

# **INDICATORS OF THE COMPETITIVE POSITION OF TOURISM IN CATALONIA**

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*Cáceres (Spain), November 14-16, 2006*

# INDICATORS OF THE COMPETITIVE POSITION OF TOURISM IN CATALONIA<sup>1</sup>

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## Presentation

Spain received 55.6 million foreign tourists during 2005, making it the second most visited country in the world, with a 6.9% share in total world-wide tourism (808 million). It falls behind France (76.9 million tourists) but ahead of countries with longstanding tourist traditions like Italy, with 37.9 million tourists, or major economies linked globally, such as the United States (50.5 million tourists) and Great Britain (30.4 million).

In this context, within Spain Catalonia occupies an outstanding position: it is the top destination in Spain for international tourists. In 2005, one out of every four tourists who came to Spain chose Catalonia as their destination, for a total of fourteen million foreign visitors.

Despite the importance of the tourist sector in Catalonia, as judging by the revenue it generates and the financing of the trade deficit, there is no measurement of the evolution of its competitiveness. This specific situation obtains not only in Catalonia, but also all around Spain. Only the Central Bank of Spain has made a few calculations of the competitive position of tourism, although it does not publish any indicator on a regular basis. According to our information, of all the autonomous regions only Andalusia generates a periodic indicator of the competitive position of tourism in terms of prices, and the Balearic Islands also have a recent precise study.

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<sup>1</sup> The brevity of this note has required us to eliminate certain information of interest. For further information, feel free to contact the authors: [acosta@idescat.net](mailto:acosta@idescat.net), [cgoma@idescat.net](mailto:cgoma@idescat.net), [xlopez@idescat.net](mailto:xlopez@idescat.net)

This note assumes that specific statistics on competitiveness must be based on two types of indicators of competitive position: 1) the revealed competitive position is understood as market share, and 2) the indicator of competitive position in terms of prices, calculated according to the methodology that the Central Bank of Spain applies for industrial competitiveness.

From a statistical standpoint, this method avoids two approaches to competitiveness we deem to be somewhat unspecific or inoperative. First is the multidimensional concept of competitiveness, in which competitiveness is related to a set of explanatory factors having to do with innovation, the cost of R&D, GDP per inhabitant, and so forth. We believe that this might be useful from an analytical standpoint, although it does not lead to specific statistics on competitiveness.

A second approach that we have not considered is quality. This factor is very important when analysing competitiveness, but it is a highly complex statistical approach, which is why a statistical calculation of the competitiveness in quality terms will not be undertaken. However, in relation to this concept a hypothesis can admittedly be useful: "the residual" nature of competitiveness in terms of quality. If an evolution in price competitiveness and an evolution in effective competitiveness exist, measured as market share, the residue or the part that cannot be explained by prices of revealed competitiveness might be compared to the evolution in quality. This would not be the first time that economists approached a complex concept in terms of residue. This approach is reflected in Table 1. The indicator on the behaviour of competitiveness and the explanatory factor in the market are the statistical ones chosen to generate the competitiveness statistics (plotted indicators).

**Table 1: Map of the competitiveness indicators**

	<b>Behaviour indicators</b>	<b>Explanatory factors</b>
<b>In the market</b>	<ul style="list-style-type: none"><li>- Trade balance</li><li>- Market shares</li><li>- Penetration of imports</li></ul>	<ul style="list-style-type: none"><li>- Prices and exchange rates</li><li>- Quality of the services available</li></ul>
<b>Outside the market</b>	<ul style="list-style-type: none"><li>- GDP per inhabitant</li><li>- Apparent productivity</li></ul>	<ul style="list-style-type: none"><li>- Work costs, income</li><li>- Productive factors, expenditures on R&amp;D, innovation and similar factors</li></ul>

### **1. Indicators on the Revealed Competitive Position of Tourism (IPCRT)**

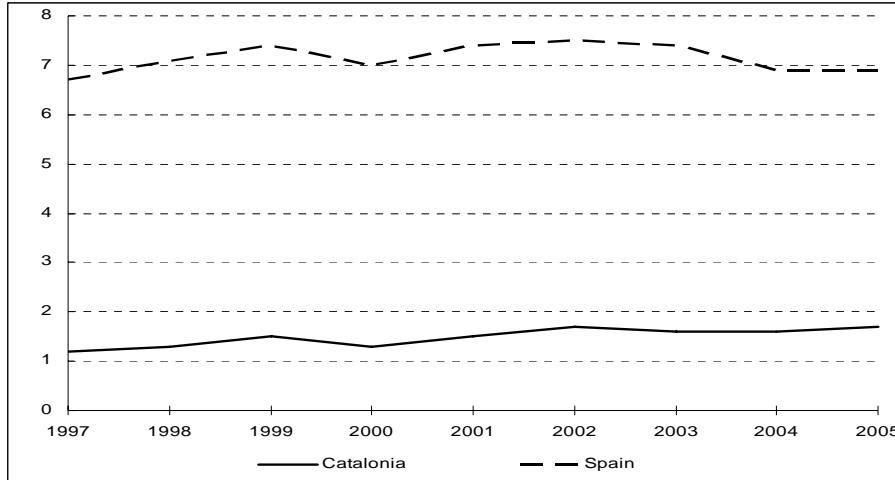
An operative way of approaching the evolution in the competitiveness directly in the market (revealed competitiveness) involves examining the market share of the agents who participate. The evolution of the market share of any agent can be viewed as an indicator of the changes in the relative level of competitiveness. The calculation of the market share, a simple quotient, is easy to calculate and its meaning is both relevant and simple.

#### **International tourism**

This encompasses international tourism and the entire world, and we calculated the quotient between the number of tourists who came to Catalonia (receiving tourism) divided by the number of tourists all over the whole world. The statistical source is the World Tourism Organization (WTO), but as rarely it examines destinations at sub-state level, for us to find out how many tourist came to Catalonia we had to examine the information from the Institute of Tourist Studies (IET), which for Spain as a whole is provided by the OMT. Between 1997 and 2005, this market share rose from 1.25% to 1.74%. As shown in Graph 1, in Catalonia this upswing has not been steady (2000 and 2004 were bad), but the market share has risen as a whole. The variation is deceptively small: Catalonia is a small destination in the world-wide market,

meaning that five-tenths difference between 1997 and 2005 actually means twice the number of foreign tourists.

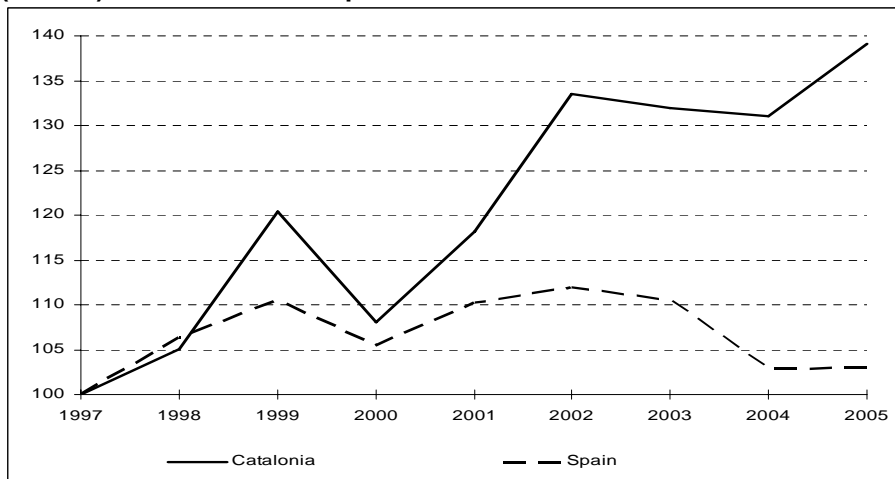
**Graph 1: Market share of Catalonia and Spain in world-wide international tourism (tourists)**



Source: WTO and IET

This market share, indexed in 1997, generates the Indicator on the Revealed Competitive Position of International Tourism (IPCRTI) of Catalonia and Spain. Graph 2 shows that, between 1997-2005, Catalonia experienced an almost 40-point rise in tourism competitiveness.

