Universidad de la República – Universitá degli Studi di Siena

Final research

Master in Management and Sustainable Tourism Economics

Analysis of tourism economic impact at regional level: Bolzano (Italia) and Maldonado (Uruguay) as study cases

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Abstract

It is verified that tourism has important regiona effects in Uruguay as Maldonado's case, therefore it needs information to strengthen decisions process.

The Regional Tourism Satellite Account (R-TSA) is a new instrument designed to measure the tourism economic direct impact based on international procedure where concepts and classifications are detailed.

The principal aim of this research, which includes an internship in the Provincial Statistics Institute of Bolzano (ASTAT) and is led by the International Tourism Economic Research Center (CISET) of Venice University, is to know how Uruguay can improve its Statistics Tourism System at regional level implementing R-TSA.

Bolzano's province experience was analyzed, specially necessary investigations to complete R-TSA tables. Then available information sources in Uruguay were analyzed, concluding that to be able to implement a R-TSA is necessary to regionalize GDP, improve regional statistics and to shape a regional specialized staff in tourism statistics.

1. Fundamentation

1.1 Initial questions and objectives

- At international level, which regions have a Tourism Satellitel Account (TSA)? and what methods and techniques did they use?

- How much was tourism economic contribution to Bolzano in 2008?

- Is it possible to apply the same methodology (R-TSA) in Uruguay, for example, in Maldonado?

The general objective of this research is to explore the possibility of implementing this Statistics Tourism System (R-TSA) in Uruguay provinces, taking into account the methodology applied for Bolzano.

Specific objectives are:

- Learn about the different experiences of implementing R-TSA, in particular from Bolzano Province.

- Complete the first six tables of Bolzano Tourism Satellite Account[1] 2008, taking into account the work done by the Provincial Statistics Institute (ASTAT) for 2005.

- And look for available data in Uruguay at regional and national level, necessary to implement this statistics system.

[1] TSA has 10 tables, 1 to 4 refer to tourism demand, table 5 show the production value, table 6 check the results obtained in tables 4 and 5 and allow to estimate the economic contribution of tourism with tourism GDP. Finally, tables 7, 8, 9 and 10 show results for employment, gross fixed capital formation, goverment administrative expenditures and nonmonetary indicators.

1.2 Uruguay tourism relevance

At national level, the relation between Tourism Income and Gross Domestic Product (GDP) has incresed by the several years and it mantains over 3%, in the last year it was more than 4% of GDP.

Tourism Income and Gross Domestic Product

Year 1988 to 2009

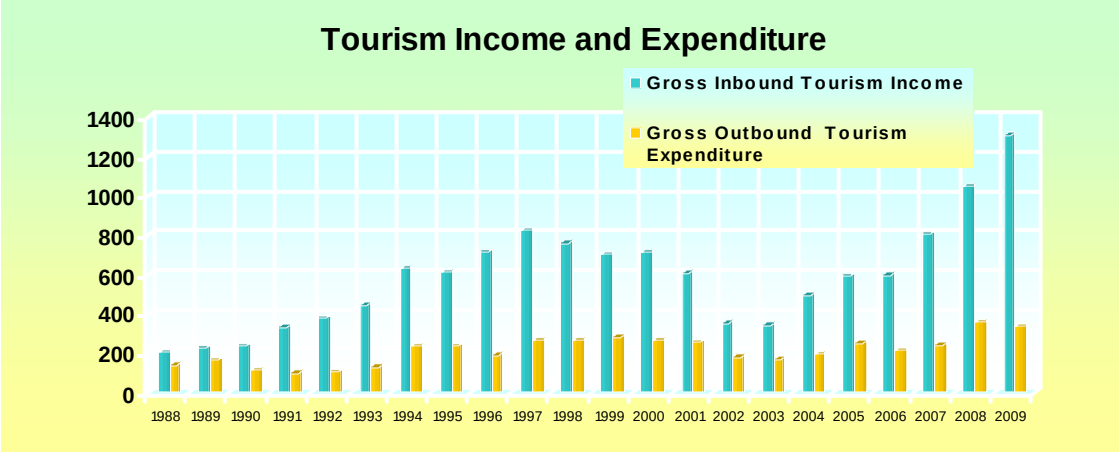
Million current dollars

YEAR	Tourism Income	GDP	Tourism Income/ GDP *Percentage*
1988	202,8	8.202	***2,47%***
1989	227,9	8.650	***2,63%***
1990	238,2	9.287	***2,56%***
1991	332,5	11.199	***2,97%***
1992	381,3	12.869	***2,96%***
1993	446,8	14.976	***2,98%***
1994	632,2	17.443	***3,62%***
1995	610,9	19.298	***3,17%***
1996	716,8	20.515	***3,49%***
1997	826,8	21.697	***3,81%***
1998	761,4	22.369	***3,40%***
1999	704,2	20.914	***3,37%***
2000	712,8	20.087	***3,55%***
2001	610,5	18.561	***3,29%***
2002	350,9	12.278	***2,86%***
2003	344,7	11.191	***3,08%***
2004	493,9	13.216	***3,74%***
2005	594,4	16.614	***3,58%***
2006	597,8	19.308	***3,10%***
2007	808,9	23.134	***3,50%***
2008	1051,4	31.122	***3,38%***
2009	1311,2	31.511	***4,16%***

Tourism National Administration - Inboud Tourism Survey and Uruguay Central Bank estimations.
Tourism Income according to Balance of Payments (it includes rents imputed to not resident owners from 1997 and income for cruises - estimated in 2009-from 2005)

In 2009 National Tourism Administration, done an exercice of TSA, and the result showed that tourism represent more than 6% of Uruguay GDP. This result must be reconfirmed in the future, improving statistics sources, especially from the supply side.

Next charts confirm tourism as an important economic activity in Uruguay, the touristic balance has been always positive and tourism incomes represents more than 60% of total services exports.



Tourism National Administration - Inboud Tourism Survey and Uruguay Central Bank estimations. Tourism Income according to Balance of Payments (it includes rents imputed to not resident owners from 1997 and income for cruises - estimated in 2009-from 2005)

Tourism Income and Goods and Services Exports

From 1988 to 2009

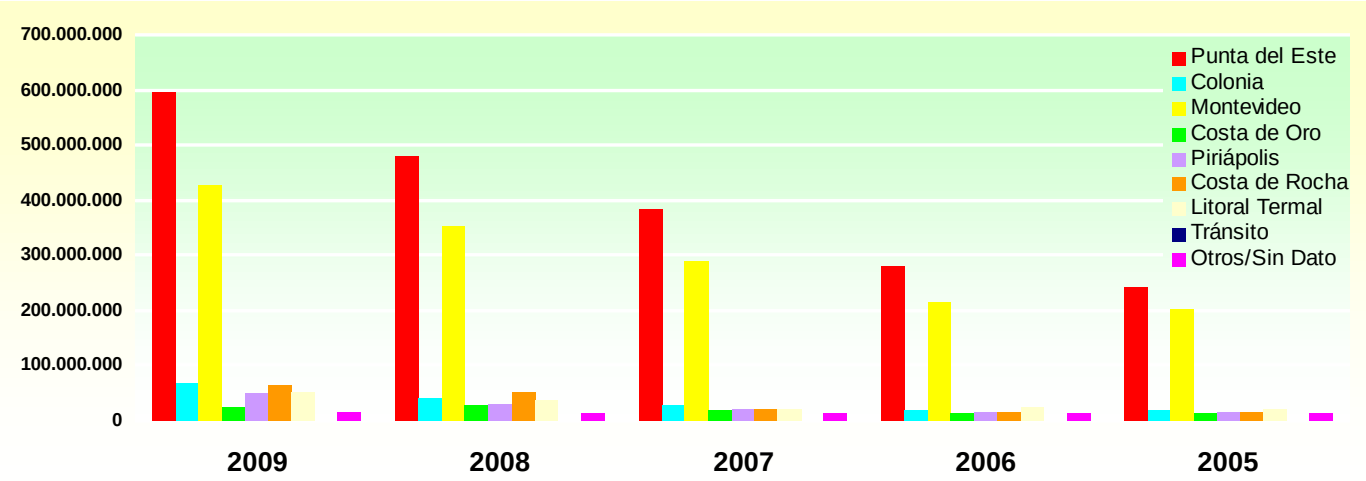
INDEX BASED: 1988 = 100

YEAR	Goods Exports		Services Exports		Tourism Incomes		Tourism Incomes / Goods Exports	Tourism Incomes / Services Exports
	Total	Índice	Total	Índice	Total	Índice		
1988	1.404,5	100,0	348,0	100,0	202,8	100,0	*14,4%*	*58,3%*
1989	1.599,0	113,8	433,2	124,5	227,9	112,4	*14,3%*	*52,6%*
1990	1.692,9	120,5	465,6	133,8	238,2	117,5	*14,1%*	*51,2%*
1991	1.604,7	114,3	596,2	171,3	332,5	164,0	*20,7%*	*55,8%*
1992	1.702,5	121,2	830,3	238,6	381,3	188,0	*22,4%*	*45,9%*
1993	1.645,3	117,1	1.015,2	291,7	446,8	220,3	*27,2%*	*44,0%*
1994	1.913,4	136,2	1.334,9	383,6	632,2	311,7	*33,0%*	*47,4%*
1995	2.147,6	152,9	1.359,1	390,5	610,9	301,2	*28,4%*	*44,9%*
1996	2.448,5	174,3	1.398,6	401,9	716,8	353,5	*29,3%*	*51,3%*
1997	2.793,0	198,9	1.375,0	395,1	826,8	407,7	*29,6%*	*60,1%*
1998	2.829,0	201,4	1.232,0	354,0	761,3	375,4	*26,9%*	*61,8%*
1999	2.290,6	163,1	1.187,4	341,2	704,2	347,2	*30,7%*	*59,3%*
2000	2.383,8	169,7	1.275,8	366,6	712,8	351,5	*29,9%*	*55,9%*
2001	2.139,5	152,3	1.122,5	322,6	610,5	301,0	*28,5%*	*54,4%*
2002	1.922,1	136,9	771,3	221,6	350,9	173,0	*18,3%*	*45,5%*
2003	2.281,2	162,4	771,3	221,7	344,7	170,0	*15,1%*	*44,7%*
2004	3.145,0	223,9	1.111,6	319,4	493,9	243,5	*15,7%*	*44,4%*
2005	3.774,1	268,7	1.311,3	376,8	594,4	293,1	*15,7%*	*45,3%*
2006	4.399,8	313,3	1.387,4	398,7	597,8	294,8	*13,6%*	*43,1%*
2007	5.099,9	363,1	1.833,5	526,9	808,9	398,9	*15,9%*	*44,1%*
2008	7.076,9	503,9	2.214,7	636,4	1051,4	518,4	*14,9%*	*47,5%*
2009	6.388,9	454,9	2.162,3	621,3	1311,2	646,6	*20,5%*	*60,6%*

Tourism National Administration - Inboud Tourism Survey and Uruguay Central Bank estimations.
Tourism Income according to Balance of Payments (it includes rents imputed to not resident owners from 1997
And income for cruises - estimated in 2009-from 2005)

At regional level, analizing tourism incomes from the point of view of provinces, as is show in next charts, Maldonado (Punta del Este y Piriápolis) and Montevideo are the most important ones.

Tourism Income according to principal destination
Period: 2005 to 2009



Tourism Income according to destination
Year 2009

In current dollars

	QUARTER					
DESTINATION	**First**	**Second**	**Third**	**Fourth**	**TOTAL**	***Percentage***
Punta del Este	332.773.463	70.072.708	54.788.612	138.338.626	**595.973.409**	*45,9%*
Colonia	17.653.126	15.907.825	12.507.648	22.853.753	**68.922.352**	*5,3%*
Montevideo	86.070.927	75.072.492	104.517.536	162.603.477	**428.264.432**	*33,0%*
Costa de Oro	17.651.673	1.285.325	1.523.111	3.862.982	**24.323.091**	*1,9%*
Piriápolis	39.212.798	2.593.601	1.667.043	6.035.103	**49.508.545**	*3,8%*
Costa Oceánica de Rocha	47.877.704	5.753.889	3.853.253	6.652.407	**64.137.253**	*4,9%*
Litoral Termal	12.816.354	13.064.932	12.278.950	12.830.267	**50.990.503**	*3,9%*
Tránsito	399.157	158.228	37.031	139.503	**733.919**	*0,1%*
Otros/ Sin Dato	4.110.878	3.053.171	2.652.854	4.774.100	**14.591.003**	*1,1%*
TOTAL	**558.566.080**	**186.962.171**	**193.826.038**	**358.090.218**	**1.297.444.507**	***100,0%***

Tourism National Administration, Inboud Tourism Survey without income for cruises.

1.3 Regional perspective

Tourism is an important economic activity in our country and it is necessary to have more and better information about tourism contribution in a city or province to take better decisions and plan strategies.

In *Bolzano*[2] tourism explain the 18% of province GDP (Total Tourism industires Value Added/ Total Province Value Added) for 2004/05. In *Maldonado*[3] tourism income explain the 31% of GDP (Maldonado Tourism Income/Total Province Value Added) for 2005.

Why is it necessary to measure the tourism economic impact at sub-national levels?

Different destinations needed to answer questions such as: "..... Is tourism remunerative? What are the most profitable segments? Substitution effects between segments of demand: what are the economic consequences? What is the impact of tourism expenditure on the volume of imports? What is the relevance of the spill over effects? What are the characteristics and the dynamics of the tourism labour market? What is the level and the structure of investments/gross fixed capital formation for tourism? Taxes from tourism: are they remunerative? etc…"[4]

It is important to take into account the following issues:

1. World tendence to descentralization of the politic power and management of public results.
2. Benefits that tourism can give to rural economies and others.
3. Unequal geographic distribution of tourism in many countries.
4. Companies and goverments interest of to identify new opportunities of business and investment.

In the last years the World Tourism Organization has organized a lot of meetings to study how to measure and analyse the economic contribution of tourism at subnational levels, it includes aspects such us: unequal distribution of tourism, needs to identify links with other activities, investment, table Input-Output, consequences of tourism: positive and negative effects, differences between expenditure and tourism consumption.[5]

In 2008 the United Nations Statistics Commission and other organizations adopted a methodological framework for TSA. So it is convenient to examine needs for subnational o regional TSA. Principles, definitions and characteristic coverage for a valid national TSA would be reflected in subnational TSA.

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[2] Italy

[3] Uruguay

[4] From regional tourism economy models to regional TSAs (or vice versa).
The state of the art in Italy: reflections. Mara Manente Ciset-University of Venice. WTO TSA Workshop Paris, 21st – 22nd April

[5] Douglas C. Frechtling, Teacher of Touristic Studies, University of George Washington, Estados Unidos.

It has to contain at least five tables and three macroeconomics agregated: Interior Tourism Consumption, Tourism Industries Production Value, Regional Tourism GDP and employment in tourism industries.

As a consequence, Regional-TSA is a functional tool to evaluate effective local economic importance of tourism, giving useful information for: goverment, directors and companies owners, employees and province citizens.

2. Backgroud

In a country where there is a national TSA, there are two options to follow to obtain a regional TSA:

- Developing the TSA based on regional matrix input output (bottom-up), **R-TSA**
- or Distribute the macroeconomic aggregates of national TSA through a set of regional indicators (top-down), **TSA-R**

It is important to stand out that resource costs involved and data problems including the shortage of adequately disagreggated Input-Output tables (TIO), remain a barrier to the rapid implementation of subnational level R-TSAs.

A country that will work in a Regional TSA could have one of the following scenaries:

1) A valid national TSA exists
2) An obsolete national TSA exists
3) A TSA has never been developed

In the first case, the regional allocation approach (TSA-R) could be use. A set of indicators is needed to disagregate national information and estimate the macroeconomic aggregates of regional TSA, such as characteristic tourism industries production, tourism spending and employment in tourism industries.

If a TSA was developed and it is obsolete, then the approach of the regional allocation discussed above is not feasible. However, the definitions and characteristics of the approach will provide coverage of the TSA-R.

And when a TSA has never been developed a regional TSA can be developed following the principles of national TSA, but it is necessary to take individual decisions respect to the characteristics of coverage. If then the country decided to develop the national TSA, all the definitions and elements of the existing Regional TSA should be reviewed and may be modified for this exercise.

Countries whith Regional TSA's experience

In **Finland**, the TSA was first introduced in 1999. Since then, there have been two updates; the latest was published in December 2004. **TSA was partially regionalised** for the first time in May 2005 based on data from 2002. Finally in 2006 it was fully regionalised. They used the **"top-down"** methodology to study the importance of tourism at regional levels.

In **Australia** the Sustanaible Tourism Cooperative Research Centre (STCRC) **has developed a TSA** for the state of New South Wales and state-level TSA **results have been modelled** for Victoria and Western Australia by Access Economics a private consultancy company.

Internationally, TSAs **have been developed or model generated for Wales** (2000) while the WTTC **has produced simulated TSAs for the US state of South Carolina and Hawaii** (1992).

Countries such as: **Denmark** (TSA-R 2006), **Canadá** (1996) **and United Kingdom** (2004) had worked in the **regionalization of national data** with certain group of indicators.

Few regions have been working in the **estimation of their own TSA**, estimating directly the tourism effect in these regions, this is the case of **Andalucía** (2000) where the regional TSA was elaborated with especial data from the demand side and with the matrix TIO for the region. Another province with a regional TSA is **Bolzano** (2005) where tourism statistics are developed at regional level and with its own TIO, both tools allow completing **R-TSA**.

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3. Theoretical framework

3.1 Tourism Satellite Account: concepts and definitions

First of all, it is necessary to understand at national level: what is a TSA? What does it measure? and the principle definitions and concepts that it involves.

"In recognition of the special feature of tourism, that stretches beyond the description of visitors, their consumption of transportation, accommodation, food services, and the activities of those serving them, tourism statisticians also understood very rapidly that tourism could not be described and analyzed apart from its broader socioeconomic context. This is the reason why tourism has been an ideal area for satellite accounting. The adaptation of the general concepts, definitions, classifications, aggregates and tables of the System of National Accounts, 1993 to tourism was rapidly considered as an important initiative."[6]

A Tourism Satellite Account was deemed relevant for several key reasons[7]:

- As an instrument that recognized that tourism cuts across many products and productive activities, facilitating a deeper understanding of tourism's linkages to other economic areas;
- As a structural link to the System of National Accounts, the Balance of Payments, the Statistics on International Trade in Services, and as a consequence, to other macroeconomic frameworks;
- As a structural link to National Accounts aggregates and their general estimation approach from which to derive credibility and legitimacy for tourism statistics data and development programs;
- As a methodology and framework for a comprehensive reconciliation of tourism data related mainly to supply by tourism industries and other industries and demand by visitors and other types of associated variables, in particular those related to the characterization of visitors, tourism trips and employment in the tourism industries;
- As the unique framework through which to properly compile Tourism GDP considered as the basic macro aggregate to characterize the size of tourism, among other aggregates;
- As a reference and milestone for future statistical developments and economic research on tourism.

The Tourism Satellite Account is essentially a conceptual framework for understanding tourism from a macroeconomic perspective. It highlights the relationship between consumption by visitors and the supply of goods and services in the economy, principally those from the tourism industries. With this instrument, it is possible to estimate tourism GDP, to establish the direct contribution of tourism to the economy and to develop more complex and elaborated schemes building on the intrinsic relationship of the Tourism Satellite Account with the System of National Accounts and Balance of Payments.

[6] 2008 International Recommendations for Tourism Statistics (IRTS2008) United Nations of Statistical Comission and WTO.
[7] Idem.

The Tourism Satellite Account consists of a set of ten interrelated tables that articulate:

- the different categories of consumption by visitors associated with the different forms of tourism (Tables 1 to 4),
- the production by tourism industries and other industries of tourism characteristic products, tourism connected products and other products (Tables 5 and 6) and allows the calculation of tourism GDP;
- the employment in the tourism industries (Table 7),
- tourism gross fixed capital formation (Table 8),
- government administrative expenditures associated with the support and control of tourism (tourism collective consumption - Table 9)
- some important nonmonetary indicators (Table 10) to support the analyses of the economic data in Tables 1-9.

These tables are consistent with the general supply and use tables established by countries at national level to describe the general economic balance of goods and services and the production accounts of the producers following the System of National Accounts, 1993. A Tourism Satellite Account can thus be considered as the global consistency framework of basic tourism economic statistics.

3.1.1 The demand side[8]

Tourism is currently defined as "the activities of persons travelling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes". This is the definition adopted by the World Tourism Organisation and the United Nations Statistical Commission. The definition is broad in that both personal and business trips are included in tourism.

Usual environment[9] is a fundamental element for the definition of tourism, it is defined as the geographical area within which an individual conducts his/her regular life routines. It differs from that of residence, as used in the SNA 1993 and the Balance of Payments Manual1 and from that of place of usual residence used in household statistics.
The concepts of country of residence and of place of usual residence within a country are used in the context of tourism statistics, alongside with that of usual environment that determines the fact of being a visitor to a given location. In tourism statistics, visitors to a place are classified according to their country of residence in the case of international visitors, according to their place of usual residence in the case of domestic visitors.

[8] The provincial and Territorial Tourism Satellite Accounts for Canada, 1996. Conrad Barber-Dueck and Demi Kotsovos.

[9] 2008 Tourism Satellite Account: Recommended Methodological Framework (TSA: RMF 2008) Jointly presented by the United Nations Statistics Division (UNSD), the Statistical Office of the European Communities (EUROSTAT), the Organisation for Economic Co-operation and Development (OECD) and the World Tourism Organization (UNWTO)

Vacation homes[10]
Each household has a principal dwelling, usually defined with reference to the time spent there, whose location determines the country of residence and place of usual residence of this household and all of its members. All other dwellings (owned or leased medium or long term by the households) are considered as secondary dwellings.

Duration of a trip
A visitor (domestic, inbound or outbound) is classified as a **tourist** (or overnight visitor), if his/her trip includes an overnight stay, or as a **excursionist** (or sameday visitor) otherwise.

International visitors An international traveller qualifies as an international visitor with respect to the country of reference if: (a) he/she is on a tourism trip and (b) he/she is a non-resident travelling in the country of reference or a resident traveling outside of it.
Domestic visitors From the perspective of the country of reference, a domestic traveller qualifies as a domestic visitor if: (a) he/she is on a tourism trip and (b) he/she is a resident travelling in the country of reference

Tourism expenditure as "the amount paid for the acquisition of consumption goods and services as well as valuables, for own use or to give away, for and during tourism trips. It includes expenditures by visitors themselves as well as expenses that are paid for or reimbursed by others"[11].
Tourism expenditure does not include other type of payments that visitors might make that do not correspond to the acquisition of goods or services such as payment of taxes, of interest, purchase of financial and non–financial assets.

Definition of tourism consumption
Besides "the amount paid for the acquisition of consumption goods and services, as well as valuables for own use or to give away, for and during tourism trips" that corresponds to monetary transactions (the focus of tourism expenditure), it also includes services associated with vacation accommodation on own account, tourism social transfers in kind, and other imputed consumption.
The concept of tourism consumption will be the basis for the compilation of tourism direct gross value added and tourism direct gross domestic product.

Categories of tourism consumption
Different categories of tourism consumption based on the country of residence of the transactors involved (the visitor and the provider of the good or service acquired), can be defined and related to the different forms of tourism

[10] 2008 International Recommendations for Tourism Statistics (IRTS2008) United Nations of Statistical Comission and WTO

[11] Idem.

Forms of tourism and categories of tourism consumption[12]

Domestic tourism: comprises the activities of a resident visitor within the country of reference either as part of a domestic trip or part of an outbound trip.	**Domestic tourism consumption**: is the tourism consumption of a resident visitor within the economy of reference
Inbound tourism: comprises the activities of a non-resident visitor within the country of reference on inbound trips.	**Inbound tourism consumption**: is the tourism consumption of a non-resident visitor within the economy of reference.
Outbound tourism: comprises the activities of a resident visitor outside the country of reference either as part of an outbound trip or as part of a domestic trip.	**Outbound tourism consumption**: is the tourism consumption of a resident visitor outside the economy of reference
Internal tourism: comprises domestic and inbound tourism, that is, the activities of resident and non-resident visitors within the country of reference as part of domestic or international trips.	**Internal tourism consumption**: is the tourism consumption of both resident and non-resident visitors within the economy of reference. It is the sum of domestic tourism consumption and inbound tourism consumption.
National tourism: comprises domestic and outbound tourism, that is, the activities of resident visitors, within and outside the country of reference either as part of domestic or outbound trips.	**National tourism consumption**: is the tourism consumption of resident visitors, within and outside the economy of reference. It is the sum of domestic tourism consumption and outbound tourism consumption.

Tourism gross fixed capital formation[13]

The analysis of stocks and flows of physical investment is particularly important for tourism because, in most circumstances, tourism is not possible on a relevant scale if there is a lack of basic infrastructure for transportation, accommodation, recreation, health services, and other facilities, that determine, to a large extent, the nature and intensity of visitor flows.

Tourism driven investment can roughly be classified in three main categories as follow:

[12] 2008 Tourism Satellite Account: Recommended Methodological Framework (TSA: RMF 2008) Jointly presented by the United Nations Statistics Division (UNSD), the Statistical Office of the European Communities (EUROSTAT), the Organisation for Economic Co-operation and Development (OECD) and the World Tourism Organization (UNWTO)

[13] Idem.

1. Tourism specific fixed assets
2. Investment by the tourism industries in non tourism specific fixed assets
3. Tourism related infrastructure

1. Tourism specific fixed assets are used exclusively or almost exclusively in the production of tourism characteristic goods and services. If tourism did not exist, such assets would be of little value as they could not easily be converted to non-tourism applications. It includes for instance railway passenger coaches, cruise ships, sight seeing buses, hotel facilities, convention centers, marinas, ski lifts, etc. Vacation homes are also included in this category although in this case, they might easily be modified from secondary to principal dwelling of a household.[14]

2. Investment by the tourism industries in non tourism specific fixed assets are fixed assets considered as tourism-related, due to the use which is made of them, by a tourism industry. This category includes for instance hotel or travel agency computer systems, hotel laundry facilities, etc.. Because of the great diversity of assets that can potentially be part of this category, there is no specific recommendation regarding classification different from that recommended in general in the SNA 1993, and countries are encouraged, when feasible, to identify some specific classes of such assets that might be significant in their national economy.

3. Tourism related infrastructure that is put in place principally by the goverment to facilitate tourism is usually even more difficult to identify: It might have been developed in a specific moment in time for this specific purpose, or it might in fact facilitate tourism, although this has not necessarily been the primary or the unique objective of the investment.

Because of the difficulties of identifying tourism investments, it is recommended that the TSA focus primarily on tourism specific fixed assets and Investment by the tourism industries in non tourism specific fixed assets. Nevertheless, if it is possible to identify elements of tourism related infrastructure that is beyond any doubt of almost exclusive benefit to tourism, countries are encouraged to include their value in tourism gross fixed capital formation although it is not included in the recommended TSA table 8.

Finally, it must be observed that tourism gross fixed capital formation of the compiling economy relates to produced fixed assets operated by resident producers. It excludes assets operated within the economic territory by nonresidents (with the exclusion of vacation homes). This may be the case in particular of mobile assets (such as aircrafts, trains, ferries, cruise ships, autobuses, etc.) which are crucial for tourism but are not always operated by residents.

