

Spanish Tourism Satellite Account: Methodological note.

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1. General methodological features and content of the Tourism Satellite Account.

1.1. GOALS OF THE TOURISM SATELLITE ACCOUNT

The TSA can be described as a series of accounts and tables which, based on the methodological principles of the Spanish National Accounts, presents the different economic parameters for tourism in an interrelated manner referred to a specific reference date.

These accounts and tables refer to different variables, with relation to both tourism supply and demand. As regards the supply, the TSA analyses aspects such as the structure of the production and costs of tourist companies, the type of input needed to develop the activity, the level of use of labour, the investments in productive capital, the role of the Public Administration as the direct supplier of these services or as a contributor to the same... As regards the demand, the TSA takes an economic perspective to identify different types of tourists, national tourism compared to international tourism, type of goods and services on demand, etc.

Each of these accounts and tables are useful as individual elements; that is to say, they provide information on an important aspect of tourism (both as regards the supply and the demand). Nevertheless, the TSA would be incomplete without an analysis of the interrelation between the supply/demand. The tables that contain this interrelation provide consistent measures of the contribution tourism makes to economy (via variables like the GDP).

Therefore, the goals expected of the compilation of a TSA for Spain are basically:

- To provide a comprehensive measure of the economic relevance tourism has in Spain, using macroeconomic indicators like the contribution of tourism to the GDP, production or demand.
- To provide information that stresses the role of tourism as a generator of employment.
- To offer data on the relevance of tourism in the equilibrium of the Spanish Balance of Payments.
- To describe the production and/or costs structures of the tourist industries.
- To reflect the magnitude of investments in productive capital linked to the tourist activity.
- To provide regional estimates, given the relevance of the tourist activity for certain Spanish regions (Autonomous Communities).

1.2. BASIC CONCEPTS ACCORDING TO THE UN METHODOLOGICAL REFERENCES

Different institutions and countries have developed a series of specific methodologies for the Tourism Satellite Account over the last decades.

Since February 2000, when it was passed by the UN Statistics Commission, there is an international methodology supported by the ILO, the OECD and Eurostat, called the *Tourism Satellite Account: Methodological References* (TSAMR). This document has positioned itself as the main methodological base for the Spanish Account, whose basic concepts are summarised hereunder.

1.2.1. Definition of tourism.

It is essential to define the scope of tourism before moving on. The United Nations definition, reproduced in the TSAMR, states that tourism includes:

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.

That is to say, the essence of tourism is the fact that persons travel temporarily from their regular place of residence or work for reasons that are not habitual. Although the definition emphasises that visitors travel for *leisure*, which is usually vulgarly related to the concept of tourism, it obviously encompasses a much vaster sphere (for example, tourism also means to travel from the usual environment for *business* and, as well be seen further on, for other reasons).

Therefore, there are three elements that characterise visitors and tourism: travelling from the usual environment; the duration of the travel; and the reasons.

Thus the first element is the *usual environment*, an expression used to refer to the territorial area where the individual regularly lives and works. Given the ambiguity of this concept, it is obviously extremely difficult to delimit it in practice. Therefore, the TSAMR has established conventions that will aid its delimitation:

- Distance. Although it is impossible to establish an assimilation between usual environment and distance, it has been agreed that *places near the person's place of residence are also part of the usual environment, even if they are rarely visited*. This criterion obviously has certain exceptions: some people commute daily over large distances, which will, nevertheless, be included in this usual environment.
- Frequency. The usual environment cannot be defined expressly using the time frequency, although this concept is obviously linked to journeys that are performed regularly. Nevertheless, it is important to note, as an important exception, that weekend visits or journeys on public holidays to a holiday home are considered tourism or travel outside the usual environment.

The concept of economic residence in National Accounts and in the STA.

National Accounts are compiled for countries or administratively delimited regions. When National Accounts are compiled for a specific country, it is important to indicate that these measurements refer to so-called *resident* units. The ESA 95 considers a unit is resident when it has a centre of interest in the economic territory. An economic territory corresponds quite closely with the territory on which the country exercises jurisdiction within the international environment, since it covers: the geographic territory managed by the Public Administrations; free zones; air space, territorial water(s) and the sites and deposits in the country; territorial enclaves.

A unit is said to have a *centre of interest* in the economic territory, when there is a place in said territory where or from where the unit performs (or aims to perform) economic activities during at least one year. The term economic activities means activities involving the *production* of goods and services.

It is important to note that resident units may or may not have the nationality of the country in question, may or may not have a legal personality and may or may not be present in the economic territory of the country in question when an operation is performed.

When referring to the relations of one economy (the series of units resident in the economic territory in accounting lingo) with other economies (with non-resident units), the commonest option is to refer to a fictional sector designated *Rest of the World*.

As regards the TSA, the United Nations Methodology establishes a series of criteria regarding usual environment and residence:

- *The place where an individual works is clearly part of his/her usual environment, but it is not necessarily his/her place of residence. Commuting to work is considered travelling, but it is not considered as a tourism activity.*
- *On the other hand, if an individual has been in a place for over a year, this place is considered part of his/her usual environment. Therefore, the person should be considered a visitor in this place, even if s/he is not considered a resident of this place in the economic or strict sense of the word.*
- *In statistics on population, residency is a characteristic attached to households, whilst the usual environment is a characteristic attached to individuals, each of which is part of a unique household. Two individuals who are part of the same household necessarily have the same residence but may have different usual environments.*
- *The following are not considered visitors: Students travelling abroad, even for more than a year, but still depending economically on their families; Sick persons staying in a hospital, or similar facility some distance from their original residence for more than a year or persons serving a long-term prison sentence.*

- Nevertheless, the following are included: persons travelling to visit the aforementioned groups (students, sick persons abroad) and also those who travel to courses or short stays (summer courses, summer camps, medical treatment...)

The concept *usual environment* cannot be identified with the concept of a person's *legal* residence: a worker without a legal residence permit is considered outside the scope of tourism, or conversely, a person with a temporary legal permit to reside in another country should be considered as a *visitor* in this country.

Usual environment and second homes.

Second homes are an important aspect of the TSA as regards the usual environment.

From a statistical point of view, housing censuses establish a difference between what are considered main dwellings and secondary dwellings belonging to a family unit: The main dwelling is the regular residence of this household. If the household owns other dwellings, these will be considered secondary homes or dwellings.

The TSAMR (Sections 2.8. and subsequent) establishes a series of different possibilities to be able to consider a dwelling a secondary home: *It is the usual environment of one or more of the members of the household, but is not the main residence of the household; or it is a holiday home, that is to say, it is not visited, or is not visited frequently, by one or more of the members of the household, for leisure, holidays or other activities different from the exercise of an activity remunerated within the place; or it is visited occasionally by one or more members of the household for work reasons.*

Secondary dwellings are very important for tourism, because they are usually located outside the usual environment of the individuals and will be used for leisure during holidays or weekends; that is to say, when household members visit this second residence for reasons other than work, they enter into the category of tourism, becoming *visitors* (of the second residence and the area where it is located).

A singularity of the criteria envisaged in the TSA is that, according to the aforementioned, secondary dwellings might be located in a geographic location near the main dwelling or even in the geographic limits of the usual environment. Naturally, this is not usually the case, but it could happen and proves how difficult it is to delimit the notion of tourism.

Another peculiarity is the fact that the second residence could be located in a territory of another country, not in the country of residence of the owner. Flows would imply transactions that would affect the equilibrium of the country's balance of payments.

1.2.2 The visitor: type of tourist flows.

Visitors can be classified in line with different parameters or features. From the perspective of an economic analysis, there are three main aspects of the visitors that should be noted: duration of the stay; purpose of the visit; and place of residence of the passenger.

Depending on whether the journey requires the visitor to stay overnight in the place being visited, visitors will be classified as: Tourists, when they stay overnight in places that are not their usual environment; and same-day visitors, who do not stay overnight.

As regards the purpose of the visit, as aforementioned, the term visitor includes a vast array of purposes, considering as visitors all individuals who travel or visit a place for a purpose other than *the exercise of an activity remunerated from within the place visited*.

The United Nations recommendations distinguish six main typologies of purposes to embark on a journey: Leisure and holidays; visiting friends and relatives; business and professional purposes; health care; religion, pilgrimages; other purposes

Taking the visitor's residence into consideration, from the perspective of the *economic residence*, the combination of the visitor's residence and the territory visited creates different categories of tourist flows, which appear in chart 1:

Chart 1: Classification of tourist flows according to the visitor's residence and destination.

		Destination territory		
		<i>Inside the economic territory</i>	<i>Outside the economic territory</i>	<i>TOTAL</i>
Visitor's residence	<i>Residents in the economic territory</i>	Internal tourism	Outbound tourism	National tourism
	<i>Non-residents</i>	Inbound tourism		
	<i>TOTAL</i>	Domestic tourism		

- Internal tourism: resident visitors within the economic territory of the country of reference.
- Outbound tourism: resident visitors outside the economic territory of the country of reference.
- Inbound tourism: non-resident visitors within the economic territory of the country of reference

A series of concepts appear aggregated to the previous definitions: *national tourism* is the tourism of resident visitors, both within the economic territory - internal tourism- and outside it –outbound tourism-; if flows are aggregated from the perspective of the economic territory, *internal tourism* appears, which is the tourism of visitors within the economic territory of the country of reference, both of residents – domestic tourism– or non-residents –inbound tourism.

