The Economic Contribution of Tourism Sector

Juan Gabriel Brida
Free University of Bolzano, Italy

Juan Sebastián Pereyra
Universidad de la República, Uruguay

Lionello F. Punzo
University of Siena, Italy

María Jesús Such Devesa
Universidad de Alcalá, Spain

Abstract:-

This paper presents a methodology for measuring the contribution of the tourism sector to an economy's performance in terms of GDP and growth. The method uses the rate of growth of real per capita GDP and disaggregates it into a growth component corresponding to tourism and growth generated by other industries. It is applied to two groups of countries, one including economies with established destinations and a group of Latin American. The comparison shows that the tourism contribution to GDP is higher for the first group but it is not associated necessarily with a greater contribution to the economy's growth.

Keywords*:* economic growth, tourism impacts, economic performance

INTRODUCTION

It is known that the tourism industry has an impact on economic performance, and that it can be relevant. In general, it is assumed to be positive but this is not always necessarily true**.** Furthermore, as shown by Copeland (1991), Dwyer and Forsyth (1993), Nowak and Sahli (2007), Nowak, Sahli and Sgo (2003), among others, in presence of distortions in the host economy (like trade taxes (Lahiri and Ono 1989; Woodland 1982), foreign ownership of factors (Bhagwati and Tironi 1980; Micheal 1992) and others), an inbound tourism expansion can improve welfare at times but it may also reduce it depending upon local conditions. In this sense, Gooroochurn and Blake (2005) applied to Mauritius a Computable General Equilibrium model to show how tourism expansion can be immiserizing to an economy under certain conditions. Moreover, whether or not economic impact is positive depends crucially on the way of measuring it. There are basically two approaches to generate such measuring procedures, a conventional one, and a new one that it is introduced hereafter.

The *conventional approach* focuses on impacts upon an economy's current account balance sheets. Main impacts of tourism are measured, accordingly, by foreign exchange reserves, government tax revenues, and of course the generation of new employment and business opportunities. These impacts are bound to be positive. In particular, for the last ones, clearly tourist expenditure represents a purchasing power injection into the local economy at the destination. This, on its turn, brings about various impacts which are classified as direct, indirect and induced, depending upon the level of expenditure transmission they are referred to, in the demand multiplier chain. On its turn the extent and intensity of such effects depends generally speaking upon demand patterns in relation upon the properties of the supply structure at the destination.

Thus, there is a wealth of information collected on tourism for a large set of countries, concentrating on visitor's

numbers, the number of nights they stay and their average total expenditure. Though this information is relevant to those involved in tourism, it is not very useful to measure the size and make-up of tourism for the local economy of a given region and to evaluate how it contributes to the economy as a whole. Tourism is not an industry in the traditional sense but rather an activity that takes place over a number of industry sectors (including accommodation, catering, transport, hospitality, entertainment and retail trade) and then measuring the economic impact of tourism is a very complex matter. In the literature related to measure the tourism impact on the economy it can be found that three methodologies have been developed for and are usually applied to estimate the impact of tourism on the Gross Domestic Product (GDP): Tourism Satellite Account (TSA), Computable General Equilibrium models (CGE) and Input-Output analysis (IOA).

The most commonly used is the Input-Output analysis (Fletcher, 1994), which is also the most used for regional accounts, though its main weakness is that it assumes unrealistic bases that tend to exaggerate the effect of tourism growth on output, income and employment at destination (Briassoulis 1991; Dwyer and Forsyth 1998; Dwyer, Forsyth and Spurr 2003; Groenwold, Hagger and Maden 1993; among others). Interesting Computable General Equilibrium-based studies of tourism contribution to national economies model have been recently undertaken like e.g. for Hawaii (Zhao, Yanagida, Chakravorty and Leng 1997) arguing that tourism can indeed increase a destination's welfare by turning the terms of trade in its favor. All such studies, though, seem to agree that tourism contribution is well below any Input-Output analysis estimates. The main measurement difficulty is that for total economic impact of tourism as the sum of direct, indirect, and induced effects upon current production and employment, at a region's level there is generally very little data collected. Moreover, tourism is not an industry in the traditional sense, and therefore its linkages outside the destination can be a relevant feature of the supply chain that is at the same time difficult to track.

