

Tourism Satellite Accounts in the European Union

Volume 3:

Practical Guide for the Compilation of a TSA:

Directory of Good Practices

2009 edition

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Luxembourg: Office for Official Publications of the European Communities, 2009

ISBN 978-92-79-14186-7

ISSN 1977-0383

DOI 10.2785/36017

Cat. No. KS-RA-09-003-EN-C

Theme: General and regional statistics

Collection: Methodologies and working papers

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Tourism Satellite Accounts in the European Union

Volume 3: Practical Guide for the Compilation of a TSA: Directory of Good Practices

Preface

Tourism is an important part of Europe's economic, social and cultural activity. Council Directive 95/57/EC of 23 November 1995 on the collection of statistical information in the field of tourism provided for the establishment of an information system on tourism statistics at Community level. The Directive has therefore enabled the regular production of harmonised statistics on the capacity and occupancy of tourist accommodation establishments, and on tourism demand. Statistics in this field are used to monitor tourism-specific policies, as well as the wider context of regional policy and sustainable development.

A Tourism Satellite Account (TSA) provides an economic measure of the importance of tourism in terms of expenditures, GDP and employment for a given country. It integrates in a single format data about the supply and use of tourism-related goods and services, and it provides a summary measure of the contribution tourism makes to production and employment. It permits a comparison of tourism with other industries since the concepts and methods used are based on the System of National Accounts.

In March 2000, the United Nations Statistical Commission adopted the common conceptual framework for the compilation of Tourism Satellite Accounts (TSA) jointly elaborated by UNWTO, OECD and EUROSTAT: the *Tourism Satellite Account - Recommended Methodological Framework (TSA-RMF)*. Two years later, EUROSTAT published the *European Implementation Manual on Tourism Satellite Accounts (EIM)*, aiming at providing guidelines on how to implement TSA, with concrete reference to the harmonised statistics available in the European Statistical System, in particular in the domain of tourism statistics.

In the subsequent years, the Directorate-General Enterprise and Industry (DG ENTR) of the European Commission offered grants to the Member States to support feasibility studies and/or the actual implementation of TSA. These projects have fostered the work on TSA in most Member States, however, the state of the exercise and the level of harmonisation differs largely from country to country.

As an answer to this observation, EUROSTAT launched a project which ran in the period 2008-2009 with two main objectives. On the one hand, to make a comparative assessment of the methodologies applied and of the results of the earlier national projects. On the other, to offer a forum for the collection and the exchange of best practices for TSA compilation through multi-country workshops, individual technical assistance missions to Member States and a *cookbook* discussing good practices for the compilation of TSA.

The key deliverables of the project are published in a set of 4 volumes in the EUROSTAT series "Methodologies and Working Papers" under the heading *Tourism Satellite Accounts in the European Union*.

This third volume *Practical guide for the compilation of TSA* contains recommendations extracted from the project with relevance for all European countries. The document can be seen as a *cookbook* discussing how to best use the existing sources within the European Statistical System and how to develop estimation methods for the data gaps.

This publication was prepared in collaboration with ICON-INSTITUT Public Sector GmbH and includes contributions by the following TSA experts: Gerd Ahlert, Lea Bregar, Vanda Dores, Teresa Hilario-Chavez, Peter Laimer, Zdenek Lejsek, Rafael Roig and Pavel Vancura.

Michail Skaliotis, Head of Unit "Information society and tourism statistics"

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List of abbreviations and acronyms

BoP	Balance of Payments
BPM	Balance of Payments Manual
CD	Consumer Durables
COICOP	Classification of Individual Consumption by Purpose
COFOG	Classification of the Functions of the Government
CPA	Classification by Products of Activity
CPC	Central Product Classification
EC	European Commission
ESA	European System of Accounts
e.g.	exempli gratia
esp.	especially
etc.	et cetera
EU	European Union
FCE	Final Consumption Expenditure
FTE	Full Time Equivalents
GFCF	Gross Fixed Capital Formation
GMI	Gross Mixed Income
GOS	Gross Operating Surplus
GVA	Gross Value Added
HBS	Household Budget Survey
HFC	Household Final Consumption
HFCE	Household Final Consumption Expenditure
i.a.	inter alia
i.e.	id est
IC	Intermediate Consumption
ILO	International Labour Organisation
IOT	Input Output Tables
IRTS	International Recommendations on Tourism Statistics
ISIC	International Standard Industrial Classification
mio.	Million
m&r	maintenance & repair
NA	National Accounts
NACE	Nomenclature d'activité de la Communauté Européenne
NPISH	Non Profit Institutions Serving Households
NSI	National Statistical Institute
NTB	National Tourism Board
NUTS	Nomenclature of Territorial Units for Statistics
OECD	Organisation for Economic Cooperation and Development
PT	Package Tour
RTS	Recommendations on Tourism Statistics
SBS	Structural Business Surveys
SD	Same-day visitors
SNA	System of National Accounts
SORS	Slovenian Survey on Cross Border Traffic
SUT	Supply-Use Tables
TA	Travel Agencies
TBoP	Tourism Balance of Payments

TCA	Tourism Characteristic Activities
TCP	Tourisms Characteristic Products
TGDP	Tourism Gross Domestic Product
TO	Tour Operators
TSA	Tourism Satellite Account
TSA-EIM	Tourism Satellite Account - European Implementation Manual
TSA-RMF	Tourism Satellite Account - Recommended Methodological Framework
TVA	Tourism Value Added
UNWTO	United Nations World Tourism Organisation

List of abbreviations for the TSA-RMF tables¹

T1	TSA table 1: Inbound tourism expenditure by products and classes of visitors
T2	TSA table 2: Domestic tourism expenditure by products, classes of visitors and types of trips
T3	TSA table 3: Outbound tourism expenditure by products and classes of visitors
T4	TSA table 4: Internal tourism consumption by products
T5	TSA table 5: Production accounts of tourism industries and other industries (at basis prices)
T6	TSA table 6: Total domestic supply and internal tourism consumption (at purchasers' prices)
T7	TSA table 7: Employment in the tourism industries
T8	TSA table 8: Tourism gross fixed capital formation of tourism industries and other industries
T9	TSA table 9: Tourism collective consumption by products and levels of government
T10	TSA table 10: Non monetary indicators

¹ The description of the TSA tables is adopted from the TSA-RMF 2008 manual.

1

Chapter 1 - Introduction

1 Introduction

Despite of the remarkable growth of the tourism sector during the last century, statistical information on this sector has traditionally been limited to a few spheres: physical flows (number of tourists, number of nights etc.), demand variables (credits and debits of the travel item of the Balance of Payments (BoP), consumption of tourism related products etc.) and supply data (output of tourism characteristic industries, number of accommodation establishments etc.). Even though this information is useful in itself, it fails to provide a comprehensive view and render possible an economic analysis of the tourism sector by balancing tourism related supply and demand, and by estimating the direct impact of tourism for the main macro-aggregates of corresponding economies.

By contrast, the System of National Accounts 1993 (SNA 1993) provide an excellent conceptual and methodological framework for the Tourism Satellite Accounts. For this reason, the international methodology on TSA, the “Tourism Satellite Account: Recommended Methodological Framework” (TSA-RMF 2000) was drawn up jointly at the end to the 90th of last century by UNWTO, OECD and Eurostat in general accordance with the concepts, definitions, accounting principles and valuation criteria established in the SNA 1993.

The revised International Recommendations on Tourism Statistics (IRTS 2008) were published in 2008. The main purpose of the revision was to update the recommendations and harmonise them with fundamental definitions and limitations of tourism statistics as well as with internationally accepted manuals on macroeconomic accounting (esp. SNA 1993) and Balance of Payments. The new IRTS 2008 takes into account various more recent country experiences in collecting tourism statistics as well as the fast development of tourism as an industry. In addition, the IRTS 2008 has an implicit reference to the updated TSA-RMF by introducing the concept of tourism related activities and products. For the TSA-RMF 2008, the manual was consolidated and brought up to date, while the hierarchically organised additive overall structure of TSA tables T1, T2, T4, T5 and T6 was left untouched.

The aim of this document is to draw up a directory of good practices of EU Member States' experiences on how to compile the TSA. As a practical TSA implementation guide, it is based on the evaluation of country-specific TSA stocktaking reports. The technical assistance missions carried out as part of this Eurostat funded project on fostering TSA implementation in the Member States provided additional stimulus for the identification of further specific implementation practices. As a result, this complementary practical guide for the compilation of TSA refers mainly to the TSA-RMF 2000 and the European Implementation Manual (TSA-EIM) which was published by Eurostat in 2001. Nonetheless it also makes comments on significant methodological changes with regard to the new TSA-RMF 2008. Above all, it caters to compilers who are less experienced in national TSA compilation and professionals seeking practically orientated recommendations.

This practical guide is divided into three main sections. Chapter 2 contains a brief outline of some general aspects concerning key methodological issues and data sources. The following chapter explains the practical implementation of the TSA table by table and describes commonly used data sources and implementation approaches, enriched by a series of country

examples. Whereas chapter 3 focuses on a general discussion of various TSA issues, chapter 4 is dedicated to specific TSA problems such as package tours or same-day visits. Discussing these problems in great detail can significantly help national TSA compilers in their implementation work.

In terms of the layout, the practical guide is structured in two types of text boxes. While the first type sums up the key methodological points, the second type presents practical cases and various compilation procedures developed by different countries. However, these practical cases should not be interpreted as universally applicable, since unique and specific country conditions always require finding solutions tailored to the statistical system of the country.

2

Chapter 2 - General aspects: Methodological references and data sources

2 General aspects: methodological references and data sources

Before analysing the TSA methodological approach in chapter 3, this chapter will present some general aspects of the TSA compilation process and methodology that are relevant to all tables, such as methodological references and data sources with a special focus on the National Accounts framework.

It is obvious that methodological references and data sources are highly relevant for TSA compilation. This section will equip TSA compilers with some fundamental information that will be useful during the compilation process. It is important to be aware of the context, the limits and constraints, and above all to have some starting points on how to resolve or overcome compilation problems.

This introduction will also stress the notion of the TSA as a compound statistic, which results from the convergence and harmonisation of several data sources. To acknowledge TSA delimitations in the first place will facilitate the compilation approach, as well as being aware of possible restrictions and understanding the “attitude” towards data sources.

Besides listing the main TSA international methodological references, this chapter will focus on several aspects revealing the importance of data sources. Put simply, there will be no TSA without sufficient tourism data sources. But even if those data sources are available, there are many other factors and criteria which can influence the TSA. These factors include periodicity, level of disclosure, concepts, scope etc.

Data sources and its characteristics will have an effect on TSA estimates since they influence all methodological decisions, especially when there is no direct relation or match between the available data source and the estimation itself.

2.1 International Methodological References

As far as the TSA is concerned, there are two kinds of methodological references.

The first group refers to those manuals that are directly and exclusively related to TSA compilation. They include:

- *Recommended methodological framework; UNWTO/UN/OECD/EUTOSTAT 2000 (TSA-RMF)*
- *European Implementation Manual on Tourism Satellite Accounts; EUROSTAT 2001 (TSA-EIM 2001)*
- *Measuring the role of tourism in OECD economies - The OECD manual on TSAs and employment; OECD 2000*

The TSA-RMF manual defines the TSA in all its senses and scopes: its definitions, its context, its objectives as a tourism statistic, the aggregates to be compiled and their disclosures and breakdowns, the tables to be compiled, the classifications of products and activities etc. The first UNWTO manual on TSA dates from 2000 and has been revised in 2008.

The TSA-EIM is based on the TSA-RMF framework, but puts it in a European context by taking into account the similarities of the statistical systems of the European countries.

Those similarities are obvious in terms of national accounting rules – which are the main methodological accounting reference (ESA 1995) – and tourism statistics production since there is a set of statistics that European countries are obliged to provide in order to fulfil EU Council Directive 95-57 on tourism industry characterisation. This manual should in fact be the main reference for all compilation purposes undertaken by European countries.

Finally, the OECD manual also explores the UN manual and addresses several additional issues as well. It includes a module on employment compilation within the TSA context for those countries wishing to explore employment deeper than table 7 (employment in tourism industries) of the TSA-RMF.

The second group of TSA methodological references includes those manuals providing the basic concepts of tourism and the basic concepts and rules of accounting on which the TSA are based and which the TSA manuals continuously refer to:

- *System of National Accounts 1993 (SNA 1993) – UN*
- *European System of National Accounts 1995 (ESA 1995) – EUROSTAT*
- *5th Manual of the Balance of Payments 1993 (BPM 5) – IMF*
- *Recommendations on Tourism Statistics (RTS 1993) – UNWTO*
- *Community methodology on Tourism Statistics – EUROSTAT*

The compilation process of the TSA is in fact a special case of national accounting which highlights and focuses on the tourism reality. Being a “satellite” of the National Accounts (NA), the main idea of a TSA is to estimate figures, mainly in monetary terms, that can measure tourism or tourism’s main features within the economy and characterise it. These tourism figures must therefore be directly comparable to the NA figures. Putting aside some specificities of the TSA (sometimes needed in order to better picture the satellite system in question), this leads to our first conclusion: TSA compilation and accounting rules must be those of National Accounts.

In terms of national accounting rules, the main reference worldwide is the UN manual, SNA 1993. For EU countries, ESA 1995 is the mandatory reference. ESA 1995 is an adaptation of SNA 1993 which takes into account the European reality and statistical systems. Both manuals explore and explain the concepts, aggregates, accounting rules and methodologies that respond to a certain philosophy of exhaustiveness in measuring each country’s economy. SNA 1993 has been revised in 2008.¹

The BPM 5 is an IMF publication that contains the standards for BoP compilation as well as an analysis of the concepts, methodologies and aggregates. As with SNA 1993, this manual was revised in 2008.²

The RTS 1993 is a UNWTO publication striving to compile all guidelines for tourism statistics: the concepts, the definitions, the scope of tourism, its forms and its agents. It has been the standard reference for many countries in the process of developing tourism statistics, either in form of basic tourism data sources such as tourism surveys, or in form of compound statistics such as the TSA. The RTS 1993 has been revised in 2008 as well. In

¹ The chapter on Satellite Accounts will contain a separate paragraph introducing the TSA methodology.

² There is presently the 6th version of the Manual (BPM 6, 2007) in use.

the course of its revision, it was updated and brought into harmony with fundamental definitions and limitations of tourism statistics and harmonised with internationally accepted manuals on macroeconomic accounting (esp. SNA 1993) and balance of payments statistics (esp. BPM 6, 2007). The new IRTS 2008 takes into account various more recent country experiences in collecting tourism statistics as well as the fast development of tourism as an industry. The IRTS 2008 also has an implicit reference to the TSA-RMF by introducing the concept of tourism characteristic and related activities and products. The latter have been incorporated in the corresponding – and revised – international classifications 'International Standard Industrial Classification of all Economic Activities' (ISIC, Rev. 4) and the 'Central Product Classification' (CPC, Version 2).

While the changes necessitated by the IRTS 2008 revision had to be reflected in the updated TSA-RMF 2008, another key challenge was to consolidate and substantiate the TSA manual in view of the large number of practical TSA implementation exercises. However, the hierarchically organised additive overall structure of TSA tables T1, T2, T4, T5 and T6 was left untouched. The basic procedure for determining the tourism direct gross value added determined both by way of the supply side as well as demand side tourism characteristic proportions was not changed, either. Within the new TSA-RMF 2008, the breakdown of tourism characteristic products contains the two sub-groups

- A.1.i Internationally comparable tourism characteristic products, and
- A.2.ii Country-specific products characteristic of tourism.

The first product group has been consolidated into 10 internationally comparable tourism characteristic products. The latter product group - with its two sub-categories goods and services - can be specified by the individual country itself. The same approach was applied to TSA characteristic industries. By adding “Retail trade of country-specific tourism characteristic goods” as an independent tourism characteristic activity, all corresponding value added (i.e. trade margins) is treated according to common practice within Input-Output (IO) accounts. In the future, these changes will slightly simplify TSA implementation.¹

Furthermore, EU countries have a common statistical framework, defined by Eurostat and the Member States.

The main advantage of the international methodological references is that they harmonise basics, general references, and mandate countries to deal with their specificities. Just imagine if each country had its own definition or formula of GDP!

The TSA adopts the rules and concepts of international manuals and methodological references: Based on international and worldwide standards, TSA will reach the wider public and clarify the TSA rationale. This in turn will increase the probability of becoming either a TSA user or compiler. It is easy to see that if everybody speaks the same language in terms of methodology, the TSA compilation and interpretation will be facilitated to a great extent. The harmonisation of tourism concepts and national accounting rules will naturally lead to improved international comparability. If the basic methodologies,

¹ Further important extensions are:

- Definition of a list of tourism single purpose consumer durables
- Valuables are considered as part of tourism expenditure when purchased on trips

definitions, concepts and aggregates are the same, it will be far easier comparing results – even if each country uses a different path to reach the final result. Hence NA, BoP and tourism statistics are the main data sources for the TSA.

2.2 Methodological aspects regarding data sources

2.2.1 Data sources and the scope of influence

The TSA is a compound tourism statistic that uses basic (or primary) sources or other compound statistics in its compilation process. Therefore the existence and features of available data sources will determine the feasibility of compiling a TSA. For this reason, the first thing to do prior to actually compiling a TSA should be a inventory study on available data sources and an assessment on whether those sources are sufficient to feed a TSA and what the implications of their use are in terms of all foreseen dimensions.

The TSA tables, as defined by the UNWTO, are designed for a certain level of detail in terms of kind of visitor, according to residence, destination (own country or abroad) and the time spent at the destination (tourists or same-day visitors); in terms of the purpose of the trip (personal or business); and in terms of kinds of products and activities involved in tourism demand and supply. But one has to deal with even more dimensions: for example, a full compilation of TSA table 1 requires figures on tourism expenses made by non-residents on trips - split by tourists and same-day visitors and disaggregated by type of product. This is very demanding in terms of information.

As far as data sources are concerned, it is also necessary to take into account their time, geographical and statistical scope. In an ideal situation, they should exactly match the TSA table requirements. In reality, however, this congruence is rarely encountered. In many cases, an overly large bias will either invalidate the use of a particular data source or require making corrective adjustments.

Regarding “time scope”, for example, the data source in question may be available on a quarterly basis instead of an annual basis, or a data source may suddenly be unavailable altogether, or only refer to a fraction of a year for financial reasons. Some first year data collection surveys do not start in January and therefore do not refer to a complete calendar year. This issue is particular relevant for tourism behaviour data which has to reflect seasonality. In a less drastic scenario, the survey/data source may change its questionnaire or the variables collected and thus require some adaptation when using the data source as a time series. This aspect of the time scope issue is also related to the statistical scope issue.

Regarding the geographical scope, problems may arise if a data source is available only for a limited number of regions in a given country. Or, if compiling a regional version of the TSA, the available data source only covers the entire country but no individual regions.

Likewise, the statistical scope can pose several problems. Data sources may not cover the same scope as the TSA requires, or the unit of observation may not exactly be the one we are looking for. For instance, when referring to non-residents, a certain data source may also include border workers, since they are indeed non-residents. Within TSA, however, border workers are not considered as visitors (but as travellers according to TBoP which may serve

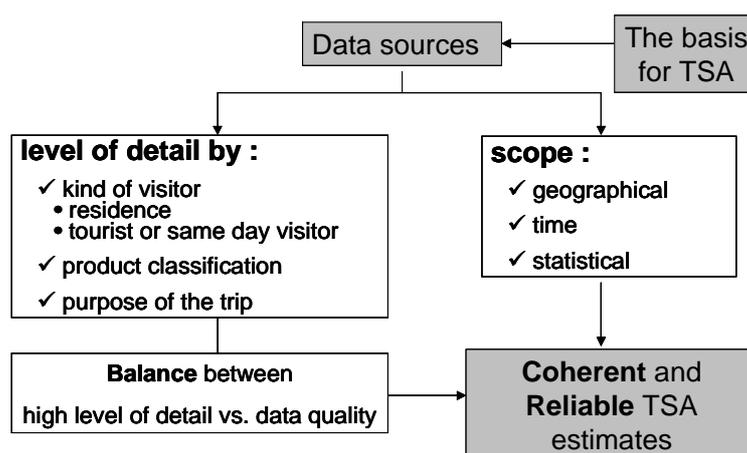
as an important data source). Another example of discrepancy in the statistical scope between TSA and a data source occurs when a border survey, for instance, does not make any distinction between tourists and same-day visitors. A similar problem occurs when the data source in question does not use the standard product or industry classification. Or to have a tourism activity for which only demand data or only supply side data are available, when there should be both.

In short, the process of compiling a TSA, or in fact any compound statistics, is a constant exercise of harmonisation, adjustment, correction and compensation of the biases among data sources.

Nevertheless, data sources should not merely be regarded a problem or limitation; in fact they are TSA fundamentals providing the figures and feeding the TSA in the first place. Advantages and strengths have to be harnessed to avoid or compensate their weaknesses and overcome their limitations. That being said, it is not advisable to rectify data source limitations at all costs and in every given case. It is important to keep in mind that there is a trade off between estimations' quality and the level of detail, or to put in another way, there is a direct relation between data sensitivity/delicacy and a higher level of detail.

For instance, let us imagine that the only reliable data source on tourism expenditure made by non-residents lacks a distinction between tourists and same-day visitors. One can try overcoming this lack of information by drawing on other data sources and hypotheses, for example using residents' tourism expenditure data sources, but this carries the risk of distorting reality and of inflicting a bias on the results. There is no statistical interest in having any kind of breakdown if the data behind it does not support it. The compensation of limitations in data sources should have a limit in a way that a minimum but sufficient quality of estimations is guaranteed.

Figure 1: Data sources of the TSA and scope of influence



In case the inventory study on available data sources ascertains the availability of sufficient and relevant data, previously considered as a first step before compiling a TSA, then the second step should be a pilot (or experimental) TSA. This pilot exercise will provide a proper and more practical evaluation of prevailing biases and the lack of disaggregation

among data sources as well as possible corrections – always having in mind that the main goal is not just having a TSA but compiling a coherent and reliable TSA. Based on this deeper analysis, practical aspects of the TSA can be decided on, such as the level of disaggregation in terms of product and activity classification, the year or period it should refer to, what tables to compile, whether to compile complete tables or partial ones etc.

2.2.2 Checking data sources' quality

In order to obtain coherent and reliable TSA estimates, data sources, being the TSA basis, must also be coherent and reliable. Since their quality is fundamental, the task of choosing the most suitable set of data sources and the best way of combining them is one of the most decisive steps of the compilation exercise.

Checking data sources' quality is mandatory both in a context of a lack of data sources and in a context of excess of data sources. In the first case because a lack of data sources will have damaging consequences on the quality of the results, and in the second case because it will be necessary to choose among them. But how can one ensure that quality? How to measure it?

There are some more or less obvious ways of determining data sources' quality. Such a quality assessment entails analysing several features of a given data source as well as the context in which the source is applied.¹

This section contains some tips to check sources' quality without the ambition of being exhaustive, since it is devised as an open list. As this is a generic chapter, the tips are also formulated in a generic way and can therefore be applied across the TSA, regardless of the table.

- Scope of the data source vs. scope of the aggregate estimated

In an ideal situation, each TSA aggregate will correspond to a data source with a perfect congruence of scope, i.e. the data source is representative of the reality to be pictured in the TSA regarding time, geographic or statistical criteria. If this source does indeed cover all criteria and the entire scope, one talks about an exhaustive data source. In this special case of perfect scope match, no further adjustments are required to use these data sources figures for TSA estimations.