[14] 2008 International Recommendations for Tourism Statistics (IRTS2008) United Nations of Statistical Comission and WTO.

Tourism collective consumption[15]

Governments play several roles in tourism: they provide legislation and regulation regarding the way visitors should be received and served, and the rules that visitors must follow; they act for the general promotion of tourism to the country or to a specific region; they develop the instruments that make the evaluation of the tourism policies possible; they maintain order and security so that tourism may occur; they maintain the space that is in the public domain, etc. They also provide a certain number of services that have already been mentioned such as education, health, cultural services at prices that are not economically significant and from which visitors might also benefit.

Collective non-market services might also include government expenditures that benefit both consumers and producers and even expenditures that only benefit producers. When such services are provided free of charge to producers, as the system does not consider the possibility of intermediate consumption by producers of government non-market output, they have also to be considered as part of government collective consumption. Nevertheless, when similar types of services (for instance market promotion) are provided on a market basis or developed within a public-private partnership, in which the private sector provides all or part of the funds that are required, they are not considered as collective non-market services but as services provided by a market producer (which might receive a support from general government under the form of a current transfer) and considered as an intermediate consumption of the private sector.

In addition, tourism collective consumption is considered within the broader concept of total tourism internal demand, although at present, this component has an experimental character due to the lack of experience in this field and measurement challenges. As a consequence, international comparisons should not be based on the estimate of this aggregate.

3.1.2 The supply side

Tourism consists of a mix of industries and parts of industries and the various commodities they produce. An industry is a grouping of establishments that provide similar commodities to business and persons.
A tourism industry is defined as an industry that provides tourism commodities to visitors and would cease to exist without tourism or would continue to exist only at a significantly reduced level of activity.

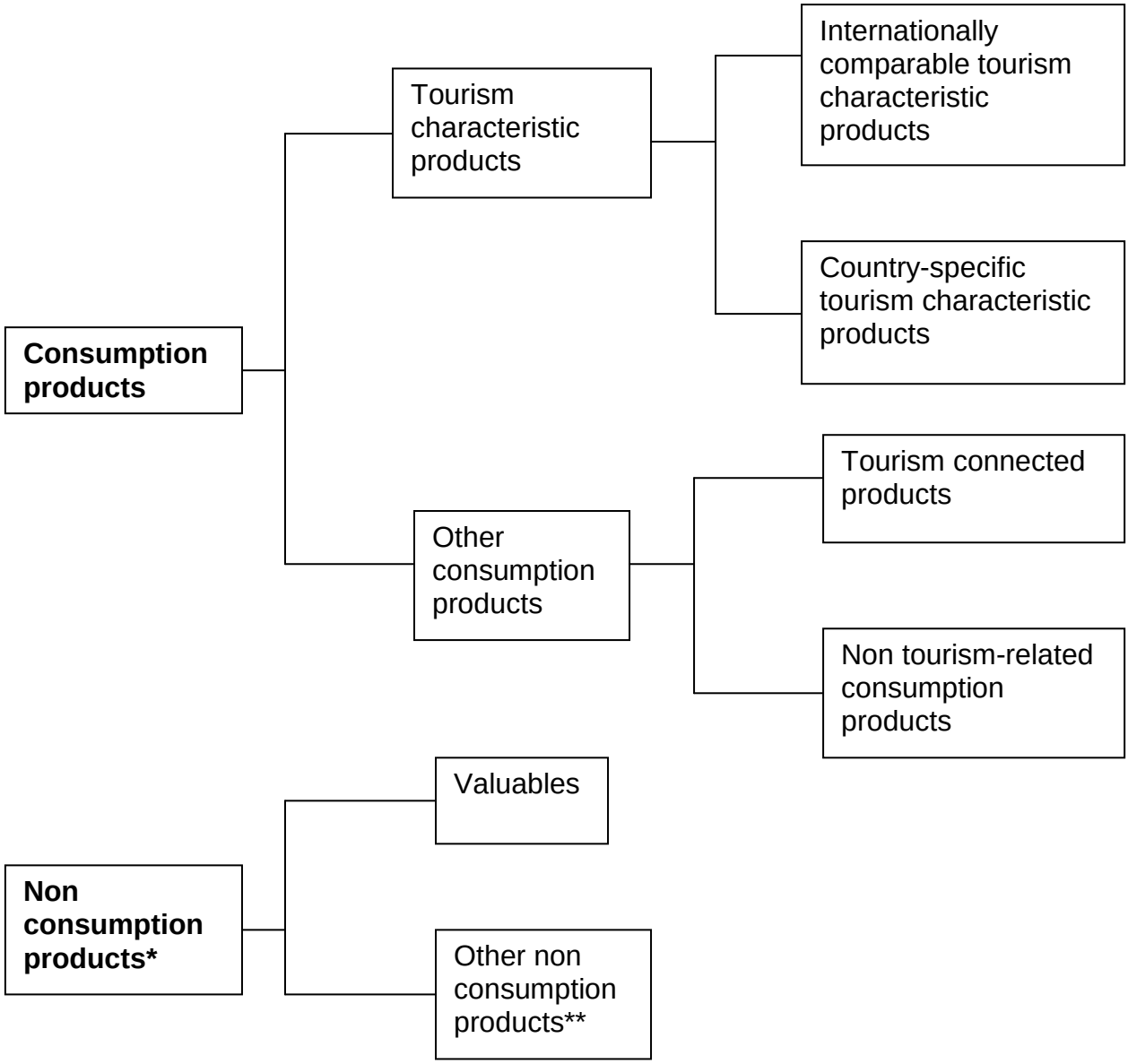
Tourism supply is the total production of the commodities bought by tourists and non-tourists. Interestingly, the supply of a tourism commodity can and usually does exceed tourism demand. This is because tourism supply includes the total production of a tourism commodity whether it was purchased by a tourist or a non-tourist.

[15] 2008 Tourism Satellite Account: Recommended Methodological Framework (TSA: RMF 2008) Jointly presented by the United Nations Statistics Division (UNSD), the Statistical Office of the European Communities (EUROSTAT), the Organisation for Economic Co-operation and Development (OECD) and the World Tourism Organization (UNWTO)

Classification of products and productive activities for tourism

Besides consumption products, it includes all other products that circulate in the economy of reference and have some relationship with tourism. Of these products, two main subgroups are defined:

1. Consumption products
2. Non consumption products



* This category includes all products that, by their nature cannot be consumption goods and services and therefore, can neither be a part of tourism expenditure, nor of tourism consumption, except valuables that might be acquired by visitors on their trips.

** It includes those products associated with tourism gross fixed capital formation and collective consumption.

Tourism characteristics activities

Tourism characteristic activities are those that typically produce tourism characteristic products. As the industrial origin of a product is not a criterion for the aggregation of products, there is no strict one-to-one relationship between products and the industries producing them as their principal output.
Two products of similar characteristics but produced by two different industries would be classified in the same CPC category.

List of categories of tourism characteristic consumption products and tourism characteristic activities

Products	Activities
1. Accommodation services for visitors	1. Accommodation for visitors
2. Food and beverage serving services	2. Food and beverage serving activities
3.Railway passenger transport services	3. Railway passenger transport
4. Road passenger transport services	4. Road passenger transport
5. Water passenger transport services	5. Water passenger transport
6. Air passenger transport services	6. Air passenger transport
7. Transport equipment rental services	7. Transport equipment rental
8. Travel agencies and other reservation services	8. Travel agencies and other reservation services activities
9. Cultural services	9. Cultural activities
10. Sports and recreational services	10. Sports and recreational activities
11. Country-specific tourism characteristic goods	11. Retail trade of country-specific tourism characteristic goods
12. Country-specific tourism characteristic services	12. Country-specific tourism characteristic activities

Tourism industries

A tourism industry represents the grouping of those establishments whose main activity is the same tourism characteristic activity. In supply side statistics, establishments are classified according to their main activity that is determined by the activity that generates the most value added.

“The “establishment” is defined operationally as “an enterprise or part of an enterprise that engages in one, or predominantly one, kind of economic activity at or from one location or within one geographical area, for which data are available or can meaningfully be compiled, that allows the calculation of the operating surplus”[16]

[16] SNA 1993

Special issues[17]

Full ownership

The ownership of a vacation home on own account is peculiar, from a statistical perspective, because it generates both a tourism characteristic service and an equivalent tourism consumption. In the SNA 1993, a housing service on own account is associated with the ownership of a dwelling occupied by its owner, both as a production activity and as the output and consumption of a specific service. This situation covers both the principal dwelling and all other dwellings owned by a household for its own use. It covers in particular owner-occupied vacation homes.

These global categories are already included in the tourism characteristic products and activities. Countries are encouraged to create a specific subcategory for owner-occupied secondary dwelling, both as a product and as an "industry" when the incidence of owner-occupied vacation homes is significant enough.

It must be observed that, as there is a production process associated with the ownership of a vacation home, all day-to-day running expenses similar to those currently accruing to the owner of properties rented short term should be considered as intermediate consumption of the activity, and thus are not part of tourism consumption.

Timeshares and other types of innovative vacation home ownership

Lastly, there has been a trend towards the development of innovative types of vacation home ownership or similar (as the outright ownership of a fixed asset is not always involved) that combine the privacy of an owned vacation home with the amenities, services and flexibility offered by collective accommodation as well as a reduction of costs for the "owner" over the periods in which he/she is not making use of the "property" for him/herself. In the original timeshare system, what was purchased was a "right to use" a given physical property at a specific moment in time over its lifetime.

The TSA is restricted to the description of production and transactions on goods and services, so the full complexity of the SNA and Balance of Payments analysis is not required and a homogeneous treatment can be proposed that is as follows:

- A flow of services is associated with each physical unit sold through a timeshare or other arrangement.
- The value of these services should be estimated on the basis of the market rent for an equivalent unit;

[17] 2008 Tourism Satellite Account: Recommended Methodological Framework (TSA: RMF 2008) Jointly presented by the United Nations Statistics Division (UNSD), the Statistical Office of the European Communities (EUROSTAT), the Organisation for Economic Co-operation and Development (OECD) and the World Tourism Organization (UNWTO)

- Day to day running expenses including property management services and other current payments such as property taxes should be assigned as costs to the productive activity associated with the use of the property. As a consequence, the payments for management would not be assigned to the visitor as consumer but to the owner of the property or of the "right to use" as intermediate consumption.

Travel agencies, tour operators and other providers of reservation services

The treatment of the reservation services provided by travel agencies, tour operators, and other providers should be equivalent, irrespective of how they generate their income. The total amount paid by visitors for services they intermediate will be split into two parts: one corresponding to the value of the travel agency (or reservation) service and; the other corresponding to the value of the intermediated tourism services.

In the case of package tours, three levels of services should be "unbundled": the services themselves, the services provided by the tour operator and the margin of the travel agency selling the tour.

This treatment will usually require the transformation of the basic statistical information obtained from the visitors, from travel agencies and tour operators and from the activities that use them to market their products in order to generate a data set that conforms to this perspective.

This treatment has important consequences for the precise content of domestic tourism consumption, inbound tourism consumption and outbound tourism consumption because the country of residence of the visitor, of the travel agency or provider of reservation services, of the tour operator and of the provider of the tourism service might differ.

3.1.3 Variables characterizing the tourism industries[18]

The SNA 1993 defines: Gross value added as the value of output less the value of intermediate consumption; Net value added as gross value added less consumption of fixed capital (that represents the corresponding decline in the value of the produced assets used in the production process).

Gross value added is a measurement that relates to a production process taken as a whole that is, a combination of inputs, capital goods, labor and technologyin order to obtain one or more outputs: it does not represent any combination of goods or services produced but is a measurement of the income generated in the process that remunerates the factors of production.

[18] 2008 Tourism Satellite Account: Recommended Methodological Framework (TSA: RMF 2008) Jointly presented by the United Nations Statistics Division (UNSD), the Statistical Office of the European Communities (EUROSTAT), the Organisation for Economic Co-operation and Development (OECD) and the World Tourism Organization (UNWTO)

Gross value added (GVA) of the tourism industries can be defined as the unduplicated (the difference between the value of output and the value of inputs) value of production, of goods and services purchased by tourists.
The TSA will also use another indicator of the link between the demand for goods and services by visitors (tourism consumption) and their supply by domestic producers, both tourism industries and non-tourism industries, that will be called Tourism Direct Gross Value Added (TDGVA).

Employment

Employment is an important variable in the economic analysis of productive activities. Tourism activities such as accommodation, food and beverage serving activities, recreation activities, etc. are relatively labor-intensive, often employ persons with low levels of qualification and they might be located in areas with little if any industrial development and concentration of productive activities.

Tourism employment is the sum of all employees contributing to tourism production. It consists of both fulltime and part-time employment and thus, is not calculated as full-time equivalents. Self-employed persons, employees and unpaid family workers comprise tourism employment.
As in the case of GDP, only direct employment is included as opposed to indirect and induced employment.

Tourism industries present additional peculiarities that have to be taken into consideration when employment is concerned. In many instances, the flow of visitors, particularly in the case of inbound tourism, is not evenly spread over the year. As a consequence, employment in these industries will fluctuate seasonally and often with a higher intensity than in other industries.

These characteristics underline the importance of measuring employment through a set of complementary indicators including the number of jobs, total hours worked and full-time equivalent jobs related to a predefined reference period (often a week) within the period of analysis (a month, a quarter, etc.). Complementarity and consistency among measures of compensation of employees and other measures of employment are also important considerations.

3.2 Reasons of having a regional TSA in a province

3.2.1 Tourism is unevenly "localized" in the national territory[19]

Now, it is neccesary to underline why a destination needs a TSA, taking into consideration the definitions and concepts that have been describe in the previous sectios.

Increasingly regional tourism authorities are interested in regional statistics and in some form of Tourism Satellite Account at regional level as a means of providing useful indicators for tourism enterprises and organizations in identifying possible business opportunities.[20]

Besides it exists different needs of regional tourism authorities:

- the need to highlight or emphasize the importance of specific features of regions as tourism destinations;
- the fact that characteristics and expenditure pattern of visitors going to a region can vary markedly across the regions
- the need to design policies to attract visitors and investments that are specific to regional objectives
- the need to adapt classifications of tourism characteristic products and of tourism industries by adding more details where relevant, while preserving the overall structure of the classification
- the need to be able to make comparisons of tourism, in terms of visitor numbers, characteristics and expenditure, across regions and between the regional and national levels.

The territorial localization of tourism is a necessity from regional and national perspectives, and consequently, the regional development of the Statisitics Tourism System of a country is obligatory. Its implementation will depend on the priority that is given to one of the following two approaches:

1. the interregional approach, which would be common to all the regions of the national territory and based on and intimately linked to the System of National Accounts. It is an approach that relies on the existence of a National TSA and the availability in each region of uniform tourism information for each of the tables and aggregates to be regionalized. Canada and Norway
2. the regional approach, which would entail the development of a specific TSA for any given region, in which specific and differential situations may also be identified for important subregional territories, provided there is sufficient information on them. Scotland, Wales and Andalusia

For either of these approaches, the first thing to note is that no conceptual framework exists at regional level equivalent to that of the System of National

[19] Adapting the national satellite account (TSA) project to sub-national levels, WTO, 2005.
[20] 2008 International Recommendations for Tourism Statistics (IRTS2008) United Nations of Statistical Comission and WTO.

Accounts: the SNA93 does not define a specific framework for regional accounting. When the national accounts speak of regional accounts, they refer to a table or set of aggregates but never to a set of associated accounts developed to a similar degree. This is due not only to observation difficulties, which are many owing to the non-existence of border controls in these territories, but also to the fact that many national accounting concepts are not directly applicable at sub-national level.

Only in the European System of Accounts has a simplified scheme of regional accounts, which owes its existence to the regional policy applied by the European Union for the distribution of structural and other funds

At present, for neither of the two approaches (interregional or strictly regional) nor for each and every region in most countries is it possible to make a strict identification of tourism activity in the terms of the scheme used in the design of the SNA93 and the TSA, whose formal representation is a body of interconnected accounts and accounting aggregates.

There are three main reasons for this:

- not all tourism variables are additive or easily transportable from the national environment to subnational level; the same applies to other variables, such as the export and import of goods and services;
- some activities cannot be regionalized (auxiliary activities of multiregional units and central government services related to tourism), and for others, such as the interregional transport of passengers and tour operator and travel agency services (more specifically, the disaggregation of the tourism package), measurement is even more complicated than at national level;
- the enormous amount of statistical information required because, there is free movement of people, goods, services, capital, etc., which means that no instruments are in place for monitoring flows to and from the region.

The greatest restrictions occur on the demand side, both because of the requirement to adapt the conceptual framework of the TSA (the definitions of such concepts as usual environment, residence, forms of tourism, trips and purpose of the trip are the most significant examples) and because of the complexity and cost of capturing the corresponding data.

Among statisticians and national accountants in particular, the first option (interregional) corresponds to what is known as the “top-down” approach, whereas the second (regional) is known as the “bottom-up” approach.

It should be noted that the top-down approach provides a set of regional estimates that sum to the national TSA totals and can be interpreted as shares of those totals and are comparable to one another, while the bottom-up approach is likely to produce a set of regional estimates that sum to greater than the national TSA totals and can only fairly be compared to one another.

3.2.2 Establishing a separate development framework for tourism statistics from regional perspective[21]

In order to build up their knowledge, Regional Tourism Administrations have specific needs in the areas of information (statistics and other data) and analysis. They will have to fill existing information gaps for the whole of the region and for any subregional territories they consider appropriate. For instance, it is probably not so important in an N-TSA to link tourist expenditure to purpose of visit, but it may be vital to do so at regional level because of the forms that local tourism takes.

Measures of various kinds may be taken to fill the information gaps, the following three being the most appropriate:

1. conducting supplementary surveys
2. using administrative data
3. applying modelling techniques.

Wherever there is appreciable tourism activity (in terms of hotel capacity, overnight stays, etc.) there should be surveys to supplement national surveys of households aimed at traveller (but also identifying the tourism group) which would serve to determine or specify traveller behaviour and obtain details of trips. These surveys must be run by a research/statistical agency with the relevant expertise, the methodology should be kept simple, the local tourism industry and authority must provide active support, and the survey should be designed in such a way it is consistent with the national surveys.

In regions where there is evidence of the importance of a specific accommodation segment (second homes for own tourism use and the letting of homes by residents are examples in many countries of direct competition with existing collective accommodation supply), it would be necessary to supplement the survey with other procedures for making a quantitaive assessment of the segment. It would also be advisable in such cases to carry out specific surveys to estimate the expenditure on maintenance and the rental paid.

Tourism employment is characterized by its considerable diversity, in terms of both the skills and training needed and the hours worked. The occupational profile of the tourism industries reveals a higher proportion of part-time, casual and seasonal jobs, greater female participation than in the overall labour force and a substantial number of young people. In many regions, however, some industries are more labour-intensive and less capital-intensive than at national level. It would therefore be highly desireble to identify the occupations and skills in those tourism industries at regional level with a view to devising suitable training policies.

[21] Adapting the national satellite account (TSA) project to sub-national levels, WTO, 2005.

3.2.3 Assessing the degree of national/regional linkage in the System of Tourism Statistics (STS)[22]

One of the project´s initiaves is to ascertain exactly what regional information exists (i.e. statistics and administrative records from national and regional sources), which would preclude some of the problems that might arise in certain Regional Tourism Statistics, for instance:

- Lack of knowledge of exactly what statistics are available, where to obtain them or how to access them. As mentioned, it is absolutely essential to have a minimum amount of information to be able to assess tourism´s contribution to the economy, especially from the demand side; otherwise, most of the information would be mere estimations
- Inefficient use of resources, especially in regions where they are particularly scarce. It is not unknown for Regional Tourism Administrations (RTAs) not to have even the minimum resources needed to recruit staff with the appropriate knowledge and skills for analysing and interpreting the data currently available
- Inconsistency of data collection over time and between geographical areas. Statistics need to be produced on the basis of classifications that are consistent over time and from area to area: this is especially important if data sources are restricted, in which case the maximum benefit may be gained by integrating two or more data sources to generate a derived set of statistics.

This analysis should serve to build up a kind of checklist of basic variables and indicators according to the various territorial levels (national, regional, subregional and municipal) and the corresponding statistical or administrative unit responsible for their production.

For any given region, therefore, there are three subsets of visitors:

1. foreign nationals not resident in the national territory
2. nationals resident in another part of the national territory
3. residents in the region of reference

It must be pointed out that the identification of the new statistical unit **"domestic visitor from elsewhere in the national territory"** raises the problem of access to possible sources of statistical information, as well as questions about the reliability of the data sought. For this reason it will be necessary to develop a set of regional indicators that will serve to estimate these flows as an appropiate step in the developing the base series for inclusion in an R-TSA.

Household surveys are the preferred source for this type of information, but it is essential to ensure that the survey design and sample size are fit for this purpose.

[22] Adapting the national satellite account (TSA) project to sub-national levels, WTO, 2005.

The data gathered, as well as the corresponding estimate of overnight stays, should be checked against data obtained from accommodation surveys and from other administrative records available from either traffic management bodies, motorway concession holders or even credit and debit cards. This internal reconciliation between sources is crucial for ensuring the reliability of the source data that will be used for the future regional tourism account.

This kind of check is known as cross-comparison/validation of data and is new to most of the professional working in RTAs. Be that as it may, this practice will be a fundamental element of the new culture of interagency cooperation.

Many of the regional initiatives mentioned earlier help to strengthen the STS and may also be useful for enhacing the credibility and analytical capacity of the N-TSA. It would also be desirable for an R-TSA initiative in various regions of the same country to be perceived as an opportunity for advancing the harmonization and coordination of existing measures.
The fact that some regions are able to measure components of tourism demand not normally included in N-TSA exercises (such as collective tourism consumption and tourism gross fixed capital formation) may prove to be valuable experience.

3.2.4 Regionalizing the National TSA (TSA-R)[23]

For the "top-down" TSA-R approach to be feasible in a country with an N-TSA, it is essential to have acces to a set of homogeneous tourism-related regional indicators so that the national aggregates may be regionalized.
The fact that a country does not have Regional Economic Accounts is no impediment to regionalizing the N-TSA on the basis of those indicators. It would, however, be wise to qualify the estimation as experimental and to spell out the most significant limitations of the exercise. A consequence of this exercise will surely be that regions with appreciable tourism activity will be encouraged to consider the desirability of promoting an R-TSA project.
The most important contribution of this exercise is that it allows for interregional comparability, taking as a basis all or some of the aggregates of the N-TSA. If the General Statistical System permits, and depending on the extent of its national/regional linkage, some or all of the N-TSA tables may also be regionalized. Ideally, regionalization should be approached as a project that in itself defines and promotes a strong linkage within the System of Tourism Statistics.
To ensure that it has the desired legitimacy, the N-TSA should be regionalized by the same technical unit that prepared the N-TSA
For its part, the credibility of the results of an exercise of this kind depends on the fulfilment of two requirements:

1. the nationally constructed business and consumption surveys are based on full regional stratification samples; and
2. the indicators and statistics used are representative of each of the regions.

[23] Adapting the national satellite account (TSA) project to sub-national levels, WTO, 2005.

However, because of the very nature of tourism and its relation with the territory, the existence of homogeneous indicators cannot always be guaranteed in advance.

3.2.5 Developing a Regional TSA (R-TSA)[24]

The cost of developing an R-TSA is high, owing to the necessity of filling many and diverse information gaps, and it therefore only makes sense to attempt it in a region where tourism makes an appreciable contribution to the economy and there is a regional administration with the capacity and resolve to devise regional economic strategies that would justify the outlay and effort.

The RTA should take a leadership role in formulating a project that would include the following lines of action:

- setting up an interagency cooperation network at local level and with the NTA
- determining what statistical infraestrucuture is already in place
- assessing the degree of national/regional linkage of the TSA
- building a specific development framework for tourism statistics
- promoting the economic analysis of tourism from the regional perspective

It is too often assumed that an R-TSA is an instrument that an RTA needs for carrying out a specific type of analysis or for addressing certain management concerns. It is however possible that these purposes would be served by simply setting up a specific statistical operation that would not entail the enormous cost of developing an R-TSA. In any event, it is perhaps fair to say that the process of building a R-TSA is more important than the output itself, since it becomes a "means for effectively accounting for tourism and enabling improved modelling downstream". Moreover, an R-TSA will help countries to determine the kind of regional administration that should be set up and the regional tourism brands that may be established. There is no doubt that the process of developing an R-TSA is at a very early stage: there is in fact little experience in this field, and for that reason it is easier to make mistakes.

Setting up an interagency cooperation network at local level with National Tourism Administration. Besides the RTA, the participants will be: Regional Statistics Institute (where it exists), tourism industries representatives, universities and regional economic research centres and advisability should be whether to invite or not other partners from national level and from other regions to participate as well.

[24] Adapting the national satellite account (TSA) project to sub-national levels, WTO, 2005.

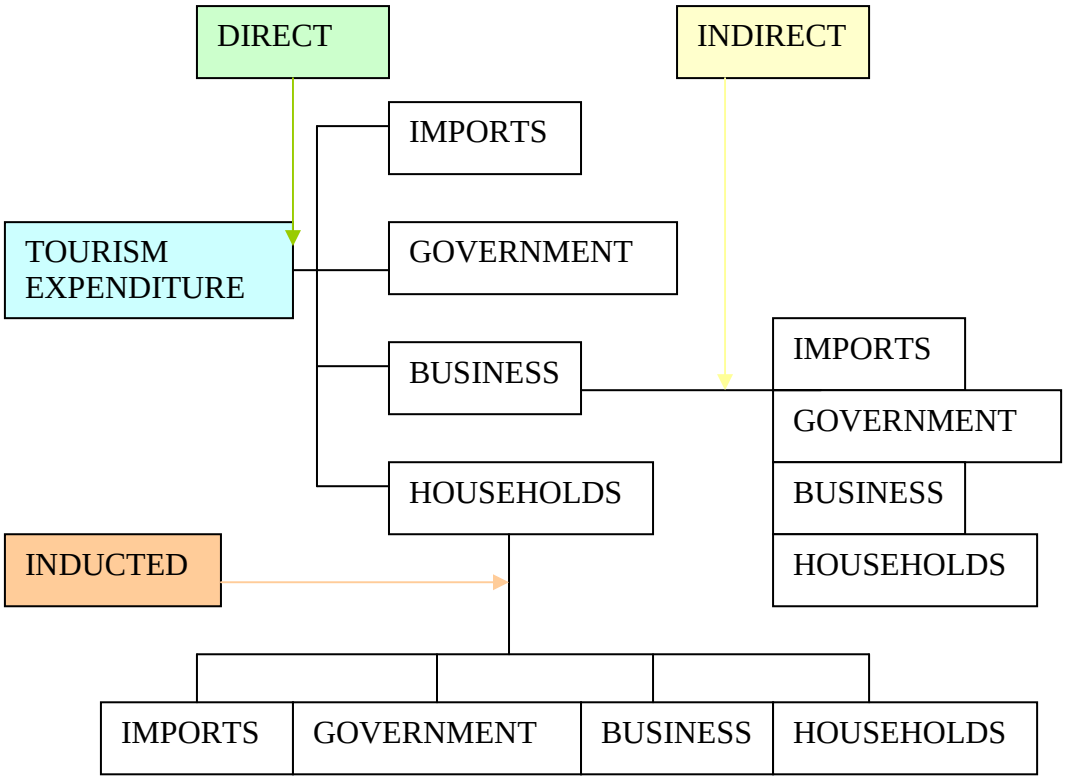
3.3 Promoting tourism economic analysis from regional perspective

One such aspect is that in order to measure tourism economic contribution, it is not enough to record the direct effects (TSA).
Instruments of another kind are also needed to measure other effects (the so-called indirect and induced effects).
More specifically, because input-output analysis is predominant in the case of tourism, both input-output impact models and computable general equilibrium models are especially suitable for impact analysis.

