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THE ROLE OF PRICE FACTORS FOR TOURISTS FROM THE EURO ZONE. HINTS ABOUT THE FUTURE OF ITALY'S INTERNATIONAL TOURISM RECEIPTS

Antonello Biagioli, Giovanni Giuseppe Ortolani and Andrea Alivernini*

Abstract: It is generally agreed that the long-term trend of international tourism receipts in Italy has been influenced by price factors, similarly to what happened in many countries. Particularly, it is commonly recognised that international tourism receipts have been boosted by depreciations of the domestic currency. Since January 1999, with the advent of Economic and Monetary Union (EMU), the exchange rate of the lira is not varying any longer vis-à-vis the currencies of the other euro zone countries. An important portion of the tourist market is involved by this change, as tourism receipts from partner countries of this area account for around a half of the total.

The aim of this study is to provide hints on the impact of the new context of fixed exchange rates on Italy's tourism receipts by analysing the past behaviour, both in a long and in a short-term perspective. The paper tries to bring some systematic evidence that could warrant further analysis.

The document is divided into three parts:

1. Describes in short the **impact of international tourism receipts** in Italy's balance of payments and in relation to the general economy, with a focus on the earnings originated from the partner countries of the euro zone.

2. Reports the methodology and the outcome of an **econometric analysis on a general model** in which the country's global international tourism receipts are put into relationship with a) the relative tourism prices in Italy vis-á-vis both the main countries of origin and the main competitor countries and b) the aggregate income of origin countries. The analysis resorts to the cointegration approach to highlight long-term interactions along with short-term dynamics.

3. Studies the **specificities of the influence of price factors for travellers coming from the euro zone** vis-à-vis the travellers coming from outside the zone and the different **attitude towards price factors of the various type of foreign visitors,** categorised according to various attributes (country of residence, gender, age and profession of visitors, place of visit, accommodation used, etc.). The characteristics of the link receipts / prices for the euro zone is carried out through a further econometric analysis on last four-years data. The subjective judgement of Italy's tourism prices of the different types of visitors is investigated by analysing the responses directly provided by a large representative sample of travellers.

The main findings of the paper are the following:

a) The analysis of part 2. shows that there is a clear long-term relationship between international tourism receipts on one side and price factors and income of origin countries on the other side.

b) The analysis of part 3. indicates that

   - The mentioned relationship remains valid restricting the focus on EMU-originated visitors. Moreover, in recent years, the sensitivity of receipts to the changes of price factors appeared even higher than for the Extra-EMU travellers.

   - Travellers seem to be aware of change in prices, as their subjective evaluations reflect to a significant extent the "real" relative price changes.

* Ufficio Italiano dei Cambi.
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– The subjective evaluation of prices is influenced by all the factors considered: the country of origin of the visitors, their socio-demographic characters, etc. Nonetheless, it has been possible to identify some visitors' segments that express a more negative evaluation of Italian prices and are therefore more exposed to a loss of competitiveness of the prices of the country's tourist products.

As a conclusion, in the past the price factor has been in Italy crucial for travellers from outside the euro zone and - maybe even to a larger extent - from within the zone in determining the level of tourism expenditure in the country. It is reasonable to assume that this tendency will continue in the future, in a new context in which a key component of the price factor, i.e. the exchange rate of the domestic currency, is not under control any more. The future of international tourism receipts from the euro zone is therefore likely to be influenced by the remaining economic factors, namely the domestic price level and the growth of income of the EMU partners, and by non-economic factors.

I. INTRODUCTION

Italy has always been one of the world main tourist destinations. Non-economic factors, namely the richness of the country's cultural and historical heritage, the attractiveness and the diversity of the natural resources in the nation's territory, combined with favourable climatic conditions, certainly play a major - probably the most important - role in determining the country's competitive advantage in this field.

Nonetheless, there is a consensus in considering that also economic factors have played a significant part in determining the evolution of the country's inflows of foreign visitors. In several occasions, Italy's international tourism receipts, i.e. the - aggregated expenditure carried out by non resident visitors for their stay in the country's territory, have been speeded up or shrink by changes in a relatively few economic variables.

Price competitiveness is the most often recalled example for these variables. In the case of Italy, it indicates the competitiveness of Italian tourism prices vis-á-vis the tourism prices of competitor countries. Tourists prove to be well-informed consumers. Hence, all the rest being equal, they are more likely to travel to Italy if the cost of the trip is perceived advantageous in comparison to the cost of a journey in the home country or in a different (competitor for Italy) foreign country.

In short, given the two countries A and B, a change of price competitiveness of country A against country B is originated by movements of one or both of the following two variables: i) a change of domestic prices of country A vis-à-vis the domestic prices in country B and ii) a change of the exchange rate of the currency of country A vis-à-vis the currency of country B.

In addition to the named price factors, the disposable income of foreign visitors is regarded as another important economic variable influencing the level of international tourism to a country. It is in fact considered that holidays abroad are superior goods, whose demand, therefore, increases in parallel with the augment of income. As a consequence, the changes of aggregate income of the countries of origin of foreign visitors are expected to be positively correlated with the changes of tourism receipts of the destination country.

It can be noted that, in the last two decades, the second component of the price

factor, i.e. the exchange rate variation, has been more visible in the Italian case. This because the volatility of the exchange rate of the Italian lira against the other major currencies largely exceeded both the variability of relative prices (denominated in the domestic currency) and the variability of income of origin countries.

The advent of the Economic and Monetary Union in 1999 involves that Italy now adopts a common currency with other ten European Union countries. With respect to the segment of travel within the euro zone, the implication is that one of the sources of variation in the model briefly describes above simply disappears. In this new context, the international tourism receipts of the eleven countries of the zone are supposed to depend on the changes of relative internal tourism prices and on the variations of disposable income of origin countries.

This study attempts to contribute to the understanding of the implications of the euro introduction on Italy's tourism receipts. The strategy adopted to this end basically consists in studying the past behaviour in order to find some systematic pattern that might help to outline the future scenario.

The paper starts with a preliminary descriptive paragraph that provides some notes on the size and the features of Italy's international tourism. The paragraph is followed by the core part of the paper, which is divided in two sections.

The first part deals with an econometric model whose outcome is the quantification of the impact of two main economic factors, prices and income, on the global - that is from all countries - international tourism receipts, over the period 1977-1999. The regression analysis adopts the cointegration approach in order to find out the (possible) long-term relationship between the response variable and the explanatory variables along with the short-term dynamics between them. The aim of this part of the paper is to assess the features of a model that, although generally accepted, has never been tested with a similar methodology on the Italian case.

Hence, this first part of the study provide a fairly analytical understanding of the general validity of the model, i.e. irrespective of the area of origin of visitors. The second part of the research aims at outlining the possible specificities of the price effect on the various segment of Italy's international tourism market.

In this second part, euro zone travellers are compared to the travellers coming from the rest of the world. To this end, a second model has been tested, in which the receipts specifically originated from euro zone countries are the dependent variable. As it will be explained further on, this exercise can only be carried out analysing a limited period, since a reliable geographical breakdown of tourism balance of payments data is only compiled in Italy since 1996, with the set up of a large sample survey at borders.

Finally, the average subjective evaluation of prices in Italy provided by foreign visitors, in the mentioned sample survey, has been disaggregated according to several attributes: country of origin, gender, age, profession, place of visit, type of accommodation used, etc. This allowed inferring about the different attitude vis-à-vis prices of the various types of visitors.

II. INTERNATIONAL TOURISM RECEIPTS IN ITALY: EVOLUTION OF THE ECONOMIC IMPACT

The ranking of the top ten international tourism earners compiled by the World Tourism Organisation (WTO) shows the outstanding position of Italy in the world tourism market (Table 1). In 1998, the most recent year for which comparable figures are available, the country is placed at the third position, with a share of 6.8% of the world total. In the last decade Italy competed with France and Spain, whose receipts are very similar in size, to occupy the second rank after the United States, by far the world biggest tourist earner.

The aggregate 'international tourism receipts' is conceptually very close to the aggregate represented by the credit side of the Travel item of the balance of payments (1). Figure 1 below shows the evolution of the Travel item, or tourism balance of payments as it is often named, in proportion to the country's GDP. In addition to the credits, also the debits, i.e. the expenditures carried out by resident visitors abroad, and the balance between the two components are reported.

The relevant and increasing size of the foreign visitors expenditures in the country is clearly visible: the ratio credit/GDP, from 1.5% in 1970 reached a record level approximately at 2.5% during the last five years. Moreover, it can be noted that, despite an increased pace of growth of the debit side since the middle Eighties, the Travel balance remained steadily positive.

The structural positive contribution of Travel to the current account of the country's-balance of payments is apparent in Figure 2. The Travel balance constantly and significantly contributed to the improvement of the current account balance, frequently in deficit over the period under observation.

Table 1
International tourism receipts by main country of destination. Million US dollars. 1998

Rank	Country	Receipts	% share
1	USA	71,250	16.2%
2	France	29,931	6.8%
3	Italy	29,866	6.8%
4	Spain	29,737	6.8%
5	UK	20,978	4.8%
6	Germany	16,429	3.7%
7	China	12,602	2.9%
8	Austria	11,184	2.5%
9	Canada	9,393	2.1%
10	Mexico	7,897	1.8%
	Other countries	200,686	45.6%
	World total	439,953	100.0%

World Tourism Organization; For Italy, Figure Revised with UIC Data (World Total Updated Acccordingly)

Figure 1
Evolution of the ratio between the components of the tourism balance of payments components and the GDP (1970-1999)

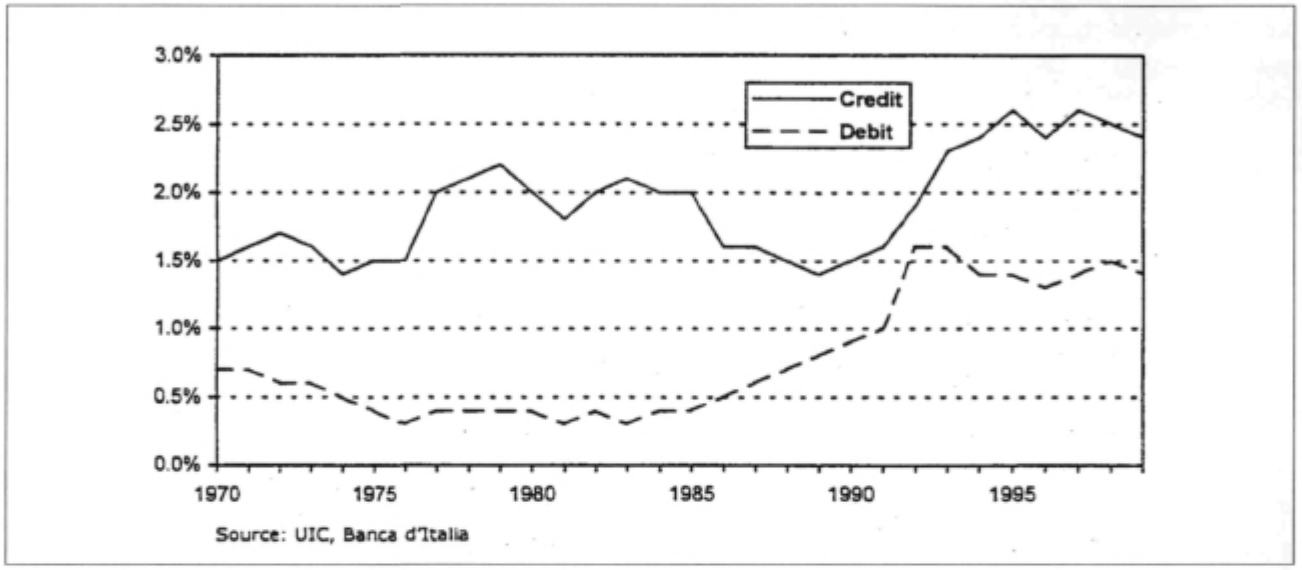
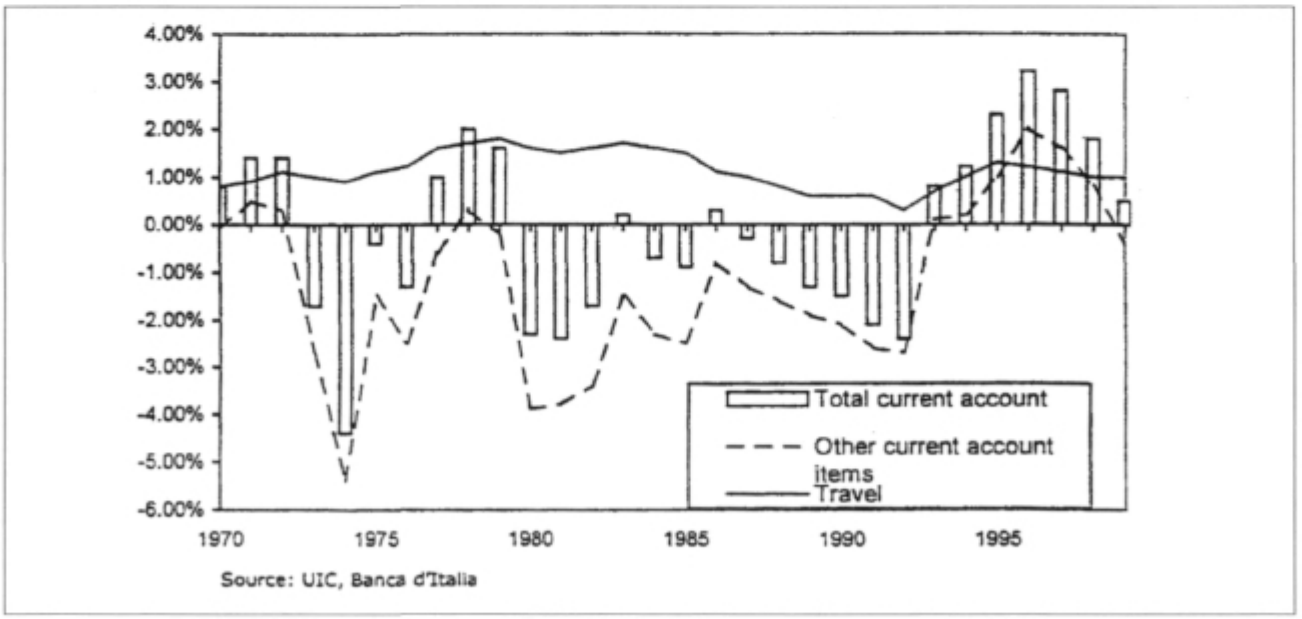


