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**The role of the tourism sector in economic development.
Lessons from the Spanish experience¹**

Isabel Cortés-Jiménez, Manuel Artís

Adreça correspondència:

Departament de Econometria, Estadística i Economia Espanyola
Facultat de Ciències Econòmiques i Empresariales
Universitat de Barcelona
Avda. Diagonal 690
08034 Barcelona, Spain
e-mails: icortes@ub.edu

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Abstract: Tourism is one of the most important sectors in the global economy and is considered an efficient tool with which to promote economic growth. The case of Spain's economy is well known in this respect; in fact, widespread consensus exists on the part played by tourism in enhancing the industrialisation process in Spain and the part played by foreign currency receipts from tourism in financing the imports of capital goods, which made the expansion of manufacturing possible. This paper aims to assess the real role of foreign currency receipts from tourism in Spain's economy from 1960 to the present. The results of Spain's experience may well help to guide policy decisions in developing countries in similar circumstances.

Keywords: international tourism, economic development, industrialisation, Spanish experience

JEL Classification: C22, L83, N74, O1

Resumen: El turismo es uno de los sectores más importantes de la economía mundial y actualmente es considerado una eficiente herramienta para promover el crecimiento económico. En este sentido, la experiencia de la economía española es bien conocida, en realidad, existe un amplio consenso acerca de la idea del papel que el sector turístico desempeñó en el proceso de industrialización española y en que la entrada de divisas por turismo contribuyera a financiar la expansión del sector industrial financiando con estas divisas la importación de bienes de capital. El objetivo de este trabajo es evaluar el papel de la entrada de divisas por turismo en la economía española desde 1960 hasta hoy en día. Políticas derivadas de los resultados de la experiencia española pueden resultar útiles para aquellos países en vías de desarrollo que tratan de desarrollar su sector turístico como potencial fuente de riqueza.

1. Introduction²

Despite its growing importance, very little attention has been paid to tourism in the literature on economic development. As Sinclair (1998) notes in her survey³, the analysis has tended to focus on the contributions of the agricultural and manufacturing sectors, rather than the service sector.

Nowadays, Spain is the second-ranking tourism destination in terms of millions of arrivals in absolute numbers, after France, and the second-ranking country in terms of earnings from tourism expressed as international tourism receipts⁴ (WTO, 2005), after the United States. Tourism has unquestionably played a substantial role in the country's positive economic development in recent decades. International tourism began to take on particular importance at the end of the 1950s. The 1959 Stabilisation Plan, the end of autarky, the beginning of economic liberalisation, price stabilising policies and the devaluation of the peseta by almost fifty per cent all provided an impetus for the tourism industry. The main focus of tourism policy since then has been to attract international tourism to boost foreign currency receipts (Pellejero, 2004).

The expansion in tourism in the last four decades has been unceasing and beneficial for a variety of economic aspects⁵. Moreover, tourism was essential in

² Although domestic tourism is very important to Spain's economy, this paper only analyses the role of international tourism.

³ From an economic point of view, tourism does not behave like other sectors, such as industry, agriculture or services. It features a heterogeneous product, strong mobility in demand, consumption "in situ", intense interdependence with a variety of industrial sectors and vulnerability to exchange rates, crises and expansion, etc. All this makes tourism a very complex activity, the effects of which are difficult to measure and a wide range of definitions and difficulties are encountered when recording its results and products (Figuerola, 1996).

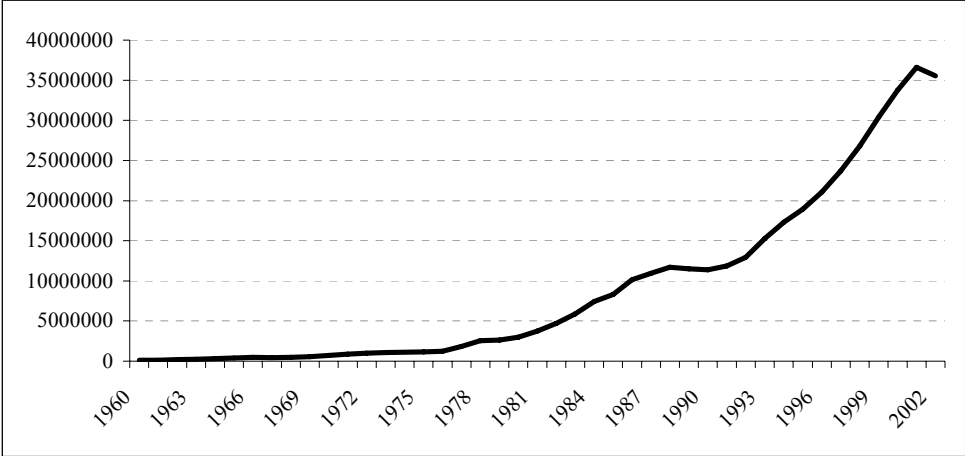
⁴ Spain, where the number of tourist arrivals grew by 3%, ranks second with 53.6 million arrivals. France remained the world's most visited destination in 2004, at practically the same level as 2003, and the US ranks third. In terms of earnings, Spain again ranks second (US\$ 45.2 billion) after the US and before France (WTO, 2005).

