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SEASONAL ANALYSIS OF TOURIST REVENUES: AN EMPIRICAL RESEARCH FOR GREECE

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This paper examines the role and factors of seasonality in tourist revenues in the case of Greece. The empirical analysis of the current research is conducted using quarterly data for the period 1960:I– 2005:IV. Osborn et. al. (1998), Miron (1994) and Hylleberg et al. (1990) tests for seasonal unit roots are used to examine deterministic and stochastic seasonality in the various series. The results revealed that tourist revenues in Greece are to some extent seasonal, which implies that most involving parties should extend tourist period aiming at developing tourism of all seasons. Finally, recommendations are provided to deal with the "problem" of seasonality.

Key words: *seasonality, unit root, tourist revenues*

INTRODUCTION

Nowadays, tourism is an economic and social activity of vital importance for many countries worldwide covering all social classes. Its link with the development of modern society is straightforward and aims to satisfy all needs for every person contributing to the acquaintance and reconciliation of mankind for a better future.

Governments worldwide have recognized the important role of tourism in economic growth and social progress and many countries are attempting to develop their tourism potential as quickly and effectively as possible.

The contribution of tourism to countries' economies which are growing from foreign exchange revenues is widely recognized. Nowadays, many countries are facing problems due to deficit in the balance of current accounts. As a result, policies of these countries aim to create motives in these sectors of economic activity which play important role in the foreign exchange inflow.

It is widely known that tourism is an economic activity of primary importance and significance for many countries. Developing countries such as Greece regard tourism as a sector with the potential to cover their foreign currency needs (Dritsakis and Athanasiadis 2000).

Although tourist industry is of great importance for worldwide economy and is regarded as one of the greatest exports, economists paid little attention to the empirical study on the influences of tourist sector to a country's economy (Papatheodorou 1999). A feature that makes Greece special is its significance as an international tourist destination in relation to the relative weight of the revenues derived from foreign exchange. In fact, these revenues coming from tourism are regarded as counterbalance for the current situation of Greece and more specifically for the commercial imbalances in the last decades (Dritsakis, 2004).

During the period 1995-2004, foreign exchange revenues from tourism increased considerably in Greece, approximately by 134.4% over inflation comparing to 44% increase of the total domestic economy. As a result, foreign exchange revenues from tourism reached 6.2% of GDP in 2004 (3.5% in 1995). The fact that tourism is regarded as a "luxury good" in Greece, brings optimism for the ongoing dynamic feature of tourist revenues. This also implies that the more the quality of life increases in an international level , the more tourist expenditures we expect to have. During the 1980's international tourist revenues consisted of 1% of global economy, whereas nowadays, where quality of life has increased considerably, they consist only of 1.5% of the global economy.

The ongoing dynamic evolution of tourist revenues is not sure. The increasing global demand of tourist services is not adequate enough, so that comparative implementation of tourist supplies is needed. Nowadays, the competitiveness by emerging Mediterranean tourist destinations is very intense, especially in terms of prices. As a result, the amount of tourist arrivals in Greece, comparing to an international level, has decreased the last 2 years, despite the glamour of the country due to Olympic Games and the considerable amount of money spent on tourist infrastructure. Departures decreased from 1.9% in 2003 (before Olympic Games) to 1.6% in 2005.But, tourist revenues during the same period 2003-2005 remained stable, approximately 2%, which implies that Olympic Games caused the increase of less –in- quantity, but better-in-quality tourist revenues.

Apart from implementing tourist supply services, another perception of tourist revenues in Greece we should account for, is their seasonal characteristic. During the last five years, more than 50% of foreign tourism is gathered around the tourist peak period from July- September.

In the "authentic" tourist destinations, such as the Aegean and Ionian islands, the percentage of foreign tourism is even higher reaching 56.5% with a tendency to increase. The concentration of tourist activity creates very important problems to tourist destination as long as tourist enterprises are concerned. The current paper aims at testing the seasonal features of tourist revenues that stem from tourist demand. In doing so, it tries to reveal the factors influencing seasonality and analyze the consequences of seasonality in tourist sector, as well as suggesting ways of dealing with seasonality.