There is no need to dwell on this topic any further, as these approaches with the implied procedures are well known. However it must be emphasized that these types of effects on a region's economy that are recognized as fundamental, especially for developing countries, and this happens to divert attention from other aspects. There relate to the impacts that affect long run performance, via a whole set of effects, e.g. accumulation of productive physical and human capital, use of natural resources and the like. They are reverberated into the growth performance of an economy, rather than onto the current levels of expenditure and GDP taken as a measure of welfare. This is a lesson obtained from the literature on *growth empirics* and sustainable development.

It is useful to have a name to distinguish the conventional measures (focusing upon current account variables of an economy) and measures that refer one way or another with the capital account. Thus, the former may be called "share-" and the latter "performance-" measures. Along the lines of developing so far non existent measures of the latter type to integrate the rich batch of the former, in a recent paper, Ivanov and Webster (2007) present a methodology for measuring the contribution of tourism using the rate of growth of real per capita GDP as the measure of economic performance. Therefore, such a rate is *approximately* factored out into the growth contribution by tourism plus growth generated by other industries. One such methodology has been tested with data for Cyprus, Greece and Spain and compared with alternative methodologies by Ivanov and Webster (2007). It is to be pointed out, however, that this methodology only allows for measuring direct effects of tourism activities on an economy's GDP, a serious limitation, though the approach points into the right direction for a more balanced assessment of the short and long term effects of tourism development.

Its application to a group of Latin-American countries (Argentina, Brazil, Colombia, Uruguay and Mexico) shows a varied

landscape with contrasting couplings of *share* and *performance* measures. From the other hand, application to the "world top five" destinations shows that the tourism *share* measure (e.g. contribution to the Gross Value Added (GVA)) is higher but the corresponding *performance* measure (contribution to the growth rate of the economy) is lower. This suggests that it is necessary to think out seriously about the long term as compared to short term, effects of tourism upon growth, at the same time as recent development in the tourism-related and in the global economy suggest to re-think about tourism development altogether in the light of sustainability.

THE TOURISM CONTRIBUTION TO ECONOMIC GROWTH

Data and Methodology

Data and Methodology

The first problem faced with measuring the contribution of tourism to economic growth is that most countries lack the appropriate data and information. Being an activity defined by consumers at the point of consumption, tourism does not exist as a distinct sector in any system of national accounts. In effect any type of expenditure that tourists make is a contribution to the economy that is generated by tourism. Traditionally a large proportion of tourist expenditure goes into identifiable tourism characteristic sectors such as transport, hotels and recreation but tourists also spend money in other sectors that are not dedicated to tourism (for example, Meis (1999) shows that only 75% of all tourism GDP came from industries in the Canadian tourism sector). This places a first restriction on this exercise for, having data from systems of national accounts, it is considered as "tourism" only what might be classed as tourism related sectors (i.e., hotels and restaurants).

Following Ivanov and Webster (2007), in this paper it is used the growth rate of real GDP per capita (g_r) as the measure of economic performance over time, GDP per capita being a proxy for the level of welfare and its rate for its dynamic evolution, reflecting on its turn the net accumulation of productive capacities, and therefore an indicator of future welfare evolution:

$$g_r = \left(\frac{\frac{\sum_t Y^t_{r(p_0)}}{N_r} - \frac{\sum_t Y^t_{r-1(p_0)}}{N_{r-1}}}{\frac{Y_{r-1(p_0)}}{N_{r-1}}} \right)$$

where $\sum_t Y^t_{r(p_0)}$ is total GDP of the economy (as the sum of sector value added) at constant prices p_0 while N_r is population, both at time ***r***. Then, disaggregating the GDP of tourism from the GDP of the rest of the economy it is obtained:

