THE INDIRECT IMPACT OF TOURISM: AN ECONOMIC ANALYSIS

by Professor François Vellas
Toulouse University – TED AFL

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This report only reflects the author's views and not necessarily those of the Organization that commissioned it.

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Executive Summary

The main purpose of this report is to show the importance and the role of the indirect economic effects of tourism on growth and GDP, employment and foreign trade.

Tourism's role in the economy is often perceived as being limited to the hospitality industry (cafes, hotels and restaurants) and outbound and inbound travel agencies and carriers, which form the leading service sector in many countries. However, the economic impact of tourism is much greater, since many inputs are needed in order to produce tourism and leisure services, spanning the whole range of farm, agrifood and industrial production, including the production of capital goods as well as construction and public works.

Highlighting these indirect impacts of tourism is regarded as a priority by the T20 countries and the World Tourism Organization (UNWTO), which has produced methodological tools such as Tourism Satellite Accounts (TSAs). Assessing the economic impacts of tourism helps to inform the conduct of stimulus policies in response to international economic and financial crises. It shows that tourism can become a driver of recovery, fostering stable and sustainable economic growth, provided that sectoral support policies are implemented taking the central role of tourism into account.

The first part looks at currently available methodological resources for measuring the indirect impacts of tourism on the economy. It highlights the central role of calculations based on Tourism Satellite Accounts and shows how multiplier-based analysis can give an overall evaluation of the economic impact of tourism, distinguishing between direct, indirect and induced effects.

The second part considers how the indirect economic impacts of tourism affect output (GDP), employment and certain sectors. It shows that tourism is an essential contributor to GDP and job creation in all the T20 countries. In particular, it illustrates the sectoral impact of tourism on the supply of goods and services, on investments and public spending.

The third part looks at the impact of tourism on the restoration of economic growth and the reduction of global macroeconomic imbalances. It shows that the impacts of tourism have a specific role in correcting balance of payments imbalances. In particular, exports of tourism services help to bring trade deficits or surpluses back into balance.
Following the economic crisis, countries which experienced significant recovery in 2010 took advantage of surging tourism demand, both domestic and international, to buttress the growth of all their economies. In most slower-growing countries, the recovery of international tourism probably took longer to establish itself (it could be seen in early 2011) and to contribute to global growth.

In conclusion, the report puts forward options for improving the tools for measuring the indirect impacts of tourism and proposes the introduction of international comparisons in all the T20 countries.

1 – ECONOMIC IMPACTS OF TOURISM: DEFINITION AND METHODOLOGY

Methodologies for evaluating the economic impacts of tourism have been developed at global level within the UNWTO, in the form of Tourism Satellite Accounts (TSAs). The UNWTO has a United Nations mandate to analyse, publish, standardise and develop tourism statistics and works with organisations such as the Organisation for Economic Cooperation and Development (OECD) and the European Commission (Eurostat) to that end.

1.1 – Definition of direct, indirect and induced effects of tourism

Indirect effects of tourism should be distinguished from direct and induced effects.

1.1.1 Direct effects concern expenditure within the tourism sector, based on a list of typical tourism products drawn up by the UNWTO and the OECD.

1.1.2 Indirect effects concern intermediate consumption for the production of goods and services in the tourism sector. These are goods and services that tourism companies purchase from their suppliers, forming the tourism supply chain.

Indirect effects can be particularly important for the production of local products. So-called frontline companies take the initial purchasing decisions that determine what visitors can consume. For example, if a frontline accommodation provider decides to buy local products wherever possible, the tourist will be the originator of the purchase and of the production of goods and services in the host country.

It is therefore important to be able to encourage the tourism sector to procure locally produced goods and services in order to maximise the economic impact of tourism revenue in a country or region.

1.1.3 Induced effects concern expenditure by employees from wages paid by companies in direct contact with tourists.

Induced effects also include the consumption of companies that have benefited directly or indirectly from initial expenditure in the tourism sector.

An example of such induced effects would be purchases of consumer goods such as food, clothing and electronic goods by people employed in the hotel sector. For companies, this would be purchases of capital goods or expenditure related to the reinvestment of profits.

1.2 – Evaluation methodology and Tourism Satellite Accounts (TSAs)

The methodology for evaluating the indirect economic impacts of tourism is based on the key contribution of Tourism Satellite Accounts, which give the most accurate and reliable measurement of the role of tourism in an economy. It uses the information about direct impacts provided by TSAs and highlights the most significant features in order to provide a basis for policies to promote tourism with the aim of increasing growth and overcoming crises.

The TSA methodology developed by the World Tourism Organization is essential for obtaining accurate measurements of the impact of tourism. Alongside the TSA-based analysis, it is possible to evaluate the expected impacts of tourism by calculating its multiplier effects.

The TSA concept is based on the principles of National Accounts, an integrated statistical framework that measures a country's national output from each sector's contribution to economic activity. The TSA is prepared by extending the system of National Accounts in order to estimate the specific economic importance of tourism. The TSA is based on input/output tables which measure the activity of producers and purchasers of goods and services across the spectrum of economic sectors.

From the TSA, it is thus possible to evaluate tourism consumption and output and to estimate tourism's added value in a country's economy.

The link between the TSA and indirect effects must therefore be established on the basis of the most important summary table in the TSA, which is Table 6 in the 2008 Tourism Satellite Account: Recommended Methodological Framework. Although indirect effects cannot be calculated immediately from the table, it contains two lines necessary in order evaluate them:

- Intermediate consumption, already broken down between impacted sectors,
- Compensation of employees.

From its design, the TSA therefore provides the basis for measuring the indirect and induced effects of tourism, using intermediate consumption and compensation derived from tourism output. These two elements in the TSA must be used via ratios and/or an interbranch exchange table to generate a new "wave" of GDP, jobs, tax revenues and exports.

However, the TSA only measures direct GDP and not indirect GDP, which includes the indirect economic effects of tourism (e.g. the manufacture of toiletries for hotels). These indirect effects may be very considerable, going beyond the strict framework of the TSA, which focuses on GDP generated by the production of goods and services consumed directly by tourists. Indirect effects may be calculated from economic impact models using the TSA.