After referring to the concept of country, we can also define the group of *international visitors* as¹ *visitors whose country of residence is different from the country visited; these international visitors also include nationals residing permanently abroad.*

1.3. TOURISM AS AN ECONOMIC DEMAND PHENOMENON: DEFINITION OF CONSUMPTION AND TOURIST DEMAND.

The aforementioned specifications provide the basic characteristic of tourism from an economic perspective: tourism is a demand phenomenon, since its economic repercussions are linked to the expenditure activities involved in travelling outside the usual environment. As stated in the TSAMR definition: *The demand for tourism is the expenditure made by a visitor or on behalf of a visitor for and during his/her trip when said journey is performed outside the usual environment.*

¹ Recommendations on tourism statistics UN/WTO. Par. 28 and 33

1.3.1. Tourist consumption.

1.3.1.1. Concept of tourist consumption in the TSA.

The most relevant component of demand is *tourist consumption*. Before defining tourist consumption, we can consider the National Accounts concepts that support it. The ESA 95 differentiates two interrelated categories of variables (see chart 2):

- *Final consumption expenditure*: When consumption is registered from the perspective of expenditure, it aims to identify the institutional units that incur in those expenses and that, therefore, control and finance the total of the same. It is defined as *the expenditure made by the resident institutional units on goods and services for the direct satisfaction of individual needs or wants or the group needs of the members of the community.*²
- *Effective final consumption*: This term aims to identify units that benefit from their use, i.e. those that *actually* use goods and services. Defined as *goods and services acquired by resident institutional units for the direct satisfaction of human needs, be they individual or group.*³

The difference between both concepts is the treatment given to individual goods and services financed by the P.A. and NPISHs and that are supplied to households as social transfers in kind. Individual goods and services are those for which the household consuming them can be identified or, in other terms, in those where the consumption on behalf of one individual *excludes* that of others (for example, a doctor's office). Conversely, in *group services* it is not possible to clearly identify the consumer, because they are *offered* collectively and simultaneously to all individuals (general services offered by the Public Administration or diplomatic representation abroad or the Armed forces).

Chart 2 presents the relationships between the different definitions and the three institutional sectors involved in consumption operations: households, NPISHs and the P.A. Household final consumption expenditure amounts to the expenses of the households on goods and services for individual consumption. The corresponding concept for the Public Administrations would be the Public Administrations final consumption expenditure, that would cover expenditure made by the Public Administrations on goods and services for individual consumption and on services for group consumption.

²ESA95 3.75
³ESA95 3.81

Chart 2. Final consumption expenditure and actual final consumption.

	Sector performing the expenditure			Total
	Public Administrations	NPISH	Households	
Individual consumption	X (Social transfers in kind)	X (Social transfers in kind)	X	Household actual final individual consumption
Group consumption	X	0	0	PA actual final group consumption
Total	PA Final consumption expenditure	NPISH final consumption expenditure	Household final consumption expenditure	Total actual final consumption = total expenditure on final consumption

Finally, NPISH final consumption expenditure considers expenditure made by the NPISHs on goods and services for individual consumption. By agreement, all services provided by the NPISHs are considered individual since, in general, the services they render are essentially individual and are usually aimed at members of the institution and not the whole of the community.

Observing the information by rows provides the concepts of actual final consumption: the *Household actual final consumption* corresponds to the total of the household final consumption and the final consumption of the NPISHs and the PA of individual goods and services that are purchased by the households as social transfers in kind; and the *PA actual final consumption* that measures the value of the group consumption services provided by the P.A. to the community.

Going back to consumption in the sphere of the TSA, this variable is collected in chart 3, implementing the same classification of tourism flows as used in chart 1.

Nevertheless, a slight difference does appear: in chart 1 flows of visitors or *tourists* are classified crossing *residence* and *destination*, whilst for tourist consumption, residence is combined with the *place where the expenditure is made*. Therefore, the definitions for the chart would be as follows:

- Internal tourist consumption. *Expenditure made by resident visitors either as a result of their travels inside the territory of residence*, or linked to outbound tourism which are covered by producer units of the actual reference economy. Consequently, they include expenses made by households individually, and those made for professional reasons and assumed by the companies.

- Inbound tourist consumption: *Consumption of non-resident visitors as a result of their travels to, and around, the economy of reference and/or that provided by residents*.

Chart 3: Classification of tourist consumption according to tourist flows

Residence of the visitor	Territory where expenditure is made		
	<i>Economic territory</i>	<i>Outside the economic territory</i>	<i>TOTAL</i>
<i>Residents in the economic territory</i>	Internal tourist consumption.	Outbound tourist consumption	National tourist consumption
<i>Non residents</i>	Inbound tourist consumption		
<i>TOTAL</i>	Domestic tourist consumption		

- Outbound tourist consumption: *made by residents outside the economic territory of reference and provided by non-residents*. Not including those goods and services purchased in the country of reference for, or after, the journey since this consumption activity is included in the concept of internal tourist consumption.

This is considered alongside the concept internal consumption, alongside internal tourism and inbound tourism, whose interest will provide the weight of tourism in the essential macroeconomic variable, the GDP.

These *consumption* concepts are not directly comparable to the variables in the Spanish National Accounts, as analysed below.

The expenditure made directly by travellers is evidently the basic component of tourist consumption, but the TSAMR also includes those expenses that affect or benefit the visitor, without them performing a monetary outlay and comprise aspects ranging from those made by the Public Administrations on facilities and cultural and recreational activities, orientation to visitors, etc. which are not financed directly by the visitors but which they do benefit from and are an essential element in the development of the activity ... to travel expenses that companies pay their employees. In the Spanish National Accounts, these two categories have a very different meaning and role as regards measuring the economy.

In the TSA, the concept of Internal tourist consumption is linked to the *actual consumption* of the households: that is to say, the TSA includes not only the expenditure made really by the households, but also those goods and services used by them from a tourist perspective that have been financed by P.A. or the NPISHs.

Recording and assessment.

One of the characteristics of the TSAMR is that it includes expenditure related to travel made *before* (in anticipation of the journey), *during* (throughout the journey) and *after* said journey. The rationality of this criterion is obvious, since without this time classification this section would not include expenses made in anticipation of the trip, which sometimes concentrates almost all the expenditure (reserving transport or paying for accommodation in advance via a travel agency or paying for travel insurance or purchasing goods required for the journey [camping equipment]); on the other hand, expenses made after the journey, (like developing photographs of the journey) would not be included either.

Nevertheless, this has implications when performing TSA estimates given the possible time lags that could appear between the indicators of the demand and the supply (for example occupation of hotel vacancies or transport). The National Accounts systems establish criteria for the temporary rerouting of expenditure flows. As regards tourism, these aspects should be considered carefully to obtain estimators in compliance with production.

1.3.1.2. Tourist consumption and its equivalent in Spanish National Accounts.

Each of the components of *tourist consumption* considered in the TSAMR can be analysed to attempt to find analogies and differences with accounting treatments. Chart 3 has been created to summarise the analysis. The main comparative features of the two methodologies are as follows:

1. Internal tourist consumption. In the National Accounts, this item would encompass three concepts:
 - On the one hand the part that can be allocated to *tourism* corresponding to *resident households final consumption expenditure in the economic territory*. Obviously, this aspect contains the problem of its statistic measurement; yet it is important to point out that this component is already included in the measurement made by the Spanish National Accounts and there is, in principle, no incompatibility between both methodological spheres (TSA-MR on the one hand, ESA95 on the other). The problem obviously lies in measuring the part of the total expenditure that has a tourist purpose; that is to say, more than a methodological problem, it is a relevant statistical problem when compiling the TSA.

This section also includes the part of outbound tourist consumption that is covered by the reference economy's producer units. In turn, we can refer to two components:

- a) Tourist expenditure in the Rest of the World made by resident households when the service is supplied by resident producer units (for example, members of a household resident in Spain travelling abroad using a Spanish airline).

Chart 3. Relationship between the concepts of consumption in the TSAMR and the ESA95.