$$g_r = \left(\frac{\frac{Y^T_{r(p_0)}}{N_r} - \frac{Y^T_{r-1(p_0)}}{N_{r-1}}}{\frac{Y_{r-1(p_0)}}{N_{r-1}}} + \frac{\frac{\sum_{t\neq T} Y^t_{r(p_0)}}{N_r} - \frac{\sum_{t\neq T} Y^t_{r-1(p_0)}}{N_{r-1}}}{\frac{Y_{r-1(p_0)}}{N_{r-1}}} \right)$$

and the first component in this expression:

$$g^T_r = \left(\frac{\frac{Y^T_{r(p_0)}}{N_r} - \frac{Y^T_{r-1(p_0)}}{N_{r-1}}}{\frac{Y_{r-1(p_0)}}{N_{r-1}}} \right)$$

represents the direct contribution of the tourism industry on economic growth in the period r. Note that g^T_r measures the rate of GDP growth to be imputed to the growth of the tourism sector.

This paper selects the group of countries with larger numbers of tourist arrivals and total tourism receipts, including Spain, France, Italy, United Kingdom (UK) and United States (USA). Another reason of the selection is that this methodology was not applied to these countries (with the exception of Spain) until this study, although they are the most important tourism

destinations. Additionally, a group of Latin-Americans countries was selected, including Argentina, Colombia, Brazil, Uruguay and Mexico. Main reason for this election is that it can be found two groups among them in terms of tourism development and its contribution to each country's GDP. Whilst Brazil, Colombia and Uruguay present a profile where tourism industry has a smaller weight on GDP (in average 1.7%, 1.6% and 1.3%, respectively), in Argentina and Mexico the tourism contribution to GDP is higher (in average 2.5% and 2.8%, respectively). Also this selection make possible to compare results between a Latin American group of countries and the European sample studied by Ivanov and Webster (2007). This allows establishing a first comparison based on geographical parameters. The period chosen is from 2000 until the last data available. See the Appendix for a description of the data set corresponding to each country of the sample.

Empirical results

For testing the methodology above, data was obtained from the official websites of national statistics institutes of the selected countries (more detail in the appendix). First it has been constructed conventional, *share* measures, measuring the weight of tourism sector on the economy. For this exercise, tourism is defined according to the definition of the systems of national accounts, basically lodgings and restaurants. For convenience tourism industry will stand for the notional section of the local economy where tourism expenditure generates income and employment, directly and indirectly. Results are presented in Tables 1 and 2.

Table 1. Share of tourism sector on the economy (% of GVA)

	Year									
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
United States	2.7	2.7	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
Spain	7.8	7.6	7.3	7.3	7.3	7.3	7.2	7.0	6.9	6.9
France	2.3	2.3	2.4	2.3	2.2	2.2	2.2	2.1	2.2	2.1
Italy	3.7	3.9	3.8	3.6	3.6	3.5	3.6	3.6	3.6	3.6
U.K.	3.1	3.0	3.0	3.0	3.1	3.2	3.2	n/a	n/a	n/a

n/a = Not available.

Table 2. Share of tourism sector on the economy (% of GDP)

	Year							
Country	1993	1994	1995	1996	1997	1998	1999	2000
Argentina	2.3	2.4	2.4	2.5	2.6	2.6	2.6	2.6
Colombia	2.5	2.5	2.5	2.3	2.1	2.1	2.1	1.7
Uruguay	1.9	1.8	1.8	1.7	1.7	1.5	1.6	1.6
	2001	2002	2003	2004	2005	2006	2007	2008
Argentina	2.5	2.6	2.5	2.5	2.5	2.4	2.4	2.5
Brazil	1.8	1.8	1.6	1.6	1.6	1.8	1.8	n/a
Colombia	1.7	1.6	1.6	1.6	1.6	1.6	1.5	n/a
Mexico	n/a	n/a	3.0	2.9	2.9	2.8	2.8	2.7
Uruguay	1.5	1.4	1.3	1.3	1.2	1.2	1.2	1.2

n/a = Not available.