**Graph 2: Indicator on the Revealed Competitive Position of International Tourism (IPCRTI) of Catalonia and Spain in the world**

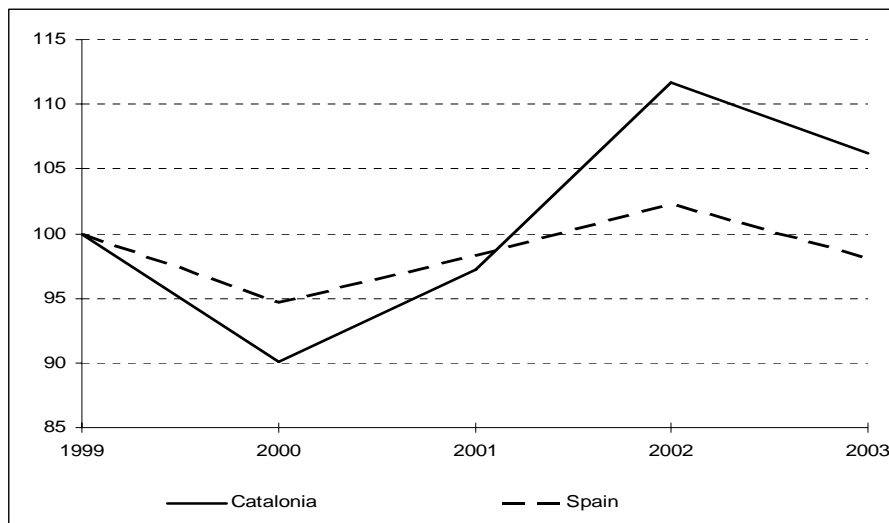


Source: WTO and IET

In addition to the IPCRTI of Catalonia in the world, and bearing in mind that Catalonia's source markets are very concentrated, the IPCRTI of Catalonia can

be constructed in six prominent countries (United Kingdom, Germany, France, the Netherlands, Italy and Belgium), which account for 70% of total arrivals. Thus, Catalonia's market share has been calculated in terms of those six source markets, dividing the arrivals from these countries to Catalonia, according to the WTO, between the total arrivals from these countries to anywhere in the world, according to Eurostat. Graph 3 shows these results, indexed for 1999.

**Graph 3: Indicator on the Revealed Competitive Position of International Tourism (IPCRTI) of Catalonia. Six main source markets.**



Source: IET and Eurostat

The different results of the IPCRTI for the entire world and for different source markets are quite coherent, yet they reveal the relativity of these measures. This relativity is not only derived from different territorial areas; it can also be consequence of the indicator in question. Here we have used the indicator on the number of tourists, which is the one available internationally. If available, also the data on the number of overnight stays or tourist expenditures could also be indicative. As shown below, when analysing domestic tourism (interregional within Spain) the possibilities are much greater; thus, a decision must be taken before calculating the share that will lead to the indicator on the revealed competitive position of domestic tourism (IPCRTD).

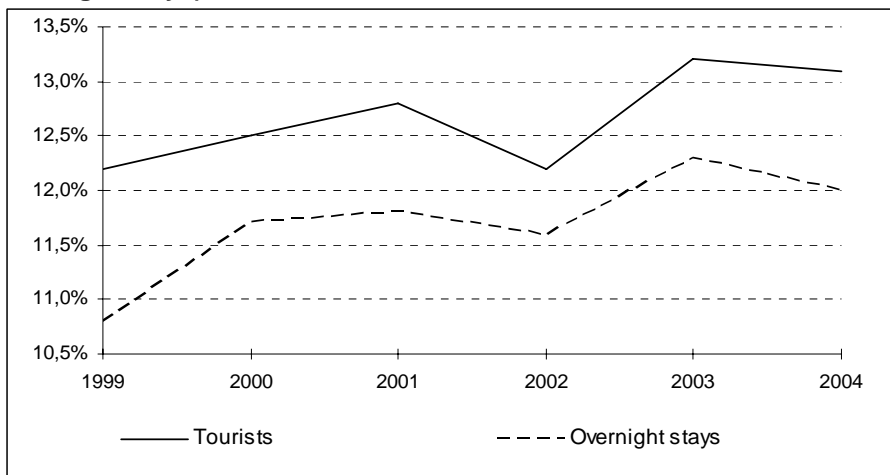
## **Domestic tourism**

Different indicators and different statistical sources can be examined in reference to interregional domestic tourism in Spain. Bearing in mind that cost groups are very difficult to obtain, the most reasonable indicators are physical: the number of tourists or the number of overnight stays. The two best statistical sources are the Spanish Domestic and Outbound Tourism Survey (Familitur) conducted by the IET and the INE's Hotel Occupancy Survey.

Although the hotel survey can be considered more trustworthy than the household survey, is more partial than Familitur since it only includes tourists lodged in hotels. Solely using the Hotel Occupancy Survey means that only the competitive position of hotel tourism is determined. Other segments to consider, in terms of the type of lodging, include campsite tourism, rural tourism and apartment rentals. This type of segmentation also could be done according to the reason for the trip (work or pleasure), the season (high or off) and the type of trip (package or direct). There is no doubt that knowledge of these segments can also be useful to make an accurate diagnosis of the competitive capacity of Catalan tourism.

In this approach the most general survey is used, the one by Familitur, according to tourists and overnight stays, as is the survey on hotel occupation, also according to tourists and overnight stays. In order to compare the indicators on international tourism, it is better to use tourists, whereas the most significant share from an economic standpoint (more related to the cost) is the one derived from overnight stays.