Figure 2
Evolution of the ratio 'Travel - balance / GDP' and the ratio 'Other current account items - balance / GDP' (1970-1999)



The significant size of international tourism receipts is reflected by their relevant impact on the country's economy, in terms of value added and generation of jobs (Table 2). It has been estimated that inbound tourism, i.e. the inflow of non resident visitors in the country, contributed in 1998 - directly or indirectly - to 2.2% of the global economy value added. The same segment of tourism generates 3.5% of the total employment. The larger incidence on the employment confirm the typical labour-intensive feature of the tourism industry: in the tourist sector a unit of value added creates more jobs than in the average of the other economic sectors. It is also important to notice that the international segment represents nearly 40% of the total internal tourism sector, both for value added and employment.

The composition of inbound flows by country of origin is showed in Table 3.2. In 1999, the euro zone countries accounted for around a half (49%) of total tourism receipts. The travellers from this zone cover a larger share as regards the physical flows, with 57% of the arrivals at borders and 62% of the total night stays. This reflects a lower average daily per capita expenditure (123,000 lire against 209,000) and a higher average length of stay (5.7 nights again5t 4.6) of euro zone travellers.

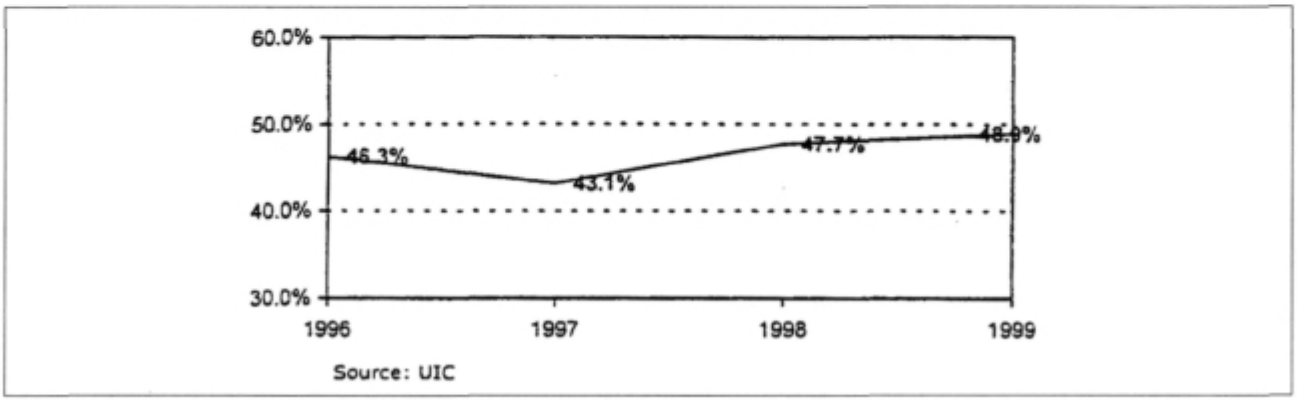
As it is well known, the German visitors are the most important clients, bringing 23% of total earnings. Other six countries have a share over 6% of the total. The US, Austria and France, each with a share between 9 and 10%, form a first group of countries. The second group is composed by the UK, Switzerland and Japan, each around 7%. A strong concentration on a few partners is therefore apparent: these seven countries alone already account for 91.7% of the total receipts.

Table 2
Value added and employment originated by inbound and domestic tourism. Direct plus indirect effect. Absolute values and incidence on total economy. 1998

Value added		Billion lire	% of total economy
	Inbound tourism	44,558	2.2%
	Domestic tourism	68,265	3.3%
	Total tourism	112,823	5.5%
Employment		Thousand jobs	% of total economy
	Inbound tourism	794	3.5%
	Domestic tourism	1,213	5.3%
	Total tourism	2,007	8.8%

Source CISET and IRPET (E. Becheri et al., *Nono Rapporto Sul Turismo Italiano 2000).*

Figure 3
Evolution of the share of Travel credits from the euro zone on total Travel credits (1996-1999)



The share of the euro zone has been relatively stable over the last four years (Figure 3), with a slight tendency to increase. Longer time series on the geographical breakdown of receipts would have been useful to test the stability of the geographical composition of the inflows, but a reliable allocation of Travel transactions by partner country is only available from 1996, when the mentioned sample survey on international tourism was started (3) This lack of data, already pointed out in the introduction, will be mentioned again for its implications for the subsequent part of the study

III. TOURISM RECEIPTS, PRICES AND INCOME: AN ECONOMETRIC ANALYSIS OF LONG-TERM AND SHORT-TERM TRENDS THROUGH THE COINTEGRATION APPROACH

III.1. Framework

This paragraph tries to describe the influence that the changes of relative tourism prices and aggregated income of the countries of origin have on global Italy's international tourism receipts.

More in detail, focusing on decisive factors affecting tourism receipts, an econometric model is built connecting Italian receipts from tourism (as a dependent variable) with:

a) the income of countries of origin of travellers visiting Italy, and

b) the (tourism) price levels in Italy relative to i) the price levels in origin countries and ii) the price levels in countries representing potential alternative destinations for foreign travellers (competitor countries).

This part introduces the second section of the research, in the subsequent paragraph, which will attempt to test the validity of the model found here in relation to the euro zone partners. This strategy is in tine with the

Table 3
Travel credits, number of visitors and number of night stays by area and country of origin of the visitors. Absolute values and per cent composition. 1999

	Country of origin	Travel credits (billiom lire)	% share	Visitors (x 1000)	% share	Night stays (x 1000)	% share	Average lenght of stay (nights)	Average daily per capita expenditure (thousand lire)
Euro zone	Austria	4,910	9.5%	6,814	10.8%	34,515	10.4%	5.1	142
	Belgium	773	1.5%	779	1.2%	5,952	1.8%	7.6	130
	Finland	174	0.3%	96	0.2%	921	0.3%	9.6	189
	France	4,585	8.9%	11,254	17.8%	40,815	12.3%	3.6	112
	Germany	11,974	23.1%	14,461	22.9%	100,730	30.4%	7.0	119
	lreland	156	0.3%	76	0.1%	781	0.2%	10.2	200
	Luxembourg	49	0.1%	60	0.1%	312	0.1%	5.2	156
	Netherlands	1,505	2.9%	1,436	2.3%	12,180	3.7%	8.5	124
	Portugal	131	0.3%	75	0.1%	665	0.2%	8.8	196
	Spain	1,044	2.0%	854	1.4%	8,180	2.5%	9.6	128
	Total Euro Zone	25,300	48.9%	35,906	56.8%	205,052	61.9%	5.7	123
Extra-EMU	UK	3,696	7.1%	2,154	3.4%	17,551	5.3%	8.1	211
	Swtitzerland	3,496	6.8%	12,003	19.0%	22,6071	6.8%	1.9	155
	USA	5,162	10.0%	1,515	2.4%	18,428	5.6%	12.2	280
	Canada	485	0.9%	190	0.3%	2,549	0.8%	13.4	190
	Japan	3,432	6.6%	888	1.4%	9,136	2.8%	10.3	376
	Other countries	10,173	19.7%	10,516	16.6%	55,988	16.9%	5.3	182
	Total Extra-EMU	26,445	51.1%	27,266	43.2%	126,258	38.1%	4.6	209
		51,745	100.0%	63,172	100.00%	331,309	100.0%	5.2	156

Source: UIC.

paper objective, i.e. finding the influence of price factors on tourism receipts originated from the single currency area.

In the choice of the explanatory variables the method is quite 'traditional', since it follows the suggestion commonly formulated in the literature (4). The 'innovative' aspect of the research can be rather found in the attempt to find out the presence, and the features, of long-term interactions between the variables of the model in the Italian case, through the conceptual framework of the cointegration theory. This approach has been inspired by Raminhos (1997), who first implemented this strategy in relation to the Portuguese international tourism receipts.

It is necessary to notice preliminarily that the dependent variable of the model should be

more correctly the international tourism receipts of visitors coming in Italy only for holiday reasons. Business travellers' expenditures - as well as the expenditures of students, medical patients, people visiting relatives, etc. - which are in principle influenced by different economic factors, should be therefore excluded. The exclusion is not carried out because a reliable split of receipts by purpose of travel is only available from 1996, and this involves an insufficient length of the time series. However, we follow Raminhos (1997) in assuming that, for the aims of this study, the total receipts are a satisfying substitute of the receipts for holiday reasons. The rationale is that i) the receipts related to holiday trips represent the most important part (5) of the total receipts and ii) holiday reasons are often an important secondary motivation for business trips and for trips with other purposes (6).

The first subparagraph deals with the description of the model and the methodology used for the construction of the variables. The second analyses the series stationarity and assesses whether a long-term relationship (cointegration) exists. In the third subparagraph a model with an Error Correction Mechanism (ECM) is estimated and in the fourth conclusions are drawn.

III.2. Specification of the model

As mentioned, we apply to the Italian case, with some adaptations, the econometric approach implemented by Raminhos (1997) in relation to the Portuguese context.

The dependent variable, the Italian tourism receipts (referred to as TR), is supposed to be influenced by income and price factors.

The income factor (GDP) is introduced to take into account the fact that the variations of disposable income of travellers influence the travellers' attitude towards taking holidays abroad and, consequently, their level of expenditure.

The price factor indicates the relative advantage or disadvantage that Italy presents as a tourism destination for foreign travellers. Origin countries' and competitor countries' price levels are added to exchange rate indicators to build a competitiveness index. This index is compared with an Italian price index to obtain a measure of the relative prices of origin countries (OCP) and competitor countries (CCP) vis-á-vis Italian prices. Economic theory suggests an inverse relationship between receipts and both CCP and OCP. In fact, an increase of the latter indexes means, respectively, a loss of competitiveness of Italy's tourism supply vis-à-vis other countries of destinations or vis-á-vis destinations in the country of origin itself (domestic tourism from the travellers' standpoint).

Then, the demand model can be set out as

$$TR = f\,(Y^{o},\ P,\ P^{o}TC^{o},\ P^{o}TC^{o})$$

where:

TR = Italy's international tourism receipts at constant prices.

Y^{o} = aggregate disposable income in travellers origin countries.

P = level of prices of tourism goods and services in Italy.

P^o = level of prices of tourism goods and services in traveller's origin countries.

P^C = level of prices of tourism goods and services in competitor countries.

TC^o = exchange rate of the currency of origin countries vis-à-vis the Italian Lira.

TC^c = exchange rate of the currency of competitor countries vis-à-vis the Italian Lira

The exchange rates are calculated as the number of Italian lira needed to buy a unit of foreign currency.

Quarterly data for the period 1977-1999 (92 observations) are used in the model. All the variables have been logarithmisated, in order to make clear the meaning of the coefficient of the estimated relationships, as in this way they approximate elasticities, and to avoid problems of heteroscedasticity of the variables during the estimation phase.

III.2.1. Dependent variable

TR is represented by the series of the Italy's Travel credits of the balance of payments, which is transformed at constant prices using the consumer price index (CPI) as a deflator. Theoretically, a tourism price index should have been considered, but such an index is at the moment unavailable. The approximation involved by the use of the CPI is however considered negligible for the aims of the study.

The typical strong seasonality of the series is eliminated by a deseasonalisation procedure (7). The use of seasonal dummies has been avoided because of the difficulties that it would have caused in performing the series stationarity tests.

III.2.2. Independent variables

Relative prices of the origin countries vis-à-vis Italian prices (OCP)

An index of the aggregate price level of origin countries is built. The set of origin countries has been restricted to the seven major contributors to Italian tourism receipts: Austria, France, Germany, Japan, Switzerland, United Kingdom, and United States (8).

