRANEAN COUNTRIES¹

by Fabio Quintiliani
(preliminary – this version: 03 April 2007)

This paper aims to assess the determinants of foreign tourist demand in the coastal regions of Italy, Spain, Greece, Croatia and Cyprus. An original three-dimensional panel dataset collects information on the number of foreign tourist hotel arrivals and night-stays in coastal regions, broken down by nationality over the 1999-2004 period. Competitiveness indicators are developed that contemporaneously account for the different weights, for each region, of both foreign tourist markets and of rival destinations. The dataset also includes: the number of FEE's blue flags awarded to the regions; an indicator for the presence of UNESCO's world heritage sites in the regions; the number of international flights operated at regional airports; the distance between foreign tourists' countries of origin and the regions of destination. Data indicate that foreign tourists' hotel arrivals and nights-stays increased in Adriatic Croatia, whereas they either stagnated or declined in most of rival destinations. As a result Croatia managed to erode the market shares of a group of rival regions. The recorded trends were also affected by a decrease of travels from Germany. Data also suggest that, contrary to rival destinations, Italy's coastal regions performed below their potential, succeeding in luring tourists mainly thanks to the presence of local art and historic heritage sites rather than to their sea-and-sun attractions. They also seem to have only partly reaped the benefits of increased air passenger traffic. Panel data regressions with fixed nationality, regional and time effects show that international tourist flows to coastal regions are positively correlated with: the country of origin's per capita GDP, the presence of renowned heritage or natural sites and the international air passenger traffic at local airports. Tourist movements are negatively correlated with price indicators and with the distance between coastal regions and tourists' homelands.

1. Introduction and main conclusions

Long-run income growth, diminishing transportation costs and the gradual appearance of new competitors on the international tourist market have positively contributed to the remarkable increase of tourism flows and of travel receipts on the world's total interchange of goods and services (Breda and Borghese, 2005). One of the most traditional and attractive areas for international travellers is the Mediterranean region. About 20 per cent of international tourist arrivals were recorded in this area in 2004 (UNWTO, 2005).

The appearance of new competitors has gone hand in hand with an erosion of market shares of some traditional tourist countries such as

¹ fabio.quintiliani@bancaditalia.it; Bank of Italy, Branch of Bologna. The opinions in this work are the author's ones and do not involve the responsibilities of the Bank of Italy nor do they represent the views of the institution. I thank Guglielmo Barone, Chiara Bentivogli, Raffaello Bronzini, Giuseppe Ciaccio, Silvia Fabiani, Angela Gattulli, Sauro Mocetti, Massimo Omiccioli, Marcello Pagnini, Roberto Sabbatini, Antonello Scorcù and Paolo Severati for very helpful comments and advices and Silvia Fabiani, Angela Gattulli, e Giovanni Veronese for providing me with Italy's provincial CPI data for the hotel and restaurant sector. I am also deeply grateful to Helene Katsorhe (National Statistical Service of Greece) for her exquisite kindness and for the patience with which she corresponded to my frequent requests for data or for explanations of data on tourist flows, value added, CPI's and aircraft movements. Paola Morelli (Istat), Ivanka Puric and Robert Jurak (Croatia's Bureau of Statistics, CBS), Lucy Panayidou and Carolina Christofidou (Cyprus statistical office, CYSTAT) supplied me with data on the provincial and regional tourist flows and on the number of international flights at Cyprus' airports. I also thank Natalia Rodruello-Campos (ADEAC, Spain), Aliko Vavouris (HSPN, Greece), Ante Kutle (Lijepa Nasa, Croatia), Ilaria Bartoli (FEE-Italy) e Finn Bolding Thomsen (FEE's headquarters in Copenhagen) for sending me data on the number of blue flags for each coastal province of the five countries included in my study over the 1999-2004 time-span. I am of course the sole responsible for any mistake or imprecision that might be present in the paper.

Greece and, to some extent, Italy. One notable example is offered by Croatia which, as it started to emerge from the devastating Balkan conflict during the early nineties, it managed to lure an ever increasing number of foreign tourists such that in 2004 it ranked 23rd in the world table by number of international arrivals, after being only 53rd in 1995².

The growing importance of tourism for the world economy is mirrored by the soaring number of papers focussing on many of the themes that characterise this economic sector. One aspect that has caught the attention of economists is the analysis of the determinants of tourist demand. The present work can be catalogued in this stream of literature. It aims at detecting some of the factors that may have contributed to affect between 1999-2004 the international tourist demand in the coastal regions of Croatia, Cyprus, Greece, Italy and Spain, a set of countries that accounted for 15 per cent of world's international tourist arrivals in 2004. Attention is focussed on these countries mainly due to data availability at subnational level.

There is a wide and growing set of contributions in this stream of literature. In most instances these studies are carried out using aggregate data at national level³. Important differences can however emerge when tourist flows are looked at regionally, since each area boasts its own peculiar natural and artistic endowments or can be accessed with differentiated easiness from the countries of origin of the incoming travellers⁴. Two recent and notable papers on regional tourist performance are those by Garín-Muñoz (2006, 2007), which respectively concentrate on foreign tourist flows to Canary islands and on the tourist movements from Germany to the complete range of Spanish regions.

The present paper tries to innovate by analysing foreign tourist flows in a large set of *coastal* administrative regions (NUTS II) located in the five Mediterranean countries indicated above. To do so we use, for the first time to our knowledge, a wide dataset that assembles information on the number of tourist arrivals and of night stays at hotels, broken down by the nationality of the inbound tourists. The main advantage of this dataset is that for each region we can detail the nationality of tourists, allowing us to detect the comparative importance of a large number of foreign markets for the different regions. We obtain a three-dimensional panel of 41 destination regions, 31 nationalities of tourists taken over the 1999-2004 period (6 years)⁵.

² Another country that has rapidly increased its market shares is China which, according to the UN World Tourism Organization (UNWTO), has overtaken Italy by number of international tourist arrivals (UNWTO, 2005).

³ Among many studies, we can recall those by Syriopoulos e Sinclair (1993), Syriopoulos (1995), Papatheodorou (1999), Garín-Muñoz and Pérez Amaral (2000) and Eilat and Einav (2004).

⁴ Subnational analyses were also carried out for instance by Ciaccio (2005), who compares the evolution of Sicily's tourism structure with those of some competing Mediterranean regions and by Giacomelli (2003) who only focuses on tourist inbound and outbound flows to/from Italian regions.

⁵ Table A1 in the methodological appendix summarizes the data used and their sources. Table A2 lists the 41 coastal regions considered in this paper, whereas nationalities of international tourists are detailed in table a3. Please note that in the regressions however we only consider a subset of 22 nationalities, since we drop data referred to residual classes (e.g. "Other

The dataset also includes: real per capita GDP of the foreign tourists' countries of origin and relative price competitiveness indicators specifically built on the basis of the hotel and restaurant sector CPI regional series, for Italy and Spain, and on the hotel and restaurant national CPI series, for the remaining countries, whose regional data are derived from the national series on the basis of the shares of regional resident population out of total population). Price indicators in particular are calculated with a view to contemporaneously account for the relative importance, for each region of destination, of foreign tourist markets and of rival regions where tourists may go to spend their holidays. In doing this we follow the pattern envisaged by Caselli and Rossi (1989).

The dataset also innovates with respect to previous literature by controlling for a number of coastal regions' specific features, namely: the number of blue flags awarded to each coastal region, as a ratio to the coast length of the regions (thereby approximating for the environmental quality of marine waters); the presence in the regions of UNESCO protected sites (to account for further incentives that foreign tourists may have in visiting a region rather than one of its rivals); the number of total international flights recorded at the airports in the regions of destination, as a ratio to regional resident population (as a proxy for increased tourists' mobility and air traffic following the rapid growth of low cost flights); the geographical distance between the capital cities of the region of destination and of the countries of origin of tourists (which is likely to adversely affect tourist movements to the regions).

Descriptive analysis shows that, over the examined time span, a positive contribution to the overall growth of foreign tourist flows towards the five Mediterranean countries was constantly given by Croatia's coastal regions, where the number of inbound tourists considerably increased. On the contrary, foreign movements towards the coastal regions of the remaining set of countries either stagnated or declined. The decrease in the number of travellers from Germany and of the corresponding night-stays helps to explain the observed trends. This decline is in its own turn probably due to Germany's sluggish economic performance over the examined period.

Thanks to the increased number of foreign tourists, Croatia managed to gain market shares, overtaking competing coastal regions with a long tradition in tourism. Apart from this notable change, however, the ranking of the other regions involved remained substantially unaltered.

Data also suggest that, contrary to what happens to most competing regions, foreign tourist flows towards Italian coastal areas tend to be mainly driven by the strong lure of art cities rather than by the attractive-

European countries" and so on) or some observations that are only pinned down for a subset of regions (for instance some Southern American countries such as Argentina or Brazil, are not considered in the regression analysis because of lack of data for many regions of destinations, namely Adriatic Croatia or Cyprus). The loss of information is however hardly substantial.

ness of local seaside resorts. If, on the one hand, this may represent an advantage since, as indicated by data, the presence of art cities helps to diversify foreign markets, on the other, Italian coastal regions may be underperforming on the foreign tourist markets, failing to fully exploit their “sun-and-sea” potential.

In line to what emerges from other papers, the relative price indicators which we build indicate that over the examined time span Italian and Croatian coastal regions actually gained in competitiveness, in comparison with their Greek and Spanish rivals. Three-dimensional balanced panel data regressions with fixed regional, nationality and time effects show that international tourist movements toward the five countries’ coastal regions are positively correlated with the average per capita GDP of the tourists’ countries of origin, the presence of UNESCO sites in the regions of destination and the relative number of international flights. Tourist movements are instead negatively correlated with the relative price-competitiveness indicators, pointing to the existence of some substitutability among competing regions, and with the distance between the countries of origin of tourists and the regions of destination. The influence of blue flags on tourist arrivals and night-stays is instead not statistically significant.

This paper is organised as follows: after a brief outline of the main features of world international tourist flows (paragraph 2), we focus on the main structural characteristics of coastal regions (paragraph 3). We then build for each region relative inbound-tourism price indicators so as to assess their competitiveness performance in comparison with those of the rival regions. In the final paragraph we carry out our panel data regression analyses. Two appendices at the end respectively describe how the dataset was built (data used, sources etc.) and present statistical tables.

2. Main features of international tourism

Starting from the end of World War 2 international tourism has been intensely growing all over the world. According to World Tourism Organisation (UNWTO) data, tourist arrivals in the world soared from 25.3 million in 1950 to over 763 million in 2004, a value that is higher by 75 per cent than that reached in 1990 (UNWTO, 2005; table 1). Tourist receipts in all major destination countries also markedly increased, from US\$ 280 billion in 1990 to US\$ 623 in 2004.

Table 1

INTERNATIONAL TOURIST ARRIVALS BY DESTINATION AREAS
(million units and percentages)

Destinations	1995		1999		2004	
	Arrivals	Shares (%)	Arrivals	Shares (%)	Arrivals	Shares (%)
Europe	309.3	56.8	380.2	55.1	416.4	54.6
<i>Southern Mediterranean</i>						
<i>Europe</i>	100.8	18.5	127.4	18.5	149.5	19.6
<i>Italy</i>	31.1	5.7	36.5	5.3	37.1	4.9
<i>Spain</i>	34.9	6.4	46.8	6.8	53.6	7.0
<i>Greece</i>	10.1	1.9	12.2	1.8	12.1	1.6
<i>Croatia</i>	1.5	0.3	3.8	0.6	7.9	1.0
<i>Cyprus</i>	2.1	0.4	2.4	0.4	2.3	0.3
America	109.0	20.0	122.2	17.7	125.8	16.5
<i>USA</i>	43.5	8.0	48.5	7.0	46.1	6.0
Asia and Pacific Countries	85.0	15.6	112.2	16.3	152.5	20.0
<i>China</i>	20.0	3.7	27.0	3.9	41.8	5.5
<i>Oceania</i>	8.1	1.5	8.9	1.3	10.2	1.3
Africa	20.4	3.8	26.5	3.8	33.2	4.4
Middle East	14.3	2.6	18.2	2.6	35.4	4.6
World	544.9	100.0	689.7	100.0	763.2	100.0

Fonte: UNWTO (2005).

Many factors contributed to such vigorous performance: the growth of available income in many countries; dramatic reduction in transportation costs and the soaring number of international flights resulting from the development of low cost carriers; the appearance of new competitors on the world's tourist markets; a change in consumer tastes that resulted in a growing interest for journeys abroad.

The distribution of international tourist expenditures among origin countries mirrors to a very large extent the degree of industrialization and development attained. UNWTO data show that the first six countries in the ranking of tourist expenditures abroad are G8 members (table A4)⁶. Moreover, one third of total international tourist expenditures can be attributed to travellers from Germany, the USA and the UK, countries that represent about 28 per cent of world GDP and almost 18 per cent of the planet's population.

The main purpose that induce people to travel abroad is holiday making. UNWTO data show that in 2004 about 52 per cent of tourist arrivals referred to holiday journeys. Although this share was gradually reduced by the intensification of business and religious travels, holiday making still remains the most important reason for travelling.

Europe is the most attractive area for international tourism. In 2004

⁶ To help the reader distinguish between tables included in the text of the paper and tables in the appendices, we indicate the latter by letter "A" followed by an ordinal number.

54 per cent of world tourist arrivals were recorded in some European destinations. Although this share is lower than that held by the same area in 1995 (56.8 per cent), it is still 3 times higher than the overall share held by countries in Eastern Asia and Oceania and in the two Americas.

In contrast with recent trends in other European areas, countries in Southern and Mediterranean Europe have seen their shares grow over time. In 2004 about 36 per cent of total tourist arrivals to the old continent (19.6 per cent of world's international flows) were recorded in this area (comparing with 32.6 and 18.5 in 1995, respectively). Spain and Italy are still two of the main destinations of Europe-bound international travellers. In 2004 these two countries respectively ranked 2nd and 5th by number of tourist arrivals and 2nd and 4th by the magnitude of tourism receipts (table a5). Together with Greece, Croatia and Cyprus in 2004 they absorbed about 27 per cent of total international tourist arrivals in Europe (15 per cent of total world inbound flows). Such share is slightly higher than the one of 1990, but it is 2 percentage points less than the 2001-2003 average.