**Graph 4: Share of Catalonia's total market in domestic tourism in Spain (tourists and overnight stays)**



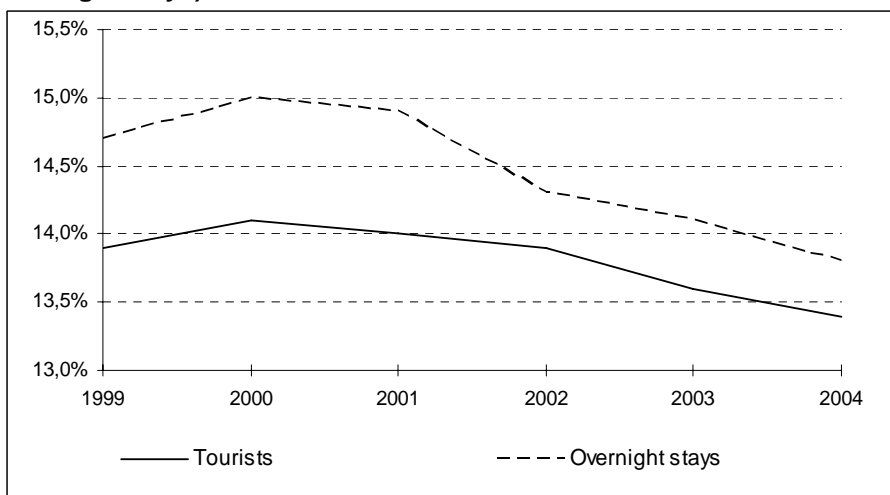
Source: Generated by the authors based on the IET's Spanish Domestic and Outbound Tourism Survey (Familiarit)ur)

**Graph 5: Catalonia's Indicator on the Revealed Competitive Position of Domestic Tourism (IPCRTD) (tourists and overnight stays)**



Source: Generated by the authors based on the IET's Spanish Domestic and Outbound Tourism Survey (Familiarit)ur)

**Graph 6: Catalonia's market share in domestic hotel tourism in Spain (tourists and overnight stays)**



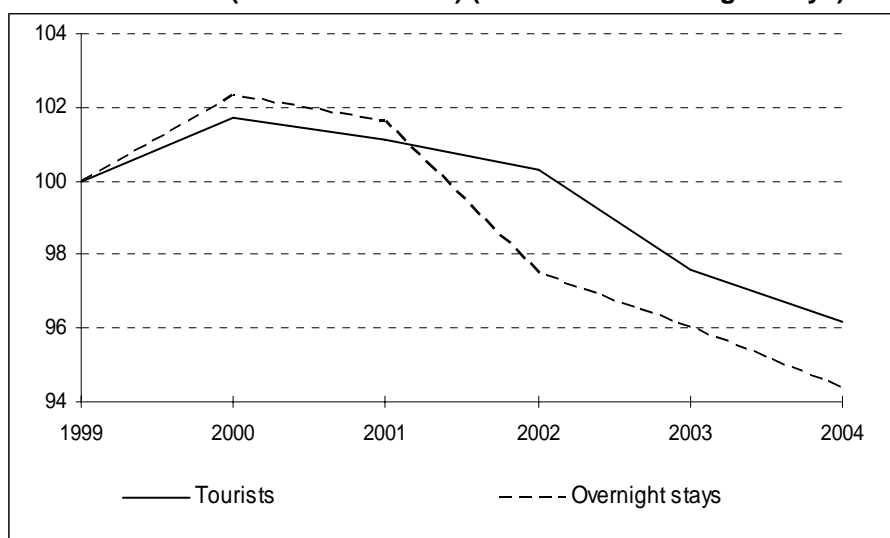
Source: Generated by the authors based on the IET's Spanish Domestic and Outbound Tourism Survey (Familiarit)ur)



In Graphs 5 and 7, the evolution in the competitiveness of Catalan tourism can be seen from 1999 to the 2004, measured through the Indicator on the Revealed Competitive Position of Domestic Tourism (IPCRTD), for tourism as a whole and tourists lodged in hotels.

The above graphs reveal a significant correlation between both indicators, tourists and overnight stays. In any event, a more detailed analysis of the different signals from each indicator over time could be conducted. Additionally, the methodological nature of this study underscores this possibility.

**Graph 7: Catalonia's Indicator on the Revealed Competitive Position of Domestic Tourism in hotels (IPCRTD in hotels) (tourists and overnight stays)**



Source: INE's Hotel Occupancy Survey

Although the two sources examined have different diagnoses of competitiveness, this does not mean that the results are contradictory. This case is a good illustration of the possible segmentations of an analysis of competitiveness. While Familitur examines tourism as a whole, the INE's Hotel Occupancy Survey only includes, logically, tourists staying in hotels.

It is entirely possible that in this period the market shares and, therefore, the revealed competitiveness behave opposite in each of these segments of the Catalan tourism sector, with the result that while Catalonia's revealed competitiveness rose from the 1999 to the 2004 in terms of tourists and overnight stays, its revealed competitiveness in hotel tourism fell.

## **2. Indicator on the Competitive Position of Tourism Prices (IPCPT)**

Following the traditional competitive position methodology in terms of prices applied for international trade and used by the Central Bank of Spain, constructing an indicator of competitiveness in terms of prices is viable. Again we examine international tourism and domestic tourism separately.

The indicator on the competitive position of tourism prices is the result of two factors: the evolution in prices of our and the competitors' supply, and the evolution in the exchange rate in the event of different currencies. The first factor is called the Relative Price Index (RPI), whereas the second is gathered by the Nominal Effective Exchange Rate (NEER). The product of these two indicators is the Real Effective Exchange Rate (REER). The NEER is equivalent to the Competitive Position Indicator (CPI). In short, for tourism in period  $t$ , therefore:

$$\mathbf{CPI_t = NEER_t * RPI_t}$$

It is important to bear in mind that the price of our supply will be compared to the price of our competitors, in which each competitor has a representative weighting of its capacity to compete with us. Finally, it should also be noted that we are talking about prices; therefore, the higher the index the worse our competitive position, and vice-versa.

### **International tourism**

Regarding international tourism, the statistical source used to generate the sender/receiver matrix is the World Tourism Organization (WTO). This organisation publishes tourists arrivals from almost the countries in the world, according to the country of origin; thus, for any given year it is possible to construct the matrix of arrivals according to source country. This study has been undertaken for 2000 to 2002, and then the average has been examined. The matrix could contain at most 53,000 cells (the product of 230 x 230 countries),

but fortunately for our purposes we only need to cover a relatively small number of countries to register a relatively high percentage of tourists. Specifically, with 66 sending countries and 77 receiving countries (totally 5,100 cells) we reach 85% of total the world-wide tourist arrivals. In practice, each of our annual matrices contains 230 (sending countries) by 135 (receiving countries), which has enabled us to classify 95% of the world-wide arrivals.

On the other hand, the countries to examine out of the total group of countries with information available have been selected according to the three following criteria: a) countries that compete with Catalonia as they receive tourists coming from four or more countries which are also the origin of our tourists, b) significant weight in total world-wide arrivals (more than two million tourists) and c) significant weight in arrivals from the countries that are senders for Catalonia (more than one million tourists). a list of 55 competing countries was derived from this list (including Spain itself). The arrivals of tourists with origin and destination to some of these 55 countries represent 77% of world-wide arrivals. This, then, means the index has broad coverage. An additional 18% of the tourists, up to 95% of the total, are classified as the Rest of the World, and as such are included when constructing the weighting, although not in the calculation of the NEER nor of the RPI. Only 5% of tourists can be described as not classified.

To calculate the weightings, we have adopted the method of double weighting of the exports by tourism, weighting of the imports and a final combination in synthetic weightings. The process is identical in the domestic and international market, ignoring the number of competitors involved and the fact that in international indices there is a Rest of the World category.

Once the number of countries is determined and the weightings are calculated, in order to calculate the competitive position rates we only need indicators on prices of each of the countries on the index and the currency exchange rates.