It can be noted that Spain is the country of better performance –about 7.2%- in terms of weight of tourism industry on GVA for the whole period. U.K. and Italy are close to Spain but with a lower contribution of tourism to GDP (about 3.1% and 3.7%, respectively). The country of the sample presenting the lowest contribution is Uruguay (around 1.3%). Note also that for

USA and Argentina the share of tourism sector on the economy is almost constant in time and of the order of 2.5%. Spain presents a decreasing participation of the sector on the whole economy; in particular the difference between the first and the last register is around 1%.

Tables 3 and 4 are a compact review of the information in the measures introduced in section 2 concerning the tourism industry contribution to economic growth (data for previous years is available by request). According to that methodology, they can be read as follows.

Table 3. Contribution of tourism to economic growth (rate of variation)

	Year									
Country	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
United States										
Growth of all sectors [a]	3.3	2.5	-0.3	0.6	1.6	2.6	1.9	2.0	1.0	0.2
Growth of tourism sector [a]	2.4	2.9	-3.0	0.1	2.6	3.1	1.6	2.5	0.7	0.6
Tourism contribution	0.06	0.08	-0.08	0.01	0.07	0.08	0.04	0.06	0.02	0.02
Spain										
Growth of all sectors [a]	n/a	4.3	3.1	1.3	0.9	1.5	1.7	2.3	2.0	-0.4
Growth of tourism sector [a]	n/a	1.7	-0.9	0.4	1.0	1.7	0.2	0.6	-0.4	-0.8
Tourism contribution	n/a	0.13	-0.07	0.03	0.08	0.12	0.01	0.04	-0.03	-0.06
France										
Growth of all sectors [a]	n/a	3.0	1.1	0.3	0.3	2.0	1.2	1.6	1.9	-0.3
Growth of tourism sector [a]	n/a	4.0	1.7	-3.9	-0.8	-1.6	1.5	0.9	2.4	-2.2
Tourism contribution	n/a	0.09	0.04	-0.09	-0.02	-0.04	0.03	0.02	0.05	-0.05
Italy										
Growth of all sectors [a]	n/a	3.5	1.5	0.3	-0.4	1.7	-0.4	1.7	1.4	-2.4
Growth of tourism sector [a]	n/a	8.9	-0.8	-5.1	-1.5	0.9	-0.1	2.8	2.2	-2.1
Tourism contribution	n/a	0.3	-0.03	-0.2	-0.1	0.03	-0.004	0.1	0.1	-0.1
U.K										
Growth of all sectors [a]	n/a	3.6	1.9	1.5	2.4	2.4	1.7	n/a	n/a	n/a
Growth of tourism sector [a]	n/a	0.9	1.7	3.0	5.6	4.0	0.8	n/a	n/a	n/a
Tourism contribution	n/a	0.03	0.05	0.09	0.17	0.12	0.02	n/a	n/a	n/a
Uruguay										
Growth of all sectors [b]	-3.3	-1.8	-3.6	-11.1	2.3	11.9	6.5	6.7	7.5	11.7
Growth of tourism sector [b]	-0.9	-2.3	-7.0	-17.4	-3.8	13.4	-1.3	0.6	8.9	9.1
Tourism contribution	-0.01	-0.04	-0.11	-0.26	-0.05	0.18	-0.02	0.01	0.1	0.1
Argentina										
Growth of all sectors [b]	-4.43	-1.83	-5.37	-11.75	7.82	8.01	8.1	7.4	7.6	5.7
Growth of tourism sector [b]	-5.21	-1.05	-8.22	-9.17	5.02	6.00	6.9	6.2	7.2	6.6
Tourism contribution	-0.14	-0.03	-0.22	-0.23	0.13	0.15	0.17	0.15	0.18	0.16
Brazil										
Growth of all sectors [b]	n/a	n/a	n/a	1.2	-0.3	4.4	1.9	2.7	5.0	n/a
Growth of tourism sector [b]	n/a	n/a	n/a	1.2	-11.4	4.4	1.9	15.6	5.0	n/a
Tourism contribution	n/a	n/a	n/a	0.02	-0.20	0.07	0.03	0.25	0.09	n/a
Mexico										
Growth of all sectors [b]	n/a	n/a	n/a	n/a	n/a	4.31	1.39	3.92	2.53	0.67
Growth of tourism sector [b]	n/a	n/a	n/a	n/a	n/a	3.72	0.75	1.56	2.56	0.85
Tourism contribution	n/a	n/a	n/a	n/a	n/a	0.11	0.02	0.05	0.07	0.02
Colombia										
Growth of all sectors [b]	n/a	n/a	0.87	1.2	3.3	3.4	4.4	5.7	6.3	n/a
Growth of tourism sector [b]	n/a	n/a	1.2	-2.8	2.4	2.4	3.5	6.6	2.9	n/a
Tourism contribution	n/a	n/a	0.02	-0.05	0.04	0.04	0.06	0.10	0.05	n/a