The index (base 1995 = 100) is calculated as follows:

$$OCP_t = 100 \sum_{i=1}^{7} \frac{CPI_t}{CPI_{it} \times CER_{it}} \times \omega_{it}$$

with:

CPI_t = Italy's consumer price index at period t

CPI_{it} = consumer price index of the origin country i in period t

CER_{it} = exchange rate of the Italian lira vis-à-vis the currency of origin country i in period t

and

$$_{it} = \frac{PRES_{it}}{\sum_{i=1}^{7} PRES_{it}}$$

where $PRES_{it}$ is the number of night stays in Italy of travellers of country i in period t. Since the number of night stays disaggregated geographically were only available with an annual frequency, the weights it are brought to the quarterly frequency simply assigning to the four quarters composing of a given year the annual value of the corresponding year.

Relative prices of the competitor countries vis-à-vis Italian prices (CCP)

Ten competitor countries are considered: Austria, France, Germany, Greece, Portugal, Spain, Switzerland, Turkey, United Kingdom and United States. They were chosen on the basis of a question asked in the 1997 to foreign travellers in Italy, in the framework of the mentioned frontier survey. The question was "If you hadn't come to Italy, which other country would have you chosen for your trip?". The first ten countries in the rank of the frequencies of the replies have been included (9). The index of the aggregate price level of competitor countries (base 1995 = 100) is built as follows:

$$CCP_t = 100 \sum_{i=1}^{10} \frac{CPI_t}{CPI_{it} \times CER_{it}} \times \omega_{it}$$

with:

CPI_t = Italy's consumer price index at period t

CPI_{it} = consumer price index of country i in period t

CER_{it} = exchange rate of the Italian lira vis-à-vis the currency of competitor country i in period t

and

$$_{it} = \frac{TR_{it} \times CCF_{it}}{\sum_{i=1}^{10} TR_{it} \times CCF_{it}}$$

where TR_{it} are the Travel credits of the balance of payments of the competitor country i in period t (expressed in million US dollars, source WTO) and CCF_{it} are the per cent frequencies of the first ten countries in the rank of the replies to the question mentioned above. This approach attempts to take into account in the weights of competitor countries both the general (TR_{it}) and the Italy-specific tourism attractiveness of these countries (CCF_{it}).

Aggregate income of origin countries

The income factor is represented by an index of the aggregate income of origin countries. The same set of origin countries considered for the variable OCP is adopted. The index (base 1995 = 100) is built as a weighted average of origin countries' GDP:

$$GDP_t = \sum_{i=1}^{7} GDP_{it} \times \omega_{it}$$

where:

GDP_{it} = index of gross domestic product (at constant prices - 1995=100 - and seasonally adjusted) of origin country i in period t

$_{it}$ = same weight used for the OCP variable (see above)

III.3. Stationarity and cointegration

Before estimating the regression model,

the degree of integrability of the series must be studied. If the series are non-stationary the standard tests for the assessment of the significance of the model and of the parameters of the equation are strongly biased; moreover, the hypothesis of a relationship between the variables might be accepted even if it is only of a spurious nature.

The Augmented Dickey-Fuller (ADF) test (10) is used to check the existence of a unit root in the series. It consists, in checking the significance of the estimated coefficient of y_{t-1} in the regression:

$$y_t = y_{t-1} + y_{t-1} + \cdots + {}_p y_{t-p} + {}_t$$

where the autoregressive order p is chosen to make ${}_t$ 0,

The results (Annex 3) are consistent with the graphic analysis of the series (Annex 2): all the series have a unit root, i.e. are integrated of order 1 - I(1), so they need to be differentiated to be included in a meaningful regression equation.

Moreover, the existence of cointegration indicates the presence of a long-term interaction between the series. So, the regression equation has not to be estimated in the first differences, since in this case only the short-term dynamics would be taken into account. The presence of cointegration allows to estimate a formulation of the model in which the long-term effect (called Error Correction Mechanism - ECM) is combined with the short-term dynamics, expressed by the differentiation of the non-stationary variables.

In order to test the presence of cointegration it is necessary to estimate the following static regression, representing the long-term solution, under the hypothesis that all the series are I(1):

$$LTR_t = + {}_1LOCP_{t-1} + {}_2LCCP_{t-1} + {}_3LGDP_{t-1} + {}_t$$

Since it can be reasonably assumed that the decision to make a trip is kept a quarter in advance to the date of the visitor's departure, one-period lags are considered for the regressors.

In case of cointegration, the residuals of this regression are usually autocorrelated but stationary. Hence the test for the checking of the cointegration can be reduced to an ADF test on the residuals of the static regression, following Bodo, Parigi and Urga (1990). The estimation of this model gives:

$$LTR_t = -1.55\ LOCP_{t-1} + 0.19\ LCCP_{t-1} + LGDP_{t-1}$$
$$(t) \quad (3.86) \quad (-4.44) \quad (0.43) \quad (26.61)$$

with $R^2 = 0.90$; $F(3,87) = 256.94$; DW=1.04.

Therefore, the coefficients of the variables LOCP and LGDP have the expected signs: negative for the price factor and positive for the income factor. The sign of LCCP is instead not correct but the coefficient of this variable is not significant and will therefore be eliminated from the model, as it is explained further on.

Since the graphic analysis of the residuals shows that they are stationary with zero mean and no trend, an ADF test without constant and trend on the residuals can be used. The ADF test value is -3.43, while the critical value at a significance level of 1% is -2.59.

As a result, the nil hypothesis of one unit root can be rejected and it can be assumed i) that the residuals are stationary and ii) that the variables of the static regression are cointegrated.

The LOCP and LCCP series show a correlation of 0.55. This appears to be to a large extent the consequence of the fact that the set of countries of origin of the tourists is almost identical to the set of the competitor countries. Moreover, LCCP is not significant in the static equation, so it can be removed from the model. Re-estimating, the result is:

$$\underset{(t)}{LTR_t} = \underset{(6.15)}{-1.41}\ \underset{(-12.13)}{LOCP_{t-1}} + \underset{(27.13)}{LGDP_{t-1}}$$

with $R^2 = 0.90$; $F(2,88) = 388.94$; $DW=1.05$

The loss of information deriving from the removal of LCCP seems therefore negligible, with an unchanged value of R^2 and an increased F. In addition, the ADF test without constant and trend on the residuals is -3.34: given that the critical value is the same of the previous analysis, the residuals are still stationary and the series of the model remain cointegrated.

Then we follow the approach of Bodo, Parigi and Urga (1990) who worked out an empirical procedure for testing the existence of a single cointegration vector on the basis of a work by Johansen (1988) (11). As the existence of a single cointegration vector is established at the 1% level, a model in which it is possible to distinguish long and short-term effects can be showed. Then, a variable, the mentioned ECM, is introduced as long-term solution of the model.

III.4. The final model

A model taking into account the ECM is specified, including four lags of the differentiated variables, that allows us to consider the effects of the lagged variables for a one-year period, the equilibrium relationship and four dummies Di, which are added in order to sterilise the effects of some outliers. The general specification of the model is the following:

$$LTR_t = + \sum_{j=0}^{4} \beta_j \Delta LOCP_{t-j} + \sum_{j=0}^{4} \gamma_j \Delta LGDP_{t-j} + \sum_{j=0}^{4} \delta_j \Delta LTR_{t-j} +$$

$$+ LTR_{t-1} + LOCP_{t-2} + LGDP_{t-2} + {}_iD_i + {}_t$$

where the long-term solution, corresponding to the ECM, is represented by

$$LTR_{t-1} + \frac{\beta_5}{\delta_5} LOCP_{t-2} + \frac{\gamma_5}{\delta_5} LGDP_{t-2}$$

and is the condition for the admissibility of a representation of the model in the form of an ECM.

This model is progressively reduced, eliminating non-significant variables and lags, up to the following final specification:

$$\underset{(6.15)}{LTR_t} = \underset{(6.15)\ (-5.40)}{-1.53\Delta LOCP_t} \underset{(-3.21)}{- 1.02\Delta LOCP_{t-1}} + \underset{(3.74)}{1.05\Delta LOCP_{t-2}} +$$

$$+ \underset{(-3.53)}{3.29\Delta LGDP_t} \underset{(-2.81)}{- 2.60\Delta LGDP_{t-2}} \underset{(-6.14)}{- 0.45ECM} + \underset{(2.77)}{0.18\Delta 84Q2} +$$

$$+ \underset{(3.09)}{0.19D91Q4} \underset{(-2.62)}{- 0.16D98Q1} \underset{(-3.11)}{- 0.19D99Q1}$$

where

$$ECM = LTR_{t-1} - \quad LOCP_{t-2} + 1.74\ LGDP_{t-2}$$

represents the long-run effect and D84Q2, D9lQ4, D98Ql, D99Ql the dummies for the quarters indicated in their names.

The diagnostic tests, whose results are summarised in Table 4, indicate that the model overcomes any autocorrelation, heteroscedasticity and mis-specification problem (12).

Table 4
Values of the diagnostic tests for the final model

Coefficient Test	Value	Probability
R^2	0.62	
F(10,76)	12.447	[0.0000]
AR(1-5)	0.44613	[0.8147]
ARCH(4)	1.0672	[0.3796]
Normality	0.32203	[0.8513]
X^2	0.68561	[0.7963]
Xi*Xj	0.72709	[0.8225]
RESET	2.2955	[0.1340]

The coefficient of ECM (-0.45) has the correct sign. According to the cointegration theory the value of the coefficient of ECM converges towards the real parameter's value at a higher rate than the one based on the, static regression estimated above. This coefficient can be interpreted as the average rate of adjustment of the short-run values of the model towards the long-term equilibrium.

III.5. Summary of the results of the analysis

In the short-term Italy's tourism receipts depends on the current, one-period and two-period lagged values of prices in the origin countries and on present and two-period lagged values of the aggregate income of the countries of origin. As prices in competitor and origin countries are highly correlated, mainly due to the inclusion of nearly the same countries in the two groups, the dependence of tourism receipts on origin-country prices can be extended to competitor-country prices.

A long-term interaction between the variable exists. The coefficients of the long-run solution are highly significant. The ECM parameter, estimated as -0.45, reflects the adjustment towards the long-term equilibrium arising in a given period from the previous-period short-run specification.

The long-run coefficients, representing the elasticities of tourism receipts with respect to origin- country prices and their gross domestic product, have a sign that is consistent with the prevailing economic theory, i.e. negative for prices and positive for income. The absolute values of the coefficients are higher than the unit, in accordance with the results obtained in other studies (13):

- 1% increase of the aggregate income of origin countries causes an average increase of 1.70/0 in tourism receipts;
- 1% decrease of Italy's prices vis-à-vis the prices of origin countries causes an average increase of nearly 3% in tourism receipts.

The elasticity of the income factor is also consistent with the economic theory, which considers international tourism as a superior or luxury good.

IV. RECEIPTS AND PRICE FACTOR: SPECIFICITIES FOP. EURO ZONE COUNTRIES AND FOR VISITORS'SEGMENTS

IV.1. Framework

It has emerged from the econometric model describes in previous paragraph that, with reference to the aggregate tourism receipts - that is the receipts originated from all countries - a clear and stable relationship between international tourism receipts and price factors exists.

In this paragraph, the second part of the study is illustrated. It aims at providing further details on the influence of price factors on specific segments of Italy's international tourism market.

Particularly, the purpose of this paragraph is to describe:

a) the specific features of the interaction between the receipts originated from the two areas under study, the euro zone and the Extra-EMU area, and the respective relative prices and income;

b) the characteristics of the evaluation of Italian prices in the various types of visitors, classified according to their socio-demographic features, their country of origin, the accommodation used, and so on.

IV.2. Model of Italy's international tourism receipts originated from the euro zone

This part of the study aims at the identification of the specificities of the influence of price and income factors on Italy's tourism receipts originated from the euro zone. In other words, in line with the objective of the paper, we want to test the validity of the general model illustrated in the first part of the research in relation to this specific area of origin of the visitors.

To this end, specific regression models are estimated. The first model (model E) puts into relationship the country's receipts originated from the euro zone (LTRE) (14) with the one-period lagged values of i) the relative tourism prices of Italy vis-à-vis the euro zone countries (LOCPE) and ii) the aggregate income of the euro zone (LGDPE), as follows:

$$\text{Model E: } LTRE_T = E + {}_1LOCPE_{t-1} + {}_2LGDPE_{t-1} + \mathbf{t}$$

The second model (model X), analyses the same phenomena in relation to the country not belonging to the euro zone, or Extra-EMU countries:

$$\text{Model X: } LTPX_t = X + {}_1LOCPX_{t-1} + {}_2LGDPX_{t-1} + {}_t$$

As mentioned, a reliable geographical breakdown of Italy's receipts is only available since 1996, when the UIC frontier survey was started. For this reason the analysis will be limited to the quarterly figures from 1996 to 1999. The restricted length of the time series does not allow performing a comprehensive econometric analysis through the adoption of the cointegration approach. A simple static linear regression model will be therefore estimated.