In the tourism sector, it is natural to consider two types of prices: the prices that are specifically related to tourist activity (hotel prices in package tours, lodging,

passenger transport, restaurants, etc.) and the prices of other products, more closely associated with overall prices in the destination country. When the first type of prices are considered, it is useful to differentiate between the origin cost and the destination cost. This approach is very convincing, although it is different to employ in international tourism. If an ad hoc sustained study is not undertaken (to obtain series) in the country of origin on the evolution in tourist prices, the options are quite limited: only the CPI has international coverage making it possible to calculate the Relative Price Index (RPI) in groups of countries as has been done here. Therefore, the CPI (obtained from the database of the International Monetary Fund [IMF]) is the indicator used to generate the RPI.

This option is reasonable if we believe that there is a correlation between the general evolution of prices at a destination and the prices of the tourist supply that it offers. At any rate, a possible improvement on this approach would be to use some specific heading within the CPI, instead of the general index, more closely linked to tourist consumption. The breakdown (splitters) is reasonable as the nomenclature is standardised internationally in the COICOP.

The exchange rates do not present many problems: they indicate the number of units that needed of one currency to obtain a unit of another, and this information is available daily. For countries that are members of the European Monetary Union, having a single currency reduces the indicator of the competitive position to a relative price indicator. For countries outside the Union, in this report cash exchange rates have been used with monthly averages of daily data. There are a variety of possible sources of statistics.

The European Central Bank publishes official exchange rates of euros for 28 countries, extended to 35 as of April of 2005. Unfortunately, many of the currencies we are interested in are not included in this list, or they have only been included recently. For those currencies, we have used the same strategy that the Central Bank of Spain uses: calculating the exchange rate crossed between the currency and the dollar (provided by the International Monetary Fund and, exceptionally, by local sources) and between the dollar and euro

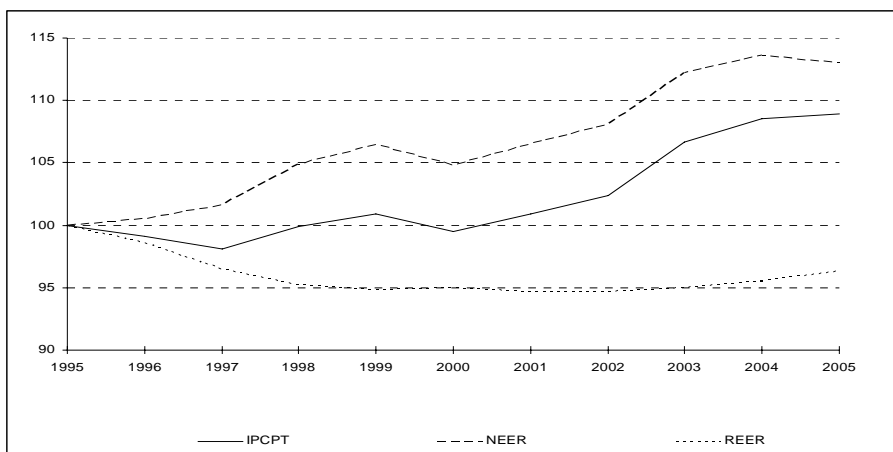
according to the Central Bank of Spain. In the case of Cuba and Puerto Rico, although for different reasons, their international transactions are considered to be made in United States dollars.

With all the aforementioned elements - defining competitors, weightings and prices (prices and exchange rates) - the competitive position index in terms of prices for international tourism in Catalonia calculations (IPCPTI), broken down into the Relative Price Index (RPI) and the Nominal Effective Exchange Rate (NEER) is calculated. The results for Catalonia and Spain are shown in Graphs 8 and 9.

In this context, between 1995 and 2001 (Graph 8), we can detect in Catalonia an appreciation in the Spanish currency (the first peseta, later the euro) and an improvement in the relative prices that resolved in relative stability of the competitive position of tourism. In the following years, there is a clear loss in competitiveness, not only because of a lack of improvements in the relative prices but also because of steep appreciation in the euro.

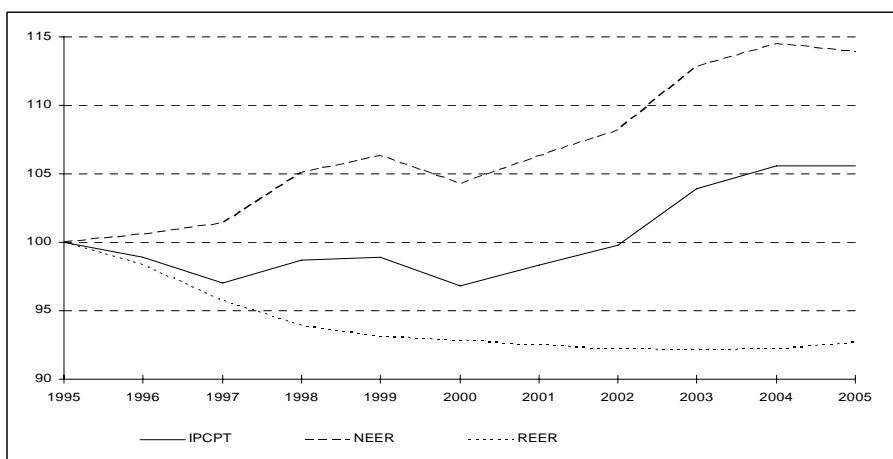
In Spain as a whole (Graph 9), which had remained relatively stable between 1995 and 2002, 2003 and 2004 witnessed a considerable decline, although during 2005 it remained steady. The cause of this evolution is basically the appreciation in the euro compared to other world currencies. The five years between 1995 and 1999, the tendency for first the peseta and then the euro to appreciate was counterbalanced by containment of inflation in inland regions, so that during this period the competitive position of tourism in Spain did not fluctuate significantly. In the following years (since 2000), the appreciation of the euro was stronger, while at the same time the gains in relative prices disappeared. Therefore, the competitive position worsened, especially in 2003 and 2004.

**Graph 8: Catalonia's competitive position in terms of prices in international tourism (IPCPTI)**



Source: Generated by the authors based on data of the WTO, the IMF and the IET.

**Graph 9: Competitive position in terms of prices in international tourism**



Source: Generated by the authors based on data from the WTO, the IMF and the IET.

## Domestic tourism

As for the internal market, in tourism of Spaniards within Spain, two basic sources and two indicators can be used. The sources are the IET's Familiaritour and the INE's Hotel Occupancy Survey. For the reasons mentioned in the previous section of this study, it was decided to generate the weightings based on information on overnight stays from the hotel occupancy survey. Although that entails only part of incoming tourism, the reliability of the crossed information can be considered higher in the hotel occupancy survey. On the other hand, there is no doubt that overnight stays are a physical unit closer to

the economic meaning of inflows of tourists without taking into account the duration of the trip.

Therefore, the basis information is a matrix of average annual overnight stays in Spain, distributed by Spanish autonomous community of origin (sending tourism) and destination (receiving tourism). This produces a matrix of 18x18, including each autonomous region along with Ceuta and Melilla, and it is calculated with information from three years (from 2000 to 2002). The average of those three years is the basis for the weighting of the index.

The matrix indicates that in the period from 2000 to 2002, the Spanish autonomous regions with the most overnight stays by Spanish tourists was Andalusia (16.0 million), followed by Catalonia (12.5 million) and Valencia (11.5 million). The community coming in next in the ranking, Madrid, lags far behind the leading ones (6.4 million). Clearly, the three autonomous communities on the Mediterranean coast total 47% of total overnight stays by Spaniards. This emphasizes the fact that in Catalonia domestic tourism (say, Catalan people visiting Catalonia) accounts for more than half of the total overnight stays, whereas in eastern Andalusia this percentage hovers at 41% and in Valencia Community at 26%.