One common feature among these five countries is that a very large fraction of tourists usually choose destination resorts that are located in coastal regions. Regions are chosen from the EU's NUTS2 mapping of administrative regions. We define "coastal regions" the NUTS2 areas that present at least one point of access to the sea. All in all we concentrate on a set of 41 regions of destination (see table a2 for the complete list). In 2004, 78 per cent of total tourists arrivals and 85 per cent of total nights spent in the five countries were recorded in coastal areas (table 2).

A further common trait among the 5 Mediterranean countries is that a relevant part of tourists travelling to the coast do so in order to spend their holidays in one of the local rivieras⁷. Finally, three quarters of tourists who stayed at seaside towns in the five countries' coastal regions were hosted at hotels, whereas the number of night-stays at hotels accounted for about two thirds of the total number of nights spent in coastal regions⁸. Hence, tourist movements at hotels in coastal regions can help explain much of the overall performance at national level⁹.

⁷ One indication in this sense is given by monthly data on tourist regional flows, which show that about 53 per cent of tourist arrivals and 64 per cent of total night-stays at coastal regions occur, between June and September each year.

⁸ Adriatic Croatia represents however one notable exception, as only 32.4 per cent of tourist arrivals and about 27 per cent of overnight stays is registered in hotels in the region. Many of the previously existing hotels were either damaged or destroyed in the fightings that took place during the Balcan war in the early 1990's. Soon after the end of the conflict a gradual process of reconstruction or modernization of hotel structures began all over Croatia; the process is still under way (WTTC, 2005). Nevertheless, the distributions of total (hotel plus all other accommodation facilities) tourist arrivals and of total overnight stays by country of origin and by region of destination are very much similar to the corresponding distributions taken at hotel level. Therefore the decision to focus the attention only on hotels should not hinder our analysis. Presently, among the other receptive facilities in Adriatic Croatia campings account for about 20 per cent of arrivals and 27 per cent of overnight stays; private houses for 19 and 24 per cent, respectively. The percentage of tourist arrivals recorded at marinas on the entire shoreline is also important (8 per cent of total). Further information can be found in the Croatian statistical yearbooks downloadable from the web site of the *Croatian Bureau of Statistics* (www.cbs.hr).

⁹ In the methodological appendix we further explain why we chose to focus our analysis on hotels only.

Table 2

**OVERALL TOURIST ARRIVALS AND NIGHT-STAYS
IN FIVE MEDITERRANEAN COUNTRIES
BY REGION AND TYPE OF ACCOMODATION IN 2004 (1)**
(thousand units and average number of days)

Countries and areas	Hotels			Other accomodation facilities			Total		
	Tourist Arrivals	Overnight stays	Avg. stay	Tourist Arrivals	Overnight stays	Avg. stay	Tourist Arrivals	Overnight stays	Avg. stay
Italy	70,684	234,020	3.3	15,273	111,596	7.3	85,957	345,616	4.0
<i>coastal regions</i>	<i>51,334</i>	<i>169,449</i>	<i>3.3</i>	<i>11,961</i>	<i>91,853</i>	<i>7.7</i>	<i>63,295</i>	<i>261,302</i>	<i>4.1</i>
Spain	66,831	234,697	3.5	14,672	103,206	7.0	81,503	337,903	4.1
<i>coastal regions</i>	<i>50,423</i>	<i>203,485</i>	<i>4.0</i>	<i>13,668</i>	<i>99,748</i>	<i>7.3</i>	<i>64,091</i>	<i>303,233</i>	<i>4.7</i>
Greece	10,906	45,642	4.2	1,225	6,912	5.6	12,131	52,554	4.3
<i>coastal regions</i>	<i>10,726</i>	<i>45,309</i>	<i>4.2</i>	<i>1,215</i>	<i>6,891</i>	<i>5.7</i>	<i>11,941</i>	<i>52,200</i>	<i>4.4</i>
Croatia	3,324	13,256	4.0	6,088	34,541	5.7	9,412	47,797	5.1
<i>coastal regions</i>	<i>2,745</i>	<i>12,330</i>	<i>4.5</i>	<i>5,732</i>	<i>33,661</i>	<i>5.9</i>	<i>8,477</i>	<i>45,991</i>	<i>5.4</i>
Cyprus	1,513	11,627	7.7	690	3,184	4.6	2,202	14,811	6.7

Source: central statistical offices.

(1) Data in the table refer to the sum of national and foreign tourists.

In the next two paragraphs, after describing the main structural features of tourist flows to the five Mediterranean countries' coastal regions and after verifying whether there were relevant changes in the market shares of the regions and in the relative weight of the foreign markets we will try and assess the role that hotel price competitiveness may have played over the examined period.

3. Structure and tourism performance of coastal regions

Tourism is a noteworthy activity in all 41 regions under investigation. The shares of total regional value added pertaining to the hotel and restaurant sector are in such areas larger than the national averages (table a6)¹⁰. In Italian coastal regions the weight of the hotel sector on total regional output is however lower than the 5 countries' coastal area overall average (3.8 and 7.3 per cent, respectively). The largest shares are those of Southern Aegean, Balearic, Ionian and Canary islands (24, 21.4, 18.3 and 15.2 per cent, respectively). Somehow surprisingly, the largest shares

¹⁰ Reference is made to the NACE classification of economic activity and to regional accounts data provided for by the national statistical offices. It is important to bear in mind however that the incidence of regional hotel and restaurant value added on total regional output is only an approximation by defect for the actual contribution of tourism-related activities to regional and national product. A more precise estimate should also consider other direct and indirect effects. Among the direct effects one should include the value added produced in such sectors as trade or beach-confort service management (encompassing activities like the distribution of sunbeds, deck-chairs, beech umbrellas and so on). Among the indirect services one should include those deriving from the interactions between the economic branch upon which the initial tourist consumption shows its direct effects and other sectors (e.g. the interaction between the hotel sector and that of laundry services, guided excursions etc.). However, calculating such impacts is far beyond the purposes of this paper amnd, for descriptive reasons we limit our attention on the simpler proxy.

in Italy pertain to central-northern regions, led by Liguria (5.7 per cent) and followed by Tuscany and Veneto (4.5 per cent for both regions).

In the examined coastal regions, the relative importance of foreign and of national tourist arrivals and night-stays tends to be different¹¹. The shares of national visitors are higher than those of foreign tourists only in Italian coastal regions (table a7). In Spain and Greece, arrivals from within the country to coastal regions are just below foreign tourist arrivals, whereas the number of night-stays referring to “nationals” are much lower than those referring to tourists from abroad. Home tourist movements in Croatia and Cyprus only have comparatively marginal importance¹².

Average hotel stay in Italian coastal regions is shorter than the overall coastal regional average (3.3 versus 4.4 days in 2004, in succession; table 2). The average length of foreign tourists’ stays at hotels at holiday resort on the Italian rivieras are also below average (table a6). The longest stays occur at insular regions (Cyprus, Spanish and Greek islands).

One possible explanation for the lure of coastal regions for foreign tourists might be the presence in these regions of beaches and marinas of relatively good environmental quality. One indicator that has been to this purpose acquiring increasing attention in the media is given by the number of blue flags awarded to beaches and marinas by the Foundation for Environment Education (FEE)¹³. In 2004 a total 507 blue flags were awarded to Spanish seaside resorts and 378 to Greece’s holiday towns. Although the coastlines of Spain and Italy are similar by length, the number of blue flags awarded to Spain in 2004 was more than double comparing to the number given to Italy’s coasts (244, tab. A6). In all coastal regions the number of blue flag soared over the 1999-2004 time span. On average there were 6.4 blue flags every 100 kilometres of shoreline on the Spanish coasts, against 3.3 in Italy and 2.5 in Greece. One notable aspect is that in Southern Italian regions (Apulia, Calabria, Sicily and Sardinia) the ratio takes on values that are much below average (3.4).

One further element that may entice foreign tourists to spend their holidays in one coastal region is the presence of cultural or natural sites

¹¹ For the purposes of this paper, “national tourists” refers to visitors residing in any of the five countries of destination under study. “Foreign tourists” are instead those who are residents of countries other than the five considered (see Appendix 1 for further detail). Table a2 in Appendix 1 presents the list of the foreign tourists’ countries of origin considered in this paper.

¹² The table also shows that arrivals of tourists coming from one of the five Mediterranean countries under study to the regional coasts of any of the other four competing countries are of minor importance. The only exception is given by the Italian tourists who hold relatively high shares of total tourist arrivals in the other four countries, especially Croatia.

¹³ An answer to the increasing attention that public opinion is paying to environmental matters came from the Copenhagen-based Foundation for Environment Education (FEE), which envisaged the blue flag award. To this purpose the Foundation set out a number of minimum quality standards that seaside, lake or river beaches have to meet in order to be rated as environmentally good. Standards can be divided as strictly indispensable and guidelines and refer to three main areas (water quality, presence of organised hygienic and environment-friendly services, provision of public information for the environmental protection of the beach). If such standards are met, resorts are awarded the blue flags that can be displayed over the season, testifying the respect of the environmental rules. For further see the *Beach explanatory notes*, in the FEE’s website (<http://www.blueflag.org>).

of notable importance in that region's territory. UNESCO is responsible worldwide for awarding monuments or natural reserves special protection, by including them in the list of world's cultural and natural heritage. On the basis of UNESCO's dataset, Italy and Spain ranked 1st and 2nd by number of world heritage sites in 2004. A large amount of such treasures are located in the five countries' coastal regions. Sicily, Andalusia and Catalonia show the largest number of sites (12, 9 and 8 in succession; tab. A6).

Easy accessibility from abroad seems also important as far as the popularity of coastal regions is considered. The remarkable decrease in transport costs affected, among other things, by the gradual diffusion of low-cost flights entailed a marked surge in the number of international flights recorded at local airports for all the examined coastal regions (24.2 per cent increase on average between 1999 and 2004)¹⁴. Italian coastal regions seem, over the entire time span, to have benefited less than the other Mediterranean competitors from the development of this innovative travel format. Except for Latium, which in 2004 ranked first among coastal regions by number of landed and departed international flights as a ratio to local population (3.4 flights every 100 regional inhabitants, *vis-à-vis* 2.5 in 1999; tab. a6), in all other Italian seaside regions this ratio lies below the levels reached by Cypriot, Spanish and Croatian airports over the six years considered.

Between 1999 and 2004 foreign tourist hotel arrivals in the coastal regions of the 5 Mediterranean countries under study grew from over 43 millions to over 44 millions. The increase hides however divergent performances among regions. The small rise of tourist movements from abroad to Italy's and Spain's seaside resorts was counterbalanced by a decrease recorded on the Greek and Cypriot rivieras (fig. 1). Besides, over the 2002-2004 time span, there was a reduction in foreign tourist movements in the two Latin countries as well. A prominent exception to this otherwise sluggish picture was Adriatic Croatia, on whose shores the number of foreign tourists doubled over the six years considered¹⁵.

Such trends may have been affected by a generalised worldwide decrease in international travels following the brutal terrorist attacks of

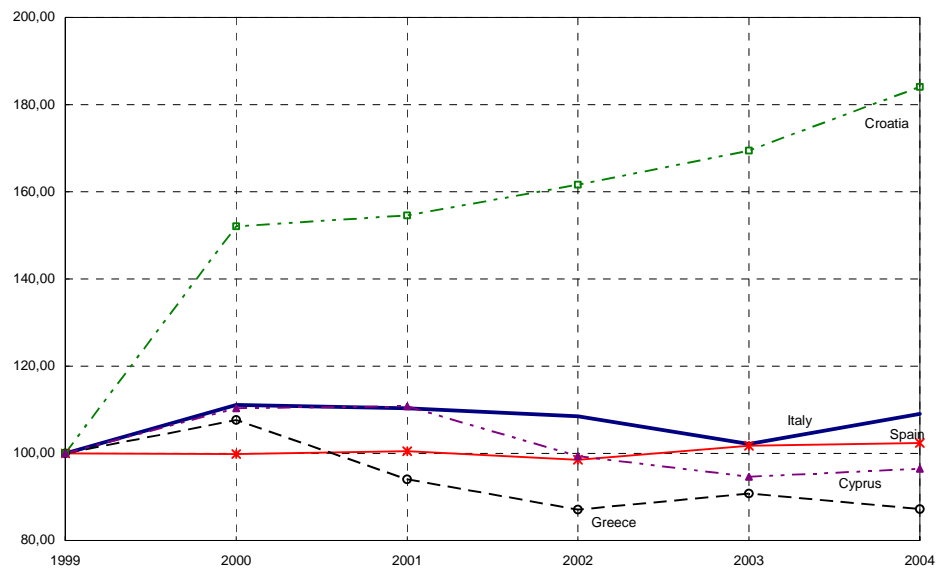
¹⁴ There seems to be widespread consensus as to the extent of the increase of international flights all over the world. According to the OAG (2005), low-cost flights within Europe grew by 24 per cent between April 2004 and April 2005 comparing with 12 per cent within the American continent and 5 per cent at world level. In April 2001 no-frills flights represented 6 per cent of total world scheduled flights; four years later this percentage more than doubled to 13 per cent. A recent report by the Spanish Institute for Tourist Studies (IET, 2005), shows that in 2004 about 14 million passengers reached Spain by means of no-frills flights, 33 per cent more than in 2003. Low-cost airline passengers in 2004 accounted for 29.2 per cent of total air passengers in Spain. 94 per cent of low-cost airline passenger movements were recorded at airports in Catalonia, the Balearic Islands, Andalusia, Valencian Community, Canary Islands and in Madrid's region.

¹⁵ The contribution of Central and Northern Italy's coastal regions to the growth of total Italy-bound foreign tourist movements was negative during the 1999-2004 time span. The decrease was particularly high in Tuscany (-1.3 e -1.1 per cent, for tourist arrivals and nights, respectively), in Veneto (-0.5 e -1.8 per cent) e in Emilia-Romagna (-0.3 e -0.6 per cent). Among Southern and insular Italy's regions, Campania e Sicily's contributions were negative, as opposed to those of Sardinia, Apulia and Calabria. In Spain, movements from abroad decreased in the Balearic and Canary Islands and in Andalusia. In Catalonia and in the Valencian community, the increase in the number of foreign tourist arrivals were contraposed by small reductions in the number of nights.