⁵ Tourism receipts measured in terms of foreign currencies earnings have experienced uninterrupted growth since 1960 (see figure 1).

balancing the commercial deficit and overcoming external pressure during different stages in Spain’s economic development (Bote Gómez, 1993). And tourism provided financing for importing the machinery and technology needed to foster the Spanish economy (Padilla, 1988).

The two most important potential effects of a developing tourism sector on an economy are the generation of foreign currencies and economic growth based on ‘new sectors’ (with the consequent creation of new jobs) (Gibson, 1993; Morley, 1992; Brohman, 1996) and tourism receipts played a key role in financing Spain’s industrialisation (Bote Gómez, 1993; Bote Gómez and Sinclair, 1996; Sinclair, 1998).

Figure 1. Evolution of foreign currency receipts from tourism, 1960-2002



Source: INE⁶
 Note: Thousands of euros

As in any process of economic change, a range of other variables also played a causal role. However, it is clear that huge inflow of foreign currency receipts from tourism was the distinguishing feature of the Spanish model (Bote Gómez,

⁶ Instituto Nacional de Estadística. Statistical Yearbooks from 1960.

1993; Sinclair and Bote Gómez, 1996). Table 1 shows how tourism receipts increased in every five-year period from 1960-2002, except for the last period under consideration, which is a three-year period. It should be borne in mind that Spain is a consolidated destination with large numbers of tourists every year, but a lower growth rate than in previous decades because of the increasing number of emerging destinations with lower prices and more competitive features: The possible impact of international events should also be taken into consideration ⁷.

Table 1. Growth in foreign currency receipts from tourism

Sub-periods	Growth rate (%)
1960-1964	213.3
1965-1969	32.2
1970-1974	56.3
1975-1979	122.8
1980-1984	148.3
1985-1989	38.1
1990-1994	51.9
1995-1999	60.7
2000-2002	5.3

Source: In-house elaboration from INE data.

Note: The sub-periods are five years each, except the last period, which is a three-year period.

Tourism can be considered an economic export in an untraditional way, since it is consumers who must move to consume the good⁸. The role of tourism receipts is essential to the economic development of a country when most of its

⁷ Tourism is very sensitive to international events, such as wars, terrorist attacks or the Olympic Games. The annual growth rate (not shown in this paper) reveals a 2.9% decline in tourism receipts from 2001 to 2002, most likely owing to the September 11th 2001 terrorist attack on the United States.

⁸ Tourism is the consumed good in this case.

imports are capital goods and inputs that are essential to production in several economic sectors. Earnings from international tourism play a more significant role in economic development than it seems at first sight.

Advocates of export-oriented policies have placed a great deal of emphasis on the importance of increasing exports in promoting economic growth. Exports are considered to promote economic growth through several different channels and have a range of benefits: economies of scale can be taken advantage of; binding foreign exchange constraints are relaxed; positive externalities in non-export sectors can be generated; the efficient allocation of resources required to remain competitive is encouraged; and further investment is stimulated by the establishment of ancillary industries, among others (See Durberry, 2004).

Several previous studies in this field have highlighted the tourism sector's potential to promote growth, create jobs and generate revenue for the government⁹. But the few empirical studies on tourism in Spain that exist do not offer information on its long-term effect on Spain's economic growth. One recent paper by Balaguer and Cantavella-Jordà (2002) analyses the role of tourism in Spain's economic growth with a simple model that includes gross domestic product, tourism and the exchange rate. This study is based on literature about the export-led growth hypothesis¹⁰. The authors argue that, as in the export-led growth hypothesis, a tourism-led growth hypothesis would postulate the existence of various arguments in which tourism would become a main determinant of overall long-term economic growth. Another interesting article is by Durberry (2004), who breaks down exports into various sectors

⁹ See, for instance, Sinclair (1998).

¹⁰ See Thornton (1997).

(primary, secondary and tertiary) and finds evidence of the tourism sector's major impact on Mauritius' economy during the past three decades¹¹.