The TSA can also be used to evaluate tourism-related employment. In this case, employment generated by tourism includes only jobs directly attributable to tourism. In the catering services sector, for example, only jobs directly related to tourism are counted in the TSA as jobs created by or attributable to tourism. Jobs generated by farm production for tourism catering purposes (indirect jobs) are not included.

The TSA thus spans both tourism consumption and tourism output. It can be used to evaluate the proportion of tourism activity per se (resulting from tourism travel) in branches typical of the tourism sector. As it is mainly intended and designed to evaluate the direct economic effect, i.e. tourism GDP, the TSA does not attempt to calculate indirect effects. Nevertheless, within the overall framework of presenting the different economic impacts of tourism, it contains the lines necessary to evaluate those indirect effects, namely intermediate consumption (already broken down by impacted sector) and compensation.

The TSA in its initial form thus contains the necessary basic information for measuring the indirect and induced effects of tourism by reconstituting the tourism branch.

2 – INDIRECT IMPACTS OF TOURISM IN THE T20 COUNTRIES

Analysing the indirect economic impact of tourism on GDP, employment and growth involves a comparison of indirect effects between the T20 countries in order to determine how tourism can contribute to economic growth, especially in times of crisis and in the context of stimulus policies. The question of the rapidity of the return on investment in relation to other sectors shows that tourism has the potential to make a substantial contribution to an upturn in economic activity in other sectors.

2.1 – INDIRECT EFFECTS OF TOURISM ON GDP

Tourism is a major component of the services economy, representing 30% of international trade in services. As regards revenue, the T20 countries generate approximately 70% of global tourist activity. One vital contribution that tourism can make to economic growth lies in its indirect impacts, which in the T20 countries represent over 45% of tourism's total contribution to GDP. These indirect economic impacts, which correspond both to goods and services purchased by the tourism sector and to investment and public spending generated by tourism, are an important driver of economic growth. Tourism, especially the hotel and catering segments, is one of the few sectors of the economy to be at the centre of the production chain, not only for farm and food products but also for consumer and capital goods.

An analysis of the T20 countries shows that tourism's contribution is particularly important in countries where there is strong domestic demand for tourism. The same is true of countries that have developed high value-added tourism by combining the two fundamental pillars of domestic and international demand.

- It is because there is strong representative (internal) demand, within the meaning of international economic analysis, that the tourism sector can expand, drawing on essential infrastructure in order to acquire the know-how that ensures a significant presence in the global marketplace (effects of scale).
- It is also because there is a varied and competitive range of tourism products and services on offer, from a comparative advantage standpoint, that a country's tourism industry can become competitive on international markets in terms of value for money.

That is the case for many emerging T20 countries that have developed a competitive tourism production chain based on the development of tourism's indirect effects. The relative contribution of these indirect effects indicates each country's tourism specialisation in relation to the economy as a whole.

According to information and forecasts produced by the World Travel and Tourism Council (WTTC), using a methodology based on applying coefficients to estimated tourism statistics in 2011, the indirect effects of tourism are particularly high in several countries, reaching as much as 6% of total GDP. This means that a high degree of specialisation in tourism can represent a very significant proportion of total national output, provided that support policies can be implemented to develop the indirect effects of tourism. This is the case where there is a particularly strong link between tourism demand and the agrifood sector, which also stimulates agrifood exports to international tourists' home countries.

Table 1: Comparison of tourism's indirect contribution to GDP in the T20 countries (%)

T20 country	Direct contribution of tourism (2011 estimate)	Indirect contribution of tourism (2011 estimate)	Total contribution of tourism (2011 estimate)
Australia	3.3	**6.9**	13.0
Spain	5.1	**6.3**	14.4
Argentina	4.0	**4.7**	11.0
United States	2.6	**4.2**	8.8
China	2.5	**4.2**	8.6
South Africa	5.0	**4.1**	11.4
Indonesia	3.2	**4.1**	9.1
Turkey	4.1	**3.9**	10.0
Brazil	3.3	**3.7**	9.1
Italy	3.2	**3.6**	8.6
Mexico	6.2	**3.5**	13.0
France	3.9	**3.4**	9.1
Japan	2.2	**3.2**	6.9
United Kingdom	2.4	**3.1**	6.9
Russian Federation	1.4	**3.1**	5.9
Canada	1.4	**2.6**	5.0
Republic of Korea	1.8	**2.5**	5.1
Saudi Arabia	3.0	**2.5**	6.7
Germany	1.7	**2.0**	4.6
India	1.9	**1.6**	4.5

Source: WTTC 2011

The particularly high indirect contribution of tourism to GDP suggests that tourism has the potential to make a substantial contribution to growth in all countries. However, the extent and effectiveness of that contribution, especially where it is indirect, depends on the policies to promote tourism implemented in each country.

Substantial investment is required in order to develop tourism, which often leads to tourism being compared to heavy industry in terms of public and private investment in infrastructure such as road and transport networks, drinking water distribution, waste treatment, access to the electricity network and access to new communication systems.

In addition, as pointed out in United Nations Conference on Trade and Development (UNCTAD) reports since 1998, it is often necessary to take a long-term view of investment in tourism. This is the case in the hotel business in particular, where the return on investment can often take ten years or more.

In these circumstances, tourism can play a significant role only if the prospects for growth in tourism demand are good enough to justify capital spending projects that require very substantial funding in order to build essential infrastructure and generate the desirable productive investment.

2.2 – INDIRECT EFFECTS OF TOURISM ON EMPLOYMENT

The International Labour Organization (ILO) estimates that tourism generated 253 million jobs worldwide in 2010. The same applies to the T20 countries. Tourism's indirect contribution to job creation confirms its importance for employment in the tourism supply chain.

However, this indirect contribution remains lower than that of direct employment in a certain number of T20 countries. The indirect benefits of tourism are greater where the tourism supply chain is directed towards the production of locally produced goods and services.

Tourism also has qualitative impacts by encouraging the creation of jobs for young people. In many countries, however, especially in Europe, a large proportion of these are seasonal jobs that can be secured in the long term only by improving the level of qualifications so that young people can become multi-skilled.

The tourism industry therefore generates a huge need for training, for which the T20 countries have very considerable capacity. Consequently, one of the indirect impacts generated by tourism jobs is to enable T20 countries, especially in Europe and North America, to export their tourism, hotel and catering training courses to new tourism countries, generating employment in the education sector.