Once the basic information with which the competitive position of prices is specified, we must outline the treatment of the three questions that are required for the calculation: determining the set of countries to consider (the competitors), determining the weighting, and finally, determining the Relative Price Indicator (RPI).

In order to define the competitors, the treatment is much more direct than in the international tourism. All eighteen autonomous regions in Spain have been regarded as part of the index, so the matrix of overnight stays is the matrix used to calculate the weighting.

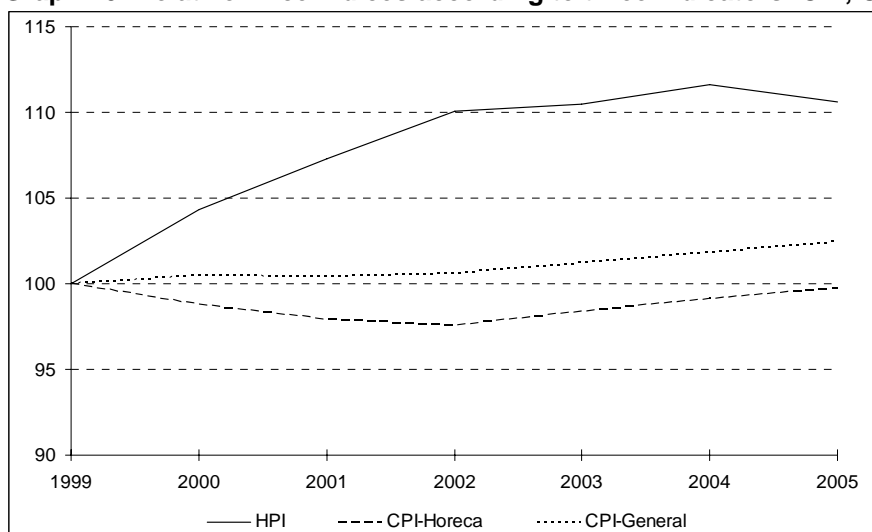
To calculate weighting, as in the case of international tourism, we have adopted the method of double weighting of exports by tourism, bilateral weighting of

imports and a final combination in synthetic weighting. In the domestic market, the counties with a greater weight on Catalonia's competitiveness index are Andalusia (17.4%), Valencia (14.9%), the Balearic Islands (12.3%) and Madrid (10%).

The third factor to examine has to do with the prices to take into account. The approach is identical to the one used in for international tourism. Again, it might be sensible to differentiate between prices of tourist products and overall prices, as well as to distinguish between the prices in origin from the prices in destination. Also, whereas in international tourism the availability of information leads us to only take into account the CPI, here other options can be implemented. In addition to the general CPI, data from the CPI of the Horeca sector (hotels, restaurants and coffee bars, the most tourist-oriented headings in the COICOP) can be used, as well as Hotel Price Index (HPI) from the INE's own survey. Results from the RPI will appear according to these three types of prices, to evaluate the differential created by these indicators in Catalonia's indicator of competitive position in terms of prices of domestic tourism (IPCPTD).

Graph 10 shows that the RPI is quite different depending on the price indicator used, namely the general CPI, the CPI from the Horeca sector or the HPI (Hotel Price Index from the supply side).

**Graph 10: Relative Price Indices according to three indicators: CPI, CPI-Horeca and HPI**



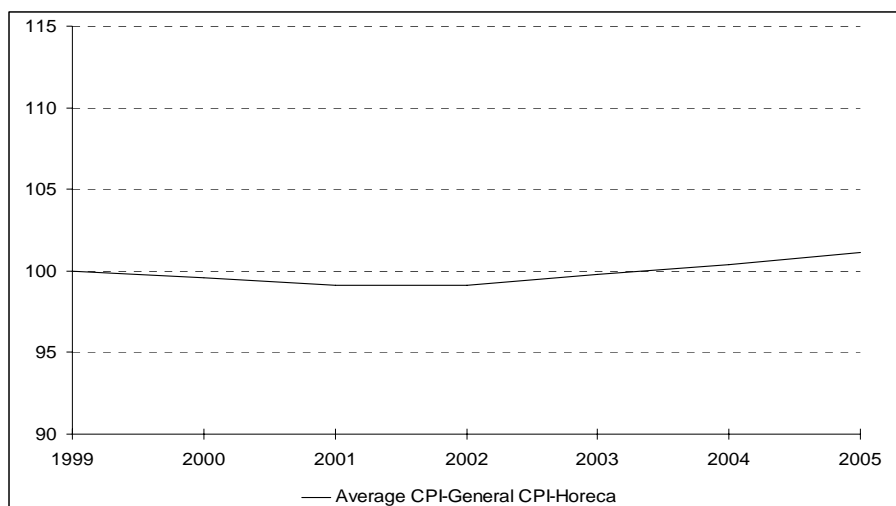
Source: Generated by the authors based on various sources (IET and INE).



By examining these differentials it is clear that determining the price indicator is relevant for determining the evolution in the competitiveness indicator. Considering the degree of consolidation of the CPI, and its comparability with the international tourism indicator, it is considered wise to use the CPI, but with a special weighting in the specifically tourist-related rubric, that is, the CPI-Horeca. From the data available at Idescat, these rubrics represent nearly 50% of tourists' total expenditures. Thus, the price indicator ultimately used is an approach equivalent to a simple average of the RPI according to the CPI and the RPI according to the CPI-Horeca. The results are shown in Graph 11. A certain stability of the competitive index in terms of prices for domestic tourism as a whole is reflected.

In view of the price indicator from the HPI and the revealed competitiveness derived from the data from the hotel survey, this stability can be compatible with a loss in competitiveness in the specific sector of hotel lodging.

**Graph 11: Catalonia's competitive position in terms of prices of domestic tourism (IPCPTD)**



Source: Generated by the authors based on various sources (IET and INE).

### **3. A reflection on competitiveness as a residue**

This note has examined two indicators of the competitive position of tourism in Catalonia according to the concept of revealed competitiveness and price competitiveness.

It is easy to understand that revealed competitiveness is a behaviour or a indicator of results, whereas price competitiveness is an explanation of this behaviour. The specific statistic on tourist competitiveness can be considered acceptably developed, from our standpoint, with these two indicators applied to international and domestic tourism. Natural extensions of these statistics will be the measures of competitive positions for more specific tourist segments: according to reason (work or pleasure), season, type of lodging, etc.

On the basis of the foregoing, an examination of the theoretical framework displayed in Table 1 of this document, along with effectively obtaining indicators on revealed competitive position and prices of international and domestic tourism in Catalonia reveals a useful conceptual framework for a possible analysis of the evolution in the quality of the tourist supply. Because of this, the differential between the behaviour of revealed competitiveness (market share) and the prices naturally lead us to believe that the unexplained, the residue, is the consequence of a variation of the quality perceived by tourists of our supply compared to the group of competing destinations.