TSAMR Variables	ESA95 (NAS95 Adaptation)	
	ESA95 transactions	Observations
<p>Internal tourist consumption</p> <ul style="list-style-type: none"> - Travel on business - Travel for other reasons 	<ul style="list-style-type: none"> - Intermediate consumption of the branches of activity resident in the economic territory. - Resident household final consumption expenditure in the economic territory. - PA Final consumption expenditure. 	<ul style="list-style-type: none"> - Only including the part related to <i>tourism</i>. - Only including the part related to <i>tourism</i>. - Only including the part related to <i>tourism</i>.
Inbound consumption.	<ul style="list-style-type: none"> - Non-resident household final consumption expenditure in the economic territory. - Exports of services. 	<p>This section is included in the TSA except for certain items:</p> <ul style="list-style-type: none"> - income of border workers and seasonal workers. - expenses made by embassies, consulates and governmental agencies <p>Tourism includes other exports not included as the consumption of non-residents in the territory, etc. that are considered to be part of <i>tourism</i>. Essentially: airfares, sea voyages, other transports and annexes to the previous.</p>
Outbound consumption.	<ul style="list-style-type: none"> - Resident households' consumption in the Rest of the World. - Imports of services. 	<p>This section is included in the TSA except for certain items:</p> <ul style="list-style-type: none"> - income of border workers and seasonal workers. - expenses made by embassies, consulates and governmental agencies. <p>Including other imports not envisaged as consumption of residents in the Rest of the World that are linked to <i>tourism</i>. Essentially: airfares, sea voyages, other transports and annexes to the previous.</p>

b) Expenditure made by a company resident in Spain for travels of their personnel to the Rest of the World and whose supplier is a resident company. This component refers to an intermediate consumption made by the company making the expenditure.

- As regards Public Administrations final consumption expenditure it includes: the part of the individual consumption dedicated to tourism. This section does not present incompatibilities between both methodological spheres.
- It would also include expenses made by resident companies whose personnel travel outside the regular context (which, to simply, will be called *Travel expenses*) inside the country's economic territory; in accounting terms, these expenses would be included in the intermediate consumption related to travel by branches of activity. Considering the criteria established in the ESA95 on this type of expenses, it is important to note that this would basically include transport, accommodation and certain other services (hire cars), whilst food expenses (bars and restaurants) would appear as remuneration of the employees and, therefore, would have been included in the first component of expenditure in household consumption⁴.

This concept presents problems regarding compatibility between the two spheres, and has a bearing on the measurement of tourist aggregates. Given the relevance of this subject, the implications are analysed in section 2.5.

2. Inbound tourist consumption.

This concept is similar to accounting concepts: on the one hand it includes expenses in the *consumption expenditure of non-residents in the economic territory*; and on the other, in the exports of services (like transport). It is important to note that the ESA95 uses a broad definition of imports and exports as the *ensemble of transactions that involve an exchange of the property of goods and services between residents and non-residents* (exports between residents and non-residents; vice versa for imports).

This definition implies that exports include in final consumption expenditure made by non-residents in the national territory, and imports include the final consumption expenditure made by residents in the Rest of the world. Nevertheless, as regards the I-O framework, these consumption expenditures made by residents and non-residents will appear, at least on an aggregated scale, as adjustment items that reflect totals for import and export in line with the definitions provided by the system⁵.

⁴ Except for food expenses provided by the company; i.e. not for the private consumption of the personnel.

⁵ In fact, as regards final consumption expenditure it is important to note that the ESA95 always defines it as an aggregate in *national* terms, i.e. referred to transactions carried out by residents regardless of the place where they are performed. Therefore, when creating the I-O framework, adjustment items are introduced to combine balances by products with the global definition of the variables.

Despite these methodological particularities, we can conclude that Spanish National Accounts provide or contain data for the estimate of *inbound tourist consumption* that makes up part of the tourist consumption (sometimes, as occurs in Spain, this part is the most relevant section).

3. Outbound tourist consumption.

By analogy, this concept is linked to the following accounting concepts: on the one hand, expenses included in *residents consumption expenditure in the Rest of the World* (considering the same specifications as inbound tourism); and on the other, in the imports of services (like transport).

As regards other components of the tourist demand, they are not considered in detail herein, since they will be described in Chapter 3, when commenting the Spanish Methodology.

1.3.2. Other components of the demand.

Although the most important component to assess the economic impact of tourism is *tourist consumption*, analysed previously, we can refer to a broader concept of the tourist demand which would include:

- Expenditure on group consumption (linked to non-market producer units of the Public Administrations) with a tourist purpose.
- Gross formation of fixed capital linked to tourism.

These two components present certain problems as regards measurements and also from a conceptual point of view, and therefore have not been included in the TSAMR basic recommendations. Chapter 3 in INE (2002) analyses these two aspects in detail, since they have been included in the Spanish TSA.

1.4. BASIC FEATURES OF THE SUPPLY.

1.4.1. Characteristic products.

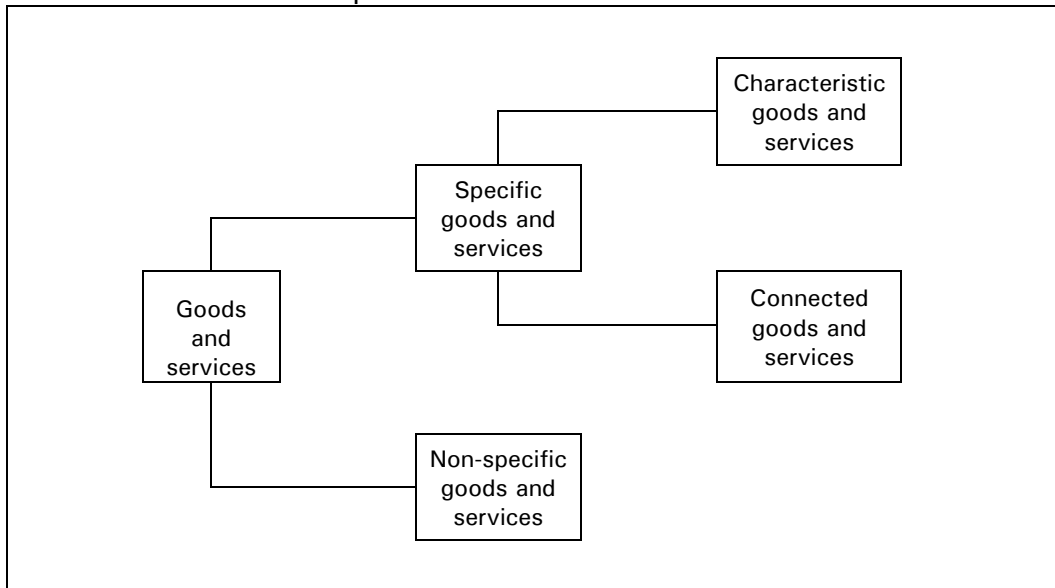
Although visitors can make expenses in any product category, so as to facilitate international comparisons and to construct the accounting systems, tourism methodologies emphasise those product categories that are most important during travels: transport, accommodation, travel agency services...

In order to create a list that is more closely related to tourism, it is based on criteria listed in the ESA95 Annexe dedicated to satellite accounts, which classifies *specific* products or products directly related to the phenomenon under study in the Satellite Account as well as *non specific* products. Furthermore, it establishes two types of specific products:

- *Characteristic products are those that, in most countries, would cease to exist (or where consumption would decrease significantly) without tourism.*

- Connected products are *consumed by the visitors in amounts that are important (for the visitor and/or the supplier) although they are not included in the list tourism characteristic products.*

Chart 4. Classification of products in the Tourism Satellite Account.



Considering these criteria, international organisations have defined lists of products linked to tourism. In principle, in order to achieve homogeneous TSAs in different countries, there should be at least a few common minimums which should, obviously, focus on what have been called *characteristic products*. Specifically, chart 4 includes the list of products the TSAMR considered characteristic.

Nevertheless, this topic is still open to discussion and is the object of many debates in the framework of the reviews of international classifications.

Chart 4: List of Tourism Characteristic Products

1- Accommodation services
Hotels and other accommodation services
Secondary dwelling services on own account or free of charge
2- Food and beverages serving services
3- Passenger transport services
3.1 Long-distance railway transport services
3.2 Road transport services
3.3 Sea transport services
3.4 Air transport services
3.5 Supporting passenger transport services
3.6 Passenger transport equipment rental
3.7 Maintenance and repair services of passenger transport equipment
4- Travel agency, tour operator and tourist guide services
4.1 Travel agency services
4.2 Tour operator services
4.3 Tourist information and tourist guide services
5- Cultural services
5.1 Performing arts
5.2 Museums and other cultural services
6- Recreation and other leisure services
6.1 Sports and recreational sport services
6.2 Other amusement and recreational services
7- Miscellaneous tourism services
7.1 Financial and insurance services
7.2 Other good rental services
7.3 Other tourism services

1.4.2. Characteristic activities: Delimitation of the tourist industry.

As occurs with the list of characteristic products, a list of characteristic activities can also be defined, i.e. those productive activities that produce a main product that is characteristic of tourism. According to the TSAMR recommendation, these activities appear in chart 5.

Chart 5: List of Tourism Characteristic Activities

1- Hotels and the like
2- Owned second dwelling (imputed)
3- Restaurants and the like
4- Passenger transport by rail
5- Passenger transport by road
6- Passenger transport by sea
7- Passenger transport by air
8- Passenger transport supporting services
9- Passenger transport equipment rental
10- Travel agencies and the like
11- Cultural services
12- Sporting and other recreational services

This ensemble of activities limits the TSA from the perspective of the supply or, in other words, defines the tourist industry.