[a] Growth of per capita GVA in constant prices
[b] Growth of per capita GDP in constant prices

E.g., for the USA in 2005, the real growth rate of GVA is 1.9% of which only 0.04% can be directly related to tourism. Note that for Spain in 2007, the growth rate of GVA is positive (and of the order of 2%) while the tourism industry contribution to this value is negative (-0.4%). In other words, in 2007 the tourism sector could be interpreted as an obstacle for economic growth.

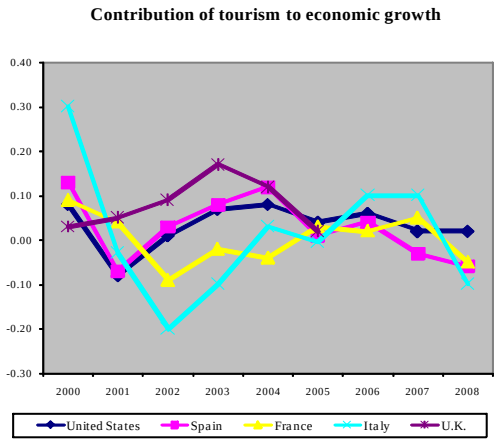
Discussion

From tables above, it can be seen a number of interesting facts. Within the top 5 destinations, the most impressive fact is for Spain and France. For these countries it is noted a path of negative contribution of tourism to economic growth in the last years covered by the study. Being France and Spain the most important tourism destinations in terms of arrivals, it can be interpreted this fact as reflecting a phase in the life cycle of destinations: stagnation. If this is the case, what can be done to change this situation? It may also reflect the coincidence of such phase with a global European phenomenon, i.e. the major recession due to the post September 11th evolution. In any case, what will be the next phase like?

Nevertheless Spain is the destination in which tourism industry has the highest contribution to GVA (see Table 1) this is not true in terms of contribution of tourism to Spanish economic growth for all the years considered in the analysis. USA and France present the lowest values of the table. Italy and France present a similar performance but different from the rest of the group. Note that both countries have registered a negative performance for some years in the past.

The performance contribution of tourism in Italy is higher compared to the rest of the sectors, in relation to the yearly performance of the economy as a whole. In 2006 Italy shows a growth rate of 1.66%, some 0.1% of which can be imputed to tourism sector production. In other words, a 6% of economic growth corresponds to tourism. Similarly, in 2007, 7% of the growth rate is due to the growth of the tourism sector. Some such figures are indices of the great dynamism of the sector, which has undergone a major process of diversification in its various segments of hospitality, while at the same time reinventing its own tourism model to better match an increasingly sophisticated tourism demand. Figure 1 is a graphical representation of the data included in Table 3. Observe how all country economic crisis are well represented (e.g. Italia in the 2002) and that USA and Spain present the most stable path with a unique critical point at 2001, especially for USA (which is quite obvious). The rest of the countries of the group show a very unstable or oscillatory behavior.