September 11th 2001 and by a marked reduction of movements from Germany. Between 1999 and 2004 arrivals of German tourists decreased on average by 4.4 percentage point per year; the number of night-stays diminished by 6.6 percentage points. These reductions were only partly compensated by an increase in the number of arrivals and of night-stays of French and British tourists. The fall in the number of arrivals from Germany is probably due to that country's feeble economic performance over the 1999-2004 period: IMF's data indicate that real GDP fell by 0.2 per cent in 2003 while per-capita GDP fell by 0.1 and 0.2 per cent respectively in 2002 and 2003.

Fig. 1

TOTAL FOREIGN TOURIST ARRIVALS AT HOTELS IN THE COASTAL REGIONS OF THE FIVE MEDITERRANEAN COUNTRIES (1)
(index numbers: 1999=100)



Source: based on data of the national statistical offices.

The performance of foreign tourist flows to coastal areas was hardly followed by relevant changes in the distribution of the regions' market shares and on the relative weight that foreign markets have for the regions themselves.

With reference to the former aspect, data on foreign tourist arrivals and night-stays at hotels show a high concentration of market shares that remained substantially unaltered between 1999 and 2004. In 2004 the first 15 seaside regions held about 87 per cent of the market in terms of total foreign tourist arrivals and about 90 per cent in terms of nights spent at hotels (tab. 3). In that year, tourist arrivals from abroad in Catalonia accounted for 11.4 per cent of total foreign tourist arrivals in the coastal regions considered in this paper. The Balearic Islands' share amounted to 11 per cent. Other regions showing relatively large shares were Anda-

lucia, Veneto, Latium and Tuscany.

Tab. 3

**SHARES OF FOREIGN TOURIST ARRIVALS AND NIGHTS AT HOTELS
HELD BY THE FIRST 15 COASTAL REGIONS (1) (2)**

(percentage shares)

Regions	1999		2004	
	Arrivals	Nights	Arrivals	Nights
Balearic Islands	12.1	20.4	10.8	17.2
Canary Islands	7.2	13.1	6.3	12.4
Catalonia	10.4	8.8	11.6	9.6
Andalusia	9.6	7.2	9.3	7.5
Veneto	9.6	5.9	9.7	6.2
Latium	8.7	4.3	9.7	5.3
Cyprus	2.1	4.1	2.0	4.3
Southern Aegean Islands	3.2	5.5	2.4	4.3
Tuscany	7.5	3.9	6.9	4.1
Adriatic Croatia	2.0	2.3	3.6	4.0
Crete	2.5	4.0	2.3	4.0
Valencian Community	3.1	3.5	3.3	3.5
Emilia-Romagna	3.0	2.6	3.1	2.7
Campania	2.8	2.4	2.9	2.6
Sicily	2.5	1.6	2.6	1.8

Fonte: National statistical offices.

(1) For both years the shares are given by the ratios of foreign tourist arrivals (nights) at hotels in each region to total foreign tourist arrivals (nights) in the coastal regions of the five Mediterranean countries. – (2) Regions enter the rows according to the descending order of market shares in terms of nights spent at hotels in 2004.

The chart by number of hotel night-stays shows only minor changes comparing with the previous picture: in 2004 four Spanish regions (Balearic Islands, Canary Islands, Catalonia and Andalusia) held 47 per cent of the market, a share only slightly below the 1999 one (49.5 per cent). Veneto and Latium split another 11.5 per cent of total nights.

Over the examined time span almost all Italian coastal regions basically kept their market shares. Tuscany however saw its share of tourist arrivals decrease *vis-à-vis* a faint increase in the fraction of night-stays. In Spain there occurred a partial reshuffle of shares, with the Balearic and Canary islands losing some percentage points to the advantage of Catalonia and Andalusia¹⁶. In Greece there was a fall in the shares of Southern Aegean Islands (Dodecanese and Cyclades) and of Attica (the region including Athens) while those held by Crete stayed constant.

This otherwise substantially still picture was altered by the substantial soar of tourist flows to Adriatic Croatia, which entailed remarkable market share gains, by 1.6 percentage points between 1999 and 2004 in

¹⁶ As recalled by Garín-Muñoz (2006) tourist flows to the Canary Islands are subject to a different seasonality pattern comparing with other seaside regions in the Mediterranean basin. In particular, winter is the high season when tourists arrive mainly from Scandinavian and Northern European countries. During summer tourist flows to the islands mainly originate from Southern European and Mediterranean countries.

terms of foreign tourist hotel arrivals and by 1.7 percentage points in terms of night-stays. This performance allowed Adriatic Croatia to climb the ranking of regions from 16th place in 1999 to 10th in 2004, by fraction of foreign tourist arrivals at hotels, and from 14th to 10th place in terms of nights spent at hotels by foreign tourists. Thanks to these gains Adriatic Croatia managed to overtake regions with a long tradition in tourism such as Crete, the Valencian Community and Emilia-Romagna.

Many of the coastal regions that lie in the first positions of the chart attract tourists not only for their hosting renowned seaside resorts but also for the presence within their territories of important art cities such as Barcelona, Granada, Venice, Rome or Florence. Several hints seem to confirm this otherwise intuitive aspect. First of all, in these regions the market shares in terms of foreign tourist arrivals are generally higher than those in terms of nights. Secondly, average stay in regions endowed with famous art cities is lower than in other coastal regions (tab. a6). The difference in the magnitude of market shares referred to tourist arrivals compared with those computed on the basis of night-stays seems to suggest that Spanish coastal regions (such as Catalonia or Andalusia) attract foreign tourists for both motives as opposed to Italian marine regions (such as Veneto, Latium and Tuscany) where tourist flows seem to be mainly driven by the presence of important art cities and sites¹⁷.

High concentration is also evident if we look at the countries of origin of foreign tourists. Over 54 per cent of inbound tourists' hotel night-stays in 2004 pertained to both German and British citizens (tab. 4), 2.7 percentage points less than in 1999. The relative overall importance of France, Switzerland-Liechtenstein, Austria and of Benelux countries remained constant at about 20 per cent over the 1999-2004 time span¹⁸.

The decrease in the relative weight of the German market was common to all coastal regions with the exception of Adriatic Croatia. In this area the incidence of German tourists' stays on total foreign tourist nights at hotels soared by 14 percentage points between 1999 and 2004. This region managed to become increasingly attractive also to tourists from Britain, France and Belgium-Luxembourg.

High concentration of market weights is also common to all coastal regions, albeit with different degrees (tab. A8)¹⁹. Data suggest that regions that are more endowed with relevant cultural heritage sites are more successful at diversifying the markets on which they sell their tour-

¹⁷ According to Vaccaro (2005) foreign tourists entering Italy in 2004 reached destinations of relevant cultural interest in 43 per cent of cases and seaside resorts in only 24 per cent of cases.

¹⁸ The distribution of the market weights for each region also shows the growth of arrivals and nights at hotels of tourists coming from such countries as Ireland which showed a remarkable economic expansion over the last decade. The relative weight of such markets for coastal regions remains however relatively small.

¹⁹ Table a8 shows the first 10 foreign tourist markets, in terms of night-stays shares, for each of the first 15 coastal regions presented in table 3.

ism services than regions where the “sun-and-sea” motive is stronger²⁰.

Tab. 4

**WEIGHT OF THE FIRST 10 FOREIGN TOURIST MARKETS
FOR THE FIVE MEDITERRANEAN COUNTRIES' COASTAL REGIONS**

(1) (2)

(percentage shares)

Country of origin	1999		2004	
	Arrivals	Nights	Arrivals	Nights
Germany	24.5	33.8	20.1	27.4
United Kingdom	16.5	22.9	19.9	26.6
France	8.6	5.8	10.0	7.1
United States	9.5	4.4	9.0	4.7
Belgium-Luxembourg	3.4	4.1	3.1	3.7
The Netherlands	3.4	3.7	3.2	3.4
Austria	3.4	3.4	3.2	3.2
Other European countries	3.1	2.3	3.5	2.9
Switzerland-Liechtenstein	3.1	3.0	2.7	2.8
Japan	4.5	1.6	3.5	1.5

Fonte: National statistical offices.

(1) Shares are expressed in terms of total foreign tourist arrivals and night-stays at hotels in the five Mediterranean countries' coastal regions in 1999 and in 2004. – (2) Countries rank in the table by the descending night-stay shares order in 2004.

Data on regional foreign tourist arrivals and night-stays highlight the existence of a relatively stable preference structure among tourists coming from all nationalities as to the set of possible destination choices. In particular, coastal Spanish and Greek regions were the best preferred destinations for holiday-makers from Germany, Britain and the main continental European countries over the 1999-2004 period (table a9). On the contrary, the relative importance of these markets for Italian coastal regions tends to be comparably lower. Tourists from the USA, Japan and, to a smaller extent, Switzerland-Liechtenstein and Austria are the only ones to put at least one Italian coastal region on top of their preference lists (most notably Veneto), thereby confirming somehow that the most attractive Italian marine regions are mainly those that either host important historic or artistic sites or that are located very close to some countries of origin.

The data presented in this section allow us to draw some conclusions. Over the 1999-2004 period a positive and remarkably high contribution to total foreign tourist flows towards the five Mediterranean countries examined in this paper was constantly given by the Croatian coastal regions. Owing to such remarkable growth, Croatia succeeded in reaping market shares from other competitors with a long established tradition in

²⁰ One can infer this by looking at table a8. In regions where there exist worldwide famous historic or art cities (e.g. Catalonia, Andalusia, Veneto, Latium, Tuscany, Emilia-Romagna and Campania) the German and British markets account for about 50 per cent of regional totals. On the other hand in the remaining subset of regions (e.g. Balearic islands, Canary islands, Valencian Community, Cyprus, and the Ionian islands) the incidence of German and British tourists' night-stays at hotels on regional total values ranges from 68 to 82 per cent. The magnitude of the difference between these two average weights suggests that the presence of renowned historic or artistic sites seems to help regions geographically diversify markets, allowing them to lure tourists from a wider number of continents other than Europe.

tourism. The substantial fall in the number of tourist arrivals and night-stays originating from Germany, possibly linked to the negative economic performance in this country, seem to explain a large part of the decrease.

Foreign tourist flows to Italian marine regions between 1999 and 2004 seem to have been mainly due to the attraction of artistically and historically important cities rather than from a “sea-and-sun” motive²¹. On the one hand, this may constitute an advantage since it allows them to diversify markets to a larger extent than other Mediterranean rival destinations. On the other hand, it would seem that Italian coastal regions tend to perform below their potential as far as the latter motive is concerned.

One element whose importance we have not yet discussed is price competitiveness, which we investigate in the ensuing section.

4. Price competitiveness of coastal regions

One classical determinant of tourist movements across the countries is given by the price competitiveness of the different destinations. The link between the performance of inbound tourist flows and of price competitiveness has historically been strong for Italy. Over the seventies and eighties the Italian exchange rate fluctuations were decisive for the good or bad performance of Italy’s tourist sector, with relevant increases in tourist revenues and arrivals occurring in concomitance with currency devaluations and losses arising from exchange rate revaluations (Caselli and Rossi, 1989). In the following years the strong correlation of inbound tourism with the exchange rate of the lira went on, with competitiveness gains occurring until the mid-nineties and losses resulting over the convergence period that preceded the adoption of the euro (Breda and Borghese, 2005).

In most of the existing literature, the price indicators that are used are given by the ratio of local CPI in the destination country and the CPI in the tourists’ countries of origin adjusted by the bilateral exchange rate normally expressed as the number of currency units of the destination country necessary to buy one monetary unit of the tourists’ homeland. However this indicator fails to take account of two notable facts. First, foreign tourist markets have different importance for the set of rival destinations and, secondly, destinations are rivals to one another by different degrees. As to the first point, we noted from the data presented in the previous section that a very large share of tourists come from a restricted number of countries. The weight of these countries are therefore different for each seller (i.e. region of destination). On the other hand, due to dif-

²¹ This is what emerges also from the recently published WEF report on the competitiveness of the tourism and travel industry (WEF, 2007).

ferent natural, historical or artistic endowments not all regions can be seen as equally competing with the remaining lot. One region which boasts unique monuments and art treasures but has not so famous beaches is not so strictly in competition with regions which are mainly famous for their sea and sun resorts.

With a view to evaluating the price competitiveness of the coastal regions between 1999-2004 and to *contemporaneously* take account of both the different weights of tourist markets and of rival sellers, we built for each region inbound-tourism competitiveness indicators using as a basis the procedure followed by Caselli and Rossi (1989).

Such indicators are given by the ratio between a price index for tourist services in the coastal region of destination (of the country of destination in the case of the two authors) and a *weighted average* of price indices for the rival regions. In symbols:

$$(1) \quad IC_{rt} = \frac{I_{rt}}{\sum_{k \neq r} w_{kt}^r I_{kt}} \quad \sum_{k \neq r} w_{kt}^r = 1$$

where I_{rt} is the price index referred to region r ($r = 1, \dots, 41$) at time t ; I_{kt} are the analogous indices defined for the rival regions at time t ($k = 1, \dots, 40$; $k \neq r$); w_{kt}^r are the weights to be applied to rival regions' price indices. It is important to stress that the weights are different for each region r and for each year t . This is because for each region we measure the extent to which any single foreign tourist market is important and the extent to which each rival region can be seen as an effective competitor for each region.

The weights w_{kt}^r are computed for both regional foreign tourist arrivals and night-stays at hotels according to a two-stage framework. In the first stage we calculate for every year the shares α_{jt}^r of foreign tourist hotel arrivals (or of night-stays, according to the case) from each country of origin in one region out of total foreign tourist hotel arrivals (or night-stays) in the same region. In this way we can proxy for the importance of the different markets for each region. In symbols:

$$(2) \quad \alpha_{jt}^r = \frac{F_{jt}^r}{F_{jt}^r}; \quad \sum_{j=1}^{31} \alpha_{jt}^r = 1$$

where F_{jt}^r is the number of tourist arrivals (or night-stays) from country j ($j = 1, \dots, 31$) in region r and F_{jt}^r represents total foreign tourist arrivals (or night-stays) in the same region ($J = 31$). For each region we obtain a vector of 31 α_{jt}^r shares.