Forty years of tourism in Spain is probably a long enough time to examine whether or not there is a causality relationship between international tourism receipts and the imports of the goods and materials needed for Spain's industrialisation process and, indirectly, its economic development. Cointegration techniques were applied to verify this relationship and analyse whether it is a causal and long-term relationship or a spurious one. As Balaguer and Cantavella-Jordà (2002) note, it is very often taken for granted that inflows of foreign exchange from tourism would stimulate Spain's long-term economic development. Hence, the objective of this paper is to assess this relationship between tourism and economic growth in Spain from 1960-2002, as explained above. This article is based on the tourism-led growth hypothesis¹² as well as the historical evidence from Spain. It has traditionally been argued that tourism earnings from foreign currencies can be used to import capital goods in order to produce goods and services, which in turn leads to economic growth (McKinnon, 1964). In other words, tourism may provide a substantial part of the financing a country needs to import more than it exports. At this point, it should be noted that this is a preliminary article, the introduction to a broader study of tourism and economic growth in Spain.

The paper is organised as follows. Part two presents the variables analysed and describes the data. Part three explains the methodology used and discusses the results. Policy implications are explained in the fourth part and the final part presents the main conclusions.

¹¹ This work is based on the export-led growth hypothesis, following Balaguer and Cantavella-Jordà (2002) and uses cointegration techniques as well.

¹² See Balaguer and Cantavella-Jordà (2002).

2. Variables and data description

Two variables were used in this paper: earnings from international tourism and imports of produced goods. The empirical analysis considered annual data for Spain from 1960 to 2002. Both variables were measured in thousands of euros.

In the first place, earnings from tourism are measured by foreign currency receipts. The source of this data is the annual statistical yearbooks published by Spain's National Statistics Institute (Instituto Nacional de Estadística - INE). In Spain, foreign tourism's contribution to the economy has been recorded simply by account A.5, called "Tourism and Travel" in the Ministry of the Economy and Treasury's balance of payments. This account, which is identical to the register of the cash account drafted by the Banco de España, is the amount of national currency that it or other delegated banks exchanged for foreign currencies under the items "Tourism and Travel" from non-residents or any type of Spanish establishment that received payments from non-residents under the same concept. The heading "Earnings and Payments from Tourism" in INE data, corresponds exactly to the Banco de España's account A.5. Data were expressed in millions of dollars, millions of pesetas and thousands of euros (in different periods). All the data was converted to thousands of euros and the exchange rate used was taken from the International Financial Statistics Yearbook¹³.

Second, since we needed to dispose of imports of produced goods since 1960 and the available data were global imports, this series was built. A methodological change in the INE's imports series has taken place since Spain's entry in the European Union in 1986. From 1960 to 1986, imports were divided into seven categories and one of them was "produced products". But from 1987

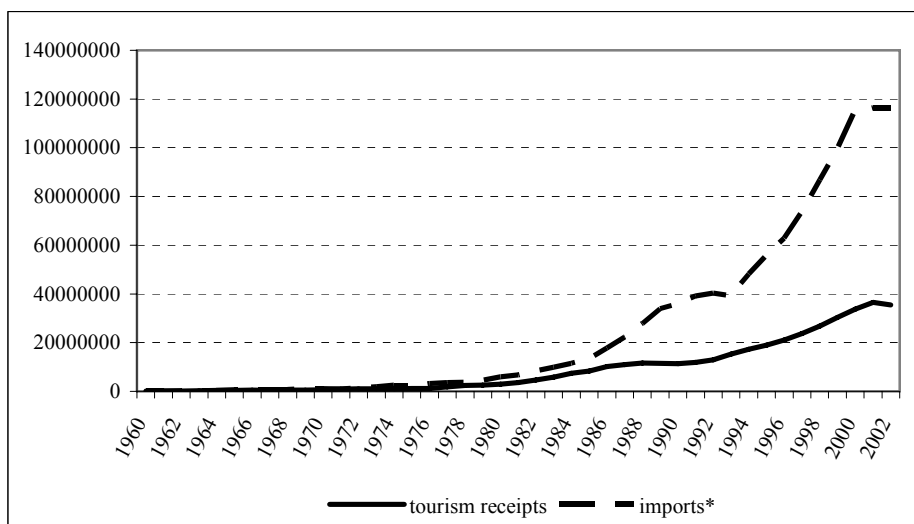
¹³ Exchange rate rf: the average during the period of the market exchange rates of the countries that priced in national currency units by dollars from United States (IFS).

on, twenty-one categories were considered and there was no specific entry for produced goods. Since the objective was to have a series of imports to be set aside for the industrialisation process, items VII to XXI were combined for the period between 1987-2002. Although no accurate explanation for all these categories and equivalences was available, we attempted to measure imports of produced goods as homogeneously as possible. The original source of these data is the Agencia Estatal de la Administración Tributaria¹⁴. A dummy variable was used in the econometric specification to account for the adjustment made in the data.