The availability of an exhaustive data source which does not require any further estimation work is something of a rarity. In this case, it can even serve as a reference for other estimates. For instance, if there is an exhaustive source for total accommodation supply, and there also is a tourism demand survey in which the estimate for

¹ After the adoption of the European statistical code of practice in 2005 with quality statistics as a pivotal issue, EU national statistical authorities and Eurostat have been intensively engaged in elaborating standard quality reports of statistical surveys. Several could be used as information source for TSA. In addition, they have some other benefits for TSA. First, these quality reports provide TSA compilers with comprehensive information on the methodology and data quality of the respective survey. Second, they can serve as a template for checking the data quality of other TSA relevant data sources which have not been covered by standard quality reports.

accommodation is similar to that of the exhaustive source, it is reasonable to consider the survey representative in terms of expenditure.

A data source can yet be representative by having a similar scope to that of the aggregate without being exhaustive. In this case it is necessary to scale the data source to the universe of reference; ratios or index rates should be privileged instead of absolute values that are most likely overestimated or underestimated.

- Time-series behaviour

The analysis of time series behaviour is a means to determine, among other things, the regularity of an observed phenomenon, whether there is any seasonality, whether it is stable along the time, etc; in other words, all this information tells a story about the data collected. Hypotheses and methodological choices can be made by observing the time series behaviour. For instance, if in the summer months there is a regular rise of the number of passengers in water transport statistics; one may associate it with a tourism phenomenon. If that series remains a constant behaviour over time, it is “secure” to predict its future values with econometric methods.

- Representativeness of the sample (in cases of sample survey)

The representativeness of a sample measures the capacity which a given part of reality has to represent the entire or total reality. The greater the representation is the better. When choosing between two data sources, the representativeness should be the decisive criteria in the selection process. For instance, if data related to expenditure on outbound trips is available based on a household sample survey and at the same time this kind of information is also available as result of a border survey (e.g. a survey recording the number of residents of a given country arriving at the airport), it is advisable to consider the latter the more representative data source.

- Controlling for some variable or aspect with other source

Frequently, the problem of a compiler is not the lack of data sources but the reliability of a specific data source. One way of controlling or checking its quality is to use one of its variables - the control variable - as a reference for quality. Even if it is not directly used, it may be indicative and show how trustworthy its other estimates are. The control variable should be one for which estimates have a high degree of confidence, like for instance a variable with a similar value to those of an exhaustive source.

Let's take again the example of an exhaustive data source on accommodation supply. If there is a survey on tourist demand that comes up with a similar value for accommodation, it is likely that its other estimates are reliable as well, at least regarding tourist or accommodation services in general. However, this is not a law or a rule to be followed blindly; it just gives an idea of its accuracy.

Accommodation services are usually privileged in terms of available statistical sources and level of detail (such as residence of those spending the night, type of accommodation, geographical location of the accommodation, short periodicity). Usually, they can also

serve as a reference to scale up or down the consumption of other tourism services.

- Experience of the compiler

Experience equips the compiler with extra capacity for decision-making during the compilation process, for example when making hypotheses or building possible scenarios, or choosing between similar data sources. It can be argued that a certain naivety towards the reality will help to avoid prejudices when making decisions or developing an approach to the estimates. Both situations have their advantages and this trade-off should be balanced. Nevertheless, an experienced compiler will be aware that preconceived ideas might be misleading.

In a TSA context, the most profitable experiences are those from a statistical background, in NA or tourism statistics, or in tourism administration. Every compilation can profit from this extra sensibility on the matter.

- Set up several scenarios and acknowledge advantages and disadvantages

If there is no direct source or an ideal or direct way to estimate an aggregate, it is necessary to settle for a second best option. The problem is that it may be difficult to determine a methodology and decide which one is the best. In such cases the solution is to build several scenarios and to then arrange them in some sort of hierarchy according to the desired criteria, depending on whether one wishes to evaluate data sources that are more directly related to the phenomenon in question, those that are more representative, or those that have a higher rate of correlation with the aggregate that is being estimated. In such cases, in-depth experience and a good understanding of the given situation are especially crucial. In cases of few facts and but a plethora of hypotheses it may be better to call it off. Remember the trade off between further detail and data quality.

2.3 Tips to overcome the lack of data sources

In order to overcome a lack of data, estimations and hypotheses can be elaborated during the compilation exercise, whether on the structure by product, the category of visitor, the purpose of a trip or on the extrapolation of a reference year. However, as previously said, these procedures must be used with caution so as not to jeopardise the estimates' quality; they should be regarded as a second best or as an alternative methodology since they imply the usage of hypotheses which one hopes to be representative of reality, but may in fact be misleading. Their usage must also represent the minimum impact on the estimation process, especially on the estimates, and must be avoided to estimate those central aggregates, as for instance, the expenditure of those products that represent a higher ratio of tourism expenditure.

The most typical tourism activities statistics, like those on accommodation and long distance transport services, first and foremost enable an estimation of those specific services. Additionally, they can also provide some tourism ratios (compilation based on the information on the distance travelled and the number of passengers during one year listed by month, assuming a vacation or a summer/winter period that may be used as reference for

a minimum consumption-seasonality) or data on the evolution of the volume of passengers transported. On this basis, an indicator of tourism volume could then be found and an indicator for price be obtained from the consumer price statistic.

2.3.1 Tourism ratios or growth rates

Data on some of the most important tourism services such as restaurants, accommodation and transport can be used as a reference; or there may be situations where it is sensible to use data sources on domestic tourism consumption, for instance. However, the respective work requires creativity and a comprehensive overview of available data sources which serve as a basis for TSA purposes.

Tourism ratios are particularly useful to assess the amount of tourism within a broader reality; the best example of tourism ratio is the estimate of the tourism component out of the total amount of consumption expenditure of resident visitors. Structures, as percentages, for breaking down totals can also be included under this “tourism ratio” category, such as the structure of tourism consumption or production by product, or the percentage of tourism consumption made by tourists. For instance, domestic tourism consumption of passenger transport services can be roughly assessed by applying the share of visitors to all travellers to the annual turnover of transport companies.

Growth rates are particularly useful to estimate an aggregate over time wherever a direct data source for the same period is not available, but only a solid estimate for a given benchmark year. In this case, the growth rate of an indirect data source is used, whose evolution is believed to be parallel of that of the tourism aggregate. For instance, the consumption of accommodation services, travel agencies and similar services, which together add up to almost 100% spent by visitors, can be estimated by growth rate of turnover and the reference value of consumption for a specific benchmark year.

Tourism ratios or growth rates can be drawn from complementary tourism realities (e.g. forms of tourism), complementary economic approaches (e.g. supply and demand), typical tourism services (e.g. accommodation), or tourism related realities (e.g. holidays). Here are some ideas and examples for each of these situations:

- **different forms of tourism:** inbound, domestic, outbound

It is reasonable to assume, for instance, that residents and non-residents have the same structure of consumption of non-specific products; or that a resident abroad has the same or a least a similar structure of consumption by product as that of a non-resident in the country of reference (i.e. neighbouring countries with similar consumption patterns).

- **supply vs. demand side data sources**

To resolve a lack of data sources from the demand side, the use of supply side data may occasionally be appropriate, or vice versa. Sometimes it is not a matter of availability but a matter of representativeness. Demand and supply are complementary; usually one reacts to the other and it is therefore reasonable to assume similar evolutions for both when referring to the same reality. This sort of hypothesis is particularly useful to estimate the demand of tourism characteristic products with a relatively low percentage of tourism when compared to others, such

as restaurants vs. travel agencies.

- **tourism services of reference**

Accommodation and transport statistics which provide data on tourism services such as number of overnights or travel agencies are forward indicators of tourism. If hotels are full of tourists, it is likely that all other components of the consumption structure will also increase their demand.

- **“tourism related”** data sources like: time use surveys, holiday surveys

During the compilation process, the best scenario possible in terms of tourism statistics sometimes are not tourism statistics adhering strictly to the IRTS manual but holiday statistics. While the concepts are different, there is a kind of correlation in terms of the activities undertaken and the services demanded either in a context of holidays or tourism.

2.3.2 Cross-check of demand and supply estimates

- Equilibrium between supply and demand in the economy

According to NA rules, there must be an equilibrium between demand and supply. This accounting rule is in fact a fundamental principle not just in terms of the values but also in terms of accounting philosophy.

- Almost 100% tourism consumption (accommodation, travel agencies, air passengers' transport)

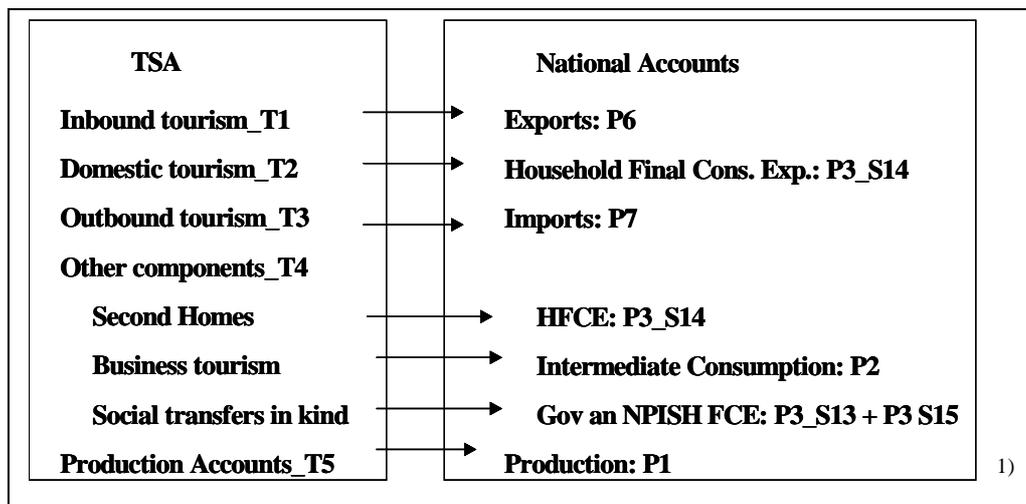
These kinds of services are used as reference and their values can (almost) be directly allocated to the TSA. Any further work should refer to breakdowns.

For instance, if there is an exhaustive source for total accommodation supply, the correspondent values can also be adopted as a total for demand (after proper valuation considerations, i.e. considering that like with NA, TSA demand is valued at purchaser price and supply at basic prices and the net valuation of PT) and then be distributed among residents and non-residents. After that, each of them are classified by purpose of trip and allocated to the proper TSA table. Of all other data sources on accommodation, only structures or index rates should be used or otherwise calibrated.

2.4 The role of National Accounts as a reference data source and as methodological reference

The following scheme outlines the relation between TSA aggregates and NA aggregates, illustrates why NA are the major reference for the TSA, and explains why the specific aggregates constitute a profound constraint for TSA.¹ The fact is that any amount within the TSA will be included in the NA as well since tourism is only a part of the overall economy.

¹ The acronyms listed in the right box (e.g. P2, S.13) follow the SNA conventions for naming the different functional product transactions (e.g. P3 = product transactions related to consumption) and institutional sectors (e.g. S.13 = general government) within NA.

Figure 2: The role of NA as a reference data source


The methodology of NA compilation and data sources generally is a useful starting point for TSA compilation and data sources - the accounting rules are the same. This does not mean that NA figures should be taken over blindly. The TSA simply has something to say in that the tourism dimension can offer additional information and accuracy to the broader NA estimates. One of purposes/objectives of compiling satellite accounts in general precisely is to help NA in a more thorough estimation of economic and/or social cross-cutting activities.

When using NA as a reference at working level, the following principles should be observed:

- Work at the same level of detail as the NA
- Develop bridge tables of both classifications between NA and the TSA; in an ideal scenario, the product classification of TSA tables at working level should be the same as that of NA.

2.5 Methodological approaches

The methodology of compiling the various tables may be of three kinds: top-down, bottom-up or a mixed approach, primarily depending on available data sources and to the results of a case by case analysis. As for compilation procedures in general, any available exhaustive data sources should be treated preferential.

2.5.1 Top-down

A top-down approach is advisable whenever the sum of data sources can be trusted, whenever the consistency with NA and BoP has to be ensured despite a lack of confidence on the parcels, or when they simply do not exist in the data source of reference. In this case, a total is taken from the data source of reference and then broken down, using structures that will determine the aggregate in question in various dimensions, as for instance visitor category, purpose of the trip, main destination, product or activity classification.

In this approach, NA and BoP aggregates may be considered the reference or the starting

point of the TSA. Compiling TSA tables merely is the result of applying structures according to the proper supply or demand aggregates.

2.5.2 Bottom-up

This is the most suitable approach whenever the reliability of available data sources depends on several individual parcels according to their specificities rather than on their sum. Different parcels are then estimated from different data sources; for instance, accommodation is estimated based on accommodation data sources, transport services from transport statistics etc. That way, the sum is reached parcel by parcel. This kind of approach is more demanding in terms of the amount of information and its level of detail because it is supposed to provide all breakdowns, residence of the visitor, type of visitor, purpose of the trip and products consumed.

2.5.3 Mixed approach

This probably is the most common approach when compiling the TSA, since the reliability of data sources too ambiguous to allow them to be used in a straightforward top-down or a bottom-up fashion. Moreover, the mix of methods allows using the best of each source in the estimation exercise: use the detail when it presents an advantage and is coherent with the total; when the parcels cannot be fully trusted, use exhaustive data sources.

In this vein, compiling tourism aggregates becomes a continuous exercise of harmonising concepts, giving each data source the proper treatment, highlighting and cross checking the coherence of the results.

3

Chapter 3 - Good practices in compiling the 10 TSA standard tables

3 Good practices in compiling the 10 TSA standard tables

This chapter explains the practical implementation of TSA table by table. This includes a description of commonly applied data sources and the implementation approach as well as some country examples. Specific TSA issues such as package tours or same-day visitors are only discussed in general; a detailed discussion of these issues can be found in chapter 4.

3.1 TSA table 1: Inbound tourism consumption by products and categories of visitors

According to the TSA-RMF and TSA-EIM table 1 (T1) format, the total tourism consumption expenditure of non-residents within the economy of reference is broken down by category of visitor (tourist and same-day visitor) and by type of product, the product classification being in line with the TSA-RMF product classification. Additional non-monetary information on the number of visits and overnights is also required to complete T1.

3.1.1 Data source: Balance of Payments

In the past, EU countries have had some difficulties in BoP compilation. These difficulties mainly concern the loss of information resulting from the end of controlled border crossing points among Member States (Schengen Deal) and the introduction of a common currency, the Euro. Nevertheless, the ambitious BoP goal of delivering exhaustive statistics on the economic transactions between residents and non-residents remains the same. BoP is a compound statistic and already is the result of extensive statistical work in terms of harmonisation, reconciliation and dealing with the inconsistencies among the various data sources.

In general, the BoP registers all economic transactions taking place between resident and non-resident units/agents in the context of cross-border travelling (within a maximum of one year), irrespective of the motivation and frequency. Therefore, and despite its recent difficulties in achieving exhaustiveness, there is no other data source with a similar scope to that of T1. Accordingly, credit travel and passengers' transport services are the items most commonly used as a reference for total inbound tourism consumption.

For the TSA compiler, the BoP still has the advantage of being a monetary data source. Typically, tourism data sources have a qualitative nature, describing the visitor's profile, origin and destination, kind of products consumed etc. Occasionally, they also include the amount of expenditure by product or total expenditure. But even if they do, one must always cross-check whether the total expenditure is coherent with other data sources, such as the BoP travel item (this is a good example of checking data source quality using a reference data source, as described in the previous chapter). Since expenditure generally is difficult question to answer with accuracy, there must be some sort of guarantee that the survey is in fact representative of the visitor's expenditure. Otherwise, only structures or growth rates should be used (see chapter 2).

The travel item (credit) corresponds to the consumption expenditure of travellers staying less than a year in the economy of reference and can therefore be considered a good starting point

to obtain information on non-resident tourism consumption. However, considerations regarding the purpose of travel must be taken into account in order to distinguish visitors' consumption expenditure from other travellers' consumption expenditure.

Inbound visitors are defined as non-residents travelling for less than a year in the economic territory of the country of reference, carrying out tourism activities outside of their usual environment and not being remunerated at the place visited (according to the IRTS definition). Consequently the travel item should be adjusted by any consumption expenditure from those who are paid in the place visited (i.e. border and seasonal workers). The consumption of students and patients that stay in the country of reference for more than a year should also be excluded from tourism (these two situations are exceptions to the one year rule and are recorded in the BoP travel item) since they are considered as residing in their usual environment.

Besides being a first usable approximation to the value of tourism consumption, the BoP may serve as a data source for TSA purposes since it is a widespread data source regularly compiled by all EU Member States. It follows international rules of compilation (defined by the IMF under the recently revised manual), which guarantees substantial comparability on the international level. And since it is a compound statistic stemming from the juxtaposition of several data sources, including tourism statistics, that have been studied, harmonised and balanced, it is less exposed to errors or major biases.

BoP is a preferential data source when compiling the Rest of the World Account in NA, which should also be a reference data source for T1. TSA estimates for T1 should further be consistent with NA estimates in terms of exports in the economy of reference, whether they classify as non-resident final consumption expenditure or as intermediate consumption of the foreign economies.

Besides the BoP travel item (credit), the part of the BoP international transport item addressing passengers should be considered as well. Although international transport is an important part of international tourism consumption, the correspondent transactions are recorded under the transport item rather than under the travel item in the BoP.

Figure 3: Features and advantages of the BoP

- **International comparable:**
 - Compiled in all EU countries and in many other countries
 - Compiled under international rules: IMF manual
- **Compound statistics:** harmonised with other sources
- **Input for National Accounts:** Rest of the World Account, SUT, IOT, Household final consumption
- **Monetary data source**

Country experiences

Countries like Austria, Spain, Finland, Germany and Portugal used the total value of travel and international transport items from the BoP as a reference figure for T1 compilation, adjusted by the above mentioned values. Inbound tourism expenditure surveys, accommodation statistics and mirror statistics were then used to break the total down into type of product and type of visitor. For inbound business trips it should be noted that in inbound tourism it is irrelevant who pays the trip, since from the perspective of the economy of reference it always is final demand.

3.1.2 Other data sources

As mentioned previously, NA are the preferential TSA data source: since tourism is a part of the economy they always define TSA boundaries. Hence, NA estimates should always be a reference throughout all the TSA tables, including T1.

First of all, BoP data is available in almost all countries since BoP data has to be transmitted to the IMF. If a country lacks such data, it is because there is no way to obtain the information. Therefore the alternatives mentioned are not applicable. In fact usually the alternative mentioned are used to estimate the BoP travel item itself, so if countries have these set of data then they have travel item estimates.

Although the BoP is the preferred data source, it may not be available for some reason. Another option to estimate total inbound consumption expenditure is to use the average consumption expenditure of inbound visitors and multiply it by the number of arrivals (the same goes for the average daily consumption expenditure multiplied by the number of nights). Several data sources can be used for this purpose, such as border surveys on arrivals, administrative records on arrivals or border crossing, surveys on board of the means of transport, border surveys on tourism expenditure, guest inquiries, accommodation statistics, mirror statistics on arrivals, or tourism behaviour and/or consumption from partner countries and tourism studies on specific issues of tourism.

Country experiences

Ireland and the UK used a wide range of tourism data sources (on arrivals and expenditure) both from the National Statistical Institutes (NSI) and the National Tourism Boards (NTB) to compile T1. The Czech Republic, the Netherlands, Spain, Greece and Cyprus considered an inbound or an international tourism survey as the main data sources for T1 estimation purposes.

3.1.3 Compilation methodology

The methodology of compiling T1 may be of three kinds: top-down, bottom-up or a mixed approach, depending on the available data sources and the findings of a case by case analysis.

Depending on the kind and level of detail of the available data sources, different dimensions can be estimated, for example the type of visitor (tourist or same-day visitor), the purpose of the trip (business or other purpose), and finally the structure of the consumption expenditure by type of product. These are the three dimensions foreseen in T1 TSA-EIM format.

Nevertheless, each country should define its level of detail according to its unique reality, its primary interest in the results, and the available data sources.

The degree of quality and confidence in the detail of available data sources is decisive for defining the level of detail of T1. This degree of confidence can be assessed by checking the regularity of the specific data source, the time-series behaviour of its outcomes, the relation between the scope of the statistics and that of the phenomenon, the representativeness of the sample considering the universe of reference (in case of sample surveys), the experience of the compiler, or by comparing specific aspects with other reliable sources. For further detail on these issues, see point “checking data sources’ quality” in chapter 2.

A. Top-down

Total for inbound tourism consumption X key structure by: $\left\{ \begin{array}{l} \text{Product classification} \\ \text{Category of visitor} \end{array} \right.$

One example of a top-down approach for T1 is the combination of total tourism consumption from the BoP (once the coherence of tourism concepts is guaranteed) and breakdowns by visitor category and by product from a tourism demand survey.

B. Bottom up

Compilation of the parcels of domestic tourism consumption with tourism ratios by:

- Product classification
- Category of visitor

One example of a bottom-up approach for T1 is to compile several product categories using an inbound demand survey and then cross-check them with specific sectors statistics, like accommodation and transports statistics, in case these statistics provide adequate information on the types of clients, since for T1 only non-residents are relevant. In EU countries, accommodation statistics are especially useful because they provide that breakdown in order to answer Council Directive 95-57-EC.

C. Mixed approach

Exhaustive services → top down

Non-exhaustive services → tourism ratios

To give an example of a mixed approach to T1, let us imagine that a properly adjusted BoP is the reference data source for total tourism consumption and that a tourism demand survey provides the structure by product. If any exhaustive accommodation statistics have to be observed, one should scale the product structure of the survey in order to leave accommodation services out of the top-down estimation and use instead the accommodation statistics figures. In this case, the way BoP is dealt with is considered top-down, while the accommodation statistics is treated bottom-up, ultimately leading to a mixed method.

As far as T1 is concerned, a few rules and procedures should be taken into account. As previously said, exhaustive data sources should be treated preferential whenever available. After compiling TSA table 2 (T2) and TSA table 4 (T4), data sources from the supply side should be used to cross-check sources from the demand side for consistency purposes. For instance, accommodation statistics (Council Directive 95-

57-EC) should be confronted with the amount of accommodation services determined via the BoP (or some other way of estimating inbound tourism consumption) and tourism surveys (or some other source that uses the percentage of accommodation on total tourism consumption). Confronting these two ways of estimating accommodation services can be highly useful in estimating the amount of undeclared so-called “grey” accommodation.

Country experiences

Box 1: The case of Austria

For T1 compilation purposes, Austria uses the total from the travel item from the BoP as a starting point; that value is then adjusted by excluding the consumption expenditure made by border workers and students or patients staying for more than one year and who are not considered as visitors for conceptual reasons. The international transport item from the BoP is also considered.

Subsequently, mirror statistics from the main partner countries are used to break down the adjusted total by type of visitor (tourists and same-day visitors) and by type of purpose, according to the number of trips for business purposes and the respective expenditure.

For transport expenditure estimations, the assumption is that the share of each mode of transport within the structure of non-residents consumption is the same as domestic consumption (except air transport) used for holiday trips.

Box 2: The case of the Czech Republic

The Czech Republic uses an inbound border survey as main data source for T1 compilation.

This border survey provides data by purpose of the visit, type of visitor and some major expenditure groups of products.

Total number of visitors is determined via information given by the collective accommodation establishments (by the share of tourists and by type of accommodation) and the share of tourists from the inbound border survey (by category of visitors).

Inbound tourism consumption expenditure by product and type of visitor is then obtained by multiplying the average daily expenditure by the average number of overnight stays (same day visitors represent the average expenditure of one day). The calculation is carried out on a quarterly basis.

3.2 TSA table 2: Domestic tourism consumption by products and categories of visitors

TSA table 2 (T2), total tourism consumption expenditure of residents within the economy of reference is broken down by the main destination of the trip (within the country of reference or abroad), the category of the visitor (tourist or same-day visitor) and by type of product for each visitor category, according to the TSA-RMF resp. TSA-EIM product classification. Additional non-monetary information on the number of visits and overnights spent is required as well to complete T2.