In principle, the mere observation of the aforementioned chart and criteria for specialisation can define the characteristic activities. Nevertheless, it is necessary to point out a few aspects.

On the one hand, it is important to underline some basic aspects regarding the definition of the (branches of) activity in the system of National accounts. In National Accounts, an (branch of) activity is defined by aggregation of Local Kind-of-Activity Units (LKAU): the unit that groups all the parts of an institutional unit -like a company- in its capacity as producer which are located in a single or closely located sites, and that which contribute to the performance of an *activity* defined in accordance with the standard classifications. Schematically, an LKAU would correspond to the concept of establishment as used in economic statistics.

In Spain, the CNAE93 classification (adaptation of the Community NACE Rev.1 or the United Nations ISIC Rev.3). Classifications are essentially based ⁶on the type of product manufactured. For example, the code that would determine that classification for tourism would correspond to *Hotels and the like*. Aggregation provides the branch of activity, total of all the LKAU whose main activity is: branch of activity 551 *Hotels* or 552 *Campsite and other short-stay accommodation establishment*.

Nevertheless, an establishment (an LKAU) can develop a main activity or can offer one main product (which provides most of the added value or turnover) and perform one or several secondary activities (products): a hotel obtains most of its income from accommodation services but can have complementary in-

⁶ Although not exclusively. In fact, there are many slight differences between product classifications (in terms of the nature of the product) and activities classifications, which consider other aspects like production technology or destination of the product alongside the type of product obtained. For example, one single product like electricity can be divided into two different *activities*: hydraulic energy establishments and thermal energy establishments.

come from secondary activities: income from the bar and restaurant, communications, currency exchange, etc.

Therefore, on the one hand characteristic activities (or in common language, activity sectors) that specialise on *tourist* products develop activities that are not exclusively or mainly tourist-based.

However, on the other hand, characteristic establishments may have as their main clients consumers other than *tourists* or *visitors* (for example a bar or a restaurant). Nevertheless, these activities will be included when referring to the tourist *industry*, that is to say, when considering the supply in the TSA.

Chart 5, adapted from the actual TSAMR, attempts to illustrate the sphere of the supply or of the industry, comparing it with that of the demand.

Chart 5: Perspective for the analysis of the tourist supply and of the tourist demand

Products offered to:	Tourism characteristic activities		Other activities		
	Main production: Characteristic products	Secondary production: Other products	Main production: Other products	Secondary production: Characteristic products	
Visitors					Perspective for the analysis of the tourist demand
Non visitors					
	Perspective for the analysis of tourist supply				

Source: TSAMR

1.4.3. Supply variables: Characterisation of the tourist industry.

Once the *tourist industry* has been limited, it now is a case of characterising it economically. Thus, the TSAMR encompasses the main economic accounts, which have to be compiled for each characteristic industry or activity:

- On the one hand, production and operation accounts of the *tourist industries* including a breakdown of the main items contained. Summarising, these accounts reflect the values of the production as well as the type of input needed to develop the activity: intermediate input (raw material, provisions, supplies...), remuneration of the primary input (personnel costs, taxes on production, etc.).

As appears in chart 6, in the production account resources are composed by production and jobs by intermediate consumption. The balance is the *added value* or value generated by a whole unit dedicated to one productive activity⁷. This variable is the most important in terms of characterising the economic relevance of a sector or branch of activity.

Chart 6. Simple presentation of the production and operation account for a (branch of) activity.

a) Production account

Jobs	Resources
P.2 Intermediate consumption	P.1 Production
B.1b Gross added value	

b) Operation account

Jobs	Resources
D.1 Employee remuneration	B.1 Gross added value
D.29 - D39 Other taxes on production – Other subsidies on production	
B.2 Operating surplus /B.3 Mixed income	

The operation account analyses the extent to which the added value can cover the remuneration of employees and other taxes except subsidies on production. The balance is the *operating surplus* which corresponds to a primary income obtained by production units.

This account includes the concept of mixed income that is equivalent to the operating surplus, when referring to companies not established as enterprises belonging to the household sector. This designation originates in the fact that in the cases where it is applicable (the most relevant examples would be individual entrepreneurs [when not established as companies], the primary income obtained from the production process cannot be clearly identified with one of the basic factors, work and capital. Therefore, the term mixed source income is used.

These indicators or basic economic variables appear in the TSAMR tables, with a breakdown by products, both of the production and of the intermediate consumption.

Furthermore, the TSAMR also proposes the completion of monetary data with non-monetary data referring to:

- Use of the work factor in the activity through variables like: Amount of work (hours), types of contracts, remuneration, etc.

⁷The added value can be calculated subtracting or without subtracting the consumption of fixed capital, that is to say, as a net or gross figure.

- Data on the corporate structure: data and ratios of the size of companies,

1.4.4. Processing certain products and activities.

The TSAMR also presents certain differences with the National Accounts methodologies as regards the way some products and activities are processed:

- Travel agencies and package tours (PT). Travel agencies are one of the most representative or characteristic activities of tourism. These units intermediate between the suppliers of the products (hotels, transport companies, etc.) and the consumers (households, companies). Leaving their peculiarities to one side, there is a product that is unique to these activities, which involves certain difficulties when calculating the TSA, given differences in terms of the sphere of the Spanish National Accounts: the so-called *package tours*, that contain a series of products linked to a journey, and that are acquired simultaneously without the consumer being able to delimit the part paid for each service. The basic problem to compile a TSA using the National Accounts is that, given that in the National Accounts PTs are considered a defined and identified product, in the TSA they have to appear broken down by components, such as transport, accommodation... alongside the actual margin obtained by the suppliers of the PTs (the so-called *tour operator services* and other possible retail intermediaries). Overcoming this difference is one of the specific tasks envisaged in the compilation of a TSA. The details appear in INE (2002).
- Rent of real estate. A second type of differences refers to the rent of real estate, referred to previously when analysing the criterion of residence and the scope of the TSA. Summarising, the problem is that a non-resident person in the economy of reference (for which the TSA is supposedly compiled) who owns a dwelling (in the most interesting case for this document, the dwelling has a tourist purpose), in the National Accounts is considered a *fictional* resident in the economy of reference. This means that the description and measuring of flows with foreign countries will differ in the TSA and the Spanish National Accounts. For further information on this point, see INE (2002).

1.4.5. Demand/supply interrelation and contribution of tourism to the economy's GDP according to the TSAMR.

Although each of the tables for demand and supply that compose the TSA are useful on their own, that is to say, they provide information on a certain aspect of tourism (from the perspective of the demand or of the supply), the genuine meaning of the TSA is attained when these two aspects are interrelated, in order to obtain global measurements of tourism's contribution to economy.

As noted in the TSAMR, *accounts that only focus on the tourist demand or exclusively on the supply of the tourist industries do not classify as Tourist Satellite Account*. That is to say, it notes that the idea of balance should be essential when compiling accounts, even when dealing with partial aspects of the economic reality. However, at the same time, this essential notion presents the

most conceptual difficulties, following the actual criteria established in the TSAMR.

In principal, and in line with the definition of *tourism*, the basic approach for a TSA is the perspective of the demand, which in the TSAMR focuses on the so-called domestic tourist consumption. However, and as aforementioned in other sections of the document, the consumption made by visitors can encompass production created both by the so-called characteristic industries and by non-characteristic industries.

From the perspective of the supply, the analysis focuses on units engaged in production and/or provision of these characteristic products, i.e. in characteristic activities (hotels, food establishments and bars, travel agencies...). Nevertheless, these units can perform, alongside their main activity, a secondary activity, creating products that are not specific of tourist and can, most importantly, sell their production to consumers other than tourists or same-day visitors, i.e. other types of agents.

Therefore, both approaches have different economic scopes whilst sharing a common ground: products purchased by visitors and offered by characteristic industries. Without doubt, this is a crucial economic area which does not limit the whole economic meaning of tourism.

Specifically, a global indicator has been proposed in the TSAMR manual, with a view to obtaining that integrated vision and calculating global measurements⁸: The *tourist GAV* is the GAV generated in the economy as a result of the tourist demand: not only in characteristic industries, but in all industries that provide products for visitors. This GAV results from applying tourist specialisation ratios to the GAV of the different industries (for further details see INE (2002))

The previous information provides the so-called *tourist GDP*, aggregating an estimate of taxes (net of subsidies) on tourist products to the tourist GAV.

Schematically, for the total of the economy:

$$\text{GDPT} = \text{GAVT} + \text{Net taxes on products linked to tourist demand}$$

With GAVT being the addition of the GAV linked to tourism for each branch.

The aforementioned methodology proposed in the TSAMR is a commendable effort to achieve an interrelation between tourist demand and supply. Nevertheless, it presents certain limitations (processing of business travel expenses, obtaining the GAV...) which have led to the consideration of a complementary alternative for the STSA that is explained in section 2.5 for the calculation of the GDP linked to tourism.

⁸ The *GAV of the tourist industry*. This results from adding up the GAV of the characteristic industries as included in the production accounts or in table 5 of the TSAMR.