Figure 2 shows the two series used in this study. Both series have a constant, positive, evolution and are almost equal until around 1986; after that, imports are higher than earnings from tourism. Several different reasons may serve to explain this, one of which may be Spain's entry in the European Union, which may have boosted imports. But, another reason that cannot be ruled out is the construction of the series of imports; more items may have been combined for the 1987-2002 period than were necessary. Thus, our main aim is to ascertain whether the relationship between tourism and industry development is as close as the literature on the subject assumes.

Figure 2. Evolution of foreign currency receipts from tourism and imports of produced goods

¹⁴ See Appendix (Table 6).for official classifications of imports before and after 1987.



Source: In-house elaboration from INE data.

(*) See section 2 for a description of the data and the variables

3. Methodology and results

It is widely accepted that growth in tourism in Spain allowed the country to import all the goods and inputs it needed for economic development, specifically for development and growth in the industrial sector (Padilla, 1988; Bote Gómez, 1993; Bote Gómez and Sinclair, 1996; Sinclair, 1998). This paper aims to analyse whether both series are related in the long run. In econometric terms, the equation is as follows: $LIMP_t = \alpha + \beta LTOUR_t + \lambda D87 + u_t$ (Eq. 1), $LTOUR$ is the natural logarithm of foreign currency receipts from tourism, $LIMP$ is the natural logarithm of imports of produced goods, $D87$ is a dummy variable which is 0 from 1960 to 1986 and 1 from 1987 to 2002, u is the error term and t is time, from 1960 to 2002.

The methodology employed to investigate the relationship between tourism and industrialisation follows three steps¹⁵.

¹⁵ This methodology is based on Engle and Granger's (1987) with some changes.

First. Testing the order of integration. Unit roots are sensitive to the presence of deterministic regressors. Three models can be estimated, the most general model with a drift and time trend and restrictive models with drift and without drift or trend. Thus, we prepared a preliminary graphic analysis¹⁶, observed the variable LTOUR (levels) and Δ LTOUR (first differences) and chose the restrictive model with a drift and without trend for the unit root tests, as this initially appears to be a I(1) process¹⁷. The same study was applied to the LIMP and Δ LIMP with the same results. The following step involved testing the order of integration of the natural logarithm of the variables' levels of earnings from international tourism (LTOUR) and imports of produced goods (LIMP) over the period in question. Thus, Table 2 shows the results of the following unit root tests: augmented Dickey-Fuller test (ADF), standard Phillips-Perron test (PP), Ng-Perron M test statistics (MZ_{α} , MZ_t) and finally KPSS stationarity test¹⁸. The strategy followed ranged from general to specific, in other words, the initial point tested the null hypothesis of two units roots against the alternative of the one or zero unit root (for KPSS test: null hypothesis of one or zero units roots against the alternative of two units roots). The null hypothesis was rejected in all cases (as in the KPSS test, we do not reject the null hypothesis). Next, to test the null hypothesis of one unit root against the alternative of stationarity, we did not reject the null hypothesis (attending KPSS test, we reject the null hypothesis). The final result is that both variables are non-stationary in level, but stationary in first differences (i.e., $LTOUR \sim I(1)$ and $LIMP \sim I(1)$). The results of this second

¹⁶ See Appendix for figures.

¹⁷ An I(n) variable means that the original series has been differenced n times to become stationary (n is called order of integration, in other words, the order of integration is the number of unit roots contained in the series, or the number of differencing operations it takes to make the series stationary). And in this case I(1) means that the variable is first order integrated.

¹⁸ Dickey and Fuller (1979, 1981), Phillips and Perron (1988), Ng and Perron (2001) and Kwiatkowski, Phillips, Schmidt and Shin (1992).

step are shown in Table 3.¹⁹ Before the use of cointegration analysis, many studies had not dealt with the problem of non-stationarity, which resulted in spurious regressions. In this case, a suitable analysis which permitted a correct econometric analysis was conducted. The use of cointegration techniques was suitable for the long-term analysis.