3.2.1 Demand related data sources

For domestic tourism consumption there is no major data source of reference like the BoP for

inbound and outbound tourism consumption (BoP credit and debit travel and international transports items). Regarding domestic tourism consumption, the most common data sources are domestic surveys, either on tourism demand or the household budget expenditure survey.

The analysis of any tourism phenomenon, activity or transaction by means of a survey is naturally more fragile than with a compound statistic like the BoP, mainly because it is not easy to define a universe of reference related to tourism. This is all the more true in a domestic context because of the difficulty to define objectively the usual and non-usual environment of a person. In the case of non-residents the task of defining the usual environment is easier, since in a foreign country activities other than tourism related ones will be the exception, while in a domestic context both tourism and non-tourism activities will take place without significant distinction of time and place and activity undertaken.

As far as domestic tourism consumption is concerned, it is quite common to have only a few monetary variables available from the data sources; and even if they exist, their reliability must always be checked in a reconciliation process with other sources.

Figure 4: TSA table 2 - demand side data sources

- Household surveys on tourism behaviour ← Council Directive 95-57-EC
 - Household budget surveys (HBS)
 - Studies on specific issues – e.g.: business tourism, holidays
 - Surveys on time use
 - Surveys carried out on board of the various means of transport
 - Guest inquiries
 - Surveys on tourism sights
 - Consumer price statistics
 - **National Accounts** (e.g. household final consumption according to COICOP)
 - ...
- Domestic component of outbound tourism consumption:**
- Border surveys
 - Mirror statistics
 - Household surveys on tourism behaviour – e.g. expenditure for domestic travel agencies or flight carriers

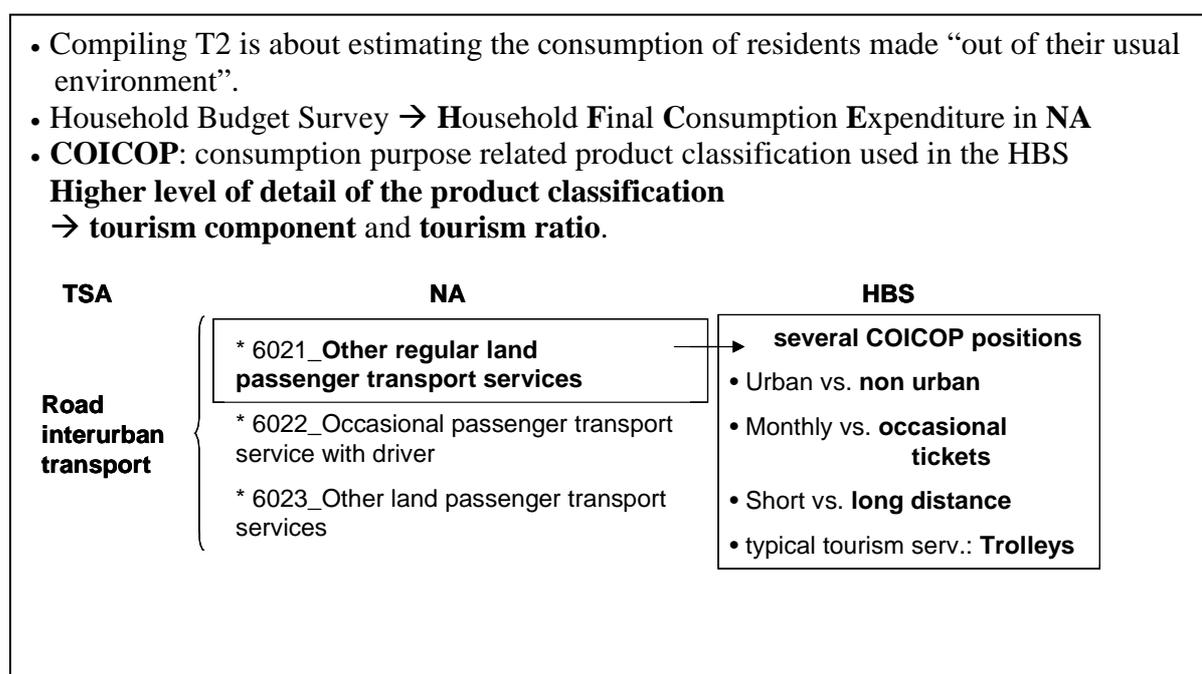
The most common data sources on the demand side for domestic tourism consumption compilation purposes are: household surveys on tourism behaviour, tourism related questions on household budget surveys, tourism studies on specific issues (e.g. segments of tourism or categories of visitors), surveys on time use, surveys carried out on board of various means of transport, guest inquiries and surveys on tourist sites. Border surveys and mirror statistics are best sources for the outbound part of domestic consumption. In this vein, tourism demand surveys implemented in line with Council Directive 95-57-EC can be used as a reference for the separation of domestic and outbound tourism since they provide information on the expenditures made by tourists broken down by main destination.

Moreover, NA also provide data for household final consumption, which can work as a maximum limit for tourism consumption.

3.2.2 Supply related data sources

From the supply side of the economy, accommodation statistics are crucial in tourism consumption estimations, at least regarding the officially registered accommodation services. Other useful tools are: specific surveys or modules of major surveys on tourism specific activities (e.g. travel agencies), publications of specific sector associations (e.g. car rental associations, restaurant and hotel associations), and transport statistics.

Figure 5: Example of a tourism ratio built from the HBS



For inbound tourism, NA is a preferential reference and a useful practice procedure:

- “Household Final Consumption Expenditure” (HFCE) can be considered a heavy constraint on tourism consumption since tourism is a fraction of total household consumption.
- Another good option is to assess the maximum level of structural product detail of the data source used to compile HFCE (usually a “Household Budget Survey” (HBS)). In order to compile HFCE, a bridge table is elaborated between the HBS product classification and the NA product classification; usually HBS classification (COICOP) has more consumption purpose related functional product sub-categories than NA, which means that one product in the NA corresponds to several products in the HBS. This extra detail can be used to assess the tourism proportion within an NA product. In contrast to NA, HBS may distinguish long distance from short distance road transport services, for example. If long distance trips are considered tourism and short are not, the HBS could be used to determine the percentage of tourism within road transport services.

If a Supply-Use table (SUT) or an Input-Output table (IOT) is available and an equilibrium between supply and demand is observed for a certain product, estimates are rendered possible by the difference between total demand and non-resident demand (assuming it was previously estimated with a higher level of confidence). This is a particularly useful method for tourism products like accommodation services, air passenger transport services or travel agencies that can be considered nearly 100 percent tourism.

As mentioned above, exhaustive data sources should be treated preferential. This usually applies to businesses in the hands of a small number of enterprises and that typically have to publish their financial reports, railway transport companies for example. Figures on long distance carriers are particularly useful. Normally, these sources are also used in NA and even more so in the compilation of SUT.

Facing the impossibility of having available direct ways to estimate each of the TSA-RMF tourism products, some of the main tourism products can be used as a reference for other less tourism related products. For instance, the accommodation services estimation can work as a reference for the rest of the consumption structure, or the development of accommodation services may serve as an indicator for the development of other tourism services. Tourism behaviour can also be found by using regional criteria, e.g. by comparing the same service consumption in tourism areas and non-tourism areas. The latter procedure has been applied for the compilation of the Swiss TSA.

Figure 6: TSA table 2 - supply side data sources

- Accommodation statistics
- Transportation statistics
- Specific modules for tourism industries in Business Surveys
- Publications of specific sector, e.g. car rental, restaurants or travel agencies, associations, etc.
- **National Accounts**
- ...

3.2.3 Compilation methodology

The methodology of compiling T2 is similar to T1: it may use a top-down, bottom-up or a mixed approach, depending on available data sources and the findings of a case by case analysis.

Depending on the kind and level of detail of available data sources, one can estimate three dimensions in T2 TSA-RMF or TSA-EIM format: the type of visitor (tourist or same-day visitor), main destination of the trip (the country of residence or abroad), and finally the structure of the consumption expenditure by type of product. The purpose of the trip is implicit in the entire table, since it refers to final consumption expenditure. Nevertheless, each country should define its level of detail according to its own unique reality, its primary interest in the results, and the availability of data sources.

The quality of available data sources is decisive for defining the level of detail of T2. It may be assessed by checking the regularity of the specific data source, the time-series behaviour of its outcomes, the relation between the scope of statistics and that of the analysed

phenomenon, the representativeness of the sample, the experience of the compiler, or by comparing a specific aspect with another reliable source. For further detail on these issues, see point “checking data sources quality” in chapter 2.

A. Top-down

Total domestic tourism consumption X key structure by: $\left\{ \begin{array}{l} \text{Product classification} \\ \text{Category of visitor} \\ \text{Destination} \end{array} \right.$

In contrast to T1, there is no major reference data source for T2 which is why a top-down approach for T2 must be considered very carefully. Nevertheless, if there is a representative domestic tourism survey with reliable total tourism expenditure, it may be used as a reference for T2. One way of checking survey consistency in terms of total domestic tourism expenditure is via the NA aggregate, i.e. the HFCE. Within the HFCE by product vector, there are some typical tourism services whose values could roughly be assumed as being 100% tourism domestic consumption. This is the case with accommodation services, travel agency services, air transport services (passengers). The sum of these three values can be regarded a (rough) minimum value for T2.

That same survey could also provide the consumption structure by product and breakdown of the total.

B. Bottom-up

Compilation of the building blocks of domestic tourism consumption with tourism ratios by:

- Product classification
- Category of visitor
- Main destination of the trip

One example of a bottom-up approach for T2 is the compilation of various product categories using an domestic demand survey, or specific sector statistics such as accommodation, transport and travel agency services, but especially those covering the type of residence of their clients. Similar to T1, accommodation statistics are especially useful in EU countries because they provide that breakdown (residence of the person who spends the night in an accommodation establishment) in order to fulfil Council Directive 95-57-EC.

Different to T1, T2 has an extra breakdown of the main destination of the trip. This feature makes a pure bottom-up approach very demanding in terms of needed data.

C. Mixed approach

Exhaustive services → top down

Non-exhaustive services → tourism ratios

Whenever lacking a major reference data source and/or a straightforward method, it is advisable to use a mixed method between top-down and bottom-up as well as between demand and supply side, for which either exhaustive sources or tourism ratios should also be taken into account. NA should play a leading role as a reference data source.

Accommodation statistics (Council Directive 95-57-EC) can also be very helpful if regarded as a “pure” tourism variable that can be used to estimate the evolution of other less tourism related variables or aggregates. For consistency purposes, total tourism demand (T1, T2 and T4) and total tourism supply (T6) should be juxtaposed.

3.2.4 Domestic same-day visitors

One of the main problems in estimating domestic tourism consumption is the estimation of data for same-day visitors. The majority of countries does not collect data on this type of visitors since data collected refers to tourists (tourism demand surveys usually are in line with Council Directive 95-57-EC, i.e. only for trips with overnight stays); another difficulty in obtaining reliable data on this matter within the scope of household surveys lies in recall problems and – particularly in cases of domestic same-day visits – in applying the usual environment concept. The European Commission is in the process of revising the Tourism Statistics Directive in order to consider same-day visits (and correspondent expenditures) the purpose of TSA compilation as well. Nevertheless, some countries have already implemented surveys including domestic same-day visits in order to determine expenditures or to establish a basis (e.g. physical flows) that allows estimating the corresponding expenditure. In some of these cases, same-day visits are considered for all tourism purposes, including business, while others only consider non-business purposes. This is true for Austria, Belgium, Czech Republic, Denmark, Germany, Hungary, the Netherlands, Spain and United Kingdom. Only Cyprus prepares best estimates with figures on domestic same-day visitors.

Country experiences

Box 3: The case of Spain

- The Spanish HBS collects data on consumption expenditure made outside of the usual environment, but it does not differentiate between same day visitors (SDV) and tourists.
- Familitur – the household tourism behaviour survey – collects data on physical flows for both SDV and tourists;
- The Spanish version of T2 :
 - does not split expenditure by residents travelling within Spain and residents travelling abroad
 - registers all tourism expenditure by residents in Spain, even if it refers to an outbound trip
 - registers expenditure on business trips
 - distinguishes only tourism characteristic and non-tourism characteristic products

Box 4: The case of Cyprus

- The Cypriot “Family Budget Survey” contains data related to the daily expenditure which includes breakdowns by fuel, drinking and eating.
- It is assumed that the main travel purposes are visiting friends and relatives and visiting the beaches (including dinner);
- Estimations include the number of same-day visits by age groups and the average distance, both based on Cypriot experiences;
- Based on that information, a best estimate is elaborated on the expenditure for private domestic same-day visits.

3.3 TSA-table 3: Outbound tourism consumption by products and categories of visitors

According to the TSA-RMF and TSA-EIM Table 3 (T3) format, total tourism consumption expenditure of residents abroad is broken down by category of visitor (tourist and same-day visitors) and by type of product for each of the visitor categories, according to the TSA-RMF product classification. It is however not treated as a core table by TSA-EIM since registered transactions do not have any impact on the economy of reference (apart from the domestic side of outbound trips).

3.3.1 Data sources

For outbound tourism consumption estimation, the same procedures and considerations as for inbound tourism consumption should be taken into account. BoP is also the recommended data source to estimate total outbound tourism consumption but, in this case, the reference figure for travel and international transport items is the debit-side. NA uses these data to compile the Rest of the World Account (one of the institutional sectors account) and imports in the SUT and IOT.

3.3.2 Compilation methodology

It is important to notice that the amount of consumption regarding outbound tourism that has impact on the economy of reference should be registered under T2. Under T3, only the consumption done on the territory of country of destination should be recorded. T3 registers tourism consumption in foreign economies, and therefore these transactions do not have any direct impact in the economy of reference. For this reason, this table is not a priority in many countries, in particular in an early phase of the TSA compilation, and the TSA-EIM does not consider it as a core table. However, since in an increasing number of countries the TBoP is done in cooperation between NSIs (NSI) and Central Banks T3 may serve as a basis for the debit side of TBoP.

However, there are several countries compiling T3, although the TSA-RMF format is not always applied. Poland and Spain have compiled the total of T3, only. Spain considered the total debit item from BoP, travel and international passengers' transport services, as the main reference. Hungary, Slovenia, the Czech Republic, the UK and Ireland envisaged more complete estimations. Mainly tourism household surveys as well as results coming from HBS were taken into account in order to access both totals and breakdowns.

Country experiences

Box 5: The case of Ireland

- The Republic of Ireland registers T3 final consumption expenditure split by product (characteristic and non-specific) and category of visitor
- The Tourism and Travel Survey gives several details on visits abroad. It is collected by the NSI and for T3 compilation provides data on:
 - Total amount spent by Irish citizens on outbound trips
 - Allows for some adjustments:
 - Expenditure made in Ireland is deducted and allocated to T2;
 - The remaining expenditure is broken down by main groups of products according to the inbound tourism expenditure structure, and after being adjusted international transport; related UK shares are used as a reference
 - Travel commission fees are proportionally deducted to bed and board, sightseeing and transport in order to meet the net valuation.

Box 6: The case of Slovenia

The main data source for aggregate outbound tourism consumption in T3 for 2003 was a travel survey of the domestic population.

- Total sum of outbound tourism consumption was checked with data from the BoP.
- The estimate for outbound consumption for same day visitors was based on the share of number and expenditures of same day resident visitors travelling abroad in 2006, since this data is collected by the travel survey of the domestic population from 2006 onwards.
- The breakdown by product groups was done on the basis of the outbound consumption structure for Switzerland (in the absence of other data). The compilers reasonably warned that the reliability of outbound tourism consumption data by product is questionable. A recent revision of this survey has relieved this deficiency since data on outbound expenditure by main products groups are collected now.

3.4 TSA table 4: Internal tourism consumption by products and types of tourism

TSA table 4 (T4) refers to the estimation of internal tourism consumption and comprises two main components. The first component sums up inbound and domestic tourism consumption in cash from T1 and T2 according to the level of detail of the product classification adopted for these tables. The tourism consumption corresponds to expenditure made by visitors travelling for tourism purposes (leisure, recreation, business, health etc.) and is considered part of HFCE in cash in the NA. The second and most important component of T4 refers to “other components of tourism consumption”. These other components are related to expenditures made on behalf of visitors by other entities (other institutional sectors, private or public). Moreover, this component corresponds to the part of tourism consumption that does not have a monetary correspondence to visitors since it is not financially supported by them (part of the actual private household consumption, but not of HFCE).

Figure 7: TSA table 4 - other components of tourism

- **Business tourism expenses** supported by employers (corporations, public administration bodies, e.g.) on behalf of their workers travelling for business purposes
- **Household final consumption expenditure in kind** (including barter transactions, production for own account and the counterpart of any income in kind)
- **Tourism social transfers in kind** (e.g. received from the public)

The treatment of other components of tourism consumption corresponds to a methodological peculiarity from the TSA point of view. The following paragraphs highlight some specifications of compiling the various items of the other tourism consumption components, taking into account available data sources at European level as well as possible methodologies of compilation.

3.4.1 Business tourism expenses supported by the employers

This category is considered to be one of the main categories of the other tourism consumption components, and in practice is compiled according to different estimation methods and data sources throughout the EU countries. This item corresponds to travel expenses of employees that are financially supported by employers for travels outside their usual environment for business purposes. In this case, the business visitor does not produce any expenses (apart from private expenses (e.g. for souvenirs) which should be considered under T1, T2 or T3. It mainly concerns payments made directly by employers on accommodation and transport services. Since these expenses are supported by firms, they are considered as intermediate consumption according to ESA 1995.

Another way of financing these expenditures is by allocating a lump sum of the employer to the employee to cover food and drinks or other types of expenditure. According to ESA 1995, this amount is part of the employee compensation (wages and salaries) and therefore not part of intermediate consumption, but part of household final consumption expenditure (for tourism purposes). Special attention should be given to these specifications since the former should be included in T4 as other components of tourism consumption whereas the latter should be included in T2 and T3 as tourism consumption in cash.

A business trip can feature two types of expenses: those made by the employer on behalf of the visitor (i.e. the employee) that corresponds to business tourism expenses (registered in T4 as part of intermediate consumption in NA) or to those expenses made by the visitor for personal purposes supported by lump sums or by pocket money (registered in T2 or T3 as part of HFCE).

The TSA-RMF differs from the NA perspective: while tourism expenses in the TSA business are part of internal tourism consumption (final consumption), in NA business they are part of intermediate consumption (IC). This criterion concerns exclusively the treatment of domestic and outbound business expenses. In the case of outbound tourism consumption, these expenses are either imported or domestic IC in NA.

Figure 8: TSA table 4 - business tourism consumption¹

- Supported by employers on behalf of their workers travelling for business purposes
- Considered as Intermediate Consumption in NA: Expenses are supported by firms
- Mainly refers to accommodation and transport services
- Forms of tourism: Inbound, Domestic and domestic component of Outbound Tourism

Remember:

- Other forms of remuneration are subsumed under compensation of employees (lump sum) and therefore HFCE
- Travellers remunerated at the place visited are not considered as visitors

3.4.1.1 Data sources and compilation methodology

The inclusion of visitors who travel for business purposes is in line with the IRTS. This is taken into account by tourism statistics for the majority of EU countries. Data on business tourism expenses can be collected by tourism statistics on tourism demand surveys for domestic and outbound tourism (according to Council Directive 95-57-EC) and on inbound business tourism. Nevertheless, data on business tourism expenses supported by employers is very difficult to capture by this type of survey since most of the time visitors do not know the real value of the expenditures supported by the employer. Visitors may have a general idea of the price for transportation services (e.g. plane tickets) but be unaware of the price for accommodation or vice versa. The collected data can be used for splitting the total value of expenditure per product between the amount spent by the business visitor (employee) and the part financed by the employer. Besides, data on same-day business visitors is scarce.

Other types of data refer to the tourism supply side (especially domestic business tourism consumption) and derive from NA Use tables and from business and production statistics. The estimation of business tourism expenses financed by employers differs by forms of tourism (inbound, domestic and outbound tourism).

3.4.1.1.1 Domestic business tourism

Domestic Tourism expenditures supported by the employer on behalf of the employee (mainly on accommodation and transport services) are part of the IC in NA (production account). Data for domestic business tourism can be also obtained from tourism demand side surveys.

The use of data from demand side surveys on employers' business tourism expenses should be complemented with additional information concerning the supply side of the economy (the financing source for these expenses). SUT, and the Use-matrix in particular, provides data for the IC of the industries by products. Therefore the TSA compilers should have access to the highest level of detail of NA and SUT data. The Use-matrix is a key element for the estimation of domestic and outbound business tourism expenses: total IC of the different industries on products such as accommodation, air transport and travel agencies can be

¹ The new TSA-RMF 2008 does not recommend a separate handling of tourism business expenditure. They are included within TSA table 2 (TSA-RMF 2008, §2.41).

considered 100 % business tourism expenses. An exception is made for the value of IC for products of travel agencies and tour operators, since a part of the IC of this product can be included in the production of package tours and therefore is ‘pure’ IC. Other types of products within this matrix may also potentially be part of business tourism, such as food and beverage services, insurance services, rental services of passenger transports equipment, congress and fairs services, and other types of transport services (taking into account country characteristics on the use of different modes of transport). The question here is how to determine the tourism share. This share can be estimated based on the relative importance of the total business tourism consumption on the total domestic tourism consumption – both provided by demand side surveys – or, in the case of characteristic products, by conciliating tourism demand data on HFCE with the supply side of a given product.

If data from the use matrix is less detailed or no NA data is available yet, the data gaps can be filled by information from business statistics, financial statistics and administrative sources on financial reports, whereas the “structural business survey” (SBS) is one of the favourite data sources. SBS is part of the European Statistical System and based on EC Regulation 58-97. This survey compiles data on corporations’ accountability. It provides data on the total purchases of goods and services and identifies the purchases of services by type of services; these figures are generally used for the compilation of IC in NA. The first step is to develop a cross classification for this variable from TSA product classifications and those from the survey (as it happens in NA, when SBS is adopted). The total amount of accommodation services, air transport and other types of transport can be considered as business tourism expenses. For meals and other services, additional hypotheses have to be defined in order to establish a tourism share. Administrative fiscal registers serve the same purpose as SBS since they collect data on the fiscal declarations of the corporations.

Figure 9: Domestic business tourism - data sources

Supply side data

- Business statistics
- Financial statistics
- Administrative sources on financial reports
- Structural business survey → EC Regulation 58-97 on SBS
- Administrative fiscal sources (same role as SBS)
- Corporations’ accountability info that identifies services purchased:
 - if mostly tourism: travel agencies → 100% tourism
 - others: restaurants → tourism ratio

Demand side data

- Specific modules on household demand surveys

If exhaustiveness and representativeness are reasonable, the domestic business tourism expenditure can be obtained directly from the tourism demand survey on residents (for domestic and outbound trips). Another possibility is to apply the weight of domestic business tourism expenses from the survey to the total value of the different IC products consumed for business tourism purposes (hotels, air transport). Even though not included in T4, detailed

data for outbound business tourism by product is required for specific adjustments in T6 concerning imports.

In addition, it is possible to develop specific modules on household surveys concerning expenditures made by households broken down by tourism purposes (including business) or on structural business surveys concerning expenditures on business trips (both domestic and outbound). For instance, the Spanish business statistics compiles data on expenditures made by corporations for business tourism purposes.

3.4.1.1.2 *Outbound business tourism*

As previously mentioned, data of outbound business tourism is not included in T4. Nevertheless, pre and post trip expenses made inside the reference country when travelling abroad for business purposes should be included in T4.

In general, the domestic component of outbound business tourism refers to passenger air transportation and also is part of IC. The main data sources refer to demand side surveys compiling data on domestic and outbound tourism and on mixed trips. For this purpose, a similar approach as for domestic tourism is sensible. In practice, this parcel can be isolated when pre and post trip expenses are estimated in T2, assuming that tourism demand side surveys provide data detailed by purpose of the visit.