The change of the reference time period - starting from 1996 instead that from 1977 as it was in the first part of the study - involves the need to complete the analysis by estimating also a third model (model W) in relation to the receipts, prices and income of all countries:

Model W: $LTRW_t = W + {}_1LOCPW_{t-1} + {}_2LGDPW_{t-2} + t$

The specificities of the euro zone vis-à-vis the Extra-EMU area will be then identified by the comparison between $_1$ and $_1$, in order to assess the possible different elasticity of the price factor, and between $_2$ and $_2$, in order to assess the possible different elasticity of the income factor. Moreover, the parameters relevant for the two areas will be compared with the parameters related to the world ($_1$ and $_2$).

The analysis covered all the ten euro zone partners (Austria, Belgium, Finland, France, Germany, Ireland, Luxembourg, Netherlands, Portugal, Spain) and the main Extra-EMU countries of origin, i.e. Canada, Japan, Switzerland, the United Kingdom and the United States.

The receipts from these countries have been aggregated to form the receipts originated from the respective areas (EMU, Extra-EMU, world) and they have been subsequently seasonally adjusted.

The aggregate indexes of relative tourism prices (LOCPE, LOCPX and LOCPW) have been built with the same approach used in the previous section of the paper. The only difference is that the country weights, instead of the number of night stays of the travellers from the corresponding country, are in this case the receipts originated from the same country (15). The same weighting methodology is adopted for the income variables (LGDPE, LGDPX, LGDPW).

The evolution of the time series, all transformed in the form of an index base 1996=100, is visible in Annex 4 (Figure A4.1). The receipts from the two zones (EMU and Extra-EMU) remained nearly stationary during the four-year period of observation, with the exception of a strong drop for the euro zone in the third quarter of 1999, mainly because of the effect of the Kosovo's crisis, who took place in the first half of 1999 and discouraged the advance bookings of holidays in Italy for the subsequent summer.

The relative price index remained practically constant vis-á-vis the euro zone, due to the ongoing process of convergence of the EMU area. In relation to the Extra-EMU area, the wider variability of the index reflects the higher volatility of the exchange rate of the lira against the currencies of the area. The US dollar, the Canadian dollar and the pound moved jointly, increasing their value during the period, with the exception of the year 1998. The Japanese yen, after a drop between the summer of 1997 and the summer of 1998, showed a strong increase. The Swiss Franc sharply decreased in 1996 and remained stable afterwards. The overall effect is therefore a tendency to a gain of competitiveness of Italy's prices vis-á-vis the prices of the Extra-EMU area.

Table 5 shows the final specification of the three models and the respective diagnostic tests. Three dummy variables are included to remove the effect of some outliers in the first three quarters of 1999 (16).

The diagnostic tests indicate a good fit of the model, particularly for the euro zone and the total receipts, and no problems of autocorrelation of the residuals. The parameters signs are in line with the expectations: negative for the price factor and - with the exception of model X for which the coefficient ($_2$) is not Present because it is not significant - positive for the income factor.

The comparison of the elasticities of the price factor shows a higher absolute value for the euro zone: 2,12 against 0.71 for the Extra-EMU area and 1.01 for the world. The elasticity of the income factor is also higher for the euro zone (3.12) than for the world (0.97).

Therefore, the results substantially confirm the validity of the model described in previous paragraph, that can be consequently extended, in a long-term perspective, to both the EMU and the Extra-EMU area. Particularly, price factors appear to be relevant in explaining the evolution of Italy's tourism receipts.

Moreover, with the necessary caution suggested by the short length of the time series used for this second; econometric exercise, it might be inferred that, in recent years, the sensitivity to price factors has been for the euro zone not smaller - if not greater - than that for the rest of the world.

IV.3. The subjective evaluation of Italian tourist prices: analysis by type of visitor

In this subparagraph, after having

Table 5
Model of Italy's tourism receipts by area of origin (1996-1999). Parameters and diagnostic tests

Model for Italy's receipts from EMU countries (model E)

$LTRE_t = -2.12\ LOCPE_{t-1} + 3.12\ LGDPE_{t-1}, + 0.13\ D99Q2 - 0.40\ D99Q3$
(t) (2.62) (3.85) (1.98) (-6.19)

$R^2 = 0.83$; Adjusted $R^2 = 0.78$; F(4,11) = 22467.77; DW =1.78; AR(1-4) P(17) = 1.06

Model for Italy's receipts from Extra-EMU countries (model X)

$LTRX_t = 7.86 - 0.71\ LOCPX_{t-1} - 0.12\ D99Q2 - 0.12D99Q3$
(t) (5.55) (-2.29) (-2.76) (-2.54)

R2 = 0.56; Adjusted $R^2 = 0.44$; F(3,11) = 4.60; DW =1.66; AR(I-4) = 0.29

Model for Italy's receipts from all countries (model W)

$LTRW_t = 4.80 - 1.01\ LOCPW_{t-1} + 0.97\ LGDPW_{t-1} + 0.11\ D99Q1 - 0.26\ D99Q3$
(t) (2.66) (-2.79) (3.78) (4.18) (-9.68)

R2 =0.93; Adjusted R2 = 0.90; F(4,10) = 31.96; DW =1.97; AR(I-4) = 0.90

investigated the role of price factors for the Italian international tourism market from a macro-economic perspective, an attempt is made to point out the role of the same factors from a micro-economic standpoint.

The objective is to outline the specific judgement of prices of the various categories of visitors, classified according to several attributes, such as the visitors' gender, age and profession, the place of visit, and the accommodation used. Having in mind the framework of the analysis illustrated in this paper, attention will be also paid to the need to point out the possible differences in the attitude toward prices between the visitors originated from the two 'currency areas', i.e. the euro zone and the rest of the world.

The main source used for this part of the analysis is the mentioned UIC survey. Among other information (number and characteristics of visitors, tourist behaviour, pattern of expenditure), it collects scores assigned by visitors, in a scale from 1 (minimum satisfaction) to 10 (maximum), to Italian prices and several other aspects of their stay in Italy. The list of aspects investigated by the survey are the following (in brackets the abbreviations used further on are indicated):

1. Courtesy and character of local people (COURTESY)
2. Cities and works of art (ART)
3. Scenery, natural environment (ENVIRONMENT)
4. Hotels (and other available accommodation) (HOTELS)
5. Food, cuisine (FOOD)
6. Prices, cost of living (PRICES)
7. Quality and choice of goods in shops (SHOPPING)
8. Tourist services and information (INFORMATION)
9. Safety of tourists (SAFETY)
10. Overall opinion (OVEPALL) (18)

The size of the source database, composed by hundred thousands face-to-face interviews, allows accurate and given the large number of attributes collected on the visitors' characteristics, fairly disaggregated analysis.

The analysis has been restricted to the visitors who travelled in Italy for holiday reasons, spending at least one night in the country. The restriction by purpose of visit aimed at the exclusion of business travellers and visitors travelling for particular personal reasons (study, health-care, etc.), whose 'attitude' to price factors is considered of a peculiar nature, for the reason mentioned in previous paragraph. The exclusion of same-day visitors is instead motivated by the exigency to balance the sample composition, by sterilising the very strong concentration of this segment in a few bordering countries: same-day visitors from France, Switzerland and Austria represent 80% of the total. Finally, in order to simplify the analysis - without a relevant loss of precision - only the following seven main countries of origin are taken into account: Austria, France and Germany for the euro zone and Japan,

Switzerland, the UK and the US for the Extra-EMU area.

Table 6 shows the annual average score given by the visitors during the whole period in which, the survey was run, disaggregated by individual aspect. The overall score is always around 8.4, indicating the very positive evaluation given by the visitors to their stay in Italy. Environment, art, courtesy and food are the items that receive the highest appreciation (above 8), whereas prices - although they receive a substantially good judgement (6.9 is the average of the four-year period) - are the aspect for which the visitor are less enthusiastic.

Starting to focus on the key aspect, the prices in Italy, a preliminary analysis has been carried out to test whether the changes of the subjective judgement of prices, collected from visitors by the UIC survey, adequately reflects the evolution of the 'real' economic conditions. To this end, for each country of origin the correlation between i) the average score assigned to prices by the visitors coming from that country and b) the relative price index of Italian prices vis-á-vis the prices in the same country of origin. The relative price index (base 1996=100) was built, for each country of origin and for the world, with the same methodology used in previous part of the research (19).

Figure A5.1 in Annex 5 shows the evolution of the two variables for each country. The visual analysis confirms that a significant correlation exists between them, for almost all countries, even if not always to the same extent. Visitors from the US and from the UK appeared able to evaluate 'correctly' the changes of relative prices, therefore adequately assessing - mainly - the proportions of the relatively sharp shifts of their currency against the lira. On the contrary, the average score for Italian prices

Table 6
Average scores assigned by non-resident visitors to various aspects of their stay in Italy. Visitors travelling for personal reasons. 1996-1999

Aspect	1996	1997	1998	1999	All years
Courtesy	8.61	8.57	8.53	8.49	8.55
Art	8.73	8.72	8.84	8.59	8.72
Environment	8.81	8.78	8.73	8.69	8.75
Accommodation	7.78	7.97	7.92	7.91	7.90
Food	8.44	8.59	8.63	8.52	8.54
Prices	6.62	6.94	6.98	6.9	6.86
Shopping	7.91	8.04	7.96	7.85	7.94
Information	7.62	7.67	7.67	7.71	7.67
Safety	7.77	7.89	7.86	7.9	7.85
Overall	8.44	8.42	8.47	8.43	8.44

Source: UIC

of Austrian visitors was highly variable during the period, despite the relative price index remained practically constant.

Table 7 synthesises the behaviour for the different countries of origin by indicating the linear correlation coefficient between the two variables under study. With the exception of Austria, a substantial correlation - correctly negative given that a higher relative price index means a less competitive level of Italian prices - is found for all countries and for the world (-0.41).

Table 7
Correlation between the average score assigned to Italian prices and the index of relative prices of the country of origin vis-à-vis Italy's prices. Visitors travelling for holidays, with at least one overnight stay in Italy . 1996-1999

Country of origin	Linear correlation
Austria	0.08
France	-0.34
UK	-0.89
USA	-0.92
Switzerland	-0.61
Japan	-0,.75
Germany	-0.30
World	**-0.41**

Source: UIC

As a conclusion, visitors are generally aware of the level of relative tourism prices. This result legitimates the continuation of the descriptive analysis through the investigation of the different attitudes toward prices of the different visitors' segments.

The investigation has been carried through the analysis of the differences of the average score assigned to Italian prices by the various types of visitors, during the period 1996-1999, categorised according to the following nine attributes, which classifies the visitors in a set of modalities: (20)

- Zone of origin of the visitor (EMU / Extra-EMU)
- Country of origin of the visitor
- Age of the visitor
- Sex of the visitor
- Profession of the visitor
- Accommodation used by the visitor
- Area of destination in Italy
- Year and quarter in which the trip was undertake

The classic ANOVA (analysis of variance) approach has been adopted to test the influence of each attribute on the level of the score attached to Italian prices.

The results of the ANOVA (Table 8) show that all the attributes are extremely significant, also thanks to the large number of available non-missing observations (n = 84,190). It can be therefore concluded that each combination of modalities brings a significant change to the average score for prices.

Although all the modalities are therefore relevant to explain the perception of prices, it

is interesting to synthesise the information from the visitors' replies by looking at the modalities that involve the larger deviation from the global average of the sample.

Table A6.2, A6.3 and A6.4 in Annex 6 show the annual average scores for each visitors' group, in relation, respectively, to the world and the two areas of origin, i.e. the EMU area and the Extra-EMU area. Table 9 below reports, for each group, the differences from the global average, again disaggregated by area of origin. Looking at the differences from the global average whose absolute value is larger, appears that:

- Austrian visitors show a very good consideration of Italian prices. Their average score for prices is in fact 0.40 higher than the global mean for all countries of origin. On the contrary, the visitors from the US are the less satisfied (-0.59), followed by the French (-0.40). In general, visitors from outside the euro zone express are less satisfied for Italian prices (-0.17).

- As regards the tourists' profession, the students constitute a category particularly critical towards prices (–0.36).

- People staying in youth hostels give a much more negative appreciation of Italy's prices (-0.69) than the visitors using other types of accommodation. This evidence, in the light of the previous remark concerning the students, suggests a tendency to a negative evaluation of Italian prices of young people, which is in fact confirmed by the fairly negative difference for visitors aged up to 24 years (-0.12 for the euro zone and -0.07 for the rest of the world). The appreciation of visitors staying at rented dwellings is also negative if they come from the euro zone (-0.23) but becomes clearly positive (+0.32) if the visitors come from the Extra-EMU area.

- An opposition between euro and non-euro zone is also apparent with respect to the area of destination: non-euro visitors give a positive evaluation of the prices in Southern Italy (+0.33), whereas euro-zone tourists evaluate them negatively (-0.19). The negative judgement of the prices in the Centre is stronger for the euro-zone travellers (-0.33) than for the Extra-EMU residents (-0.15).