Table 2. Unit root tests and stationarity test (levels)

	LTOUR	LIMP	Critical values 95%
ADF	-3.66	-4.44	-2.93
PP	-21.87	-20.87	-8.35
MZ_α	-15.67	-10.80	-8.10
MZ_t	-2.80	-2.30	-1.98
KPSS	0.05	0.09	0.46

Note: For the unit root tests (ADF, PP, MZ_α, MZ_t) the null hypothesis is that the series are I(2) against the alternative that they are I(1) or I(0). But in the KPSS stationarity test the null hypothesis is that the series are I(1) or I(0) against the alternative that they are I(2). These tests have been carried out on Gauss 6.0. The lag selection has been effected according to AIC criterion.

¹⁹ Although, based on the graphic study, the model with drift and without trend was chosen as the best one, the estimation was made with the three possible models and the results were the same.

Table 3. Unit root tests and stationarity test (first differences)

	Δ LTOUR	Δ LIMP	Critical values 95%
ADF	-1.76	-2.07	-2.93
PP	-7.91	-2.02	-17.30
MZ_{α}	-6.84	-0.03	-17.30
MZ_t	-1.65	-0.01	-2.91
KPSS	0.33	2.31	0.14

Note: For the unit root tests (ADF, PP, MZ _{α} , MZ_t) the null hypothesis is that the series are I(1) against the stationarity alternative. But KPSS test is a stationarity test and in this case, the null hypothesis is that the series are I(0) against the alternative that they are I(1). These tests have been conducted on Gauss 6.0. The lag selection has been effected according AIC criterion.

Second. Testing for cointegration between both variables using the Johansen (1988) maximum likelihood approach. The finding that many macro time series may contain a unit root has spurred the development of the theory of non-stationary time series analysis. Engle and Granger (1987) pointed out that a linear combination of two or more non-stationary series may be stationary. The stationary linear combination is the cointegrating equation and may be interpreted as a long-term equilibrium relationship among the variables; to the contrary, if the relationship between the variables is not a causal one, the relationship would be spurious. Johansen's cointegration methodology²⁰ is applied at this point. This approach estimates long-term or cointegration relationships between non-stationary variables using a maximum likelihood procedure that tests for the number of cointegrating relationships and estimates the parameters of those cointegrating relationships. We apply two likelihood ratio tests for the cointegration rank proposed by Johansen (1988), a maximum eigenvalue and a trace test. The results of both cointegration tests are shown in

²⁰ See Johansen (1988) and Johansen and Juselius (1990) for a description of estimating cointegrating vectors and testing hypotheses.

Table 4.²¹ The main result is that a cointegrating relationship exists, which indicates that earnings from tourism affected imports of produced goods in the long run. In other words, the existing correlation between earnings from international tourism and imports for industrialisation is not spurious. Consequently, evidence of cointegration suggests a casual effect between LTOUR and LIMP.

Table 4. Johansen maximum likelihood cointegration tests

Number of cointegrating vectors (null hypothesis)	λ max	Trace
None*	23.10 (18.96)	29.08 (25.32)
At most one	5.97 (12.25)	5.97 (12.25)

Note: (*) denotes rejection of the null hypothesis at a significance level of 5%.

Numbers in brackets indicate the critical values at 95%.

Trace test and max-eigenvalue indicate 1 cointegrating equation at the 5% level.

These tests were carried out on Eviews 4.0.

At this point, we can also look at the cointegrating equation, i.e., $LIMP=0.58LTOUR+0.07trend+4.70$ (all coefficients are significant). Taking into account the fact that the variables are expressed in natural logarithm, the coefficient can be read as an elasticity. Hence, a positive relationship between LIMP and LTOUR exists and a 10% sustained growth rate in foreign currency receipts implies an estimated increase of almost 6% in imports of produced goods in the long run.

²¹ The two test statistics, maximum eigenvalue (λ max) and trace test are contrasted. For the first test, the null hypothesis is that there exists at most r cointegrating vectors against the alternative of exactly r+1 cointegrating relationships²¹, while for the second one, the null hypothesis is that there exists at most r cointegrating vectors against the alternative of at least r+1 vectors. The number of lags for each variable included to capture the short-run dynamics of the model is one and two, because they are annual data.