In the second stage, in order to take account of the foreign tourists'

relative preferences for the k rival destinations to each region r , we computed for each given country of origin and every year the shares of tourist hotel arrivals (or night-stays) in each region out of total tourist arrivals (or night-stays) from the same country in the whole set of regions examined. In symbols:

$$(3) \quad \beta_{jkt}^r = \frac{F_{jkt}^r}{F_{jt}^{R-1}}; \quad \sum_{\substack{k=1 \\ k \neq r}}^{40} \beta_{jk}^r = 1$$

where F_{jk}^r represents tourist arrivals (or night-stays) from country j at time t in one of the 40 rivals of region r . $F_{jt}^{R-1} = \sum_{\substack{k=1 \\ k \neq r}}^{40} F_{jkt}^r$ is the total number of tourist arrivals (or night-stays) from country j in all the k rivals of region r , in the same time unit. Tourist flows to each region r for which competitiveness indicators are worked out are therefore excluded.

The shares obtained in the second stage give rise to a set of 41 (31 \times 40) matrices, one for each coastal region included in the analysis. Pre-multiplying these matrices by the regional vectors α_{jt}^r 's yield region-specific vectors of weights w_{kt}^r (1 \times 40) as follows:

The shares obtained in the second stage give rise to a set of 41 (31 \times 40) matrices, one for each coastal region included in the analysis. Pre-multiplying these matrices by the regional vectors α_{jt}^r 's yield region-specific vectors of weights w_{kt}^r (1 \times 40) as follows:

$$(4) \quad w_{kt}^r = \sum_{j=1}^{31} \alpha_{jt}^r \cdot \beta_{jkt}^r; \quad \sum_{k=1}^{40} w_{kt}^r = 1$$

The price indices we use are the components of national CPI's referring to the hotel-restaurant sector. In the existing literature, the analysis of international demand for tourist services is mainly carried out on the basis of total rather than sectoral CPI's. Morley (1994), on the basis of OECD price series referring to a set of 10 countries with a marked inbound-tourist vocation over the 1970-88 period, highlights that changes in total CPI's are highly correlated with corresponding changes in the price indices more strictly connected to tourism, such as hotel and restaurant prices and transport prices.

Availability of sectoral price indices at sub-national level for the two most visited Mediterranean countries (Spain and Italy) and the fact that in this work we focus on foreign tourist flows recorded at hotels induced us to choose to use hotel price indices to build our competitiveness indicators rather than overall price indices. For Italian regions we aggregated Istat's provincial time series of the hotel and restaurant sector components of CPI (Fabiani *et al.*, 2005). Following the same method used by Caruso *et al.* (1993), the elementary sectoral price indices were aggregated on the basis of the weight of total provincial population on total

regional population²². For Spanish regions we used the immediately available regional series of hotel-and-restaurant CPI's produced by INE.

For Cyprus and Adriatic Croatia we took the respective national sectoral indices. In the case of Croatia this choice seems reasonable because over the examined time span (1999-2004), 87 per cent of total foreign tourist arrivals and night-stays in all tourist accommodations (hotels and other structures) were recorded along the coastal areas of the Republic. For these two countries the price indices were also expressed in euros on the basis of the euro-kuna and euro-cypriot pound exchange rate series produced by the IMF.

For Greece we do not have a sub-national hotel and restaurant price index time series. In order to carry our analysis out, we derived regional indices from the national hotel-and-restaurant CPI component on the basis of the regional shares of resident population.

By applying weights (3) to the regional hotel-and-restaurant price indices we obtain the two series of competitiveness indicators (one based on tourist arrival series the other on tourist night-stays series). By construction, increases in the values of IC_{rt} correspond to competitiveness losses for the regions to which they refer, while decreases signal competitiveness gains.

Looking at the performance of these indicators between 1999 and 2004 we see that Italian coastal regions tended to reap competitiveness gains at the expense of the Balearic Islands, Andalusia, the Ionian Islands and Cyprus (fig. 2)²³. The indicators also show that Adriatic Croatia attained relevant competitiveness gains, which can help explain why the number of tourists on its shores increased so markedly over time.

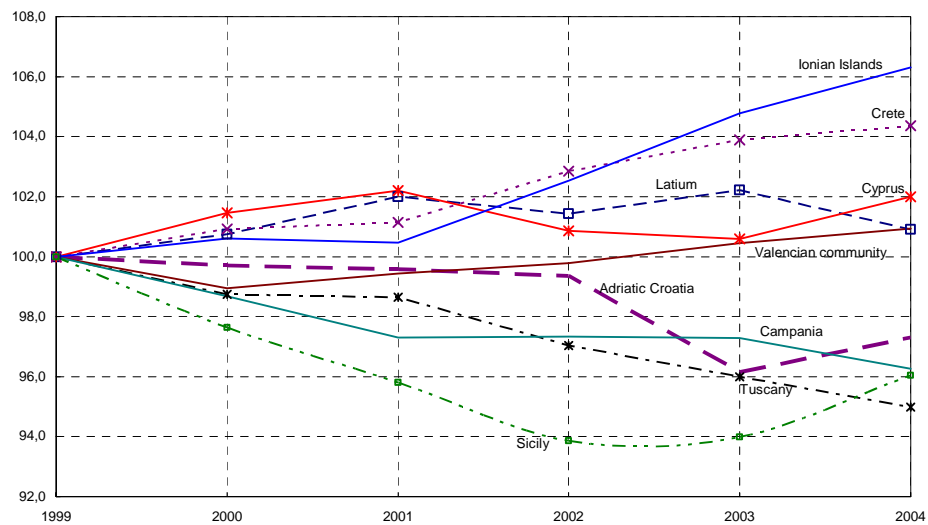
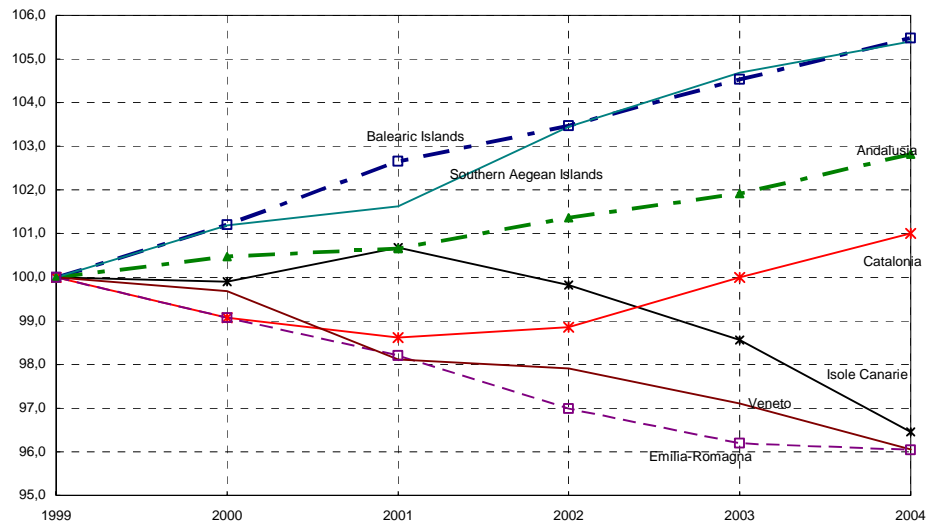
The different performance of the competitiveness indicators referred to Italian coastal regions in comparison with their Spanish and Greek rivals seem to be in line with what emerges from other authors' recent analyses based on national data. Breda and Borghese (2005) show that over the last five years Italy reaped competitiveness gains at the expense of Spain and most of all of Greece. Another study (Caronna and de Caprariis, 2005) highlights that, in terms of relative price dynamics, the Italian tourist-accommodation sector has recently attained significant competitive gains over other important Mediterranean rivals. Finally, the performance of the hotel-and-restaurant component of the European harmonized consumer price index (HCPI) for Italy, Spain, Greece and Cyprus shows a pattern similar to the one we obtain.

²² In other words, regional indices are obtained as weighted averages of elementary provincial hotel-and-restaurant price indices included in each region, where the weights are the provincial shares of resident population on total regional population.

²³ The graph and comments in the text are only referred to the movements over time of regional competitiveness indicators referred to the distribution of foreign tourist arrivals at hotels. The performance of the indicators obtained on the basis of the shares of night-stays does not show differences from the pattern described in the text.

Fig. 2

**COMPETITIVENESS INDICATORS
FOR THE MAIN COASTAL REGIONS (1)**
(index numbers: 1999=100)



Source: based on data of the national statistical offices of the five Mediterranean countries.

(1) Values above 100 indicate competitive losses for the region to which the indicator refers and viceversa. The series plotted in the graphs refer to indicators worked out on the basis of foreign tourist arrivals at hotels.

One drawback of the indicators used in this paper is that they highlight the relative price movements for each region involved in the analysis. However they do not allow us to verify whether the price levels in any region are higher or lower in comparison with those of its competitors. The World Travel and Tourism Council (WTTC) builds for about 122 countries hotel price indices and inbound tourist-competitiveness indicators. According to the hotel price data Italy was in 2004 the 17th most expensive country in the list, well ahead of the other four countries in-

cluded in this paper. The picture for Italy does not improve if we look at the other indicator, according to which Italy shows the worst degree of overall tourist price competitiveness, figuring well behind its other four rivals²⁴.

5. *Econometric analysis*

International tourist services demand and its determinants have been the subject of a large and still increasing number of studies, using different techniques. Crouch (1995) carries out a meta-analysis of the international tourist demand results published between the beginning of the sixties and the end of the eighties. In the ensuing years authors followed a rich set of different approaches. Syriopoulos and Sinclair (1993), Papa-theodorou (1999), Divisikera (2003), to name a few, use the almost ideal demand system to estimate own and cross price elasticities of tourist demand. A similar aim is pursued by Eilat and Einav (2004) who make use of a multinomial logit approach. Garin-Muñoz and Perez-Amaral (2000) and Naudé e Saayman (2004) use panel data techniques to investigate what factors can be seen as determinants of tourist demand respectively for Spanish and African destinations.

All these studies carry out their analyses at national level, comparing tourist demand among different countries. More recently, however, the analysis attention has shifted to a sub-national level. The increasing interest in the performance of regions can be attributed to greater sub-national data availability for a relatively large number of countries and, more importantly, to the fact that there appear to be relevant differences among the regions in each destination country. Such differences can be attributed, among other things, to their different natural, artistic and historical endowments, different tourist and civil infrastructures and different accessibility. Examples of these new interest in subnational tourist performance are the papers by Garin-Muñoz (2006, 2007) and by Giacomelli (2003). The former two studies respectively concentrate on the international tourist demand in the Canary Islands and on the German tourists' behaviour as to the choice to spend their holidays in the 17 Spanish administrative regions. The third paper, studies the inbound and outbound tourist flows in Italian regions.

Our paper tries to innovate by observing foreign tourist flows in a large set of *coastal* administrative regions located in five Mediterranean countries, exploiting the three dimensions of our dataset. We use information on the number of foreign tourist arrivals and night-stays in each region of destination, from each country of origin and over time. In par-

²⁴ This indicator is build by WTTC on the basis of its hotel price indices series corrected by purchasing power parity. Data for the year 2004 were downloaded from WTTC's website (www.wttc.org).

ticular, we run panel-data regressions with fixed origin country, time and regional effects on the basis of the following model.

$$(5) \quad \begin{aligned} tf_{ijt} = & \alpha + \beta_1 y_{jt} + \beta_2 p_{rt} + \beta_3 bf_{rt} + \beta_4 h_{rt} + \beta_5 ifl_{rt} \\ & + \beta_6 dist_{jr} + \beta_7 trend + \lambda_j + \mu_r + \nu_t + u_{ijt} \end{aligned}$$

As dependent variables (tf_{ijt}) we use the natural logarithms of the numbers of foreign tourist arrivals and night-stays at hotels located in coastal regions divided by total resident population in their respective countries of origin. The dependent variables are then regressed on a set of independent variables that have been chosen both to take account of what emerges from the existing literature and to try and detect some innovative variables that are reasonably likely to affect tourist flows towards the regions. The set of regressors used in the ensuing analysis includes:

- 1) *per capita GDP of the origin countries of tourists* (y_{jt}) expressed at the purchasing power parity and drawn from IMF's WEO database. Data were expressed in euros on the basis of the bilateral exchange rates published by the IMF. Exchange rates are expressed in terms of the quantity of foreign currency that is necessary to purchase one monetary unit of the destination countries. The expected sign of the coefficient is positive indicating that foreign tourist demand is a superior good, as in established in the existing literature.
- 2) *A price indicator* (p_{rt}) given by the competitiveness indicators discussed in the previous section (IC_{ijt}). They are basically relative prices displaying own prices at the numerator and a weighted average of competing regions' prices at the denominator. Therefore, the expected sign for the price index is negative implying that tourist destinations are rivals and substitutes.
- 3) bf_{rt} is the ratio of the annual number of *blue flags* awarded to the beaches in each region of destination to the regional shoreline length in kilometres. The index aims at proxying the quality level of regional marine waters in the assumption that tourists may be induced to spend their holidays along coastline resorts with environmentally good waters. Moreover, due to the wide echo that the awarding of blue flags is given in the media, this indicator may function as an advertising instrument for regional beaches. We therefore expect a positive relationship to exist between the indicator in question and the number of tourist arrivals and night-stays on the regional coasts.
- 4) h_{rt} is an indicator for the presence in the destination regions' territories of UNESCO's *world heritage sites*. It is a dummy variable which takes on the value 1 if the region hosts at least one such a site and 0 otherwise. The expected sign here is again positive, assuming that the presence of important historical or artistic monuments and/or of natu-

ral resorts can represent factors that can further lure tourists to visit one region rather than any of its rivals.

- 5) ifl_{rt} is the annual number of *international flights* departed from or landed at regional airports divided by regional resident population. This variable intends to measure the accessibility of the destination regions taking somehow into account the relevant increase in international air traffic prompted by the diffusion of low-cost flights, for which there is still a great lack of data. In this case too we expect a positive correlation between the control indicator and the number of either foreign tourist arrivals and of night-stays of foreign visitors in the regions.
- 6) $dist_{jr}$ is the *distance* in kilometres between the capital cities of the countries of origin of foreign tourists and those of the regions of destination. The variable aims at approximating the distance between the country of origin and the region of destination. Since the advent of the new economic geography the importance of distance in explaining economic phenomena has been assessed in many economic disciplines (credit, migrations, international trade, to name a few). The decision to spend a holiday period in one region rather than in another is very likely to be affected by distance, if anything because costs of transport are positively correlated with this magnitude. It appears reasonable to assume that as distance between the home country and the destination regions increases, the number of tourist arrivals and of night-stays from that country declines²⁵. Therefore the expected sign of the estimated coefficients is likely to be negative.
- 7) *trend* is a linear trend variable we introduce in order to track the overall increase in international tourist flows towards the coasts of the 5 Mediterranean countries between 1999 and 2004²⁶.
- 8) λ_j, μ_r and ν_t represent the countries of origin, regions of destination and time fixed effects, respectively.