In a schematic format:

**Market share = Revealed Competitive Position**

With IPCR being the indicator on revealed competitive position

$$\text{IPCR} = F (\text{explanatory factors of competitiveness})$$

F (CPI on prices, CPI on quality of tourist services, CPI on quality of the environment)

=

$$F (\text{IPCP}, \text{IPCQ})$$

Therefore, the (overall) quality can be defined as a residue:

$$\text{IPCQ} = F (\text{IPCR} - \text{IPCP})$$

It should be mentioned that the concept of quality compared to residue is adapted to the consumer's perception in the market, which values the quality/price ratio of goods and services. This quality will not be necessarily an objective and absolute quality, rather relative and subjective: what the consumer perceives. In effect, if a promotional campaign is undertaken that increases the appeal of Barcelona as a cultural capital compared to other possible destinations, this will generate an improvement in the perceived relative quality compared to alternative destinations, though from an objective standpoint nothing has changed.

The results of the indicators on revealed competitive price and position show relatively contradictory behaviour in this document, as an increase in revealed competitiveness is detected at the same time as less competitiveness in prices. This means that there is an important residue or behaviour of competitiveness that is not explained by prices. The diagnosis in this case is that Catalonia has undergone a significant improvement in the perceived quality of the tourist supply.

In the field of statistics on competitiveness, it is difficult to further specify the previous diagnosis on the improvement of the quality in our tourist supply. We believe that only by a qualitative study by experts we could furnish accurate reasons on what has improved this quality. However, this study would fall outside the scope of standard statistics.



**ANNEX: Power-point presentation**

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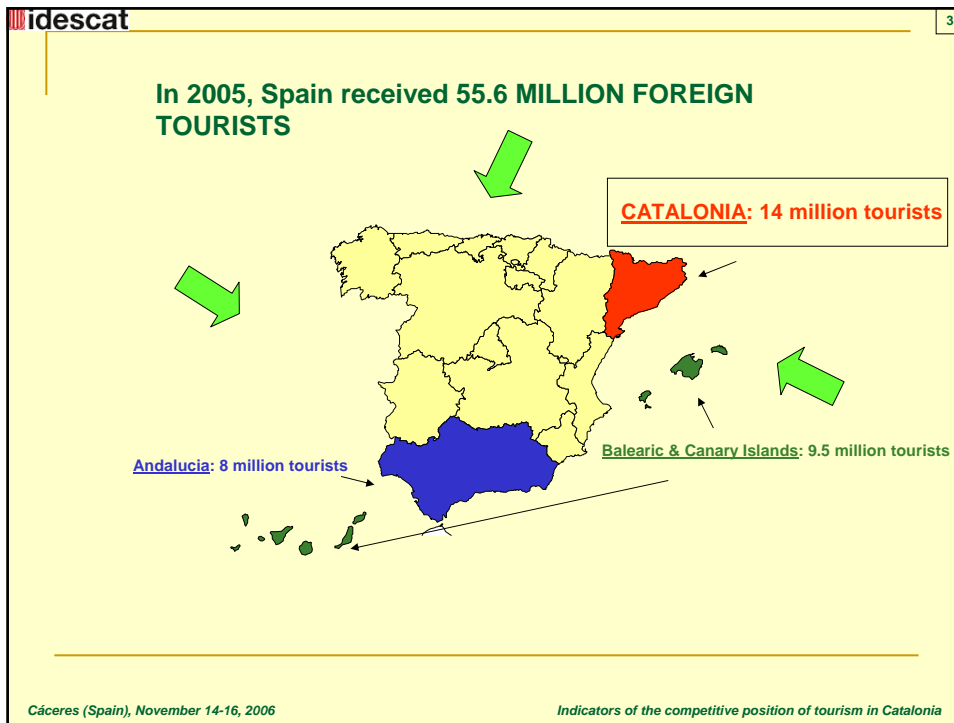
# INDICATORS OF THE COMPETITIVE POSITION OF TOURISM IN CATALONIA

Cáceres (Spain), November 14-16, 2006

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Cèlia Gomà  
Xavier López  
*Statistical Institute of Catalonia*

Objective: to be achieved by the STATISTICAL SYSTEM OF  
CATALONIA

TO GENERATE THE SPECIFIC STATISTICS  
ON THE COMPETITIVENESS OF TOURISM  
IN CATALONIA



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**Table 1: Map of the competitiveness indicators**

	Behaviour indicators	Decisive factors
<b>Foreign competitiveness</b>	Trade balance Market share Penetration of imports in the domestic market	Exchange rates, costs, prices, profitability  Productive factors; stocks of physical, technological and human capital; innovation and similar factors
<b>Structural competitiveness</b>	GDP per inhabitant and productivity	

Source: Central Bank of Spain

*Cáceres (Spain), November 14-16, 2006* *Indicators of the competitive position of tourism in Catalonia*

Table 2: New map of the competitiveness indicators

	Behaviour indicators	Explanatory factors
<b>In the market</b>	<ul style="list-style-type: none"> <li>- Trade balance</li> <li>- Market share</li> <li>- Penetration of imports</li> </ul>	<ul style="list-style-type: none"> <li>- Price and exchange rates</li> <li>- Quality of the services available</li> </ul>
<b>Outside the market</b>	<ul style="list-style-type: none"> <li>- GDP per inhabitant</li> <li>- Apparent productivity</li> </ul>	<ul style="list-style-type: none"> <li>- Work costs, income</li> <li>- Productive factors, expenditures on R&amp;D, innovation and similar factors</li> </ul>

Source: Generated by the authors

**Objective:** to be achieved by the STATISTICAL SYSTEM OF CATALONIA

**TO GENERATE THE SPECIFIC STATISTICS ON THE COMPETITIVENESS OF TOURISM IN CATALONIA**



- Market share: REVEALED COMPETITIVENESS (IPCR)
- Prices: PRICE COMPETITIVENESS (IPCP)
- Competitiveness in terms of quality: QUALITY AS A RESIDUE



# 1. Indicators on the Revealed Competitive Position of Tourism (IPCRT)

## Indicators on the Revealed Competitive Position of Tourism (IPCRT)

Necessary information: The evolution of the market share of agents participating.

### MARKET SHARE CALCULATION:

*Receptor tourism (number of tourists who came to Catalonia) <sup>[1]</sup>*

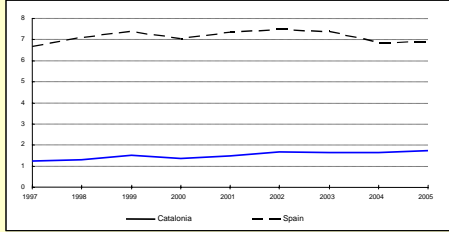
*Number of tourists all over the whole world <sup>[2]</sup>*

[1] Source: Instituto de Estudios Turísticos (IET)

[2] Source: World Tourism Organization (WTO)

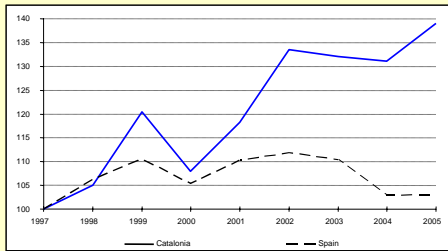
Indicators on the Revealed Competitive Position of Tourism (IPCRT): INTERNATIONAL TOURISM

Graph 1: Catalonia and Spain's market share in worldwide international tourism (tourists)