2. Sources and methodology for the estimate of the Spanish TSA

2.1. INTRODUCTION: BASIC CRITERIA FOLLOWED TO OBTAIN THE STSA.

Satellite accounts are, by definition, subsystems derived from the National Accounts. These satellite accounts stress a certain aspect of the economic reality to construct a specific accounting system stemming from data included in the National Accounts and additional sources of information.

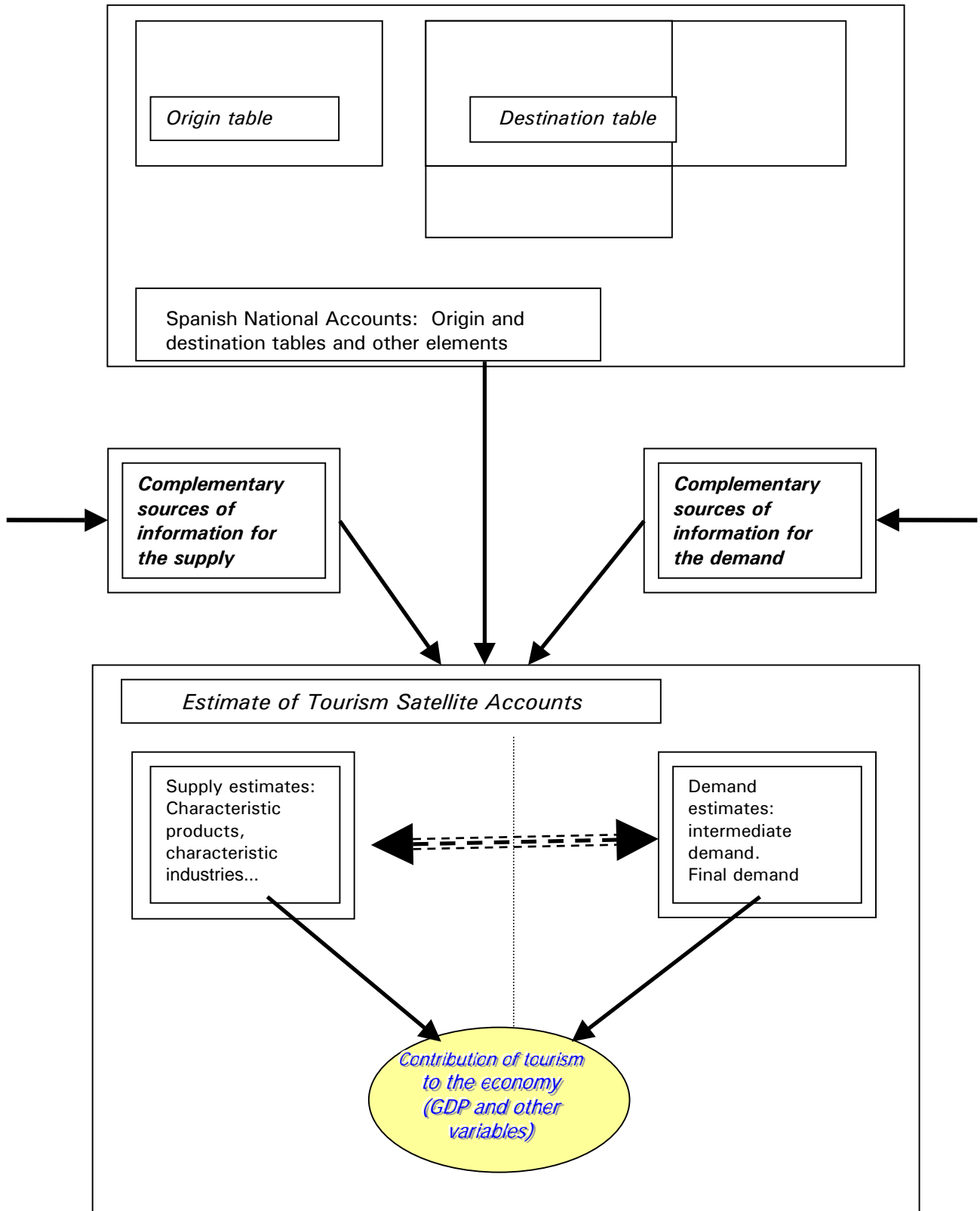
There are obviously different possibilities for the compilation of satellite accounts. Some alternatives are more closely *linked* to the National Accounts whilst other transactions are nearly *independent* of the accounting nucleus (see (2002)).

The first approach has been favoured in the INE's Tourism Satellite Account for two main reasons: Firstly, the initial problem is that if satellite accounts are created without a connection to the National Accounts, there is the risk of obtaining data that are not compatible with the macroeconomic indicators for an economy, which would, for example, limit a measurement of the contribution of tourism to the GDPmp (measure by National Accounts).

Secondly, it also favours the process of the compilation of the TSA, partly fuelled by accounting data. That is to say, the National Accounts are a methodological support and also a statistical support for the STSA.

Chart 8, annexed to this document, synthesises the process proposed to estimate the STSA based on its link to the National Accounts (mainly considering Origin and Destination tables).

Chart 8: General estimate process used in the STSA.



The procedure could be described briefly as follows:

1. Adaptation of the I/O frame for the estimate of the STSA.

1a) The previous stage is the estimate of the elements of the National Accounts that are essential for the TSA. Specifically, Spain has the advantage of being able to access annual Origin and Destination Tables which are compiled in the reviews of the Spanish National Accounts. These tables provide information on the estimates of the TSA, both for the global value, and by products and by variables.

1b) Secondly, the previous available I/O frame (the INE's National Accounts for Spain) has to be adapted to the needs of the STSA. In order to do so, the I-O frame -essentially the Origin and Destination Tables- have to be redefined, in line with the classifications of products and activities required in the STSA. This redefinition implies two types of tasks:

- In some cases all the data from the ODTs have to be broken down, via specific estimation tasks.
- In others, it is simply a case of re-organising pre-existing data.

From the first perspective, that is to say, when the STSA requires a level of breakdown that is more specific than that provided in the National Accounts, a specific estimation task is required, using specific sources (commented in INE (2002)).

1c) After performing the first step, a specific estimate of the components of the PT has to be carried out (see INE (2002)).

1d) Using the breakdown of the components of the PT, original data from the origin / destination tables are transformed:

- The different items that compose the PT in the travel agencies intermediate consumption column (in the destination table) are removed and aggregated to the household final consumption expenditure column.
- Similarly, the global addition of these components is removed from: a) the production of the travel agencies branch (in the origin table) and; b) from the household final consumption expenditure on this product (in the destination table).

The following changes occur as a result of these adjustments: The value of the intermediate consumption and the travel agencies production value also decrease in the same amount (equivalent to the components of the Package Tour), without this modifying the added value of the branch; the household final consumption expenditure on products that compose the PT (accommodation, transport...) increases, whilst the expenditure on travel agencies services decreases in the same amount. Therefore, the total final consumption expenditure does not vary.

2. Collection and treatment of additional sources of information.

The statistics base provided by the annual origin / destination tables of the Spanish National Accounts is used to include new sources of information that focus specifically on aspects that are needed for the TSA.

Section 2.2 summarises the main sources of information used in the STSA.

3. Estimate of the STSA.

The estimate of the actual STSA is performed using the previous elements.

2.2. MAIN STATISTICAL SOURCES LINKED TO THE COMPILATION OF THE STSA.

Although the document INE (2002) contains detailed information on the sources used in the STSA, the basic features of the main sources are mentioned briefly herein (Chart 7): considering the demand, the Tourist expenditure survey (EGATUR), expenditure modules for business trips in structural economic surveys (Industrial Companies Survey, Construction Structure Survey and Services Surveys) and Family Budgets Survey; considering the supply, the new surveys on tourist activities performed by the INE's Services Department, and specially the Travel Agencies Survey and the specific module on PT.

The main project linked to the STSA is EGATUR, an operation performed jointly by three institutions, INE, TSI (Tourism Studies Institute) and the Bank of Spain. This survey is used to measure the consumption made by inbound tourism (non-residents who visit Spain) and outbound tourism (resident Spaniards who travel outside the Spanish territory). This is a border operation that is performed in the main frontier points: road (Portugal, France) and airports, port of Algeciras. Questions cover most of the elements required to characterise these flows (General characteristics of the journey and the passenger -reasons for the journey, nationality, frequency of the visits, duration of the stay, type of accommodation-; total expenditure made for the journey in the country of origin; expenditure made in destination, broken down by main products; form of organisation of the journey; means of payment used during the journey, etc.

An idea of the magnitude of this operation appears in the approximate number of surveys performed: over 86,000 surveys a year, of which over 61,000 correspond to non-residents and 25,000 to residents in Spain.

A second group of statistical innovations refers to the modules of travel expenses incurred by companies, for which there were previously no complete statistics despite it being quite relevant in terms of tourist flows.

Chart 7. Main statistical projects linked to the compilation of the Spanish Tourist Satellite Account (STSA).