All variables are expressed in natural logarithms except for the dummy variables and the time trend. Table 5 presents summary statistics for the main variables involved in the regressions, whereas the results of regressions themselves are shown in tables 6 and 7. The former refers to regressions in which the dependent variable is the number of arrivals per head of country of origin's population²⁷. The latter does the same for regressions of the number of night-stays, normalised by the country of ori-

²⁵ Eilat-Einav (2004) also consider a similarly constructed variable in their analysis. The estimated coefficients they obtain present with the expected negative sign and are statistically significant.

²⁶ Paptheodorou (1999) utilizes a logarithmic trend to pin down the fact that international tourist flows increased at a decreasing speed over the time span he considered in his paper. In our case, the fact that the period over which we concentrate is much shorter suggests that we should use a linear trend.

²⁷ In the regressions we excluded all the residual nationality classes of tourists (such as "Other European countries" or "Other Asian countries") and those nationalities for which availability of data is only limited to a subset of regions (such as Turkey). In this way we obtain a balanced panel of 22 nationalities, 41 regions and 6 years. To avoid collinearity problem we dropped the dummies for Portugal (as to country controls), Ceuta (as to regional controls) and for the year 2000 (as to time controls).

gin's inhabitants, on the control variables described above. Columns (1) in both tables refer to our baseline regression, in which we use the competitiveness indicators described in section 4 as price indices.

Table 5

DESCRIPTIVE STATISTICS
(*natural logs over 1999-2004 period*)

Variables	Obs	Mean	Std. deviation	Min.	Max.
Arrivals per inhabitant	5,389	-3.543098	2.250138	-11.992	1.7534
Night-stays per inhabitant	5,388	-2.2806	2.513531	-11.3034	3.4635
Per capita GDP	5,412	3.114855	.4139181	1.788	3.7157
Competitiveness indicator (based on arrivals shares)	5,412	4.602935	.0548226	4.3826	4.702
Competitiveness indicators (based on night-stays shares)	5,412	4.601981	.0536992	4.3876	4.6992
Blue flags per kms of shorelength	5,412	-2.272101	3.247175	-13.8155	2.821
Distance	5,412	7.909258	.7200305	4.8737	9.8246
International flights at regional airports per head of local population	5,412	-3.467822	6.406578	-16.1181	2.7327

All coefficients have the expected signs, bar the blue flag indicator which is statistically not significant. More in detail, regressions (1) in both tables highlight the existence of a positive relationship between the income variable and the number of tourist arrivals and of night-stays confirm that tourism is a superior good, in line with economic theory and with what emerges from the existing empirical literature. Demand for tourist services, measured by either indicators, is negatively correlated with prices, thereby suggesting that rival coastal resorts can be seen as substitutes for travellers coming from abroad.

Table 6

**ESTIMATION RESULTS FOR
FOREIGN TOURIST ARRIVALS AT HOTELS**

- **Dependent variable:** logarithm of the number of foreign tourist arrivals at hotels in each region from each country of origin in each year divided by resident population in the country of origin in the same year.
- All regressors are in logarithms, except for dummy variables and time trend.
- P-values in parentheses
- * significant at 10%; ** significant at 5%; *** significant at 1%

Regressors	Regressions with competitiveness indicators used as relative price indices			Regressions with relative overall CPI's used as price indices		
	(1)	(2)	(3)	(4)	(5)	(6)
Per capita GDP of origin country	1.270808*** (0.003)	.0634335** * (0.000)	.8483808*** (0.000)	.8336046* (0.081)	.4760609*** (0.000)	.6373373** * (0.003)
Relative Price index (1)	-2.750255*** (0.001)	-2.69305*** (0.000)	-1.63789*** (0.000)	-.444914** (0.029)	-.501753*** (0.000)	-.343483*** (0.000)
Blue flags per km of shoreline	-.0131696 (0.122)	-.000871 (0.799)	-	-.0032069 (0.686)	-.0033122 (0.297)	-
International flights by regional population	.0288848*** (0.006)	.0300148** * (0.000)	.0146346*** (0.001)	.032089*** (0.002)	.0331482*** (0.000)	.0159457** * (0.000)
Origin- destination distance	-1.1803*** (0.000)	-	-	-1.18027*** (0.000)	-	-
Dummy UNESCO sites	6.062595*** (0.000)	-	-	5.792701*** (0.000)	-	-
Time trend	.0488725*** (0.009)	.019261*** (0.000)	.0279615*** (0.000)	.0347762* (0.071)	.019348*** (0.000)	.023625*** (0.005)
Lagged dep. variable	-	-	.140435*** (0.000)	-	-	.1401193** * (0.000)
D2001	-.186649*** (0.001)	-.125056*** (0.000)	-.144104*** (0.000)	-.1389382** (0.021)	-.105665*** (0.000)	-.123853*** (0.000)
D2002	-.19635*** (0.001)	-.115307*** (0.000)	-.139443*** (0.000)	-	-.097640*** (0.000)	-.117453*** (0.000)
DUK	.5973387*** (0.001)	-	-	.8296788*** (0.000)	-	-
DGermany	.5729064*** (0.004)	-	-	.7874196*** (0.000)	-	-
Country pair dummies	-	Yes	Yes	-	Yes	Yes
Constant	9.97784*** (0.011)	-31.5613*** (0.000)	-54.0561*** (0.000)	-68.8053*** (0.085)	-41.2833*** (0.000)	-50.6515*** (0.000)
No. observations	5,389	5,389	4,483	5,389	5,389	4,483
Adjusted R ²	0.8600	Within: 0.0594 Betw.n: 0.2327 Ov.all: 0.2175	Within: 0.0475 Betw.n: 0.6390 Ov.all: 0.6177	0.8598	Within: 0.0536 Betw.n: 0.3241 Ov.all: 0.2995	Within: 0.0475 Betw.n: 0.7467 Ov.all: 0.7226

(1) In regressions (1)-(3) the price index is given by competitiveness indicators obtained in section 4, formulas (1)-(3). In regressions (4)-(6) we used instead relative CPIs indices worked out as indicated in formula (6) below.

Table 7

**ESTIMATION RESULTS FOR
FOREIGN TOURISTS' NIGHT-STAYS AT HOTELS**

- **Dependent variable:** logarithm of the number of foreign tourist's night stays at hotels in each region from each country of origin in each year divided by resident population in the country of origin in the same year.
- All regressors are in logarithms, except for dummy variables and time trend.
- P-values in parentheses
- * significant at 10%; ** significant at 5%; *** significant at 1%

Regressors	Regressions with competitiveness indicators used as relative price indices			Regressions with relative overall CPI's used as price indices		
	(1)	(2)	(3)	(4)	(5)	(6)
Per capita GDP of origin country	1.238771** (0.012)	.6162721** * (0.000)	.6405717*** (0.010)	.8874967 (0.104)	.4732926*** (0.000)	.4737871* (0.064)
Relative Price index	-2.749951*** (0.004)	-2.67326*** (0.000)	-1.80040*** (0.000)	-.3566867 (0.125)	-.4235621*** (0.000)	-.2779742*** (0.005)
Blue flags per km of shoreline	-.009305 (0.334)		-	-.0003379 (0.970)	-.0004028 (0.915)	-
International flights by regional population	.0342378*** (0.004)	.0357653** * (0.000)	.0188364*** (0.001)	.036524*** (0.002)	.0379943*** (0.000)	.0197735*** (0.000)
Origin- destination distance	-1.213571*** (0.000)	-	-	-1.21361*** (0.000)	-	-
Dummy UNESCO sites	7.330989*** (0.000)	-	-	7.082016*** (0.000)	-	-
Time trend	.0432805** (0.043)	.0121047** * (0.000)	.0163423* (0.099)	.0345233 (0.117)	.0145666*** (0.000)	.0146915 (0.139)
Lagged dep. variable	-	-	.128662*** (0.000)	-	-	.1295486*** (0.000)
D2001	-.1852641*** (0.005)	-.117490*** (0.000)	-.115273*** (0.000)	-.1440073** (0.036)	-.0981296*** (0.000)	-.0973758*** (0.001)
D2002	-.2125586*** (0.003)	-.12333*** (0.000)	-.12777*** (0.000)	-.1695107** (0.024)	-.1087045*** (0.000)	-.11071*** (0.001)
DUK	.9021369*** (0.000)	-	-	1.088702*** (0.000)	-	-
DGermany	.8852705*** (0.000)	-	-	1.057566 (0.000)	-	-
Country pair dummies	-	Yes	Yes	-	Yes	Yes
Constant	-75.62836 (0.087)	-81.33697 (0.000)	-28.3267 (0.171)	-68.0165 (0.136)	-41.28328 (0.000)	
No. observations	5,388	5,388	4,482	5,388	5,388	4,482
Adjusted R ²	0.8539	Within: 0.0411 Betw.n: 0.2736 Overall: .02549	Within: 0.0356 Betw.n: 0.7309 Overall: 0.7044	0.8538	Within: 0.0361 Betw.n: 0.3516 Overall: 0.3258	Within: 0.0343 Betw.n: 0.8240 Overall: 0.7955

(1) In regressions (1)-(3) the price index is given by competitiveness indicators obtained in section 4, formulas (1)-(3). In regressions (4)-(6) we used instead relative CPI's indices worked out as indicated in formula (6) below.

It is important to stress that these results occur once we control for many factors that can affect tourism demand and that have been introduced in the previous sections of the paper. First of all, distance between the countries of origin and the regions of destination always shows a very high explanatory power, indicating that tourists tend to choose to spend their holidays at resorts located not far from their homelands and, given that distance can be taken as a proxy for transportation costs, that can be cheaply reached.

Secondly, the presence of important world natural or historical heritage sites in the regions of destinations is indeed a factor that can be decisive as to the success of the coastal resorts. In regressions (1) in either tables 6 or 7, the coefficients of the UNESCO dummy variable is positive and statistically significant.

Thirdly, tourism demand is positively correlated with the number of international flights landed to or departed from the coastal regions' airports. This suggests that easy accessibility to one region, due for example to a large number of daily or weekly flights to its local airports, can be a winning factor over many of its competitors. Besides, since a large part of the recent increase of air traffic can be pinned down to the surge of low cost flights, regions that are endowed with more efficient and possibly larger airports, better equipped to host an increasing number of routes, are very likely to attract a greater than average number of aircrafts and passengers.

Most of the coefficients of the main nationality dummies are positive and statistically significant. In particular the dummies for Germany and the UK confirm that both countries are very important markets for Mediterranean coastal regions. The linear time trend's coefficient is significantly and positively correlated with the dependent variables we use, indicating that tourism flows tended to increase over time. However, the signs of the coefficients of the dummy variables for the years 2001 and 2002 are negative and statistically significant, indicating that in both years the drop in foreign tourist movements, as a result of the terrorist attacks in New York and possibly of the decline in personal income in such an important country of origin as Germany, were relevant (IMF, 2006).

Somewhat surprisingly the coefficients of the environmental quality of regional marine waters (bf_{it}) in regressions (1) in both tables are never statistically significant. This might be due to the fact that, whereas blue flags signal that marine waters in a certain area are pollution free, they are however awarded to the regions providing that they also guarantee the presence of a given set of beach services (such as hygienic facilities, garbage collection, life guards etc.). This entails, for instance, that worldwide famous bays or beaches that have no such services will not be eligible for blue flags, despite their beauty or their also possessing environmentally good waters. An alternative explanation for the failure of

blue flags to positively influence tourist flows as expected could be that the advertising potential of this indicator may have not worked well enough to lure tourists over such a relatively short time span as 1999-2004 characterised by the tragic terrorist attacks in New York and by low conjuncture in such an important market as Germany.

In order to take account of possible “consolidated preferences” and/or “habit persistence” effects underlying foreign tourists’ decisions to visit one region rather than any of its rivals, we introduce two modifications to our base model. The first change regards the nationality and regional fixed effects that were until now considered separately: we replace them with *jointly* defined nationality-region dummy variables. In this way we try to pin down possible consolidated “elective affinities” that tourists may have developed over time for given regions²⁸. To avoid problems of collinearity we drop the distance variable and the UNESCO heritage sites’ dummy variable. Results are shown in columns (2) in tables (6) and (7). They do not contradict the findings in the previous columns: tourism is confirmed to be a superior good and there exists some substitutability among regions, while accessibility from abroad, measured by the international flight indicator, is still significantly and positively correlated with tourism flows.

The second change we make refers to the “habit persistence” factors (i.e. word-of-mouth exchange of information among friends or relatives) that have many times been detected in the existing literature as capable of positively affecting tourism demand (see among many Garin-Muñoz, 2006 and 2007). To take account of such effects we introduce among the control variables the lagged dependent variables (i.e. the natural logs of foreign tourists’ hotel arrivals in each region of destination in the previous year, in regressions in table 6, and of nights-stays per head of origin countries’ populations, in regressions in table 7). We also drop the blue flag indicators. Results in columns (3) in both tables are in line with what emerges from the existing literature: the lagged dependent variable is highly significant and it positively affects the demand for tourist services in the regions of destination. This implies that the accumulation of favourable information or comments about a given region of destination works as a promoting factor for that region, thereby increasing its chances of future success.

As a further robustness check, we also reiterated regressions (1)-(3) in both tables replacing the competitiveness indicators with the standard consumer price indices usually found in the literature. In symbols, the relative CPI’s are defined as follows:

²⁸ The origin-destination dummies are such that they equal 1 if they contemporaneously refer to a particular nationality and one specific coastal region. For example the dummy detecting the UK citizens travelling to Catalonia is equal to 1 when it refers to rows in the dataset indicating the number of tourist arrivals from Britain in any Catalan town and zero for all other nationality (British included) and holiday destination combinations.

$$(6) \quad RCPI_{ijt} = \frac{CPI_{rt}}{CPI_{jt} * ER_{ijt}}$$

Regional CPI's (*RCPI*'s) are therefore given by the ratios of regional overall consumer price indices (*CPI_{rt}*) and overall consumer price indices in the countries of origin of tourists expressed in the currency of the country of destination by the exchange rate *ER_{ijt}*. The latter indicates the number of monetary units of the destination country necessary to buy one currency unit of the country of origin of tourists. For Cyprus and Croatia the indicators were converted into euros on the basis of IMF's data, so as to have a common monetary basis with the regions of Italy, Spain and Greece.