Table 2: Impact of tourism on employment in the T20 countries (%)

T20 country	Total contribution of tourism to total employment in 2011 (%)	Indirect contribution of tourism to total employment in 2011 (%)
Australia	16.2	**7.8**
Spain	12.7	**7.1**
Mexico	14.8	**4.9**
United States	10.5	**4.7**
Italy	9.7	**4.2**
Argentina	10.3	**4.1**
Turkey	8.1	**3.9**
France	10.2	**3.9**
China	8.2	**3.4**
Indonesia	8.1	**3.4**
Brazil	8.3	**3.3**
Japan	7.1	**3.3**
South Africa	10.1	**3.3**
United Kingdom	7.6	**3.1**
Russian Federation	5.5	**2.9**
Canada	7.0	**2.8**
Republic of Korea	5.4	**2.4**
Germany	4.9	**2.2**
Saudi Arabia	6.6	**2.2**
India	7.5	**1.6**

Source: WTTC 2011

The majority of the jobs created in the tourism industry are for young people under the age of 25, who account for about half of all tourism jobs (Goldin, 2010). In addition, most of them are jobs for women. This feature of employment in the tourism sector underlines the importance of continuous vocational training programmes for young people in order to secure long-term jobs.

2.3 – Sectoral indirect effects of tourism

The sectoral approach concerns the central role of tourism in the production chain of the main sectors both upstream and downstream and in the provision and operation of public service infrastructure, including transport. It also shows the role of tourism in the development of high value-added sectors and new technologies like Global Distribution System (GDS) and Computer Reservations System (CRS).

The indirect effects of tourism concern all sectors of the economy, especially agrifood industries and all tourism-related services such as air transport. The contribution to the indirect effects of tourism may be broken down into three sub-sectors:

- output of suppliers of goods and services,
- capital expenditure,
- public spending.

Table 3: Sectoral indirect effects of tourism as a percentage of GDP

T20 country	Supply of goods and services (%)	Capital expenditure (%)	Central and local government spending (%)	Total indirect effects (%)
Australia	3.6	2.1	1.2	**6.9**
Spain	4.2	1.0	1.1	**6.3**
Argentina	3.1	1.3	0.3	**4.7**
United States	2.8	0.6	0.8	**4.2**
China	2.6	1.2	0.4	**4.2**
Indonesia	2.1	1.3	0.7	**4.1**
South Africa	2.9	1.1	0.1	**4.1**
Turkey	2.9	0.9	0.1	**3.9**
Brazil	2.3	0.9	0.5	**3.7**
Italy	2.3	0.7	0.6	**3.6**
Mexico	2.2	0.8	0.4	**3.5**
France	2.4	0.5	0.5	**3.4**
Japan	2.0	0.5	0.7	**3.2**
United Kingdom	2.3	0.3	0.5	**3.1**
Russian Fed.	2.2	0.5	0.4	**3.1**
Canada	1.6	0.3	0.7	**2.6**
Republic of Korea	1.9	0.3	0.3	**2.5**
Saudi Arabia	1.7	0.6	0.2	**2.5**
Germany	1.6	0.1	0.3	**2.0**
India	1.0	0.5	0.1	**1.6**

Source: WTTC 2011

This breakdown of the sectoral indirect effects of tourism confirms the growing importance of emerging countries, where investment in tourism accounts for a very substantial share of the indirect effects of tourism.

The sectoral effects of tourism are also very significant in the air transport sector, in terms of both global and local impacts.

- Global impact: according to the International Air Transport Association (IATA) (Air Transport Action Group (ATAG) document), the air transport sector generates over 29 million jobs, including 6.7 million in the tourism sector, given that over 40% of leisure tourists travel by air.

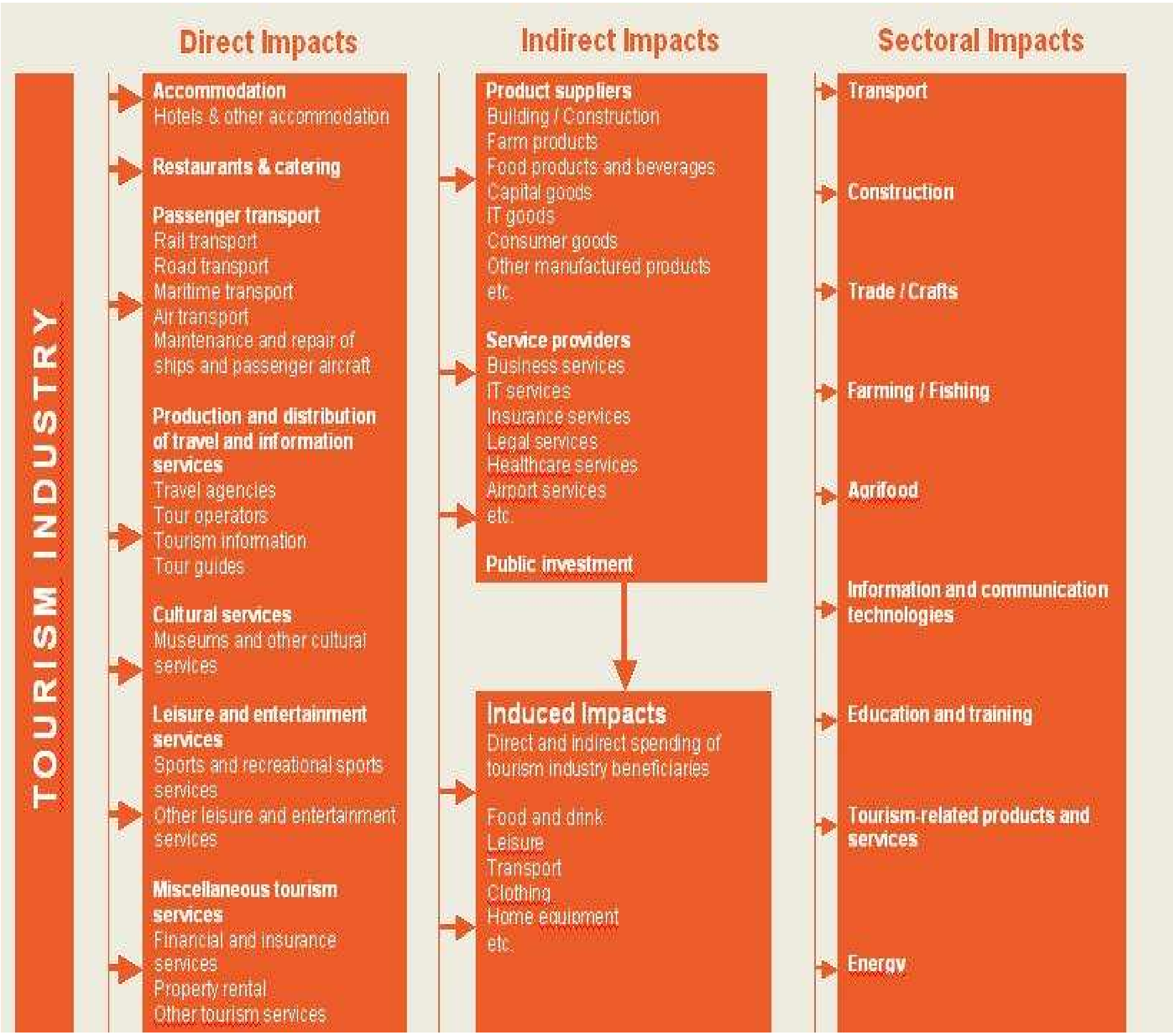
- Local impact: let us take two examples, Nice and Madeira