The remainder of the paper is as follows: the second section describes seasonality phenomenon. The third section analyzes the unit root test for seasonal time series present deterministic and stochastic trend by using Osborn et al (1998), Miron (1994) and Hylleberg et al (1990) tests. Section four moves on to analyzing the effects of seasonality and suggests measures of dealing with it. Finally, the last section concludes and provides implications for further research.

THE PHENOMENON OF SEASONALITY

Seasonality in tourism is a relatively recent phenomenon that is intensified year by year so that it puzzles the international tourist organisations, governments and the enterprises of tourist network. The phenomenon of seasonality in the case of Mediterranean tourism, where Greece is also included and offers the model of summer holidays based on the sun, sea and sand, can be determined conceptually as the time divergences that a tourist destination presents from the conventional time limits of tourist period which begins in April and finishes in October.

Tourist seasonality in the destinations of summer holidays in the Mediterranean, where roughly the same weather conditions occur and demand mainly derives from the same tourist markets and consequently it behaves uniformly, presents elevation that is expressed with a gradual shrinkage of tourist period. Greece as one of the most important destinations of Mediterranean could not be affected from this activity.

This shrinkage of tourist activity puzzled the European Union, which from the mid 1992 had established communal actions for the time breaking of holidays aiming at the lengthening of tourist period and attractive measures of tourist demand during the winter period. But the World Tourism Organisation with the Code of Ethics for Tourism (Santiago of Chile 1999) prompted governments and tourist enterprises in the frames of viable tourist growth to seek the time and territorial

escalation of tourist movements, in order to limit the pressure of tourist activities on the environment and increase their beneficial effects in the tourist industry and the tourist economy.

The problem of seasonality in the destinations of summer holidays does not only occupy the governments and generally the institutions of tourism, but also the researchers and academics that are seeking for the determinants which have negatively influenced seasonality during the last years. A first approach of the problem leads us to confine the following determinants that appear to influence tourist seasonality.

- The organised mass tourism that is transported in the destinations of Mediterranean has mainly as a motive the sun, the sea and the sand in order to choose the place of their holidays. So, it is expected to prefer that months with the most favourable weather conditions that allow them to enjoy the elements of their preference.
- The tourist supply in the islander and coastal destinations has been created territorially and functionally in such a way and with these specifications that corresponds almost exclusively in the needs and pleasures of tourism of summer holidays.
- Social framework in terms of paid holidays is organized in such a way that the big masses of population that constitute the organised tourism are mainly directed during the peak season, which is considered the time period where work permits are given.
- The lack of concern that the organizers of travels have in the problem of seasonality, as far as the lengthening of tourist period is concerned.

Thus, the problem of tourist seasonality is real and becomes more intricate with the repercussions that causes in the entire spectrum of tourism. This is the reason that the confrontation of this problem presupposes awareness from all the involved institutions and mobilisation of the factors that are related with tourism in order to plan the lengthening of the tourist period, having as a future objective the growth of tourism in all seasons.

EMPIRICAL ANALYSIS

Sometimes the phenomenon under examination could possibly be influenced by the underlying time period. The study of such seasonal influences cannot be done with considering annual time series data, but with considering time series data less than a year. In order to reveal the real determination of the dependent variable within a model of seasonal influences, we should eliminate seasonality. Seasonality is a very

important characteristic of tourism. For this reason, we should eliminate the time series data from seasonal influences. The use of dummy variables contributes in measuring and eliminating these seasonal influences in case where examined time series seasonality is clearly deterministic and has been used by almost all researchers. In order to study the seasonal effects of tourist revenues in Greece, we employed the tests of Osborn et. al. (1998), Miron (1994) and Hylleberg et. al. (1990).

Osborn et. al. (1998) test for the determination of time series seasonality, employs the following equation:

$$\Delta\hat{n}_t = \delta\hat{n}_{t-1} + \sum_{j=1}^{p} \delta_j \Delta\hat{n}_{t-j} + \varepsilon_t \qquad (1)$$

Where Δ is referred to first differences, p are the time lags and $\hat{n}_t$ the estimated residuals of n_t derived from the following regression equation.

$$X_t = \alpha_s + \sum_{j=1}^{s-1} \alpha_j D_{jt} + n_t \qquad (2)$$

Where D_{jt} are the s – 1 dummy variables (s = number of time periods). In other words, $\hat{n}_t$ can be considered as a seasonally adjusted time series. Furthermore, for the unit root testing, we employ the Dickey – Fuller (1979) and Dickey, Hasza. and Fuller (1984) test. As far as the critical values of unit root testing in equation (1) are concerned, we use the Davinson and MacKinnon (1993) statistics.