Focusing on visitors from the euro zone, it is then possible to summarise the segments that showed the more negative attitude toward prices and that might consequently be more affected by a possible loss of competitiveness of the Italian tourist products (the negative differences below -0.1 are selected):

- Country of origin: France (-0.45)
- Age: Up to 24 years (-0.12)
- Profession: Students (-0.37)
- Accommodation: Youth hostel (-0.77), Rented dwelling (-0.23), Other (-0.16)

- Area of destination: Centre (-0.33)
  South and Isles (-0.19)
  North-West (-0.11)
- Period of the year: Fourth quarter (-0.19)

As a conclusion, the subjective evaluation of Italian prices cannot be easily explained by a relatively small set of visitors' attributes. However, the analysis has shown that some segments have a stronger tendency to orient their evaluation in the positive or in the negative sense.

Table 8

Results of the ANOVA on the influence of visitors' attributes on the score assigned to Italian tourism prices. Visitors travelling for holidays, with at least one overnight stay in Italy. 1996-1999

Source	**DF**	**Sum of Squares**	**Mean Square**	**F Value**	**Pr > F**
Model	30	8369333.466	278977.8	91.18	0.0001
Error	84159	257508286.3	3059.783		
Corrected Total	84189	265877619.7			
	C.V.	Root MSE		VPRE Mean	
	775.8756	53.55825601		6.90294372	
Attributes	**Degrees of freedom**	**Type I SS**	**Mean Square**	**F Value**	**Pr > F**
ZONE	1	561409.7633	561409.7633	183.48	0.0001
COUNTRY	5	3795667.872	759133.5743	248.1	0.0001
AGE	4	191250.5987	47812.64968	15.63	0.0001
SEX	1	94831.01222	94831.01222	30.99	0.0001
PROFESSION	4	780608.4262	195152.1066	63.78	0.0001
ACCOMMODATION	6	660296.9511	110049.4919	35.97	0.0001
AREA	3	812496.4686	270832.1562	88.51	0.0001
YEAR	3	1093680.639	364560.2132	119.15	0.0001
QUARTER	3	379091.7344	126363.9115	41.3	0.0001

Number of observations in data set = 86,481 (84,190 excluding observations with missing values)

Table 9

Average scores assigned by non-resident visitors to Italian prices. Disaggregation by various attributes of the visitor and of the trip. Visitors travelling for holidays, with at least one overnight stay in Italy. 1996-1999. Differences from global averages

	EMU countries	Extra-EMU countries	All countries
ZONE OF ORIGIN			
EMU	-	-	0.05
Extra-EMU	-	-	-0.17
COUNTRY OF ORIGIN			
Austria	0.35	-	0.40
France	-0.45	-	-0.40
UK	-	0.23	0.06
USA	-	-0.42	-0.59
Switzerland	-	0.15	-0.0
Japan	-	0.01	-0.1
Germany	-0.01	-	0.04
AGE OF VISITOR			
0-24 years	-0.12	-0.07	-0.13
75-34 years	-0.02	-0.03	-0.03
35-44 years	0.06	0.07	0.08
45-64 years	-0.02	0.05	0
75 years and more	-0.02	-0.12	-0.05
SEX OF VISITOR			
Male	-0.02	-0.01	-0.01
Female	0.05	0.02	0.02
PROFESSION			
Employed (subordinate)	0	0.09	0.02
self-employed	0.07	-0.09	0.04
Student	-0.37	-0.26	-0.36
Housewife	0.14	0.12	0.13
Retired	0.08	-0.02	0.07
ACCOMMODATION			
Rented dwelling	-0.23	0.32	-0.14
Owned dwelling	0.22	0.12	0.2
Guest of relatives/friends	0.01	0.13	0.03
Tent, caravan	0	0	0.03
Other	-0.16	'-0.04	-0.12
Youth hostel	-0.77	-0.5	-0.69
Hotel, tourist village	0.03	-0.02	0.01
DESTINATION AREA			
North-West	-0.11	0.18	-0.04
North-East	0.15	-0.02	0.16
Centre	-0.33	-0.15	-0.3
South and Isles	-0.19	0.33	-0.06
QUARTER			
QTRI	0.1	0.03	0.06
QTR2	0.07	-0.05	0.05
QTR3	-0.02	0.05	0
QTR4	-0.19	-0.05	-0.16
GLOBAL	***0***	***0***	***0***

SOURCE: UIC

CONCLUSIONS

In accordance with the prevailing economic theory and with the result of studies referred to other national contexts, we have found that Italy's tourism receipts have a clear long-term relationship with the aggregate income of the visitors' home countries and the relative prices of Italy vis-à-vis the origin and competitor countries. The exposition to the price competitiveness during the period 1977-1999 was relevant, given that a 1% loss of this indicator caused a 3% decrease of tourism receipts.

We have also found that this relationship is not only valid for the aggregated receipts, i.e. originated from all countries, but also in relation to the receipts specifically originated from visitors resident in the euro-zone, although this result requires further confirmation because of the lack of sufficiently long time series.

Exploiting the database originated by the UIC frontier survey, the subjective evaluation of Italian prices provided by a large sample of non-resident visitors has been analysed. It has emerged that the visitors are generally able to adequately assess the real changes of relative prices.

The visitors' evaluation of prices is significantly influenced by all the attributes considered: the tourists' sociodemographic characteristics (sex, age, profession), the country of origin, the area of destination, the accommodation used, the time of the year in which the trip is undertaken.

Among the visitors coming from the euro zone, the analysis allowed to identify some visitors' groups that express the more negative evaluation of prices and are therefore likely to be particularly exposed to a loss of price competitiveness of the country's tourism industry. They are, above all, the French tourists, the youngest visitors, particularly the students and those staying at youth hostels, and the tourists visiting the Centre of Italy.

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NOTES

(1) The content of 'international tourism receipts' was defined by the WTO (see United Nations World Tourism Organization, 1993), whereas the balance of payments standards were set up by the International Monetary Fund (see International Monetary Fund, 1993). The difference between the two approaches basically concerns the treatment of the expenditure of seasonal and border workers in the country in which they work and the inclusion of the expenditures abroad carried out by students for stays abroad of more than one year. The WTO excludes these items, whereas the IMF includes them. For the purposes of this study, these items can be considered negligible in size. Therefore, the 'international tourism receipts' and 'Travel credits of the balance of payments' are used in the rest of the paper as equivalent terms.

(2) A more detailed breakdown of receipts by country is in Annex 1, Table A1.1.

(3) The survey is carried out by the UIC on a continuous basis through around 140,000 annual face-to-face interviews at borders of a representative sample of both resident travelling abroad and non-resident travelling in Italy. It replaced the previous collection system based on bank reports, which involved a significant bias in the geographical distribution because of the allocation of a relevant part of the transactions on the basis of the currency used. The survey was also meant as a preparation to the advent of the single currency, which was supposed to hinder the usability of bank reports of the euro zone countries for Travel compiling. For details on the survey methodology, see Biagioli (1997) and Mirto and Ortolani (1998). On the bias involved by the old collection system see Ortolani (1998). On the need of revision of collection systems for Travel in the light of the single currency, see Eurostat (1997), Eurostat (2000a) and Eurostat (2000b),

(4) Artus (1970 and 1972), Loeb (1982) and, more recently, Syriopoulos (1993) have applied this. approach in various national contexts. Chiesa and Castaldo (1984) developed an econometric model for Italy's tourism balance of payments of the period 1962-2983. Carraro and Pesce (1995) illustrates an integrated econometric model for the forecasting of Italy's international tourism flows.

(5) Receipts from trips motivated by personal reasons represented 7,4.3% of the total in 1999

(6) We adopt the hypothesis formulated in this sense in Artus (1992).

(7) The procedure is the SABL (Seasonal Adjustment, Bell Labs) of the FAME software package.

(8) As mentioned in paragraph 2, these countries adequately approximate the global context, since they represent around 92% of the total Italy's tourism receipts.

(9) The per cent frequencies were the following: France = 31.4%, Spain = 22.8%, Greece = 12.6% , Austria = 7.7%; Switzerland 5.9%, UK = 5.9%, USA = 5.8%, Germany = 3.5%, Turkey = 2.2%, Portugal = 2.2%.

(10) Said and Dickey (1984).

(11) The procedure described by Bodo, Parigi and Urga (1990) consists in estimating three regressions between the first difference of the three variables of the reduced model and their lagged values, and other three regressions between the two-period lagged values of the levels of the three variables and their lagged values. The residuals of these six regressions are respectively included as columns in two matrices 3×87, U_0 and U_3. Let:

$$S_{33} = U_3'U_3$$
$$S_{03} = U_3'U_0 = S_{30}$$
$$S_{00} = U_0'U_0$$

matrices 3 × 3. The solutions of the equation:

$$|\lambda S_{33} - S_{30}S_{00}^{-1}S_{03}| = 0$$

represent the squared canonical correlations and can be used to build the test:

w = –t log (1 – , r = 1,2,3, distributed as a

he hypothesis are checked in a sequential way:

H_0^3: at most two cointegration vectors
H_1^3: two cointegration vectors
...
H_0^1: no cointegration vectors
H_1^1: one cointegration vector

If H_0^3 is not rejected, H_0^2 vs. H_1^2 is considered, and then H_0^1 vs. H_1^1. If H_0^1 is rejected, there is one cointegration vector, otherwise no cointegration vector between the variables of the model exists.

(12) R^2 is the. coefficient of determination. *F* tests the hypothesis that all the coefficients, apart from constant, are zero. *AR(1-5)* tests the autocorrelation of residuals up to the fifth order. *ARCH(1-4)* tests the heteroscedasticity of residuals. *Normality* tests the normality of the distribution of the residuals. X^2 and $X_i \leq X_j$ test if it is necessary to introduce in the model, respectively, squares or cross-products of the variables already present in the model. *RESET* test if there are omitted variables. The values in brackets are the probability of getting values of the tests higher than the values observed: they show how likely it is to get at least such a test outcome if H_0 were true.

(13) In relation to the Portuguese case, from the study of Raminhos (1997) resulted elasticities of -2.23 for the relative prices of Portugal vis-à-vis the prices of competitor countries and +2.86 vis-à-vis the aggregate income of origin countries.

(14) The names of the variables are similar to those used in the first part of the research. Logarithmised variables are considered.

(15) In the previous section of the study the number of night stays had to be necessarily used as a proxy of the receipts geographically disaggregated, because the latter were not available for the years before 1996.

(16) The outliers, in the second and third quarter for the Extra-EMU area and - as already mentioned - in the third quarter for the EMU area, are likely to be connected to a drop of the expected inflows in relation to the mentioned tensions in Kosovo.

(17) AR(1-4) tests the autocorrelation of the residuals up to the fourth order

(18) The 'overall' score represents the global assessment of the satisfaction for the trip given by the visitors. See Touring Club Italiano - Ufficio Italiano dei Cambi (1998) for a regression study in which the analysis of the weights of the various aspects in 'explaining' the general satisfaction is carried out.

(19) For the period t, the relative price index for an individual country i (OCP_{it}) is calculated transforming into an index base 1996 = 100 the indicators $OCPA_{it} = CPI_{it}/(CPI_{it} * CER_{it})$, where CPI_t is the consumer price index of Italy in period t, CPI_{it} is the consumer price index of country i in period t and CER_{it} is the exchange rate of the currency of the country i vis-à-vis the Italian lira in period t. For the aggregate 'world', a weigthed average is calculated, using the receipts from each country as the weights.

(20) Table A6.1 in Annex 6 lists the modalities for each attribute.