The impacts of tourism expenditure are generally considered under three heading:

1. Direct effects
2. Indirect effects
3. Induced effects

Tourism direct effects arise from tourists expenditure, which inmediately generates income for business and households, employment and revenue from taxation.
Indirect effects arise as initial income received by households, goverment and local business is re-spent on activities necessary to provide the products and services purchased by tourists. This is sometimes referred to as upstream expenditure.
In addition, some of the income received by goverments, households and business will be re-spent “downstream” on consumption goods and services unrelated to the supply of tourism products.

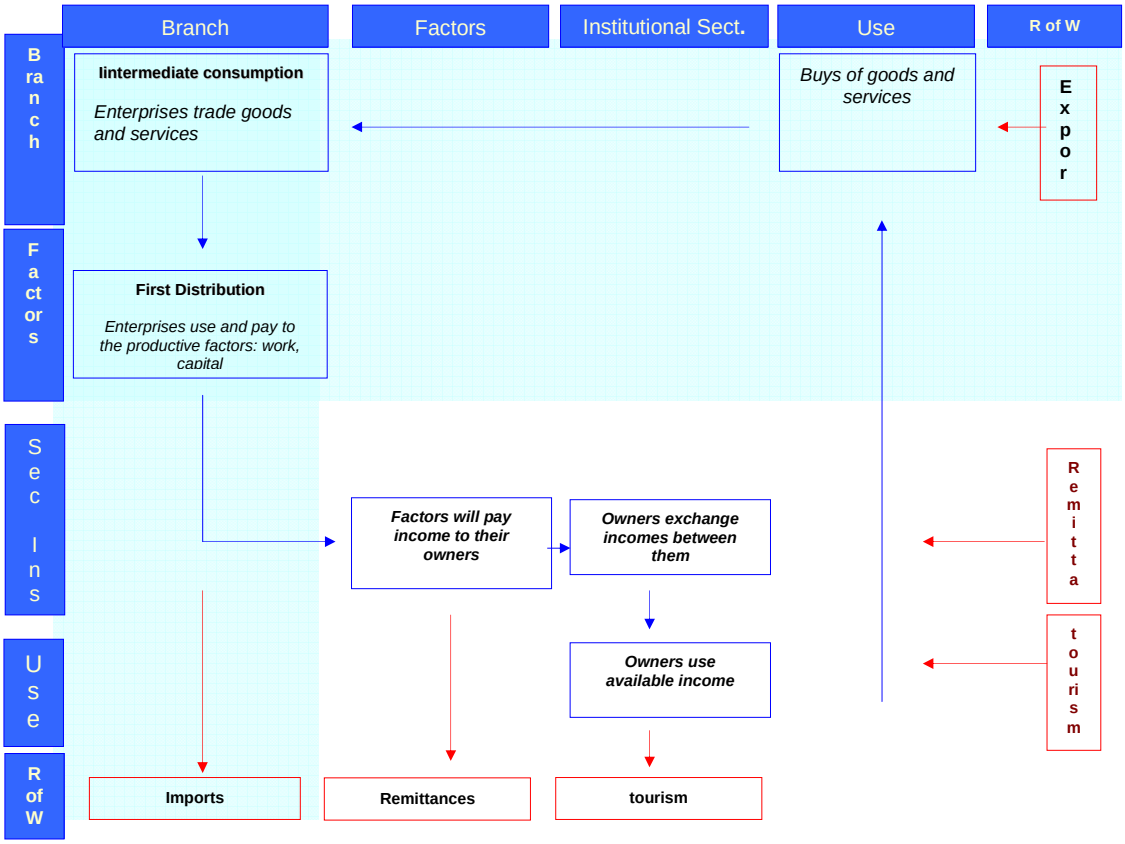


Initial tourism expenditure can have significant additional effects throughout the rest of the economy, resulting in increased income and expenditure by a range of different groups, many of them are not directly connected with tourism.

This process of spending and re-spending is commonly described as the multiplier effect. The term multiplier is used to describe the final change in output in an economy relative to the initial change in tourist expenditure and is central to any measure of the economic impact of tourism.

3.4 Procedure to obtain Input-Output tables at regional levels[25]

Economic activity can be described by the following matrix, that shows the flows of an economic system:



The first block shows goods and services trade that take place between companies. This block is a square matrix containing the line for selling goods and services sectors and branches column who buy them.
The second block is the return to inputs made by various sectors for services rendered. The amount is the value added which is then divided into income from employment and self employment, capital interest, profits and taxes on business (that is the primary distribution).

[25] COSTRUZIONE DELLA MATRICE INPUT-OUTPUT DELLA PROVINCIA AUTONOMA DI Bolzano - Rapporto preliminare – IRPET: Instituto Regionale Programmazione Economica Toscana.

These aggregates are then assigned to institutional factors of economic system (secondary distribution): the compensation of employees generally belong to families, interest and profits are allocated in part to families and partly for business and public administration, indirect taxes vested in the government. Once the institutional factors have received their share of value added will be possible to estimate the redistribution process between the same sectors.

Cross-table or symmetric input-output table records production flows, primary income generation and final demand (blocks indicated by blue box). Its structure can vary according to the degree of information available and the type of flows that will describe.

The subtree extracted from the matrix below can be used as a basis for Province flows specification in Table I - O.

Symmetric Matrix input output

	1-30	31	32	33	34	35	36	37	38
1-30	Matrix of intermediate trade (TX)	households consumption (Cres)	tourists consumption (Ctur)	Gov Consumption	Consumption Priv.Soc. Inst. (GISP)	Investment (IFL)	and stocks var obj val (SDC)	exports interreg (ER)	export abroad (EW)
31	value added (Y)								
32	net taxes (INX)	Imp Net consumption families (INCres)	imp net consumption tourists (INCtur)			imp net investment (INIFL)	imp net vs ogg and val (INDSC)	imp reg net exports (INER)	imp net exports east (INEW)
33	interreg imports (MR)								
34	Foreign Imports (MW)								

The matrix columns refer to institutions who buy goods and services in a certain year, particularly in the first column shows thirty businesses in a place classified by homogeneous branches.

The submatrix formed by the first thirty rows and columns represent first thirty intermediate trade, the generic cell (i, j) of this submatrix indicates purchases of intermediate goods and services sector j-th from ith sector.

Column sum of this matrix indicates for each industry the intermediate cost branch, the line indicates the sum of branch intermediate demand.

Value added at basic prices (line 31) for each sector represents primary remuneration. The sum of a column j of the matrix of intermediate trade and the corresponding element of the vector of value added at basic prices represents production of j-th sector.

Columns from 31 to 38 show the final consumption expenditure incurred within the territory by households (with 31), tourists (with 32), government (with 33) and private social institutions (with 34), from companies capital goods purchase (with 35), changes in inventories by businesses (with 36) and by others outside the province and the rest of Italy (with 37) and the world (with 38).

At line 32 shows the net indirect taxes on products, pay by firms for intermediate costs (columns 1 to 30), families and tourists on their own consumption (columns 31 and 32), by companies on capital goods (column 34), on changes in stocks (column 35) and on regional and international exports (columns 36 and 37).

At line 33 shows goods and services imports of 30 manufacturing industries from Italian regions, and line 34 shows goods and services imports from abroad.

Accounting matrix structure is the following

$$(TX \cdot i) + Cres + Ctur + G + Gisp + IFL + DSC + ER + EW \equiv (i' \cdot TX) + Y + INX + MR + MW$$

Where:
TX =Iintermediate Trade Matrix
Cres = Households Final Consumption
Ctur = Tourists Final Consumption
G = Goverment Final Consumption
Gisp = Private Social Institutions Consumption
IFL = Investment
DSC = Stocks Changes Value
ER =Interregional exports
EW = Foreign exports
Y = Value Added
INX = NetTaxes
MR =Interregional imports
MW = Foreign imports

The balance

The procedures leading to final construction of input-output tables are divided according to the following phases:

1. It identifies the constraints and specifications of the accounting system identities to be balanced.

2. Through the statistical information available and suitable assumptions to estimate initial values of I-O table.

3. It assigns initial values to each index, more reliable and lower by means of objective and subjective evaluation.

Initial values organized according to the accounting structure will apply the balancing procedure Stone, Champernowne and Meade (SCM) which will change to meet the constraints and accounting identities. The adjustment values will be more pronounced because of lower reliability.

Balancing method

The SCM system can be described as follows.
Given a system of equations accounting it admits a matrix representation MC of size nxn (where n means the identity of the system), containing the initial values of submatrices that form the input-output tables and an array of reliability R (the same MC size) that includes the reliability coefficients (proxy coefficients of variation) of each data.

Denote then

- t(0) a column vector of dimension n^2x1 obtained by MC vectorized

- G matrix of size nxn^2 (multiplied by t(0)) should be constructed to enforce budget constraints (constraints of coherence and economic accounting identity)

- V square matrix of size n^2xn^2 containing the Var-Cov related (ie variances unless a scale factor), values of t(0) vector obtained from the reliability matrix R, having its vectorized and have it multiplied by t (0) values and each result has a high squared

- t(1) vector modified to meet the constraints imposed by G

Given these factors, the balance consist to solve the following problem of minimum

$$\begin{cases} \min Z = \frac{1}{2}\left(t(0)-t(1)\right)^{t} V^{-1}\left(t(0)-t(1)\right) \\ s.t. \quad Gt(1)=0 \end{cases}$$

The solution of this problem is:

$$\begin{cases} t(1) = t(0) - VG^{t}\lambda \\ \lambda = \left[GVG^{t}\right]^{-1} Gt(0) \end{cases}$$

Where λ is Lagrange multipliers vector. This solution could be obtained algebraically, but by the size and sparseness of G and V matrices is preferred to use the numerical method based on gradients conjugate.

Accounting identities system to balance

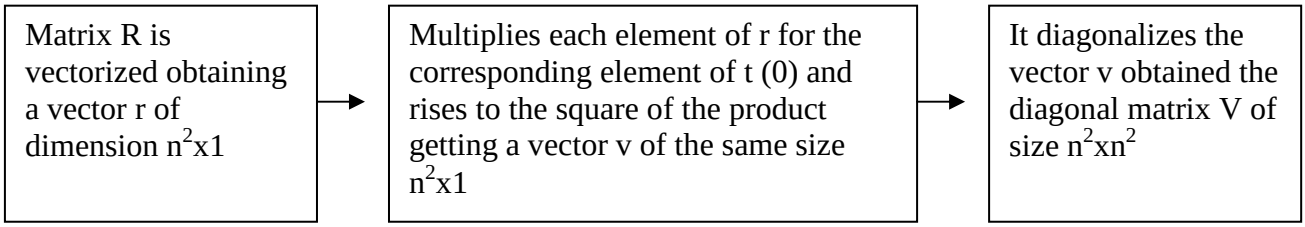
Given the constraints and available information it is possible to specify the following accounting identities system to be starting with the balance

$$(TX \cdot i) + Cres + CTur + G + Gisp + IFL + DSC + ER + EW \equiv (i' \cdot TX) + Y + INX + MR + MW$$
$$(i' \cdot Cres) + INCres + (i' \cdot Ctur) + INCTur \equiv T\_C$$
$$(i' \cdot IFL) + INIFL \equiv T\_IFL$$
$$(i' \cdot G) \equiv T\_G$$
$$(i' \cdot Gisp) \equiv T\_Gisp$$
$$(i' \cdot DSC) + INDSC \equiv T\_DSC$$
$$(MW + MR) - (ER + EW + INEW) \equiv NET$$
$$INX + INCres + INCtur + INIFL + INDSC + INER + INEW \equiv IN$$
$$Y \cdot \Theta = Yistat$$
$$(i' \cdot TX) = Cost$$

where:
i = column vector of the appropriate unit size
T_ prefix = aggregate present in the provincial economic accounts
NET = total net Imports
IN = Total net taxes
Yistat = Value added at basic prices at 23 branches
Θ = Matrix of aggregation from 30 to 23 branches; Cost = Cost of intermediate survey

The reliability and determination of variances and covariances

Knowledge about V matrix is essential to perform the balancing. This matrix is obtained by algebraic transformation of the reliability matrix R, generic element r_{ij} take values inversely proportional to the degree of reliability, then in presence of reliability is assume that element is 0. Through operations summarized in the following steps, can switch between the matrix R to V:



Whereas the initial values contained in t (0) as an average estimation, matrix R and vector r can be interpret as the corresponding variation coefficients matrix. This link between R and V simplify the interpretation of reliability as an array of variation coefficients matrix, the other requires that the Var-Cov matrix V is necessarily diagonal, a hypothesis that is true only if the cells of MC are estimated independently of each other.

Another important consideration is that the procedure takes for granted knowledge of V (or equivalently R). This is a critical point because much statistical information used in the estimation of initial values (contained in t (0)) is not possible to assess the variability of the values themselves: only in the case of sample surveys exists procedures for estimating the data variance or the corresponding coefficient of variation.

Several options are suggested in the literature to solve this problem: solutions ranging from completely subjective approaches to other more technical. Generally in the first example creates an ordinal trial scale (expressed on the basis of the information required for producers of data) that may be associated with a range of error, Stone (1990) and also Byron et al (1995) have followed this procedure associating each failure mode a coefficient of variation. A more objective method is used in Van der Ploeg (1982) and also in Braker, Van der Ploeg and Weale (1984) that directly estimate the variance of the sub generic: this formulation is used to determine the variances of the flows for sub-blocks for which not known or there is few information on the reliability coefficients.

Subsequent articles (Weale 1988) have shown how one can get an estimate of Var-Cov matrix without knowing the reliability of the data in a dynamic system of accounts based in the presence of mean and variance stationarity of standard desviation aggregate over time.

3.5 Regional TSA considerations

To sum up, all the above shows that there are many problems to elaborate a Regional TSA.
Principally because it does not exist an especific methodological framework for subnational levels comparable with the SNA, another trouble is poor regional statistics information of quality and different caractheristics of tourism supply and demand for each region.

The fundamental principles to all Regional TSA are:

- Measure tourism effects and only tourism effects
- Use information from the account instead of estimations based on models.
- Integreate at least ten industries and characteristic products of tourism
- Produce estimations of some macroeconomics aggregates at sub-national levels: domestic tourism expenditure, domestic tourism consumption, regional tourism GDP and tourism industries employment.

At subnational levels the number of tables can be reduced from ten to five to evaluate the economic contribution of visitors on a region:

Tabla 4: Internal tourism consumption
Tabla 5: Production Accounts of tourism industries and others
Tabla 6: Domestic supply and internal tourism consumption
Tabla 7: Empoyment at tourism industries
Tabla 10: No monetary indicators

The Regional TSA must reflect the result for national TSA and reforce the relationship within the Statistics Tourism System, that can improve the general results.

It is neccesary to establish an interagency cooperation network, incluiding National Tourism Administrations to obtain and mantained better results.

With TSA only direct effect is mesure, but indirect and inducted effect should be taken into consideration to know the real impact of this activity in the economy of study, so, researches focused at this point must be promote from tourism institutions: private and public ones.

Finally, it is necessary to estimate the regional input – output table for which a hybrid method must be used, including: sample information, data from similar regions and administratives registry. The critical point is to obtain reliability and quality data.

4. Hypothesis, Empiric Strategie and Expected results

4.1 Hypothesis

In the theoretical framework were analized: the needs of data, the importance of the relation within the regional and national Statistics Tourism System, the absence of a framework to build up a regional TSA, besides, it was sumarized countries that have this statistical tool and the differents ways to obtain it.

To answer the present research initial question, the following hypothesis are established:

1. Uruguay needs to improve its Tourism Statistics Systems at regional level, especially in these places where tourism is an important economic activity.

2. In Uruguay it is possible to work in the implementation of R-TSA, learning of the experiencie of other countries, to know tourism economic contribution to specific regions.

4.2 Empiric Strategy

4.2.1 Methodology and techniques:

The methodology used includes:

1. Review of the literature on recommended techniques for regional tourism statistics compilation and other countries experiencies.

2. Conduct an internship in the Provincial Statistics Institute of Bolzano (ASTAT), under the technical supervision of the International Tourism Economic Research Center (CISET) of Venice University. During this period Bolzano R-TSA four first tables were completed for 2008, according to the work done by ASTAT for 2005 and taking into account the international recommended methodology.

3. Analyze the methodology used to complete Bolzano's Input Output Table for 2005

4. Compare existing data sources in Bolzano and Maldonado, as one of the provinces concerned in implementing a R-TSA in Uruguay.

4.2.2 Information sources

Datas sources

Information sources used to complete Bolzano R-TSA tables:

- Bolzano tourism expenditure 2007/2008
- Bolzano travel and holidays 2008
- Bolzano TIO 2005

For Uruguay, were analyzed available information sources that basically are elaborated by:

- Uruguay Central Bank
- National Statistics Institute
- Planning and Budget Office
- National Tourism Administration

4.3 Expected results

- Elaborate the Bolzano R-TSA for 2008 based on available data (tourism expenditure 2007/2008, travel and holidays 2008, TIO 2005) analizing the present procedure. Complete the first six tables and estimate the main tourism macroeconomic aggregates in this province.

- Learn about the main difficulties in the account implementation, basically about regional Input – Output Table building.

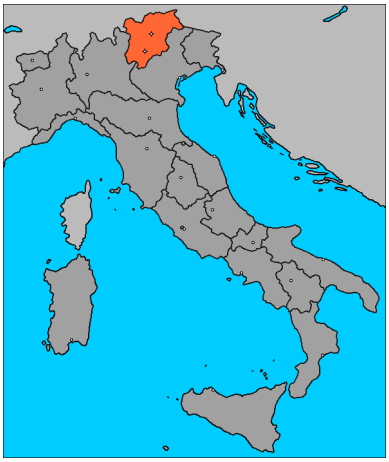
- Know the possibilities of R-TSA implementing in Uruguay.

5. Bolzano experience

5.1 Bolzano: an Italian province

The Autonomous Bolzano Province - Alto Adigio, (in german: Autonome Provinz Bozen - Südtirol) is known as Alto Adigio or South Tirol. Is a province of Trentino-Alto Adigio region and Bolzano is the regional capital. Majority of the population speak german and less than third part has Italian as their mother tongue.

As the following maps show the province limits in the north and east with Austria states: Tirol and Salzburgo, in the west with Suiza, in the southeast with Belluno province (Véneto), in the south with the Autonomous Province of Trento and in the southwest with Sondrio province (Lombardía).



Bolzano has 116 municipalities, which are concentreted in 8 districitis.

5.2 Bolzano Regional Tourism Satellite Account

5.2.1 Intership results

The work done to obtain data for Bolzano TSA 2008 exercise, followed the same procedure for 2005, taken into account last World Tourism Organization statistics recommendations.

For 2005, tourism statistics show that more than 10 thousand accommodation facilities on the territory of South Tyrol, with an offer of almost 215.000 beds, have hosted nearly 5 million tourists (arrivals tourism). Number of nigths spend were above 26 million, which is a considerably result compared with the number of residents in the province below 500.000.

ASTAT recognized the importance of TSA implementation for South Tyrol and done this work with the collaboration and methodological support of the National Statistics Institute (ISTAT), International Tourism Economic Research Center (CISET) and Toscana Regional Economics Institute (IRPET) pursued the ambitious goal of building R-TSA first six tables.

R-TSA elaboration has followed an approach “Bottom-up”, building on regional data base.

The statistics tourism system has two limitations:

1. It does not consider all types of tourism, excursionist and tourists who do not stay in formal structure accommodation, such as, second homes and friends and family lodgings.
2. It does not get monetary values and therefore tourism consumption and tourism economic impact can not be determined.

The standard output of TSA, as it was mentioned in the theoretical framework, provides the implementation of ten tables. In this first exercise was decided to build up only the first six tables. First four tables show the tourist consumption by kind of Tourism

- Inbound tourism - Table 1
- Domestic tourism - Table 2
- Outbound tourism - Table 3
- Internal tourism - Table 4

Table 5 presents South Tyrol production of characteristics tourism branches and connected and non-specific ones.
The main data, of Table 4, which reproduces tourism demand, and Table 5, containing the supply, are included in Table 6 that represents the essence of the TSA.

Table 6 allows the comparison of tourism value added of (VAT), gross domestic product (GDP), and its components.

Bolzano TSA has followed a step by step approach, so the analysis of data sources has been one of most important stage to ensure the quality of the existing data, the second phase was to conduct ad hoc surveys in order to compensate the lack of some essential data, and finally the tables were compilated.

5.2.1.1 Data sources to tables 1 to 3

At national level the main sources of information on tourism statistics used in this project were:

1. ISTAT monthly survey on movement of clients in accommodation facilities (Hereafter referred "ISTAT-offer")

2. ISTAT quarterly sample survey on Italians Travel holiday (“ISTAT-Demand ")

3. Ufficio Italiano dei Cambi monthly sample survey on Italy international tourism (UIC-Demand)

4. ASTAT ad hoc survey on the expenditure at tourist resort accommodations (Astat-Expenditure).

Last survey mentioned, was necessary to have monetary data, undetected by ISTAT-offer survey.

Besides, it was necessary to aggregate these sources of information to have comparable categories in terms of accommodation, because they consider different categories, in particular there are discrepancies between the investigations carried out on the supply side than those at the demand side.

Why ASTAT decided to work with this sources? The following table show the carachteristics from each one.

	ASTAT supply	ASTAT demand	ISTAT demand	BI
	Visitors in hotels		Visitors residents in Italy	Border Visitors
Hotels				
Second homes				
Excursionist				
Universe	*	*		
Statistical sample			*	*
Quality for Bolzano	+		=	-
Reasons	No	No	Yes	Yes
Type of interview	Table	Table	Calls	Questionarie in border

Some characteristics of data sources:

(1) ASTAT/ISTAT SUPPLY: considers every hotel and similar from Bolzano

(2) ISTAT DEMAND: is a sample survey to Italian by telephone

(3) BI (Italy Banc): is a survey to south tirol and foreing people when they come back to their homes.

At regional level, for inbound tourism, is necessary to consider not only ibound tourism at national level but domestic tourism at national level that is inbound tourism to the region.
So, inbound tourism at regional level is: part of inbound tourism for Italy that visits Bolzano plus part of domestic tourism from the rest of Italty that visits Bolzano.

The same difficulties appear when Bolzano outbound and domestic tourism are considered, so in this exercise, are only taken into account foreing visitors and those from the rest of Italy.

It should be stressed the limited statistical information about excusionist visitors. In many cases it was necessary to refer to data statistically "insignificant" and in other cases it was necessary to do approximations and estimations based on comparable data.

For R-TSA exercise done during the internship in ASTAT for 2008, the available data was:

1. ASTAT supply for 2008
2. BI (Balance of Payment) for 2008
3. ISTAT demand and supply for 2005
4. TIO 2005

ASTAT supply[26]

With ASTAT supply, arrivals and overnights were estimated, desagregated in the following categories:

1. Esercizi alberghieri,
2. Campeggi e strutture similari,
3. Altri alloggi collettivi,
4. Alloggi in affitto e privati

The data is available for three tourism categories:

1. Inbound tourism: foreign and Italian (without Bolzano) visitors
2. Outbound tourism: foreign and Italian (without Bolzano) visitors and
3. Domestic tourism: people from Bolzano visiting Bolzano.

For 2008 the principal results obtained for Bolzano shows:

- 5.408.777 visitors
- 27.721.289 overnights
- 219.047 beds

The three variables analyzed increased their values in comparison with 2005. It is important to remark that during 2008 Europe had negative effects of the world economics crisis.

Visitatori

To complete visitatori chart was neccesary to use data from ASTAT-supply. Then ISTAT-supply, ISTAT-demand and BI were used to estimate all tourism categories for this region.

It is important to consider the work done by ASTAT team, comparing results using different data sources, analyzing different scenaries (Appendix 2) to choose the best combination.

[26] Appendix 1

Information sources used for R-TSA exercise were carefully studied by ASTAT staff, considering different escenaries according to differents tourism categories (inbound, domestic and outbound), types of variables (non-monetary and monetary) and the operation kind.
When it was possible to choose data source has followed the principle of majority representation and coherence.

From visitatori chart was possible to have non-monetary data to complete R-TSA first three tables, as is shown in the next chart.

	VISITORS PER MOTIVI PERSONALI				
TSA TABLES	**Escurs_Italy**	**Escurs_Foreign**	**Turist_Italy**	**Turist_Foreign**	**Total**
1	*Inbound tourism*				
- number of trips	672.266	1.174.956	2.102.679	2.889.320	6.839.221
- number of overnight	0	0	9.194.312	16.616.159	25.810.471
2	*Domestic tourism*				
- number of trips	325.598		126.133		451.731
- number of overnight	0		702.198		702.198
3	*Outbound tourism*				
- number of trips	266.747	2.204.356	469.539	176.373	3.117.014
- number of overnight	0		2.472.299	1.739.577	4.211.876
	LABOR VISITORS				
TSA TABLES	**Escurs_Italy**	**Escurs_Foreign**	**Turist_Italy**	**Turist_Foreign**	**Total**
1	*Inbound tourism*				
- number of trips	0	319.349	173.693	782.079	1.275.121
- number of overnight	0	0	1.248.366	5.167.033	6.415.399
2	*Domestic tourism*				
- number of trips	0		37.016		37.016
- number of overnight	0		120.772		120.772
3	*Outbound tourism*				
- number of trips	0	149.245	98.305	37.099	284.649
- number of overnight	0	0	185.860	93.265	279.125
	TOTAL VISITORS				
TAVOLE CST	**Escurs_Italy**	**Escurs_Foreign**	**Turist_Italy**	**Turist_Foreign**	**Total**
1	*Inbound tourism*				
- number of trips	672.266	1.494.305	2.276.372	3.671.399	8.114.342
- number of overnight	0	0	10.442.678	21.783.192	32.225.870
2	*Domestic tourism*				
- number of trips	325.598	0	163.149	0	488.747
- number of overnight	0	0	822.970	0	822.970
3	*Outbound tourism*				
- number of trips	266.747	2.353.600	567.844	213.472	3.401.663
- number of overnight	0	0	2.658.159	1.832.842	4.491.001

ASTAT demand

Regional spend was estimated by ASTAT for 2005 and in 2008 ASTAT done some changes to the questionarie, specially to improve the desagregation of total spend.

To compare 2008 data was necessary to mantain the structure of TSA 2005, in particulary for goods, some services and internal transport spend.
From this data was possible to obtain total spend and the mean spend for the different tourism categories (domestic, foreign and Italy inbound). Total spend estimated by ASTAT and by BI were desagregated in the ítems needed by TSA

Finally, **domestic tourism spend** was calculated with ASTAT-demand, **foreign inbound spend** with BI-demand and **Italian inbound spend** with ISTAT-demand.