Since seasonality is a characteristic of tourist data and tourist revenues time series is expressed in quarterly data, we can create three dummy variables (s – 1 = 3), because the variable has four levels (s = 4), as follows:

$$D_{2t} = \begin{cases} 1, & when\ \ period\ \ t\ \ is\ \ referred\ \ to\ \ the\ \ \text{sec}ond\ \ quarter \\ 0 & when\ \ period\ \ t\ \ is\ \ not\ \ referred\ \ to\ \ the\ \ \text{sec}ond\ \ quarter \end{cases}$$

$$D_{3t} = \begin{cases} 1, & when\ \ period\ \ t\ \ is\ \ referred\ \ to\ \ the\ \ third\ \ quarter \\ 0 & when\ \ period\ \ t\ \ is\ \ not\ \ referred\ \ to\ \ the\ \ third\ \ quarter \end{cases}$$

$$D_{4t} = \begin{cases} 1, & when \;\; period \;\; t \;\; is \;\; referred \;\; to \;\; the \;\; fourth \;\; quarter \\ 0 & when \;\; period \;\; t \;\; is \;\; not \;\; referred \;\; to \;\; the \;\; fourth \;\; quarter \end{cases}$$

According to equation (2) we get the following results (where LAT is the logarithm of tourist revenues).

Table 1. Results of seasonality

Dependent Variable: LAT Method: Least Squares Sample(adjusted): 1960:1 2005:4 Included observations: 184				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	12.68658	0.081644	155.3887	0.0000
D2	1.067841	0.115462	9.248402	0.0000
D3	1.197493	0.115462	10.37129	0.0000
D4	0.596519	0.115462	5.166354	0.0000
R-squared	0.452807	Mean dependent var		13.40204
Adjusted R-squared	0.442548	S.D. dependent var		0.700185
S.E. of regression	0.522778	Akaike info criterion		1.564766
Sum squared resid	43.72742	Schwarz criterion		1.640373
Log likelihood	-124.3108	F-statistic		44.13388
Durbin-Watson stat	0.041638	Prob(f-ststistic)		0.000000

From the results of Table 1 we notice that all regression coefficients of the three dummy variables are statistically significant in 1% level of significance. Therefore, it is confirmed that the tourist revenues time series (LAT) shows seasonality.

Using the estimated residuals $\hat{n}_t$ from equation (2), we apply Dickey – Fuller test in equation (1), to investigate the stationarity of $\hat{n}_t$ time series and consequently the seasonally adjusted tourist revenues time series (namely tourist revenues LAT).

Table 2 presents the statistics, which are estimated in equation (1), as well as Breusch – Godfrey test for the residuals autocorrelation. The minimum values of Akaike (1973) and Schwartz (1978) criteria gave the best structure of the equation, as well as the corresponding values of time

lags. For the autocorrelation test in the disturbance terms (ε_t), the Lagrange multiplier was used.

Table 2. Statistics for unit roots testing in the residuals $\hat{n}_t$

p = 0		**p = 1**		**p = 2**		**p = 3**		**p = 4**	
AIC	SCH	AIC	SCH	AIC	SCH	AIC	SCH	AIC	SCH
-1.650	**-1.631**	-1.631	-1.593	-1.613	-1.555	-1.596	-1.519	-1.633	-1.537
0.001 (0.909)		0.053 (0.817)		0.282 (0.595)		1.505 (0.221)		0.068 (0.794)	

The values in parentheses are the levels of significance (Lagrange multiplier test)

From the results of table 2 we observe that the minimum values of Akaike and Schwartz criteria are p = 0. Moreover, for this equation we have no autocorrelation in the residuals.

Taking into account that time lag is (p = 0), we run equation (1) and get the following results.