Third. Carrying out a multivariate Granger causality test (Sims *et al*, 1990; Khalafalla and Webb, 2001; Oh, 2005) augmented with the error-correction mechanism (ECT) deriving from the cointegration relationship, as given in equations (2) and (3)²².

$$\begin{aligned} \Delta \text{IMP}_t = & \alpha_1 + \sum_{i=1}^p \beta_{1i} \Delta \text{TOUR}_{t-i} + \sum_{i=1}^p \delta_{1i} \Delta \text{IMP}_{t-i} \\ & + \gamma_1 D87_t + \eta_1 \text{ECT}_{t-1} + \varepsilon_{1t} \end{aligned} \quad (2)$$

$$\begin{aligned} \Delta \text{TOUR}_t = & \alpha_2 + \sum_{i=1}^p \beta_{2i} \Delta \text{TOUR}_{t-i} + \sum_{i=1}^p \delta_{2i} \Delta \text{IMP}_{t-i} \\ & + \gamma_2 D87_t + \eta_2 \text{ECT}_{t-1} + \varepsilon_{2t} \end{aligned} \quad (3)$$

The *t*-statistics on ECT indicates the existence of long-term causality, whereas the significance of F-statistics indicates the presence of short-term causality (see Table 5). Firstly, as suspected, long-term causality was found. As a matter of fact, the results revealed that foreign currency receipts from tourism unidirectionally Granger-cause imports of manufactured products in the long term. Secondly, short-term relationships were not been found.

Table 5. Granger causality results based on vector error-correction model

	F-test		t-test
	ΔLIMP	ΔLTOUR	CI_{t-1}
ΔLIMP	-	2.39	-6.01***
ΔLTOUR	0.52	-	0.57

Note: (***) indicates significance at the 1% level. These tests have been carried out on Eviews 4.0.

²² “p” denotes the number of lags. According to AIC and SC criteria, one lag is included here.

Hence, these empirical results support the idea that the expansion of international tourism permitted the industrialisation process through the imports of produced goods. Moreover, the one contribution is that it was not transitional from 1960 to roughly the 1980s. Thus, it seems that international tourism receipts made a real contribution to financing the imports needed for Spain's industrialisation.

4. Policy implications

Policy issues that result from Spain's experience should be useful for other developing countries in similar situations and reveal how tourism can benefit their overall economies and stimulate growth in other sectors. We found evidence at this point of how earnings from international tourism in Spain's case Granger-caused the imports of manufactured products and that this is a long-term relationship, which means that not only did imports permit Spain's industrialisation at the beginning of the period, but that they continue to play an important part in the imports process in recent decades, as the results show. This is also evident in Spain's economic history.

The Spanish government took an active part in the tourism sector throughout the twentieth century, although the nature of its participation changed very little: until the early 1980s, tourism policies featured the following characteristics: centralism, efforts to attain the highest possible tourist growth, an over-insistence on unvarying assets (sun and sand), action that essentially focussed on supply and a shortage of means set aside for the sector. From 1985 on, the first major changes in tourism policies were implemented: on one hand, and by constitutional order, policy decision making was decentralised and handed over to Spain's autonomous communities and, on the other hand, the central

government, in collaboration with autonomous and local governments, attempted to make headway towards replacing the traditional model with another diversified model that promoted a high-quality, competitive and sustainable tourism sector that would not lose its competitive specialisation (Pellejero, 2004).²³

As mentioned above, international tourism has played an essential role in balancing the commercial deficit, overcoming external constraints during different stages in Spain's economic development by covering the imports of inputs and machinery needed to drive the industrialisation process during the 1960s, covering the imports required during the first and the second energy crises in the 1960s and the industrial reconversion process in the early 1980s; international tourism also indirectly contributed to the consolidation of democracy from 1973 to 1982, the recession and the period of political transition. Furthermore, from 1986 on, it helped compensate for the major commercial deficit which entry into the European Union entailed (Bote Gómez, 1993): International earnings from tourism continue to play the same role today; tourism compensated for 81.6% of Spain's commercial deficit in 2002 (IET, 2003). Our results strongly corroborate these findings, since it is clear that international tourism receipts Granger-cause imports of produced goods in the long-term. Hence, from an indirect point of view, we can affirm that international tourism played a relevant role in Spain's industrialisation process and thus, in its economic development.

²³ As Ivars Baidal (2004) explains, regional planning cannot be separated from the evolution of tourism policy in Spain, whose phases are basically defined according to the relevant changes operated in the politico-administrative organisation (democratisation, decentralisation, and entry into the European Community in 1986 are the essential milestones) and the adaptation to the evolution of the tourism market itself.

Many developing countries that have traditionally relied on earnings from the export of primary products are receiving net currency flows as a result of diversifying into tourism, while others are attempting to generate additional revenue by increasing tourist flows from abroad (Sinclair and Stabler, 1997). This paper aims to further knowledge on how the expansion of international tourism can benefit other economic sectors. In Spain's case, international tourism receipts meant a way of financing produced goods. From an econometric analysis, we concluded that a long-term positive relationship exists. This may spur other countries to consider taking advantage of expanding the tourism sector within the economy as a whole. As observed, appropriately oriented international tourism can become a relevant factor in a country's strategy for economic development.