    - ***Nice:*** *Tourism as a factor in the development of international air transport for the benefit of local residents.* The example of the impact generated by Nice Côte d'Azur airport in France is particularly significant. As a result of the expansion of international routes, international arrivals accounted for over 50% of all arrivals in 2010 (26% from the UK, 16% from Scandinavia, 13% from Germany, 4% from North America). This has had a considerable impact on local development, insofar as international tourists stimulate the development of an international network that demand from local residents alone would not be sufficient to generate, since they account for only 38% of passengers.

    - ***Madeira:*** *Tourism as a factor in the development of local road links for the benefit of local residents.* The same is true of Territorial Enhancement programmes financed by the European Commission. In this case, the sectoral impact in terms of infrastructure construction for the benefit of local people can have very beneficial consequences. The island of Madeira is one of Portugal's main tourist destinations. In order to meet tourism development requirements, it received significant amounts of funding under the 2007-2013 Territorial Enhancement programme (€1.6 million from the ERDF and €3.1 million from the Cohesion Fund) for a motorway network to serve coastal tourist areas. Madeira has received a total of €100 million from the EU for infrastructure programmes, compared with €42 million from the Portuguese government. As a result of the Territorial Enhancement programme, local residents can benefit from an exceptional motorway network that could not have been built without the pursuit of tourism expansion objectives.

These examples show that the indirect impacts of tourism should not be analysed only at macroeconomic level, but also at regional and local level. The benefits of tourism can be essential in order to remove obstacles to the construction of infrastructure, especially for improving access, which directly benefits local residents. Such evaluations in terms of local development could be systematically identified in the T20 framework in order to serve as a benchmark for the increasing integration of tourism policy objectives into overall planning and development policies.

Table 4 : Summary of the direct, indirect and sectoral effects of tourism



3 – TOURISM'S CONTRIBUTION TO GLOBAL ECONOMIC BALANCES

Analysis of the economic impact of tourism on foreign trade involves taking account of tourism deficits and surpluses in the T20 countries in relation to the major global imbalances in international trade. This analysis shows the extent to which tourism can alleviate such imbalances by helping to restore current balances of payments between developed and emerging countries.

At the same time, however, the positive impacts of tourism are mainly concentrated in emerging countries, against a background of growing regional demand in Asia and South America. Consequently, the tourism sector could play a much greater role in reducing macroeconomic imbalances in Europe and North America. Currently available data measure the direct impact of tourism on balances of payments without taking account of the indirect effects on foreign trade in other sectors, especially very considerable spillover effects in some countries.

3.1 – TOURISM'S CONTRIBUTION TO REBALANCING INTERNATIONAL TRADE

Exports of tourism services generated $1,093 billion in 2010, or 30% of total world exports of services ($3,670 billion). According to the World Tourism Organization (UNWTO) and the World Trade Organization (WTO), tourism exports grew at a slightly slower pace than overall exports of services, increasing by 8% between 2009 and 2010 compared with 10.8% for all exports of services. The T20 countries account for 79.3% of global exports of services.

An analysis of tourism balances shows that some T20 countries run a surplus which plays a significant role in reducing overall deficits in current balances of payments.

The tourism deficits run by countries with a substantial surplus in trading goods help to redress balance in relation to their very considerable balance of trade surpluses. During the economic upturn in 2010, international tourism helped to revive world trade, and hence also economic growth. Until now, however, tourism has not acted as a real driver for other service sectors, since tourism exports grew more slowly than overall exports of services. In contrast, tourism plays a significant regulating role in a certain number of T20 countries, partly offsetting their balance of trade surpluses.

The emerging countries also played a very important counter-cyclical role in the 2008-09 economic crisis, as international tourism spending continued to rise, often very substantially, despite the crisis.

Table 5: Tourism balances and total service balances in the T20 countries (2009)

T20 countries	Balance of trade in tourism ($ bn)	Balance of trade in services, incl. tourism ($ bn)	Balance of trade in goods ($ bn)
Spain	**36**	16	-72
United States	**21**	143	-547
Turkey	**17**	17	-28
Italy	**12**	-14	-5
France	**10**	17	-76
Australia	**8**	0	-11
Mexico	**4**	-6	-12
South Africa	**4**	-2	-9
India	**2**	7	-89
Indonesia	**1**	-2	21
Germany	**- 46**	-26	190
United Kingdom	**- 20**	72	-129
Japan	**- 15**	-21	30
Saudi Arabia	**- 12**	-	97
Canada	**-11**	-20	-14
Brazil	**- 10**	-31	19
Republic of Korea	**- 10**	-18	41
Russian Federation	**- 6**	-18	112
China	**- 4**	-29	176
Argentina	**- 1**	0	11

Source: WTO, World Trade Report, 2011

In these circumstances, international tourism can play an anti-cyclical role in times of economic crisis, since it is a sector capable of recovering more quickly than other sectors, thus fostering a return to economic growth. However, the latest UNWTO figures for the T20 countries over the period 2008-2010 show that international tourism was hard hit by the economic and financial crisis. Consumers in most European and North American countries lost substantial amounts of purchasing power and tended to cut their spending on foreign tourism by reducing their holiday budgets, spending their money on leisure services closer to home instead. In 2010, the main T20 destinations for inbound tourists, which are also the main sources of outbound tourists, had not fully recovered to their 2008 levels.