These data sources allowed to complete tables 1 to 3, that refer to visitors spend in the region during their visit.

But, as it was mentioned in the theoretical framework, TSA looks not only the tourism spend but the tourism consumption, so it was calculated to complete table 4.

Table 4 show an aggregate called "internal consumption tourism". To have these data social transfers in kind should be added (Social security benefits, social assistance, others not market services), which are unavailable in this study.

Travel for business is consider intermediate consumption, so was deduced from ISTAT-demand and BI-demand.

Otherwise, because of the relevance from second homes to Bolzano, ASTAT has been conducted a survey on tourism second homes[27], and in combination with data from ISTAT survey on residents household consumption has led to calculate second homes imputed rents.

5.2.1.2 Tables 1 to 4

With data sources mentioned and analyzed in this section was possible to complete tables 1 to 4 of Regional – Tourism Satellite Account for Bolzano, that show tourism consumption. The results are in the following tables.

[27] Appendix 4

Table 1

Inbound tourism consumption, by products and categories of visitors
(visitors final consumption expenditure in cash)
(Net valuation)

PRODUCT	Same-day visitors		
	Italy (1.1a)	Foreign (1.1b)	Total (1.1)=(1.1a)+(1.1b)
A. Specific products	**22,54**	**93,62**	**116,16**
A.1 Characteristic products (a)	**13,15**	**19,35**	**32,50**
1 – Accomodation services	**-**	**-**	**-**
1.1 – Hotels and other lodging services	-	-	-
1.2 – Second homes services on own account or for free	-	-	-
2 – Food and beverage serving services	**8,46**	**16,22**	**24,68**
3 – Passenger transport services	**3,12**	**2,12**	**5,24**
3.1 Interurban railway	2,84	1,93	4,77
3.2 Road			
3.3 Water			
3.4 Air			
3.5 Supporting services	0,22	0,15	0,37
3.6 Transport equipment rental	0,03	0,02	0,05
3.7 Maintenance and repair services	0,03	0,02	0,05
4 – Travel agency, tour operator and tourist guide services	**0,03**	**0,25**	**0,29**
4.1 Travel agency (1)			
4.2 Tour operator (2)			
4.3 Tourist information and tourist guide			
5 – Cultural services (3)	**0,17**	**0,25**	**0,43**
5.1 Performing arts			
5.2 Museum and other cultural services			
6 – Recreation and other entertainment services (3)	**1,33**	**0,25**	**1,59**
6.1 Sports and recreational sport services	1,30	0,25	1,55
6.2 Other amussement and recreational services	0,03	0,01	0,04
7 – Miscellaneous tourism services	**0,03**	**0,25**	**0,29**
7.1 Financial and insurance services			
7.2 Other good rental services			
7.3 Other tourism services			
A.2 Connected products	**9,40**	**74,27**	**83,66**
distribution margins	-	-	-
goods	9,29	73,39	82,67
services	0,11	0,88	0,99
B. Non specific products	**1,17**	**9,23**	**10,39**
distribution margins	-	-	-
goods	1,06	8,35	9,40
services	0,11	0,88	0,99
TOTALE	**23,71**	**52,70**	**76,41**
number of trips (1.000)	672	1.494	2.167
personal motivs	672	1.175	1.847
number of overnights (1.000)	-	-	-
personal motivs	-	-	-

Table 1

Inbound tourism consumption, by products and categories of visitors
(visitors final consumption expenditure in cash)
(Net valuation)

Tourists			Total visitors		
Italy (1.2a)	Foreign (1.2b)	Total (1.2)=(1.2a)+(1.2b)	Italy (1.3a)=(1.1a)+(1.2a)	Foreign (1.3b)=(1.1b)+(1.2b)	Total (1.3)=(1.1)+(1.2)
1.179,01	**2.108,11**	**3.287,12**	**1.201,56**	**2.201,73**	**3.403,29**
917,61	**1.657,36**	**2.574,97**	**930,76**	**1.676,71**	**2.607,47**
577,28	**1.000,15**	**1.577,43**	**577,28**	**1.000,15**	**1.577,43**
577,28	1.000,15	1.577,43	577,28	1.000,15	1.577,43
-	-	-	-	-	-
210,07	**435,39**	**645,46**	**218,52**	**451,62**	**670,14**
95,21	**141,20**	**236,41**	**98,33**	**143,32**	**241,65**
87,76	127,51	215,26	90,60	129,44	220,03
5,89	10,69	16,58	6,11	10,84	16,95
0,77	1,39	2,16	0,79	1,41	2,20
0,81	1,61	2,41	0,84	1,63	2,47
0,94	**2,53**	**3,48**	**0,98**	**2,79**	**3,76**
4,02	**9,46**	**13,48**	**4,19**	**9,71**	**13,90**
29,15	**66,09**	**95,24**	**30,48**	**66,35**	**96,83**
28,46	64,54	93,00	29,76	64,78	94,55
0,69	1,56	2,24	0,72	1,56	2,28
0,94	**2,53**	**3,48**	**0,98**	**2,79**	**3,76**
261,40	**450,75**	**712,15**	**270,80**	**525,02**	**795,82**
-	-	-	-	-	-
258,87	444,84	703,71	268,16	518,23	786,39
2,53	5,91	8,44	2,65	6,79	9,43
20,96	**67,51**	**88,47**	**22,13**	**76,74**	**98,87**
-	-	-	-	-	-
18,43	61,60	80,03	19,48	69,95	89,43
2,53	5,91	8,44	2,65	6,79	9,43
1.199,98	**2.175,62**	**3.375,60**	**1.223,69**	**2.228,33**	**3.452,01**
2.276	3.671	5.948	2.949	5.166	8.114
2.103	2.889	4.992	2.775	4.064	6.839
10.443	21.783	32.226	10.443	21.783	32.226
9.194	16.616	25.810	9.194	16.616	25.810

Table 2

Domestic tourism consumption, by products and ad hoc sets of resident visitors
(visitors final consumption expenditure in cash)
(Net valuation)

PRODUCT	Resident visitors travelling only within the country of reference		
	Same-day visitors (2.1a)	Tourist (2.1b)	Total visitors (2.1)=(2.1a)+(2.1b)
A. Specific products	**11,45**	**32,89**	**44,34**
A.1 Characteristic products (a)	**9,00**	**27,16**	**36,16**
1 – Accomodation services	**-**	**13,29**	**13,29**
1.1 – Hotels and other lodging services	-	13,29	13,29
1.2 – Second homes services on own account or for free	-	-	-
2 – Food and beverage serving services	**4,29**	**7,58**	**11,87**
3 – Passenger transport services	**2,08**	**3,29**	**5,37**
3.1 Interurban railway	2,03	3,21	5,23
3.2 Road	-	-	-
3.3 Water	-	-	-
3.4 Air	-	-	-
3.5 Supporting services	0,05	0,08	0,14
3.6 Transport equipment rental	-	-	-
3.7 Maintenance and repair services	-	-	-
4 – Travel agency, tour operator and tourist guide services	**-**	**0,08**	**0,08**
4.1 Travel agency (1)			
4.2 Tour operator (2)			
4.3 Tourist information and tourist guide			
5 – Cultural services (3)	**2,63**	**2,77**	**5,39**
5.1 Performing arts			
5.2 Museum and other cultural services			
6 – Recreation and other entertainment services (3)	**-**	**0,08**	**0,08**
6.1 Sports and recreational sport services	-	0,08	0,08
6.2 Other amussement and recreational services	-	0,00	0,00
7 – Miscellaneous tourism services	**-**	**0,08**	**0,08**
7.1 Financial and insurance services			
7.2 Other good rental services			
7.3 Other tourism services			
A.2 Connected products	**2,45**	**5,73**	**8,18**
distribution margins	-	-	-
goods	2,45	5,73	8,18
services	-	-	-
B. Non specific products	**0,03**	**0,43**	**0,46**
distribution margins	-	-	-
goods	0,03	0,43	0,46
services	-	-	-
TOTALE	**11,48**	**33,32**	**44,81**
number of trips (1.000)	**326**	**163**	**489**
personal motivs	326	126	452
number of overnights (1.000)	**-**	**823**	**823**
personal motivs	-	702	702

Table 2

Domestic tourism consumption, by products and ad hoc sets of resident visitors
(visitors final consumption expenditure in cash)
(Net valuation)

Resident visitors travelling to a different country			All resident visitors		
Same-day visitors (2.2a)	Tourist (2.2b)	Total visitors (2.2)=(2.2a)+(2.2b)	Same-day visitors (2.3a)=(2.1a)+(2.2a)	Tourists (2.3b)=(2.1b)+(2.2b)	Total visitors (2.3)=(2.1)+(2.2)
3,70	**67,24**	**70,94**	**15,15**	**100,14**	**115,29**
3,70	**67,24**	**70,94**	**12,70**	**94,41**	**107,10**
-	**-**	**-**	**-**	**13,29**	**13,29**
-	-	-	-	13,29	13,29
-	-	-	-	-	-
-	**-**	**-**	**4,29**	**7,58**	**11,87**
3,70	**67,20**	**70,90**	**5,78**	**70,49**	**76,27**
3,37	**61,19**	**64,56**	5,40	64,39	69,79
-	**-**	**-**	-	-	-
-	**-**	**-**	-	-	-
-	**-**	**-**	-	-	-
0,26	**4,71**	**4,97**	0,31	4,80	5,11
0,03	**0,61**	**0,65**	0,03	0,61	0,65
0,04	**0,69**	**0,72**	0,04	0,69	0,72
-	**0,04**	**0,04**	**-**	**0,12**	**0,12**
-	-	**-**	**2,63**	**2,77**	**5,39**
-	**-**	**-**	**-**	**0,08**	**0,08**
-	-	-	-	0,08	0,08
-	-	-	-	0,00	0,00
-	**-**	**-**	**-**	**0,08**	**0,08**
-	**-**	**-**	**2,45**	**5,73**	**8,18**
-	-	-	-	-	-
-	-	-	2,45	5,73	8,18
-	-	-	-	-	-
-	**-**	**-**	**0,03**	**0,43**	**0,46**
-	-	-	-	-	-
-	-	-	0,03	0,43	0,46
-	-	-	-	-	-
3,70	**67,24**	**70,94**	**15,18**	**100,57**	**115,75**
2.471	**646**	**3.117**	**2.797**	**809**	**3.606**
2.471	646	3.117	2.797	772	3.569
-	**4.212**	**4.212**	**-**	**5.035**	**5.035**
-	4.212	4.212	-	4.914	4.914

Table 3

Outbound tourism consumption, by products and categories of visitors
(visitors final consumption expenditure in cash)
(Net valuation)

PRODUCT	Same-day visitors		
	Italy (3.1a)	Foreign (3.1b)	Total (3.1)=(3.1a)+(3.1b)
A. Specific products	**28,92**	**155,04**	**183,96**
A.1 Characteristic products (a)	**8,09**	**52,10**	**60,19**
1 – Accomodation services	**-**	**-**	**-**
1.1 – Hotels and other lodging services	-	-	-
1.2 – Second homes services on own account or for free	-	-	-
2 – Food and beverage serving services	**6,14**	**7,81**	**13,95**
3 – Passenger transport services	**1,30**	**41,13**	**42,44**
3.1 Interurban railway	1,19	37,45	38,64
3.2 Road			
3.3 Water			
3.4 Air			
3.5 Supporting services	0,09	2,88	2,98
3.6 Transport equipment rental	0,01	0,37	0,39
3.7 Maintenance and repair services	0,01	0,42	0,43
4 – Travel agency, tour operator and tourist guide services	**0,07**	**0,79**	**0,86**
4.1 Travel agency (1)			
4.2 Tour operator (2)			
4.3 Tourist information and tourist guide			
5 – Cultural services (3)	**0,11**	**0,79**	**0,90**
5.1 Performing arts			
5.2 Museum and other cultural services			
6 – Recreation and other entertainment services (3)	**0,40**	**0,79**	**1,19**
6.1 Sports and recreational sport services	0,39	0,77	1,16
6.2 Other amussement and recreational services	0,01	0,02	0,03
7 – Miscellaneous tourism services	**0,07**	**0,79**	**0,86**
7.1 Financial and insurance services			
7.2 Other good rental services			
7.3 Other tourism services			
A.2 Connected products	**20,83**	**102,94**	**123,77**
distribution margins	-	-	-
goods	20,58	101,72	122,30
services	0,25	1,22	1,47
B. Non specific products	**2,59**	**12,79**	**15,38**
distribution margins	-	-	-
goods	2,34	11,57	13,91
services	0,25	1,22	1,47
TOTALE	**19,02**	**167,83**	**186,85**
number of trips (1.000)	**267**	**2.354**	**2.620**
personal motivs	267	2.204	2.471
number of overnights (1.000)	-	-	-
personal motivs	-	-	-

Table 3

Outbound tourism consumption, by products and categories of visitors
(visitors final consumption expenditure in cash)
(Net valuation)

Tourists			Total visitors		
Italy (3.2a)	Foreign (3.2b)	Total (3.2)=(3.2a)+(3.2b)	Italy (3.3a)=(3.1a)+(3.2a)	Foreign (3.3b)=(3.1b)+(3.2b)	Total (3.3)=(3.1)+(3.2)
123,57	**106,57**	**230,14**	**152,49**	**261,62**	**414,10**
97,21	**87,66**	**184,87**	**105,30**	**139,76**	**245,06**
50,16	**38,02**	**88,19**	**50,16**	**38,02**	**88,19**
50,16	38,02	88,19	50,16	38,02	88,19
-	-	-	-	-	-
23,89	**17,14**	**41,03**	**30,03**	**24,96**	**54,99**
18,90	**29,44**	**48,34**	**20,21**	**70,57**	**90,77**
17,21	26,80	44,01	18,40	64,26	82,65
1,33	2,06	3,39	1,42	4,95	6,37
0,17	0,27	0,44	0,18	0,64	0,83
0,19	0,30	0,49	0,21	0,72	0,93
0,10	**0,07**	**0,18**	**0,17**	**0,86**	**1,04**
0,50	**0,36**	**0,86**	**0,61**	**1,15**	**1,75**
3,52	**2,53**	**6,05**	**3,92**	**3,32**	**7,24**
3,44	2,47	5,91	3,83	3,24	7,07
0,08	0,06	0,14	0,09	0,08	0,17
0,13	**0,09**	**0,22**	**0,20**	**0,88**	**1,08**
26,36	**18,92**	**45,27**	**47,18**	**121,86**	**169,04**
-	-	-	-	-	-
26,05	18,69	44,74	46,62	120,41	167,04
0,31	0,22	0,54	0,56	1,44	2,00
3,27	**2,35**	**5,62**	**5,86**	**15,14**	**21,00**
-	-	-	-	-	-
2,96	2,13	5,09	5,30	13,69	19,00
0,31	0,22	0,54	0,56	1,44	2,00
126,84	**108,92**	**235,77**	**145,87**	**276,76**	**422,62**
568	**213**	**781**	**835**	**2.567**	**3.402**
470	176	646	736	2.381	3.117
2.658	1.833	4.491	2.658	1.833	4.491
2.472	1.740	4.212	2.472	1.740	4.212

Table 4

Internal tourism consumption, by products and types of tourism
(Net valuation)

PRODUCT	Visitors final consumption expenditure in cash		
	Inbound tourism (4.1)	**Domestic tourism** (4.2)	**Internal tourism** (4.1)+(4.2)=(4.3)
A. Specific products	**3.403,29**	**115,29**	**3.518,58**
A.1 Characteristic products (a)	**2.607,47**	**107,10**	**2.714,58**
1 – Accomodation services	**1.577,43**	**13,29**	**1.590,72**
1.1 – Hotels and other lodging services	1.577,43	13,29	1.590,72
1.2 – Second homes services on own account or for free	-	-	-
2 – Food and beverage serving services	**670,14**	**11,87**	**682,01**
3 – Passenger transport services	**241,65**	**76,27**	**317,92**
3.1 Interurban railway	220,03	69,79	289,82
3.2 Road			
3.3 Water			
3.4 Air			
3.5 Supporting services	16,95	5,11	22,06
3.6 Transport equipment rental	2,20	0,65	2,85
3.7 Maintenance and repair services	2,47	0,72	3,19
4 – Travel agency, tour operator and tourist guide services	**3,76**	**0,12**	**3,89**
4.1 Travel agency (1)			
4.2 Tour operator (2)			
4.3 Tourist information and tourist guide			
5 – Cultural services (3)	**13,90**	**5,39**	**19,30**
5.1 Performing arts			
5.2 Museum and other cultural services			
6 – Recreation and other entertainment services (3)	**96,83**	**0,08**	**96,91**
6.1 Sports and recreational sport services	94,55	0,08	94,62
6.2 Other amussement and recreational services	2,28	0,00	2,28
7 – Miscellaneous tourism services	**3,76**	**0,08**	**3,84**
7.1 Financial and insurance services			
7.2 Other good rental services			
7.3 Other tourism services			
A.2 Connected products	**795,82**	**8,18**	**804,00**
distribution margins	-	-	-
goods	786,39	8,18	794,57
services	9,43	-	9,43
B. Non specific products	**98,87**	**0,46**	**99,33**
distribution margins	-	-	-
goods	89,43	0,46	89,90
services	9,43	-	9,43
Value of domestically produced goods net of distribution margins	**3.452,01**	**115,75**	**3.567,76**
value of imported goods net of distribution margins	-	-	-
TOTAL	**3.452,01**	**115,75**	**3.567,76**

Table 4

Internal tourism consumption, by products and types of tourism
(Net valuation)

Other Components of visitors consumption expenditure in kind (4.4)	**Internal tourism consumption** (in cash and in kind) (4.5)=(4.3)+(4.4)
57,78	**3.576,36**
57,78	**2.772,36**
31,14	**1.621,86**
2,93	1.593,65
28,21	28,21
-	**682,01**
26,64	**344,56**
24,29	314,11
1,85	23,91
0,24	3,09
0,27	3,46
-	**3,89**
-	**19,30**
-	**96,91**
-	94,62
-	2,28
-	**3,84**
-	**804,00**
-	-
-	794,57
-	9,43
-	**99,33**
-	-
-	89,90
-	9,43
57,78	**3.625,55**
-	-
57,78	**3.625,55**

5.2.1.3 Data Sources and steps to complete Table 5

The starting point for compiling R-TSA table 5 is the production matrix, based on input-output table and other appropriate indicators.

It was requested to obtain basis tourism information on Bolzano supply products.

So, ASTAT asked IRPET to construct the matrix input – output (TIO) of Bolzano province. The objective was to obtain production data for each division (industries) as TSA need.

To complete table 5 IRPET done two works for ASTAT

- TIO based on 2001
- Table 5 and 6

Major sectorial desagregation of Table 5 (compared to TIO) requires the use of additional information including the Italian economy supply matrix (as opposed to 59 divisions ATECO[28] and 59 categories CPA[29] product) that allow to tie the production branches (tourism specific and not specific) to goods and services produced.

The information produced by the system accounts, which to Italy come for ATECO classes and to Bolzano for ATECO divisions, allows getting to the division level for output and value added data.

To have an appropriate desagregation of goods and services production by industrie as it appears in TSA tourism expenditure items, it was used together tourism expenditure data (derived from the survey Astat-demand) and residents household consumption data obtained by Istat survey.

Also compilation of table 5 was done for 2001 to 2005 and it allows using data from 2001 province census (employees per category ATECO).

The **methodology used in Bolzano TIO construction**[30] required data from various statistical sources, including those developed by ASTAT.

Likely that statistical information relating to economic aggregates is not perfectly consistent with each other and exhibit discrepancies higher or lower and have different degrees of reliability. It was necessary to consistent through

[28] ATECO 2002 – Versione nazionale della classificazione delle attivitá economiche NACE Rev. 1.1 definita in ambito europeo
[29] Classificazione Centrale dei Prodotti secondo l`Attivitá Economica di origine (CPA), derivata dalla Classificazione Centrale dei Prodotti (CPC) delle Nazioni Unite.
[30] COSTRUZIONE DELLA MATRICE INPUT-OUTPUT DELLA PROVINCIA AUTONOMA DI Bolzano - Rapporto preliminare – IRPET: Instituto Regionale Programmazione Economica Toscana.

appropriate algorithms (called balancing algorithms)[31] all statistical information available for a given year, linked to regional economic activity.

This procedure logic is to retrieve all this information, transform them into values to be inserted in the cross table, assign these values to a degree of reliability and submit them to the balancing procedure in order to achieve coherence. (To more detail see Appendix 3)

As it was indicated in the thoretical framework, initial values of Stone, Champernowne and Meade (SAM) were constructed using all available statistical data from ISTAT, ASTAT, administrative sources and IRPET estimations of previous publications relating to Trentino region - Alto Adige.

Data sources used:

1) SUTITA: It is Italy supply and use table, the last was published by ISTAT in December 2007 and relate to 1995-2004:

- Use tables at basic prices for 1995-2004
- Import use tables for 1995-2004
- Symmetric tables based technology industry for 1995 and 2000.

Classification of branches present in these tables is ATECO divisions, products which are classified into 60 categories.

2) TEITAA: I-O matrix for Trentino region - Alto Adige for 2001 estimated by IRPET and updated in subsequent years.

3) TEITN: Service Statistical Publication of autonomous province of Trento (June 2003), containing the intersectorial table for 2000 in Trento province from which had been obtained inter-autonomous and foreign export and import information.

4) CPBZ: Bolzano Provincial Accounting -ISTAT available in series from 2000 to 2005, containing the following accounts aggregates:

- Uses resources account
- Value added for 24 branches
- Investments
- Government expenditure
- Household spending

5) BZ: Information from micro databases available for Bolzano - ASTAT. The information available was particularly useful to obtain aggregating data for ATECO division of the following files:

- BZ-ASIA: Asia archive containing business turnover and employees in 2001
- BZ-TUR: Tourism Data, tourist spending from 2000 to 2006

[31] Stone, Champernowne and Meade. The Precision of National Income Estimates.

- BZ-IP: Stock accounts data for medium and small enterprises
- BZ-SVA: Tables accounting data for large firms
- BZ-PA: accounting data on Public sector

6) SCI: Information derived from ISTAT publication "Accounts of Enterprises and province to show a separate table for ATECO divisions in which each interval are indicated:

- Local units regionalised
- Turnover
- Value-added business
- Staff costs
- Employees

7) Census: 2001 Census, from which can get employees to divisions ATECO relating to Bolzano province.

8) AGR: ISTAT production and value added data for agriculture. Available for Italian regions and provinces of Bolzano and Trento from 1980 to 2006.

9) Dress: Housing Census 2001, number and total square meters of housing in Bolzano province, separate property of residents and non residents to assess amount of actual and imputed rents to estimate the consumption.

10) Coeweb: E ' database and is available on ISTAT on foreign trade of all Italian provinces and regions to and from all over the world and to areas grouped according to ATECO classification.

With these data sources, the following variables had been estimated to be included into the matrix:

1. Value Added, Production and intermediate costs at basic prices
2. Inter-trade matrix at basic prices
3. Residents and tourists domestic consumption
4. Matrix of transition from 17 to 12 functions of expenditure
5. Government and ISP consumption Matrix
6. Investment Matrix
7. Stocks change Vectors
8. Foreign and interregional exports Vectors
9. Foreign and interregional imports Vectors

The method used to construct Bolzano intersectoral matrix was an hybrid method, wich used: sample information to estimate only parts of the matrix, many blocks have been calculated based on similarity between regions on precise characteristic relations (technical coefficients, import on final demand, exports to production, etc.).
The SCM procedure provides, in addition to initial estimates, the var-cov matrix deduced from reliability matrix. These reliability indices can be assigned objectively (as a proxy of variation coefficients of initial estimate) or subjectively (for those initial values for which we can not estimate the variability).

Another critical point in initial values estimation was related to tourism spending matrix the creation. Because tourism consumption for 2001 was calculated using a sample survey conducted in 2004, predate the result of a sample survey and assuming invariance in tourism accommodation composition .

Besides, IRPET worked with 2001 as reference year and then got it to 2002 to 2004.
For 2004 value added data was disaggregated, but for 2005 it was necessary to splited it according to the structure of 2004.

5.2.1.4 Work done to complete R- TSA Table 5[32] for Bolzano

This work comprised two parts: the first league goods and services producing branches (between different tourism branches, specific and not specific industries) with goods and services classified under tourism headings expenditure, this first part was called Supply Table 5.
And the second part concerns to producing intermediate consumption and value added for the same industries, this was called Use Table 5.

Table 5 elements are estimated by indirect methods that are used from data sources available, these are:

1. Italian Matrix supply to industries classified by divisions Ateco 2002
2. Use array of Italian industries classified by divisions Ateco 2002
3. Data from Italy (sistema conti imprese) SCI
4. Data SCI for Bolzano
5. Survey on the consumption of resident households
6. TIO balanced of the province
7. 2001 Census

Using these sources, Table 5 and 6 values for 2005, had been estimated. For 2008, supply side data was not changed, it was supposed that production had been constant from 2005. This is a limitation of the exercise but it exceeds the objective and the period of time of this research.