Nowadays many authors and governments argue that tourism is becoming one of the world's most important activities and believe that many developing countries have yet to exploit it fully. Tourism is a highly labour-intensive sector and has spillover effects on other economic sectors. Furthermore, thanks to the different benefits it brings with it, tourism is beginning to gain recognition as an efficient tool in economic development. However, care needs to be taken when planning and applying tourism policy. Earlier successful models of tourism and economic growth, such as Spain's, must be taken into account, yet models should be tailored to suit each country's own economic characteristics and not be copied slavishly.

Thus, there is no doubt that tourism has major effects on destination area economies. The most obvious distinction is between developed and developing economies. Developing countries are usually characterised by low levels of income, an unequal distribution of income and wealth, high levels of unemployment and underemployment, low levels of industrial development

hampered by small domestic markets and heavy dependence on agriculture for export earnings. Therefore, the rapid injection of tourist expenditures into developing countries has different and more significant impacts than if equivalent sums were expended in developed economies (Sinclair and Stabler, 1997).

Despite developing countries' continuous efforts to increase their exports, this strategy often contributes to little foreign exchange in their balance of payments. For many reasons, developing countries' non-traditional exports have too often failed to prove effective in economic development; thus, tourism is increasingly regarded as something of a saviour (Durberry, 2004). As Sinclair (1998) comments, it is remarkable that in contrast to large economies such as Spain's which supply a high proportion of the goods and services that tourists consume, many developing countries are characterised by relatively weak linkages between tourism and other economic sectors, including primary products in which many developing countries are assumed to have a comparative advantage.

It seems clear that tourism is a strategic activity in the short, medium and long run. Nevertheless, not everything surrounding international tourism is positive. In this sense, Balaguer and Cantavella-Jordà (2002) explain that a warning should be sounded on the possible hazards of underestimating the importance of expenditure in tourism infrastructure, undervaluing financial support for entrepreneurial initiative and minimising the significance of protecting natural and sociocultural resources.

5. Conclusions

This paper analysed the relationship between international tourism receipts and imports of produced goods. The period analysed was long: from 1960 to 2002. The variables studied were foreign currency receipts from tourism and imports of produced products. Since both are nonstationary and have a unit root, the Johansen' cointegration methodology was applied to ascertain whether a long-term relationship between both variables exists. Evidence of cointegration and the finding of a 'true' relationship among the variables lend support to the contention that the relationship is not spurious. The results provide evidence of the existence of a cointegrating vector and there is long-term causality in Granger's sense from tourism to imports and a positive relationship. This paper attempts to further knowledge on the importance of the expansion in international tourism to Spain's industrialisation process through financing imports of produced goods.

The positive impact tourism had on Spain's economy in the 1960s and 1970s is well known and the idea that foreign currency receipts from tourism provide an important means of economic development by financing the imports of capital goods needed for growth in the manufacturing sector is widely accepted. In fact, as Sinclair and Bote Gómez (1996) indicate, Spain is a prime example of a country whose transition to the ranks of newly industrialising nations followed the path of a decline in agriculture and an upsurge in tourism and construction activities, which financed the expansion of manufacturing. This paper thus helps confirm this strong relationship. However this was not only true about the period from the 1960s to the 1980s; the interesting point is the long-term relationship we found between earnings from international tourism and imports of produced goods. Furthermore, a unidirectional causality relationship exists from international tourism receipts to imports of produced goods. There is no doubt

that tourism has been and continues to be very important in Spain's economy and is capable of become a key piece for many developing economies that are considering tourism as a development strategy. International tourism has the advantage of providing considerable amounts of foreign currency to support the growth of manufacturing activities, and appropriately planned spatial expansion can ensure the complementary development of the two sectors. Spain is a good example of how to profit not only in monetary terms, but also in the development of other economic sectors. At the same time, it is important to be aware of several pitfalls, such as minimising the protection of natural and sociocultural resources or the unlimited construction of hotels. In this sense, developing countries interested in expanding their tourism sectors to contribute to economic growth need to bear in mind successful models such as Spain's, while taking into account their own social, cultural and economic characteristics so as to formulate the most suitable and successful tourism policies.