The T20 countries that were little affected by the economic and financial crisis and enjoy strong economic growth continued to see growth in revenues from international tourism and a sharp rise in spending on international tourism, generating very positive spillover effects, mainly in a regional context, as in Eastern and Southern Asia.

The scale of intra-regional tourism noted by the UNWTO was confirmed in 2010, with 791 million arrivals of intra-regional tourists and 218 million arrivals of long-distance inter-regional tourists.

However, the scale of intra-regional tourism is not necessarily a favourable factor in times of crisis.

- For emerging countries, mainly in Asia, intra-regional tourism strengthens the growth of domestic tourism, stimulating growth in the tourism sector and overall economic growth.
- For other, mainly European countries, a high degree of specialisation in intra-regional tourism

may be a handicap, since lower purchasing power in European countries directly affects tourism demand and hence intra-regional tourism.

3.2 – Tourism's contribution to economic growth

Analysis of the data confirms that tourism, both international and domestic, should be regarded as a key component of economic stimulus programmes, especially in times of economic crisis. Its role as an economic stimulant means that tourism should be central to measures designed to revive economic growth because the trade flows generated by a strong tourism industry have a major effect on business and consumer confidence, as can be seen from the scale of the indirect economic effects of tourism in the T20 countries.

Comparisons between the economic crisis of 2009 and the economic upturn in 2010 show that considerable differences exist between T20 countries according to their particular economic situation.

- In countries with strong economic growth, revenues from international tourism help to accelerate growth: growth rates in periods of recovery are higher than those for industrial growth.
- In countries with weak economic growth, initial findings about the upturn in GDP growth in 2010 in relation to 2009 indicate that international tourism does not appear to meet expectations as a factor favouring economic recovery in a certain number of T20 countries, especially in Europe. However, tourism's limited contribution to the resumption of economic growth probably corresponds only to a time-shift, since a very sharp upturn can be seen in Europe's leading tourism countries in the first half of 2011.
- In countries with a strong recovery in economic growth, mainly in the Americas and especially in South America, the tourism sector makes a substantial contribution to the resumption of economic growth.

Consequently, the tourism sector can play a major role in economic stimulus plans in response to crisis situations, provided that tourism is regarded as a key component of such plans, as both an economic stimulant and a source of job creation that complements other sectors, especially manufacturing.

Table 6: GDP growth and revenue from tourism in the T20 countries

T20 country	GDP growth (2009)	GDP growth (2010)	Growth in revenue from tourism (2009)	Growth in revenue from tourism (2010)
United States	-2.6	2.8	-14.8	9.8
Canada	-2.5	3.1	-12.7	14.6
Mexico	-6.1	5.5	-15.0	5.3
Brazil	-0.6	7.5	-8.6	11.3
Argentina	-3.0	7.5	-13.0	22.5
France	-2.5	1.5	-12.9	-5.9
Italy	-5.2	1.3	-11.4	-3.5
Russian Federation	-7.8	4.0	-21.8	-3.2
Turkey	-4.7	8.2	-3.6	-1.9
Spain	-3.7	-0.1	13.6	-1.3
Germany	-4.7	3.5	-13.0	0.1
UK	-4.9	1.3	-16.4	1.3
China	9.2	10.3	2.7	15.4
Japan	-6.3	3.9	-4.6	28.2
India	6.8	10.4	-5.9	27.9
Indonesia	4.6	6.1	-24.3	25.0
Republic of Korea	0.2	6.1	0.1	0.5
Australia	1.3	2.7	-2.4	18.5
Saudi Arabia	-0.6	3.7	-1.7	11.7
South Africa	-1.7	2.8	-5.0	21.3

Source: Index Mundi 2011 and UNWTO Barometer 2011 Excl. fluctuations in the USD exchange rate*

An examination of the specific role of domestic tourism shows how domestic demand can make the tourism sector as a whole less vulnerable, especially to external shocks, by directing the indirect effects of tourism towards more balanced growth. The development of domestic tourism can significantly stimulate domestic consumption and direct economic activity towards growth that favours indirect impacts on all productive sectors of the economy.

However, an analysis of the situation of the T20 countries shows that growth in domestic demand and growth in international demand generally go hand in hand. As a result, it is often difficult to prioritise one or other component of tourism demand, since growth in one segment benefits growth in the other. In tourism, as in most other productive sectors, an industry that is internationally competitive is also competitive on its domestic market, thus increasing the role of the domestic market as comparative advantages come into play.

An analysis of the role of domestic tourism in the T20 countries shows that domestic tourism demand is considerably greater than international demand in all countries.

3.3 – Tourism's contribution to sustainable development

Tourism may be regarded as an economic sector that favours the growth of the "green economy". It is based on passenger travel that has limited effects on the environment, as is apparent from UNWTO reports, since travel and tourism account for only 5% of all carbon emissions (UNWTO, 2008). Under these conditions, achieving green economy objectives may be regarded as a target for the tourism sector (De Lacy and Lipman, 2010).

The T20 countries in particular can play a crucial role in promoting green tourism. This involves promoting guidelines for the management of sustainable tourism in all its forms. These include mass tourism and various niche segments, especially ecotourism and nature tourism, which are not just a passing trend but which reveal a profound change in people's mindsets. Green tourism creates new demand, especially for local tourism, which fosters reduced use of transport and heavy infrastructure as well as a better regional distribution of tourism flows. To encourage the development of green tourism, the T20 countries use many systems based on renewable energy sources, energy saving and new materials which transform the traditional approach to investment in tourism and generate indirect effects on cutting-edge technology sectors in the economy.