Countries' experience

Box 7: The case of Portugal

Inbound business tourism:

The total value of inbound business tourism is estimated during the process of estimating T1 by transferring the credits of travel and international transport items from the BoP into visitor final consumption in cash (T1) and business tourism expenses (T4).

Accommodation statistics, as an exhaustive data source, are also used in order to estimate a key figure for the accommodation characteristic product. The remaining part is allocated by applying a key structure based on data collected from the inbound tourism survey.

Box 8: The case of Spain

Domestic and outbound tourism:

Business tourism expenses of domestic and outbound tourism are mainly estimated using supply side data. The primary source for that part of domestic tourism expenditure on business trips which is considered from the NA point of view as intermediate demand and as business tourism expenses in TSA is a module included in the annual services survey and in the annual industrial survey that collects data on the expenditure during domestic and outbound business trips.

3.4.2 Household final consumption expenditure in kind

The household final consumption expenditure in kind includes barter transactions, the counterpart of income in kind, and the production for own final use.

3.4.2.1 Barter transactions

Barter transactions rely on the monetary expression of a service that is provided free of charge. In theory, for instance, they correspond for to the value of exchange of a private accommodation or meal services between private households.

3.4.2.2 Counterpart of income in kind

The counterpart of income in kind refers to other types of imputations such as subsidised accommodation and transportation services provided by the employers to their employees and family as visitors (e.g. an excursion). This type of expenses is included in NA and can be accounted by means of household final consumption (HFC) and HFCE.

3.4.2.3 Production for own final use (vacation homes)

The main category of this group, “production for own final use”, relates to the use of second homes for tourism purposes on own account or free of charge. Secondary dwellings (homes) resp. vacation homes are considered as dwellings that are not principal with reference to the time spent there. Not every visit to a secondary dwelling is considered to be tourism activity. It rather is dependent on the purpose and frequency of visit. In IRTS 2008, vacation homes are explicitly excluded from the usual environment (for further clarifications see the updated IRTS 2008). The estimation of housing services provided by these dwellings can be based on data from tourism demand surveys or from demand and supply side surveys.

Data needed for tourism demand surveys on nights spent in this type of accommodation is available for most of European countries for residents, which is in accordance with Council Directive 95-57-EC. This directive regulates data collection on nights spent by type of accommodation, including homes used for free or on own account for tourism purposes (mainly for domestic-outbound tourism). For non-residents, data from border surveys or inbound tourism surveys can be harnessed. These figures can be used to estimate tourism second homes by multiplying them by an average price per night spent in this type of accommodation. The main problem is in determining the price which should be equal to the market price of a tourism accommodation with the same characteristics (number of rooms, bathrooms etc.).

For the supply side, it is advisable to use data from NA on the imputed rents for housing services (part of NACE 70.1 Real Estate services on own account). The measurement of the output of the owners’ occupied second homes is based on the NA methodology for the valuation of housing services which is compliant with the stratification method set out in Commission Regulation 1722-2005 (see also chapter 4). The specificity from the TSA point of view is that this method has to be applied to tourism second homes, which are used occasionally. The method considers the imputation of an average annual actual rent to the stock of dwellings that are actually used as holiday homes by applying a stratification of the

housing stock based on its characteristics.

The required data can be provided by the HBS and by the population and housing censuses. The former provides information on the value of actual rents and of imputed rents of own account houses (given by the respondent), while the latter provides data on the volume of second homes. In some countries, additional information is given on the use of second homes and respective expenses (for both surveys), which in turn allows for a direct estimation of the imputed rent depending on the time they are used. This information is used in a benchmark year. The estimations for the following years are based on the used volume of second homes and price indexes.

Figure 10: Supply side approach for estimating the output of second homes on own account or for free

<p><u>Methodologies:</u></p> <ul style="list-style-type: none"> • stratification method: value of output, based on the imputation of actual rent • cost of production: output valued by the cost of producing housing services <p><u>Data sources:</u></p> <p>Volume = Housing stock</p> <ul style="list-style-type: none"> • Building Censuses • Population and Housing Censuses • Administrative building registers <p>Price = Actual rents, costs</p> <ul style="list-style-type: none"> • Population Censuses • Household Budget Survey • Specific rental survey
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For the demand side, HFCE for housing services includes households consumption on second homes on own account (valued according to an imputed rent). The tourism consumption of second homes on own account can be estimated by applying the share of services for second homes used for tourism purposes on own account (given by HBS) to the amount of housing services of second homes estimated for the entire economy.

Figure 11: Demand side approach for estimating the output of second homes on own account or for free

<p><u>Data sources:</u></p> <p>Residents:</p> <ul style="list-style-type: none"> • HBS: amount or % of imputed rents for owner occupied dwellings • Tourism demand surveys <p>Non-residents:</p> <ul style="list-style-type: none"> • Border surveys • Inbound tourism surveys

A special recommendation concerns the acquisition of second homes. While the occupation of a second home for tourism purposes is considered tourism consumption by imputing a value for the rent of that dwelling, the acquisition of a second home for tourism purposes is considered part of the gross fixed capital formation of NACE 70.1 (Real estate activities with own property). This issue is detailed in the compilation methodology of TSA table 8 (T8).

Country experiences

The majority of countries estimating the component of second homes used for tourism purposes on own account or free of charge in the TSA make use of the type of methodology which is based on NA imputed rents.

3.4.3 Tourism social transfers in kind

In a TSA context, this type of in kind expenditure refers to individual final consumption of non-market services made on behalf of visitors (resident and non-resident) by the general government, institutional sector S.13, or “Non Profit Institutions Serving Households” (NPISH), institutional sector S.15, (health cures, rehabilitation treatments, museums, senior tourism, etc.). These service components (in tourism only services are considered) are valued by their total cost of production and not by the subsidised price for the public (e.g. the part of the production cost of a museum that is not included in the price ticket or the contribution of the government to a specific health treatment or senior tourism trips).

The compilation of consumption in kind for these services in the TSA is mainly supported by the NA Use matrix for the individual final consumption expenditures of the government (P31, according to ESA95) and NPISH (P3) by products. Individual final consumption expenditures of government and NPISH are part of the actual HFC.

Figure 12: TSA table 4 -tourism social transfers in kind

- **Individual final consumption of non-market services made on behalf of visitors by:**
 - S15_Non Profit Institutions Serving Households (NPISH): P3_S15
 - S13_General Government: P_31

Examples: health cures, museums, senior tourism, etc.
actual household final consumption
- **Services valued by the cost of production**

Data source:

- National Accounts - Supply Use Table, Sectors Accounts

Tourism component:

- Tourism share (based on the share of domestic + inbound tourism consumption to HFCE) for the same service
- Original data used to compile the NA aggregate

Tourism social transfers concerning cultural, recreational and sporting services can be estimated by applying a tourism share to individual final consumption of the government (P31). This share can be the same as that from domestic and inbound tourism consumption in HFCE. Detailed data on different components (P31 by product) provide additional information on the tourism component of the different subsidised items.

Country experiences

Very few countries have information on tourism social transfers in kind (as is the case with Austria, Belgium, the Netherlands, Portugal, Slovenia or Spain). Different types of approaches and of tourism social transfers in kind are considered by countries compiling this component (for cultural, recreational and sport services, health cures or senior-elderly-disabled tourism).

Box 9: The case of Belgium

The regional TSAs of Belgium include tourism social transfers related to cultural, recreational and sporting services. These social transfers are estimated by applying a tourism ratio to individual consumption of the government (P31, according to ESA 1995) that have been identified within the use-table of the national SUT.

Box 10: The case of Slovenia

Only cultural services were considered as tourism social transfers in kind for T4. The estimate was based on data of the amount of subsidies granted by the Ministry for Culture. Data on subsidies was adjusted for the average ratio of production cost to subsidies for cultural services in order to determine a valuation on a cost basis.

3.4.4 The treatment of distributions margins

When converting purchasers' prices into basic prices or vice versa, the issues of margins and taxes on products have to be dealt with. These are cross-cutting issues for the TSA demand and supply tables. The common compilation practice is strictly related to the treatment within the SUT framework.

The former TSA-RMF 2000 recommends isolating margins (trade margins are applied to goods) for T1, T2 and T3.¹ As already mentioned, margins for inbound and domestic tourism can be estimated by applying the weight of margins in HFCE to the value of connected and non-specific products previously estimated.

Concerning T4 and the other components of tourism consumption, the importance of goods is low or even negligible. For tourism business expenditure and second homes components, it is advisable to apply the same procedure as for the weighting of margins in IC and in HFCE. T4 also addresses the distribution margins between goods produced domestically and imported goods. The separation of the basic value of goods between domestic production and imports can be based on the existing relation in the economy supply between production and imports by product (good). Production statistics and SBS combined with international trade statistics can also be used for separating consumption in domestic production and imports by product.²

3.5 TSA table 5: Production accounts of tourism industries and other industries

TSA Table 5 (T5) compiles the production accounts of tourism industries and other industries in accordance with the TSA-RMF classifications of industries and products. The main purpose of this table is to prepare and compile data on gross value added (GVA) for various industries by transforming the national production account into a TSA production account.

This table has three main components for tourism industries and other industries:

- Production (P)
- Intermediate Consumption (IC)
- Gross Value Added (GVA)

Production is compiled for 12 characteristic industries (according to NACE classification) and 20 characteristic commodities (according to CPA classification), while intermediate consumption is broken down into 9 groups of products. Components of GVA (other taxes less subsidies on production, compensation of employees, gross mixed income and gross

¹ Within the new TSA-RMF 2008 all expenses for goods are always expressed at purchaser's prices which include the distribution margins. Thus the revised TSA table 4 shows no additional row for the distribution margins since they are already included in the estimates of tourism expenditure on goods purchased by visitors. The latter have to be included under the heading "Country-specific tourism characteristic goods" as country-specific tourism characteristic commodity expenses or under the residual bulk category of "Other consumption products".

² The new TSA-RMF 2008 does not any longer recommend the additional separation of total internal tourism consumption by origin in the two sub-categories domestic production and imports.

operating surplus) are also compiled by industry.¹ By highlighting the tourism perspective (share of tourism characteristic production activities in overall economy), T5 represents a different way to display the national economy. Displaying production accounts in a suitable form also makes the comparison with internal tourism consumption possible.

Adjustments on tourism packages should be carried out in the SUT due to the net valuation of package tour (PT). Detailed explanations are given in chapter 4.

3.5.1 Data sources

The compilation of T5 and T6 is based on SUT.² SUT usually provides the best knowledge of the tourism production by industry and by product, identifying those industries that are the main producers of a specific product. It is also possible to have different tourism ratios on products by industry (e.g. tourism ratio on the production of food and beverage serving services in hotels versus tourism ratio on the production of food and beverage serving services in restaurants).

Data from input-output tables (IOT) can also be adopted, assuming the basic restriction related to the conceptual framework of IOT: the existence of a system of homogeneous production does not consider any secondary production/products in the different industries of the economy. On the contrary, SUT (non-symmetric) are based on a system of heterogeneous production with industries producing different types of products (main and secondary production). The IC of the different industries considers inputs used to produce secondary products.

3.5.2 Production and intermediate consumption

In order to arrive at a complete estimation of table 5, it is fundamental to have the IO framework with SUT and IOT. The main data inputs are SUT and production (P1) and intermediate consumption (P2) matrixes with the highest possible level of detail of products and industries. Worksheets from NA concerning issues such as the type of production (e.g. market and non market, own final use), margins, taxes and subsidies or import are also referred to. Institutional sector accounts can be useful when cross-classifying NA industries and products and TSA classifications of industries and products.

The compilation process of TSA T5 is based on of the cross-classification of industries (NACE classification) and products (CPA classification) and respective production and intermediate consumption: some of the TSA characteristic industries and products are not directly equivalent to those in NA. It is thus recommended to construct a bridge-table between the different classifications based on the EU-TSA classification key (TSA classifications ->

¹ The new TSA-RMF 2008 recommends distinguishing 12 characteristic industries and 12 tourism characteristic products. Only 10 of these industries and products will be relevant for international comparison. Intermediate consumption does not need to be broken down.

² If the system of NA is not yet developed and there is neither a SUT nor an IO table, a bottom-up method can be adopted: based on data from (structural) business statistics, financial statistics, central business registers, government accounts and financial statements of the main producer units of a given characteristic industry, it is possible to compile a first projection of T5. Such approach has been successfully carried out by Latvia.

international classifications -> national classifications -> NA classifications). Subsequently, it is necessary to identify the part of the production and IC (per industry) in NA that belongs to TSA industry (for example, merchandise transports included in the item road transports industry within NA or NACE have to be excluded for the TSA characteristic industry passenger road transport to be in accordance with the classification key from TSA-EIM). Based on the different bridge-tables for products and industries related to TSA-NA it is possible to compile T5 by making use of data sources on production statistics such as SBS and annual survey on industrial production (both under European regulations), or data sources based on fiscal data from the main productive units of a specific industry-product (especially for those controlled by a single productive unit).

For this purpose, it is advisable to develop different worksheets for the redistribution of the production and IC by the different NA industries and products. They may be based on the structures obtained from the different data sources available for the range of institutional sectors and generally apply a top down process of NA data: First of all, key structures from SBS at 4- or 5-digit-level of NACE can be used to decompose the total production of NA industry into the different TSA industries (in the case of NA road transports, the key structure is used to exclude NACE 6024 from TSA passenger road transports). The structuring of the production by products of TSA industries can be based on data from statistics on industrial (annual surveys on industrial production) or services production.

Figure 13: Compilation procedures of TSA table 5

Product and Industry Classifications:

Bridge tables between NA and TSA

Allocation of P1 and P2 according to TSA classifications

Difference to NA: TSA P1 or P2 + Packages Tours = NA

Data sources: I-O statistics from NA are essential for T5 compilation

Supply-Use tables

Production Matrix (industries*products)

Intermediate Consumption Matrix (industries*products)

Worksheets on: type of production, taxes, subsidies, margins, etc.

Sector Accounts

TOP-DOWN process:

1st level: SBS, annual survey on industrial production, fiscal data

2nd level: Accommodation statistics, transport statistics, financial corporations statistics

- with 4-5-digit-level of NACE

- specific for each institutional sector

- definition of structures to apply to NA totals



Figure 14: Internal compilation level of SUT within the Member States of the EU

	Country	Supply and Use Tables	
		Activities	Products
Subtable 1: Unspecified Compilation Level			
EE	Estonia	2-digit or 3-digit level	2-, 3- or 4-digit level
IE	Ireland	2-digit-level	2 to 4-digit level.
SE	Sweden	2-digit-level	extended 2-digit-level
Subtable 2: Specified Compilation Level			
AT	Austria	73	73
BE	Belgium	125	325
BG	Bulgaria	114	825
CZ	Czech Republic	128	approx. 1600
CY	Cyprus	60	223
DE	Germany	221	3118
DK	Denmark	130	approx. 2350
ES	Spain	77	146
FI	Finland	179	950
FR	France	118	118
GR	Greece	214	474
HU	Hungary	120	660
IT	Italy	101	101
LT	Lithuania	132	133
LU	Luxembourg	117	268
LV	Latvia (publication date 2010)	60	60
MT	Malta (publication date 2010)	60	90
NL	Netherlands	155	590
PL	Poland	58	465
PT	Portugal	149	426
RO	Romania	105	105
SI	Slovenia	206	264
SK	Slovakia	60	500
UK	United Kingdom	197	369

Other data sources can be incorporated as well, such as basic statistics on accommodation and transport or information from financial corporations. This data is also used for decomposing the total production of a given product from SUT into the different TSA products. Other types of data sources have to be considered (financial statistics, administrative sources and business registers) which depend on the industry and the characteristics of the production (financial corporations, public administration, private households and NPISH). Finally, the treatment of industries corresponding to characteristic industries differs according to the available data sources, the NA methodology, and the degree of characteristicity of the industries presented in SUT, i.e. the amount of non-tourism related other secondary production activities. In fact,

there are characteristic industries for which the methodological references of the respective compilation in NA can be adopted: for the main characteristic industries, the approach in NA is the same as used in T5 (such as hotel and similar or travel agencies services).

The above table summarises the findings with regard to the internal compilation level of the SUT by the NSI of the Member States.¹ Obviously some of them have very detailed national accountant balanced data sets available, which serve as a direct starting point for the implementation of T5 and T6. In general the Member States should enlarge the internal compilation level of the national SUT with regard to the needs of the TSA industry and product classification. Such integration has many advantages: It facilitates the TSA compilation and updating process as well as the comparison of tourism figures in the economy.

The analysis of some characteristic industries can be based on the same data sources used for the analysis of internal consumption for its main product. This is the case with second homes for tourism purposes (vacation homes) and with the net valuation of package tours for the travel agencies and the tour operator industry. In the following, both will be highlighted in more detail, since TSA handles these items very specifically.

3.5.3 Usage of second homes used for tourism purposes

Due to the peculiarity of this industry, additional references are given for the treatment of production and IC. The value of the production of second homes on own account can be taken from NA since it is part of the ‘industry real estate activities with own property’ (NACE 70.1) and is estimated individually by NA according to the Commission Regulation (EC) No 1722-2005 of October 2005. This regulation presents the methodological guidelines for the estimation of production and intermediate consumption of housing services of own occupied dwellings. The estimation of production is already mentioned in chapter 2.4 (T4). For IC, the regulation mentions that it should be consistent with output and should cover the same types of ordinary “maintenance and repairs” (m&r) as would normally be regarded as IC by the landlord for similar rented dwellings such as: Improvements to existing fixed assets going beyond the requirements of the ordinary m&r (such as major repairs, reconstruction of the property) are included in gross fixed capital formation; Expenditure on ordinary m&r and decoration not typically carried out by tenants is treated and interpreted as IC; Cleaning, decoration and maintenance of the dwelling - as far as these activities are also common for tenants - should be recorded as final consumption.

Ordinary m&r that are usually registered under CPA code for construction (includes major repairs or reconstructing) can hence be considered IC for second homes on own account. The value of IC for the relevant CPA-codes concerning m&r for second homes used for tourism can be based on the respective weight in the total production of that industry in NA.

¹ Only those countries are reported which declared to compute national SUT in more detail within their internal compilation. In the cases of Estonia, Ireland and Sweden, higher dimensional working tables are internally applied, but the exact dimensions of these internal tables have not been provided. For that reason, it has been decided to merge this set of countries in the separate sub-table 1. Accordingly, countries with specified compilation levels are summarised in sub-table 2. Within this latter group, some of the Member States compile the very detailed SUT only all five years in the context of providing symmetric IOT (Belgium, Greece, e.g.).

Additional hypotheses can be made taking into account the country characteristics and the specifications of this industry.

Countries compiling data on second homes used for tourism purposes usually apply the methodology based on NA data and determination.

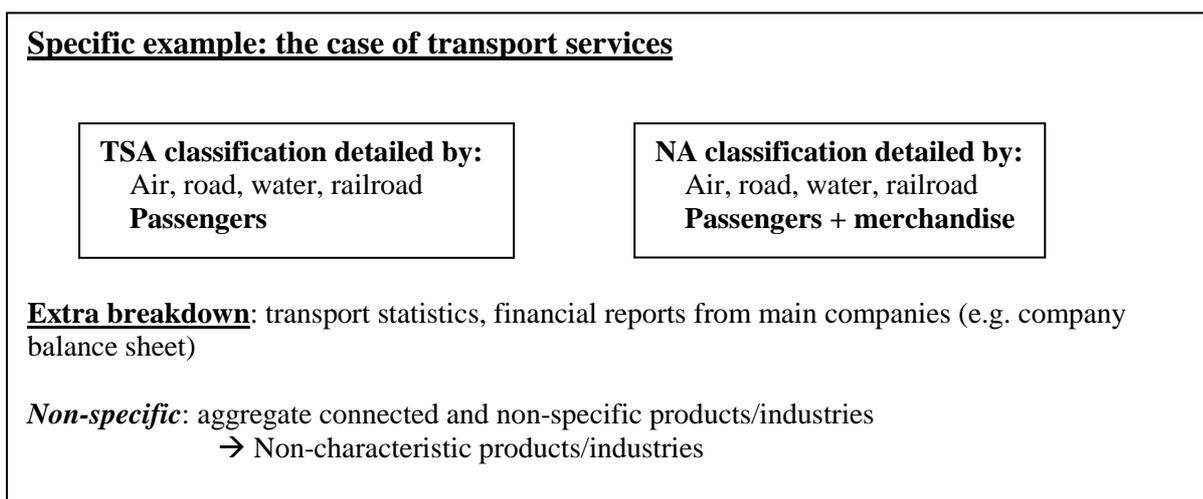
3.5.4 Net valuation of package tours for the travel agency and tour operator industry

As happens in tourism demand, the supply side also considers the net valuation of package tours from travel agencies and tour operators. Since this is a cross-cutting issue for all TSA tables, it is possible to find information on this topic in chapter 4 which is dedicated to TSA specific problems.

3.5.5 Specific versus non-specific industries/products

Due to the level of detail of the data sources, further problems can arise concerning the reallocation by industries and products. Some TSA characteristic industries and products at country level possibly are not as detailed as in TSA classifications on industries and products. This can be the result of a more aggregated level of classifications in SUT or IOT. The most common situation refers to transport services that are normally disaggregated by product (air, road, railway, water) but not by activity (passengers and merchandises). Basic statistics on transportation with regard to the different mode of transport can provide additional data on this type of disaggregation. In some countries, railway and air transport services are provided by a single or a main corporation or even by the government. In this case, financial statements or direct contacts with those entities should be considered and recommended.

Figure 15: Specific vs. non-specific industries and products



Connected and non-specific industries and products are displayed within the TSA framework as a bulk sum.¹ Included single values comply with the TSA-RMF list of connected (and non-

¹ In the new TSA-RMF (2008), the separate presentation of tourism connected activities and products is no longer recommended. The new TSA only recommends including the categories 'Other industries' or 'Other consumption products'.

specific) industries and products. If the data is not available at a sufficient quality or detail level, connected and non-specific items (products and industries) can be aggregated in a single category (non-characteristic).

3.5.6 The components of gross value added

The difference between production and intermediate consumption is 'gross value added' (GVA). Total GVA from T5 equals the total economy's GVA of NA production account. In the net valuation, the difference between production and IC from SUT and from T5 equals the value of package tours (sum of the different components of the package tour).

Figure 16: GVA - data sources and methodology

Production (T5) – IC (T5) = GVA (T5) = GVA of economy

1. Top-down approach:

- IOI – system of homogeneous production: (non-secondary production)
- SUT – secondary production
 - base for T5 and T6** → tourism production by industry/product
 - main producers of a product
 - tourism ratio on product by industry

2. Bottom-up approach:

- SBS, financial statistics, central business registers, government accounts, financial reports

The compilation of GVA components considers compensations of employees, taxes less subsidies on production, gross operating income, and gross operating surplus. In this section of T5, a simplified version of a primary distribution of income account is drawn up for characteristic industries and non-characteristic industries (connected and non-specific).

The first component refers to compensations of employees. Data from NA employment and data sources on employment such as the labour force survey, the individual income tax, administrative data, SBS and accommodation statistics can be used for the compilation of this aggregate. In order to redistribute the compensations of employees according to TSA characteristic industries, the same data sources as used for segmentation of production and IC (for instance, SBS includes data for personnel costs, including wages and salaries) can be applied. This type of data usually provides information on self-employed persons and own account workers. If there is any data on non-monetary indicators of employment in the characteristic industries (e.g. for the compilation of T7), the key structures of this information by industries can be considered for the validation of the final results. The weight (proportion) of the GVA of the characteristic industry in the GVA of the corresponding industry in NA can also be used (compensations of employees are part of GVA). For non-characteristic industries, the compensation of employees corresponds to the difference between economy and characteristic industries figures on compensation of employees. The separation between connected and non-specific industries can be achieved, for example, by using the relative

weight of GVA of each type of industries in the total GVA of non-specific industries. If a complementary module on employment in the tourism industries (i.e. following the recommendation within the OECD employment module (2000)) is compiled by the country, figures for compensation of employees should be provided by this module.