Results for these new regressions, presented in columns (4)-(6) in both tables 6 and 7, substantially confirm the findings of the previous sets of regressions. The only main difference emerges in regression (4) in table 7, showing that both income and price coefficients are not statistically significant in affecting the number of nights tourists spend at holiday resorts.

There also appear to be differences in the magnitudes of price coefficients as measured by the competitiveness indicators discussed in section 4 and those defined by (6). One possible explanation for this could be that, while the previous sets of indicators (*IC_{rt}*) only refer to the hotel sector, the new set refers to the entire basket of goods available in both the origin countries and the holiday regions. This could imply that tourist demand for hotel services is likely to be more reactive to relative hotel price indices than to overall relative price indices.

The results of the regressions we run indicate that while income and price are important factors for inducing people from foreign countries to travel abroad, there are some qualitative factors specific to the regions that also affect the success of the holiday destinations. The presence of famous natural or artistic heritage sites can indeed induce people to visit the regions where such sites are hosted. However, since tourists from a given country would seem to visit regions where they or their friends have already been, it is essential that the service quality levels be consistently high over time. Among the services we can also include those provided by the infrastructural endowments in the regions of destination. The presence of adequate airport systems is likely to allow regions to attract a larger number of carriers, thereby reaping the benefits from the recent surge in the number of low cost airline connections. This fact is also likely to mitigate the adverse effects determined by the distance of the destination regions from the tourists' countries of origin.

There are other factors that have not been considered in this paper but which can affect the success of the regions of destination. Among them we can include the different range of services provided for by ho-

tels of according to their category (such as those sold by 5 or 4 star hotels, comparing with 3 or 2 star structures). Besides, hotels of the same categories in one region may offer services that are more suitable to national customers rather than international tourists. One further aspects regards the different sale tax rates applied by central governments on tourist related prices. For instance in Italy the VAT rate applied in the tourism sector (20 per cent) is much higher than that applied in Spain (7 per cent). If the prices for one hotel overnight stay in any Italian or Spanish resort of comparable qualitative level were the same, a higher tax rate would be tantamount to applying a wedge between the Italian and the Spanish price, thereby hindering Italy's performance.

A proper discussion of these aspects was however beyond the purposes of this paper and we leave them for further research to develop.

Appendix I: Methodological notes

In this note we briefly illustrate the main methodological choices that have been made while developing our analysis.

The choice of the 5 Mediterranean countries and of the 1999-2004 time span is mainly due to data availability. Data on tourist arrivals and on night-stays at hotels in Spain, with full details about the regions of destination and the countries of origin of tourists, can be easily downloaded from the internet website of the Spanish statistical office (INE). For all the remaining countries data were obtained on request from the respective statistical agencies (see table a1). Data for Portuguese, Turkish and French regions were also sought after, but until now with little success. Portugal's statistical office publishes on the websites some data broken down by regions and nationalities of tourists. However, but the list of nationalities is much shorter than that referring the five countries under study.

Table A1

SUMMARY OF DATA AND OF THEIR SOURCES	
Data	Sources
Tourist hotel arrivals and night-stays	National statistical offices of Italy (Istat), Spain (INE), Greece (NSSI), Croatia (CBS) and Cyprus (CYstat).
Population in the countries of origin	United Nations' website
Per capita GDC in the countries of origin	IMF's WEO dataset - IMF website (www.imf.org)
Hotel and restaurant consumer price indices	Nazionali statistical offices of Italy, Spain (INE), Greece (NSSI), Croatia (CBS) and Cyprus (CYstat). Italian data (kindly provided for by Silvia Fabiani, Angela Gattulli and Giovanni Veronese) and Spanish data are originally disaggregated at subnational level.
Bilateral exchange rates (currency units of the countries of origin of foreign tourists necessary to buy one currency unit in the country of destination)	IMF.
Blue flags awarded to the coasts of the five Mediterranean countries	National sections of the Foundation for the Environmental Education (FEE), responsible for the awards.
Coastal length in kilometers and regional surface	National statistical offices.
World heritage sites	UNESCO's website
International passengers flights at regional airports	Internet websites of: Assaeroporti (Italy), Ministero de fomento (Spain), <i>Hellenic Civil Aviation Authority</i> (HCCA - Greece), Croatian statistical office (CBS) e Cyprus's statistical office (CYstat).
Regional Population	Eurostat, Regio databank
Distance in kilometers between the capital cities of the tourists' countries of origin and of the regions of destination	Microsoft Autoroute and Microsoft Encarta software
Further data	
International tourist arrivals	UNWTO (2005b)
Hotel competitiveness price indices	World Travel and Tourism Council (website: http://www.wttc.org)

For the purposes of this paper we focussed our attention only on coastal regions. We decided to define as "coastal regions" the NUTS2 areas identified by the European Union which have at least one direct access to the sea. For the sake of simplicity and for the magnitudes of in-

bound tourist flows to the island, Cyprus is likened to a NUTS2 region²⁹. As to Croatia, we decided to aggregate in one region “Adriatic Croatia” the districts (*županije*) which have direct access to the Adriatic Sea. In doing so we adopted the regional partition detailed in Hedl (2005)³⁰. The list of regions is presented in table a2.

Table A2

LIST OF NUTS2 COASTAL REGIONS		
Countries of destination	Regions of destination	
	Coastal regions	Other regions
Italy	Veneto, Friuli-Venezia Giulia, Emilia-Romagna, Liguria, Tuscany, Marche, Latium, Abruzzo, Molise, Campania, Apulia, Basilicata, Calabria, Sicily, Sardinia	Piedmont, Lombardy, Umbria, Aosta's Valley, Trentino-Süd Tirolo
Spain	Catalonia, Balearic Islands, Valencian community, Andalusia, Murcia, Asturias, Galicia, Basque Countries, Cantabria, Canary Islands, Ceuta, Melilla	Aragon, Castilla-La Mancha, Castilla-Leon, Extremadura, La Rioja, Madrid's region, Navarra
Greece	Eastern Makedonia and Thrace, Central Makedonia, Attika, Thessalia, Central Greece, Crete, Northern Aegean Islands, Southern Aegean Islands, Epirus, Ionian Islands, Western Greece, Peloponnese	Western Makedonia
Croatia	Istria, Dubrovnik-Neretva, Split-Dalmatia, Lika-Senj, Primorje-Gorski, Šibenik-Knin, Zadar	Bjelovar-Bilogora, Slavonski Brod-Posavina, Osijek-Baranja, Požega-Slavonia, Sisak-Moslavina, Virovitica-Podravina, Vukovar-Sirmium, Karlovac, Koprivnica-Križevci, Krapina-Zagorje, Medimurje, Varaždin, Zagreb City, Zagreb County
Cyprus	Republic of Cyprus (Northern Republic of Turkish Cyprus not included)	

We limit our attention to tourist flows recorded at hotels located in coastal regions. The reason for this is threefold. Firstly, hotel arrivals and night-stays are much larger than those occurring at non-hotel receptive structures (i.e. campings, rented homes, etc.; see paragraph 3). Secondly, detailed hotel data could be found for all the regions of the five Mediterranean countries. Finally, the definition of what can be classified as “hotel” is more uniform and unequivocal across countries than what enters alternative receptive structure definitions³¹.

One further area that required some qualification regards tourists' nationalities. We decided to confine our analysis to foreign tourist flows in the strict sense of the term (see table a3): in this paper by foreign tourists we refer to travellers whose country of origin is different from any of the 5 Mediterranean countries of destination we consider. In other words,

²⁹ The island of Cyprus is presently politically divided in two halves: the Republic of Cyprus and the Turkish Republic of Northern Cyprus. In this paper, for the sake of simplicity, the Republic of Cyprus is referred as “Cyprus”, whereas we do not have data on the tourist flows towards the Northern republic. The surface of the Republic of Cyprus is about 9,300 square kilometres, much less smaller than the area extent of such insular regions as Sicily or Sardinia and similar to that of Crete. We therefore opted to consider the whole of the Republic of Cyprus as a single region.

³⁰ This partition mirrors the one proposed in the Croatian Parliament with a view to aggregating the 21 administrative *županije* in 4 homogeneous macro-regions so as to define the NUTS2 regions as required by the EU.

³¹ Although there exists a set of definitions issued by the UNWTO which should have been universally adopted, ambiguities in the data still seem to exist. One example can be given by “rented-homes” entry. Spanish and Croatian data seem to include in this category all data referring to privately-owned flats rented out to tourists, whereas Italian data are only limited to houses owned by registered professional entities, thereby greatly underestimating the phenomenon. Furthermore, the time span covered by data differs across countries (for example, in Spain rented homes data start from the year 2000, while agritourism series begin from 2003; in Italy the former aspect can be tracked down until the mid-nineties, while agritourism data exist from at least 1999).

we do not include in the analysis tourists from Italy, Spain, Greece, Croatia or Cyprus.

Table A3

COUNTRIES OF ORIGIN OF FOREIGN TOURISTS (1)	
Europe	Germany, Austria, Belgium-Luxemburg, Denmark, Finland, France, The Netherlands, Ireland, Portugal, United Kingdom, Sweden, Slovak Republic, Hungary, Norway, Poland, Czech Republic, Switzerland-Liechtenstein, Turkey, Russia, Other European countries
America	Argentina, Brazil, Canada, United States, Mexico, Other central and southern American countries
Other continents	Japan, Other Asian countries, Australia-New Zealand, African countries, Rest of the World

(1) Nationalities for which detailed data on tourist hotel arrivals and nights only exist for a subset of coastal regions have been aggregated in the residual classes, according to their respective continents of location.

Several reasons help explain this decision. Firstly, by doing so we can more neatly distinguish between the countries of origin of tourists and the countries/regions of destination, following the approach adopted by Papatheodorou (1999). Secondly, between 1999 and 2004 internal tourist flows in the five Mediterranean countries increased in contrast with the inbound movements originated from abroad. Thirdly, there seem to be different sets of motives that lie at the basis of decisions to travel within the country as opposed to decisions to go abroad. Seaside resorts are normally visited by tourists from within the same country/region several times over the same season; visits are mainly concentrated in the weekends and during the central summer months (July and August). Therefore average stays tend to be much lower for nationals tourists than for international travellers. Finally, the citizens of the five Mediterranean countries tend to spend their holidays in seaside resorts located in their countries. As a matter of fact, except for Italians who tend to travel to seaside resorts in Spain, Greece, Croatia and Cyprus, nationals of the latter countries tend to spend their holidays at resorts located in their own countries (table a7). Nevertheless, even in the case of Italians, the fractions of tourists going to the other four Mediterranean countries seem to be of negligible magnitude.

APPENDIX II: Statistical tables

SYMBOLS AND CONVENTIONS

In tables we have used the following symbols:

- *the phenomenon in question does not occur;*
- *the phenomenon occurs but its value is not known;*
- .. *the value is known but it is nil or less than half the final digit;*

Table A4

WORLD'S TOP TOURISM SPENDERS IN 2004 (millions, percentages, units)

Countries of origin	International expenditures			Population (2)	Average per capita expenditure (3)
	Amount	Per cent change (2003-04)	% shares of world total		
World	623	18,8	100,0	6.373	98
Germany	710	9,7	11,4	82	861
United States	656	14,3	10,5	293	224
United Kingdom	559	16,7	9,0	60	928
Japan	381	32,3	6,1	127	299
France	286	22,2	4,6	60	474
Italy	205	-0,4	3,3	58	354
China	191	26,1	3,1	1	15
The Netherlands	164	12,5	2,6	16	1.007
Canada	160	19,3	2,6	33	493
Russian Federation	157	22,1	2,5	144	109
Belgium	140	14,8	2,3	10	1.356
Hong King (China)	133	15,8	2,1	7	1.934
Spain	122	34,2	2,0	40	302
Austria	114	-3,5	1,8	8	1.388
Sweden	101	23	1,6	9	1.126
Southern Korea	99	19,5	1,6	48	204
Australia	94	29	1,5	20	472
Switzerland	88	17,7	1,4	7	1.181
Norway	84	26,3	1,4	5	1.842
Taiwan	82	26,1	1,3	23	359

Source: UNWTO (2005).

(1) US dollar millions. - (2) Million inhabitants. - (3) Dollars.

Table A5

**MAIN DESTINATION COUNTRIES
BY NUMBER OF TOURIST ARRIVALS (1)**

(millions and percentages)

Destination countries	International arrivals			Market shares (%)	
	2002	2003	2004	2003	2004
World	700.0	690.0	763.0	100.0	100.0
France	77.0	75.0	75.1	10.9	9.8
Spain	52.3	51.8	53.6	7.5	7.0
United States	43.6	41.2	46.1	6.0	6.0
China	36.8	33.0	41.8	4.8	5.5
Italy	39.8	39.6	37.1	5.7	4.9
United Kingdom	24.2	24.7	27.8	3.6	3.6
Hong Kong (China)	16.6	15.5	21.8	2.2	2.9
Mexico	19.7	18.7	20.6	2.7	2.7
Germany	18.0	18.4	20.1	2.7	2.6
Austria	18.6	19.1	19.4	2.8	2.5
Canada	20.1	17.5	19.2	2.5	2.5
Turkey	12.8	13.3	16.8	1.9	2.2
Malaysia	13.3	10.6	15.7	1.5	2.1
Ukraine	10.5	12.5	15.6	1.8	2.0
Poland	14.0	13.7	14.3	2.0	1.9
Greece	14.2	14.0	12.1	2.0	1.6
Hungary	..	..	12.2	..	1.6
Thailand	10.9	10.0	11.7	1.4	1.5
Portugal	11.6	11.7	11.6	1.7	1.5
Netherlands	9.6	9.2	9.6	1.3	1.3
Russian Federation	7.9	8.5	9.2	1.2	1.2
Saudi Arabia	7.5	7.3	8.6	1.1	1.1
Macao (China)	6.6	6.3	8.3	0.9	1.1
Croatia	6.9	7.4	7.9	1.1	1.0
Ireland	6.5	6.8	7.0	1.0	0.9

Source: UNWTO (2005) e NSSI.