ANNEX 1
Detailed geographical disaggregation of Italy's international tourism receipts

Table A1.1
Italy's international tourism receipts by region, subregion and country of origin. Million US dollars. 1996-1999

Region	Subregion	Country	1996	1997	1998	1999
Africa	*Eastern Africa*	*EASTERN AFRICA-TOTAL*	*53*	*25*	*32*	*30*
	Middle Africa	*MIDDLE AFRICA-TOTAL*	*10*	*10*	*7*	*16*
	Northern Africa	ALGERIA	50	51	27	36
		MOROCCO	35	32	28	26
		TUNISIA	54	64	71	76
		NORTHERN AFRICA-OTHER	0	1	3	1
	Total Northern Africa		*140*	***148***	*129*	*138*
	Southern Africa	SOUTH AFRICA	45	99	48	53
		SOUTHERN AFRICA-OTHER	3	1	2	3
	Total Southern Africa		*48*	*100*	*50*	*56*
	Western Africa	*WESTERN AFRICA-TOTAL*	*62*	*57*	*59*	*46*
Total Africa			**312**	**340**	**277**	**285**
Americas	*Caribbean*	*CARIBEEAN-TOTAL*	*54*	*21*	*24*	*24*
	Central America	PANAMA	3	1	2	0
		CENTRAL AMERICA-OTHER	8	8	10	9
	Total Central America		11	*9*	*12*	*9*
	Northern America	CANADA	243	351	297	265
		MEXICO	60	102	122	92
		USA	2,620	3,319	3,262	2,826
		NORTHERN AMERICA-OTHER	0	0	1	
	Total Northern America		*2,923*	*3,771*	*3,682*	*3,183*
	Southern America	ARGENTINA	161	218	184	158
		BRAZIL	339	463	375	210
		CHILE	21	44	55	36
		VENEZUELA	26	27	17	41
		SOUTHERN AMERICA-OTHER	71	73	51	36
	Total Southern America		*618*	*825*	*681*	*482*
Total Americas			**3,606**	**4,625**	**4,399**	**3,697**
East Asia & Pacific	Northeastern Asia	CHINA	149	153	205	203
		HK, CHINA	62	66	31	40
		JAPAN	3,209	2,818	2,275	1,894
		KOREA REP.	378	262	51	70
		TAIWAN	74	112	35	69
		NORTHEASTERN ASIA-OTHER	3			
	Total Northeastern Asia		*3,875*	*3,411*	*2,596*	*2,276*
	Southeastern Asia	INDONESIA	24	31	3	19
		MALAYSIA	28	37	6	22
		THAILAND	36	26	21	33
		SOUTHEASTERN ASIA-OTHER	113	132	124	109
	Total Southeastern Asia		*201*	*227*	*153*	*183*
	Australasia	AUSTRALIA	467	557	335	259
		NEW ZEALAND	53	71	44	65
	Total Australasia		*520*	*629*	*379*	*324*
	Melanesia	*MELANESIA - TOTAL*	*0*	*1*	*3*	*3*
	Micronesia	*MICRONESIA - TOTAL*	*1*	*0*		*1*
	Polynesia	*POLYNESIA - TOTAL*	*1*		*0*	*0*
Total East Asia & Pacific			**4,598**	**4,267**	**3,131**	**2,788**

(table continues in following page)

(from previous page)

Region	Subregion	Country	1996	1997	1998	1999
Europe	Central/East Europe	HUNGARY	144	82	78	115
		POLAND	118	163	206	204
		ROMANIA	38	37	40	46
		RUSSIAN FED	665	920	795	577
		CENTRAL/EAST EUROPE-OTHER	146	137	150	228
	Total Central/East Europe		1,111	1,338	1,269	1,170
	Northern Europe	DENMARK	163	148	180	218
		FINLAND	92	96	73	95
		IRELAND	65	103	100	86
		NORWAY	82	109	99	107
		SWEDEN	196	235	207	203
		UK	1,565	1,732	2,014	2,028
		NORTHERN EUROPE-OTHER	6	6	5	21
	Total Northern Europe		*2,168*	*2,430*	*2,677*	*2,757*
	Southern Europe	CROATIA	877	592	527	42
		GREECE	561	539	552	536
		PORTUGAL	109	78	67	72
		SLOVENIA	435	294	345	309
		SPAIN	532	565	766	572
		YUGOSLAVIA	146	61	38	21
		SOUTHERN EUROPE-OTHER	140	283	146	98
	Total Southern Europe		*2,801*	*2,411*	*2,441*	*2,040*
	Western Europe	AUSTRIA	1,417	1,616	2,027	2,691
		BELGIUM	529	493	440	424
		FRANCE	2,117	2,001	2,292	2,509
		GERMANY	8,241	7,194	7,752	6,561
		LUXEMBOURG	25	69	26	27
		NETHERLANDS	758	578	686	822
		SWITZERLAND	1,720	1,606	1,807	1,911
		WESTERN EUROPE-OTHER	72	97	57	124
	Total Western Europe		*14,879*	*13,655*	*15,088*	*15,070*
	East Mediter. Europe	ISRAEL	102	133	110	82
		TURKEY	89	128	109	81
		EAST MEDITER. EUROPE-OTHER	17	12	13	7
	Total East Mediter. Europe		*208*	*272*	*232*	*170*
Total Europe			**21,168**	**20,107**	**21,706**	**21,207**
Middle East	Middle East	EGYPT	74	92	63	81
		KUWAIT	10	16	8	6
		LIBYA	15	25	7	33
		SAUDI ARABIA	31	30	50	49
		MIDDLE EAST-OTHER	96	77	78	66
	Total Middle East		*226*	*239*	*205*	*236*
Total Middle East			**226**	**239**	**205**	**236**
Southern Asia	Southern Asia	INDIA	79	83	93	104
		IRAN	9	23	14	15
		SOUTHERN ASIA-OTHER	19	29	40	26
	Total Southern Asia		*107*	*135*	*148*	*145*
Total Southern Asia			**107**	**135**	**148**	**145**
Not classified	*Not classified*	*NOT CLASSIFIED*	*0*	*0*	*0*	
WORLD TOTAL			**30,017**	**29,714**	**29,866**	**28,359**

SOURCE: UIC

ANNEX 2
Graphs of the series (model of paragraph 3)

Figure A2.1
Series of the model of paragraph 3. Logarithmised variables (indexes base 1995 = 100)

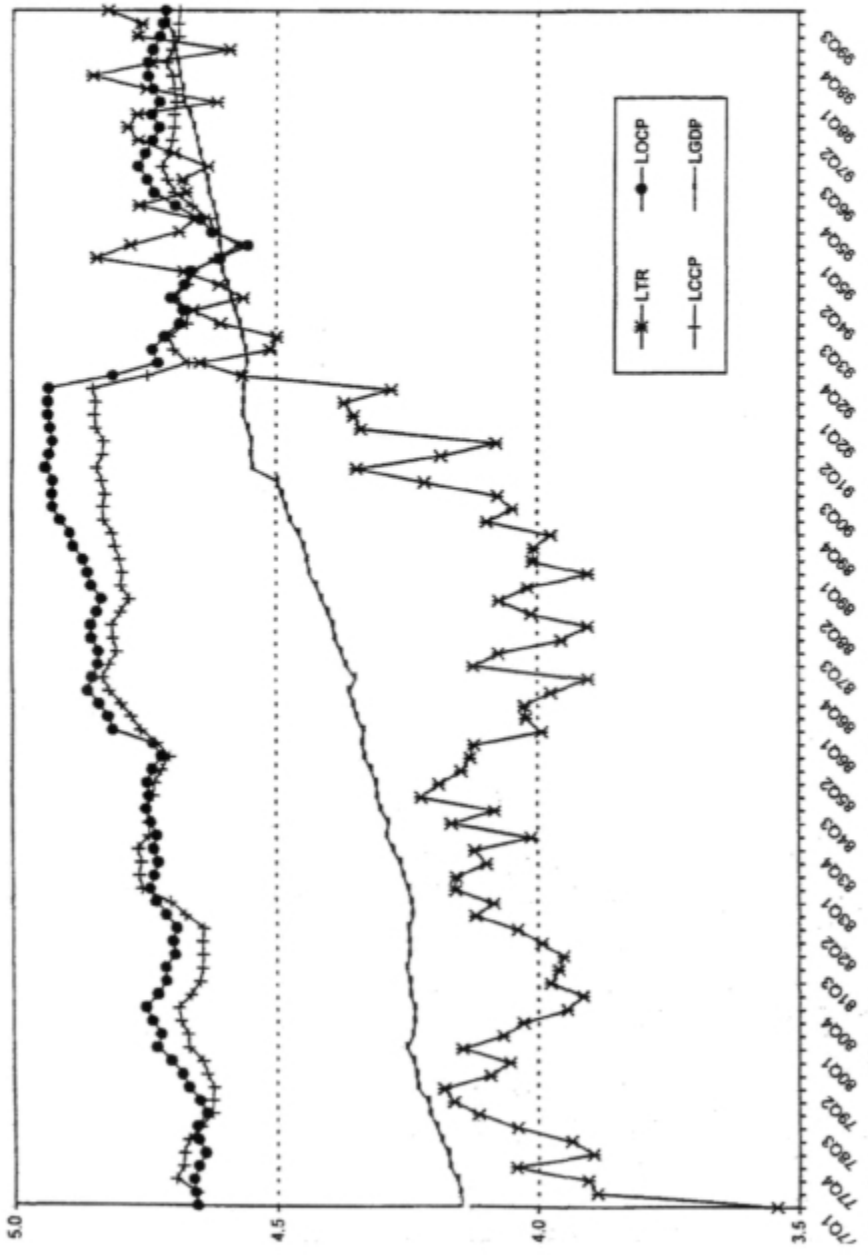
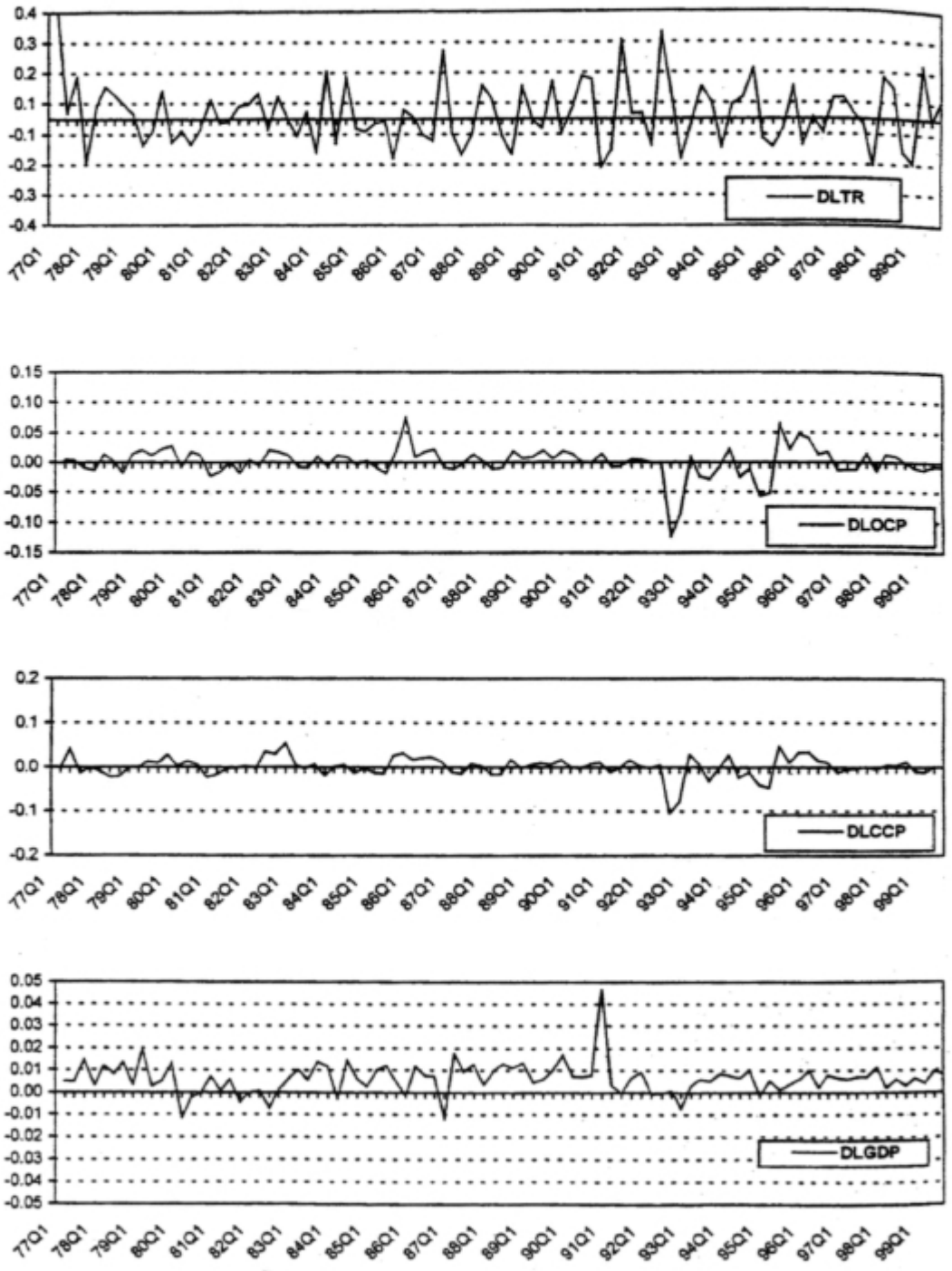


Figure A2.2
Series of the model of paragraph 2. First differences of logarithmised variables



ANNEX 3
Stationarity Tests (model of paragraph 3)

The test adopted in this paper is the Augmented Dickey-Fuller (ADF): the test derive from the Dickey-Fuller test, whose validity is sound if the residuals: of the series y_t generated by the AR(1) data generation model

$y_t =$ $y_{t-1} +$ $_t$
are distributed as N (0, ^{2}).

As this hypothesis can be not verified for any series, the ADF test checks the nil hypothesis of one unit root adopting the model:

$y_t =$ $y_{t-1} +$ $y_{t-1} + \cdots +$ $_p$ $y_{t-p} +$ $_t$ (1)

where the autoregressive scheme order p is chosen as to make the residuals distributed as N (0, ^{2}).