So now turn to the other group. In the case of Uruguay, it can be seen that growth of GDP per capita generated within hotels and restaurants is low and the contribution of tourism to the total growth of GDP is always negative or almost nil. Only in 2004, the contribution is important and in the order of g_r^T = 0.18%. This year the economy shows a growth rate of GDP of 11.88% and a growth rate of tourism GDP of 13.38%. For Brazil, the performance is similar to Uruguay. The tourism share is low or almost nil, reflecting the twofold fact, of a tourism sector lagging behind and a large economy specialized in other sectors also undergoing a major restructuring. Tourism industry is relatively more important to Argentina and Mexico's economies though with some oscillations. (See Figure 2) These countries have higher participation of tourism in total GDP and tourism is also quite relevant for their performance.



Oscillations of this contribution go together with variations of total GDP. In general terms it is noticed that for Argentina and Mexico tourism contribution to economic growth is always higher than in the other countries. For instance, in the year 2004 the GDP per capita in constant prices of Argentina and Mexico rose by 8% and 4% respectively, and 0.15% and 0.11% was directly attributable to the sector. In the case of Uruguay for the same year, growth was about 12% but the hotels and restaurants sector only contributed by 0.18%. Mexico is the most tourism-oriented among the Latin American countries and member of the top ten most visited destinations. However data shows a decreasing trend of tourism participation in GDP similar to Uruguay, while Argentina presents the opposite profile: increasing tourism share in GDP.

Colombia shows a record of low values for the contribution to performance but in this case more than economic reasons, this is a consequence of social and political instability. From the other hand, as can be noted in Figure 2, the Colombian tourism industry registered greater stability than the other Latin American economies of the sample and an expansionary trend beginning with the year 2002 (again related to political events). It should be noticed that in 2006 of an economy-wide growth rate of 5.7%, some 0.1% is related to the growth of tourism activities. Comparing table 3 with table 2, it can be noted that, notwithstanding the share in GDP be similar between the first and the last years, the situation has changed drastically in terms of the sector's contribution to performance. Up until 2002, this was very low and even negative while the economy's rates were positive (see year 2002). Afterwards, the increase in performance contribution has been significantly fast. The data therefore shows the picture of a new dynamic sector born out of the old one.

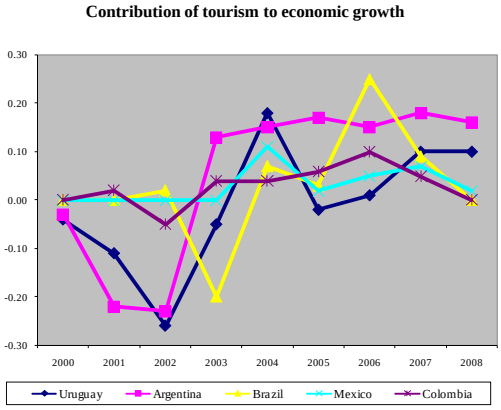


Figure 2 shows a similar trend of all the countries of the Latin American group. In general terms it can be noted that periods of growth and decline of the tourism performance contribution coincide though they have different intensity. This can be interpreted as a regional tendency of the role of tourism in these economies. The Latin American group represents almost all the potential that exists in that continent for tourism industry in terms of contribution to general wealth. However it can be observed that in the case of Mexico, the share of tourism industry GDP related to total GDP is decreasing and its contribution to economic performance, has been low all last years.

In the case of Brazil –a country in which various governments have been concerned with tourism development during recent years- reality reflects a diversified economic landscape where contribution of tourism to growth is definitely poor. This is consistent with the importance there of other economic activities and allows to evaluate the sector's perspectives for the future. Eugenio-Martín, Martín-Morales and Scarpa (2004), on the basis of a study of the role of tourism in economic growth in Latin American countries, have concluded that its

development might contribute to economic growth of countries which are below a certain threshold level of GDP per capita, such a role not being clear if it is already developed (the authors consider a subdivision among countries according to income per capita and Argentina, Brazil, Mexico and Uruguay have a relatively high income per capita).