[32] Appendix 3

Table 5

Production accounts of tourism industries and other industries
(Net valuation)

PRODUCTS	Tourism industries			
	1,3 - Hotels and similar, Restaurants and similar	2 - second home ownership (imputed)	4,5,6,7 - Transport	8,10 - Passenger transport supporting services, Travel agencies and similar
A. Specific products	**2.502,99**	**89,82**	**933,98**	**583,69**
A.1 Characteristic products (a)	**2.502,84**	**89,82**	**924,46**	**582,91**
1 – Accomodation services	**1.562,65**	**89,82**	**-**	**-**
1.1 – Hotels and other lodging services	1.562,65	-	-	-
1.2 – Second homes services on own account or for free	-	89,82	-	-
2 – Food and beverage serving services	**936,31**	**-**	**0,92**	**-**
3 – Passenger transport services	**3,53**	**-**	**923,54**	**501,78**
3.1 Interurban railway	2,13	-	808,92	174,23
3.2 Road				
3.3 Water				
3.4 Air				
3.5 Supporting services	1,40	-	9,18	327,54
3.6 Transport equipment rental	-	-	100,97	-
3.7 Maintenance and repair services	-	-	4,47	-
4 – Travel agency, tour operator and tourist guide services	**0,28**	**-**	**-**	**65,42**
4.1 Travel agency (1)				
4.2 Tour operator (2)				
4.3 Tourist information and tourist guide				
5 – Cultural services (3)	**-**	**-**	**-**	**-**
5.1 Performing arts				
5.2 Museum and other cultural services				
6 – Recreation and other entertainment services (3)	**-**	**-**	**-**	**-**
6.1 Sports and recreational sport services	-	-	-	-
6.2 Other amussement and recreational services	-	-	-	-
7 – Miscellaneous tourism services	**0,07**	**-**	**-**	**15,72**
7.1 Financial and insurance services				
7.2 Other good rental services				
7.3 Other tourism services				
A.2 Connected products	**0,15**	**-**	**9,52**	**0,78**
distribution margins	-	-	-	-
goods	-	-	0,48	-
services	0,15	-	9,04	0,78
B. Non specific products	**245,51**	**-**	**16,50**	**31,81**
distribution margins	-	-	-	-
goods	0,46	-	0,33	6,03
services	245,06	-	16,17	25,78
Value of domestically produced goods net of distribution margins				
Value of imported goods net of distribution margins				
TOTAL OUTPUT (at basic prices)	**2.748,50**	**89,82**	**950,48**	**615,50**

Total intermediate consumption (at basic prices)	**1.167,92**	**9,31**	**445,74**	**467,64**
Net indirect taxes	**7,09**	**1,38**	**14,49**	**4,54**
Total gross value added (at basic prices)	**1.573,49**	**79,13**	**490,25**	**143,33**

Table 5

Production accounts of tourism industries and other industries
(Net valuation)

Tourism industries				
9 - Passenger transport equipment rental	11,12 - Cultural services, Sporting and other recreational services	**TOTAL**	**TOTAL other industries**	**TOTAL output of domestic producers (at basic prices)**
41,53	**116,81**	**4.268,82**	**1.164,83**	**5.433,64**
40,90	**114,15**	**4.255,07**	**311,59**	**4.566,66**
-	**0,74**	**1.653,21**	**62,30**	**1.715,51**
-	0,74	1.563,39	62,30	1.625,69
-	-	89,82	-	89,82
-	**0,27**	**937,50**	**37,33**	**974,83**
33,86	**0,62**	**1.463,33**	**121,12**	**1.584,45**
0,28	0,62	986,19	16,43	1.002,62
0,08	-	338,21	23,63	361,84
33,36	-	134,33	81,06	215,39
0,13	-	4,60	-	4,60
-	**-**	**65,69**	**4,61**	**70,30**
-	**13,61**	**13,61**	**0,59**	**14,20**
-	**98,91**	**98,91**	**4,26**	**103,17**
-	87,72	87,72	3,78	91,50
-	11,19	11,19	0,48	11,67
7,04	**-**	**22,82**	**81,38**	**104,20**
0,63	**2,66**	**13,74**	**853,24**	**866,98**
-	-	-	-	-
0,02	2,39	2,89	305,68	308,57
0,61	0,27	10,86	547,56	558,41
10,34	**68,39**	**372,56**	**21.255,79**	**21.628,34**
-	-	-	-	-
0,72	0,27	7,80	7.827,98	7.835,79
9,62	68,13	364,76	13.427,80	13.792,56
			-	
			-	
51,87	**185,20**	**4.641,37**	**22.420,62**	**27.061,99**

23,79	**66,81**	**2.181,21**	**11.018,64**	**13.199,84**
5,08	**1,03**	**33,60**	**294,25**	**327,85**
23,00	**117,36**	**2.426,56**	**11.107,73**	**13.534,30**

Table 6

Domestic supply and internal tourism consumption, by products
(Net valuation)

Products	Tourism industries					
	1,3 - Hotels and similar, Restaurants and similar		2 - second home ownership (imputed)		4,5,6,7 - Transport	
	output	tourism share	output	tourism share	output	tourism share
A. Specific products	**2.502,99**	**2.061,63**	**89,82**	**28,21**	**933,98**	**169,37**
A.1 Characteristic products (a)	**2.502,84**	**2.061,63**	**89,82**	**28,21**	**924,46**	**168,64**
1 – Accomodation services	**1.562,65**	**1.444,16**	**89,82**	**28,21**	**-**	**-**
1.1 – Hotels and other lodging services	1.562,65	1.444,16	-	-	-	-
1.2 – Second homes services on own account or for free	-	-	89,82	28,21	-	-
2 – Food and beverage serving services	**936,31**	**617,42**	**-**	**-**	**0,92**	**0,61**
3 – Passenger transport services	**3,53**	**0,06**	**-**	**-**	**923,54**	**168,03**
3.1 Interurban railway	2,13	-	-	-	808,92	164,33
3.2 Road						
3.3 Water						
3.4 Air						
3.5 Supporting services	1,40	0,06	-	-	9,18	0,37
3.6 Transport equipment rental	-	-	-	-	100,97	1,04
3.7 Maintenance and repair services	-	-	-	-	4,47	2,29
4 – Travel agency, tour operator and tourist guide services	**0,28**	**-**	**-**	**-**	**-**	**-**
4.1 Travel agency (1)						
4.2 Tour operator (2)						
4.3 Tourist information and tourist guide						
5 – Cultural services (3)	**-**	**-**	**-**	**-**	**-**	**-**
5.1 Performing arts						
5.2 Museum and other cultural services						
6 – Recreation and other entertainment services (3)	**-**	**-**	**-**	**-**	**-**	**-**
6.1 Sports and recreational sport services	-	-	-	-	-	-
6.2 Other amussement and recreational services	-	-	-	-	-	-
7 – Miscellaneous tourism services	**0,07**	**-**	**-**	**-**	**-**	**-**
7.1 Financial and insurance services						
7.2 Other good rental services						
7.3 Other tourism services						
A.2 Connected products	**0,15**	**0,00**	**-**	**-**	**9,52**	**0,73**
distribution margins	-	-	-	-	-	-
goods	-	-	-	-	0,48	0,54
services	0,15	0,00	-	-	9,04	0,19
B. Non specific products	**245,51**	**0,22**	**-**	**-**	**16,50**	**0,02**
distribution margins	-	-	-	-	-	-
goods	0,46	0,00	-	-	0,33	0,00
services	245,06	0,22	-	-	16,17	0,01
Value of domestically produced goods net of distribution margins						
Value of imported goods net of distribution margins						
TOTAL OUTPUT (at bases prices)	**2.748,50**	**2.061,86**	**89,82**	**28,21**	**950,48**	**169,38**

Total intermediate consumption (at basic prices)	**1.167,92**	**876,15**	**9,31**	**2,92**	**445,74**	**78,60**
Net indirect taxes	**7,09**	**5,32**	**1,38**	**0,43**	**14,49**	**2,55**
Total gross value added of activities (at basic prices)	**1.573,49**	**1.180,39**	**79,13**	**24,85**	**490,25**	**88,24**

Table 6

Domestic supply and internal tourism consumption, by products
(Net valuation)

Tourism industries					
8,10 - Passenger transport supporting services, Travel agencies and similar		**9 - Passenger transport equipment rental**		**11,12 - Cultural services, Sporting and other recreational services**	
output	tourism share	output	tourism share	output	tourism share
583,69	**48,99**	**41,53**	**0,45**	**116,81**	**48,65**
582,91	**48,97**	**40,90**	**0,41**	**114,15**	**45,96**
-	**-**	**-**	**-**	**0,74**	**0,69**
-	-	-	-	0,74	0,69
-	-	-	-	-	-
-	**-**	**-**	**-**	**0,27**	**0,18**
501,78	**48,97**	**33,86**	**0,41**	**0,62**	**-**
174,23	35,77	0,28	-	0,62	-
327,54	13,20	0,08	0,00	-	-
-	-	33,36	0,34	-	-
-	-	0,13	0,07	-	-
65,42	**-**	**-**	**-**	**-**	**-**
-	**-**	**-**	**-**	**13,61**	**-**
-	**-**	**-**	**-**	**98,91**	**45,09**
-	-	-	-	87,72	44,03
-	-	-	-	11,19	1,06
15,72	**-**	**7,04**	**-**	**-**	**-**
0,78	**0,02**	**0,63**	**0,03**	**2,66**	**2,69**
-	-	-	-	-	-
-	-	0,02	0,02	2,39	2,69
0,78	0,02	0,61	0,01	0,27	0,01
31,81	**0,05**	**10,34**	**0,01**	**68,39**	**0,06**
-	-	-	-	-	-
6,03	0,03	0,72	0,00	0,27	0,00
25,78	0,02	9,62	0,01	68,13	0,06
615,50	**49,04**	**51,87**	**0,46**	**185,20**	**48,71**
467,64	**37,26**	**23,79**	**0,21**	**66,81**	**17,57**
4,54	**0,36**	**5,08**	**0,04**	**1,03**	**0,27**
143,33	**11,42**	**23,00**	**0,20**	**117,36**	**30,87**

Table 6

Domestic supply and internal tourism cons 1
(Net valuation)

Tourism industries		TOTAL other industries		TOTAL output of domestic products (at basic prices)
TOTAL				
output	tourism share	output	tourism share	
4.268,82	**2.357,30**	**1.164,83**	**449,84**	**5.433,64**
4.255,07	**2.353,82**	**311,59**	**94,12**	**4.566,66**
1.653,21	**1.473,05**	**62,30**	**57,58**	**1.715,51**
1.563,39	1.444,84	62,30	57,58	1.625,69
89,82	28,21	-	-	89,82
937,50	**618,20**	**37,33**	**24,62**	**974,83**
1.463,33	**217,47**	**121,12**	**9,99**	**1.584,45**
986,19	200,10	16,43	8,20	1.002,62
338,21	13,63	23,63	0,95	361,84
134,33	1,38	81,06	0,83	215,39
4,60	2,36	-	-	4,60
65,69	**-**	**4,61**	**-**	**70,30**
13,61	**-**	**0,59**	**-**	**14,20**
98,91	**45,09**	**4,26**	**1,94**	**103,17**
87,72	44,03	3,78	1,90	91,50
11,19	1,06	0,48	0,05	11,67
22,82	**-**	**81,38**	**-**	**104,20**
13,74	**3,48**	**853,24**	**355,72**	**866,98**
-	-	-	-	-
2,89	3,25	305,68	344,11	308,57
10,86	0,23	547,56	11,61	558,41
372,56	**0,37**	**21.255,79**	**48,56**	**21.628,34**
-	-	-	-	-
7,80	0,04	7.827,98	36,41	7.835,79
364,76	0,33	13.427,80	12,15	13.792,56
4.641,37	**2.357,66**	**22.420,62**	**498,40**	**27.061,99**

2.181,21	**1.107,98**	**11.018,64**	**264,63**	**13.199,84**
33,60	**17,07**	**294,25**	**5,37**	**327,85**
2.426,56	**1.232,61**	**11.107,73**	**228,40**	**13.534,30**

Table 6

Domestic supply and internal tourism consumption, by products
(Net valuation)

Imports	Taxes less subsidies on products of domestic output and imports	Domestic supply (at purchases prices)	Internal tourism consumption	Tourism ratio on supply
1.113,03	**326,09**	**6.872,76**	**3.576,36**	**52,0%**
989,10	**166,10**	**5.721,87**	**2.772,36**	**48,5%**
0,82	**97,89**	**1.814,22**	**1.621,86**	**89,4%**
0,82	97,89	1.724,40	1.593,65	92,4%
-	-	89,82	28,21	31,4%
0,90	**58,53**	**1.034,26**	**682,01**	**65,9%**
853,79	**- 27,09**	**2.411,15**	**344,56**	**14,3%**
553,64	- 45,93	1.510,33	314,11	20,8%
199,58	31,62	593,04	23,91	4,0%
98,09	- 12,44	301,03	3,09	1,0%
2,48	- 0,34	6,74	3,46	51,3%
38,78	**6,47**	**115,56**	**3,89**	**3,4%**
11,40	**3,65**	**29,25**	**19,30**	**66,0%**
82,86	**26,54**	**212,57**	**96,91**	**45,6%**
73,49	23,54	188,52	94,62	50,2%
9,37	3,00	24,05	2,28	9,5%
0,55	**0,11**	**104,86**	**3,84**	**3,7%**
123,93	**159,98**	**1.150,89**	**804,00**	**69,9%**
-	-	-	-	
118,26	279,01	705,84	794,57	112,6%
5,67	- 119,03	445,06	9,43	2,1%
3.258,50	**4.864,83**	**29.751,67**	**99,33**	**0,3%**
-	-	-	-	
3.180,69	8.310,08	19.326,55	89,90	0,5%
77,81	- 3.445,25	10.425,12	9,43	0,1%
4.371,52	**5.190,91**	**36.624,42**	**3.625,55**	**9,9%**

5.2.1.5 Most important results

Bolzano Value Added (VA) was 13.534 million euros for 2005 and total Tourism Industries Value Added was 2.427 million euros for the same period, so tourism industries generated the 17,9% of total VA.

Other indicators can be calculated and analyzed, such as the incidence of tourism consumption in the economy supply, calculated as the relation between demand and supply, this indicator show tourism consumption direct effect on economics activities.

This coefficient was 8% for 2005 (Tourism Consumption/Total supply), which means that were necessary to use near than 10% of total economy supply to satisfy tourism demand.
Besides, it shows high values specially in characteristics products and services such as Accommodation (73,7%), Restaurants (46,5%), Cultural services (39,5%) and enterteinment (36,2%).

Most important result is tourism contribution to total VA and is called Tourism Value Added (TVA).
It is obtained as the sum of tourism industries Value Added and includes only Value Added generated directly by tourism. **TVA was 9,2% (VA generated directly by tourism/VA) of Total Value Added for 2005.**

As it was mentioned, for 2008 supply data is supposed constant. So, tourism Industries Value Added for 2008 was estimated using Total TVA per unit of tourism consumption.

For 2005

TotalTVA/ tourism consumption = 0,83
TVA = 0,51 Total TVA

Other variables for 2008 had been estimated with tourism consumption value which was 3.626 milion euros for 2008 (Table 4).

For 2008

TotalTVA = 3.021,31
TVA = 1.540,87

Total TVA (2.426,56 milion euros – Table 6) / Tourism consumpion (2911,86 milion euros – Table 4 2005[33]) proportion is supposed constant for 2008 and tourism consumption was 3.626 milion euros for the same year.

[33] This table is not in this document. See “Il conto satellite del turismo per l´Alto Adige. 2005”

In conclusion, Total TVA was 3021,31 milion euros, which means that tourism industries generates the 22% of Bolzano VA (2005).

Now, TVA was the 51% of Total TVA for 2005, maintaining the same ratio for 2008 TVA was 1540, 87 milion euros.

To sum up, tourism consumption explains the 9,9 % of total economy supply for 2008, while for 2005 it was 8%. And Tourism industries Value Added was 11,4% for 2008, while in 2005 it was 9,2%.

6. Regional statistics in Uruguay. Is possible to work in a similar Statistic Tourism System?

6.1 Analysis of available information in Uruguay

6.1.1 Available data at national level

In 2008 Tourism National Administration in colaboration with World Tourism Organization started to work in a preliminary Tourism Satellite Account for Uruguay (TSAU), which showed results for 2005 to 2009.

For preliminary TSAU accomplishment Tourism National Administration created an interagency cooperation network, suggested by WTO methodology and integrated by Uruguay Central Bank, Migration National Direction, Faculty of Economics and Administration (UDELAR), National Statistics Institute and other organizations.

The preliminary TSAU allowed locating statistical information emptinesses that future TSA will need, both from supply perspective and demand side.

Information sources, methodology and tables

Information sources used in TSAU developing are summarized in the table below.

Table 1	International Tourism Survey (1)
Table 2	Table 9 Results
Table 3	International Tourism Survey (1)
Table 4	Table 1 and 2 Results Agregation
Table 5	Table Input Output 2005 (2)
Table 6	Table Input Output 2005 (2)
Table 7	Table 5 and 6 Difference
Table 8	Table 7 Results Desagregation
Table 9	Domestic Tourism estimation as difference from the equality Supply - Demand
Table 10	TGDP Estimation

(1) Tourism National Administration - (2) Uruguay Central Bank

Table 1 refers to Inbound Tourism Expenditure[34], in this case the work was done with data from inbound tourism survey elaborated by National Tourism Administration, which provides information on accommodation, food and beverages, second homes and others expenditure components. For the remaining items necessary to complete this table, were taken into account qualified informants opinions.

In April 2009 National Tourism Administration began to implement a new survey with a spending opening most appropriate to Tourism Satellite Account needs.

Table 2 refers to Domestic Tourism Expenditure, to obtain this spending and distributed it among different products categories, it was necessary to calculate the difference between the Gross Product Value and other forms of tourism expenditure (inbound and outbound)[35]. This was so, because no data were available for domestic tourism to submit the opening necessary for completing this table.

National Tourism Administration had a domestic tourism survey for 2005, but it did not present the necessary opening. From 2007 National Satatistics Institute incorporated a specific module on domestic tourism in the Continuous Household Survey, which has still some limitations as the timing of the survey (respondent's difficult to recall) and relieved spending is not fully adjusted to TSA needs.

To complete Oubound Tourism Expenditure table National Tourism Administration survey results were considered, which however did not have the expenditure appropriate breakdown. The work was then based on the structure that emerges from the survey done in April 2009 and it also took into account informants opinions, in order to obtain the items opening necessary.

Finally, table 4 refers to Internal Tourism Expenditure and reflects the sum of inbound and domestic tourism expenditure in tourism specific and nonspecific products.

Then it was necessary to present[36] tourism dual perspective. The supply prospect, total production and availability of tourism products and demand perspective, that is the spending on different tourism products and services.

[34] Appendix 6
[35] See Table 5 in Appendix 6, domestic tourism spending row.
[36] See Table 5 in Appendix 6

Tourism Supply Table describes different tourism products range associated with respective production activities. It is obtained the gross production value for each activity.

It presents total production (Table 7) and intermediate consumption (Table 8), and the difference, which is tourism gross value added (value that measures the effort production of transforming these inputs into outputs). Direct Tourism Industries and Other Industries Value Added is showed in table 9[37].

Total Tourism economy share is showed in table 10 for 2005 to 2009. This table projects total tourism value added from 2005 to 2009. For 2005, it took the direct tourism value added, previously calculated in Table 9.

For these values projection was necessary to use price and volume indicators.
As Uruguguay still is not done systematically a tourism price index, WTO Consultant sought a first approximation using consumer price index plus a multiplier effect, on the assumption that tourism prices evolve faster than other prices. The above effect was obtained calculating the change in daily spending average per person.
Tourism volume index was based on inbound and outbound tourism flows changes.

Results

Main TSAU result is the preliminary estimation of tourism direct contribution to Uruguay GDP for 2005 and its projections for subsequent years to 2009.

	2005	2006	2007	2008	2009
TVA/VA(%)	6,3	5,9	5,6	5,7	6,2

Is important to consider that work done for 2005 was based on OMT methodology adapted to the availability of national data. It was necessary to use many assumptions provided by the international consultant which should be revised in the future.

[37] Appendix 6

6.1.2 Available data at regional level

Regional-level information needs have been felt by local governments in Uruguay. So, some Regional Tourism Administrations decided to work on gathering information.

Colonia, Maldonado and Rocha are regions where information about Tourism enterprises, Visitors Characteristics, Employment and Investment is available.

Maldonado is one of the most developed tourism regions of Uruguay. Have information on the evolution of main tourism variables is essential for decision-making process. In this context, Maldonado Government decided to work on measuring tourism economic impact and in 2008 started to develop a set of indicators to get an approximation of tourism economic impact in this region.
The final goal of the work initiated by Regional Tourism Administration is developing a Regional Tourism Satellite Account.

Main features of the draft prepared by Maldonado Tourism Administration during 2008 are described below.

Methodology

First of all, available data was analyzed both at nationally and regionally, defining the main variables to relieve.
Then, specific surveys were designed and carried out to cover existing information gaps, using the same concepts and classifications proposed by the World Tourism Organization to achieve comparability in results.

Information sources

For demand set indicators, data provided by National Tourism Administration were analyzed, basically inbound, outbound and domestic tourism information.
Furthermore, was developed a case studie on visitors who come to Maldonado on private flights and those who come by private yacht to Punta del Este port. The above investigations required a high level of coordination between Regional Tourism Administration, National Hydrography Direction and Airport Administration.
Finally, a survey in information centers was realized to know the main visitors characteristics.

For tourism supply indicators, sample surveys were conducted for hotels, restaurants and travel agencies. Information on transport was derived from administrative records supplied by Terminal Tres Cruces Control Tower, Tolls Administration, Airport Administration and National Hydrography Direction.

For tourism investment indicators the work was based on administrative records provided by the Municipality, by National Goverment and based on information relayed by Balance of Payments on real estate investment in Punta del Este.

Finally employment indicators set was based on administrative records provided by National Goverment, private operators surveys and Continuous Household Survey analysis.

Results

The study shows that Maldonado need more information to allow quantifying tourism economic impact.

In this sense, it is necessary to improve obtained results as well as achieved new indicators.

To improve the results achieved is necessary to ensure private sector collaboration especially in relation to supply surveys. At this point definitions that are managed to relieve data must be analyzed altogether.

It would be desirable to achieve greater interagency collaboration and awareness to share resources with information production offices such as National Statistics Institute, National Tourism Administration and Uruguay Central Bank.

Obtaining information on tourism economic impact in Maldonado has a dual purpose, releasing information to the TSA and provides information at "real time" for season review.

For TSA regional gross domestic product is needed and it is only available for 2006. Therefore it would be desirable to have this indicator in the short term.

6.1.3 Regional gross domestic product

In Uruguay regional gross domestic product collection began in 1992, and obtained figures for 1985 to 2006. The task is performed by provincial governments OPP section based on a methodology to disaggregate national GDP, according to a certain indicators set.[38]

Interviews with experts reaffirm that the way to get regional data is to analyze each economic activity carefully and search for the best indicators for the data regionalization.

For hotels, real estate, and trade and services, employment is generally a good indicator for regionalize this information.
Now in areas such as construction activity other indicators should be consider, for example, construction square meters authorized by regional goverment.

As mentioned employment and wage levels, may be good indicators to obtain regional GDP for some activities.

It is also important to note that jobs number is regularly available in our country and has a good credibility level. Also, other sources should be used, such as censuses and national and regional administrative records.

After having regionalized GDP data, it could be carried out an exercise for analyze the information coherence and consistency.

6.2 Public sector opinion about R-TSA

As R-TSA work involves significantly to the state, both national and regional level, this study took into account public sector opinion about R-TSA implementation.

Grounds for R-TSA development from national government perspective are: needs for investment incentives, for which regional statistics could be a great information source, needs of money assignment from central government destined to reinforce local safety.

Besides it is necessary to possess regional employment information, bearing in mind workers' transitory displacement that concerns the economy of study.

Moreover it is necessary to promote destinations as a whole between public and private local actors, which is another point that reveals the great importance of relying information to identify visitors' categories.

[38] See appendix 5.

With regard to shape a local technical committee, from public sector understands necessarily to possess the direction of this technical committee with other institutions entrusted to elaborate regional statistics.

6.3 Different options for developing a regional TSA in Uruguay

As discussed there are two possibilities to develop a Regional Tourism Satellite Account, one of which involves disaggregating the national results for the different regions of the country, which is called “top down” and the other option is to develop a R-TSA for the region, but on the basis of regional statistics and no longer at national level, this approach is called “bottom-up”.

6.3.1 Top-down procedure

This procedure in Uruguay could be implemented for regionalize national tourism macroeconomic aggregates.
The aim would be to regionalize results shown in section 6.1, but basically interested in knowing tourism gross domestic product generated by each region.

For 2009 tourism gross domestic product in Uruguay was 6.2% of total GDP, that figure should be regionalized to obtain local results, for example for Maldonado.

The best way to do this is based on a set of indicators to disaggregate the information. Number of jobs created in Mladonado, as well as wages paid may be good indicators to get regional results.

The work done at national level needed a number of assumptions due to lack of information on tourism and all related activities. If this result is regionalized the weakness would creep raised above regional level results.

As has been mentioned national TSA need for greater efforts to strengthen results.

Anyway, TSA regionalization is a possibility that should be studied, with emphasis on the advantages and disadvantages for consistent and reliable information on regional tourism economic impact.

6.3.2 Bottom-up procedure

This procedure was implemented in Bolzano and other provinces which were mentioned in background section. So, at this point the internship in Bolzano Provincial Statistics Institute generates the greatest contributions to this study.

Bolzano decided to work in the construction of their own regional TSA, without being able to regionalize national results, because Italy does not have a TSA. Regions such as Anadalucía decided to work under this system and not regionalize national results despite having national TSA for several years in Spain.

When a region decides to work in the regional TSA, it is usually because tourism economic impact shows strong and therefore actors responsible for making decisions need more and better information.

In this context, developing a regional TSA from regional statistics, generate indirect effects to the process that will benefit the region.

Information needs to a R-TSA:

- regional gross domestic product
- information on visitor numbers
- stay
- regional tourism spend (inbound and domestic)
- excursionist number and its expenditure
- information on second homes
- expenditure incurred by local government in non-market services provided to visitors
- investment generated by tourism
- and number of jobs generated by this activity

The key is to have better and more reliable regional statistics. All above generated a regional statistics process of strengthening. And for this it is necessary to train regional human resources.

Therefore it is considered appropriate to work in this kind of approach when developing a regional tourism satellite account for Maldonado.

As already mentioned the reasons could be several, but two are stand out: regional statistics strengthening and human resources training thereby generating better results on regional tourism economic impact.

On the other hand it is also necessary to consider that although results would be better, resources needed to work on this approach are higher than those necessary to regionalize national results.

6.4 Information needed to complete Maldonado R-TSA tables

If decide to work in the R-TSA development for Maldonado, different research and surveys will be require, some of them are detailed below.

Neccesary data to complete tables 1 to 3:

- Monthly accomodation facilities clients movement survey
- Quarterly uruguayan travel holidays survey

Both studies could be done by National Statistics Institute.

- Quarterly or monthly inbound tourism survey

Now it is done by National Tourism Administration

- expediture survey on tourist accommodations

It will be necessary to think about the institution which should do this work.

For all inquiries referred to is very important to note tecnicals details to ensure results representativeness for the region.

Neccesary data to complete table 4:

- Second homes survey
- Local goverment spend associated with tourism, such as: beach clean, tourism information services and national goverment spend, especially associated with security.

Neccesary data to complete table 5 and 6:

Will require Regional Table Input – Output. For it compilation will be required:

- National TIO
- Annual economic activity survey
- Economic Census
- Household Survey
- Population censuses
- Administrative records, among others.

Will be essential to find appropriate indicators that can produce regional gross domestic product values and equally important will be to implement a system of balance as MCS to ensure a good level of information coherence and consistency.

7. Conclusions

The first conclusion, obtained trying to answer the questions that motivated this investigation, it is that several countries have worked and nowadays are trying to improve the results obtained in Tourism Satellite Accounts at Regional level. Some of them are: Norway, Finland, Australia, United Kingdom, Denmark, Canada, Spain and Italy. These countries have followed different approach for the production of their TSA. Some of them worked with the perspective " top–down" that consist in regionalizing the obtained national information (United Kingdom, Denmark and Canada) and others in the perspective "bottom-up" elaborating an own system of tourist statistics for the place (Spain and Italy).

One of the main problems to solve in the implementation of R-TSA is the nonexistence of a theoretical framework comparable to the SNA at national level.
In countries that have developed a R-TSA from a perspective "bottom-up", it was necessary to have the table input-output, which allow to obtain production information. It is not common that regions possess this type of instruments, so the first step towards the creation of a R-TSA consists of its production.

It is not easy to obtain necessary information for the production of TIO, which will come from very diverse sources. To this it adds the fact that it will be necessary to assure an acceptable level of coherence, representation and credibility of the information, Bolzano realized an analysis of National Revenue estimations precision, using SCM method. That consists of minimizing the Euclidean distance between beginning estimated points or those obtained of diverse sources and the corrected ones for the estimated variance.