Figure 17: Compensations of employees –data sources and methodology

Compensations of employees (D1)

Data sources: NA employment, labour force survey, individual income tax statistics, administrative data, SBS, accommodation statistics

by TSA industry: monetary information on employment
by job situation, employees: non-monetary information on employment

Methodology:

1. Bottom-up approach: TSA industry detail + NA compiling methodology

2. Top-down approach: GVA ratio by industry

$$\rightarrow \frac{TSA_GVA}{NA_GVA} \times D1_NA$$

- $D1_non\text{-characteristic} = D1_Economy - D1_characteristic_industry$
- Split between connected and non-specific → hypothesis: GVA weight
- Specific module on tourism employment

The second component of GVA is other taxes less subsidies on production payable or receivable as a result of being engaged in the production process. SUT includes other transactions on taxes and subsidies on production by industry and by distribution transactions D29 and D39 in ESA 1995, respectively. Besides, additional data from working files on taxes and subsidies (from the receiving and paying institutional sector or from the description of the type-origin of the tax-subsidy) can be used to estimate this component. Estimation of taxes less subsidies of TSA industries can be based on key structures between TSA and NA production by industries (and for each industry, by institutional sector). SBS and other statistics can be used in the work of reconciliation.

Figure 18: Other taxes less subsidies on production – data sources and methodology**Other taxes less subsidies on production (D29-D39)**

‘Payable or receivable for being engaged in the production process’

Data sources: NA (SUT, IOT, From Whom To Whom Tables), SBS

Methodology: Key structures from SBS to transform NA into TSA aggregates

The third component includes gross mixed income (GMI) and gross operating surplus (GOS). These two variables correspond to a balancing item and to the operating surplus (income) on production activities of the different industries or institutional sectors so as to measure to which extent value added can cover compensation of employees and other taxes less production.

The operating surplus is defined as GOS or GIM, depending on the nature of the enterprise. GOS is the surplus obtained by all enterprises except unincorporated enterprises owned by members of households either individually or in partnership with other owners or members of the same households who may contribute as unpaid labour unit similar to those that could be provided by a paid employee.

Figure 19: Gross mixed income and operating surplus – data sources and methodology**Gross mixed income and operating surplus**

‘Balancing item measures in what extent GVA can cover $D1+D29-D39$ ’

Data sources: NA (SUT, IOT, From Whom To Whom Tables), SBS

Methodology:

1st scenario: GMI/OS individually, as a balancing item by institutional sector.

2nd scenario: GMI and OS aggregated

GMI refers to the operating surplus of the households sector and to the remuneration for work undertaken by the owner or by the members of the household which cannot be separated from the profits (this is why it is considered a mixed income, not primary). This component is the last balancing item of T5 and can be calculated by industry or by institutional sector according to the previous references. In theory, there are two scenarios of estimation by industry: individually as a balancing item by institutional sector, or as an aggregate component concerning operating surplus.

For the first scenario, the objective is to obtain individually the GOS and GMI. For this, it is necessary to develop different estimations of GVA (production and IC), taxes net of subsidies on production and on compensation of employees for corporate and incorporated enterprises:

For production, IC and taxes less subsidies on production, it is possible to do this estimation by institutional sector if the data from SUT is available by institutional sector. The same applies to other data sources and statistics. Concerning compensation of employees, the same type of estimation has to be done; for unincorporated enterprises, it is difficult to separate remunerations from mixed income. This component includes the remuneration of work of self employees (i.e. own account workers). But usually there is not enough information available (for instance about the number of hours worked free of charge by the owner or by other members of the household) that allows for an imputation of values for this remuneration in order to isolate them from gross mixed income. Therefore, GMI contains an unknown element of remuneration and operating surplus accruing from production. The identification of the imputed value of this type of remuneration depends on the existence of additional data sources on unincorporated enterprises or on households, such as specific modules on SBS for unincorporated enterprises (in order to obtain information on the hours worked and on the remuneration of that work) or on household and employment surveys.

For the majority of countries these two components (GOS and GMI) cannot be distinguished, since data is not available to estimate them separately. The relevant countries follow the second approach in which this component is a balanced aggregate item between GVA, compensation of employees, and taxes less subsidies on production.

3.5.7 Calculation of distribution margins

The valuation of TSA tables for tourism demand and supply considers purchaser prices. The main data source for the treatment of margins is the NA data on trade and transportation margins by product (according to ESA 1995, margins are available by products). Considering data from SUT, resources (production and imports) and uses (final consumption, IC, Exports, GFCF, changes in inventories and acquisition less disposals of valuables) are available at basic prices by products and at purchaser prices (including margins and taxes net of subsidies on products). Therefore, a column for distribution margins by product is available within the SUT for each use and for the total of resources. Some EU Member States (e.g. Belgium, Finland, Denmark, Germany) compile complete valuation matrices for trade and transport.

If data related to margins is not available in NA, information from business and production statistics can be used in order to estimate production margins. Annex 3 from SBS regulation requires the breakdown of turnover and purchases of services by type of products at CPA level for section G (whole sale and retail trade services) for enterprises from the NACE section. This information can be used for an estimation of the margins related to wholesale and retail products that can be purchased by visitors. For imports, international trade statistics can be used as a reference.

In T5, the reallocation of margins on production according to TSA product classification considers the same EU-TSA standardised classification. It can be based on the distribution of the total margin of a product by the key structure of the production of the different TSA products corresponding to the respective NA product (for example, margins for NA product on pottery have to be distributed between characteristic products on pottery and non-specific products according to the weight of the production of TSA characteristic product and non-specific product in the total production of pottery). Total margins for T5 only refer to

domestic production and to the production of retail and whole sale trade industries as part of connected and non-specific TSA industries (and products).¹

3.6 TSA table 6: Domestic supply and internal tourism consumption by products

TSA table 6 (T6) is the core table of the TSA framework. In this table, domestic supply and internal tourism consumption are confronted in order to compile the tourism share of each TSA product (specific and non specific). The compilation of T6 allows the estimation of tourism gross value added (TVA).

T4 and T5 are the basis for T6, since the latter compiles the same data (and same structure of data) as the production account for tourism industries and other industries. NA remains a fundamental data source. In the upper part of T6, additional columns are included concerning the tourism share of the production of tourism industries and other industries by TSA products. Tourism share corresponds to the part of the production that is allocated to internal tourism consumption. In the second block of this table, IC is compiled according to the nine categories of inputs presented in T5 and also takes into account the part of IC attributed to the tourism share of production. For non-characteristic industries (connected and non-specific), tourism share is only estimated for the total IC. TVA is the difference of production and IC tourism shares. This table enables estimating the weight of TVA on total GVA by industry or for the total economy.

Figure 20: Design of TSA table 6

TSA Core table: confrontation of tourism domestic supply and demand

Table Design:

- **Basic format:** Table 5 (12 characteristic industries x 20 products)
- **Extra columns for:**
 - ✓ Tourism share for all industries: Production, Intermediate Cons., VA
Tourism Value Added (TVA) = Tourism Production – Tourism IC
 - ✓ Imports: only those purchased within the economy of reference
 - ✓ Taxes less subsidies on products
 - ✓ Margins (implicit column referring to connected and/or non-specific goods)
- Conversion of basic prices into purchaser prices and vice versa

In order to compile the total domestic supply (resources), imports have to be included. Total tourism consumption (use) is not merely determined by domestically produced products but also by imported products. Production and imports are valued at basic prices whereas IC is given at purchaser prices. The balance between production and IC, GVA, is at basic prices. This is also the case for TVA.

¹ Within the new TSA-RMF 2008 the distribution margins are not any longer shown as a separate product category. Now the related retail trade activities have to be gathered under the heading “Retail trade of country-specific tourism characteristic goods” as an independent tourism characteristic activity.

Domestic supply is valued at purchaser prices by summing up taxes net on subsidies on domestic produced and imported goods. For the analysis of margins, the SUT related approach of T5 is applied. The values for internal tourism consumption by products (compiled in T4) are also at purchaser prices.

3.6.1 Data sources

The compilation of the different components of T6 considers data from T4 and T5 (production accounts of the different industries by products, production, IC, GVA and its components) as well as data from SUT and from the ‘Rest of the World’ Account for the estimation of imports by products.

Since imports in TSA only consider those goods and services purchased within the country of reference, some adjustments have to be made to NA data. Imported services included in package tours for outbound trips provided by resident organisers (such as hotels and restaurants, air transport services or rent a car) have to be excluded. These imported components have been previously identified in the analysis of the net valuation of the package tour. The same applies to imported services related to outbound business trips that are part of IC and refer mainly to accommodation and transport services. Values concerning the expenditures made by country embassies, intergovernmental trade, goods procured in ports by carriers and governmental services have to be excluded as well.

The ‘Rest of the world’ Accounts provide data for the external account of goods and services (exports and imports). The value is differentiated by products in the SUT. This data for imports (supply table) makes it possible to make these adjustments. In general, imports on TSA are of minor importance in the case of characteristic products and occur usually on transport services. The main part of imports refers to connected and non-specific products, especially goods.

Figure 21: Data sources of TSA table 6

Data sources:

- Tables 4 and 5
- NA SUT: taxes less subsidies on products, margins, SBS
- ‘Rest of the World’ Account external account of goods and services

Adjustments needed: flows without impact on the economy of reference

- exclude imports included in package tours for outbound trips
- exclude imports services related to outbound business trips
- exclude expenditure made by country embassies, intergovernmental trade, goods demanded in ports by carriers, governmental services.

Data from NA for net taxes on products (for production and imports) and detailed information for the different types of taxes levied on final products (such as consumption taxes on tobacco, fuel, alcohol), value added tax (VAT) and on imports are important for the compilation of the correspondent column of T6.

Once again, it should be stressed that the appropriation of this data requires a key correspondence between TSA and EU classification of products. Therefore it is recommended

to construct additional worksheets.

Finally, it is possible to estimate the tourism ratio between internal tourism consumption and total domestic supply by product. The tourism ratio expresses the importance of internal tourism consumption (= importance of tourism) on domestic supply. One can expect a higher tourism ratio on the main tourism characteristic products (e.g. accommodation, air passenger transport and travel agencies).

3.6.2 Tourism shares

Other important components of T6 are tourism shares of the different industries and the tourism ratio of internal tourism consumption to total demand or supply. TVA is an important measure of the direct economic importance of tourism in the productive and economic structure of the economy.

The reconciliation between internal tourism consumption net of imports and domestic production can be made at basic prices, which implies having estimated the former at basic prices by deducting taxes net on subsidies by products. This means that inbound, domestic and other components of internal tourism consumption are treated the same way: taxes less subsidies should consider the weight of the tourism component on the respective aggregate of NA applied to taxes net of subsidies of that aggregate. If the reconciliation is made at purchaser prices, the same type of estimation is required - but with a view to the calculation of the correspondent taxes less subsidies on products from production.

Typically, the compilation of tourism shares is based on the assumption that the product-specific internal tourism ratios on supply are equal across all producing industries in which this product has been produced. In a next reconciliation step, this has to be cross-checked with other data sources. It is also possible, for instance, to estimate a specific tourism share by activity for each product or to apply the same tourism share of a given industry to all products of that industry. In principle, the estimation methodology depends on the characteristics and on the level of detail of the available data sources, especially for SUT.

Figure 22: The estimation of tourism shares

Tourism ratio by product: $\frac{\text{internal tourism consumption}}{\text{total domestic supply}}$

Tourism shares by industry: $\frac{\text{tourism component of Value Added}}{\text{VA industry}}$

Tourism shares of Production and GVA

The level of detail depends on that of the data sources, mainly SUT

1. **Tourism share by industry for all products**
'Tourism share of the main product of that industry'
2. **Tourism share by industry for each product**
'Cross-checking data sources between supply and demand by products'

Example:

- Accommodation services in accommodation industry → ~ 100% tourism
- Restaurant services within accommodation industry → ~less than (?) 100% tourism

Tourism shares of Intermediate Consumption

1. Always equals the tourism share in Production → equals GVA share
2. If a characteristic product is produced **only by the main productive industry**
→ IC tourism share = Production tourism share
3. If a characteristic product is produced by many industries
→ IC tourism share based on those industries' IC structure → different from P1 share

The estimation of tourism shares can also be made by cross-checking/conciliating between production (supply) and consumption (demand) by products (specific tourism share by activity for each product), considering different types of data sources for each product and activity. For the main characteristic industries it is possible to identify the tourism share of the production of the main product (around 100%) or other characteristic products (for instance, food and beverage serving services are around 100% tourism related in hotels but not so much in restaurants; accommodation services are around 100% in hotels and hotels produce around 100% of this product in the economy). This methodology depends on the cross validation of data from the different statistical sources (structural statistics and sector specific production statistics) and the option between supply or demand side estimations. The choice depends mainly on the exhaustiveness and consistency of the methodologies and of the data sources used (as is the case with NA).

Finally, the tourism share of IC can be equal to tourism share in production and, therefore, to the share in GVA. It can be different, however, if it is considered as a completely different production process. In characteristic industries, tourism share in IC equals tourism share in production if the main characteristic product is only produced by the main productive industry (hotels); tourism share in IC is estimated based on the structure of IC of those production units considered as tourism producers if the characteristic product is produced by other industries than the main industry (other lodging services).

In a “perfect” TSA, there will be a different tourism share for each cell of the supply side.

Country experiences

Countries such as Czech Republic, Finland, Hungary, Poland, Portugal, Slovenia, Spain or United Kingdom compile T5 and T6 individually, despite the level of detail of products, industries or categories of inputs for IC. There are also countries that combine data for production, GVA and IC with data on internal tourism consumption by products, obtaining tourism ratio, as is the case with Austria, Germany, the Netherlands and Cyprus, in order to facilitate the interpretation of the results.

3.6.3 Tourism Value Added (TVA)

The calculation of TVA depends on the methodologies previously adopted on the estimation of production and IC. It is expected to derive TVA as a balancing item between ‘tourism’ production and ‘tourism’ IC. TVA can also be the result of the application of tourism shares on production to the industry GVA or by applying the tourism ratio of the different products (specific and non-specific) to the GVA of the tourism industries.

TVA of the economy corresponds to the sum of the TVA of tourism industries and of other industries and refers to the part of GVA directly related to internal tourism demand; this corresponds to the total demand of goods and services by the visitors within the economy of the TSA country of reference.

Considering the estimation of TVA, different approaches are considered: by applying the tourism ratio of internal tourism consumption to the GVA of industries according to a symmetrical approach between products and industries, or by applying the tourism share of production on the GVA of the given industry.

Figure 23: Hypothesis for estimating TVA

- TVA as a balancing item:

$$\text{TVA} = \text{tourism production} - \text{tourism intermediate consumption}$$
- TVA as result of tourism shares:

$$\text{TVA} = \text{GVA} \times \text{tourism production share}$$
- TVA as a result of tourism products ratio (homogeneous industry/product):

$$\text{TVA} = \text{GVA} \times \text{tourism ratios by products}$$

Considering the different stages of compilation of T5 and T6, estimations for TVA can consider separate estimations for tourism shares of production (conciliation between supply and demand) and IC and, therefore, different tourism shares by products and by industries. This is true for Portugal, Spain or Slovenia. In the case of Spain, the direct contribution of internal tourism consumption to the economy in the Spanish TSA is calculated through the final demand approach – even though the TVA is obtained by using tourism ratios of T6 and published in the direct and indirect effects table. This estimation can be easily obtained even for recent years for which a SUT is not available.

Concerning the compilation of “Tourism Gross Domestic Product” (TGDP), the data provided within T6 is not sufficient. In order to reach this main aggregate of production and income generated by internal tourism consumption in the economy, the net taxes on products have to be included as well. TDGP is equal to the sum of the TVA plus any taxes, and minus any subsidies on products not included in the value of their outputs. The latter information can be obtained within NA.

3.7 TSA table 7: Employment in the tourism industries

TSA table 7 (T7) represents employment in the tourism industries. According to the TSA-RMF format, employment should be broken down by the number of establishments, jobs and employed persons for/in tourism characteristic industries. Jobs are broken down by status in employment (employee and self-employed) and each of these categories are further broken down by gender.

3.7.1 Basic concepts and methodological references

The TSA-RMF 2000 and its new revised version, TSA-RMF 2008, are both very superficial in terms of the recommended compilation methodology. Concepts and compilation issues are left to the specific areas and organisations dealing with employment issues. The International Labour Organization (ILO) defines employment concepts, scope, measuring issues etc. Concepts and compilation issues in national accounting terms are defined both in SNA 1993 and in the European context, in ESA 1995, chapter 11 ‘Population and labour inputs’ and chapter 4 ‘Distributive transactions’, which includes compensations of employees (which in turn includes wages and salaries and employers’ social contributions). The NA manuals cover several aspects like compilation aspects, data sources, and the compatibility with all NA economic aggregates. These employment concepts are relevant for both the sector accounts and the IOT and SUT framework, since employment plays a leading role in NA - whether in terms of the aggregates’ compilation (e.g. production and value added) or whether in terms of the NA objective of covering the entire economy (see ESA 1995 paragraph 1.13).

The TSA goal is to assess the direct importance of tourism within the economy of reference. In this regard, employment is widely regarded an important dimension of the economy. This explains why the employment table is often added to the TSA by many countries, even though the TSA EIM does not consider T7 a core table. Some countries, like the Czech Republic, Austria, Germany and Portugal, go even further than T7 and use the employment module of the OECD Manual on TSA and employment (2000) as a reference, which has several tables

with more breakdowns. Besides, the OECD manual is also more elaborated and explores more details of employment compilation in tourism industries and the tourism employment specifics. It also suggests some practical procedures in terms of defining the borderline of tourism employment.

3.7.2 Scope of tourism employment

Both the TSA-RMF 2000/2008 and the OECD manual recommend that employment compilation covers only tourism characteristic industries, which means that tourism employment is directly associated with the tourism production account of the characteristic activities which corresponds to the columns referring to the tourism characteristic industries in T5. Consistency between these two estimations is fundamental, since employment is defined (see ESA 1995 §11.11) as covering all persons – both employees and self-employed – engaged in some productive activity that falls within the production boundary of the system.

Another limitation, besides that of ignoring employment of the non-characteristic industries, is due to the fact that the whole production produced by tourism characteristic activities is in fact not entirely consumed by visitors; only the major part of that production is. This raises an important question: how much employment was engaged in production that was in fact consumed by visitors? The idea is to draw a parallel between employment estimations and the actual tourism production of tourism activities, registered in T6, under the columns referring to the tourism component of each tourism activity. For now, the focus will be on the total employment of tourism characteristic activities; the closing remarks of this chapter will provide a few tips on how this actual tourism employment could be estimated and overcome this limitation. In both cases, the tourism industry is characterised.

3.7.3 Data sources

NA is the data source of reference for tourism employment compilation. NA provides at least annual average figures of employment aggregates by industry and by status in employment. Other details like gender or the working scheme (part time or full time) can be obtained from the available employment data sources; those used in NA should be treated preferential.

Besides NA, there is the package of data sources that may have somehow contributed to NA compilation, mainly demand or supply related. On the demand side of the labour market there are statistics collected from firms, like the SBS, business census, business register, administrative records on firms, social security registers, fiscal sources and sector statistics like accommodation surveys (that may include some employment questions). From this side of the labour market, the typical variable obtained is jobs (not persons employed); hours are usually provided as well. On the supply side of the labour market, the most usual data sources are the labour force survey (LFS - EC Regulation 577-98) and the population census, also available across EU countries.

3.7.4 Compilation methodology

NA should be the direct data source for tourism employment, namely for the totals by industry and by status in employment, for tourism industries coinciding or matching with NA

industries. NA gives the final figure and no extra estimation is needed. For those not matching with the NA, the NA figure should work like a maximum constraint for TSA employment figures or should be a framework for it.

In the latter case, the best recommended practice is to repeat the NA compilation exercise for the industry as it is defined in TSA T5. For instance, the road transport industry defined in the NA may consider both activities of transport of passengers and freight, while the TSA should exclude the activity of transport of freight. This exercise can result in having to apply two different methods. In the bottom-up method, the NA exercise is entirely replicated, starting from the same data sources, considering and repeating the same procedures until a final figure is reached. In the top-down method, the starting point of estimation is the NA figure for the specific activity, after which a ratio is applied in order to obtain the employment that refers to the part of that activity that concerns TSA activity. The ratio should be estimated based on available employment data sources. A mixed method is also possible according to the available data sources and the variable in question (job, persons, FTE, hours etc.).

Figure 24: Tourism employment- compilation methodology

1. **If TSA industry matches NA industry**
→ TSA employment matches NA employment
2. **If TSA industry does not match NA industry**
→ NA employment = upper limit of TSA employment
→ Methodology:
 Bottom-up: repeat NA methodology for TSA industry
 Top down: find key structures to breakdown NA employment

If for any reason NA employment estimates are not available, other kinds of employment estimation should follow NA compilation rules and concepts for exhaustiveness purposes. It is also important to achieve coherence with the rest of the TSA aggregates and to guarantee the comparability with NA aggregates. In order to cover the entire economy and to have the most appropriate estimations, NA figures are the result of very thorough estimation procedures where the several primary data sources, both from the supply and demand side of the labour market, are taken into account. This compilation procedure requires a lot of harmonising work in order to guarantee consistency between the several employment concepts, the used data sources, and also the production estimates (T5).

3.7.5 Actual tourism related employment

The estimation of actual tourism related employment corresponding to the part of employment responsible for actual tourism production (as in T6) is not straightforward either in terms of conceptual issues or practical ones. For the former, the variables have to be determined to which this actual concept can be applied. Indeed, not all employment variables are appropriate for estimating this tourism component because it is not determinable which

part of a job is tourism characteristic and which part is not-tourism characteristic; or which part of an individual is tourism and which part is non-tourism. Besides making no sense, it is conceptually wrong.

However, variables that could be fractioned into a tourism and non-tourism component are full-time equivalent and hours worked, wages and salaries and compensations. For these variables it is possible and sensible to determine which part is tourism characteristic or not; it is possible to determine that a certain individual worked five hours serving visitors and two hours serving non-visitors, for instance. Moreover, wages and salaries and compensations could also be variables for which a tourism component can be estimated. In this case, the estimation made pretends to acknowledge the compensation that remunerates the amount of labour which was allocated to actual tourism production.

The practical issue concerning actual related tourism employment is concerned with the existence and choice of an indicator of actual tourism employment. For this purpose, the most common indicators are the tourism shares from tourism production or tourism values added: tourism value added (or production) divided by total value added (or total production) within a tourism characteristic industry that can be obtained from T6.

Country experiences

In fact, every country (so far) has some kind of estimation on tourism employment. Some countries have compiled T7, others compiled it partially, others compiled employment with some other kind of breakdown. Nevertheless, all EU countries have compiled employment for tourism characteristic activities, and the bulk of countries have estimated an actual tourism employment component. This is the case with Denmark, Slovenia, Poland and the Czech Republic. Spain, Denmark, Slovenia and Austria are also estimating indirect effects of employment.

Box 11: The case of Portugal

The Portuguese estimate of TSA employment does not refer to T7 TSA-EIM but to the tables from the employment module of the OECD manual.

Following that manual advice, the compilation refers only to tourism characteristic industries. These estimates of employment in the Portuguese TSA are coherent and therefore comparable with those from NA, which refer to domestic employment. It also means that these estimates are compliant with the production concept in T5 and T6.