Comparing the two country groups, it can be noticed that in the most recent years the contribution of tourism to the economic growth is higher for the Latin American group. Only U.K. in 2003 presents a growth rate comparable to those registered by Argentina and Mexico. However, variability of g_r^T is higher for the emergent destinations, a fact that points to a re-thinking of the relation between performance and (in-) stability. Both of them are relevant for present and future welfare.

CONCLUSIONS

This paper experiments with a methodology proposed by Ivanov and Webster (2007) applying it to a sample of countries: some economies with large numbers of visitors (Spain, France, Italy, UK and USA) and a group of Latin American countries with emerging tourism destinations. The general aim is to contribute to expand the framework for the assessment of the economic impacts of tourism, from the conventional demand-oriented short run to the supply-conditions conscious long run.

In general terms, it is believed that the contribution of tourism if evaluated in terms of economic growth in the countries of the sample is less relevant than it is generally supposed. The more so if such contribution were measured in local terms and not for the economy as a whole as it has been forced to do.

For some countries it is observed a time path of negative contribution to performance in the last years of this study. Spain is the country among the "top five" that presents the highest tourism sector share in GVA (about 7.2%) but not to the country's performance. In other words, that country shows the likelihood of a divorce between the two indicators. As for the Italian economy, the sector's contribution shows to be in general greater than that of other sectors. This confirms the great dynamism that is manifest in its rapid diversification in new segments of lodging and catering and the creation and promotion of new tourism products. On the other hand, Latin American countries show higher instability but also higher values for g_r^T. In particular, Mexico registers the highest *share* of the tourism industry to GDP (comparable to U.K.) but also very irregular behavior in terms of the sector's contribution to Mexican performance. More regular performance is associated with USA and UK of the group of top five, with Argentina for the other group.

As suggested in Dwyer et al (2003) it is realistic to recognize that the main effect of an increase in tourism flows and related activities is to alter the composition of economic activities so that agents need to adopt a broader view if they want to support tourism development for a destination as a whole. There is in fact more to say: the impact is generally of a structural nature, whereby a major reallocation of resources between activities but also between private and public uses takes place. There is a growing concern about the fact that often, and particularly when it is rapid and uncontrolled, tourism development is associated with a process of re-allocation of land and other multi-purpose resources, from traditional activities (agriculture, fishing, forestry), to build tourism-functional infrastructure, this having a high impact from both environmental and socio-economic perspective. This may put at risk the long-term sustainability of tourism-based development of these countries if tourism is not properly planned and managed (Novak and Sahli, 2007). In this sense special attention has to be paid to tourism development, e.g. in some Mexican and Brazilian regions.

An analysis of the interaction mechanisms between tourism and other economic activities is therefore important in view of the public debate on its effects, for the moment singling out the problem of the

competition between different activities over the finite local resources. This last problem has been seen to affect especially small island economies (i.e. Nowak and Sahli, 2007) due to obvious scarcities, but it could be a problem of sustainability for many other economies trying to promote tourism. Sustainability has become a planning criterion, and from a point of view a marketing ingredient.

REFERENCES

Banco Central del Uruguay: www.bcu.gub.uy

Bhagwati, J. and Tironi, E.
1980 Tariff Change, Foreign Capital and Immiserization. Journal of Development Economics 7: 71-83.

Briassoulis, H.
1991 Methodological issues: tourism input-output analysis. Annals of Tourism Research 18: 435-449.

Copeland, B.R.
1991 Tourism, welfare and de-industrialization in a small open economy. Economica 58: 515-529.

Departamento Administrativo Nacional de Estadística: www.dane.gov.co

Dwyer, L. and Forsyth, P.
1993 Assessing the benefits and costs of inbound tourism. Annals of Tourism Research 20 (4): 751-768.
1998 Estimating the employment impacts of tourism to a nation. Tourism Recreation Research 23 (2): 1-12.