Designation	Goals and characteristics	Time reference and availability of the results	Organism
a) DEMAND			
Tourist expenditure survey (EGATUR)	Estimate of the expenditure of non-resident visitors, tourists and same-day visitors. Estimate of Spaniards' expenditure during their trips abroad	January 2002	INE - TSI - Bank of Spain
Tourist accommodation occupancy survey. (Former surveys on the movement of travellers)	Measures the occupancy and flow of travellers in hotel establishments, tourist campsites, holiday apartments and rural tourism accommodation.	Historical series since the 1960s in hotel establishments. In recent years, the sphere has been expanded to include other accommodations.	INE
INE's <i>Family Budgets Survey</i>	Distribution of the expenditure made by resident households by geographic territory of purchase.	Quarterly since 1998.	INE
Specific module of the <i>Annual Industrial Companies Survey</i> on travel expenses.	Total amount and details by products of travel expenses made by industrial companies. (Estimate of expenditure on business travel).	Reference year 2000.	INE
Specific module of the <i>Construction Structure Survey</i> on travel expenses.	Total amount and details by products of travel expenses made by construction companies. (Estimate of expenditure on business travel).	Reference year 2000.	Ministry of Development
Specific questions in the <i>Annual Services Survey</i> on travel expenses.	Travel expenses made by services companies.	Annual since 2000.	INE
Tourist movement on borders. (FRONTUR)	Amount and characteristics of foreign visitors.	Monthly. Since January 1996	TSI
Residents' tourist movement (FAMILITUR)	Amount and characteristics of journeys made by resident Spaniards. Including data on expenditure since the year 2000.	Monthly. Since January 1996	TSI
Survey on the mobility of persons resident in Spain	Amount and characteristics of the mobility of persons resident in Spain	Annual referring to the fourth quarter of 2000 and to the total of 2001	Ministry of Development

Chart 7. Main statistical projects linked to the compilation of the Spanish Tourist Satellite Account (STSA) (*Continuation*)

Designation	Goals and characteristics	Time reference and availability of the results	Organism
b) OFFER			
Structural statistics of the services sector: tourist supply	Including estimates of the economic variables concerning activities linked to tourism. (Hotel establishments and the like, catering, travel agencies, passenger transport, car hire)	Annual since 1998. Data available in t + 18 months (t: end of the reference period)	INE
Short-term indicators for the services sector: tourist supply	Includes estimates of the turnover and the personnel employed for activities linked to tourism (Hotel establishments and the like, catering, travel agencies, passenger transport, car hire)	Quarterly as of 2003. Data available in t + 90 days (t: end of the reference period)	INE
Module of services supplied by travel agencies and tour-operators	Information on income by type of services offered (package tours, products offered individually, etc.) and on the composition of the actual package tours.	Annual since 2000.	INE
Specific module on accommodation services (Annual services survey).	Information requested from hotel establishments regarding production by type of services (accommodation, catering, etc.) and expenses foreign to that production.	Annual since 2000.	INE
Hotel Price Index (HPI)	Evolution of the prices invoiced by hotel establishments	Monthly since May 2000.	INE

In order to cover this field, a series of specific modules and questions aimed at measuring expenses of companies on business trips have been included in the economic surveys compiled by INE (Industrial Companies Survey, Services Survey) and by other organisms (Construction Structure Survey of the Ministry of Development). These modules measure the total expenditure and its basic components (transport, accommodation, catering).

It is also important to note the information provided by the INE's Family Budgets Survey. As of 1998, good part of the sections on expenditure considered in this survey (COICOP classification functions) include the territory where said expense was made, with five distinct categories: *Usual environment; National territory on business; National territory on trip performed for another reason; Abroad on business; Abroad on trip performed for another reason*. That is to say, this source theoretically offers a framework that is ideal for the estimate of household expenditure in the STSA.

2.3. GENERAL DESCRIPTION OF SOURCES AND METHODS BY COMPONENTS OF THE DEMAND.

This section includes the main features of the estimate of the tourist demand. For details by transactions, see the methodology published by the INE (2002).

As the starting point, evidently, the ideal procedure to estimate demand variables should stem from specific sources on this type of variables: For example, statistical sources on the expenditure of travellers when dealing with tourist consumption. This is the case in Spain, where information stems from both global data from the Spanish National Accounts on demand, and from specific sources (listed in the subsequent sections of this chapter)

However, as an auxiliary procedure, data on the tourist demand can be obtained from the data on the supply. To obtain this information, two types of elements must be available:

- A prior estimate of the total supply of characteristic products, distinguishing the part produced in the reference economy.
- Additional data on the part of said production that can have a tourist destination (ratios).

The estimate on production can be obtained either from the National Accounts, or from specific sources on the product in question (although they are obviously always compatible with the measurements from the National Accounts).

After obtaining this prior estimate, it is a case of establishing tourist use percentages for each product category and each demand component. Applying these percentages to the total value of each operation provides the value of the tourist demand.

Obviously, this procedure is only possible in terms of the nature of product and the existence of additional sources of information. Therefore, the procedure is restricted to three product categories:

- 1) Accommodation services in hotels and the like.
- 2) Certain categories linked to passenger transport: air transport; transport of passengers by road.
- 3) Travel agencies services.

Since the detailed explanation can be viewed in INE (2002), this document only comments the example of the hotel accommodations.

As regards accommodation in hotel establishments, the production value of this product is provided by the ESA95 Origin and Destination Tables, as mentioned previously. Therefore, it is a case of determining the part of this product that has a tourist nature.

In this case, the destination of this type of services is almost all tourist-based. Only a small part of these services can be considered *non-tourist related*: those correspond to persons who use these establishments as their regular accommodation.

Population and Dwellings Censuses are used as the source of information to determine this percentage. The Censuses provide the number of persons by autonomous communities, resident in hotels, motels and guesthouses (in the ensemble of the population residing in group establishments). Considering the hypothesis that it were inhabited all year round provides the global number of overnight stays which, transferred to prices, provides the value of this component.

In order to determine the number of persons residing in this type of establishments in years after the Censuses, data are extrapolated from population projections by Autonomous Community.

This procedure is evidently approximate and should be reviewed in view of the data from each Census. In any case, the low relevance of said population group residing in hotel establishments, makes the margin of error on global tourism estimates very low.

2.4. ESTIMATES OF THE SUPPLY VARIABLES: CHARACTERISTIC BRANCHES AND PRODUCTS.

2.4.1. Previous selection of characteristic branches and products in the Spanish TSA.

Chart 10 includes a list of characteristic products used in this first pilot version of the STSA, compared to the TSA-MR recommendations.

The classifications of products and activities used in the STSA result from combining three types of criteria:

- 1) The recommendations in the international reference methodology, the TSA-MR, on tourism characteristic products and activities.

- 2) Characteristics and needs of the Spanish tourist system.
- 3) The possibilities of these base sources of information and, specifically, of the Input/Output system (essentially origin / destination tables) which the STSA is based on.

Therefore, in some cases products have been grouped and in others certain differences have been included.

It is important to note a difference regarding *Cultural, recreational and sport services*. Although this first version of the STSA does not include a specific breakdown of these products, it does include a difference that has statistical and methodological implications which corresponds to market services on the one hand, and non-market services on the other. This section follows the NAS criteria that establish this type of differences, and among other advantages allows each of these categories to be allocated to two types of producers: units that are depend on the Public Administrations (non market) and units depend on private companies.

This section also includes the category public services linked to tourism. This corresponds to a very specific category of the classification of products (see chart 10). Considering the nature of the product, there is no doubt that it fulfils the conditions laid down for its inclusion as a tourism *characteristic product*.

Nevertheless, their nature as *group services* arouses the prior problem of whether these services should be included in the TSA, given the reservations set out in international methodologies essentially due to empirical reasons. Nevertheless, as regards Spain, it has been decided to include them in the satellite account, since there were sources of information on these elements.

Chart 10: List of Tourism Characteristic Products used in the STSA

List of products in the STSA	TSAMR list
<i>Accommodation services</i>	
- Hotels and the like	Same as the STSA
- Real estate rent services	Same as the STSA
Food and beverages serving services	Same as the STSA
<i>Passenger transport</i>	
Passenger transport by road	Same as the STSA
Passenger transport by rail	Same as the STSA
Passenger transport by sea	Same as the STSA
Passenger transport by air	Same as the STSA
Travel agency services	Same as the STSA
Services linked to transport	Same as the STSA
Transport equipment rental	Same as the STSA
Market cultural, leisure and sport services	The TSAMR considers two categories separately: cultural services on the one hand, and sports and leisure services on the other. Nevertheless, no distinction is made between <i>market</i> and <i>non market</i> services.
Non-market cultural, leisure and sport services	
Public tourist services	Includes group services provided by the Public Administrations regarding tourism management. This category is not included in the TSAMR
Non-characteristic products	
Goods	
Goods distribution margins	Trade and transport margins linked to goods purchased by visitors. This category is not included in the TSAMR
Other products	Other products (basically services) not included in previous categories. This would correspond to two categories of the TSAMR: <i>Maintenance and repair services of passenger transport equipment</i> (included in the TSAMR in <i>transport</i>); and the category <i>Miscellaneous tourism services</i> , which, in turn, encompasses <i>Financial and insurance services</i> , <i>other good rental services</i> and <i>Other tourism services</i> .