Table 3. Results of estimated residuals for p = 0

Dependent Variable: Δn
Method: Least Squares
Sample(adjusted): 1960:2 2005:4
Included observations: 183 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
$n(-1)$	-0.015657	0.016276	**-0.961969**	0.3375

R-squared	-0.011786	Mean dependent var	0.013886
Adjusted R-squared	-0.011786	S.D. dependent var	0.105095
S.E. of regression	0.105713	Akaike info criterion	-1.650066
Sum squared resid	1.810381	Schwarz criterion	-1.631086
Log likelihood	135.4804	Durbin-Watson stat	2.005170

The critical values at 1%, 5% and 10% are -2.57, -1.94 and -1.61

From the previous table we conclude that unit root is rejected. In other words, tourist revenues are a non –stationary time series.

According to Miron (1994), the deterministic seasonality in non-stationary quarterly tourist revenues, could probably be obtained from the

regression of first differences of the logarithms of tourist revenues (LAT) on seasonally dummy variables from the following function:

$$\Delta LAT_t = \sum_{s=1}^{4} \delta_i D_{st} = \delta_1 D_{1t} + \delta_2 D_{2t} + \delta_3 D_{3t} + \delta_4 D_{4t} + u_t \quad (3)$$

where

D_{st} is a dummy variable for season s which takes value 1 for season s and 0 for any other season.

δ_s is the coefficient of the seasonal dummy variable which measures the quarterly percentage of revenue growth in season s.

s is the number of season (for quarterly time series s = 4).

u_t = is the stationary error term.

The results of function (3) are presented in table 4.

Table 4. Results of equation (3)

Dependent Variable: ΔLAT Method: Least Squares Sample(adjusted): 1960:2 2005:4 Included observations: 183 after adjusting endpoints				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D1	-0.539933	0.016314	-33.09676	0.0000
D2	1.067841	0.016114	66.26962	0.0000
D3	0.129652	0.016114	8.046108	0.0000
D4	-0.600974	0.016114	-37.29611	0.0000
R-squared	0.977596	Mean dependent var		0.017546
Adjusted R-squared	0.977174	S.D. dependent var		0.682915
S.E. of regression	0.103177	Akaike info criterion		-1.680502
Sum squared resid	1.692643	Schwarz criterion		-1.604582
Log likelihood	140.9609	Durbin-Watson stat		2.026273

The R^2 value shows the rate of deterministic seasonality which is shown in time series. The high value of R^2 shows that tourist revenues are highly seasonal, which means that seasonal dummy variables react to 97.7% in growth variations of tourist revenues.

By estimating regression coefficient δ_s we note that deterministic seasonality is not constant during the whole period, but changes and is less than 1% in three periods. We obtained negative quarterly growth

rates of tourist revenues in the first and fourth quarter, while growth rates of tourist revenues are significantly growing in the second quarter.

The Hylleberg et. al. (1990) test is commonly used to test for seasonal and non-seasonal unit roots in a univariate time series, and is based on the following auxiliary regression:

$$Y_{4t} = \pi_1 Y_{1t-1} + \pi_2 Y_{2t-1} + \pi_3 Y_{3t-1} + \pi_4 Y_{4t-1} + u_t \qquad (4)$$

where:

$$Y_{4t} = (1 - L^4) Y_t$$

$$Y_{1t-1} = (1 + L + L^2 + L^3) Y_{t-1} = Y_{t-1} + Y_{t-2} + Y_{t-3} + Y_{t-4}$$

$$Y_{2t-1} = -(1 - L + L^2 - L^3) Y_{t-1} = -(1 - L)(1 + L^2) Y_{t-1} = -Y_{t-1} + Y_{t-2} - Y_{t-3} + Y_{t-4}$$

$$Y_{3t-1} = -(1 - L^2) Y_{t-2} = -(1 - L)(1 + L) Y_{t-2} = -Y_{t-2} + Y_{t-4}$$

$$Y_{4t-1} = -(1 - L^2) Y_{t-1} = -Y_{t-1} + Y_{t-3}$$

u_t is a normally and independently distributed error term with zero mean and constant variance.