The test consists in estimating regressions of type (1); selecting the model having the highest lag with a significant coefficient, looking at the coefficient. If is significant (the hypothesis can be checked with the usual t-test) measures the value of -1 (difference from unity of in:

$y_t = y_{t-1} +$ $y_{t-1} + \cdots +$ $_p$ $y_{t-p} +$ $_t$

where 1 is the hypothesis of a unit root in the series. So the following hypothesis system holds:

= 0 1 (presence of a unit root)
0 1 (absence of a unit root).

Unit root tests 1978 (3) to 1999 (4)

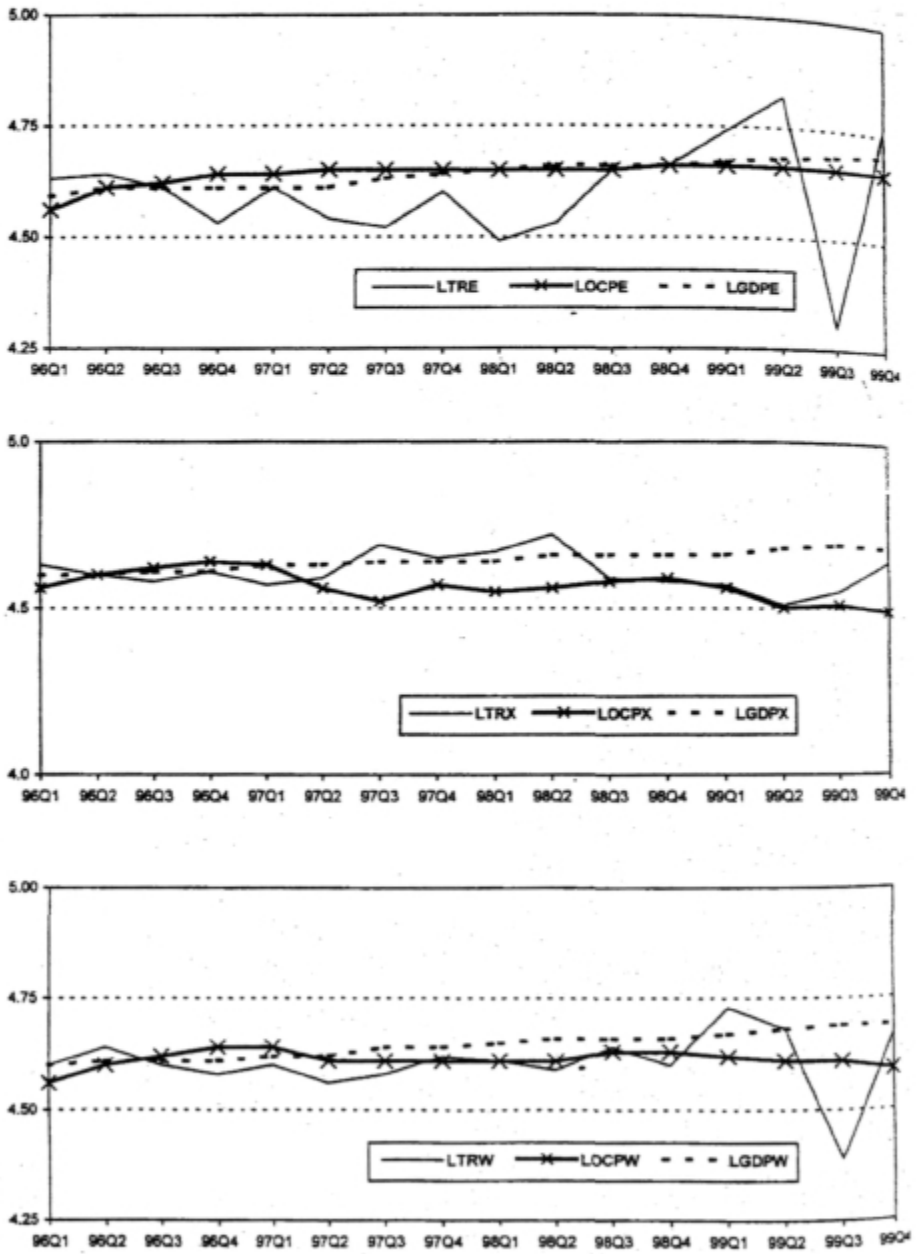
Critical values: 5% = –3.462; 1% = –4.067; constant and Trend included

	t-adf	$\hat{a}$ lag	t-lag	t-prob	
LOCP	-1.7794	0.024129	5	0.28017	0.7801
LOCP	-1.7681	0.023988	4	-1.2604	0.2112
LOCP	-2.0812	0.024076	3	1.5960	0.1144
LOCP	-1.8006	0.024305	2	-0.43045	0.6680
LOCP	-1.9338	0.024184	1	3.3985	0.0010
LOCP	-1.4319	0.025675	0		
LGDP	-2.4447	0.0071554	5	0.038396	0.9695
LGDP	-2.5322	0.0071100	4	2.6300	0.0103
LGDP	-1.9849	0.0073682	3	1.1400	0.2577
LGDP	-1.8080	0.0073819	2	0.78940	0.4322
LGDP	-1.7111	0.0073649	1	0.51073	0.6109
LGDP	-1.6606	0.0073320	0		
LTR	-1.8.552	0.082026	5	1.5864	0.1167
LTR	-1.5706	0.082809	4	2.3062	0.0237
LTR	-1.2543	0.085015	3	-2.1401	0.0354
LTR	-1.5874	0.086874	2	-3.3603	0.0012
LTR	-2.3213	0.092164	1	-0.85553	0.3948
LTR	-2.6766	0.092015	0		
LCCP	-1.0616	0.032877	5	-1.4152	0.1610
LCCP	-1.3679	0.033085	4	-1.1555	0.2514
LCCP	-1.6308	0.033154	3	0.86442	0.3899
LCCP	-1.4907	0.033103	2	-0.29572	0.7682
LCCP	-1.5956	0.032918	1	3.0805	0.0028
LCCP	-0.9928	0.034560	0		

Conclusions: no value is lower than the thresholds; the nil hypothesis of one unit root can not be rejected for any series.

ANNEX 4
Graphs of the series (model of paragraph 4)

Figure A4.1
Series of the model of paragraph 4. Logarithmised variables (indexes base 1996 = 100)



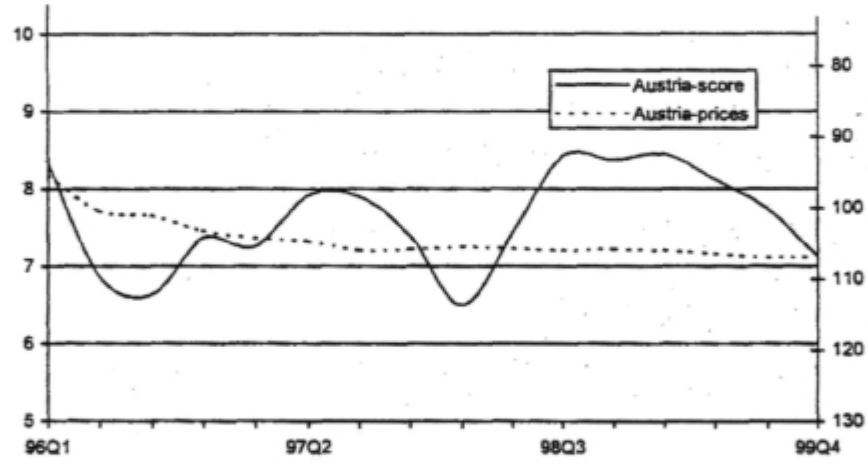
ANNEX 5
Graphs of the evaluation of prices vs. the actual prices

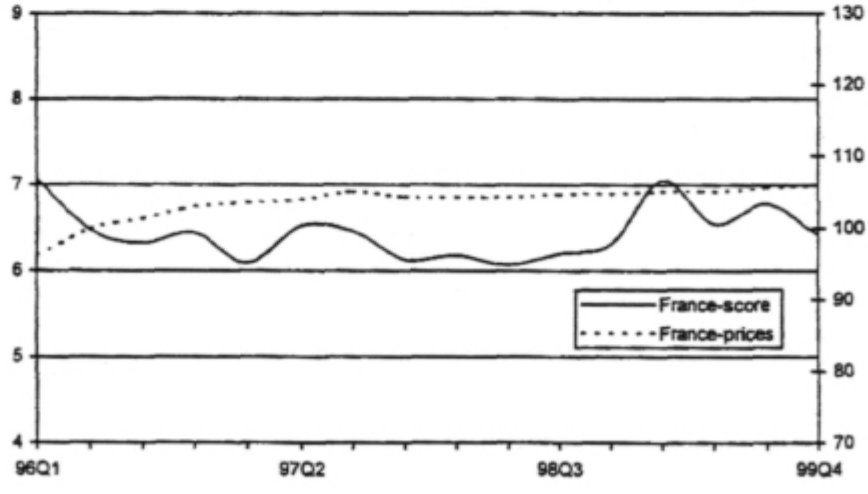
Figure A5.1 - Subjective evaluation of prices and actual relative prices. 1996-1999

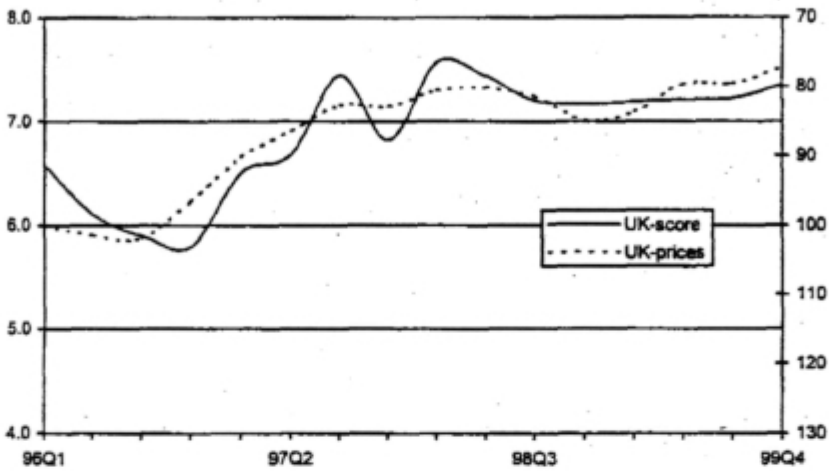
LEGEND

Country-score = Average score assigned to Italian prices (on a scale from 1 to 10) by the visitors resident in the country (scale on the left). Only visitors travelling for holiday reasons and spending at least one night in Italy are considered.

Country-prices = Index (base 1996=100) of relative tourist prices of the country vis-à-vis Italy. A decrease of the index value means an increase of price competitiveness of Italian tourist prices. (Scale on the right, inverted to improve readability)