(1) Data for Greece in 2004 were taken from the Greek Statistical Office (NSSI).

Table A6

**MAIN FEATURES OF COASTAL REGIONS IN THE FIVE
MEDITERRANEAN COUNTRIES – 2004 (1)**

(percentages; thousand bedplaces; blue flags every 100 kms of shoreline; number of world heritage sites; number of international flights every 100 regional inhabitants)

Regions	Hotel and restaurant value added (2)	Number of bedplaces (3)		Coastal length (kms)	Coastal regions surface (square kms)	Number of blue flags (4)	World heritage sites	Average stay (5)	Number of international flights (6)
		Hotels	Other structures						
Veneto	4.5	189.9	439.8	158	18,379	5.7	4	3.0	1.8
Friuli-V.G.	4.1	38.4	115.8	111	7,844	13.4	1	3.2	0.3
Liguria	5.7	72.5	78.8	349	5,421	10.3	1	3.2	0.5
Emilia-Romagna	3.7	283.2	137.0	131	22,124	16.8	4	4.2	1.1
Tuscany	4.5	178.3	262.8	601	22,997	2.8	6	2.8	1.0
Marche	3.6	58.9	145.0	173	9,694	11.0	1	4.3	0.3
Latium	3.2	142.3	108.3	361	17,208	6.9	6	2.6	3.4
Abruzzo	3.3	49.1	51.7	125	10,799	16.7	0	4.4	0.2
Molise	3.0	5.8	6.8	35	4,438	11.3	0	3.0	-
Campania	3.4	98.2	77.7	469	13,595	6.0	5	4.1	0.4
Apulia	2.9	68.1	135.9	865	19,363	2.0	2	3.3	0.2
Basilicata	2.8	20.7	11.7	62	9,992	6.4	1	4.1	-
Calabria	2.8	81.4	106.9	715	15,080	1.1	0	6.4	0.1
Sicily	2.9	97.2	60.2	1,483	25,707	0.7	12	3.3	0.3
Sardinia	4.3	86.0	80.8	1,730	24,090	0.5	1	5.0	0.6
Italian coastal regions	3.7	1,469.9	1,819.0	7,375	226,731	3.3	44	3.2	1.8
Italy	3.5	1,999.7	2,205.8	7,375	301,318	3.4	58	3.3	1.2
Andalucia	6.5	248.2	298.7	945	87,597	8.1	9	3.8	1.0
Asturias	5.1	25.6	69.8	401	10,604	2.7	1	2.3	....
Balearic islands	21.4	323.2	215.0	1,428	4,992	4.1	1	7.5	13.6
Basque countries	5.5	20.2	26.2	246	7,234	2.0	0	1.9	0.8
Canary islands	15.2	159.6	473.2	1,583	7,447	1.7	2	9.3	6.3
Cantabria	7.9	23.1	82.7	284	5,321	4.9	1	2.3	....
Catalonia	6.5	272.4	874.7	699	32,114	15.2	8	3.9	2.3
Galicia	5.3	69.2	88.2	1,498	29,574	5.7	3	2.0	....
Murcia	5.0	17.1	49.7	274	11,313	8.0	1	3.0	....
Valencian community	6.3	118.5	339.2	518	23,255	19.3	5	5.0	1.5
Ceuta	3.8	0.0	0.0	19	19	5.3	0	1.4	....

(continued on next page)

Table A6
(continued from previous page)

**MAIN FEATURES OF COASTAL REGIONS
IN THE FIVE MEDITERRANEAN COUNTRIES – 2004 (1)**

(percentages; thousand bedplaces; blue flags every 100 kms of shoreline; number of world heritage sites; number of international flights every 100 regional inhabitants)

Regioni	Hotel and restaurant value added (2)	Number of bedplaces (3)		Coastal length (kms)	Coastal regions surface (square kms)	Number of blue flags (4)	World heritage sites	Average stay (5)	Number of international flights (6)
		Hotels	Other structures						
Melilla	3.9	0.9	0.0	8	13	12.5	0	1.6	....
Spanish coastal regions	7.3	1,278.2	2,517.4	7,903	219,483	6.4	31	5.5	2.4
Spain	6.7	1,511.6	2,837.1	7,903	505,987	6.4	54	5.0	2.6
Eastern Macedonia and Thrace	5.0	17.1	13.0	630	14,158	2.4	0	4.8	0.3
Central Macedonia	8.1	76.1	63.5	711	18,811	7.9	2	5.0	1.3
Epirus	5.9	10.8	8.5	304	9,203	1.6	0	3.5	0.5
Thessalia	5.0	26.2	5.8	960	14,037	2.3	0	3.4	0.3
Ionian islands	18.3	80.2	12.5	1,339	2,307	3.3	0	8.6	8.1
Western Greece	6.9	16.0	13.4	900	11,350	1.4	2	3.0	0.1
Central Greece	3.4	28.6	10.5	1,181	15,549	1.4	2	2.9	0.0
Attica	7.7	62.3	5.1	1,036	3,808	0.8	2	2.7	2.4
Peloponnese	5.5	32.2	29.2	1,320	15,490	2.0	4	3.6	0.1
Northern Aegean islands	3.5	21.9	1.0	1,586	3,836	1.4	2	8.2	1.9
Southern Aegean islands	21.3	152.4	17.3	4,016	5,286	1.8	3	8.3	9.2
Crete	15.0	140.5	5.4	1,034	8,336	7.5	0	8.1	5.1
Greek coastal regions	7.9	664.1	185.4	15,021	122,170	2.5	17	6.1	2.3
Greece	7.8	668.3	185.4	15,021	131,957	2.5	17	6.1	1.9
Adriatic Croatia	7.4	....	....	5,835	24,705	1.6	6	5.2	1.4
Rep. of Croatia	3.8	114.0	757.2	5,835	24,705	1.7	6	4.8	0.8
Cyprus	7.9	84.1	12.4	671	9,251	6.1	3	10.2	4.1

Sources: National statistical offices, Eurostat, FEE, UNESCO, Assaeroporti, Ministerio de Fomento, Hellenic Civil Aviation Authority.
(1) 2004 data, except where indicated otherwise. - (2) Percentage shares of total 2004 regional value added. For Italy Spain new regional accounts data were used (base year 2000). - (3) Thousand units. - (4) Every one-hundred kilometers of shoreline. - (5) Data only refer to hotels and to foreign tourists in the sense explained in Appendix 1. - (6) Every one hundred inhabitants of the region where the airport are located.

Table A7

**SHARES OF ARRIVALS AND NIGHT STAYS OF CITIZENS
FROM THE FIVE MEDITERRANEAN COUNTRIES - 2004 (1) (2)**
(percentages)

Nationalities	Visited countries									
	Italy		Spain		Greece		Croatia		Cyprus	
	Arriv-als	Night stays	Arriv-als	Night stays	Arriv-als	Night stays	Arriv-als	Night stays	Arriv-als	Night stays
Italians	58.2	59.0	2.8	2.9	4.0	4.6	13.0	11.2	0.9	0.7
of which: <i>coastal reg.</i>	59.3	61.5	3.1	3.0	4.1	4.6	14.1	11.6	0.9	0.7
Spaniards	1.6	1.1	56.4	40.0	1.1	0.6	0.9	0.5	0.1	0.1
of which: <i>coastal reg.</i>	1.9	1.2	49.4	33.9	1.1	0.6	0.9	0.5	0.1	0.1
Greeks	0.4	0.3	0.1	0.1	47.0	28.4	0.1	0.1	3.9	2.8
of which: <i>coastal reg.</i>	0.4	0.3	0.1	0.1	46.3	28.0	0.1	0.0	3.9	2.8
Croats	0.2	0.2	..	..	..	..	24.2	15.1	..	..
of which: <i>coastal reg.</i>	0.2	0.2	..	..	..	..	20.6	12.7	..	..
Cypriots	..	..	..	..	0.5	0.3	..	..	18.0	6.7
of which: <i>coastal reg.</i>	..	..	..	..	1.2	0.9	..	..	18.0	6.7

Fonte: National statistical offices of Italy, Spain, Greece, Croatia, Cyprus.

(1) For the purposes of this paper, "national Tourists" are those who reside in one of the 5 Mediterranean countries. – (2) The shares are given by the ration between tourists' arrivals (night-stays) from each of the five nationalities indicated on the rows and total tourist arrivals (night-stays) in the 5 countries indicated in the columns.

Table A8

**WEIGHT OF FOREIGN TOURIST MARKETS
FOR THE 15 MOST VISITED COASTAL REGIONS (1)**

(percentage values)

Regions of destination	1999	2004
Balearic Islands	Germany (51,2); United Kingdom (32,6); France (3,5); Belgium-Luxembourg (2,7); Netherlands (1,7); Switzerland and Liechtenstein (1,6); Sweden (1,5); Austria (0,7); Norway (0,7); Denmark (0,6)	Germany (46,6); United Kingdom (36,6); France (3,0); Belgium-Luxembourg (2,1); Netherlands (1,9); Switzerland and Liechtenstein (1,7); Sweden (1,5); Ireland (1,4); Denmark (0,8); Austria (0,7)
Canary Islands	Germany (48,2); United Kingdom (25,5); Belgium-Luxembourg (5,0); Netherlands (4,0); Sweden (3,0); France (2,5); Switzerland and Liechtenstein (2,1); Austria (1,5); Norway (1,4); Denmark (1,2)	Germany (42,3); United Kingdom (32,3); Belgium-Luxembourg (4,4); Netherlands (4,3); Sweden (2,6); France (1,9); Ireland (1,9); Norway (1,5); Austria (1,3); Switzerland and Liechtenstein (1,3)
Catalonia	Germany (19,9); United Kingdom (17,9); France (12,4); Netherlands (11,1); Belgium-Luxembourg (7,1); USA (3,7); Russia (3,7); Poland (3,1); Switzerland and Liechtenstein (3,0); Czech republic (2,8)	United Kingdom (27,6); France (16,1); Germany (12,4); Netherlands (8,1); Belgium-Luxembourg (6,8); USA (3,8); Russia (3,2); Switzerland and Liechtenstein (2,9); Other European countries (1,9); Altri paesi del mondo (1,6)
Andalusia	United Kingdom (28,2); Germany (25,5); France (8,1); Belgium-Luxembourg (7,8); USA (5,4); Netherlands (3,7); Other countries of the world (2,7); Japan (2,3); Portugal (2,0); Ireland (1,5)	United Kingdom (33,9); Germany (23,4); France (7,8); Belgium-Luxembourg (5,5); USA (4,9); Netherlands (3,6); Portugal (3,0); Ireland (2,9); Altri paesi del mondo (2,4); Japan (1,5)
Veneto	Germany (31,2); Austria (12,9); USA (8,9); United Kingdom (8,2); France (8,0); Switzerland and Liechtenstein (4,8); Other European countries (3,2); Japan (3,0); Other Asian countries (2,5); Belgium-Luxembourg (2,1)	Germany (26,5); Austria (11,3); United Kingdom (10,8); USA (9,2); France (7,8); Other Asian countries (4,5); Switzerland and Liechtenstein (4,3); Other European countries (4,2); Japan (2,8); Belgium-Luxembourg (1,9)
Latium	USA (25,1); Japan (14,5); Germany (9,6); United Kingdom (7,1); France (4,7); Other Asian countries (4,6); Brasil (4,0); Other European countries (3,1); Other Central and Southern American countries (3,0); Sweden (2,4)	USA (23,2); United Kingdom (10,4); Germany (9,5); Japan (8,9); Other Asian countries (7,3); France (5,7); Other world countries (5,5); Australia New Zealand (2,9); Netherlands (2,5); Other European countries (2,5)
Cyprus	United Kingdom (49,5); Germany (16,1); Russia (7,1); Switzerland and Liechtenstein (5,6); Other Asian countries (4,3); Netherlands (2,5); Austria (1,9); Poland (1,8); Belgium-Luxembourg (1,7); France (1,7)	United Kingdom (61,8); Germany (10,9); Russia (5,4); France (2,7); Switzerland and Liechtenstein (2,7); Other Asian countries (2,4); Austria (2,2); France (2,1); Netherlands (1,6); Other European countries (1,4)
Southern Aegean Islands	Germany (38,7); United Kingdom (17,3); Austria (7,1); Netherlands (5,2); Sweden (4,6); Switzerland and Liechtenstein (4,1); Belgium-Luxembourg (3,7); Denmark (3,3); Finland (3,2); Other Asian countries (3,1)	Germany (30,9); United Kingdom (24,2); Austria (7,2); Netherlands (5,8); Belgium-Luxembourg (5,0); Switzerland and Liechtenstein (3,7); Sweden (3,6); France (2,5); Finland (2,4); Norway (2,2)
Tuscany	Germany (24,2); USA (17,6); United Kingdom (7,8); Japan (7,3); France (6,6); Switzerland and Liechtenstein (5,8); Austria (3,6); Other Asian countries (3,3); Netherlands (3,2); Other European countries (2,7)	USA (17,6); Germany (16,3); United Kingdom (8,7); France (7,3); Japan (6,2); Other Asian countries (5,9); Switzerland and Liechtenstein (5,3); Other European countries (3,4); Netherlands (3,4); Austria (3,2)
Adriatic Croatia	Other European countries (31,5); Germany (21,5); Czech republic (15,9); Austria (15,7); United Kingdom (3,8); Portugal (3,5); Poland (2,3); USA (1,0); France (0,7); Belgium-Luxembourg (0,7)	Germany (29,7); Other European countries (18,0); Austria (11,1); United Kingdom (7,8); France (7,1); Czech republic (5,8); Slovakia (4,8); Poland (2,0); Belgium-Luxembourg (1,9); Portugal (1,9)
Crete	Germany (48,2); United Kingdom (9,1); France (6,2); Austria (5,9); Belgium-Luxembourg (5,5); Netherlands (4,9); Switzerland and Liechtenstein (3,6); Suecia (2,9); Denmark (2,1); Other European countries (2,0)	Germany (37,5); France (12,7); United Kingdom (12,7); Belgium-Luxembourg (6,2); Austria (4,6); Switzerland and Liechtenstein (3,7); Netherlands (3,5); Russia (3,1); Sweden (2,1); Norway (1,9)
Valencian Community	United Kingdom (61,4); Belgium-Luxembourg (11,6); Netherlands (5,6); France (5,2); Germany (4,7); Portugal (2,9); Switzerland and Liechtenstein (1,0); USA (0,9); Altri paesi del mondo (0,7); Paesi africani (0,6)	United Kingdom (60,5); Belgium-Luxembourg (7,7); France (5,6); Germany (4,6); Netherlands (4,3); Portugal (3,6); Altri paesi del mondo (2,2); Other European countries (1,6); USA (1,2); Switzerland and Liechtenstein (1,1)
Emilia-Romagna	Germany (39,1); Switzerland and Liechtenstein (10,0); France (8,0); Austria (5,2); Other European countries (4,8); Belgium-Luxembourg (4,5); United Kingdom (3,7); Russia (3,1); USA (2,8); Poland (2,5)	Germany (27,3); Switzerland and Liechtenstein (10,3); France (10,2); Other European countries (8,5); United Kingdom (5,1); Russia (4,7); Belgium-Luxembourg (4,4); Austria (4,1); USA (2,8); Netherlands (2,8)
Campania	Germany (30,2); United Kingdom (23,5); USA (10,3); France (6,6); Belgium-Luxembourg (3,6); Austria (3,1); Switzerland and Liechtenstein (2,7); Japan (2,1); Sweden (1,3); Netherlands (1,2)	United Kingdom (25,6); Germany (19,7); USA (13,3); France (9,4); Japan (4,4); Other European countries (2,7); Belgium-Luxembourg (2,6); Switzerland and Liechtenstein (2,5); Austria (2,4); Ireland (1,8)
Sicily	Germany (27,3); France (24,5); USA (9,3); United Kingdom (6,2); Switzerland and Liechtenstein (4,7); Belgium-Luxembourg (4,5); Netherlands (4,0); Austria (3,2); Japan (2,3); Other European countries (2,2)	France (25,4); Germany (18,5); United Kingdom (11,1); USA (9,9); Belgium-Luxembourg (4,8); Netherlands (4,4); Switzerland and Liechtenstein (3,9); Other European countries (2,5); Austria (2,5); Japan (2,3)

Source: Central statistical offices of the 5 countries of destination.