Consequently, the principles of sustainable tourism refer to three major aspects: the environment, the economy and the sociocultural dimension. Sustainable development should not be confused with ecotourism, which is only one aspect of the green economy. Greater international cooperation between T20 countries based on common research programmes, especially with the participation and support of the World Bank (World Bank, 2009), the UNWTO and regional development banks (EIB, EBRD, Asian and African Development Banks), into the application of new green technologies to tourism can be of mutual benefit to the T20 countries as well as to all other countries that wish to encourage more environmentally friendly forms of tourism. That is also the purpose of the French proposal that led to the creation of a Global Partnership for Sustainable Tourism in 2011.

Tourism's contribution to sustainable development is also expressed in terms of regional impact by its role in regional planning and development, which can help to correct economic imbalances between regions. In many regions, tourism generates numerous opportunities for diversification of the local economy, by attracting economic resources to areas where there are few possibilities for alternative development. Tourism can thus be regarded as a key regional development resource that reduces inequalities between regions, especially when economic times are hard, as in many countries at the present time.

That is the case in the European Union, where financing from the European Regional Development Fund (ERDF) is designed to strengthen economic and social cohesion within Member States by correcting regional imbalances, at an estimated cost of €347 billion over the period 2007-2013. The ERDF finances many tourism development programmes in underdeveloped regions, especially in Southern Europe, through:

- direct aid for business investment, especially in SMEs, in order to create lasting jobs,
- specific measures for tourism-related infrastructure such as telecommunications, protection and enhancement of the environment, renewable energy sources and regional transport,
- financial resources (venture capital funds, local development funds, etc.) designed to support regional and local development and encourage tourism cooperation between cities and regions.

In the context of European regional policy, the ERDF has helped to fund tourism-based regional development programmes in Spain (Andalucía) and in peripheral and ultra-peripheral island regions of Greece (Cyclades), Portugal (Madeira and the Azores), Spain (Canary Islands) and France (La Réunion, Martinique and Guadeloupe).

The policy helps to achieve the goals of convergence, competitiveness and territorial cooperation.

- *Convergence,* by helping to modernise and diversify economic structures and preserve or create lasting jobs by favouring tourism-related initiatives.

- *Regional competitiveness and employment,* by promoting initiatives around innovation and the knowledge economy, the environment, risk prevention and access to tourism-related transport and telecommunication services.

- *European territorial cooperation,* by providing targeted assistance for the development of tourism based on crossborder activities and transnational cooperation in order to make regional policy more effective.

The example of the EU's structural and cohesion funds shows that a specific regional policy which embraces tourism and develops tourist activities can alleviate economic, environmental and social problems in a country by restoring balance in favour of regions with natural geographical drawbacks and in ultra-peripheral zones.

3.4 – TOURISM AS A CATALYST FOR GENERAL ECONOMIC OSMOSIS BETWEEN COUNTRIES

Tourism may be regarded as a key factor favouring human development, the reduction of poverty and peace.

As the United Nations Development Programme (UNDP) ranking shows, there is a close correlation between countries with a high level of revenue from international tourism and the countries at the top of the Human Development Index (HDI). Tourism impacts on human development mainly because it requires good education, health and social infrastructure. A high level of education and public health provides a foundation for developing sustainable tourism while benefiting local populations directly, generating a spillover effect in favour of human development.

International tourism demand from T20 countries towards the poorest countries, especially the least developed countries, can significantly help the anti-poverty programmes defined in the Johannesburg Summit objectives in 2002. In particular, the indirect effects of tourism are of fundamental importance for achieving the Millennium Development Goals in terms of reducing international inequalities and poverty. To this end, the T20 countries can play a key role in increasing the indirect effects of tourism from the standpoint of the social dimension of globalisation and poverty reduction by participating in international cooperation programmes set up by international organisation such as the ILO, UNCTAD, FAO, UNESCO, UNDP and UNWTO, especially the latter's ST-EP initiative, the chief aim of which is to eliminate poverty through sustainable tourism.

However, to ensure the development of responsible and sustainable tourism in the world's poorest countries, the T20 countries can also contribute by providing technical support through international cooperation by encouraging the introduction and implementation of methods and best practice in the role played by tourism development in reducing poverty. This is the case, for example, with public-private partnerships between NGOs and SMEs and very small businesses, like UNESCO programmes for the enhancement of world heritage sites.

In this case, it is important to emphasise that the T20 countries have a major responsibility for ensuring the successful outcome of international cooperation programmes that seek to use tourism as a priority means of reducing poverty. A profusion of one-off bilateral cooperation initiatives, often with very little impact, cannot offer a real solution to the global problem of poverty, which affects over a billion people worldwide. In contrast, organised cooperation by the T20 countries based on duplicating programmes that have proved to be both effective and successful can become a priority means of achieving the Millennium Development Goals, through programmes:

- to enhance the quality of agrifood production,
- to build innovative tourist accommodation based on renewable energy sources,
- to treat waste in tourist areas,
- to encourage wider use of tourism microcredit,
- to encourage the employment of disabled workers,
- to preserve and enhance cultural heritage.

The UNWTO and other UN agencies, working alongside NGO networks in the world's poorest countries, have the resources to support actions along these lines initiated by T20 countries.

CONCLUSION

While tourism is no universal panacea, the development of tourism can play a much more significant role in the future than it does at present. Analysis of the indirect impacts of tourism based on a comparison of the T20 countries shows that mobilising the production chain for tourism services has extremely beneficial effects on employment and the current balance of payments. ***The T20 countries have a major responsibility to promote the economic and social role of tourism***, towards both themselves and the entire international community, especially the poorest countries. In order to do so, the T20 countries can promote significant use of tourism as a factor of economic development and job creation by setting up specific initiatives to ***promote methods for measuring the indirect effects of tourism*** based on the UNWTO methodology using the information contained in TSAs, and to ***make economic evaluations of the direct and indirect effects of tourism*** based on new statistical tools comprising a number of data sets which, taken together, can better inform public policy as to the direct and indirect economic and social effects of tourism.