Chart 11 includes the list of activities used in the Spanish TSA, compared to the TSAMR recommendations.

Nevertheless, it is important to stop and consider this description and its meaning briefly

In the definitions envisaged in the Spanish National Accounts, an *industry* or *branch of activity* refers to the aggregate of an ensemble of producer units that have a common activity. For example, the branch of activity *Hotels and the like* groups the units whose main activity is to render accommodation services. The main criterion used to define these *activities*⁹ would be the product: that is to say, in the previous example considering hotels, the specialisation or main production are accommodation services. Nevertheless, these producer units with a basic specialisation can perform other secondary activities.

This discussion in the field of the TSA has major implications, which, unfortunately, have not been considered when designing the list of characteristic activities. Indeed, when referring to *industries* or *branches of activity*, the main goal is to analyse the current cost and capital costs structures for these units.

Therefore, for Spain a definition has been established for branches of activity that considers these factors and introduces some significant differences as regards the definitions included in the TSAMR:

- The TSAMR recommended a specific branch that reflected the (long-distance) transport of passengers by rail. However, in Spain, most of the (long-distance) rail transport both of passengers and of goods, has -at least at present- always been rendered by a public company. Therefore, when compiling the STSA it was decided to consider a branch or global industry dedicated to this means of transport, since the allocation of costs to one or another component of the transport (goods or passengers) has a more analytical than real character; although the TSA includes this association, it seems that it is quite necessary to maintain a minimum statistical reference.
- The same approach has been used for air transport, although in this case with the advantage of the fact that the income section linked to goods is quite secondary compared to the activity of passenger transport.

⁹ Albeit not the only criterion. There are also: the technology used, destination of the product... See for example the methodological notes of the CNAE93 (published by INE).

Chart 11: List of Tourism Characteristic Activities used in the STSA

List of activities in the STSA	TSAMR list
Hotels and the like	Same as the STSA
Real Estate Rent	Same as the STSA
Restaurants and the like	Same as the STSA
Passenger transport by road	Same as the STSA
Passenger transport by rail	The TSAMR establishes a specific branch for <i>Passenger transport services by rail</i> . In the Spanish case, the account includes global data on the units that perform this type of transport. (See annexed comment).
Passenger transport by sea	Same as the STSA
Passenger transport by air	The TSAMR establishes a specific branch for <i>Passenger transport services by air</i> . In the Spanish case, the account includes global data on the units that perform this type of transport. (See annexed comment).
Travel agency services	Same as the STSA
Services linked to transport	The TSAMR establishes a specific branch for <i>Services linked to passenger transport by air</i> . In the Spanish case, the account includes data on the units that perform this type of services related to transport, no specification. (See annexed comment).
Transport equipment rental	Same as the STSA
Market cultural, leisure and sport activities	The TSAMR considers two categories separately: cultural services on the one hand, and sports and leisure services on the other. Nevertheless, no distinction is made between <i>market</i> and <i>non market</i> services.
Non-market cultural, leisure and sport activities	

2.4.2. General methodological aspects: Production and operation accounts of the characteristic branches.

The industry is characterised considering the compilation of the production and operation accounts of the tourism characteristic branches. This involves the following variables:

- Production. In order to compile all the elements that integrate the TSA, it is necessary to consider an estimate of the production of the tourism characteristic branches. When estimating this variable, elements should be broken down by types of products, identifying characteristic products, since this makes it easier to construct the TSA as an interrelated whole.
- Intermediate consumption. For characteristic branches of activity. Although only an aggregated measurement is required to fulfil the basic goal of measuring the GAV of the branches, the TSAMR also envisages the breakdown of this variable by types of products.
- Remuneration of employees. This action involves calculating personnel expenses using different elements (linked to the estimate of employment).
- Employment in the tourist industry.
- Other net taxes for subsidies on production.

It is important to note that, in principle, so as to calculate the operation account, the only essential element to be obtained are the *other taxes (net of subsidies) on production*. Nevertheless, since the final goal of the STSA is to obtain measurements on the contribution to the GDPmp, it is necessary to consider an estimate of all the types of taxes linked to the demand of tourist products.

The estimates included in the SNA Origin and Destination tables are used as the basis to estimate these variables, although an additional task was also required to obtain information and adapt accounting data to the breakdown required in the Satellite Accounts.

As regards specific methodologies used for the main types of products and activities, refer back to the methodology published by the INE in 2002.

2.5. ESTIMATE OF THE EFFECT OF TOURISM ON THE GDP AND OTHER MACROECONOMIC AGGREGATES.

2.5.1. Basic aspects.

The STSA includes two measurements of the contribution of tourism to the GDP:

- The measurement proposed by the TSAMR, described in epigraph 2, is based on the calculation of the GAV *directly* generated by the total tourist demand

- The alternative proposed by the INE (see INE (2002)), in which the contribution to the GDP is equivalent to the final tourist demand. That is to say, it is a more comprehensive calculation (each component of the final tourist expenditure -net of imports- is incorporated integrally) and is closer to the global effect, as it settles the part of the intermediate tourist consumption which does not generate GDP.

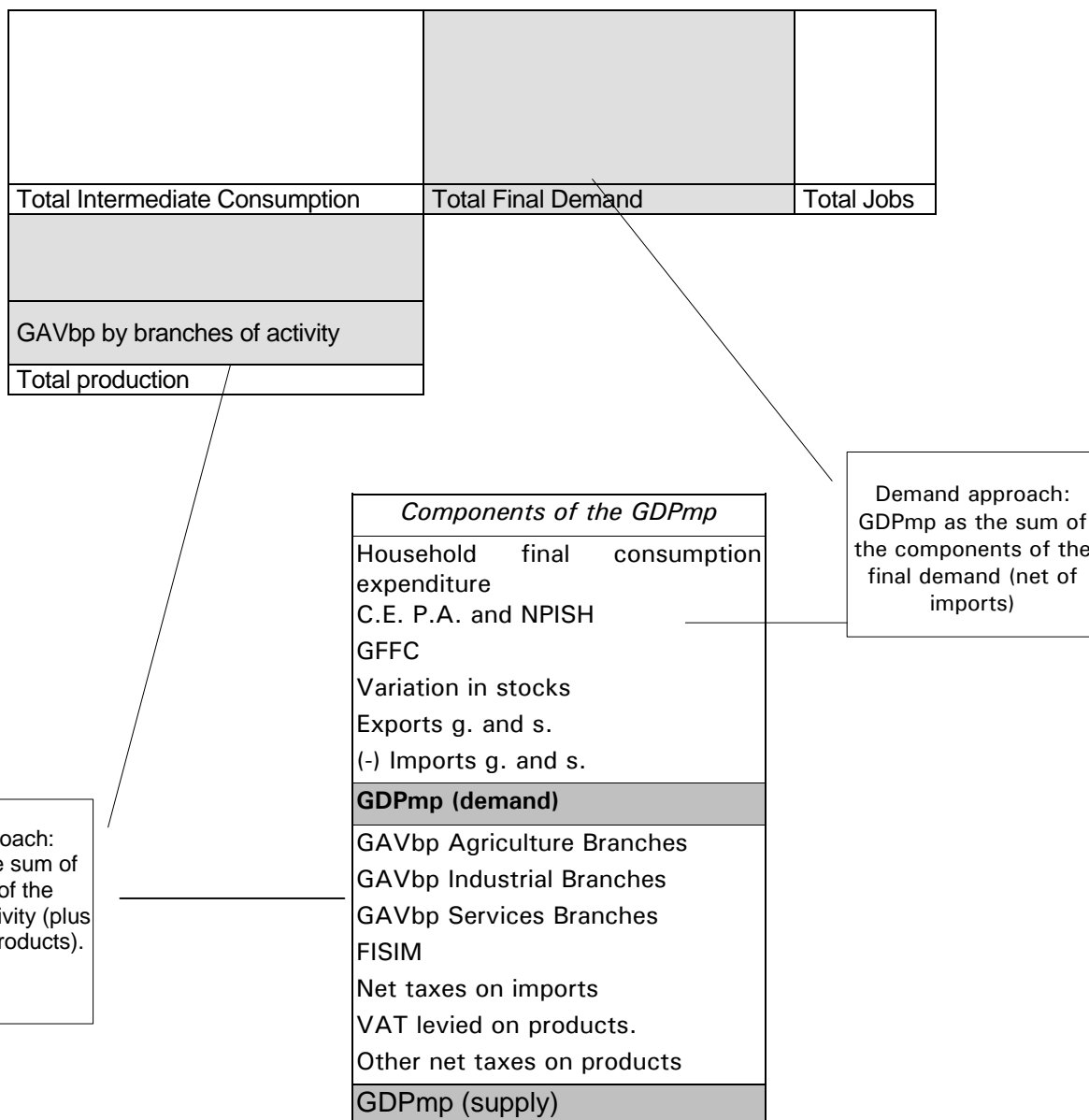
Chart 6 (annexed to this document) summarises this approach showing that, as detailed in INE (2002), the GDP can be obtained using different perspectives in the origin-destination system.¹⁰

On the one hand, from the demand perspective, the GDP is equivalent to the sum of the components of the final demand (net of imports). On the other, from the supply perspective, the GDP is equivalent to the sum of the GAV of the different branches of activity.