The polynomial $(1\text{-}L^4)$ can be expressed as:

$$(1 - L^4) = (1 - L)(1 + L)(1 - iL)(1 + iL) = (1 - L)(1 + L)(1 + L^2)$$

with two complex (imaginary) roots given as:

$$(1 - iL)(1 + iL) = (1 + L^2)$$

Deterministic variables which include an intercept, three seasonal dummies and a time trend are also included in equation (4), which can be estimated by ordinary least squares (OLS). The null and alternative hypotheses which are examined are the following:

(1) Ho:$\pi_1 = 0$, H_1: $\pi_1 < 0$
(2) Ho:$\pi_2 = 0$, H_1: $\pi_2 < 0$
(3) Ho:$\pi_3 = \pi_4 = 0$, H_1: $\pi_3 \neq 0$ ή $\pi_4 \neq 0$

The Hylleberg et. al. test includes the use of t – test for the first two hypotheses and an F – test for the third hypothesis. If the first hypothesis is not rejected, there is a unit root at the zero frequency, or a non-seasonal unit root in the time series. Non-rejection of the second hypothesis implies that there is seasonal unit root at the semiannual frequency. Finally, if the third hypothesis is not rejected, there is a seasonal unit root at the annual frequency. The three null hypotheses are tested separately. If the three null hypotheses are not rejected, quarterly tourist revenues may have non-seasonal semiannual and or annual unit roots. The order of integration of the series is I(1,1,1) which requires the filters (1-L), (1+L),

and $(1+L^2)$ respectively. In other words, the seasonal differencing filter $(1- L^4)$ should be applied to obtain stationarity. Rejection of the three null hypotheses implies that there is no unit root and no seasonal unit root, in which case the series are stationary and the order of integration is I(0,0,0).

The Hylleberg et. al. test, in equation (4), is applied to the logarithms of quarterly tourist revenues for Greece. In table 5 results of this test are presented and compared to the critical values of Hylleberg et. al (1990) in 5% level of significance using 200 observations. The Wald test is applied in the third hypothesis and consists of the limitations of the explanatory variable coefficients Y_{3t-1}, and Y_{3t-2}, in order to use the F statistic.

Table 5. Hylleberg et al. test for seasonal integration of quarterly tourist revenues

Hylleberg et al. test	Tourist receipts
$T(\pi_1)$	-2.35
$T(\pi_2)$	2.24
$F(\pi_3, \pi_4)$	13.24
Diagnostics tests	
$F_{LM(SC)}$	0.348 (0.724)
LM(N)	0.167 (0.832)
$F_{ARCH(1-4)}$	1.453 (0.497)

Notes:
An intercept, three seasonal dummies and a time trend are included in the Hylleberg et. al regressions, η=184 are the number of observations in each series. The critical values at the 5% level are taken from Hylleberg et. al. (1990) for 200 observations: $t(\pi_1)$ **= -3.53,** $t(\pi_2)$ = **-2.94** and $F(\pi_3, \pi_4)$ = **6.60.**
Figures in parentheses are probability values.
$F_{LM(SC)}$ is Lagrange multiplier tests for serial correlation.
LM(N) refers to the Jarque – Bera (1980) Lagrange multiplier test for normality.
$F_{ARCH(1-4}$ is first to fourth order autoregressive conditional heteroscedasticity.

The results of table 5 suggest that the first two hypotheses cannot be rejected at the 5% level, but the third null hypothesis is rejected. That means that quarterly tourist revenues in Greece have unit roots at zero and semiannual frequencies, but have no unit roots at annual frequencies. The series are non-stationary and the order of integration for each series is I(1,1,0). Moreover, using the first differences, the results suggest that application of the filter (1+L) in tourist revenues is necessary to obtain stationarity.

The diagnostic tests used are the Lagrange multiplier tests LM(SC) for serial correlation, the Jarque – Bera (1980) test for normality

(LM(N)), and first to fourth order autoregressive conditional heteroscedasticity ARCH(1-4). Diagnostic tests show that the assumptions regarding serial correlation, normality and conditional heteroscedasticity are supported by the data.

Finally, from the results of the three tests (Osborn et. al., Miron and Hylleberg et. al.) we conclude that tourist revenues in Greece are to a large extent seasonally and non stationary in their levels.

POLICY IMPLICATIONS OF TOURISM SEASONALITY AND MEASURES TO CONFRONT THE PROBLEM.

Seasonality has caused a sequence of serious negative side effects in all the spectrum of tourist network. The repercussions from the accumulation of tourist movement during the peak season are obvious to the environment, to tourist enterprises, intermediaries and also to visitors.