Table 7: Indirect economic effects of tourism in the T20 countries

Impacts on domestic tourism	Sectoral impacts	Impacts on the green economy	Impacts on poverty reduction	Regional impacts	Non-economic impacts
Social tourism (young people, the elderly, people on low incomes, etc.)	Farming and agrifood, with the supply of local food products to tourists	Ecotourism	Tourism for people with reduced mobility and disabilities	Regional cultural diversity as a plus for tourism	Role of peace tourism in enhancing mutual intercultural understanding
Domestic transport (e.g. high-speed trains)	Manufacturing, with tourism-related consumer goods	Nature reserves and national and regional parks	Enhancement of unskilled jobs	Regional and local cultures	Reduction of negative consequences of tourism on society in terms of crime rates, drug abuse and the sexual exploitation of children (ECPAT)
Enhancement of UNESCO World Heritage Sites	Crafts	Implementation of waste treatment systems	Integration of young people into long-term employment	Measures against property speculation in predominantly tourist areas	Measures to prevent tourists from being regarded as "foreigners" usurping local resources
Organisation of sporting events (Olympic Games, World Cup) and cultural events (Universal Exhibition)	Education: vocational and ongoing training	Renewable energy sources	Reduction of gender inequality in pay	Measures to prevent increases in the cost of living generated by tourist prices	Integration of the poorest populations by creating microactivities
Restoration of old towns and cities and preservation of heritage	NICTs (new information and communication technologies) and product marketing	Energy and fuel saving systems	Better working conditions for seasonal and part-time workers	Contribution of structural development funds to regional funding of investment in tourism	
Use of sanitation and healthcare infrastructure		Preservation of the countryside	Transition in good conditions of rural workers to jobs in tourism		
Programmes for the regional and local distribution of tourism flows on the model of "One village, one product"		Improvement of the environment by using tourism revenues (taxation and subsidies)			

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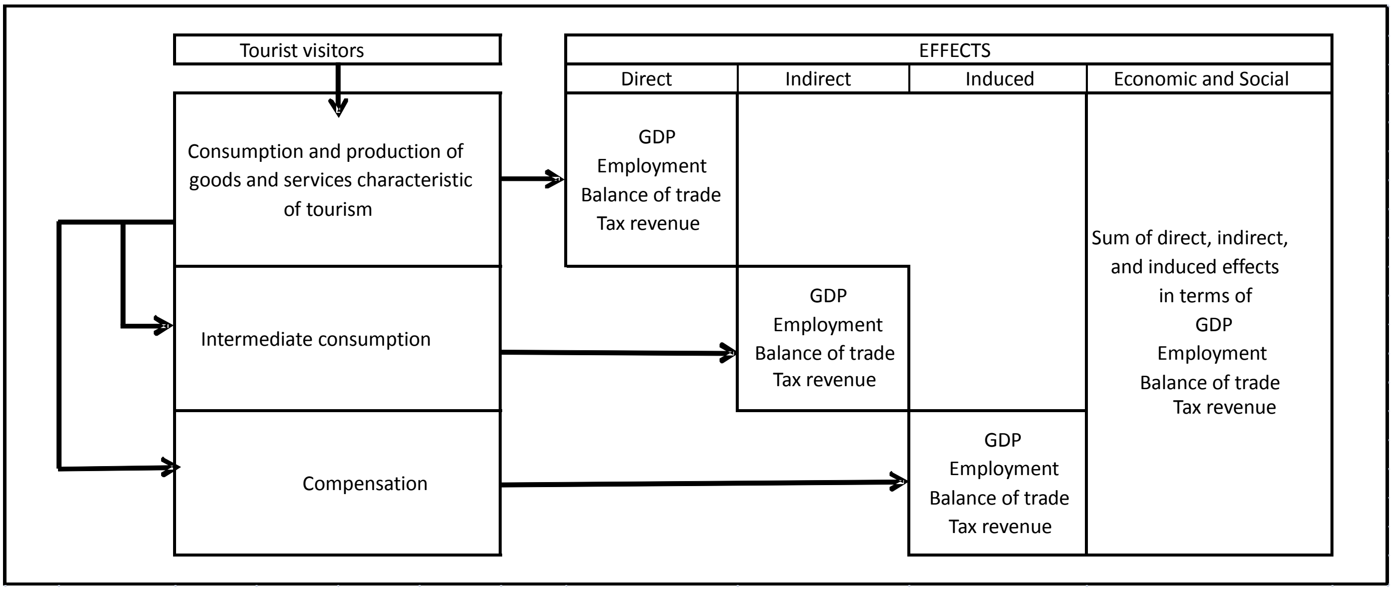

Table 9: Comparison of the indirect and total contribution of tourism in the T20 countries (as %)

T20 country	Indirect contribution of tourism (2011 estimate)	Direct contribution of tourism (2011 estimate)	Induced contribution of tourism (2011 estimate)
Russian Federation	**54.0**	24.4	21.6
Australia	**53.1**	25.4	21.4
Canada	**52.2**	27.7	20.0
China	**49.9**	29.5	20.6
United States	**48.1**	29.9	22.0
Republic of Korea	**47.5**	34.8	17.7
Japan	**45.8**	31.9	22.3
United Kingdom	**45.1**	35.1	19.8
Germany	**44.4**	35.7	18.6
Indonesia	**44.1**	34.5	21.4
Spain	**43.9**	35.7	20.5
Argentina	**42.1**	36.2	21.8
Italy	**41.9**	37.7	20.4
Brazil	**40.9**	36.3	22.8
Turkey	**39.1**	40.8	20.1
France	**37.1**	42.6	20.3
India	**36.9**	42.7	20.4
Saudi Arabia	**36.5**	44.4	19.0
South Africa	**36.0**	43.7	20.3
Mexico	**32.0**	47.8	20.2

Source: WTTC, Travel and tourism impact, 2011

Table 10: Comparison of tourism's indirect contribution to the GDP of the T20 countries by value (US$ bn)

T20 country	Direct contribution of tourism (2011 estimate)	Indirect contribution of tourism (2011 estimate)	Total contribution of tourism (2011 estimate)
United States	404.0	**649.2**	1349.7
China	166.7	**282.2**	565.3
Japan	120.1	**172.5**	376.6
Australia	44.7	**93.3**	175.7
France	97.1	**84.6**	227.9
Spain	68.4	**84.2**	191.7
Brazil	68.0	**76.6**	187.3
United Kingdom	57.0	**73.2**	162.3
Italy	64.3	**71.4**	170.5
Germany	53.9	**64.7**	145.7
Russian Federation	25.2	**55.9**	103.4
Mexico	65.2	**43.7**	136.5
Canada	23.2	**43.6**	83.6
Indonesia	25.3	**32.3**	73.3
India	34.0	**29.4**	79.7
Turkey	29.2	**28.0**	71.5
Republic of Korea	19.7	**26.8**	56.5
Argentina	15.8	**18.4**	43.6
South Africa	19.7	**16.2**	45.0
Saudi Arabia	13.5	**11.1**	30.3