Dwyer, L., Forsyth, P. and Spurr, R.
2003 Inter-industry effects of tourism growth: implications for destination managers. Tourism Economics 9 (2): 117-132.

Eugenio-Martín, J.L., Martín Morales, N and Scarpa, R.
2004 Tourism and Economic Growth in Latin American Countries: A Panel Data Approach, Nota di Lavoro 26.2004, The Fondazione Eni Enrico Mattei Note di Lavoro.

Eurostat: http://epp.eurostat.ec.europa.eu

Fletcher, J.
1994 Input-Output Analysis", in Witt, S. and Moutinho, L., eds. Tourism Management and Marketing Handbook, Prentice Hall, New York.

Gooroochurn, N. and Blake, A.
2005 Tourism Immiserization: Fact or Fiction? The Fondazione Eni Enrico Mattei. Working Paper No. 143.05.

Groenwold, A., Hagger, A. and Maden, J.
1993 Measuring industry importance: an Australian application. Annals of Regional Science 27: 175-182.

Instituto Brasileiro de Geografia e Estadística: www.ibge.gov.br

Instituto Nacional de Estadística y Censos de la República Argentina: www.indec.mecon.ar

Instituto Nacional de Estadística y Geografía: www.inegi.gob.mx

Ivanov, S. and Webster, C.
2007 Measuring the impacts of tourism on economic growth. Tourism Economics 13(3): 379-388.

Lahiri, S. and Ono, Y.
1989 Terms of Trade and Welfare: A General Analysis. Economic Record 65: 27-32.

Meis, S. M.
1999 The Canadian Experience in Developing and Using the Tourism Satellite Account. Tourism Economics 5(4): 315-330.

Micheal, M.
1992 International Factor Mobility, Non-Traded Goods, Tariffs and the Terms of Trade. Canadian Journal of Economics 25: 493-499.

Nowak, J.J. and Sahli, M.
2007 Coastal tourism and "Dutch disease" in a small island economy. Tourism Economics 13 (1): 49-65.

Nowak, J.J, Sahli, M. And Sgo, P.
2003 Tourism, trade and domestic welfare. Pacific Economic Review 8(3): 245-258.

U.S. Department of Commerce Bureau of Economic Analysis: www.bea.gov

Woodland, A.D.
1982 International Trade and Resource Allocation, North Holland, Amsterdam.

Zhao, D., Yanagida, J.F., Chakravorty, U. and Leng, P.S.
1997 Estimating Economic Impacts from Tourism. Annals of Tourism Research 24 (1): 76-89.

Appendix: Data base

Countries: Spain, France, Italy and United Kingdom.
Data: Gross value added (at basic prices). Millions of euro, chain-linked volumes, reference year 2000 (at 2000 exchange rates).
Source: Eurostat (European Commission).
Country: United States
Data: Gross-Domestic-Product-by-Industry Accounts. Real Value Added by Industry. Billions of chained (2000) dollars.
Source: U.S. Department of Commerce Bureau of Economic Analysis.
Country: Uruguay
Data: Producto Interno Bruto a Precios de Productor, según Clase de Actividad Económica. En miles de pesos a precios constantes de 1983
Source: Banco Central del Uruguay
Country: Argentina
Data: Estimación del Producto Interno Bruto. Millones de pesos, a precios de 1993.
Source: Dirección Nacional de Cuentas Nacionales. Instituto Nacional de Estadística y Censos de la República Argentina (INDEC).
Country: Brazil
Data: Produto Interno Bruto. Millions of Reais. Prices of previous year.
Source: Instituto Brasileiro de Geografia e Estadística (IBGE).
Country: Mexico
Data: Valor agregado bruto en valores básicos, base 2003, miles de pesos a precios de 2003.
Source: Instituto Nacional de Estadística y Geografía (INEGI)
Country: Colombia
Data: Valor Agregado en millones de pesos a precios constantes (base 2000)
Source: Departamento Administrativo Nacional de Estadística (DANE)