In addition, it is not also easy to obtain information from the demand at regional level either, since inbound tourism will be constituted by foreigners that visit Bolzano as well as Italians from other provinces. Then visitors spend cannot be obtained of the Balance of Payments, because it only bears in mind transactions between residents and non resident. So, it is necessary to implement specific surveys to obtain total visitors spend.

The internship realized in ASTAT was fundamental for the knowledge of all mentioned aspects. Specially about surveys done in accomodation establishments to obtain data from demand side, specially visitors total spend. ASTAT also estimate second homes visitors spend which is an important segment in this province.

Bolzano's experience shows that tourism is an important activity for the province. Results include demand side information for 2008 and it is supposed that supply side information is kept constant with regard to 2005, since to the moment this investigation was carried out, this information was not possessed.

In absolute terms the tourist companies produce 17,9 % of the total Value Added of the economy (2005 and 2008). If internal tourist consumption is compared with the total production of the province it is obtained that almost 10 % (2005 and 2008) of the total offer is used to satisfy the visitors demand. And finally, the most important indicator obtained across the TSA is that 11,6 % of the value added of the economy is directly generated by tourism for 2008.

Finally, of the brief analysis of available information sources in Uruguay it is clear that it would be possible to regionalize GDP information on basis of different available indicators. It is outlined that for tourism industries employment and wages could be key variables for GDP regionalization.
In addition, it would be necessary, to assure coherence and credibility, one way could be to apply SCM method.

To obtain information about visitors spend would be necessary to implement surveys from accommodation establishments. Likewise, it will be necessary to realize an investigation on second homes because it is an important segment in Uruguay and specially in Maldonado.

Varibles relating to outbound and domestic tourism might be analyzed in a second instance or estimated from secondary sources.

To sum up, it would be possible to implement this type of StatisticTourism System at regional level in Uruguay, for example in Maldonado. Working with a “Bottom – up” approach or “Top – down” depending on available data.

To work in “Top – down” approach is necessary to identify main areas to obtain data and strengthen regional statistics. Also would be necessary to train a regional specialized staff in tourism statistics and in regionals ones.

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Appendix 1

Astat supply - Total visitors: Italian and foreign

Categoria	Arrivi	Presenze	Letti
----------	---------	----------	---------
Albergo *	49.807	246.983	3.336
Albergo **	234.898	1.131.669	9.875
Albergo ***	184.906	802.592	5.109
----------	---------	----------	---------
TOTALE	469.611	2.181.244	18.320
Hotel **	69.169	291.973	2.726
Hotel ***	1.790.585	8.362.364	49.680
Hotel ****	971.935	4.429.020	21.204
Hotel *****	43.222	220.204	928
----------	---------	----------	---------
TOTALE	2.874.911	13.303.561	74.538
Pensione *	71.293	426.163	4.199
Pensione **	180.350	956.647	8.876
Pensione ***	133.546	750.496	5.300
Pensione ****			32
----------	---------	----------	---------
TOTALE	401.526	2.133.306	18.407
Garni *	37.145	203.645	2.763
Garni **	207.150	1.035.456	9.908
Garni ***	162.430	789.384	5.707
Garni ****	16.337	59.863	325
----------	---------	----------	---------
TOTALE	423.062	2.088.348	18.703
Residence **	107.584	908.036	8.837
Residence ***	197.068	1.440.475	10.291
Residence ****	45.779	300.665	1.796
----------	---------	----------	---------
TOTALE	350.431	2.649.176	20.924

ESERCIZI ALBERGHIERI	4.519.541	22.355.635	150.892
Appartamento 1 sole	5.764	48.855	963
Appartamento 2 soli	54.313	428.948	5.928
Appartamento 3 soli	89.847	702.332	7.158
Appartamento 4 soli	646	5.612	40
----------	---------	----------	---------
TOTALE	150.570	1.185.747	14.089
Affittacamere 1 sole	13.858	75.330	1.752
Affittacamere 2 soli	44.217	244.618	3.878
Affittacamere 3 soli	36.633	200.950	2.368
Affittacamere 4 soli	697	4.444	29
----------	---------	----------	---------
TOTALE	95.405	525.342	8.027
Esercizio agritur. 0 fiori	33	1.630	49,4
Esercizio agritur. 1 fiore	17.323	108.218	2.470
Esercizio agritur. 2 fiori	93.013	638.631	8.722
Esercizio agritur. 3 fiori	118.119	815.996	7.865
Esercizio agritur. 4 fiori	17.225	129.287	852
Agriturismo non class.	7.986	53.865	906
----------	---------	----------	---------
TOTALE	253.699	1.747.627	20.864
Alloggio privato non class.	18.549	132.087	1.914
Affittacamere e appartamenti 1	1.387	14.833	257
Affittacamere e appartamenti 2	11.478	78.118	1.109
Affittacamere e appartamenti 3	12.808	84.363	982
----------	---------	----------	---------
TOTALE	44.222	309.401	4.262
Rifugio albergo	11.002	29.555	807
Campeggio	203.191	1.105.002	12.456
Albergo per la gioventù	7.214	44.207	1.250
Casa per ferie	46.047	260.667	1.766
Ostello	33.452	81.384	361
Rifugio alpino	41.625	56.322	4.273
----------	---------	----------	---------
TOTALE	342.531	1.577.137	20.913
Alloggio privato senza licenza	2.809	20.400	
----------	---------	----------	---------
TOTALE	2.809	20.400	0
==========	=========	==========	=========
ESERCIZI EXTRALBERGHIERI	889.236	5.365.654	68.155
==========	=========	==========	=========
TOTALE GENERALE	5.408.777	27.721.289	219.047
==========	=========	==========	=========

	Arrivi	**Presenze**	**Letti**
Esercizi alberghieri	4.519.541	22.355.635	150.892
Campeggi e strutture similari	203.191	1.105.002	12.456
Altri alloggi collettivi	393.039	2.219.762	29.321
Alloggi in affitto e privati	293.006	2.040.890	26.378
Totale	**5.408.777**	**27.721.289**	**219.047**

Appendix 2

Scenario 1: Attendibilità: ASTAT/ISTAT-Offerta, ISTAT-Domanda, UIC

	Viaggi							Pernottamenti						
	Domestic	Inbound		Outbound				Domestic	Inbound		Outbound			
		Italia	Estero	Italia	Estero				Italia	Estero	Italia	Estero		
Esercizi alberghieri	67.075	1.703.303	2.749.163	293.803		4.956.523	41,3%	292.640	7.812.659	14.250.336	1.230.283		24.594.769	65,5%
					143.179							1.008.851		
Campeggi e strutture similari	1.587	56.347	145.257	49.595		264.179	2,2%	6.074	272.314	826.614	346.378		1.612.007	4,3%
					11.393							160.627		
Altri alloggi collettivi	20.000	141.899	231.140	32.944		434.680	3,6%	68.637	814.377	1.336.748	151.648		2.461.622	6,6%
					8.697							90.212		
- casa in affitto + agriturismo	3.309	117.549	172.148	13.219		314.816	2,6%	40.105	849.635	1.151.150	121.653		2.248.336	6,0%
					8.591							85.793		
- casa di proprietà	8.767	123.959	63.908	56.811		258.949	2,2%	215.308	332.319	1.522.297	248.982		2.330.223	6,2%
					5.504							11.317		
- ospite di parenti e amici	62.411	133.315	309.783	121.472		663.089	5,5%	200.206	361.374	2.696.047	559.215		4.292.884	11,4%
					36.108							476.042		
Escursionisti	325.598	672.266	1.494.305	266.747	2.353.600	5.112.516	42,6%	0	0	0	0	0	0	0,0%
	488.747	2.948.638	5.165.704	834.591	2.567.072	12.004.753	100,0%	822.970	10.442.678	21.783.192	2.658.159	1.832.842	37.539.841	100,0%
	4,1%	24,6%	43,0%	7,0%	21,4%	100,0%		2,2%	27,8%	58,0%	7,1%	4,9%	100,0%	

	ASTAT OFERTA
	ISTAT DOMANDA
	UIC
	ISTAT OFERTA

Scenario 2: Attendibilità: ASTAT/ISTAT-Offerta, UIC, ISTAT-Domanda

	Domestic	Inbound		Outbound				Domestic	Inbound		Outbound			
		Italia	Estero	Italia	Estero				Italia	Estero	Italia	Estero		
Esercizi alberghieri	67.075	1.703.303	2.749.163	293.803	112.475	**4.925.819**	**40,6%**	292.640	7.812.659	14.250.336	1.230.283	539.456	**24.125.374**	**63,6%**
Campeggi e strutture similari	1.587	56.347	145.257	49.595	2.883	**255.669**	**2,1%**	6.074	272.314	826.614	346.378	22.580	**1.473.960**	**3,9%**
Altri alloggi collettivi	20.000	141.899	231.140	32.944	51.759	**477.742**	**3,9%**	68.637	814.377	1.336.748	151.648	224.640	**2.596.050**	**6,8%**
- casa in affitto + agriturismo	3.309	117.549	172.148	13.219	74.134	**380.359**	**3,1%**	40.105	849.635	1.151.150	121.653	937.215	**3.099.758**	**8,2%**
- casa di proprietà	8.767	123.959	63.908	56.811	6.386	**259.831**	**2,1%**	215.308	332.319	1.522.297	248.982	48.908	**2.367.814**	**6,2%**
- ospite di parenti e amici	62.411	133.315	309.783	121.472	79.135	**706.116**	**5,8%**	200.206	361.374	2.696.047	559.215	465.094	**4.281.936**	**11,3%**
Escursionisti	325.598	672.266	1.494.305	266.747	2.353.600	**5.112.516**	**42,2%**	0	0	0	0	0	**0**	**0,0%**
	488.747	**2.948.638**	**5.165.704**	**834.591**	**2.680.373**	**12.118.053**	**100,0%**	**822.970**	**10.442.678**	**21.783.192**	**2.658.159**	**2.237.893**	**37.944.892**	**100,0%**
	4,0%	**24,3%**	**42,6%**	**6,9%**	**22,1%**	**100,0%**		**2,2%**	**27,5%**	**57,4%**	**7,0%**	**5,9%**	**100,0%**	

Scenario 3: media

	Domestic	Inbound		Outbound				Domestic	Inbound		Outbound			
		Italia	Estero	Italia	Estero				Italia	Estero	Italia	Estero		
Esercizi alberghieri	44.821	1.465.188	1.903.253	258.524	127.827	**3.799.613**	**33,5%**	178.186	7.239.335	9.243.177	1.273.357	774.154	**18.708.209**	**54,4%**
Campeggi e strutture similari	1.600	39.741	164.301	50.546	7.138	**263.325**	**2,3%**	4.650	286.530	862.386	358.099	91.603	**1.603.268**	**4,7%**
Altri alloggi collettivi	10.695	97.722	376.439	22.277	30.228	**537.361**	**4,7%**	35.014	550.366	1.493.077	120.733	157.426	**2.356.614**	**6,9%**
- casa in afftto + agriturismo	1.655	329.656	286.962	18.818	41.363	**678.452**	**6,0%**	20.053	2.467.912	1.898.722	174.712	511.504	**5.072.902**	**14,8%**
- casa di proprietà	8.767	123.959	63.908	56.811	5.945	**259.390**	**2,3%**	215.308	332.319	1.522.297	248.982	30.113	**2.349.018**	**6,8%**
- ospite di parenti e amici	62.411	133.315	309.783	121.472	57.622	**684.602**	**6,0%**	200.206	361.374	2.696.047	559.215	470.568	**4.287.410**	**12,5%**
Escursionisti	325.598	672.266	1.494.305	266.747	2.353.600	**5.112.516**	**45,1%**	0	0	0	0	0	**0**	**0,0%**
	455.546	**2.861.846**	**4.598.950**	**795.196**	**2.623.723**	**11.335.260**	**100,0%**	**653.415**	**11.237.835**	**17.715.706**	**2.735.099**	**2.035.367**	**34.377.421**	**100,0%**
	4,0%	**25,2%**	**40,6%**	**7,0%**	**23,1%**	**100,0%**		**1,9%**	**32,7%**	**51,5%**	**8,0%**	**5,9%**	**100,0%**	

Scenario 4: ISTAT-Domanda, UIC

	Domestic	Inbound		Outbound					Domestic	Inbound		Outbound				
		Italia	Estero	Italia	Estero					Italia	Estero	Italia	Estero			
Esercizi alberghieri	22.567	1.227.073	1.057.343	223.245	143.179	**2.673.407**	**25,3%**		63.731	6.666.011	4.236.019	1.316.432	1.008.851	**13.291.044**	**43,1%**
Campeggi e strutture similari	1.612	23.134	183.344	51.498	11.393	**270.981**	**2,6%**		3.225	300.745	898.158	369.821	160.627	**1.732.576**	**5,6%**
Altri alloggi collettivi	1.390	53.544	521.738	11.610	8.697	**596.979**	**5,7%**		1.390	286.354	1.649.405	89.818	90.212	**2.117.179**	**6,9%**
Alloggi in affitto e privati:															
- casa in afftto + agriturismo	0	541.762	401.775	24.417	8.591	**976.545**	**9,3%**		0	4.086.188	2.646.295	227.770	85.793	**7.046.046**	**22,9%**
- casa di proprietà	8.767	123.959	63.908	56.811	5.504	**258.949**	**2,5%**		215.308	332.319	1.522.297	248.982	11.317	**2.330.223**	**7,6%**
- ospite di parenti e amici	62.411	133.315	309.783	121.472	36.108	**663.089**	**6,3%**		200.206	361.374	2.696.047	559.215	476.042	**4.292.884**	**13,9%**
Escursionisti	325.598	672.266	1.494.305	266.747	2.353.600	**5.112.516**	**48,4%**		0	0	0	0	0	**0**	**0,0%**
	422.345	**2.775.053**	**4.032.197**	**755.800**	**2.567.072**	**10.552.467**	**100,0%**		**483.860**	**12.032.991**	**13.648.220**	**2.812.038**	**1.832.842**	**30.809.951**	**100,0%**
	4,0%	**26,3%**	**38,2%**	**7,2%**	**24,3%**	**100,0%**			**4,6%**	**114,0%**	**129,3%**	**26,6%**	**17,4%**	**292,0%**	

Appendix 3

PASSI PER LA CREAZIONE DELLA TAVOLA 5 DEL CST

INTRODUZIONE

La tavola 5 del Conto Satellite del Turismo è composta da due parti: una prima parte lega le branche produttrici di beni e servizi (distinte tra branche turistiche, branche connesse e branche non specifiche) ai beni e servizi classificati secondo le voci di spesa turistica (distinte tra voci turistiche, voci connesse e voci non specifiche), chiameremo questa prima parte Supply della tavola 5. La seconda parte riguarda i costi intermedi delle medesime branche produttrici ed il valore aggiunto, la chiameremo Use della tavola 5.

Gli elementi di Supply & Use della tavola 5 difficilmente possono essere stimati in modo diretto da indagine perché la classificazione di branche e voci è particolarmente ampia. Si utilizzano perciò metodi indiretti che partono da fonti disponibili per arrivare a completare entrambe le parti della tavola. Le fonti utilizzate per la stima degli elementi sono le seguenti.

- Matrice Supply italiana con branche classificate per divisioni Ateco 2002
- Matrice Use italiana con branche classificate per divisioni Ateco 2002
- Dati sci (sistema conti imprese) italiani
- Dati sci della provincia di Bolzano
- Indagine sui consumi delle famiglie residenti
- Matrici IO bilanciate della provincia
- Censimento 2001

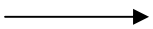
Utilizzando tali fonti sono stati stimati i valori della tavola 5 per tutti gli anni dal 2001 al 2005, descriviamo di seguito i passi utilizzati da questa procedura indiretta.

AGGREGAZIONE PRELIMINARE DELLE BRANCHE PRODUTTRICI DELLA TAVOLA 5 DEL CST

La matrice IO di Bolzano è classificata per sottosezioni Ateco (30 branche), le matrici italiane Supply & Use sono classificate per divisioni 59 branche, nella tabella 5 del CST le branche sono un po' troppo disaggregate, occorre unire quelle che risultano sottoinsiemi delle divisioni ateco. L'aggregazione è avvenuta come indicato nel passaggio tra la Tab. 1 e la Tab. 2.

Tab 1: branche turistiche originarie

1 - Alberghi e simili
2 - Propietà di seconde case
3 - Ristoranti e simili
4 - Trasporto ferroviario di passeggeri
5 - Trasporto passeggeri su strada
6 - Trasporto passeggeri via acqua
7 - Tasporto aerio di passeggeri
8 - Servizi di supporto al trasporto passeggeri
9 - Noleggio di attrezzature varia
10 - Agen. Viaggio e simili
11 - Servizi culturali e ricreativi



Tab 2: branche turistiche riaggregate

1,3 - Alberghi e simili, ristoranti e simili
2 - Propietà di seconde case
4,5 - Trasporto ferroviario di passeggeri e su strada
6 - Trasporto passeggeri via acqua
7 - Tasporto aerio di passeggeri
8,10 - Servizi di supporto al trasporto passeggeri agenzie di viaggio e simili
9 - Noleggio di attrezzature varia
11,12 - Servizi culturali e ricreativi e sportivi

Mar

STIMA DELLA PRODUZIONE E DEL VALORE AGGIUNTO PER DIVISIONI ATECO

Passo preliminare è quello di stimare produzione, valore aggiunto e imposte indirette nette sui costi intermedi per tutte le divisioni indicate nella Tab. 2. Per stimare questi aggregati a tale livello di classificazione si utilizzano preliminarmente i dati SCI (Sistema Conti Imprese) disponibili fino al 2003 sia per l'Italia che per la provincia di Bolzano, essi mostrano il fatturato ed il valore aggiunto per addetto. Si parte dal 2001 in cui si conoscono gli addetti in base al censimento dell'industria e dei servizi e si fanno crescere tali addetti per la provincia di Bolzano in base ai dati dell'archivio ASIA fornito da ASTAT. Per stimare produzione e valore aggiunto fino al 2005 si moltiplicano questi addetti per i valori medi della SCI (per il 2004 e 2005 si utilizzano ancora i valori medi della SCI del 2003, considerando che successivamente verranno vincolati a produzione e valore aggiunto delle tavole IO bilanciate fino al 2005).
Si utilizzano i dati forniti da ASTAT, utilizzati per il bilanciamento delle matrici IO (Tei bolzano 2001-2005) e dalle matrici bilanciate ripartiamo la produzione (che nelle matrici è a 30 branche) in produzione per divisione ateco, questa cosa viene fatta per tutti gli anni dal 2001 al 2005 (per il 2004 e 2005 abbiamo utilizzato la quota del 2003). Il foglio di lavoro che contiene questi calcoli è quello chiamato "ripartizione branche". In questo foglio creiamo delle matrici rettangolari di passaggio.

USO LA SUPPLY ITALIANA PER COLLEGARE BRANCHE E PRODOTTI

Le matrici supply sono matrici che legano i beni e servizi alle branche che li hanno prodotti, nella contabilità nazionale sono disponibili matrici Supply con 59 prodotti (classificazione cpa) e 59 branche (divisioni ateco).
Si prendono le Supply italiane dal 2001 al 2004 che collegano le branche produttrici di beni (distinte in divisioni) ed i beni e servizi prodotti (distinti sempre in 59 voci CPA) e le utilizziamo per ripartire le colonne delle branche aggregate nei diversi beni e servizi erogati, si scelgono in particolare (per colonna) le seguenti divisioni (che chiameremo branche specifiche del turismo):

Tab 3: divisioni specifiche del turismo

55	Alberghi e ristoranti
60	Trasporti terrestri
61	Trasporti marittimi
62	Trasporti aerei
63	Attività ausiliarie dei trasporti, agenzie di viaggio
70	Attività di servizi immobiliari
71	Noleggio di macchinari
92	Attività ricreative, culturali e sportive

Queste branche sono specifiche del turismo, in realtà nella tav5 del CST vi sono altre branche chiamate connesse che nel manuale metodologico SNA non vengono opportunamente specificate perché viene suggerito di farle dipendere dal territorio in cui tali beni e servizi vengono prodotti, saranno trattate nel successivo paragrafo.

Il foglio di lavoro che contiene questi calcoli è chiamato "supply nazionali". Tutte queste branche indicate offrono diversi tipi di beni e servizi, alcuni strettamente turistici, altri connessi, altri non specifici. I beni e servizi offerti da queste branche

considerati specifici per il turismo sono i seguenti: Per quanto riguarda i prodotti, si prendono dalla supply nazionale i seguenti beni e servizi:

Tab 4: Prodotti specifici

Commercio e riparazione
Alberghi e ristoranti
Trasporti terrestri
Trasporti marittimi
Trasporti aerei
Trasporti ausiliari; agenzie di viaggio
Attività immobiliari
Noleggio di macchinari
Attività ricreative, culturali e sportive

Ovviamente questi beni e (soprattutto) servizi non corrispondono alle voci di spesa turistica indicate nella tav 1 ed in riga della tav 5 del CST. Occorre opportunamente ripartirli.

La ripartizione dei beni e servizi specifici del turismo nelle voci di spesa mostrate in tav1 del CST è stata fatta calcolando le quote di ciascuna voce di spesa dall'indagine sui consumi dei residenti e dall'indagine sulla spesa turistica. I criteri utilizzati per allocare le voci di spesa dell'indagine sui consumi dei residenti alle voci di spesa della tav 1 sono stati arbitrari e decisi nel file "indagine consumi residenti" (nei fogli di lavoro raccordo1 e raccordo2).

TRATTAMENTO DELLE BRANCHE CONNESSE

In base al Cap 5 del FINAL REPORT legato alla metodologia di un conto satellite del turismo italiano, vengono opportunamente definite le branche connesse al turismo nel seguente modo:

tab 5: definizione delle branche connesse

Attività	**ATECO91**	**Quote %**
1 servizi professionali e assicurativi	Sviluppo foto (**74812**) Organizzazione convegni (**74831**) Traduzione e interpreti. (**74833**) Uffici di cambio (**6713**) Assicurazioni su viaggi (**6603**)	100%
2 riparazioni varie	Rip. Natanti (**35.12**) Rip. e manut. Autoveicoli (**5020**) Rip. Macchine fotograf. (**33406**)	100%
3 servizi postali	**6411**	100%
4 servizi telefonici	**6412**	100%
5 articoli da campeggio	**17402**	100%
6 borse e valigie	**19200**	100%
7 cartoline, carte stradali e guide turistiche	**2215, 2222, 2211**	100%
8 pellicole fotografiche	**2464**	100%
9 creme solari	**2452**	100%
10 attrezzi foto-cine	**33405**	100%
11 attrezzature sportive	**3640**	100%

aggiungerei alla *branche connesse* l'attività esercitata da:
associazioni e consorzi turistici (74.14.5 e 52.47.3)
scultori (20.51.1)
guardando le attività connesse nel CST della Svizzera, si potrebbero proporre anche:
52 (commercio al dettaglio),
50.4(COMMERCIO, MANUTENZIONE E RIPARAZIONE DI MOTOCICLI,ACCESSORI E PEZZI DI RICAMBIO)
50.5 (Vendita al dettaglio di carburanti)
65.12 (Altre intermediazioni monetarie)
67.2 (ATTIVITÀ AUSILIARIE DELLE ASSICURAZIONI E DEI FONDI PENSIONE)
70 (ATTIVITÀ IMMOBILIARI)
85.11 (Servizi ospedalieri)
85.12 (Servizi degli studi medici),

Queste classi e categorie non sono disponibili in contabilità nazionale e tanto meno regionale. Unica cosa che al momento possiamo fare è quella di prendere i dati nazionali della SCI (Sistema dei Conti delle Imprese) che permettono di stimare produzione e valore aggiunto per addetto fino alla disaggregazione in classi ateco (4 cifre), si possono poi moltiplicare tali valori medi per gli addetti del censimento di queste classi e categorie nella provincia di Bolzano. Per stimare produzione e costi intermedi delle branche connesse lavoriamo nel seguente modo:

Prendiamo i dati della SCI nazionale del 2001 che fornisce informazioni sulla produzione per addetto e valore aggiunto per addetto divisa per categorie Ateco (4 cifre), nella tabella….. alcune branche connesse sono prese dalla classificazione a 5 cifre occorrerà approssimare queste categorie (a 5 cifre) alla corrispondenti classi ateco (a 4 cifre) . Per alcune delle branche connesse (in particolare 6603 6713 74831) i dati SCI non sono disponibili (i dati SCI non forniscono informazioni per gli intermediari finanziari), ed abbiamo dovuto prendere i corrispondenti valori dalle tavole USE italiane del 2001, che sono però spaccati per dividione ateco, dividendoli per i corrispondenti addetti italiani del censimento 2001. Tutti i valori di produzione e valore aggiunto per addetto calcolati per queste branche connesse li abbiamo moltiplicati per gli addetti delle corrispondenti branche connesse presenti nella provincia di Bolzano nel 2001 in base ai dati censuari.

Tab6: classi ateco delle branche connesse

Sottosez	Classi ateco (a 4 cifre) delle branche connesse	addetti censimento 2001 nella provincia di Bolzano	Stima produzione in milioni di euro nel 2001	Stima valore aggiunto in milioni di euro nel 2001
DB	1740 - Confezionamento di articoli in tessuto, esclusi gli articoli di vestiario	89	10.4	2.7
DC	1920 - Fabbricazione di articoli da viaggio, da correggiaio, borse e selleria	34	3.6	0.9
DE	2211 - Edizione di libri, opuscoli, libri di musica e altre pubblicazioni	85	23.2	7.6
DE	2215 - Altre edizioni	19	3.9	1.1
DE	2222 - Altre stampe di arti grafiche	1345	142.7	49.6
DG	2452 - Fabbricazione di profumi e prodotti per toletta	50	15.4	3.7
DG	2464 - Fabbricazione di prodotti chimici per uso fotografico	0	0.0	0.0
DL	3340 - Fabbricazione di strumenti ottici e di attrezzature fotografiche	254	37.1	12.6

DM	3512 - Costruzione e riparazione di imbarcazioni da diporto e sportive	0	0.0	0.0
DN	3640 - Fabbricazione di articoli sportivi	19	3.3	0.9
G	5020 - Manutenzione e riparazione di autoveicoli	2189	151.7	45.5
I	6411 - Attivita' delle poste nazionali	1511	73.1	53.2
I	6412 - Attivita' di corriere diverse da quelle postali nazionali	4	0.5	0.1
J	6603 - Assicurazioni diverse da quelle sulla vita	71	27.3	11.6
J	6713 - Attivita' ausiliaria della intermediazione finanziaria nca	141	15.6	8.1
K	7481 - Attivita' inerenti alla fotografia	215	10.8	3.7
K	7483 - Servizi congressuali di segreteria e di traduzione	289	27.4	14.7
K	7485 - Servizi di reprografia (riproduzione di testi e documenti) e traduzioni	0	0.0	0.0
	Totale	**6315**	**546.1**	**216.0**

Per portare avanti dal 2001 al 2005 le stima della tabella abbiamo utilizzato il tasso di variazione nominale delle sottosezioni ateco desunto dalle matrici IO bilanciate della provincia, supponendo che il tasso di variazione delle categorie incluse in ciascuna sottosezione sia risultato uguale.