Source: WTTC, Travel and tourism impact, 2011

Table 11: Tourism's total and indirect contribution to employment in the T20 countries (in thousands of jobs)

T20 country	Total contribution of tourism 2011 (in thousands of jobs)	Indirect contribution of tourism 2011 (in thousands of jobs)	Indirect employment as a proportion of total employment (2011)
China	64,780	**27,752**	42.8 %
India	37,655	**8,124**	21.5 %
United States	14,778	**6,559**	44.4 %
Indonesia	8,881	**3,740**	42.1 %
Brazil	8,154	**3,280**	40.2 %
Mexico	6,630	**2,206**	33.2 %
Japan	4,456	**2,044**	45.9 %
Russian Federation	3,878	**2,026**	52.2 %
Spain	2,344	**1,308**	55.8 %
France	2,616	**992**	37.9 %
United Kingdom	2,341	**967**	41.3 %
Italy	2,210	**957**	43.3 %
Turkey	1,873	**907**	48.4 %
Germany	1,985	**890**	44.8 %
Australia	1,856	**889**	48.0 %
Argentina	1,829	**734**	40.1 %
Republic of Korea	1,315	**595**	45.2 %
Canada	1,211	**489**	40.4 %
South Africa	1,334	**595**	45.2 %
Saudi Arabia	608	**201**	33.1 %

Source: WTTC, Travel and tourism impact, 2011

Table 12: Ranking of T20 countries by ratio of number of indirect jobs to contribution to GDP

Ranking according to Ratio 2	T20 country	Ratio 1: Total number of jobs per US$ million of tourism's total contribution to GDP	Ratio 2: Number of indirect jobs per US$ million of tourism's total contribution to GDP
1	**India**	472.5	**101.9**
2	**Indonesia**	121.2	**51.0**
3	**China**	114.5	**49.0**
4	**Russian Federation**	37.5	**19.6**
5	**Brazil**	43.5	**17.5**
6	**Argentina**	41.9	**16.8**
7	**Mexico**	48.6	**16.2**
8	**South Africa**	29.6	**13.2**
9	**Turkey**	26.2	**12.7**
10	**Republic of Korea**	23.3	**10.5**
11	**Spain**	12.2	**6.8**
12	**Saudi Arabia**	20.1	**6.6**
13	**Germany**	13.6	**6.1**
14	**United Kingdom**	14.4	**6.0**
15	**Canada**	14.5	**5.8**
16	**Italy**	13.0	**5.6**
17	**Japan**	11.8	**5.4**
18	**Australia**	10.6	**5.1**
19	**United States**	10.9	**4.9**
20	**France**	11.5	**4.4**

Source: Calculated from WTTC data

Table 13: Domestic spending on tourism as a proportion of total spending on tourism

T20 country	Domestic spending on tourism / total spending on tourism (as %)
Japan	94.3
China	90.8
Mexico	86.7
United States	86.2
United Kingdom	81.9
India	81.8
Canada	79.7
Germany	79.6
Brazil	76.1
Australia	74.4
France	65.0
Indonesia	62.1
Spain	56.0
Saudi Arabia	53.4
Italy	53.1
South Africa	51.6

Source: UNWTO, Positioning tourism in economic policy, Evidence and some proposals, T20 11-13 October 2010

Table 14: Trend in spending on international tourism in the T20 countries

T20 country	Spending on international tourism (2008)	Spending on international tourism (2010)	% change 2008/2010
China	36.2	54.9	**51.7**
Brazil	11.0	16.4	**49.1**
Saudi Arabia	15.1	21.1	**39.7**
Turkey	3.5	4.8	**37.1**
South Africa	4.3	5.6	**30.2**
Russian Federation	21.2	26.5	**25.0**
Australia	18.4	22.5	**22.3**
Indonesia	5.6	6.4	**14.3**
India	9.6	10.6	**10.4**
Canada	27.2	29.5	**8.5**
Argentina	4.6	4.9	**6.5**
Japan	27.9	27.9	**0.0**
France	41.4	39.4	**-4.8**
United States	79.7	74.6	**-6.4**
Republic of Korea	19.1	17.7	**-7.3**
Italy	30.8	27.1	**-12.0**
Mexico	8.5	7.3	**-14.1**
Germany	91.0	77.7	**- 14.6**
Spain	20.3	16.8	**-17.2**
United Kingdom	68.5	48.6	**-29.1**

Source: UNWTO, Barometer 2011

NB: The trend is calculated over the two-year period 2008-2010 to take account of the impact of the crisis in 2009.

Table 15: Trend in revenue from international tourism in the T20 countries

T20 country	Revenue from international tourism (2008)	Revenue from international tourism (2010)	% change 2008/2010
Japan	10.8	13.1	**21.3**
Australia	24.8	30.1	**20.3**
India	11.8	14.2	**20.3**
South Africa	7.9	9.1	**15.2**
Saudi Arabia	5.9	6.7	**13.6**
China	40.8	45.8	**11.2**
Argentina	4.6	4.9	**6.5**
Brazil	5.8	5.9	**1.7**
Canada	15.7	15.7	**0.0**
Republic of Korea	9.8	9.8	**0.0**
Turkey	22.0	20.8	**-5.5**
Indonesia	7.4	7.0	**-5.7**
United States	110.4	103.5	**-6.3**
Mexico	13.3	11.9	**-10.5**
Germany	39.9	34.7	**-13.0**
Spain	61.6	52.5	**-14.8**
Italy	45.7	38.8	**-15.1**
United Kingdom	36.0	30.5	**-15.3**
France	56.8	46.7	**-17.8**
Russian Federation	11.8	9.0	**-23.7**

Source: UNWTO, Barometer 2011

NB: The trend is calculated over the two-year period 2008-2010 to take account of the impact of the crisis in 2009.