The compiled tables of employment are 1,3,4,5,8,9,10,11, 13 and 15 of the OECD employment module.

These tables refer to the following variables and breakdowns: jobs, individuals, full time equivalents, salaries and wages, compensations and hours worked by status in employment (employee vs. own-account workers); individuals by gender, education level, age groups; jobs by type of work (full-time vs. partial time); jobs by gender and wages by gender.

Estimation is made for the employment component directly related to tourism using the ratio of tourism value added on the total value added of that characteristic activity. The estimation refers only to full time equivalent and compensations.

Box 12: The case of Austria

The "TSA-Employment Module for Austria" represents an approach to draw a more comprehensive picture of the tourism industry impact on the labour market, considering "characteristic tourism industries".

In order to get a better idea of the composition of employment, a supply-side approach is generally used and adjusted with demand related data (TSA-tourism ratios).

The methodological basis of the Austrian measurement mainly refers - apart from the TSA-RMF - to the OECD Manual on TSA and employment.

In the Austrian TSA-Employment Module, the figures are displayed according to two concepts occurring in the NA, "number of jobs" and "full-time-equivalents" (FTE).

The main data source used is the employment related data from NA statistics. In order to maintain the consistency with the Austrian TSA results, these figures form the basis for the extrapolation of structural data (breakdown by sex, employment data on the NACE 4-digit-level) which was mainly derived from the latest results of the labour force survey and structural business statistics: manufacturing and services, economic census and cultural statistics; in addition, administrative data is used.

Box 13: The case of the Czech Republic

The Czech Republic (CZSO) published information on the position and significance of tourism employment in the spring of 2008. A tourism employment module was implemented in accordance with methodological recommendations by Eurostat, OECD and ESA95. Up to now, CZSO managed to create nine tables out of eleven recommended. Furthermore, two additional tables were designed - aggregate indicators of the employment in the national economy and tourism.

The Czech NA and labour force survey are the main sources of information for compilation of this module. Figures are arranged by tourism characteristic industries (except of second homes). Connected and non-specific industries are published only in total. Most of the data is available for the division of employees and self-employed people. The employment module is a part of the Czech TSA. Tourism employment is measured by different socio-economic and demographic characteristics (status in employment, seasonality, working scheme, permanency of job, sex, age, level of education, nationality). All data represents the so-called domestic concept of employment. It means that results refer to persons working in the Czech territory. Non-residents working in the Czech Republic are included and residents working abroad are excluded in this concept.

3.8 TSA table 8: Tourism gross fixed capital formation

Gross fixed capital formation (GFCF) for the tourism industries and other industries is compiled in TSA-RMF table 8 (T8).

3.8.1 Fundamentals on gross fixed capital formation

According to paragraph 3.102 of ESA 1995, GFCF (product transaction P.51) consists of resident producer acquisitions less disposals of fixed assets during a given period plus certain additions to the value of non-produced assets realised by the productive activity of producer or institutional units. Fixed assets are tangible or intangible assets produced as outputs from processes of production that are themselves used repeatedly, or continuously, in the process of production for more than one year.

Paragraph 3.105 of ESA 1995 distinguishes different types of GFCF:

- acquisitions less disposals of tangible fixed assets such as dwellings; other buildings and structures; machinery and equipment and cultivated assets, e.g. trees and livestock;
- acquisitions less disposals of intangible fixed assets such as mineral exploration; computer software; entertainment, literary or artistic originals and other intangible fixed assets;
- major improvements to tangible non-produced assets, in particular those pertaining to land (though the acquisition of non-produced assets is not included); and
- costs associated with the transfers of ownership of non-produced assets, like land and patented assets (though the acquisition of these assets themselves is not included).

GFCF is valued at purchaser prices at the moment of acquisition with some exceptions (individual housing construction, own-account production of fixed assets and literary and artistic originals). Changes in inventories are recorded at prices which correspond to the current prices at the time of recording transactions with inventories in the country NA.

The compilation of this variable in the scope of tourism is very important for the analysis of the attractiveness of a country, since it provides information on the basic infrastructure of transports, accommodation services and centres of interest such as museums, monuments and amusement parks.

3.8.2 The structure of the table

The new TSA-RMF 2008 considers GFCF for tourism industries and other industries with regard to the three product categories: tourism specific fixed assets (including five groups of assets), investment by the tourism industries in other non-tourism specific produced assets, and tourism related infrastructure (not indeed in TSA T8).

- **Tourism specific fixed assets** concern fixed assets that are mainly used for the production of tourism characteristic products. Like tourism characteristic products, this type of assets would be of less value or, in some cases, even not exist if tourism did not exist (such as hotels facilities, cruise ships, caravans, sightseeing buses, infrastructure for conventions and fairs and marinas). The following five sub-categories are separately shown:
 - Accommodation for visitors
 - Other non residential buildings and structures unique to tourism industries

For these infrastructures, tourism is not the primary objective of investment but facilitates and stimulates the development of tourism activities in the country of reference. These types of assets are needed within the process of producing a specific tourism product while its use is not expressed as a production factor (land/ air transport is not possible without roads, for instance). If no fee is attached to the use of this asset, no cost of production is considered by the production unit. The same applies for health services, sewages, electricity and telecommunications: in general, visitors do not stay in places where this type of infrastructure does not exist (they might not need them continuously, but they will most likely need to use them eventually). Paragraphs 2.50-2.53 of the

TSA-RMF 2008 make some references on the particular features of the tourism related infrastructure, recommending countries to focus primarily on the tourism specific fixed assets (including five groups of assets) and on investment by the tourism industries in non specific fixed assets.

- Passenger transport equipment for tourism purposes
- Other machinery and equipment specialised for the production of tourism characteristic products
- Improvements of lands used for tourism purposes
- **Investment by tourism industries in other non-tourism specific produced fixed assets** consider investment in tourism related fixed assets. These are assets used by a tourism industry (such as hotel laundry facilities or computer systems used by hotels and travel agencies).

Other non-financial assets (memorandum item) refer to non-produced non-financial assets (tangible and intangible) acquired by the tourism industries such as land (underlying the buildings and other infrastructures or for recreational uses) or leased and other property transferable contracts (licensing rights, goodwill etc.).

3.8.3 Data sources

Tourism GFCF refers to produced fixed assets that are operated by resident productive units. This is the case with mobile assets (such as aircrafts, trains or cruise ships operated by non-resident units). An exception is made for second homes (included if operated by a non-resident unit). This unit becomes a national unit within the country, being treated as a resident unit according to paragraphs 2.09 and 2.15 of ESA 1995.

The disaggregation of data required in T8 (inclusion of infrastructures mainly for tourism purposes) can raise problems in terms of converting NA data into the T8- format. The new TSA-RMF (2008) provides some methodological references for the estimation. Additional references on GFCF in tourism are made in the updated version of the IRTS 2008 which considers tourism GFCF in case of vacation homes. The compilation of T8 also considers GFCF of second homes used for tourism purposes on own account or free of charge. As already mentioned in T5, there are some types of costs that are considered IC, but there are other improvements to existing fixed assets that go beyond the requirements of the ordinary m&r, like major repairs and reconstruction of the property that should be included in gross fixed capital formation. This data is also included in NA tables for GFCF in industry real estate activities NACE 70.1 'real estate services for own account' and are available according to the compilation of owned occupied dwellings and in line with Commission Decision 95-309 and the Commission Regulation (EC) No 1722-2005.

The main input for the compilation of T8 is the use-table, which provides data on GFCF (P.51) by products. Additional data comes from matrices on GFCF by the user industries, institutional sectors and by type of assets (according to the regrouping of products for GFCF compilation by classification of assets in compliance with ESA 1995). This is required for detailing GFCF according to TSA characteristic industries and to the type of assets presented in T8. Other types of data sources are structural business statistics, industrial production statistics, international trade statistics or administrative data on fiscal statements of

corporations and financial reports of the main productive units identified as users of tourism specific fixed assets (railway and air transports; cruise ships).

The use of NA data on GFCF suggests the cross-classification between the CPA-CPC codes of the list of tourism specific fixed assets and the NA classifications on products. The same is true for CPA-CPC codes identified as part of the category of investment by the tourism industries and for the memorandum item on the GFCF of characteristic industries in non-produced non-financial assets.

In the following, it is necessary to estimate which part of this GFCF is allocated to tourism demand (in this case, internal tourism demand) which has proven to be difficult. The compilation of this table should be made in a second stage.

Country experiences

Very few countries have compiled T8 so far and defined their own methodology of compilation, strongly based on NA, GFCF estimations and methodological references (ESA 1995 and SNA 1993). Czech Republic, Finland, Hungary, Portugal, Poland and Spain, have compiled some figures for GFCF, according to T8 format or not, and some of them defined their own criteria for the tourism share of GFCF. In the case of the Czech Republic and Spain, this share considers the tourism shares of production, assuming that tourism contribution to GFCF (tourism GFCF) is the same as for production.

Box 14: The case of the Czech Republic

The Czech Republic (CZSO) published information on tourism gross fixed capital formation in 2009. Basic data sources are data from NA. GFCF includes acquisitions and disposals of tangible (P.511) and intangible (P.512) fixed assets and addition to the value of non-produced non-financial assets (P.513). For NA, the main data sources are statistical surveys carried out by CZSO in all institutional sectors.

Two matrices are being used in the compilation process of table 8:

- (1) Matrix of GFCF broken-down by fixed assets and industries;
- (2) Matrix of GFCF broken-down by CPA and NACE.

Data from NA is adjusted in order to be convenient for tourism purposes (division of NA data into around 60 different assets by SBS data). Subsequently, tourism shares for each asset and industry are estimated. Tables with results were disseminated in Czech-English version for reference period 2003-2006.

3.9 TSA table 9: Tourism collective consumption

TSA table 9 (T9) provides tourism collective consumption by functions and levels of government (national, regional and local).¹ Like T7 and T8, this table is not considered a core table by TSA-EIM.

¹ The format of T9 has changed in TSA-RMF 2008. Instead of being broken down by functions, tourism collective consumption now is recommended to be displayed in 8 tourism related product groups (CPA/CPC classification).

3.9.1 Fundamentals on collective consumption

ESA 1995 paragraph 3.83 describes services for collective consumption as services provided simultaneously to all members of the community or to a particular segment of the community. They have the following characteristics:

- they can be delivered simultaneously to every member of the community (or part of that community)
- the use of these services is passive and does not require the explicit agreement or active participation of all the individuals concerned
- the provision of a collective service to one individual does not reduce the amount available to others in the same community

Collective consumption consists of managing and regulating society, the provision of security and defence, the maintenance of law and order, legislation and regulation of the maintenance of public health, the protection of environment, research and development and infrastructure and economic development. Furthermore, collective consumption is equal to the output of government for collective purposes.

The institutional sector S.13 (General Government) includes all institutional units which are other non-market producers whose output is intended for individual and collective consumption, and mainly financed by compulsory payments made by units belonging to other sectors (see ESA 1995, §2.68). For this feature, pure non-market services fall under a broad category of non-market services (ESA 1995, §10.41). The distinction between market output, output produced for own final use and output for other non-market producers is fundamental because it determines the valuation principles to be applied to output. Whereas total output of other non-market producers is valued from the costs side¹, all other transactions are valued at basic prices (see ESA 1995 §3.14 to 3.45).

Household final consumption expenditure (institutional sector S.14) and non-market services produced by non-profit institutions serving households (NPISH, institutional sector S.15) are both exclusively individual. The case of the general government, institutional sector S.13, is different. Goods and services provided by the general government can be either individual or collective. The difference between them is drawn on the basis of the “Classification of the Functions of the Government” (COFOG). Services provided to individuals (e.g. health) or to groups of individuals (e.g. teaching) are considered as individual consumption expenditure corresponding to the COICOP classification.

Pure collective services are produced for the benefit of the entire population, consumed collectively, indirectly and continuously, and the volume of their output cannot be measured by the extent to which they are used. Non-market services are not sold at a market price. Rather, their value at current prices is calculated by convention as the sum of the costs incurred (ESA 1995 §10.24). These cost elements are intermediate consumption, compensation of employees, other taxes on production less other subsidies on production, and consumption of fixed capital.

¹ The cost of production, including the consumption of fixed capital as a component of this cost, is therefore measured as well.

Figure 25: Fundamentals of collective consumption services

- **Characteristics:**
 - o delivered simultaneously to every member of the community
 - o their use is passive
 - o its provision to one individual does not reduce its availability to others
- **Examples:** managing and regulating society; provision of health and defence
- **Provided** exclusively by the general government (institutional sector S.13)
- **Financed** by compulsory payments by other institutional sectors
- **Valued** as the sum of the costs incurred to produce them for being non-market services
- **Collective consumption = government output for collective purposes**

3.9.2 Compilation methodology

In a tourism context, the provision of collective non-market services by the general government concerns the following services: provide legislation and regulation regarding visitors and those who receive visitors, general promotion of tourism, development of instruments to measure the results of tourism policies; and the maintenance of order and security so that tourism can thrive. Besides, government are also expected to provide support through different types of incentives, like tax incentives, investments in infrastructures etc. Within a tourism context, tourism promotion and marketing realised by the National Tourism Board (NTB) is a good example of collective non market services; this is also an example of services that could benefit either business or households.

In the EU, collective consumption for NA estimation purposes (equal to government output for collective purposes) is calculated by industry and by product level (CPA). Nevertheless, an alternative functional classification may be used, as for example COFOG. Position 04.7.3 of the COFOG refers to tourism and more explicitly to administration of tourism affairs and services, promotion and development of tourism. A separate position exists for hotels and restaurants (04.7.2); operation of tourist offices at home and abroad, organisation of advertising campaigns including the production and dissemination of promotional literature as well as the compilation and publication of statistics on tourism. The problem is that collected data does not have this kind of detail and that the upper classification positions (e.g. position 04.7 'Other industries' under 04 'Economic affairs') are too broad categories. For that reason, estimating tourism services becomes a difficult task. Position 04.7.2 refers to hotels and restaurants which can also have a tourism character. The same holds for position 04.7.4 'Multi-purpose development projects'.

Country experiences

Regarding the EU, there are only a few countries compiling T9. Countries with experience in compiling T9 are Spain and Slovenia. The Spanish T9 does not follow the proposed T9 TSA-RMF format: tourism collective consumption is compiled according to the TSA product

classification (actually both tourism collective and tourism individual government consumption was estimated, a column for each aggregate). Slovenia, for instance, did not compile T9 but explored the possibility of compiling it in terms of data sources availability, relevance and methodology. Cyprus is starting with compiling T9, mainly referring to detailed information from the NTB. One of the conclusions of this work was that it is not relevant and practical to consider a sub-national level for future estimations due to its small size of the country, the inexistence of regions as government administrative entities, and a lack of data at municipal level.

3.9.3 Data sources

T9 estimations must be consistent with NA estimations for collective consumption and collective output of the general government. Sector accounts from NA should in fact be the major data source for the compilation. The main data source used by sector accounts is the yearly accounting reports of the public entities that belong to S13. Accessing the accounting reports of specific tourism related entities, like the NTB, is a possible approach for the estimation of the tourism component. Another possible approach is to check what the entities are that contribute to the CPA, or COFOG positions estimates that are tourism related or tourism characteristic (even if it is compiled in a more aggregate level). By analysing their activity report, the identification of their tourism component is feasible.

3.10 TSA table 10: Non monetary indicators

TSA-RMF Table 10 (T10) consists in fact of four tables:¹

- Number of trips and overnights by type of tourism and categories of visitors
- Number of arrivals and overnights by means of transport for inbound tourism
- Number of establishments and capacity by forms of accommodation
- Number of establishments in tourism characteristic and tourism connected activities classified according to number of employed persons.

These tables provide non-monetary qualitative information that can be used to co-interpret the monetary data on the previous TSA tables. This information may also be useful in the course of the compilation of the other TSA tables. The TSA-RMF refers to SNA 1993, stating the importance of such physical indicators within the satellite accounts. Therefore, they should not be considered as secondary indicators.

- Regarding the number of trips and overnight stays by type of tourism and categories of visitors, there are several data sources available.

For the majority of the countries, the number of inbound trips can be obtained via surveys or some kind of register on arrivals in the country of reference. The number of outbound trips can be obtained via surveys or some kind of register on departures abroad. In the case of both inbound and outbound tourism, it is generally assumed that the number of arrivals of either tourists or same-day visitors is equal to the number of

¹ The format of T10 has only changed slightly in the TSA-RMF 2008.

visits. In the domestic context, and as far as tourists are concerned, trips can be estimated by the domestic tourism survey which virtually all countries carry out in order to respond to Council Directive 95-57-EC. Data on same-day visits are usually a problem since that EU-directive does not cover them. Nonetheless, there are some countries carrying out surveys for this purpose like Finland and Spain.

Overnight stays spent in collective and private accommodation establishments are to be considered for T10. Data on overnight stays spent on collective establishments are easier to obtain in EU countries since they are made available in order to respond to Council Directive 95-57-EC. A monthly survey is addressed to the accommodation establishments and provides data on the number of overnight stays of resident and non-resident tourists; this data is collected by category of establishment and usually by NUTS.

Whenever specific private accommodations statistics are not available, surveys on tourism expenditure and on behaviour can be used to estimate private accommodation overnight stays.

It is also important to consider undeclared overnight stays, if there are any. In principle, this data has already supported the estimations of the undeclared accommodation services in the other TSA tables (and also NA estimations). The number of undeclared overnight stays is usually obtained from the confrontation of supply data figures on overnight stays with those from the demand side on tourism surveys.

- Regarding the number of arrivals and overnight stays by means of transport in inbound tourism:

The breakdown of arrivals by means of transport can be accessed by tourism statistics on arrivals and potentially in all surveys on the tourism behaviour of the non-residents, depending on the questions they include. Mirror statistics from the neighbour countries on outbound tourism can also be useful.

- Regarding the number of establishments and capacity by forms of accommodation:

The privileged data source for the compilation of this table, taking into account its breakdown, is the survey addressed to collective accommodation establishments (the survey used for the collection of the number of overnight stays etc. that responds to Council Directive 95-57-EC); the database that defines the universe of this survey can also be helpful.

- Regarding the number of establishments in tourism characteristic and tourism connected activities classified according to the number of employed persons:

The number of establishments (including accommodation establishments) can be obtained from a central business register that statistical authorities have in order to define the surveys' target population and sample frame. These kinds of registers constitute (ideally) an exhaustive data base of all institutional units in the economy (other than households) and are built by the convergence and comparison of many official data sources in the economy. The number of establishments is a common and basic variable of those registers.

Country experiences

Very few countries are compiling all four tables of T10 completely, which is the case with Slovenia and Ireland. Many other countries compiled part of those tables or even some other non-monetary or monetary indicators which are defined as being useful. Some countries did not compile any table at all; nevertheless, the fact that T10 is not compiled within the TSA does not mean that countries do not have at least part of the information available; it may only not have been published.

4

Chapter 4 - Good practices with regard to TSA specific problems

4 Good practices with regard to TSA specific problems

This chapter of the practical compilation guide is dedicated to TSA specific problems. By discussing these problems in deep detail, national TSA compilers are equipped with valuable tips and hints for their implementation work.

4.1 Estimating same-day visitors expenditures

The first step of statistical measurement is to define the conceptual background of the measured phenomena.

4.1.1 The definition of same-day visitors

The TSA-RMF 2000 manual (TSA-RMF 2000, p. 16) provides concise definitions related to same-day tourism. The distinction between same-day (daily) visitors and tourists (overnight visitors) is done on the basis of the duration of the stay.

Table 1: TSA recommendations on SD tourism consumption¹

<i>PRODUCTS & SERVICES CPA/TSA</i>	<i>INBOUND TC OF SAME-DAY VISITORS</i>	<i>DOMESTIC TC OF SAME-DAY RESIDENTS TRAVELING</i>		<i>OUTBOUND TC OF SAME-DAY VISITORS</i>
		<i>within the country</i>	<i>Abroad</i>	
<i>A.1. Characteristic products</i>	✓	✓	✓	✓
1. Accommodation services	X	X	X	X
2. Food and beverage	✓	✓	✓	✓
⇓	✓	✓	✓	✓
7. Miscellaneous tourism services	✓	✓	✓	✓
<i>A 2. Connected Products</i>	✓	✓	✓	✓
<i>B: Non-specific products</i>	✓	✓	✓	✓

The distinctive difference between tourists and same-day visitors is that tourists stay one or more nights in the place visited and same-day visitors visit the place for less than one night. The TSA-RMF 2000 recognises in-transit visitors as a specific category of visitors. These

¹ It must be noted that this scheme is simplified in the sense that classification is presented at the highest level of aggregation. TSA RMF recommends at least a two-digit level of classification.

visitors either do not enter the country (visitors arriving by air) or they are just crossing a country to a different destination. As a general rule, in-transit visitors will be same-day visitors, but in some cases they could also be overnight visitors (TSA-RMF 2000, p. 17). The identification of in-transit tourist is left to the countries.¹ The TSA-RMF manuals recommend the provision of data on consumption of same-day visitors and a breakdown of their consumption according to the respective classifications of products and type of tourism as recorded in T1, T2, and T3. The data requirements on consumption of same-day visitors are summarised in Table 1.

The complete TSA requires fulfilment of each cell of the above table. Only cells in the row of accommodation services are exempted because of the irrelevance of these services for same-day visitors. In addition, non-monetary data on the number of trips and overnight stays classified separately for same-day and overnight visitors by type of tourism (inbound, outbound and domestic) are needed (see T10).

Obviously the estimation of same-day tourism activities remains a special issue at the core of TSA. The complexity relies, in practice, on the delimitation of the concept when defining the usual environment and the adoption of the different criteria (such as distance, frequency, administrative border or duration of the trip) when dealing with the fact of “leaving the usual environment”. This matter is dealt with in different ways by the countries according to the individual analysis or common sense of the relative importance of these criteria when compiling a TSA or tourism statistics. Some approaches are based on a subjective opinion or on any other prepositions adopted in specific cases. This situation is of more importance for domestic tourism, since in the case of inbound and outbound tourism there is the criterion of crossing a national border together with some information on the main purpose/frequency of the visit.

4.1.2 Data sources

Besides this conceptual restraint, there also is the dependency on the availability of data sources. In the majority of the countries data on same-day is rather scarce or uncommon in particular for its sub-segment (business tourism, for instance). The analysis of same-day visitors in TSA considers the estimation of the corresponding expenditure. These estimations are made based on available data sources, mainly for the demand side, and household surveys (tourism and other). In principle, the estimations should take into account the main criteria adopted by the data sources – especially for tourism demand surveys on households – for dealing with the fact of leaving the usual environment.

The collection of data on same-day visits (SD) is a mixed combination between countries that carry out a SD specific survey (e.g. Czech Republic, Germany, Hungary). These countries apply data from their surveys on SD which collect data for SD by purpose of the visit. Their surveys can be considered a potential reference for implementing a survey on SD. On the other hand the estimation of the domestic SD tourism expenditures in Cyprus does not use results coming from a SD specific survey. They are estimated by combining different data sources with some clear assumption.

¹ Within the IRTS 2008, there has been a revision of the scope of visitors. Now all transit visitors are included.

Spain, Finland, Ireland and Portugal do not yet have any data on SD in their national TSAs implemented. This is probably caused by the geographical remoteness of these regions. It is difficult to visit such countries without overnight – for majority of European states as well as overseas visitors.

Since many countries do not have data on SD or only partly for some type of tourism, indirect estimations are made for this component on the basis of other surveys and suitable assumptions (as is the case of Cyprus). Consequently, these countries develop indirect estimations (e.g. based on physical flows) or complex methodologies for estimating SD expenditures based on data from NA for HFCE and on households or tourism demand side (for tourists) surveys.