Without going into very detailed descriptions that go beyond the scope of this methodology, it is important to underline that part of the demand of products in the system is destined or used to create other products: this part is included in the so-called intermediate consumption matrix. This matrix is not part of and does not influence the measurements of the GDP in the economy, since it corresponds to the production of certain branches of activity and to the expenditure made by others. The total balance of this intermediate consumption would be non-existent for the whole of the economy.

¹⁰ To simplify the interpretation of this document, the definition of the GDP has not been included from an income perspective.

Chart 10. The GDPmp from the Input/Output system (destination table¹¹).



In other words (regardless of particularities concerning valuations and imports) in an economy, when constructing an accounting system based on the Input/Output system represented in the chart, the sum of the components of the final demand has to coincide with the total GAV of all the branches.

¹¹ The same approach can be used when using a symmetrical table.

It is important to note that the estimate of the demand requires a prior calculation of the content of the imports to avoid overvaluations. Consequently, the TSA uses information provided directly and annually (for these definitive estimates) by the actual origin/destination system of the ESA95 (and the multipliers implied in the same).

Simple proportionality hypotheses have been used, since a more sophisticated model does not guarantee more reliable estimates. The possible improved quality of the estimates would not compensate the greater difficulties of the calculation¹².

Furthermore, given the major role tourism plays in the generation of jobs, the STSA also measures the multiplying effects on employment.

Spanish National Accounts provide estimates on the level of employment by branches of activity. Therefore, it is possible to obtain employment ratios by branches. If we consider the hypothesis that the content in employment per output unit is the same for production destined for tourism and for the rest, then we can calculate the employment generated directly by tourist demand (or production).

Direct employment capacity can be set out in very simple methodological terms: to can be allocated proportionally to the relevance of tourist production for each branch of activity.

In this sense, it is important to note that, when stemming from the National Accounts, as occurs in the STSA, it provides estimates for the employment vector by branches. Therefore, these estimates are compatible and integrated in the estimates of the rest of the variables.

2.5.2. Measuring indirect effects.

As an extension of the calculations performed in the scope of the TSA, the Spanish case has considered the inclusion of so-called indirect effects on production and employment.

It is a case of establishing, alongside the *direct* or immediate impacts of tourism, generated by producer units and/or companies that supply goods and services purchased by the tourists, what are known as *indirect effects* which would consider the chain effects generated on the rest of the economic system, to the extent that the tourist industry also demands other input and production factors to develop its activity.

The conventional way to measure these indirect effects is to use the data from the input/output system and hypotheses for technological relation and time stability of the production tasks that generate the different types of products (goods or services).

¹² For example, conventional I/O models used to calculate the content of imports.

INE (2002) includes a description of these models alongside their basic hypotheses.

2.6. GENERAL STRUCTURE OF THE TABLES OF RESULTS INCLUDED IN THE SPANISH TSA.

Chart 13 gathers the charts of broken down data included in the Spanish TSA, compared to the tables recommended by the TSAMR, including a brief description.

Although the content of the information is basically the same as in the TSAMR, re-allocations and changes have been made in the way data is presented. Specifically, the charts that compose the Spanish Tourism Satellite Account can be grouped into five categories.

- 1) General charts: Aggregate indicators
- 2) Tourist demand charts
- 3) Supply charts: Tourist industry
- 4) Charts comparing supply and demand.
- 5) Other information

The first group, general charts, is not included in the TSAMR as such, although its inclusion is compulsory in a TSA. These charts are actually derived from the information contained in a detailed manner in other charts. The goal of this section is mainly to present data from the TSA accounting series over time, thus allowing a dynamic analysis of the role tourism plays in economy.

Tourist demand charts are similar to those contained in the TSAMR, although their structure differs, since the inbound consumption and the internal consumption appear together, and all the tourist consumption of the Public Administrations (both individual and group) appears in the same chart.

In the supply chart, information is presented with slight differences with respect to the structure of the TSAMR: Chart 3.1. includes data on the aggregated production account of the tourist industries; chart 3.2. only presents the breakdown of the production data by products (included in Table 5 of the TSAMR); and chart 3.3. includes the current expenditure of the characteristic industries, making a distinction between *intermediate consumption* and *other current expenses* (which appear in tables 5 and 6 of the TSAMR).

Section 4 presents the results of the comparison between the tourist supply and demand and provides the resulting macroeconomic aggregates, both from the TSAMR perspective (Chart 4.1. Supply/Demand comparison: Tourist Ratios) and from the proposal used in the Spanish TSA. (Chart 4.2. Contribution of tourism to economy: Direct effects and total effects).

This presentation provides a closer link between each of these charts and a specific table from the accounting input/output frame (NAS93 / ESA95): in some cases, the origin table and in others, the destination table.

Finally, section 5 contains all the complementary information on non-monetary aspects contained in the TSA. At present, this section only includes two tables, as an example, although it is important to note that this is an *open* issue, since many different non-monetary variables could be included. On the other hand, this type of information is sufficiently covered by the Spanish statistical system, and therefore it is even worth questioning whether it should be included in the STSA.

Chart 13: Tables that compose the Spanish Tourist Satellite Account.

Denomination	Contents	Correspondence with TSAMR tables
1) General charts:		
Chart 1.1. Contribution of tourism to the GDP.	Global amount of the contribution of tourism to the GDP of an economy. Series differentiated by large components: inbound tourism and other components of the demand	
- Chart 1.1.1	Current prices	
- Chart 1.1.2	Constant prices	
Chart 1.2. Balance of the tourist flows with the Rest of the world: Outbound tourist consumption and inbound tourist consumption.	Balance of the external flows of tourist consumption; inbound tourist consumption and outbound tourist consumption.	Aggregate data corresponding to the two tables of the TSAMR: Table 1 (<i>Consumption of inbound tourism by products expenses paid in cash as regards the final consumption of the visitor</i>) and Table 3 (<i>Outbound tourist consumption by products</i>).
- Chart 1.2.1	Current prices	
- Chart 1.1.2	Constant prices	
2) Tourist demand charts		
Chart 2.1. Domestic tourist consumption by products and components.	Data on consumption in the territory differentiated by characteristic products and components: inbound consumption, internal consumption.	Information that is in two tables in the TSAMR: Table 2 (<i>Internal tourist consumption</i>) and Table 4 (<i>Domestic tourist consumption by products</i>).
- Chart 2.1.1	Current prices	
- Chart 2.1.2	Constant prices	
Chart 2.2. Tourist consumption of the Public Administrations: individual expenditure and group expenditure.	Data on consumption expenditure of the Public Administrations in the territory listed by characteristic products; rest of expenses: aggregate.	Information that is in two tables in the TSAMR: Table 2 (Individual tourist consumption) and Table 9 (<i>Group tourist consumption by functions and level of administration</i>).
Chart 2.3. Gross formation of fixed capital of the characteristic branches of activity.	Breakdown by types of products: Material and immaterial investments.	Similar to Table 8 of the TSAMR, with slight differences regarding breakdown.

Denomination	Contents	Correspondence with TSAMR tables
3) Supply charts: tourist industry		
Chart 3.1. Production account of characteristic branches of activity.	Production account of characteristic branches of activity.	
Chart 3.2. Production details of characteristic branches of activity.	Breakdown of production by products. Adaptation of the original table to the TSA (production matrix).	The charts from the Spanish TSA are equivalent to Table 5 (<i>Production account of the branches of tourist activity</i>) and part of Table 6 (<i>Domestic supply and internal tourist consumption by products</i>) of the TSAMR
Chart 3.3. Detail of current costs (intermediate consumption and primary consumption) of the characteristic branches of activity.	Breakdown of the intermediate consumption by products; breakdown of the other current expenditure (remuneration of employees, taxes on production...)	
Chart 3.4. Employment in characteristic branches of activity.	Data on employment (jobs) for characteristic branches of activity.	Similar to <i>Table 7. Employment in branches of tourist activity</i> of the TSAMR
4) Charts comparing supply and demand.		
Chart 4.1. Supply/demand comparison: Tourist ratios.	Comparison between supply and demand estimates, combining the previous charts.	Part of the information from this table appears in TSAMR Table 6.
Chart 4.2. Contribution of tourism to economy: Direct effects and total effects.	Application of the input/output methodology to obtain the <i>indirect</i> effects tourism has on economy	Not included in the TSAMR
5) Other information.		
Chart 5.1. Tourist industry: Distribution of companies by size (no. of employees)		Breakdown of TSAMR Table 10
Chart 5.2. Tourist industry: Comparative ratios by size of the company.		

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