TRATTAMENTO DEI PRODOTTI CONNESSI

Le categorie della tabella …. Sono state utilizzate anche per definire i prodotti connessi, si considerano prodotti connessi tutti quei prodotti creati dalle divisioni CPA (per prodotto) 17 19 22 24 33 35 36 50 64 66 67 74), qualunque sia la branca che li produce, dunque avremo prodotti connessi creati sia dalle branche turistiche che dalle branche connesse che dalle branche non turistiche. (chiaramente la maggiore quota rispetto al totale prodotto è imputabile alle branche connesse).

I prodotto non specifici si ottengono per differenza, sottraendo dal totale della produzione di ciascuna branca (colonna della tav 5) la produzione specifica e la produzione connessa.

STIMA DEI COSTI INTERMEDI DELLE BRANCHE SPECIFICHE

Prendiamo la tavola Use nazionale e la matrice io provinciale per ricavare i consumi intermedi delle branche turistiche,. Le tavole Use sono matrici che dicono quali prodotti sono acquistati dalle singole branche per svolgere la propria attività produttiva. Si prendono le Use nazionali di tutti gli anni dal 2001 al 2004 e si aggregano le sue righe in base, alla classificazione della tav 5 (parte inferiore).

Dalle matrici io bilanciate ho a disposizione gli scambi intermedi (una sorta di Use provinciali però aggregate a 30 branche invece che a 59), dopo aver ricavato gli scambi intermedi per branca (al punto precedente) dalla matrice Use nazionale li vincolo a agli scambi di queste matrici provinciali bilanciate.

Per le branche connesse e quelle non specifiche non occorre stimare i consumi intermedi.

STIMA DELLA TAVOLA 6 (SOLO PER IL 2005)

La parte di importazioni, imposte e margini della tavola 6 sono state create utilizzando il foglio di lavoro “Quote tab6” presente nel file di costruzione. Possiamo

seguire questa descrizione osservando proprio tale foglio di lavoro. I passi sono stati i seguenti:

1) Dalla matrice IO 2005 di Bolzano recupero i seguenti aggregati:

tab 7: voci della tavola IO

Costi intermedi
Valore aggiunto
Imposte indirette nette
domanda intermedia
domanda finale interna
esportazioni regionali
esportazioni estere
importazioni regionali
importazioni estere
imposte sulla domanda finale
margini sulla domanda finale

Le imposte ed i margini sono stati stimati applicando le aliquote presenti nel file "modello io 2005" a tutta la domanda finale. In pratica quelle presentate sono le imposte ed i margini su tutta la su tutta la domanda finale.

2) Questi aggregati sono distinti per branca (classificati nella tavola in 30 voci), si definisce di tali voci quali sono le branche turistiche, le branche connesse e le branche non specifiche (prima colonna). Questa definizione non è fine come dovrebbe essere (usando le divisioni ateco), il problema è che per la tavola non abbiamo una disaggregazione più spinta, in termini di aliquote che costruiremo non dovremmo distorcere troppo i risultati. Da tali valori assoluti costruisco la seguente tabella di aliquote per le branche turistiche connesse e non specifiche.

Tab 8: quote per la stima di importazioni e margini della tavola 6

Branche	Quote di esportazione di beni e servizi	Quote di importazione regionale sui beni e servizi prodotti al netto di quelli esportati	Quote di importazione estera sui beni e servizi prodotti al netto di quelli esportati	Quote di imposta netta sul totale della domanda finale coperta da produzione interna	Quote di margini commerciali e di trasporto sul totale della domanda finale coperta da produzione interna al netto delle imposte
1,3 - Alberghi e simili, ristoranti e simili	0.000	0.000	0.000	0.057	0.000
4,5 - Trasporto ferroviario di passeggeri e su strada	0.468	0.877	0.163	-0.075	0.000
6 - Trasporto passeggeri via acqua	0.468	0.877	0.163	-0.075	0.000
7 - Tasporto aerio di passeggeri	0.468	0.877	0.163	-0.075	0.000
8,10 - Servizi di supporto al trasporto passeggeri agenzie di viaggio e simili	0.468	0.877	0.163	0.078	0.000
2 - Propietà di seconde case	0.000	0.023	0.000	0.004	0.000
9 - Noleggio di attrezzature varia	0.000	0.023	0.000	0.004	0.000
11,12 - Servizi culturali e ricreativi e sportivi	0.018	0.521	0.296	0.103	0.026
Branche conesse al turismo	0.237	0.325	0.211	0.126	0.313

Branche non specifiche	0.283	0.245	0.223	0.095	0.159

Il calcolo delle aliquote è stato eseguito in questo modo:

Quote di esportazione di beni:
E' il rapporto tra le esportazioni verso l'Italia e verso l'estero e la produzione interna a prezzi base, mi serve per eliminare dalla produzione la parte che non viene acquistata fuori provincia.

Quota di importazioni regionale sui beni e servizi prodotti al netto di quelli esportati
E' il rapporto tra le importazioni regionali e la >produzione-esportazioni>, calcolo tale aliquota in questo modo perché suppongo di non importare ciò che immediatamente esporto senza nessuna lavorazione (che entrerebbe nella produzione).

Quota di importazioni estere sui beni e servizi prodotti al netto di quelli esportati
E' il rapporto tra le importazioni estere e la <produzione-esportazioni>, calcolo tale aliquota in questo modo perché suppongo di non importare ciò che immediatamente esporto senza nessuna lavorazione (che entrerebbe nella produzione).

Quote di imposta netta sul totale della domanda finale coperta da produzione interna
E' il rapporto tra le imposte indirette nette e la domanda finale interna

Quote di margini commerciali e di trasporto sul totale della domanda finale coperta da produzione interna al netto delle imposte
E' il rapporto tra i margini commerciali e di trasporto e la domanda totale interna aumenatata delle imposte indirette nette, per le branche turistiche relative ai trasporti inserisco una aliquota pari a 0 supponendo che tutti i margini rimangano all'interno della branca.

3) Avendo a disposizione dalla tab 8 le quote stimate come indicato, le applico alle corrispondenti branche turistiche, connesse e non specifiche. Supponendo che per ogni voce di spesa turistica la quota corrispondente ad una certa branca rimanga la stessa. In questo modo mi costruisco tutte le matrici che si trovano nelle celle:

tab 9: matrici contenenti le aliquote

Quote di esportazione dei beni e servizi prodotti internamente (stimati da tavola IO)	C45:L80
Quote di importazione regionale sui beni e servizi prodotti internamente-esportati	C85:L120
Quote di importazione estera sui beni e servizi prodotti internamente-esportati	C125:L160
Quote di imposte indirette nette sulla produzione interna	C165:L200
Quote di margini commerciali e di trasporto su produzione interna	C205:L240

Ci sono tuttavia delle eccezioni:

- per le branche connesse e quelle non specifiche, le quote sono state calcolate come media pesata delle quote delle corrispondenti voci, questo perché per tali branche che sono un mix di diverse branche occorre fare riferimento più alle quote delle relative voci che alle quote della branca (connessa o non specifica) che risulta un mix di tante branche differenti.
- Invece per i prodotti connessi e non specifici delle branche connesse e non specifiche ho lasciato le quote di tab 8.

4) Nelle matrici che si trovano tra la colonna O e la colonna Z ho stimato i totali a partire dalle quote delle matrici (indicate in tab9). Spiego brevemente perché le ho calcolate in tali modi:

esportazioni regionali e estere
Le ho calcolate come quota della produzione con l'intenzione di utilizzarle successivamente per sottrarle alla produzione della tavola 5 del CST, questo perché per calcolare l'offerta interna occorre togliere dalla produzione interna quello che va fuori provincia.

Importazioni regionali
Le ho calcolate come quota della produzione al netto delle esportazioni supponendo che non si esporta ciò che si è appena importato senza inserirci un minimo di lavorazione.

Importazioni estere
Calcolate con lo stesso principio delle importazioni regionali.

Imposte indirette nette
Si utilizza la quota delle imposte indirette nette e si applica al risultato di produzione + import – export che di fatto è la domanda interna, trattandosi però di una domanda a prezzi base occorre calcolare le imposte usando la formula inversa di come accade normalmente (vedere appendice).

Margini commerciali e di trasporto
Si calcola a partire dalla quota di margini sulla domanda finale al netto delle imposte. Anche in questo caso trattandosi di prezzi base la formula usata è quella inversa rispetto a ciò che accade normalmente.

APPENDICE: PASSAGGIO DA PA -PB E PB-PA

Supponiamo di possedere la matrice a prezzi di acquisto PA e delle matrici di aliquote □ (matrice delle aliquote delle imposte) e □ (matrice delle aliquote dei marigni), calcolate precedentemente, la procedura per passare dalla matrice PA alla PB è la seguente:

PA=matrice a prezzi di acquisto
PB=matrice a prezzi base
IMP=matrice di imposte indirette nette sui prodotti+iva+imposte importazioni
MC=matrice di margini commerciali e di trasporto
□=aliquota di imposizione fiscale sul prezzo di acquisto (□=IMP/PA)

□=aliquota di margine sul prezzo di acquisto al netto delle imposte nette (□=MC/(PA-IMP)).

Per passare dai prezzi di acquisto ai prezzi base le operazioni sono le seguenti:

IMP=□PA
MC=□ (PA-IMP)
PB=PA-IMP-MC

Per passare dai prezzi base ai prezzi di acquisto le operazioni sono le seguenti:

MC=PB □/ (1-□)
IMP=PB □□ı□ı□□
PA=PB+IMP+MC

Dimostrazione :

$$\begin{cases} IMP = \alpha \cdot PA \\ MC = \beta \cdot (PA - IMP) \\ PB = PA - IMP - MC \end{cases} \quad \begin{cases} IMP = \alpha \cdot (PB + IMP + MC) \\ MC = \beta \cdot (PB + MC) \\ PB = PA - IMP - MC \end{cases} \quad \begin{cases} IMP = \alpha \cdot (PB + IMP + MC) \\ MC = PB \cdot \beta / (1 - \beta) \\ PB = PA - IMP - MC \end{cases}$$

$$\begin{cases} IMP \cdot (1 - \alpha) = \alpha \cdot (PB + PB \cdot \beta / (1 - \beta)) \\ MC = PB \cdot \beta / (1 - \beta) \\ PB = PA - IMP - MC \end{cases} \quad \begin{cases} IMP \cdot (1 - \alpha) = \alpha \cdot (PB + PB \cdot \beta / (1 - \beta)) \\ MC = PB \cdot \beta / (1 - \beta) \\ PB = PA - IMP - MC \end{cases}$$

$$\begin{cases} IMP \cdot (1 - \alpha) = \alpha \cdot PB \cdot (1 + \beta / (1 - \beta)) \\ MC = PB \cdot \beta / (1 - \beta) \\ PB = PA - IMP - MC \end{cases} \quad \begin{cases} IMP = PB \cdot \alpha / [(1 - \alpha) \cdot (1 - \beta)] \\ MC = PB \cdot \beta / (1 - \beta) \\ PA = PB + IMP + MC \end{cases}$$

4) Si sommano le righe delle matrici e si ottengono i totali di importazioni regionali, importazioni estere, imposte e margini commerciali e di trasporto.

5) Per costruire le quote di produzione turistica nella tabella tab6a_2005 si moltiplica la quota del turismo in colonna AC per ciascun output.

VARIAZIONE DELLA QUOTA DI IMPORTAZIONI PER SIMULARE GLI EFFETTI DIRETTI

Sono state aggiunte due celle nel foglio “Quote tab6” che servono per variare la quota di importazioni regionali ed estere, più
Precisamente per diminuirla. Le celle in questione sono AB85 ed AB125, il loro valore rappresenta la percentuale di riduzione della quota di importazioni rispettivamente dall’Italia e dall’Estero. Se il valore delle celle è pari a 100 allora
Le importazioni vengono ridotte a 0 e tutta la domanda turistica viene coperta con produzione interna.

Appendix 4

CALCOLO DEI FITTI FIGURATIVI SECONDE CASE

Sono stati presi dal censimento i mq delle prime e seconde case per l'Italia e per Bolzano (tab1=

Tab 1 dati di censimento 2001

	mq abitazioni occupate da almeno una persona residente	mq abitazioni occupate solo da persone non residenti	totale mq abitazioni occupate	totale mq abitazioni non occupate	totale mq abitazioni
bolzano	15432329	213067	15645396	1608466	17253862
italia	2077642180	30081109	2107723290	404182279	2511905569

Sono stati stimati in rosso i fitti effettivi e figurativi per la provincia di Bolzano (tab2) usando i fitti conosciuti per l'Italia e la spesa totale per abitazioni conosciuta anche per Bolznao inisieme ai metri quadrati delle abitazioni in Italia e nella provincia.

Tab 2 stima dei fitti per bolzano in milioni di euro

	fitti effettivi e figurativi	altre spese per l'abitazione	totale voce di spesa
bolzano	783	406	1189.5
italia	92284	47823	140107.3

Dall'indagine di ASTAT conosciamo le seconde case per scopi turistici, la loro metratura e la loro quota posseduta dai non residenti (tab 3). Una volta stimati i fitti della provincia (783 milioni in tab2) li abbiamo divisi per i metri quadrati del totale delle abitazioni (17253862 mq in tab1) nella provincia e li abbiamo moltiplicati per i metri quadrati delle seconde case turistiche (505173 in tab 3) per ottenere i fitti figurativi delle seconde case turistiche e per 1103292 per ottenere i fitti delle seconde case non turistiche.

Tab 3 dati dell'indagine ASTAT e stima in milioni di euro dei fitti figurativi

	numero di seconde case nella provincia di bolzano	superficie utile in mq	percentuale di possessori non residenti in provincia	totale mq seconde case di proprietà dei non residenti	fitti effettivi e figurativi assegnati a non residenti
Da indagine sulle seconde case turistiche dell'ASTAT	10526	64.42	0.745	505173	22.93953
Seconde case non turistiche ottenute per differenza	17127			1103292	50.09967

E' stato poi portato questo dato relativo al 2001 in avanti utilizzando la variazione dei prezzi per le spese totali per abitazione nella provincia di Bolzano (tab 4):

tab 4 serie dei fitti figurativi in seconde case turistiche e non turistiche

anni	2001	2002	2003	2004	2005
fitti figurativi da aggiungere ai consumi turistici per bolzano per le case turistiche	22.9	24.4	25.5	27.4	28.2
fitti figurativi delle II case non turistiche turistiche	50.1	53.2	55.6	59.7	61.6
Totale	73.0	77.6	81.1	87.1	89.8

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Appendix 5

DEPARTAMENTALIZACIÓN DEL PRODUCTO BRUTO INTERNO EN URUGUAY

ANTECEDENTES

La departamentalización de las macrovariables económicas fue iniciada en el año 1992 y la actividad se extiende hasta la actualidad, la misma cubre el periodo 1985 – 2006; el año 2007 está en procesamiento.
La estimación presenta dificultades, las cuales se encuentran radicadas básicamente y como es lógico en las Base de Datos disponibles, o sea que la calidad de la información acerca de las macrovariables es tan buena como la calidad de éstas.
Uno de los problemas fundamentales que tienen los sistemas de información estadística oficiales del País es su debilidad en cuanto al desarrollo de la dimensión territorial de la misma**.**
Durante la década del 90 y parte de la actual el sistema de información del Estado sufrió un proceso de deterioro marcado, se discontinuaron fuentes, se redimensionaron otras, en resumen el mismo se redujo en forma notoria.
La debilidad en la territorialización de la información parecería estar ligada a la fuerte centralización del sistema político y en el concomitante desinterés en el desarrollo de políticas territoriales diferenciadas y en la descentralización del Estado. Obviamente los costos que conlleva el dar validez estadística a la información territorializada es sensiblemente superior, aunque no parece que sea esta una razón trascendente que justifique está situación.
El fortalecimiento de las políticas descentralizadoras y de promoción del desarrollo local ha vuelto el foco hacia el territorio, hacia las políticas territorialmente diferenciadas y hacia el reequilibrio territorial, que ha determinado un cambio en el foco hacia los Departamentos lo cual eventualmente va a generar nuevas Bases de Datos, con mayor información y por tanto podremos mejorar las estimaciones realizadas.
Los trabajos realizados de Regionalización implementados en forma conjunta con AECI nos han mostrado la necesidad de profundizar aún más la territorialización de la información y
profundizar en el ámbito interno de los departamentos, en los segmentos y secciones censales ya que la realidad muestra que las diferencias entre los departamentos también se dan a la interna de estos con la misma o mayor profundidad.

METODOLOGIA SECTORIAL[39]

A continuación desarrollaremos una discusión detallada por sector de la economía de acuerdo a la Clasificación Industrial Internacional Uniforme de Naciones Unidas Rev2. Para cada sector de la economía se discute la metodología empleada, la cual está determinada en un alto grado por la información estadística de que se dispone.

[39] Para el desarrollo de este capítulo se toma como referencia la información presentada por el Banco Central del Uruguay en – Cuentas Nacionales, 1991, Departamento de Estadísticas Económicas.

La disponibilidad de información no es uniforme a lo largo de los sectores por lo que la precisión de los resultados lógicamente no es la misma.

I. CLASE DE ACTIVIDAD 1: SECTOR AGROPECUARIO

Los bienes y servicios incluidos en este sector son los que se identifican con el CIIU 1 Rev.2, correspondientes a las actividades definidas en las divisiones 11 y 12 de la señalada clasificación. Se incluye dentro de este Sector las producciones pecuarias, agrícolas y silvícola; se toma en cuenta también la faena y la elaboración de productos lácteos a nivel predial. La inclusión de estos productos en este sector se tomó teniendo en cuenta, que son diferentes de los provenientes de las respectivas industrias y sus estructuras de consumos intermedios también lo son.
El cálculo del VBP departamental se ajustó tomando el criterio de las mercancías y valorizando los volúmenes físicos de todos los bienes y servicios que produce el sector.

1.1.1 Bases de datos Pecuarios

Para la asignación departamental de la producción de carne ovina, bovina y lana se utilizó como criterio el stock ganadero, expresado en unidades ganaderas, medidas al 30 de junio de cada año, tomado de la Declaración Jurada de DI.CO.SE..
La producción departamental de leche fluida y subproductos lácteos elaborados a nivel de predio, fue calculada a partir de la información de las declaraciones de DI.CO.SE..
La departamentalización de la producción de carne de ave y cerdo así como la producción de huevos se realizó sobre la base de los stocks que surgen de los Censos Generales Agropecuarios de 1980, 1990 y 2000, y de posteriores encuestas que permitieron adecuar las bases de datos.
La departamentalización de la producción de miel en principio se realizó sobre la base de informantes calificados, actualmente se dispone de información procesada por la Junta Nacional de la Granja, M.G.A.P.

1.1.2 Base de datos Agrícola

Los cultivos de invierno (trigo, avena, cebada, lino, etc.) y los de verano (maíz, sorgo, arroz, soja) fueron departamentalizados sobre la base de la información de área, producción y rendimientos de DI.CO.SE., de los Censos Generales Agropecuarios y de Encuestas Agrícolas de D.I.E.A..
Para el caso de los cultivos sacarígenos se recurrió a la información de las respectivas publicaciones de D.I.E.A.; M.G.A.P.. En la caña de azúcar fue la información proveniente de “Serie Informativa, Boletín Nº 161” ; actualmente informes de ALUR S.A..
Los sectores de mayor dificultad se presentaron para la departamentalización de los volúmenes físicos de lo que genéricamente se conoce como Granja (horticultura, fruticultura de hoja caduca, y viticultura) y también la citricultura, para los cuales se realizó en función de las áreas bajo cultivo. Para cultivos tales como: boniato y leguminosas secas se utilizó como criterio el mismo que para los cultivos de granja. Para el rubro otros que incluye maíz de guinea, alpiste, algodón y maní, se realizó el relevamiento de la información en el ámbito de informantes calificados.

1.1.3 Base de datos Silvícola

Como información de base se utilizó el área de Montes Naturales y Montes Artificiales provenientes de los Censos Generales Agropecuarios de 1980, 1990 y 2000 y la información de áreas forestadas bajo proyecto provistas por la Dirección General Forestal del M.G.A.P..

1.1.4 Criterios para el cálculo de los Consumos Intermedios Departamentales

Los insumos agropecuarios departamentales se estimaron para cada uno de los subsectores en que se dividió el Sector: Pecuario, Agrícola y Silvícola.
a) Consumos Intermedios Pecuarios La apertura se realizó utilizando los criterios del BCU en su estudio a nivel nacional, a tales efectos se consideraron: combustibles y lubricantes, alimento de ganado, sanidad animal, envases y mantenimiento, y varios. Dentro de este último rubro se incluyeron: bancos, seguros, comunicaciones, pasajes y botas de tambo.
b) Consumos Intermedios Agrícolas Se siguieron los mismos criterios que para el subsector pecuario con la siguiente apertura: semillas, combustibles y lubricantes, fertilizantes, pesticidas, mantenimiento, envases y el rubro varios. En este último se incluyeron: bancos, seguros, electricidad, comunicaciones y pasajes.
c) Consumos Intermedios Silvícolas Para este subsector no se realiza apertura.

1.4.1.1 Sector Pecuario

a) Combustibles: La asignación de combustibles se realizó en función de las dotaciones totales de cada departamento medidas en unidades ganaderas, las relaciones para la conversión del stock a dichas unidades se establecen en la publicación “Estadísticas e Indicadores Básicos Agropecuarios”.
b) Sanidad Animal: Se tomaron como referencia las dotaciones lanares y vacunas en forma separada y en función de ellas se calcularon los insumos sanitarios por departamento.
c) Alimento de Ganado: Se tomó como base la publicación realizada por la Cámara de Fabricantes de Raciones que funciona en la órbita de la Cámara Mercantil de Productos del
País de Uruguay y que lleva las estadísticas de producción de raciones según destino (aves, cerdos, ganado vacuno, etc.), importaciones de granos, producción de derivados de la molienda de granos, etc. Para el caso de los cerdos el criterio fue aplicar un determinado porcentaje de las necesidades del rodeo nacional, ya que esta producción tiene concentración en Canelones (70%), en predios de pequeños productores donde se produce la mayoría de la alimentación que estos consumen y debe ser considerado un auto insumo del sector, por lo que los valores asignados a este rubro son menores que si considerara el total del rodeo nacional.
d) Mantenimiento: El mantenimiento de las instalaciones y de los equipos utilizados en la producción pecuaria se calcularon en base a las dotaciones para el caso de los lanares y vacunos, con relación a las aves y cerdos se tomó un porcentaje de la alimentación.
e) Varios: La asignación de este rubro se realizó en función de la participación de los insumos anteriores.

1.1.4.2 Sector Agrícola

a) Combustibles: Se establecieron los coeficientes técnicos por cultivo y por tecnología definiéndose a la vez la participación de cada una de éstos para establecer la ponderación y los valores por hectárea a nivel departamental.
b) Semillas: Se estimaron las necesidades de semilla por rubro para cultivos cerealeros y de oleaginosos, así como para los cultivos hortícolas. También se estimaron las necesidades de semillas para la caña de azúcar de acuerdo a los % de replantación.
c) Fertilizantes: Se establecieron los usos por cultivo de acuerdo a las respectivas tecnologías para obtener los valores departamentales por rubro y luego en función del área se obtuvieron los valores departamentales.
d) Mantenimiento: Se establecieron las horas de tractor y demás equipos necesarios por cultivo y por tecnología, las que fueron prorrateadas con relación a las participaciones de las tecnologías para llegar a los valores departamentales.
1.1.5 Análisis de las limitantes de la metodología
Las limitantes más significativas son aquellas que surgen de las carencias de la base de datos y de las metodologías de cálculo, las cuales analizaremos por separado.

1. 1.5.1 Limitantes de las Bases de Datos

Las Bases de Datos que tienen como fuente a DI.CO.SE. del M.G.A.P. tienen como limitantes que las declaraciones no son obligatorias para todos los productores ya que se requiere un tamaño mínimo.
Por lo tanto aquellos departamentos en los que existe un componente importante de pequeños productores sus valores pueden aparecer subvaluados como por ejemplo: Canelones, San José, Colonia y Montevideo. No obstante cuando existieron posibilidades de realizar comparaciones con fuentes independientes se pudo comprobar que no existen diferencias significativas excepto quizás en forma excepcional para el maíz en cuyo caso se encontraron discrepancias muy significativas.
Otras áreas en las que existen significativas carencias de información son la que genéricamente se conoce como Granja particularmente en los cultivos no permanentes (hortícola) en los cuales las fluctuaciones anuales pueden ser muy significativas.

1.1.5.2 Limitantes Metodológicas

Dentro de las limitantes que se le imprimen al trabajo derivadas de la metodología la más importante es la que deriva del hecho de asumir una productividad de los stocks uniforme a lo largo del país referido a los rubros pecuarios, aunque en algunos casos esta puede ser levantada con factores que recogen las distintas productividades.

I. CLASE DE ACTIVIDAD 13: PESCA

1.2.1 Las actividades comprendidas en este sector son las definidas en la división 13 de la CIIU Rev. 2. Se incluyen dentro de este sector la captura de peces, crustáceos y moluscos, caza de focas y lobos marinos, recolección de algas y de otros productos en aguas costeras y en alta mar.
1.2.2 La departamentalización de las macrovariables bajo estudio se realizó en función del puerto donde se produce la descarga y procesamiento de la captura. Inicialmente se consideraron los puertos de Montevideo, Piriápolis y La Paloma por lo tanto los valores fueron asignados a los departamentos de Montevideo, Maldonado y Rocha. La información básica proviene de las publicaciones del Instituto Nacional de Pesca (INAPE) actualmente Dirección Nacional de Recursos Acuáticos (DINARA) M.G.A.P. "Boletín Comercial – Compendio Estadístico Pesquero Período 1975 – 1995", "Informe Sectorial Pesquero" y sucesivas publicaciones. A partir del año 2006 se cuenta con información procesada de la captura de la flota industrial por puerto y también de la captura de la flota artesanal.
1.2.3 El VBP se calculó en bases a los volúmenes de captura y a los precios de productor. Los Consumos Intermedios en base a la participación en el VBP.

II. CLASE DE ACTIVIDAD 2: MINAS Y CANTERAS

2.1. Las actividades de la industria extractiva son clasificadas en la CIIU 2 Rev.2. Se incluyen dentro de este sector la extracción de piedra, arcillas, arena y otros minerales.
2.2 La departamentalización de las macrovariables bajo estudio se realizó en función de la extracción de minerales por departamento y por tipo. Dicha extracción fue valorada de acuerdo al tipo de mineral de que se trate. La información básica fue extraída de las publicaciones que realiza periódicamente la Dirección Nacional de Minería y Geología (DI.NA.MI.GE.), del Ministerio de Industria y Energía, "Industria Extractiva del Uruguay" – Estadísticas de los respectivos años.
2.3 El VBP del sector se calculó en base a los volúmenes de extracción por tipo de mineral y a los precios a nivel de producción.