4.1.3 Example: A specific approach - the case study of Slovenia

Notwithstanding extremely high data requirements, the Slovenian TSA 2003 project team took the decision to embark on the compilation of complete monetary estimates for same-day visitors' consumption at a two digit classification level of CPA/TSA classification together with corresponding non-monetary data (T10). Along with these estimates, it was agreed to assess the number and consumption of in-transit visitors. According to the travel habits and their prevalent characteristics, all transit passengers were treated as international SD visitors. At the aggregate level, their consumption was added to the same-day inbound tourism consumption.

These decisions were based on the first encouraging experiences to measure same-day visiting activities within the TSA for the year 2000. The keen interest of stakeholders to obtain more comprehensive and reliable picture of same-day tourism in Slovenia also supported this decision.

4.1.3.1 Methodological strategy for measurement of same-day visiting activities

Development of SD visitors' segment of TSA is one of the demanding tasks for TSA compilers. The complexity of this task mainly lies with problems connected to the practical application of concepts defined only at a general level in TSA and to poor availability of data. According to the valid EC directive on tourism statistics (Council Directive 95/57 EC), official statistics in Slovenia are oriented to provide data on overnight visitors¹. Usable data from other sources are mainly of internal nature and not publicly available.

Under these circumstances, estimation of highly disaggregated data on tourism consumption for TSA 2003 (see Table 1) demanded a flexible methodological approach in terms of data sources and estimation techniques used. Some cells of T1, T2 and T3 of the TSA for the reference year 2003 are compiled on the basis of a bottom-up approach (transport), others on the basis of top-down approach (food and beverage serving services). For some heterogeneous items (recreational services), a combination of both approaches was used.

¹ Eurostat has recognised the need to improve the data availability concerning SD visits. It is expected that variables on domestic and outbound SD visits will be introduced in the data collection programme of the new regulation on tourism statistics which will come into force in 2010. See: Eurostat, Working Group on Tourism Statistics (2008). Doc. F6/TOUR-WG08/03.

For building estimates at the lowest level of classification of T1, T and T3, the TSA compilers were generally compelled either to rely on expert and sometimes even subjective estimates or to collect primary data. Since primary data search is a costly and time consuming option, efforts allocated to obtain new primary data corresponded to the economic importance of the items estimated.

In this excursus, the rationale of compilation of SD visitors' consumption will be demonstrated by three cases presenting the most important SD visiting activities for three types of tourism (domestic, inbound, transit):

- gambling services (for inbound same-day visitors)
- food and beverage serving services (for domestic visitors travelling within Slovenia)
- consumption of gasoline (for in-transit visitors)

The presentation of the three selected cases by type of tourism is given in a wider context of internal tourism consumption in cash¹. Positioning of the estimated items within the frame of internal tourism consumption is justified by two arguments. First, the respective estimates largely rely on a top-down approach, and the exposition of its implementation is inevitably related to a wider, aggregate framework. Second, resulting estimates juxtaposed with internal tourism consumption reveal their relative importance for TSA at an aggregate level.

4.1.3.2 Inbound same-day tourism consumption: case of gambling services

Estimates on consumption of gambling services rely on the same basic data source for inbound and for domestic visitors. For this purpose, data on turnover of gambling houses and number of visitors by two categories (foreigners and locals) was used. This information was provided by the Inspection Office for Gambling. Compilation of full tables T1 and T2 revealed the problem of identifying international SD visitors vis à vis overnight tourists on the one hand and the separation of domestic visitors from local (resident) visitors on the other hand.

Estimates for consumption of gambling services for domestic and for international visitors were carried out separately. Estimates of international SD visitors were done on the basis of a survey on foreign tourists carried out by the national statistical office and validated by the results of the research study on economic effects of gambling industry.²

In order to identify SD domestic visitors and separate them from residents in Slovenia, primary data was collected from casinos by means of a special survey. Visitors living in the radius of about 20 km to casinos were excluded as residents.

In Slovenia, the total consumption of gambling services was about 212 mio. Euro in 2003. International visitors had a lion's share (92%) in this consumption. The majority of them were SD visitors, contributing almost 75% of total consumption of gambling services. For domestic tourism, gambling is of minor importance in Slovenia.

¹ Hereinafter, the shortened term 'internal tourism consumption' is used instead of complete term 'internal tourism consumption in cash' as stated in the TSA.

² In 2006, sector tourism satellite accounts for gambling industry for year 2003 were developed by another research group. See: Sirše, J. et al. (2006). Comprehensive Assessment of Economic Impact of Gambling in Slovenia on the Basis of TSA Methodology.

Table 2: Internal consumption of gambling services in Slovenia by categories of visitor, 2003 (in mio. Euro)

<i>CONSUMPTION BY CATEGORIES OF VISITORS</i>	<i>SD VISITORS</i>	<i>TOURISTS</i>	<i>TOTAL</i>
International visitors	157.36	39.34	196.70
Domestic visitors within country	14.71	0.77	15.48
Internal consumption of gambling services	172.07	40.11	212.18
Internal tourism consumption	966.84	1123.69	2090.52

Source: TSA 2003 for Slovenia, Final Report, p. 32 – 37.

4.1.3.3 Domestic same-day tourism consumption: case of food and beverage serving services

The most important item of consumption of domestic SD visitors is the expenditure on food and beverage services. Due to the small size of the country, this type of services is negligible for domestic tourists travelling abroad and thus relevant only for domestic tourists travelling within the country. The biggest problem in estimating tourism consumption of domestic SD visitors travelling within the country was how to delineate their consumption (outside usual environment) from resident consumption (inside usual environment). The valid criteria of official statistics to identify 'usual environment' (distance and frequency) are not applicable due to the paucity of data. In our view, this criterion is also obsolete in view of the high daily mobility of the population in Slovenia.

The consumption of food and beverage serving services of SD visitors was assessed using a top-down approach and estimating internal tourism consumption first.

Internal tourism consumption of food and beverage serving services was estimated in several steps:

- Annual turnover of companies and private entrepreneurs classified in 55.3 and 55.4 classes of NACE Rev.1 (restaurants and bars) at municipality level was taken as starting point. Database of individual annual business accounting reports was used as a data source.
- Using census population data (2002), the annual turnover of restaurants and bars per capita for municipalities was calculated.
- Municipalities were classified as tourist or non-tourist municipalities. Selected tourist municipalities were municipalities with more than 40 thousand overnights per year and all municipalities bordering to Italy (due to considerable number of gastronomic trips of Italians to Slovenia). The classification of tourist municipalities was further refined by identifying nine tourism well-developed municipalities, two city tourism municipalities, and other tourism municipalities.
- Tourism consumption of food and beverage serving services was determined as the

difference between average annual turnover of restaurants and bars per capita of tourist and non-tourist municipalities.

- Total tourist consumption of food and beverage serving services was estimated as a product of average tourist consumption per capita and number of inhabitants in tourist municipalities.
- This estimate was calibrated by adding up the estimated amount of tourism consumption from other activities where restaurants and bars figure as secondary activities (such as hotels and retail trade), and the consumption of food and beverage during the visits of tourist sights, cultural and sport events.

The split between different tourist categories was made on the basis of the number of SD trips (from the survey on travel plans of domestic population by Slovenian tourist organisation - STO) and number of overnight stays adjusted for some additional assumptions and estimates.

Table 3: Internal consumption of food and beverage serving services in Slovenia by categories of visitor, 2003 (in mio. Euro)

<i>CONSUMPTION BY CATEGORIES OF VISITORS</i>	<i>SD VISITORS</i>	<i>TOURISTS</i>	<i>TOTAL</i>
International visitors	46.92	79.04	125.96
Domestic visitors within country	119.10	43.09	162.19
Total consumption of F&B serving services	166.02	122.13	288.15
Internal tourism consumption	966.84	1123.69	2090.52

Source: TSA 2003 for Slovenia, Final Report, p. 32 – 37.

Food and beverage serving services are an important part of internal tourism consumption. They are ranked at third place among tourism characteristic products (after accommodation services and recreational services with a dominant share of gambling). Domestic SD visitors are the key consumers, contributing more than 40% to the consumption of this item. However, when interpreting this data, it must not be overlooked that the data may be contaminated by resident consumption due to loose estimation methods and rough assumptions. Further conceptual and empirical research on domestic tourist vis à vis resident consumption is needed.

4.1.3.4 Consumption of transit visitors: case of gasoline

Considering the importance of road SD trips, favourable prices of gasoline and transition character of Slovenia, gasoline has been recognised as an important tourism connected product in TSA 2003. Following the recommended structure of TSA, this required detailed data of gasoline consumption classified by type of visitors (SD visitors, tourists, in-transit visitors) and by type of tourism (inbound tourism, domestic tourism further classified into visitors travelling within the country and travelling abroad). Crossing these two variables resulted in 7 different categories of visitors. The main difficulty for the creation of reliable

estimates on consumption of gasoline by categories of visitors was due to the general absence of data about type of gasoline consumers.

Estimates of gasoline consumption by categories of visitors were based on the number of visitors by categories, share of arrivals or travel by road, data of average distance of SD trip, and average number of tankfuls in Slovenia by visitors.

In order to obtain this basic data, numerous data sources, assumptions and expert estimates were applied. In Table 4, the main data sources for estimates of numbers of visitors' categories are presented.

Table 4: Data sources for the estimates of number of visitors by categories of visitor

VISITORS BY CATEGORIES (ARRIVAL BY ROAD) :	DATA SOURCE/TYPE OF DATA
Domestic SD visitors within country	Survey on travel plans (NTB); estimate.
Domestic SD visitors traveling abroad	Quarterly survey on tourism travels of domestic population 2006 SORS (backward estimate)
Domestic tourists within country	Quarterly survey on tourism travels of domestic population SORS
Domestic tourists traveling abroad	Quarterly survey on tourism travels of domestic population (backward estimate) Balance of Payment
In-transit visitors	Survey on cross border traffic (SORS); residual estimate.
International SD visitors	Survey on cross border traffic and other surveys (SORS).
International tourists	Survey on cross border traffic (SORS).

Source: TSA 2003 for Slovenia, Final Report, p. 27 – 30.

The survey on travel of domestic population was used for estimating several categories of visitors. Data on the number of domestic same day visitors was obtained from a special survey of Slovenian tourism board (SORS) on travel plans of the domestic population. Estimates on number of in-transit road visitors were particularly challenging due to the difficult tracing of these passengers. The number of in-transit international visitors was derived as a residual estimate. First, the number of arrivals and vehicles by origin country entering Slovenia was taken from the survey on cross-border traffic. The total number of arrivals by road was then reduced by the number of international tourists and SD visitors entering Slovenia by road, of foreigners living in Slovenia, and of usual border crossings by the local population. The residual was assigned to in-transit tourists.

The aggregate estimate on expenditure for gasoline was based on data of the average tankfuls in Slovenia for international visitors and for domestic visitors travelling abroad. The average length of SD car trips in Slovenia was used as key data for estimating gasoline consumption for other categories of domestic tourists. In order to obtain a reliable estimate, a special model was developed for an assessment of the length of an average SD trip in Slovenia.

The model included the following variables:

- structure of population by 12 regions
- average distance from regional centres to tourist destinations
- assumption concerning the dependence of choice of tourist destinations with regard to the distance from residence
- preferences¹ of domestic SD visitors for tourist destinations (coast, mountains, health resort, countryside)

The average distance was then calculated as a weighted average of distance from regional centres to tourist destinations. The number of inhabitants by regions corrected for adjusted preferences was used as weights.

As presented in Table 5, some additional assumptions and hypotheses were needed to complete the estimate on gasoline consumption by categories of visitors.

Table 5: Data sources for the estimates of gasoline consumption by categories

DATA	DATA SOURCE /TYPE OF DATA
Average price of gasoline (per liter)	Petrol Company
Average consumption of gasoline per 100 km	Ministry Interior (assumption)
Average capacity of car reservoir	Ministry Interior (assumption)
Average filling of car reservoir in Slovenia by visitors	Expert estimate

Source: TSA 2003 for Slovenia, Final Report, p. 78 – 83

The estimates of gasoline consumption by visitor categories are given in Table 6. Tourist consumption on gasoline amounted to 385 mio. Euro, representing more than 23.5% of total fuel sales in the country and almost 20% of internal tourism consumption. Within tourism consumption, in-transit tourists are the most important segment of consumers of gasoline with almost 50% of all tourism consumption of gasoline.

¹ Data on regional structure of intended same-day trips from the survey on travel plans of domestic population were taken as proxy variables for travel preferences.

Table 6: Internal consumption of gasoline by categories of visitor, Slovenia 2003 (in mio. Euro)

<i>CONSUMPTION BY CATEGORIES OF VISITORS</i>	<i>SD VISITORS</i>	<i>TOURISTS</i>	<i>TOTAL</i>
International visitors	8.6	20.5	29.1
In-transit visitors	191.7	-	191.7
Domestic visitors within country	62.3	19.6	81,9
Domestic visitors travelling abroad	35.3	47.4	82.7
Total gasoline consumption	297.9	87.5	385.4
Total tourism consumption	966.84	1123.69	2090.52

Source: TSA 2003 for Slovenia, Final Report, p. 32 – 37.

4.1.3.5 Comparison of SD tourism in Slovenia, Austria and Switzerland

The importance of SD tourism in Slovenia is highlighted by a comparison with Austria and Switzerland. These two countries were selected for comparison as well-developed tourism countries, exhibiting certain similarities with tourism in Slovenia (geography, similar tourism share of GDP, ranging from about 5% - 6%). However, the ultimate reason was the availability of disaggregated data on inbound and domestic tourism consumption by type of visitors (SD visitors, tourists) in the TSAs for Austria and Switzerland.¹

SD tourism keeps a considerable share of internal tourism consumption in all three countries, albeit with substantial differences among them. Austria exhibits the lowest share (about 25%) and Slovenia the highest (near to 50%). It is worth pointing out that the share of domestic SD tourism is not different among the countries. Thus, the majority of the differences could be assigned to the varying share of international same day visitors in internal tourism consumption. This share is extremely high in Slovenia, reaching almost one quarter of internal tourism consumption.

Certainly, a higher share for Slovenia was expected because of its small size, relatively favourable price level, and other specific economic, social, cultural and historical factors. Nevertheless, it must not be overlooked that according to methodology of the implemented TSA 2003 in Slovenia, international SD visitors cover also in-transit visitors. Consumption of gasoline of in-transit visitors alone accounts for almost 40% of total consumption of

¹ Data for Switzerland needed some adaptations. Original data were published in CHF. For conversion into €, the exchange rate 1.5481 was used. See: Swiss national bank, Monthly Statistical Bulletin, October 2006, p. 71. Business tourism consumption of residents was given in total. The split between same-day and overnight business visitors was done on the basis of the structure for Austria. Data relate to the year 2005.

international SD visitors. The review of available methodological documentation for Austria and Switzerland did not discover any discussion on treatment of in-transit visitors.

Table 7: Structure of internal tourism consumption by categories of visitors in Slovenia, Austria and Switzerland

<i>CONSUMPTION BY CATEGORIES OF VISITORS</i>	<i>SLOVENIA 2003</i>		<i>AUSTRIA 2003</i>		<i>SWITZERLAND 2005</i>	
	<i>mio. Euro</i>	<i>in %</i>	<i>mio. Euro</i>	<i>in %</i>	<i>mio. Euro</i>	<i>in %</i>
International SD visitors	501	24.0	1501	5.7	1839	9.4
International tourists	657	31.5	13047	49.2	5929	30.1
Domestic SD visitors	466	22.2	4931	18.6	5103	25.9
Domestic tourists	466	22.2	7052	26.6	6796	34.6
Internal tourism consumption	2090	100.0	26531	100.0	19667	100.0

Sources: TSA 2003 for Slovenia, Final Report. Statistics Austria, Tourism Satellite Accounts. Federal Statistical Office, Satellite Account for Switzerland, 2001, and 2005.

It could be presumed that a disparate share of international SD tourism in internal tourism consumption is to a certain extent the result of methodological differences. The exclusion of amount spent by in-transit visitors on gasoline in Slovenia reduces the share of international SD visitors considerably. Nevertheless, after this (hypothetical) harmonisation Slovenia still has the leading share (16%) of international same day-visitors in internal tourism consumption among the three countries.

4.1.4 Final remarks

The outline of methodological approaches applied for the compilation of key activities of SD tourism in Slovenia pointed to the complexity of this undertaking under conditions of data availability as prevailing in 2003. Official statistics in Slovenia covered this segment only fragmentarily, while other relevant secondary sources were scarce and dispersed. Since then the availability of data on SD tourism has been improved thanks to extending several statistical tourism surveys by questions on SD visits. Notwithstanding, primary data is indispensable and assumptions and rough estimates inevitable for building TSA at a lower level of classification of tourism consumption. Complexity, diversity and occasionally the subjective nature of data input raise the quality issue of the estimates and particularly challenge the issue comparability of TSA results, as shown by the comparison with Austria and Switzerland. Thorough methodological documentation and validation of results by alternative data sources are indispensable methodological constituents under such circumstances, whenever feasible.

In spite of the rough nature of the estimated data set fully developed within the Slovenian TSA, SD tourism offers a useful and fresh outline of the economic dimensions and characteristics of this type of tourism. Considering that SD tourism is a generally growing phenomenon, increased importance of SD tourism should be recognised by statistical authorities. A promise for more unified and harmonised data sources for measurement of SD visitor statistics is given in the forthcoming EP Council resolution on tourism statistics. This will amend data availability and quality for compilation SD tourism statistics within in TSA.

Nevertheless, the complete TSA will still require exploitation of data sources outside official statistics and cooperation with other stakeholders.

4.2 Estimation of tourism specific product structures and the differentiation between connected and non-specific products

The identification of good practices for the compilation procedure of getting the TSA specific product structures with 20 tourism characteristic products depends on the number of available data sources from the demand and supply side perspective, and on the level of detail of the available data sources. The same is also the case for the differentiation between connected products, which can be separately defined by each country, and non-specific products or industries.¹

Countries with tourism surveys providing a high detail level for product classifications can compile the different TSA tables at 2-digit or maybe 3-digit-level. There are some countries like Denmark, France or Hungary which determine more detailed tourism characteristic products categories within their national TSA than is recommended within the TSA-RMF 2000.

Nevertheless, one must be aware that in general it is almost impossible to define a TSA product structure by using a single statistical source. On the contrary, in view of the present implementation practice there is still a wide range of estimation approaches, of the major references used, and of the degree of detail achieved. In most countries the internally available unpublished data from the Input-Output framework (IOT & SUT), SBS and consumption statistics (HBS, household surveys) are the preferred base data sources. The use of the different sources requires a cross-classification between these sources and the related classifications.

Country experiences

The reference to a group of countries as good practice examples for this matter is not so direct since it depends on the characteristics on the national statistical system. Several countries mentioned the explicit use of bridge-tables or similar tools of correspondence for the derivation of the recommended tourism specific product structure (i.e. Germany, Denmark, Spain, Hungary, Netherlands, Portugal). In the past, the separate identification of tourism-connected products in most of the TSA countries has not been undertaken.

¹ The new TSA-RMF 2008 distinguishes only 12 tourism characteristic activities and products. They are included as two different subsets: A.1.i 'Internationally comparable tourism characteristic products' and A.2.ii 'Country-specific tourism characteristic products'. The latter have to be determined by each country and replace the category of 'Connected products' mentioned within the former TSA-RMF 2000. That the reason why they are conceptually excluded within the new TSA-RMF 2008.

4.2.1 Pre- and post-trip expenses

The TSA displays total expenditure or consumption made for tourism purposes in a tourism context. This includes not only the expenses made during the trip but also those made before if they are connected to this trip.

In the previous version of the TSA-RMF 2000, to which the country compilation methodologies refer to, there was no explicit list of tourism single-purpose and multi-purpose consumer durables. If a product which is presently considered as single tourism purpose was acquired outside of the trip context, it could in fact be excluded from the tourism consumption. Nevertheless, TSA-EIM gave some criteria that help defining pre-trip consumer durable purchases.¹

It seems to be logical that pre- and post-trip expenses are defined as tourism expenses when they are indeed made for tourism purposes. All countries that envisage any type of estimation on pre- or post-trip expenditure use tourism expenditure surveys as a data source: domestic, inbound or outbound. Estimations can be based either on direct survey questions on the timing and amount of expenditure. Problems mostly arise when these expenditures are not considered in tourism expenditure surveys. If these expenses are made outside the context of a trip, they may easily be forgotten or easily be dissociated from the trip.

The Domestic tourism survey, collected by the EU countries under the Council Directive 95-57-EC, foresees the collection of the number of nights spent on the country of reference when it is not the main destination. From this data, at least accommodation services either pre or post outbound trips can be estimated.

Another aspect concerns the consideration of pre-trip expenditure of non-residents on output produced by non-resident production units, as for instance the commissions charged by non-resident travel agencies or travel insurance. This amount should in fact be excluded from inbound tourism consumption. If tourism expenditure surveys of the country of reference do not make this kind of information available, mirror statistics from origin countries could be useful.

The new IRTS 2008 defines the scope of 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. Following the present guidelines (see paragraph 4.4), all kinds of services used for the trip preparation are to be included in tourism consumption or expenditure. The most common examples of services paid before the trip takes actually place are those from travel agencies and tour operators, accommodation and transport. The same applies to small goods, as for instance a tourism guidebook, and for post-trip products, like photography goods and services.

Moreover, regarding consumer durable goods (CD) with tourism single-purpose, they should always be included independently of the timing of the purchase (TSA-RMF 2008, paragraph 2.41 and 2.42). In the case of multi-purpose consumer durables, they should only be included when acquired during the trip.

¹ see section 4.2.7.2 (TSA-EIM 2001)

Country experiences

Generally, EU countries consider tourism pre-trip expenditure, especially domestic pre-trip expenditure; travel agencies' services, accommodation services and transport services are the most commonly considered. The domestic component refers sometimes only to the outbound component of domestic tourism. Post-trip expenditure is explained in less detail, but at least half of the countries consider them, even if only partially. That is the case of Denmark, Germany, Slovenia, Czech Republic, Poland, Austria, Finland, and Hungary. Besides pre-domestic and pre-outbound expenditure, Spain also offers an estimation regarding inbound pre-trip expenditure that is however excluded from the Spanish TSA, since it does not fall into the scope of the TSA Spanish economic of reference. The Czech Republic surveys inbound pre-trip expenditure by border survey, too. But as a part of inbound tourism consumption only the estimation of the part of expenses paid in the country of the non-resident to the Czech resident units that provide the services (e.g. accommodation) is considered.

4.2.2 Consumer durables (CD)

Durable goods are those goods that may be used for more than one economic period (SNA 1993, §9.38). When acquired by households they are considered as consumer durable goods.

The TSA-RMF 2000 does not foresee the special category of tourism single purpose CD though it admits the existence of durables used for tourism purposes and, as any other durable, can be purchased at any time: before, during, after the trip or outside the context of a trip.

The timing of recording is important for deciding whether it is tourism expenditure or not. For this reason, the TSA-EIM presents some criteria that CD bought before the trip should respect in order to be considered as tourism expenditure.¹ Those criteria are: CD whose nature limits them to the use on trips, CD which are items designed for use on trips away from home, CD which comprise furniture, appliances and other items located in second homes, CD whose tourism usage depends on the location of the purchaser residence, and CD which are purchased in the preparation of or for anticipation of a trip. In any other case, as for multi-purpose CD, they would only be considered as tourism expenditure if they were purchased during a trip.

Within the new TSA-RMF 2008 CD and valuables of high unit value are clearly included in tourism expenditure, if purchased on trips.

From a tourism perspective, and for tourism compilation purposes, the TSA-RMF 2008 proposes a list of tourism single-purpose CD, but leaves it an open list for the countries to complete it according to their realities (TSA-RMF 2008, Annex 5). They can be identified as those used exclusively, or almost exclusively, for trips – like luggage and camping equipment – and for that they should always account for tourism expenditure.²

The remaining CD are those that can be used in multiple circumstances and are not exclusively used on trips – like cars and cameras – which are defined as multi-purpose CD. They should only be included within TSA compilation when acquired during the trip.