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UK-score
UK-prices
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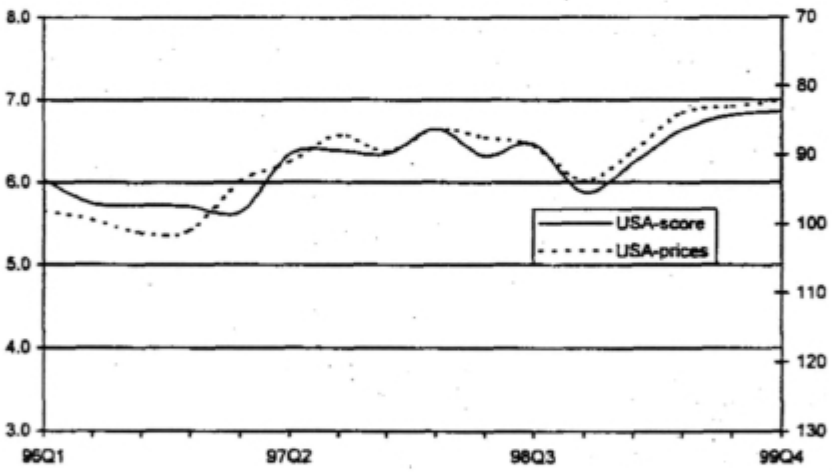
99Q4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USA-score
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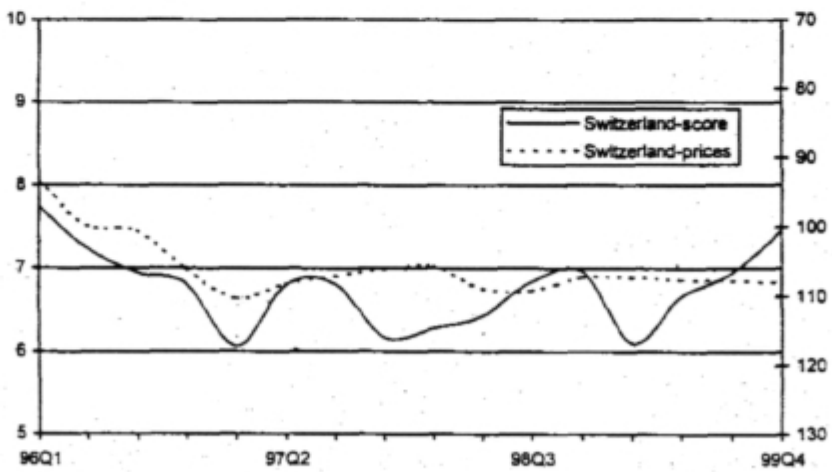
99Q4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Switzerland-score
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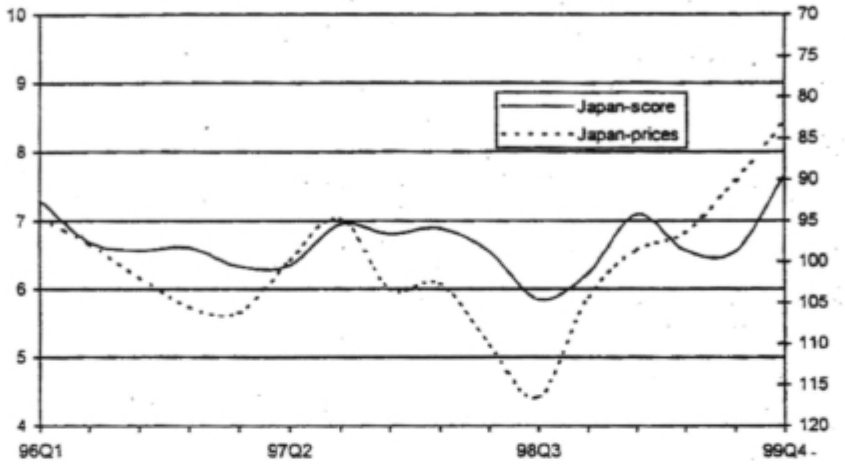
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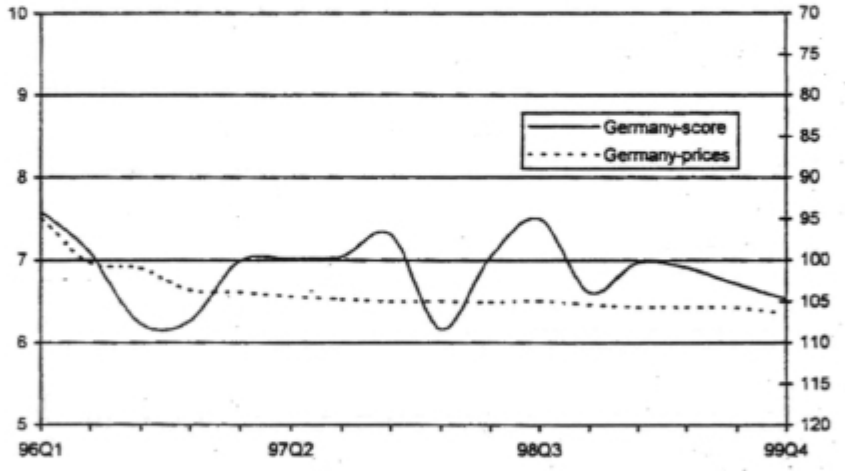
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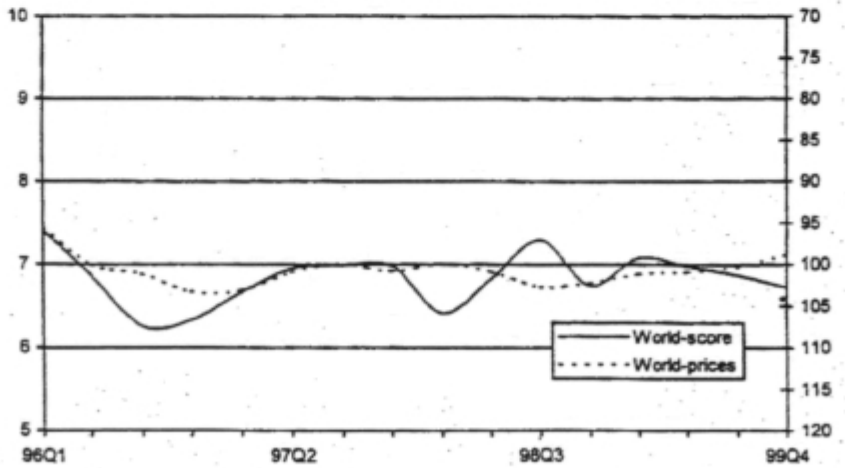
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ANNEX 6
Analysis of the Evaluation of Italian Tourism Prices by Type of Visitor

Table A6.1
List of the attributes and the respective modalities considered for the ANOVA on the influence of visitor's attributes on the score assigned to Italian tourism prices. Visitors travelling for holidays, with at least one overnight stay in Italy. 19967-1999

Attribute	Number of modalities	Modalities						
Zone	2	EMU	Extra-EMU					
Country	7	Austria	France	Germany	Japan	Switzerland	UK	USA
Sex	2	Female	Male					
Age	5	0-24 years	25-34 years	35-44 years	45-64 years	65 years and more		
Profession	5	Employed (subordinate)	Housewife	Retired	Self-employed	Student		
Area	4	Centre	North-East	North-West	South and Isles			
Accomodation	7	Guest relatives/friends	of Hotel, tourist village	Other	Owned dwelling	Rented dwelling	Tent, caravan	Youth hostel
Year	4	1996	1997	1998	1999			
Quarter	4	QTR1	QTR2	QTR3	QTR4			

Table A6.2
Average scores assigned by non-resident visitors to Italian prices. Disaggregation according to various attributes of the visitor and of the trip. Visitors travelling for holidays, with at least one overnight stay in Italy. 1996-1999. All countries of origin.

	1996	1997	1998	1999	All years
ZONE OF ORIGIN					
EMU	6.66	7.03	7.07	6.89	6.91
Extra-EMU	6.5	6.61	6.71	6.96	6.69
COUNTRY OF ORIGIN					
Austria	6.46	7.3	7.6	7.33	7.26
France	6.45	6.4	6.17	6.68	6.46
UK	6.06	7.01	7.32	7.23	6.92
USA	5.77	6.28	6.32	6.7	6.27
Switzerland	7.11	6.62	6.69	6.89	6.84
Japan	6.85	6.58	6.39	7	6.7
Germany	6.72	7.07	7.08	6.78	6.9
AGE OF VISITOR					
0-21 years	6.66	6.8	6.67	6.78	6.73
25-34 years	6.48	6.79	7.21	6.82	6.83
35-44 years	6.79	7.09	6.99	6.89	6.94
45-64 years	6.59	6.95	6.93	7	6.86
65 years and more	6.52	6.99	6.6	7.12	6.81
SEX OF VISITOR					
Male	6.63	6.97	6.95	6.85	6.85
Female	6.58	6.81	7.04	7.01	6.88
PROFESSION					
Employed (subordinate)	6.59	6.96	7.06	6.95	6.88
Self-employed	6.85	7.07	6.86	6.8	6.9
Student	6.37	6.5	6.5	6.61	6.5
Housewife	6.76	6.75	7.24	6.96	6.99
Retired	6.48	6.94	7.05	7.16	6.93
ACCOMMODATION					
Rented dwelling	6.4	6.86	6.81	6.82	6.72
Owned dwelling	6.82	7.29	7.12	6.98	7.06
Guest of relatives/friends	6.85	6.95	6.7	7.05	6.89
Tent, caravan	6.42	7.01	7.44	6.66	6.89
Other	6.65	6.76	6.87	7.12	6.74
Youth hostel	6.22	6.22	5.94	6.27	6.17
Hotel, tourist village	6.65	6.91	6.97	6.93	6.87
DESTINATION AREA					
North-West	6.83	7.04	6.66	6.73	6.82
North-East	6.67	7.08	7.31	7.02	7.02
Centre	6.34	6.54	6.61	6.74	6.56
South and Isles	6.5	6.83	6.75	7.1	6.8
QUARTER					
QTR1	7.4	6.66	6.41	7.08	6.92
QTR2	6.87	6.95	6.82	6.98	6.91
QTR3	6.26	6.99	7.29	6.87	6.86
QTR4	6.33	6.98	6.74	6.72	6.7
GLOBAL	***6.62***	***6.94***	***6.98***	***6.9***	***6.86***

SOURCE: UIC

Table A6.3
Average scores assigned by non-resident visitors to Italian prices. Disaggregation according to various attributes of the visitor and of the trip. Visitors travelling for holidays, with at least one overnight stay in Italy. 1996-1999. Countries of origin = EMU

	1996	1997	1998	1999	All years
COUNTRY OF ORIGIN					
Austria	6.46	7.3	7.6	7.33	7.26
France	6.45	6.4	6.17	6.68	6.46
Germany	6.72	7.07	7.08	6.78	6.9
AGE OF VISITOR					
0-24 years	6.71	7.02	6.7	6.75	6.79
25-34 years	6.47	6.9	7.38	6.77	6.89
35-44 years	6.82	7.17	7.02	6.89	6.97
45-64 years	6.63	6.99	7.01	6.99	6.89
65 years and more	6.74	7.06	6.64	7.13	6.89
SEX OF VISITOR					
Male	6.67	7.06	7.01	6.83	6.89
Female	6.61	6.87	7.2	7.02	6.96
PROFESSION					
Employed (subordinate)	6.61	7.02	7.17	6.89	6.91
Self-employed	6.94	7.16	6.9	6.86	6.98
Student	6.28	6.73	6.46	6.64	6.54
Housewife	6.73	6.81	7.38	6.93	7.05
Retired	6.64	6.96	7.12	7.15	6.99
ACCOMMODATION					
Rented dwelling	6.38	6.85	6.76	6.77	6.68
Owned dwelling	6.68	7.39	7.18	7.14	7.13
Guest of relatives/friends'	6.92	6.99	6.78	6.99	6.92
Tent, caravan	6.38	7.07	7.45	6.67	6.91
Other	6.66	6.77	7.04	7.1	6.75
Youth hostel	6.43	6.65	5.81	5.99	6.14
Hotel, tourist village	6.75	7.02	7.06	6.92	6.94
DESTINATION AREA					
North-West	6.81	7.17	6.59	6.62	6.8
North-East	6.69	7.13	7.37	7.05	7.06
Centre	6.38	6.58	6.65	6.68	6.58
South and Isles	6.5	6.79	6.65	6.93	6.72
QUARTER					
QTR1	7.55	6.86	6.14	7.23	7.01
QTR2	6.95	7.05	6.87	7.02	6.98
QTP,3	6.24	7.02	7.43	6.85	6.89
QTR4	6.37	7.15	6.81	6.53	6.72
GLOBAL	***6.66***	***7.03***	***7.07***	***6.89***	***6.91***

SOURCE: UIC

Table A6.4
Average scores assigned by non-resident visitors to Italian prices. Disaggregation according to various attributes of the visitor and of the trip. Visitors travelling for holidays, with at least one overnight stay in Italy. 1996-1999. Countries of origin = Extra-EMU.

	1996	1997	1998	1999	All years
COUNTRY OF ORIGIN					
UK	6.06	7.01	7.32	7.23	6.92
USA	5.77	6.28	6.32	6.7	6.27
Switzerland	7.11	6.62	6.69	6.89	6.84
Japan	6.85	6.58	6.39	7	6.7
AGE OF VISITOR					
0-24 years	6.58	6.45	6.63	6.84	6.62
25-34 years	6.52	6.5	6.68	6.98	6.66
35-44 years	6.63	6.6	6.88	6.89	6.76
45-64 years	6.46	6.78	6.69	7.04	6.74
65 years and more	5.99	6.81	6.44	7.07	6.57
SEX OF VISITOR					
Male	6.47	6.53	6.74	6.94	6.68
Female	6.54	6.71	6.66	6.98	6.71
PROFESSION					
Employed (subordinate)	6.54	6.7	6.73	7.14	6.78
Self-employed	6.52	6.6	6.74	6.52	6.6
Student	6.53	6.19	6.57	6.52	6.43
Housewife	6.81	6.66	6.72	7.11	6.81
Retired	5.96	6.86	6.68	7.2	6.67
ACCOMMODATION					
Rented dwelling	6.68	6.96	7.11	7.2	7.01
Owned dwelling	7.21	6.7	6.86	6.5	6.81
Guest of relatives/friends	6.72	6.82	6.52	7.19	6.82
Tent, caravan	6.79	6.39	7.17	6.52	6.69
Other	6.61	6.71	5.96	7.19	6.65
Youth hostel	5.96	6.04	6.13	6.48	6.19
Hotel, tourist village	6.39	6.59	6.72	6.98	6.67
DESTINATION AREA					
North-West	6.88	6.69	6.79	7.15	6.87
North-East	6.42	6.6	6.8	6.79	6.67
Centre	6.29	6.5	6.56	6.82	6.54
South and Isles	6.51	6.96	6.99	7.48	7.02
QUARTER					
QTR1	7.02	6.19	6.89	6.74	6.72
QTR2	6.54	6.54	6.66	6.81	6.64
QTR3	6.35	6.88	6.74	6.97	6.74
QTR4	6.23	6.49	6.52	7.32	6.64
GLOBAL	***6.5***	***6.61***	***6.71***	***6.96***	***6.69***

SOURCE: UIC