Source: WTO and IET

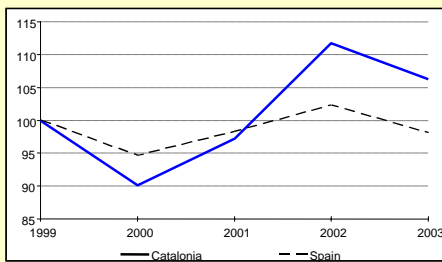
Graph 2: Indicator on the Revealed Competitive Position of International Tourism (IPCRTI) for Catalonia and Spain in the world



Source: WTO and IET

Indicators on the Revealed Competitive Position of Tourism (IPCRT): INTERNATIONAL TOURISM

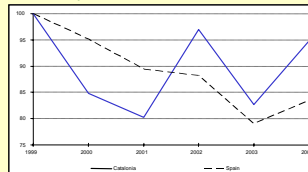
Graph 3: Indicator on the Revealed Competitive Position of International Tourism (IPCRTI) for Catalonia. Six main markets



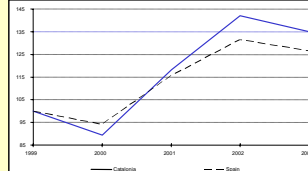
Source: IET and Eurostat

THREE MAIN MARKETS

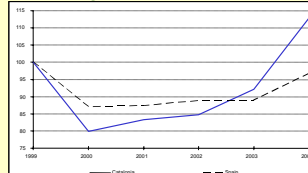
3.1. Germany



3.2. France

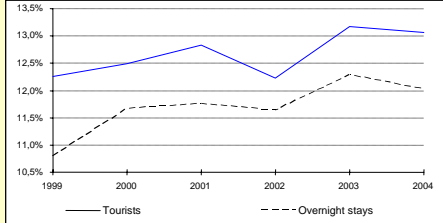


3.3. United Kingdom



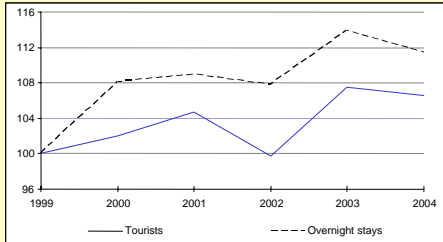
Indicators on the Revealed Competitive Position of Tourism (IPCRT): DOMESTIC TOURISM

Graph 4: Share of Catalonia's total market in domestic tourism in Spain (tourists and overnight stays)



Source: Generated by the authors based on the IET's Spanish Domestic and Outbound Tourism Survey (Familitur)

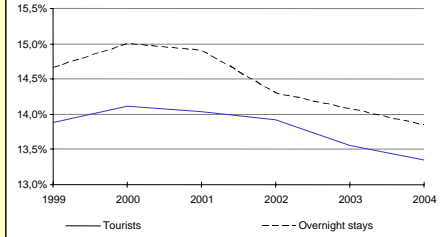
Graph 5: Catalonia's Indicator on the Revealed Competitive Position of Domestic Tourism (IPCRTD) (tourists and overnight stays)



Source: Generated by the authors based on the IET's Spanish Domestic and Outbound Tourism Survey (Familitur)

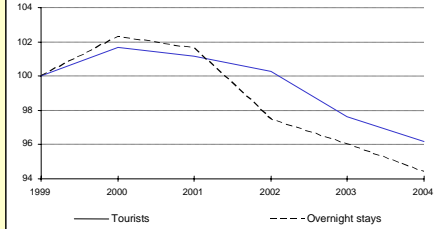
Indicators on the Revealed Competitive Position of Tourism (IPCRT): DOMESTIC TOURISM

Graph 6: Catalonia's market share in domestic hotel tourism in Spain (tourists and overnight stays)



Source: Generated by the authors based on the INE's Hotel Occupancy Survey

Graph 7: Catalonia's Indicator on the Revealed Competitive Position of Domestic Tourism in hotels (IPCRTD in hotels) (tourists and overnight stays)



Source: INE's Hotel Occupancy Survey

## 2. Indicator on the Competitive Position of Tourism Prices (IPCPT)

### Indicator on the competitive position of tourism prices (IPCPT)

Is the result of two factors:

1. Evolution in prices of our supply and the competitors'



**Relative Price Index (RPI)**

2. Evolution in the exchange rate in the event of different currencies



**Nominal Effective Exchange Rate (NEER)**

$$\text{RPI} * \text{NEER} = \text{REER} \text{ (1)}$$

(1) Real Effective Exchange Rate

$$\text{REER} \approx \text{CPI} \text{ (2)}$$

(2) Competitive Position Indicator

Where each of the terms is calculated:

$$\text{NEER}_t = 100 * \prod_{i=1}^H (e_{i,0}/e_{i,t})^{w_i}$$

$$\text{CPI}_t = p_t/p_t^* = \frac{100 * (p_t/p_0)}{[\prod_{i=1}^H (p_{i,t}^*/p_{i,0}^*)^{w_i}]}$$

$H$  number of excellent territories  
 $w_i$  weights of the competing territories  
 $p_{i,t}$  and  $p_{i,t}^*$  domestic and international prices  
 $e_{i,t}$  exchange rate

**Indicator on the competitive position of tourism prices (IPCPT)**

**Decisions to take:**

**a) Indicator Coverage → Which countries need to be included**

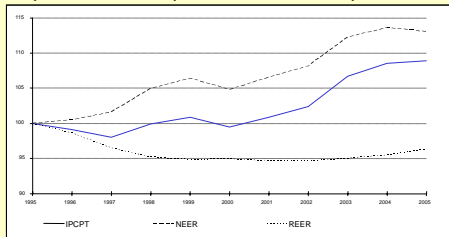
**b) Weighting of competitors countries' system:**

- b.1 Method of bilateral weighting
- b.2 Method of double weighting
- b.3 Method of expert weighting
- b.4 Method of consumer weighting

**c) Indicators of price selection**

**Indicator on the Competitive Position of Tourism Prices (IPCPT): INTERNATIONAL TOURISM**

**Graph 8: Catalonia's Competitive Position in terms of prices in international tourism (IPCPT)**



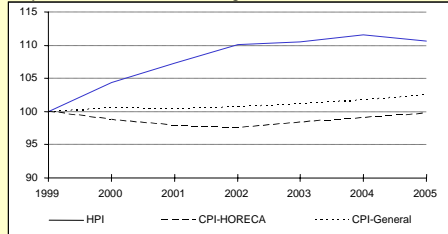
Source: Generated by the authors based on data of the WTO, the IMF and the IET

- 1995-2001 →**
- Appreciation in the Spanish currency (first the peseta, later the euro)
  - Improvement in the relative prices that resulted in relative stability of the competitive position of tourism

**In the following years →** Clear loss in competitiveness (lack of improvements in the relative prices and steep appreciation of the euro)

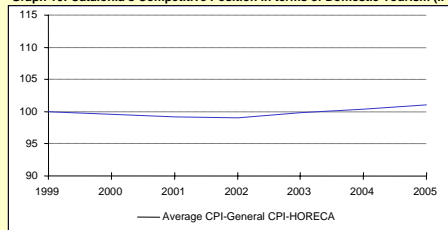
Indicator on the Competitive Position of Tourism Prices (IPCPT): DOMESTIC TOURISM