The environment with all its aspects, natural, cultural, structured and anthropogenic, accepts pressure during the peak season, when the limits of the place's capacity are rushed. Even though there are not gauges to define the limits of place's tolerance for how many visitors can accommodate, however from certain phenomena, particularly those that are presented in the sector of infrastructure, it seems that the demand cannot be confronted. It is clear that the place's limits of resistance are depleted. Similar phenomena are also observed in the sector of culture from the mass presence of visitors in the archaeological places.

The tourist enterprises and particularly the hotels are those that are affected more by the phenomenon of seasonality. From the analysis of activation results of hotels it is proved that in annual base hardly the 48% of their productive potential is activated and above the 50% of their total activity is realised the quarter July - September with plenitude that exceeds the 100% while in the remainder months of tourist period the plenitude is roughly in the 35%, something that the empirical analysis also showed with tourist income.

Furthermore, seasonality influences negatively the intermediary enterprises. The most representative of these enterprises are the air companies of charter flights where more than 85% of international tourism in Greece is trafficked. It is not possible for these companies and for the rest of conventional means of transport to tie their ways in order to correspond in the increased demand during the peak season and during the rest of the year not even do their figurative functions to ensure their viability. Certainly, seasonality influences also tourists, since they suffer

all the consequences from the elevation of environmental problems during peak season. The majority of tourists are looking for these conditions that will help to relax and revive, conditions that are difficult to find during high season.

The problem of tourist seasonality is real and becomes more intricate with the repercussions that causes in the entire spectrum of tourist network. This is the reason that its confrontation presupposes awareness of the serious situation from all involved institutions and general mobilisation of the factors of tourism to plan the concretisation of suitable policies and actions that progressively will rebate seasonality and lengthen tourist period, regarding the growth of tourism of all seasons including winter tourism, too.

The proposals for lengthening tourist period and the expansion of winter tourism can be summarised as follows:

- Creation of all the necessary special tourist infrastructure, such as congress centres, centres of mental rehabilitation, sports settlements of ecological corridors that will support the development of alternative forms of tourism.
- Economic benefits and tax motives in hotels for their modernisation and mainly for the creation of necessary location that will be able to satisfy not only their visitors during peak season, but also those during the rest of the year.
- Guarantee of motives in tour operators, such as those that the competitive countries offer, so that they are convinced to lengthen their summer programs and include Greece in their winter programs.
- Organisation of cultural, artistic, sports events etc, which should be developed into institutions so that they are included in the winter programs and act not only as means of entertainment for winter visitors, but also as elements of tourist attraction.

All these proposals and actions will form some new tourist products, which should be announced and advertised on each market using the suitable advertising means.

CONCLUSION

The issue of seasonality in tourism has been the concern of many researchers and academics. They attempt to discover the causes which have negatively influenced seasonality the last few years and suggest solutions for this problem.

In order to test for unit roots in international seasonal tourist revenues of Greece, we use quarterly data covering the period 1960:I to 2005:IV and Osborn et. al., Miron (1994) and Hylleberg et. al. tests. . The purpose of this test is to determine whether the series need to be transformed to obtain stationarity by taking first differences of the original series. A substantial outcome that can be extracted when seasonal dummies have accounted for substantial variations in international tourist revenues is that seasonal dummies affect by 97.7% growth changes of tourist revenues. Also from regression coefficients' estimation we note that deterministic seasonality is not steady throughout the period and varies and is certainly less than 1% for three periods. Finally, we can see that we get negatively quarterly rates for growth of tourist revenues in the first and fourth quarter while there is a significant increase on the growth rates in the second quarter.

The empirical results of this research show that there is a significant issue of tourist seasonality in Greece, but at the same time certain political initiatives and acts of extending the tourist period such as implementing programs of winter tourism could alleviate the problem.

The stabilization of investment capital for an extended period of time, the continuously high fixed costs which burden enterprises in order to meet their operational costs and the low prices which tourist agencies impose, have marginalized profits, whereas many enterprises which have borrowed heavily are struggling to survive.

The main question Greece faces is whether it can continue to offer increasing quality of services required by the current competitive market so that they can attract a steady or even an increasing part of the international organized tourist market. The intense seasonality of tourism in Greece today and the low use of hotels leave a significant gap for the expansion of tourism. However, in order for this to be achieved, a coordinated effort of all parties concerned is required as well as an expansion of tourist product and a long-term government strategy.

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