III. CLASE DE ACTIVIDAD 3: INDUSTRIA MANUFACTURERA

3.1 Bajo esta denominación "Industria Manufacturera" se incluyen los productos correspondientes definidos en la gran División 3 del CIIU Rev.2.
3.2 Se incluyen aquí actividades de transformación de sustancias en productos nuevos, pudiendo ser de naturaleza orgánica o inorgánica, el montaje de partes de productos, y la reparación de maquinaria y equipo industrial, comercial de oficina, etc., realizado en establecimientos especializados
3.3 Con referencia a los antecedentes disponibles se destaca en primera instancia una departamentalización del Producto Bruto Interno (PBI) para el año 1961 la cual fue recogida de la publicación "Propuesta de Descentralización y Acondicionamiento Territorial – CE.LA.D.U. Cuyas fuentes fueron la Dirección General de Estadísticas y Censos y la CEPAL.
3.4 Como última referencia está el II Censo Económico Nacional del año 1978 en que se presenta una muy detallada departamentalización de las principales variables Macroeconómicas como otras variables físicas del sector.

3.5 A partir del año 1978 no se dispone de ninguna información respecto de la evolución de estas macrovariables económicas ya que el III Censo Económico Nacional del año 1988 Fase 1 y 2 no presenta dicha información.
3.6 El presente trabajo fue conformado a partir del III Censo Económico Nacional 1988 Fase 1 y 2, y las bases aportadas por el Instituto Nacional de Estadística.
3.7 El estudio básicamente comprendió una primera etapa que consistió en un reprocesamiento conjunto de las bases de datos generadas en dicho censo, trabajo que se realizó conjuntamente con el Convenio UTE – Universidad de la República. El proceso de departamentalización de las macrovariables se resolvió a través de métodos computacionales que no se discuten aquí.
3.8 Básicamente implicó el reprocesamiento de la Fase 2, en tanto en la información recogida incluía información del departamento en donde se realizaba el proceso productivo y por tanto permitía su departamentalización. Si bien la Fase no era un Censo de las empresas para todos los estratos, para aquellos que significaban más del 85% del PBI si lo eran, o sea las empresas de inclusión forzosa, el resto fue muestreado.
3.9 Los insumos tienen una apertura en: Materias Primas, Materias Auxiliares, Combustibles, Agua, Electricidad, Envases y Gastos.
3.10 Para cada departamento se generó una matriz de INSUMOS y otra de VBP y VAB. En la publicación "INDUSTRIAS MANUFACTURERAS, DEPARTAMENTALIZACIÓN DE MACROVARIABLES ECONOMICAS, AÑO 1988" se presenta un estudio en profundidad del CIIU 3 a nivel de 3 dígitos o sea a nivel de Agrupación. En dicho estudio se realiza también un análisis de una serie de índices de gran trascendencia para el sector. A partir del año 2005 se incluye la información suministrada por la empresa BOTNIA para el sector.

IV. CLASE DE ACTIVIDAD 4 : ELECTRICIDAD, GAS Y AGUA

Las actividades comprendidas en este sector son las definidas en las Divisiones 41 y 42 de la CIIU - Rev2. Se incluye dentro de este sector: generación, transmisión y distribución de energía eléctrica; extracción, purificación y distribución de agua; y producción y distribución de gas.

4.1 Electricidad

La departamentalización de la Electricidad fue realizada tomando en cuenta 3 aspectos: generación (térmica e hidráulica), transmisión y distribución. En el área de la generación se tomó en cuenta la generación de las represas (Baygorria, Palmar, Rincón del Bonete, Gabriel Terra y Salto Grande) y la de las Centrales Térmicas. La producción de la represa de Baygorria y Palmar fue imputada por partes iguales a los departamentos de Soriano y Río Negro, la de Rincón del Bonete y de Gabriel Terra fue imputada por partes iguales a los departamentos de Durazno y Tacuarembó. En el caso de Salto Grande la cuota de producción correspondiente al país fue asignada a Salto.
Para la energía hidroeléctrica se tomó una estructura de costo provista por UTE en la que se relacionan los INSUMOS, VAB y VBP.
Con respecto a la energía termoeléctrica el procedimiento fue similar, se analizó la producción termoeléctrica por departamento y en base a la estructura de costos de UTE – o sea INSUMOS, VAB y VBP se estimaron los valores anuales.

Los registros de producción se obtienen de la información del Anuario del INE. Las áreas de distribución y transmisión fueron valoradas de acuerdo a la ocupación de los subsectores.

4.2 Agua

Para el caso del agua se toma como referencia básicamente la información suministrada por O.S.E. Se incluye aquí el agua potable vendida, conexiones, saneamiento, etc. La departamentalización de las macrovariables toma como eje central el consumo (metros cúbicos de agua) y el número de conexiones, información que proviene de O.S.E.
La estructura de costos utilizada también es provista por O.S.E. y a través de ella se asignan los valores de las macrovariables a cada departamento.

4.3 Gas

Incluye gas por cañería y supergas y se incluye en este subsector, los servicios de conexión, reparaciones, etc. Para este rubro no se dispone de ningún criterio para su departamentalización, por lo tanto se optó por repartirlo en función de los dos rubros anteriores.

V. CLASE DE ACTIVIDAD 5: CONSTRUCCIÓN

5.1 Este sector contiene las actividades contempladas en la gran División 5 de la CIIU Rev. 2 y comprende las actividades de los contratistas generales y especializados dedicados a la construcción, reformas, reparaciones y demoliciones de edificios y otras construcciones y trabajos realizados por cuenta propia
5.2 Este es uno de los sectores que presenta problemas más significativos de información en el área de Construcción Privada, ya que los registros que llevan las Intendencias Municipales no representan la realidad del sector. Debido a problemas fiscales los propietarios de las nuevas construcciones no dan por finalizadas los mismas y por tanto su valor es fuertemente sesgado. La información de Montevideo y Maldonado tiene un muy buen nivel de confiabilidad, el resto está en duda. La distribución departamental fue realizada tomando en cuenta la ocupación y se tomó en cuenta otras fuentes de información como Banco Hipotecario del Uruguay (BHU), Instituto Nacional de Estadística (INE), Intendencias Municipales, etc. .
A partir del año 2005 se incluye la información suministrada por la empresa BOTNIA para el sector.

VI. CLASE DE ACTIVIDAD 6: COMERCIO, RESTORANES Y HOTELES

Para su análisis, este sector se subdivide en la parte de Comercio y en Restoranes y Hoteles.

6.1 Comercio

Se incluyen en este sector las actividades que conforman las divisiones 61 y 62 de las CIIU de la Rev. 2., incluyendo comercio al por menor y mayor. El VBP del sector es el margen bruto que le agregan a las mercancías los comerciantes en todas las instancias del proceso de comercialización (mayoristas), sin ningún proceso de transformación. Se incluyen aquí también los servicios de distribución. Se estiman los márgenes de los bienes agropecuarios, manufactureros y bienes importados y otros bienes.

Este sector incluye al Comercio (venta de productos de diversa naturaleza que incluye el comercio mayorista y minorista, bienes agropecuarios, bienes manufacturados, bienes importados, etc.).

6.2 Restoranes y Hoteles

Los bienes y servicios incluidos son los correspondientes a las actividades definidas en las agrupaciones 631 y 632 de las CIIU – Rev. 2. En la 632 se centró el estudio en los Hoteles, Bares y Restoranes (actividades ligadas a la venta de bebidas y comidas). Los hoteles comprenden todo lo relacionado con los servicios de hospedaje, aclarándose que no se incluyen las pensiones. En este caso el Ministerio de Turismo proporcionó un listado con el universo de hoteles y plazas ofrecidas. Para este subsector se tomó como referencia la ocupación, e información proveniente de otras fuentes tales como INE, BCU, etc.

VII. CLASE DE ACTIVIDAD 7: TRANSPORTE, ALMACENAMIENTO Y COMUNICACIONES

Para este CIIU se realizará un análisis para cada uno de los subsectores por separado al igual que el caso precedente.

7.1 Transporte y Almacenamiento.

Se incluyen aquí las actividades que coinciden sustancialmente con lo establecido en las divisiones 71 y 72 de la CIIU Rev-2. El transporte a su vez se subdividió en transporte ferroviario, automotor de pasajeros, automotor de carga, por agua, aéreo, los servicios y el almacenamiento. Cada uno de estos rubros fue calculado en función de la información disponible.
Para el caso del transporte por agua se tomó en cuenta la actividad portuaria, en particular los volúmenes manejados por cada uno de los puertos, el VAB fue asignado al departamento correspondiente.
A los efectos de llevar adelante la departamentalización se tomaron como criterios los coeficientes de ocupación ajustados a través de diversos índices.

7.2 Comunicaciones

Comprende este rubro las telecomunicaciones y el correo. Para el rubro telecomunicaciones se tomó como referencia la información de la Administración Nacional de Telecomunicaciones (A.N.TEL.), números de conexiones, facturación, etc.
Para el caso del Correo se tomo como referencia el número total de bultos movilizados según origen, información brindada por la Dirección Nacional de Correos. En ambos rubros se consideró la ocupación del sector.

VIII. CLASE DE ACTIVIDAD 8: ESTABLECIMIENTOS FINANCIEROS Y SEGUROS, BIENES INMUEBLES Y SERVICIOS PRESTADOS A LAS EMPRESAS

Como en los rubros anteriores analizaremos la metodología por subsectores.

8.1 Establecimiento Financieros y Seguros

Este CIIU comprende actividades que se encuentran comprendidas en las divisiones 81 y 82 Rev.2. Este sector cubre las instituciones del sistema Bancario Público (Banco Central, Banco República y Banco Hipotecario); y las instituciones que abarcan la Banca Privada (Bancos comerciales privados y Casas financieras) y otros intermediarios financieros (Casas de Cambio, Cooperativas de Ahorro y

Crédito, Corredores de Bolsa, etc.) y Seguros (Banco de Seguros del Estado, Compañías privadas de seguro y Corredores de Seguros). Para estos rubros se estimó el VBP y se calcularon los Consumos Intermedios y por diferencia se obtuvo el VAB.

8.2 Bienes Inmuebles

Se tienen en cuenta aquí los servicios que prestan las viviendas a sus moradores, sean estos propietarios o no; servicios con fines distintos a los habitacionales y distintos Servicios prestados a las empresas: jurídicos, contables, de computación, etc.

El valor de la producción por los servicios prestados se estimó aplicando alquileres medios y los datos de las Censos de Vivienda y Población. Con la información del Registro General de Transacciones se calcularon las comisiones generadas en las mismas.

Los consumos intermedios originados en los gastos de reparaciones y mantenimiento de las viviendas, gastos comunes y Banco de Seguros del Estado, se utilizaron diversas fuentes provenientes de informantes calificados.

IX. CLASE DE ACTIVIDAD 9: SERVICIOS COMUNALES, SOCIALES Y PERSONALES

Se incluyen en este sector las actividades comprendidas en las agrupaciones 832 y 833, y en las divisiones 93, 94, y 95 de la Rev. 2. Se incluyen aquí: a) los servicios prestados a las empresas: servicios jurídicos, contables, auditoria, computación; b) Servicios sociales y otros servicios comunales, c) servicios de diversión y esparcimiento; d) Servicios personales y de los hogares, reparación de calzado, etc..

La estimación de las macrovariables dada la diversidad de las actividades comprendidas depende básicamente de la información disponible.

9.1 Educación

El VBP de las instituciones pública se estimó por la suma de los costos explícitos por tratarse de instituciones sin fines de lucro, los insumos se obtuvieron de información del BCU y de allí se obtuvo el VA. Para las instituciones privadas se obtuvo por el lado de la demanda y se utilizo la estructura de costos del sector Público.

9.2 Salud

Para el sector público colectivizado se tomaron en cuenta los costos explícitos para evaluar el VBP, ya que son instituciones sin fines de lucro. Las fuentes de información para el VBP y la estructura de costos fue proporcionada por el Ministerio de Salud Pública.

Para las instituciones privadas se utilizaron encuestas y datos provenientes de organizaciones profesionales. Para efectuar la departamentalización se utilizó la ocupación del sector.

Appendix 6

CUENTA SATÉLITE DE TURISMO URUGUAY

REPÚBLICA ORIENTAL DEL URUGUAY

Tabla 1: Gasto de Turismo Receptivo

Año 2005

En miles de pesos uruguayos y porcentaje

Productos	Gasto Total	%
A. Productos Específicos	**14.792.737**	**91%**
A.1 Productos Característicos	**14.305.064**	**88%**
1.1 Servicios de Alojamiento	3.576.266	22%
1.2 Servicios de segundas residencias	1.788.133	11%
1.3 Servicios de comida y bebida	3.088.593	19%
1.4 Servicios de transporte terrestre	1.463.018	9%
1.5 Servicios de transporte por agua	1.788.133	11%
1.5 Servicios de transporte aéreo	1.788.133	11%
1.6 Servicios de Agencias de Viajes	325.115	2%
1.7 Servicios Culturales	325.115	2%
1.8 Servicios financieros	162.558	1%
A.2 Productos conexos	**487.673**	**3%**
2.1 Otros productos turísticos (1)	487.673	3%
B. Productos No específicos	**1.463.018**	**9%**
Total	**16.255.755**	**100%**

(1) Incluye Servicios de alquiler de bienes de equipo y otros productos turísticos
FUENTE: Banco Central del Uruguay (BCU) - Cuentas Nacionales
ELABORACIÓN: Ministerio de Turismo y Deporte / IESTA FCEA - UDELAR

REPÚBLICA ORIENTAL DEL URUGUAY

Tabla 2: Gasto de Turismo Doméstico

Año 2005

En miles de pesos uruguayos y porcentaje

Productos	Gasto Total	%
A. Productos Específicos	**16.040.592**	**92%**
A.1 Productos Característicos	**14.921.607**	**84%**
1.1 Servicios de Alojamiento	1.863.736	11%
1.2 Servicios de segundas residencias	2.759.262	16%
1.3 Servicios de comida y bebida	1.987.007	11%
1.4 Servicios de transporte terrestre	5.185.166	30%
1.5 Servicios de transporte por agua	77.934	0%
1.5 Servicios de transporte aéreo	688.346	4%
1.6 Servicios de Agencias de Viajes	35.857	0%
1.7 Servicios Culturales	1.583.569	9%
1.8 Servicios financieros	740.729	4%
A.2 Productos conexos	**1.118.984**	**6%**
2.1 Otros productos turísticos (1)	1.118.984	6%
B. Productos No específicos	**1.431.711**	**8%**
Total	**17.472.303**	**100%**

(1) Incluye Servicios de alquiler de bienes de equipo y otros productos turísticos

FUENTE: Banco Central del Uruguay (BCU) - Cuentas Nacionales

ELABORACIÓN: Ministerio de turismo y deporte / IESTA FCEA - UDELAR

REPÚBLICA ORIENTAL DEL URUGUAY

Tabla 3: Gasto de Turismo Emisivo

Año 2005

En miles de pesos uruguayos y porcentaje

Productos	Gasto total	%
A. Productos Específicos	**6.201.591**	**92%**
A.1 Productos Característicos	**5.931.957**	**88%**
1.1 Servicios de Alojamiento	1.752.624	26%
1.2 Servicios de segundas residencias	-	0%
1.3 Servicios de comida y bebida	1.415.581	21%
1.4 Servicios de transporte terrestre	337.043	5%
1.5 Servicios de transporte por agua	808.903	12%
1.5 Servicios de transporte aéreo	1.145.946	17%
1.6 Servicios de Agencias de Viajes	202.226	3%
1.7 Servicios Culturales	202.226	3%
1.8 Servicios financieros	67.409	1%
A.2 Productos conexos	**269.634**	**4%**
2.1 Otros productos turísticos (1)	269.634	4%
B. Productos No específicos	**539.269**	**8%**
Total	**6.740.860**	**100%**

(1) Incluye Servicios de alquiler de bienes de equipo y otros productos turísticos
FUENTE: Banco Central del Uruguay (BCU) - Cuentas Nacionales
ELABORACIÓN: Ministerio de turismo y deporte / IESTA FCEA - UDELAR

REPÚBLICA ORIENTAL DEL URUGUAY

Table 4: Gasto de Turismo Interior

Año 2005

En miles de pesos uruguayos y porcentaje

Productos	Total Gasto Turismo Receptivo	%	Total Gasto Turismo Doméstico	%	Total Gasto Turismo Interior	%
	1		2		1+2	
A. Productos Específicos	**14.792.737**	**91%**	**16.040.592**	**92%**	**30.833.329**	**91%**
A.1 Productos Característicos	**14.305.064**	**88%**	**14.921.607**	**84%**	**29.226.672**	**87%**
1.1 Servicios de Alojamiento	3.576.266	22%	1.863.736	11%	5.440.002	16%
1.2 Servicios de segundas residencias	1.788.133	11%	2.759.262	16%	4.547.395	13%
1.3 Servicios de comida y bebida	3.088.593	19%	1.987.007	11%	5.075.600	15%
1.4 Servicios de transporte terrestre	1.463.018	9%	5.185.166	30%	6.648.184	20%
1.5 Servicios de transporte por agua	1.788.133	11%	77.934	0%	1.866.068	6%
1.5 Servicios de transporte aéreo	1.788.133	11%	688.346	4%	2.476.479	7%
1.6 Servicios de Agencias de Viajes	325.115	2%	35.857	0%	360.972	1%
1.7 Servicios Culturales	325.115	2%	1.583.569	9%	1.908.685	6%
1.8 Servicios financieros	162.558	1%	740.729	4%	903.287	3%
A.2 Productos conexos	**487.673**	**3%**	**1.118.984**	**6%**	**1.606.657**	**5%**
2.1 Otros productos turísticos (1)	487.673	3%	1.118.984	6%	1.606.657	5%
B. Productos No específicos	**1.463.018**	**9%**	**1.431.711**	**8%**	**2.894.729**	**9%**
Total	**16.255.755**	**100%**	**17.472.303**	**100%**	**33.728.058**	**100%**

(1) Incluye Servicios de alquiler de bienes de equipo y otros productos turísticos
FUENTE: Banco Central del Uruguay (BCU) - Cuentas Nacionales
ELABORACIÓN: Ministerio de turismo y deporte / IESTA FCEA - UDELAR

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Tabla 5: Producción de Productos Turísticos

Año 2005

En miles de pesos uruguayos y porcentaje

Productos	Servicios de Alojamiento	Servicios de segundas residencias	Servicios de comida y bebida	Servicios de transporte terrestre	Servicios de transporte por agua	Servicios de transporte aéreo	Servicios de Agencias de Viajes	Servicios Culturales	Servicios financieros	Otros productos turísticos	Productos No específicos
Valor Bruto de Producción	4.422.766	3.697.069	4.126.504	5.405.028	1.517.128	2.013.398	293.473	1.551.776	903.287	1.306.225	2.353.438
Importaciones	1.752.624	0	1.415.581	337.043	808.903	1.145.946	202.226	202.226	67.409	269.634	539.269
Impuestos	1.017.236	850.326	949.096	1.243.156	348.939	463.081	67.499	356.908	0	300.432	541.291
Oferta	**7.192.626**	**4.547.395**	**6.491.181**	**6.985.227**	**2.674.971**	**3.622.425**	**563.198**	**2.110.910**	**970.696**	**1.876.291**	**3.433.998**
Gasto de turismo receptivo	3.576.266	1.788.133	3.088.593	1.463.018	1.788.133	1.788.133	325.115	325.115	162.558	487.673	1.463.018
Gasto de turismo doméstico	1.863.736	2.759.262	1.987.007	5.185.166	77.934	688.346	35.857	1.583.569	740.729	1.118.984	1.431.711
Gasto de turismo emisivo	1.752.624	0	1.415.581	337.043	808.903	1.145.946	202.226	202.226	67.409	269.634	539.269
Demanda	**7.192.626**	**4.547.395**	**6.491.181**	**6.985.227**	**2.674.971**	**3.622.425**	**563.198**	**2.110.910**	**970.696**	**1.876.291**	**3.433.998**

(1) Incluye Servicios de alquiler de bienes de equipo y otros productos turísticos

FUENTE: Banco Central del Uruguay (BCU) - Cuentas Nacionales

ELABORACIÓN: Ministerio de turismo y deporte / IESTA FCEA - UDELAR

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Tabla 6: Tabla de Oferta del Turismo

Año 2005

En miles de pesos uruguayos y porcentaje

Productos / Actividades	Servicios de Alojamiento	Servicios de segundas residencias	Servicios de comida y bebida	Servicios de transporte terrestre	Servicios de transporte por agua	Servicios de transporte aéreo	Servicios de Agencias de Viajes	Servicios Culturales	Servicios financieros	Otros productos turísticos	Productos No específicos	Total de Producción de Productos	Oferta total (pb)
A. Actividades Específicas													
A.1 Actividades Características													
1.1 Alojamiento	4.422.766												
1.2 Servicios de segunda residencia		3.697.069											
1.3 Restaurants			4.126.504										
1.4 Transporte Terrestre				5.405.028									
1.5 Transporte por Agua					1.517.128								
1.5 Transporte aéreo						2013397,568							
1.6 Agencias de viaje							293473,1009						
1.7 Servicios culturales								1551776,03					
1.8 Servicios financieros									903287,0239				
A.2 Actividades conexas													
2.1 Otros servicios turísticos (1)										1306225			
B. Actividades no específicas											2353438,261		
Total	4.422.766	3.697.069	4.126.504	5.405.028	1.517.128	2.013.398	293.473	1.551.776	903.287	1.306.225	2.353.438	**27.590.092**	**27.590.092**
Coeficiente Técnico (CT) = (CI/VBP)	0,20	0,00	0,20	0,14	0,13	0,12	0,09	0,03	0,09	0,46	0,04		
Consumo Intermedio Turístico = (CT * VBP)	884.553	0	825.301	756.704	197.227	241.608	26.413	46.553	81.296	605.741	94.138	**3.759.532**	
Valor Agregado Turístico	3.538.213	3.697.069	3.301.203	4.648.324	1.319.901	1.771.790	267.061	1.505.223	821.991	700.484	2.259.301	**23.830.560**	
Participación del Turismo (%)	16%	13%	15%	20%	5%	7%	1%	6%	3%	5%	9%	**425.018.448**	

(1) Incluye Servicios de alquiler de bienes de equipo y otros productos turísticos

FUENTE: Banco Central del Uruguay (BCU) - Cuentas Nacionales

ELABORACIÓN: Ministerio de turismo y deporte / IESTA FCEA - UDELAR

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Table 7: Valor Bruto de la Producción de las Industrias Turísticas y otras Industrias

Año 2005

En miles de pesos uruguayos y porcentaje

Actividades	Total de Producción Turística	%
A. Actividades Específicas	**25.236.654**	**91%**
A.1 Actividades Características	**23.930.429**	**87%**
1.1 Alojamiento	4.422.766	16%
1.2 Servicios de segunda residencia	3.697.069	13%
1.3 Restaurantes	4.126.504	15%
1.4 Transporte Terrestre	5.405.028	20%
1.5 Transporte por Agua	1.517.128	5%
1.5 Transporte aéreo	2.013.398	7%
1.6 Agencias de viaje	293.473	1%
1.7 Servicios culturales	1.551.776	6%
1.8 Servicios financieros	903.287	3%
A.2 Actividades conexas	**1.306.225**	**5%**
2.1 Otros servicios turísticos (1)	1.306.225	5%
B. Actividades no específicas	**2.353.438**	**9%**
Total	**27.590.092**	**100%**

(1) Incluye Servicios de alquiler de bienes de equipo y otros productos turísticos

FUENTE: Banco Central del Uruguay (BCU) - Cuentas Nacionales

ELABORACIÓN: Ministerio de turismo y deporte / IESTA FCEA - UDELAR

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Table 8: Consumo Intermedio de las Industrias Turísticas y otras Industrias

Año 2005

En miles de pesos uruguayos y porcentaje

Actividades	Total Consumo Intermedio Turístico	%
A. Actividades Específicas	**3.665.395**	**97%**
A.1 Actividades Características	**3.059.654**	**81%**
1.1 Alojamiento	884.553	24%
1.2 Servicios de segunda residencia	0	0%
1.3 Restaurants	825.301	22%
1.4 Transporte Terrestre	756.704	20%
1.5 Transporte por Agua	197.227	5%
1.5 Transporte aéreo	241.608	6%
1.6 Agencias de viaje	26.413	1%
1.7 Servicios culturales	46.553	1%
1.8 Servicios financieros	81.296	2%
A.2 Actividades conexas	**605.741**	**16%**
2.1 Otros servicios turísticos (1)	605.741	16%
B. Actividades no específicas	**94.138**	**3%**
Total	**3.759.532**	**100%**

(1) Incluye Servicios de alquiler de bienes de equipo y otros productos turísticos

FUENTE: Banco Central del Uruguay (BCU) - Cuentas Nacionales

ELABORACIÓN: Ministerio de turismo y deporte / IESTA FCEA - UDELAR

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Tabla 9: Valor Agregado Directo de las Industrias Turísticas y Otras Industrias

Año 2005

En miles de pesos uruguayos y porcentaje

Activities	Total Tourism Value Added (OR)	%
A. Actividades Específicas	**21.571.259**	**91%**
A.1 Actividades Características	**20.870.775**	**88%**
1.1 Alojamiento	3.538.213	15%
1.2 Servicios de segunda residencia	3.697.069	16%
1.3 Restaurants	3.301.203	14%
1.4 Transporte Terrestre	4.648.324	20%
1.5 Transporte por Agua	1.319.901	6%
1.5 Transporte aéreo	1.771.790	7%
1.6 Agencias de viaje	267.061	1%
1.7 Servicios culturales	1.505.223	6%
1.8 Servicios financieros	821.991	3%
A.2 Actividades conexas	**700.484**	**3%**
2.1 Otros servicios turísticos (1)	700.484	3%
B. Actividades no específicas	**2.259.301**	**9%**
Total	**23.830.560**	**100%**

(1) Incluye Servicios de alquiler de bienes de equipo y otros productos turísticos

FUENTE: Banco Central del Uruguay (BCU) - Cuentas Nacionales

ELABORACIÓN: Ministerio de turismo y deporte / IESTA FCEA - UDELAR

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Tabla 10: Participación del Turismo en la Economía para los años 2005 - 2009*

En miles de pesos uruguayos y porcentaje

Actividades	Total Valor Agregado Turístico 2005	%	Total Valor Agregado Turístico 2006	%	Total Valor Agregado Turístico 2007	%	Total Valor Agregado Turístico 2008	%	Total Valor Agregado Turístico 2009	%
A. Actividades Específicas	21.571.259	91%	22.736.315	91%	25.642.186	91%	31.249.687	91%	37.000.254	91%
A.1 Actividades Características	20.870.775	88%	21.997.997	88%	24.809.506	88%	30.234.915	88%	35.798.744	88%
A.2 Actividades conexas	700.484	3%	738.317	3%	832.680	3%	1.014.772	3%	1.201.511	3%
B. Actividades no específicas	2.259.301	9%	2.381.325	9%	2.685.676	9%	3.272.986	9%	3.875.281	9%
Total	23.830.560	100%	25.117.639	100%	28.327.862	100%	34.522.674	100%	40.875.536	100%
Valor Agregado Total de la Economía	**379.260.410**		**427.573.432**		**508.651.773**		**608.778.835**		**664.421.220**	
Participación del Turismo (%)	**6,3%**		**5,9%**		**5,6%**		**5,7%**		**6,2%**	

(1) Incluye Servicios de alquiler de bienes de equipo y otros productos turísticos

FUENTE: Banco Central del Uruguay (BCU) - Cuentas Nacionales

ELABORACIÓN: Ministerio de turismo y deporte / IESTA FCEA - UDELAR

* Estimado