Graph 9: Relative Price Rates according to three indicators: CPI, CPI-HORECA and HPI



Source: Generated by the authors based on various sources (ET and INE)

Graph 10: Catalonia's Competitive Position in terms of Domestic Tourism (IPCPTD)



Source: Generated by the authors based on various sources (ET and INE)

### 3. Competitiveness in terms of quality: QUALITY AS A RESIDUE

## Competitiveness in terms of quality: QUALITY AS A RESIDUE

In a schematic format:

$$\text{Market share} = \text{Revealed Competitive Position}$$

With IPCR being the indicator on revealed competitive position

$$\text{IPCR} = F(\text{explanatory factors of competitiveness})$$

F (CPI on prices, CPI on quality of tourist services, CPI on quality of the environment) = F (IPCP, IPCQ)

Therefore, the (overall) quality can be defined as a residue:

$$\text{IPCQ} = F(\text{IPCR} - \text{IPCP})$$

## 4. Final considerations

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## Final considerations

**Objective:** to be achieved by the STATISTICAL SYSTEM OF CATALONIA

**TO GENERATE THE SPECIFIC STATISTICS ON THE COMPETITIVENESS OF TOURISM IN CATALONIA**

↓

Based on **Law 2/2006**, dated 6th March 2006, on the Statistical Plan for Catalonia for the period 2006-2009 → This regulates and plans statistics that are of interest to the government of Catalonia and sets the main strategic areas and goals and the activities associated with them.

For example, reports on **industrial competitiveness** and **tourism competitiveness** ▶

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Cáceres (Spain), November 14-16, 2006 Indicators of the competitive position of tourism in Catalonia

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## Final considerations

**Variables in the reports:**

<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"><b>TOURISM COMPETITIVENESS</b></div> <p style="text-align: center; color: red; font-size: 2em;">↓</p> <ul style="list-style-type: none"> <li>• New</li> <li>• Idescat and Eco&amp;Fin department</li> <li>• Development IPCPT</li> <li>• Data from statistics</li> <li>• Annual</li> <li>• IPCP, IPCR, prices, IPCQ...</li> <li>• Internet</li> <li>• 4th quarter of 2006</li> <li>• 11,000 euros</li> </ul>	<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"><b>INDUSTRIAL COMPETITIVENESS</b></div> <p style="text-align: center; color: red; font-size: 2em;">↓</p> <ul style="list-style-type: none"> <li>• Developing</li> <li>• Idescat</li> <li>• Industrial indicators</li> <li>• Data from statistics</li> <li>• Quarterly</li> <li>• REER, NEER, CPI...</li> <li>• Internet</li> <li>• Quarters of 2006</li> <li>• Less than 6,000 euros</li> </ul>	<div style="background-color: #4F81BD; color: white; padding: 5px; margin-bottom: 10px;"><b>ACTION RESPONSIBLE ORGANISMS</b></div> <div style="background-color: #4F81BD; color: white; padding: 5px; margin-bottom: 5px;"><b>OBJECTIVE</b></div> <div style="background-color: #4F81BD; color: white; padding: 5px; margin-bottom: 5px;"><b>ORIGIN OF THE INFORMATION</b></div> <div style="background-color: #4F81BD; color: white; padding: 5px; margin-bottom: 5px;"><b>REGULARITY</b></div> <div style="background-color: #4F81BD; color: white; padding: 5px; margin-bottom: 5px;"><b>VARIABLES</b></div> <div style="background-color: #4F81BD; color: white; padding: 5px; margin-bottom: 5px;"><b>DISSEMINATION</b></div> <div style="background-color: #4F81BD; color: white; padding: 5px; margin-bottom: 5px;"><b>AVAILABILITY</b></div> <div style="background-color: #4F81BD; color: white; padding: 5px;"><b>COST</b></div>
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Cáceres (Spain), November 14-16, 2006 Indicators of the competitive position of tourism in Catalonia



**This is reflected in the following legal documents:**

**INDICADORS DE POSICIÓ COMPETITIVA TURÍSTICA**

Codi: 15 07 01  
 Tipus d'actuació: nova

Organismes responsables: Departament d'Economia i Finances, Institut d'Estadística de Catalunya  
 Organismes col·laboradors: -

**Resumen de l'actuació:**  
 Elaboració d'una Índex de posició competitiva que tingui en compte l'evolució del valor de l'oferta turística de Catalunya com a destinació en relació amb els principals competidors de la resta de l'Estat i de la Mediterrània.

**Origen de la informació:** dades d'origen estadístic  
 Informant inicial: altres organismes o institucions  
 Tècnica de recollida de les dades primàries: fórmules mòduls

**Periodicitat:** anual  
 Variables principals a investigar: índex de competitivitat, preus, indicadors de qualitat, components qualitatives.

Organismes difusors: Departament d'Economia i Finances i Institut d'Estadística de Catalunya  
 Mitjà principal de difusió: Internet  
 Nivell de desagregació territorial: Catalunya  
 Referència temporal dels resultats: anual  
 Disponibilitat dels resultats estadístics: 4è trimestre de 2006  
 Cost directe estimat: 11.100 euros

Pla estadístic de Catalunya 2006-2009  
 Activitat que desenvolupa: INDICADORS DE POSICIÓ COMPETITIVA DEL SECTOR TURÍSTIC  
 Objectiu de l'activitat: elaboració d'una Índex de posició competitiva que tingui en compte l'evolució del valor de l'oferta turística de Catalunya com a destinació en relació amb els principals competidors de la resta de l'Estat i de la Mediterrània.

MAI 2006

Cáceres (Spain), November 14-16, 2006

**INDICADORS DE POSICIÓ COMPETITIVA DEL SECTOR INDUSTRIAL**

Codi: 16 03 01  
 Tipus d'actuació: en desenvolupament

Organismes responsables: Institut d'Estadística de Catalunya  
 Organismes col·laboradors: -

**Resumen de l'actuació:**  
 Obtenició d'un conjunt d'indicadors de la competitivitat del sector industrial català a partir d'una operació de síntesi de les fonts rellevants.

**Origen de la informació:** dades d'origen estadístic  
 Informant inicial: persona física, empresa i administracions públiques  
 Tècnica de recollida de les dades primàries: fórmules mòduls

**Periodicitat:** trimestral  
 Variables principals a investigar: taxa de canvi real, nominal i indicador de posició competitiva

Organismes difusors: Institut d'Estadística de Catalunya  
 Mitjà principal de difusió: Internet  
 Nivell de desagregació territorial: Catalunya  
 Referència temporal dels resultats: trimestres de 2006  
 Disponibilitat dels resultats estadístics: 3 mesos  
 Cost directe estimat: inferior a 6.000 euros

Pla estadístic de Catalunya 2006-2009  
 Activitat que desenvolupa: INDICADORS DE POSICIÓ COMPETITIVA DEL SECTOR INDUSTRIAL  
 Objectiu de l'activitat: obtenció d'un conjunt d'indicadors de la competitivitat del sector industrial català.

MAI 2006

Indicators of the competitive position of tourism in Catalonia

# INDICATORS OF THE COMPETITIVE POSITION OF TOURISM IN CATALONIA

Cáceres (Spain), November 14-16, 2006

Àlex Costa  
 Cèlia Gomà  
 Xavier López

Statistical Institute of Catalonia