(1) For any given region, the market weights are expressed as ratios of night hotel stays of tourists from each country of origin to total number of foreign tourists's night-stays in the region. For simplicity, only the first 10 markets by decreasing importance are shown in the table.

Table A9

**FOREIGN TOURIST DESTINATION PREFERENCES
BY COUNTRIES OF ORIGIN (1)**

(percentage values)

Countries of origin	1999	2004
Germany	Balearic Islands (30,9); Canary Islands (18,6); Southern Aegean Islands (6,3); Crete (5,7); Veneto (5,4); Andalusia (5,4); Catalonia (5,2); Emilia-Romagna (3,0); Tuscany (2,8); Campania (2,1)	Balearic Islands (29,2); Canary Islands (19,2); Andalusia (6,4); Veneto (6,0); Crete (5,4); Southern Aegean Islands (4,9); Catalonia (4,4); Adriatic Croatia (4,3); Emilia-Romagna (2,7); Tuscany (2,4)
UK	Balearic Islands (29,1); Canary Islands (14,6); Valencian Community (9,3); Cyprus (8,9); Andalusia (8,9); Catalonia (6,9); Southern Aegean Islands (4,1); Ionian Islands (3,9); Campania (2,4); Veneto (2,1)	Balearic Islands (23,6); Canary Islands (15,1); Cyprus (10,1); Catalonia (10,0); Andalusia (9,5); Valencian Community (8,0); Southern Aegean Islands (3,9); Ionian Islands (2,8); Veneto (2,5); Campania (2,5)
France	Catalonia (19,0); Balearic Islands (12,4); Andalusia (10,1); Veneto (8,2); Sicily (6,8); Canary Islands (5,8); Tuscany (4,5); Crete (4,3); Emilia-Romagna (3,6); Lazio (3,2)	Catalonia (22,0); Andalusia (8,2); Balearic Islands (7,4); Crete (7,1); Veneto (6,9); Sicily (6,4); Lazio (4,3); Tuscany (4,2); Adriatic Croatia (4,0); Emilia-Romagna (4,0)
USA	Lazio (25,0); Tuscany (15,8); Veneto (12,0); Andalusia (8,9); Catalonia (7,6); Attica (5,6); Campania (5,6); Sicily (3,4); Liguria (2,0); Friuli-Venezia Giulia (1,8)	Lazio (26,1); Tuscany (15,2); Veneto (12,1); Catalonia (7,8); Andalusia (7,8); Campania (7,3); Attica (4,9); Sicily (3,8); Liguria (2,0); Emilia-Romagna (1,6)
Belgium-Luxembourg	Canary Islands (15,8); Catalonia (15,2); Andalusia (13,5); Balearic Islands (13,5); Valencian Community (9,8); Crete (5,4); Southern Aegean Islands (4,9); Veneto (3,0); Emilia-Romagna (2,8); Tuscany (2,5)	Catalonia (17,8); Canary Islands (14,8); Andalusia (11,0); Balearic Islands (9,5); Valencian Community (7,3); Crete (6,6); Southern Aegean Islands (5,8); Veneto (3,3); Emilia-Romagna (3,2); Tuscany (3,2)
Netherlands	Catalonia (26,4); Canary Islands (13,9); Balearic Islands (9,4); Southern Aegean Islands (7,7); Andalusia (7,1); Crete (5,3); Valencian Community (5,3); Tuscany (3,3); Veneto (2,9); Cyprus (2,7)	Catalonia (22,7); Canary Islands (15,6); Balearic Islands (9,7); Andalusia (7,8); Southern Aegean Islands (7,3); Valencian Community (4,4); Crete (4,1); Tuscany (4,0); Lazio (3,9); Veneto (3,3)
Austria	Veneto (22,4); Southern Aegean Islands (11,4); Adriatic Croatia (10,5); Crete (7,0); Friuli-Venezia Giulia (6,8); Canary Islands (5,6); Balearic Islands (4,3); Tuscany (4,1); Emilia-Romagna (4,0); Ionian Islands (3,8)	Veneto (22,2); Adriatic Croatia (14,1); Southern Aegean Islands (9,7); Friuli-Venezia Giulia (7,7); Crete (5,8); Canary Islands (5,1); Tuscany (4,1); Balearic Islands (3,7); Emilia-Romagna (3,6); Cyprus (3,0)
Other European countries	Adriatic Croatia (28,6); Attica (8,6); Veneto (7,5); Catalonia (7,0); Lazio (5,4); Emilia-Romagna (4,9); Tuscany (4,2); Andalusia (4,1); Macedonia Centrale (3,7); Crete (3,3)	Adriatic Croatia (25,3); Veneto (9,1); Emilia-Romagna (8,1); Catalonia (6,3); Tuscany (4,9); Lazio (4,6); Macedonia Centrale (3,9); Attica (3,8); Andalusia (3,2); Balearic Islands (2,8)
Switzerland-Liechtenstein	Balearic Islands (10,6); Veneto (9,3); Canary Islands (9,2); Catalonia (8,7); Emilia-Romagna (8,5); Cyprus (7,6); Tuscany (7,5); Southern Aegean Islands (7,4); Liguria (4,9); Crete (4,8)	Balearic Islands (10,4); Emilia-Romagna (10,0); Catalonia (9,9); Veneto (9,5); Tuscany (7,7); Canary Islands (5,8); Southern Aegean Islands (5,6); Liguria (5,3); Crete (5,2); Sardegna (4,7)
Japan	Lazio (38,2); Tuscany (17,3); Veneto (10,6); Andalusia (10,2); Catalonia (7,7); Attica (3,8); Campania (3,1); Sicily (2,2); Emilia-Romagna (1,2); Valencian Community (1,1)	Lazio (31,3); Tuscany (16,8); Veneto (11,6); Catalonia (8,9); Campania (7,5); Andalusia (7,5); Attica (4,3); Sicily (2,7); Emilia-Romagna (1,6); Valencian Community (1,4)

Source: Central statistical offices of the 5 countries of destination.

(1) For any given nationality, preferences are expressed as ratios of night hotel stays in the regions to total night stays in the five Mediterranean countries' coastal areas. For the sake of simplicity, for each nationality only the 10 most preferred destinations are shown in the table.

References

- Breda E., C. Borghese (2005), "Commercio mondiale di turismo e viaggi internazionali", *mimeo*.
- Caronna P. e G. de Caprariis (2005), "Per un progetto paese sul turismo", Confindustria, *Documenti di lavoro*, No. 2, settembre.
- Caruso M, R. Sabbatini e P. Sestito, "Inflazione e tendenze di lungo periodo nelle differenze geografiche del costo della vita", *Moneta e credito*, 183, settembre 1993.
- Caselli P., S. Rossi (1989), "Nuovi indicatori della competitività internazionale", *Politica del turismo*, No. 1, pp. 23-29.
- Ciaccio, G. (2005), "L'evoluzione del settore turistico in Sicilia e la competizione con i paesi del Mediterraneo", *Rivista economica del Mezzogiorno*, No. 1, pp.197-223.
- Costa P., M. Manente, V. Minghetti e J. van der Borg (1994), "Il movimento turistico da e per l'Italia. Le previsioni al 1995 dai modelli TRIP", *Quaderni Ciset*, No. 8.3.
- Divisikera S. (2003), "A model of demand for international tourism", *Annals of tourism research*, 30 (1), pp. 31-49.
- Dritsakis N. (2004), "Cointegration analysis of German and British tourism demand for Greece", *Tourism management*, 25, pp.111-19.
- Dwyer L., P. Forsyth e P. Rao (2000), "The price competitiveness of travel and tourism: a comparison of 19 destinations", *Tourism management*, pp.9-22.
- Eilat Y. e L. Einav, (2004), "Determinants of international tourism: a three-dimensional panel data analysis", *Applied Economics*, 36, pp. 1315-27.
- Fabiani S., A. Gattulli, R. Sabbatini e G. Veronese (2005), "Consumer price setting in Italy", Banca d'Italia, *Temi di discussione*, No. 556, June.
- Gaiotti, E. e F. Lippi (2005), "L'introduzione dell'euro e le politiche di prezzo: analisi di un campione di dati individuali", Bank of Italy, *Temi di discussione*, n. 541, February.
- Garín-Muñoz, T. (2006), "Inbound international tourism to Canary Islands: a dynamic panel data model", *Tourism management*, 27, pp. 281-91.
- _____ (2007), "German demand for tourism in Spain", *Tourism management*, 28, pp. 12-22.
- _____ e T. Pérez Amaral (2000), "An econometric model for international tourism flows to Spain", *Applied Economics Letters*,

- 7, pp. 525-29.
- Giacomelli, A. (2003), "I turisti internazionali nelle regioni italiane: un'analisi econometrica", *Turistica*, XII (3) Luglio-Settembre, pp. 31-45.
- González, P. e P. Moral (1995), "An Analysis of the International Tourism Demand in Spain", *International Journal of Forecasting*, 11, pp. 233-51.
- Han Z., R. Durbarry e M. Thea Sinclair (2006), "Modelling US tourism demand for European destinations", *Tourism management*, 27, pp. 1-10.
- Hedl, D. (2005), "La ricca Zagabria e la provincia croata", *Osservatorio sui Balcani*, (sito internet <http://www.osservatoriolbalcani.org/article/articleview/4195/1/44>).
- IET (2005), *Compañias Aéreas de Bajo Coste – Año 2004*, www.iet.tourspain.es.
- IMF (2006), *World Economic Outlook*, September 2006.
- INE (2005), "Cambio de base de la Contabilidad Regional de España Serie 2000-2004", *Press release of 28th December 2005*, www.ine.es.
- Lim, C. (1997a), "An econometric classification and review of international tourism demand models", *Tourism economics*, 3 (1), pp. 69-81.
- _____ (1997b), "Review of International Tourism Demand Models", *Annals of tourism research*, 24 (4), pp. 835-49.
- Lyssiotou, P. (2000), "Dynamic analysis of British demand for tourism abroad", *Empirical Economics*, 15, pp. 421-36.
- Morley, C.L. (1994), "The use of CPI for tourism prices in demand modelling", *Tourism management*, 15 (5), pp. 342-46.
- _____ (1996), "A comparison of three methods for estimating tourism demand models", *Tourism Economics*, 2 (3), pp. 223-34.
- _____ (1998), "A Dynamic International Demand Model", *Annals of tourism research*, 25 (1), gennaio, pp. 70-84.
- Naudé W.A. e A. Saayman (2005), "The Determinants of Tourist Arrivals in Africa: A Panel Data Regression Analysis", *Tourism economics*, 11 (3), settembre, pp. 365-92.
- OAG (2005), "Low Cost Carriers Lead Global Aviation Industry Recovery", *Press Release*, 11 April 2005, (www.oag.com).
- Papatheodorou, A. (1999), "The Demand for International Tourism in the Mediterranean Region", *Applied Economics*, 31, pp. 619-30.

- _____ (2002), "Exploring Competitiveness in Mediterranean Resorts", *Tourism economics*, 8 (2), pp. 133-50.
- Patsouratis V., Z. Frangouli e G. Anastopoulos (2005), "Competition in tourism among the Mediterranean countries", *Applied Economics*, 37, pp. 1865-70.
- Syriopoulos, T.C. (1995), "A Dynamic Model of Demand for Mediterranean Tourism", *Intenational Review of Applied Economics*, 9 (3), pp. 318-36, ristampa in C. Tisdell (2000, vol. I), pp. 209-27.
- _____ e M.T. Sinclair (1993), "An econometric study of tourism demand: the AIDS model of US and European tourism in Mediterranean countries", *Applied economics*, 25, pp.1541-52.
- Tisdell, C. (2000), *The Economics of Tourism*, Cheltenham, Elgar.
- UNWTO (2005a), United Nations World Tourism Organization, *Tourism Highlights*, www.world-tourism.org.
- _____ (2005b), *Tourism Market Trends*, Statistical Annex, sito internet: www.world-tourism.org.
- Vaccaro, G. (2005), "La competitività internazionale dell'offerta turistica", *Studi e note di economia*, 1, pp.113-49.
- WEF (2007), World Economic Forum, *The Travel & Tourism Competitiveness Report 2007*, www.wef.org.
- WTTC (2005), World Travel and Tourism Council, *Croatia: The impact of travel & tourism on jobs and the economy*, www.wttc.org.