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APPENDIX

Figure 3. Natural logarithm of foreign currency receipts from tourism (in levels)

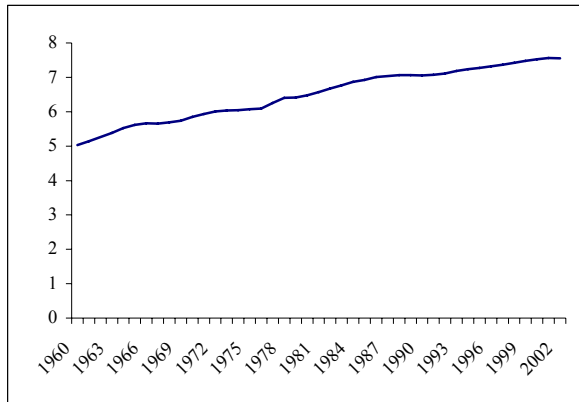


Figure 4. Natural logarithm of foreign currency receipts from tourism (in first differences)

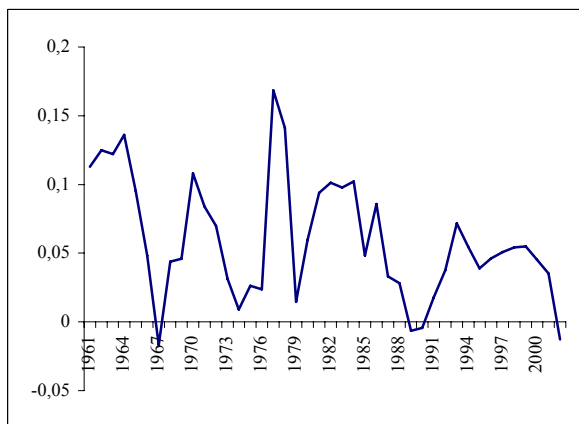


Figure 5. Natural logarithm of imports of produced goods (in levels)

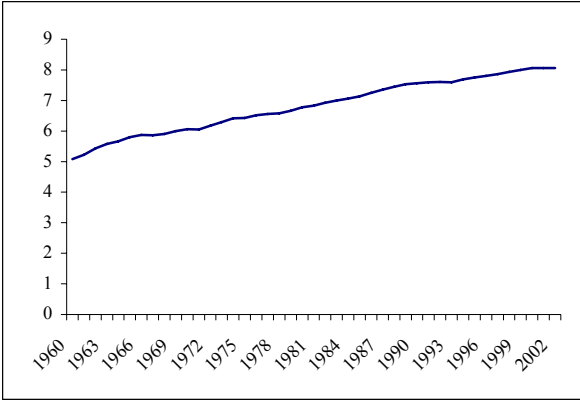


Figure 6. Natural logarithm of imports of produced goods (in first differences)

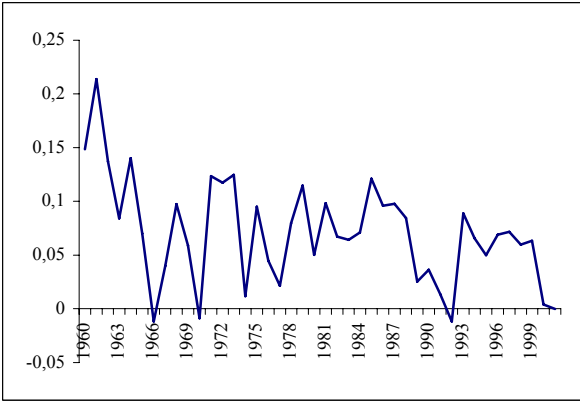


Table 6. INE Imports classification

Until 1986. Classification of seven items

- Foodstuffs
- Drinks and tobacco
- Fuels and mineral lubricants
- Raw material (except lubricants)
- Oils and goods of animal and vegetable origin
- Manufactureed products
- Gold in paste and coin

From 1987. Classification according to tariff departments, twenty-one items

- I.** Living animals and animal products
- II.** Vegetable products
- III.** Fats and oils, by-products, wax
- IV.** Foodstuffs, drinks, tobacco
- V.** Mineral products
- VI.** Products from chemical industries
- VII.** Plastic and artificial materials: rubber and its by-products
- VIII.** Leathers, furs and their by-products
- IX.** Wood, its raw materials and by-products
- X.** Paper, its raw materials and by-products
- XI.** Textile materials and their by-products
- XII.** Footwear; hats; umbrellas; artificial feathers
- XIII.** Stone, concrete; pottery, glass by-products
- XIV.** Thin pearls, precious metals and stones
- XV.** Ordinary metals and their by-products
- XVI.** Machinery; electric materials
- XVII.** Transport material
- XVIII.** Optics, photography and films, precision machinery
- XIX.** Arms and ammunition
- XX.** Merchandise and various products
- XXI.** Art products for collections and antiques