¹ see section 4.2.7.2 (TSA-EIM 2001)

² The tables of the TSA-RMF 2008 explicitly introduce the new separate product category B.1 'Valuables'.

There are two additional comments regarding the treatment of CD within TSA compilation. The first refers to the situation when a consumer (single- or multi-purpose) durable bought during a trip is sold again after the trip. In this case only the difference between the original purchase and the price for which it has been sold should be considered in the TSA. Such practices should in neither case be applied for simple merchandise products. The decision is left to the countries including or excluding consumer durables of high unit value, like cars and boats.

Country experiences

Regarding the implementation practice, there is not straightforward attitude yet. The most common practice among countries still is to consider single-purpose consumer durables but not multi-purpose consumer durables, especially those of high value items. This is the case of Ireland, Spain and Austria. The Czech Republic and the Netherlands explicitly display some kind of CD. The latter consider both single- and multi-purpose consumer durables when these goods are considered recreational goods. This is done only for residents, and the data is obtained mainly from the supply side.

At the moment one of the main problems on tourism related CD is that they are not harmonised across countries. Taking the example of caravans, some countries define them as a tourism single-purpose good and others as a multi-purpose good.

Specific data on this kind of expenditure is usually derived from tourism expenditure surveys (and is accordance with the methodology used by these surveys), or as pointed out, from supply side data.

4.3 Estimation of the services of travel agencies and tour operators “net”

There is a methodological discrepancy between TSA and NA manuals in that it refers to the valuation criteria of package tour. The different valuation criterion implies that, when the Supply and Use Tables (SUT) are used to compile the T5, the former have to be transformed accordingly to the recording of package tour from the TSA perspective.

The “net valuation” of the services of the travel agencies (TA) and tour operators (TO) considers a specific treatment for production (T5) and consumption (T1 - T4). The concept of net valuation is a special accounting feature of the TSA to separate the intermediation margins from the provided services (accommodation services, transport services, restaurant services etc.). The net valuation of TA services and package tours (PT) constitutes one of the methodological specificities of the TSA, meaning that consumption and production are allocated to the actually consumed products and not entirely to tours operators services.

Though TSA requires a net valuation expenditure surveys on the demand side usually ask for a gross valuation version of the amount of TO services (since visitors do not usually know the monetary amount concerning each PT component). For multiple realities, the “net valuation” of the package tours may consider different types of approaches or solutions regarding the type of tourism and the information on available data sources.

4.3.1 The TSA definition of package tours

In the TSA-RMF package tours are defined as "...complex products offered to the visitors, which are made of a mix of a variety of elementary tourism products such as transport, accommodation, food services, recreation, etc". Another characteristic of PT is that in most cases - although visitors know the set of tourism related products that are included in the PT they purchase - they are not aware of the costs of the services that are included. This fact will have implications on the manner the information required for TSA purposes is to be obtained.

From the accounting point of view, there are two different criteria that could be applied: On the one hand, PT might be deemed a new synthetic service that is produced by TO - this is the so-called gross valuation of PT. On the other hand, PT are not regarded as a new product according to the net valuation, but as a way to go about marketing the tourism services they might comprise. That is to say, TO act as intermediaries that sell tourism related products for which they charge commissions.

It should be borne in mind that at present, in many countries the ratios of the number of visitors travelling with a PT may be rather significant. Hence, if in these countries the unbundling of PT is not correctly carried out in the TSA framework, then it could give rise to some difficulties at the time of balancing supply and demand in T6, and subsequently the tourism ratios and the gross value added of the tourism characteristic industries could provide misleading estimations of the impact of tourism.

4.3.1.1 The valuation of package tours in the National Accounts

The accounting principles for PT in the scope of NA can be interfered from the different accounting rules applied to the TA industry and to the TO industry. In particular, ESA 1995 paragraph 3.62 states that

- "The output of TA services is measured as the value of service charges of agencies (fees or commission charges) and not by the full expenditures made by travellers to the travel agency. The latter may e.g. also include charges for transport by third parties.
- The output of TO services is measured by the full expenditure made by travellers to the TO.
- The distinction between TA services and TO services is that travel agency services amount only to intermediation on behalf of the traveller, while TO services create a new product, i.e. a tour is arranged of which the prices of its various components (e.g. travel, accommodation and entertainment) are not recognizable as such for the traveller".

The above statements make a crystal clear distinction between two different production units:

- **Retail travel agencies:** traditionally established to render reservation services to tourists related to their trips. The basic principle is that TA act as intermediaries between the tourists and the tourism services providers (hotels, transportation, car rental etc). The output of TA thus stems from the fees or commissions charged to the tourists for these intermediation services. This accounting criterion for this industry is fully in line with the net valuation.

- **Tour operators** that are specialised in putting together tourism related services to produce PT. As a consequence of PT being considered as a new product, the output of this industry is the full expenditure paid by the visitor for the PT. Consequently, the accounting principle applied to TO industry is the above mentioned gross valuation.

Therefore, both accounting principles are used in NA: the net valuation for TA, while PTs are valued on a gross basis. Nonetheless, this dichotomy set up by ESA 1995 between TA and TO is not so evident in the real world nowadays, and it is fairly common that both industries produce PT and reservation services related to trips. This fact will have implications on the way the data required for the transition from a gross to a net valuation has to be obtained.

4.3.1.2 *The valuation of package tours in the TSA*

The following paragraphs of the TSA-RMF 2000 paragraphs are devoted to PT:¹

- §3.46. "TO are businesses that combine two or more travel services (e.g., transport, accommodation, meals, entertainment, sightseeing) and sell them through TA or directly to final consumers as a single product (called a PT) for a global price. The components of a PT might be pre-established or can result from an "a la carte" procedure, in which the visitor decides the combination of services he/she wishes to acquire".
- §3.47. "TO usually operate in their own name and on their own account. The operator initially acquires from the tourism producers different services that are combined and offered as a single, complex product to customers, either directly or through TA. This product usually embodies the services of transport and one or more of the services of accommodation, meals, sightseeing, entertainment, and other services that visitors require, as well as the service of the TO himself. In most cases, the visitor is not aware of the distribution of the expenses among the components, and has no direct contact with the providers of the services prior to the trip. Often, the TO puts himself at risk with the providers of the services included within the PT, and must pay them penalty fees if the packages do not sell".
- §3.48. A PT might be seen to comprise a completely new, if synthetic, tourism product. Its classification and treatment within national accounts and balance of payments has traditionally posed difficulties, but a final conclusion has not been proposed in the present recommendations. Is it to be considered as a product per se, independent from its components, which would be considered as inputs to the production of this new product? Or, on the contrary, is it to be considered a marketing procedure, used to sell its components?
- §3.49. "For the purpose of a TSA, a PT is not considered as a product in its own, because the buyers of these products would then no longer be purchasing the embodied tourism services ..."

¹ In the new TSA-RMF Annex 3 presents in detail the consequences of a consistent valuation of reservation services (provided by travel agencies, tour operators and others) based on the gross margin that they generate for the TSA tables and the content of the different categories of tourism consumption.

Albeit some of the above statements (e.g. that PT might be considered as a new synthetic product or that TO operate on their own account, taking over the risks derived of the production of the PT) are clearly related to the gross valuation of PT, there is not doubt that according to paragraph 3.49, for TSA purposes, PT should be valued on a net basis.

It is important to highlight that regardless of the valuation criteria applied; very detailed information is required for the correct treatment both in the NA and in the TSA. At this point it should be recalled that the visitor usually knows the services comprised within the PT and the total price paid for it, but he/she is not aware of the costs of the various tourism services it may include. To obtain the data needed it is therefore necessary to resort to supply side information by addressing a questionnaire to both TA and TO.

4.3.2 The transition from gross to net valuation of package tours

It is evident that the accounting principles for PT in TSA do not coincide with those proposed in NA and, in particular, in the SUT. For this reason, if SUT are taken as a starting point for the estimation of the TSA, it is necessary to accomplish a set of adjustments in the TSA prior to the compilation process of the TSA. In this respect it should be borne in mind that, according to the TSA-RMF, T1 to T6 have to be compiled according to the net valuation criterion.

As mentioned before, the gross valuation derives from the idea that PT is considered a new product. This implies that, when a tourist purchases a PT, this expenditure should be recorded in the use-table as household final consumption (HFC) on the product PT. As a consequence, the tourism services which have been acquired by TO as inputs for the production of the PT have to be considered as IC for this industry.

On the contrary, in the net valuation it is assumed that travellers purchase the services included in the PT directly from the service provider (hotels, airlines, car rentals etc). The expenditure on these services thus would have to be registered in the use-table as HFC on the corresponding products. The transition from the gross to the net valuation accordingly has the following effects in the main macroeconomic aggregates:

- From the demand point of view (use-table), a portion of the IC of the TO industries (those link to the services included in the PT) has to be reallocated from IC to HFC. Simultaneously, the HFC of PT has to be reduced by the same amount, so the total figure of HFC remains invariable although the composition by products is modified.
- From the supply side, given that IC of the TO industry and of the total economy have been reduced, the output of this industry and of the total economy are reduced by the same amount, thus the GVA on the different industries remain invariable.

The transition from gross to net valuation has no effect in the GDP of the economy of reference. Nonetheless, it should be taken into account that the net valuation of PT gives rise to discrepancies in the total input, the total output and on the composition of HFC by products in comparison to the related national SUT.

4.3.2.1 A practical example

In order to show in a more illustrative manner how these adjustments have to be carried out, a practical example is introduced. Let's assume that a tourist pays 720 Euro for a PT. The commission charged by the travel agency is 70 Euro, while the margin charged by the TO is 30 Euro. Moreover, the PT includes also the following services:

- Hotel services (250 Euro)
- Transport services (300Euro)
- Restaurant services (50 Euro)
- Car rental (20Euro)

4.3.2.1.1 Gross valuation

This section shows how these transactions from the NA perspective (gross valuation) should be recorded.

Supply table

First of all, the output of the tourism related industries will be recorded in the supply-table, whose production has been used as inputs by the TO to produce the PT (hotel services, transport services, restaurant services etc). In the example it is assumed that the total output these industries is purchased by the TO, thus the output of hotels obviously is 250 Euro, for the transport industry it is 300 Euro, and so on.

Table 8: Gross valuation in the supply table

Supply table (gross valuation)

	Hotels	Restaurant	Transport	Car rental	T.O	T.A	Total output
Hotels	250						250
Restaurant		50					50
Transport			300				300
Car rental				20			20
PT					650		650
T.A						70	70
Total output	250	50	300	20	650	70	1340

As mentioned before, the output of TA industry is defined as the commissions charged, 70 Euro in this example. Concerning the output of the TO, the above ESA 1995 paragraphs can be interpreted in two different ways:

On the one hand, the output of the TO industry is defined as the full expenditure that the tourist has paid for it (720 Euro). This implies that the 70 Euro commission charged by the TA would be also considered also as intermediate consumption of the TO industry.

The second solution derives from applying the definition of the output of the TA industry in a first step. Hence the 70 Euro commission charged by the TA is considered as the output of this industry, while the difference between the price paid for the PT minus the fee charged by the travel agency ($720 - 70 = 650$) is the output of the TO industry. For this example, the SUT have been compiled according to this approach, and as the supply table shows, the total output of the economy is 1.340 Euro.

Use table

From the demand point of view, the gross valuation implies that in the cell of HFC for the product PT has to be filled in the total value of the PT: 650 Euro (if the first approach had been adopted, then the amount of this cell would have been 720 Euro). Moreover, taking into account that the second approach has been applied, the intermediation services rendered by the travel agency to the traveller for a value of 70 Euro should be recorded as HFC (it would be zero if the first approach had been applied).

The gross valuation implies that the tourism services included in the PT should be recorded as intermediate consumption of the TO industry, as is illustrated in the column devoted to the TO industry in the table below. The GVA of this industry is calculated as the difference between the output and the total IC ($650 - 620$).

Table 9: Gross valuation in the use table

Use table (gross valuation)

	Hotels	Restaurant	Transport	Car rental	T.O	T.A	Total I.C	HFC	T D
Hotels					250		250		250
Restaurant					50		50		50
Transport					300		300		300
Car rental					20		20		20
PT								650	650
T.A								70	70
Total I.C.					620		620	720	1340
GVA	250	50	300	20	30	70			

4.3.2.1.2 Net valuation

This section shows how these transactions from the NA gross valuation principle have to be transformed to the TSA net valuation principle of PT.

Supply table

According to the net valuation, the production of the TO industry should be equal to the margin applied to the PT (30 Euro) instead of the total value of the PT in the gross valuation criterion. Obviously, this reduction of the TO output is also reflected in the total output of the economy, which reduces from 1.340 Euro in the gross valuation to 720 Euro.

Table 10: Net valuation in the supply table

Supply table (net valuation)

	Hotels	Restaurant	Transport	Car rental	T.O	T.A	Total output
Hotels	250						250
Restaurant		50					50
Transport			300				300
Car rental				20			20
PT					30		30
T.A						70	70
Total output	250	50	300	20	30	70	720

Use table

The net valuation assumes that the traveller himself directly buys the services within the PT at the hotels, airlines etc. and hence the TO is just acting as an intermediary between the tourism services providers and the traveller. These assumptions have two implications:

First of all, it is considered that all the services within the package should not be registered as intermediate consumption but as HFC.

Secondly, as from the supply point of view the output of TO is defined as the margin charged to the PT, this margin has to be recorded as HFC of the PT product from the demand point of view. As can be observed in the above table, no intermediate consumption is recorded in the intermediate consumption matrix.

Table 11: Net valuation in the use table**Use table (net valuation)**

	Hotels	Restaurant	Transport	Car rental	T.O	T.A	Total I.C	HFC	T D
Hotels								250	250
Restaurant								50	50
Transport								300	300
Car rental								20	20
PT								30	30
T.A								70	70
Total I.C.							0	720	720
GVA	250	50	300	20	30	70			

4.3.2.1.3 Conclusions

As can be seen from the above sets of supply and use tables, the net valuation decreases the level of output of the TO industry for 620 Euro so that it is equal to the sum of the value of the services included in the PT. Simultaneously, there is an equal decrease of the intermediate consumption. Thus the gross value added remains invariable.

Although the figure of final demand is the same (720 Euro) in both valuation criteria, its composition by products is completely different; according to the gross valuation only two products are deemed to be consumed by the traveller (TA services and PT) while the net valuation assumes that the traveller himself consumes all the products within the PT.

4.3.2.2 Specific data sources

To be able to accomplish the required adjustments for the transition from the gross to the net valuation, data on the components of the PT and the commissions and margins charged by both TA and TO are needed. At least some of these pieces of information should be available in the national SUT.

As was pointed out at the beginning of this excursus, travellers know the tourism services comprised within the PT, but usually they are not aware of the distribution of the expenses among the components. For this reason, it is necessary to identify possible statistical sources.

A first issue to take into consideration is that the distinction between TO and TA is not evident presently. Most of the TO - apart of their primary output (the PT) - also produce TA services as secondary activity. A similar situation could be applied to TA, whose primary

activity is to produce TA services, but they usually produce PT as secondary activity. Therefore, two sets of data should be collected from both TO and TA:

- On the one hand, the enterprises should provide information on their revenues and derived from their activity as travel agency (from selling tourism services non-commercialised in a PT). By subtracting from these revenues the payments to the corresponding tourism service suppliers, the commissions that enterprises charge when acting as TA are calculated.
- On the other hand, it is necessary to obtain relevant data related to the PT of both the PT that have been “produced” by the enterprise surveyed itself and those that have been sold but were produced by other companies.
 - PT produced by the TO or TA itself: Information on the revenues from selling these PT and on the expenditures related to the products that they include are needed. The margins then can be calculated as the difference between total revenues and total expenditures.
 - TO and TA surveyed can also sell PT that have been produced by other TO. In this case the commissions charged can be easily obtained by subtracting to the revenues coming from these PTs the total amount paid for them.

As a matter of interest, the Spanish questionnaire addressed to the TO and TA is included as a useful reference.

Figure 26: The tour operator and travel agencies module within the Spanish annual services survey (part 1)

Annual Services Survey	
Tour Operators and Travel Agencies Module	
Fill in this questionnaire after the general questionnaire of the Annual Services Survey 2004	
I. Business amount	
I.1.Detail of the revenues by services	
Detail the main products and services	
The percentage must be according to the C.1 part	%
I. Package tours	Of business
1. Package tour carried out by the own company (if this percentage are equal to 0, go J.I.1)	<input type="text"/> %
2. Package tour carried out by other companies	
2.1. Carried out by national companies	<input type="text"/> %
2.2. Carried out by foreigner companies	<input type="text"/> %
3. Commissions associated to Package tours	<input type="text"/> %
II. Individual services no included in Package tour (gross revenue)	
1. Accommodation services	<input type="text"/> %
2. Food and beverage services	<input type="text"/> %
3. Transport (transfer included)	
3.1. Railway	<input type="text"/> %
3.2. Road Transport	<input type="text"/> %
3.3. Air Transport	<input type="text"/> %
3.4. Sea Transport	<input type="text"/> %
4. Car Rental	<input type="text"/> %
5. Other (1)	
Detail: <input type="text"/>	<input type="text"/> %
III. Commission for intermediation service (Package tour no included)	
	<input type="text"/> %
IV. Other	
Detail: <input type="text"/>	<input type="text"/> %
TOTAL	100,00 %

Figure 27: The tour operator and travel agencies module within the Spanish annual services survey (part 2)

J. Detail of the expenditure by products and services And Supplier location					
Detail (%) the main products and services. Percentages must be equal to part B.1.					
	Supplier location				
	Total	Spain	EU No Spain (2)	Rest of the world	
I. Package tour					
1. Expenditure of Products and Services included into the Package Tourism elaborated by the own company					
1. Accommodation services			+	+	= 100,00 %
2. Food and beverage services			+	+	= 100,00 %
3. Passenger transport: (transfer included)					
3.1. Railway			+	+	= 100,00 %
3.2. Road Transport			+	+	= 100,00 %
3.3. Air Transport			+	+	= 100,00 %
3.4. Sea Transport			+	+	= 100,00 %
4. Car Rental			+	+	= 100,00 %
5. Tourism information and Tourism Guide			+	+	= 100,00 %
6. Recreational and cultural service and other entertainment(3)			+	+	= 100,00 %
7. Financial services and insurance (4)			+	+	= 100,00 %
8. Commission paid between agencies			+	+	= 100,00 %
9. Other					
Detail:			+	+	= 100,00 %
2. Expenditure in Package tour carried out by other companies			+	+	= 100,00 %
II. Expenditure in products and service no included in Package tours			+	+	= 100,00 %
III. Other expenditure					
Detail:			+	+	= 100,00 %
TOTAL	100,00				

Thanks for your Co-operation

4.3.3 The general compilation methodology

The transition from gross to net valuation of package tours typically starts with the estimation of a total amount spent on TO and TA using supply side statistics, like the SBS or fiscal sources. TA and TO provide services that can be considered as 100% tourism services. Some

countries have also specific modules within their SBS (e.g. Spain) or a specific survey addressed to these industries (e.g. Lithuania). The usage of relevant data requires extra care and sensibility since it is common that TA and TO do not register the monetary flows of PT in a harmonised way.

In a next step, the production of TO has to be separated from that of TA. This is also done mostly by means of supply side data sources, namely for those units that contributed to the NA estimation for this product and/or industry aggregates.

After estimating the total TA and total TO, a part of TA services can then be allocated to tourism business purposes and the remaining amount, to household final use consumption. TO can have the same kind of split between business tourism purposes and final consumption. A reasonable simplifying hypothesis is to consider that PT are consumed only by households (e.g. Spain, Austria, Germany and Portugal). Finally, the TO component can be broken down by type of product (i.e. accommodation services, transport services etc.) for all services that are part of the package, and the intermediation margin.

For TSA purposes it is also important to split household consumption according to the residence: non resident consumption should be allocated to T1, resident consumption to T2. The ratio to make this kind of split can be estimated by means of demand side surveys.

Regarding the list of products of the PT, it is important to determine the amount and/or the structure by product of the TO intermediate consumption, since it is this intermediate consumption (IC) that will be cleared from the IC of TO and transferred to the consumption of the respective products due to the net valuation. Country NA departments have probably carried out intermediate consumption studies in the course of compiling national IOT and SUT. The balance between resources and uses in the SUT, if available, is a very important reference in terms of balance among all the concepts and possible cases within the TO, PT and TA reality. The list and structure of PT related products can also be checked by demand side sources (e.g. in tourism expenditure surveys asking about the organisation of the trip and what kind of services were bought in the PT).

For TSA compilation purposes, the net valuation should only consider the parcels of products from the PT that are produced by resident units. Demand side surveys and mirror statistics from border countries are possible data sources to acknowledge the residence of the producers of the TO and TA services. If the estimation of the amount of these services provided by non-residents to resident visitors in an outbound trip context is feasible, those values should be registered in T3. Simplifying hypotheses are necessary since it is difficult to acknowledge the residence of the provider of the PT services, the residence of the TA that sells it, and the residence of the consumer, all within the same data source.

After having identified the value of the different components of the PT and of the intermediation margins (the actual production of the TO), the net version of T5 consists merely of an algebra operation by decreasing the production of this industry in the amount of the total value of the PT at basic prices (only intermediation margins of TO and TA remain as production of the product TA and TO) and deducting the value of the different components of the PT at basic prices (such as accommodation, transports, insurance services, recreation and culture etc.) to the respective products in IC of the TO industry.

The value of the different components of the PT that is deducted from the respective products

in IC should be equal to the value summed up to the corresponding products in the net valuation in T1, T2, T3 and T4. Those additional adjustments regarding imports included in the outbound tourism PT (because they are not part of the domestic production and therefore should not be included in T1, T2 and T4 but in T3) should also be reflected in IC; IC should not include those parcels of T3 in a net valuation version of T5 and T6. The reallocation of IC should be based on the same data sources and methodologies defined for the compilation of the TSA production matrix.

Concerning the split of TO and TA services between the usage of tourists and same-day visitors, there are some suitable hypotheses that can be made on the basis of a more general reasonability and considering the actual situation of the country. For instance, Austria held that non-residents did not spend anything on Austrian domestic TA or TO services; in this case, gross and net valuation coincide in T1.

Country experiences

Some countries like Ireland unbundled the PT before clearing it from the intermediation margin. Only after a product breakdown is made, a percentage of intermediation margins is applied and the accommodation, transport services etc. are then cleared from that parcel. A margin for each product of that package can be considered separately or an overall margin for the entire package can be applied. The sum of all those margins is then allocated to TA and TO services. The referred percentage of intermediation margin can be estimated via NA margins estimations, based on the supply side data, namely from wholesale and retail trade industries.

Estimates of net value of services of TA and TO TSA in Slovenia for TSA 2003 were based on data on the total output for these industries taken from supply tables. On this basis, the net contribution of TA and TO was estimated by using data on intermediate consumption taken from database on accounting business reports. These estimates were validated by interviews with professionals from TA and TO. The net value of services of TA and TO was allocated among different types of tourism on the basis of data from the statistical surveys of Slovenian travel agencies.

4.4 The treatment of housing services provided by vacation homes on own account

The following paragraph explains the practical treatment of housing services provided by vacation homes on own account within the TSA.¹

4.4.1 National Accounts methodology

The ESA 1995 explicitly asserts in paragraph 1.13 that “own-account production of housing services by owner-occupiers fall within the production boundary”. Once it is clear that the

¹ Within the former TSA-RMF 2000, these transactions have been called housing services provided by second homes on own account or free of charge (par. 271). In the terminology of the new TSA-RMF 2008 they are called “vacation homes”.

output of own account dwelling services has to be recorded in NA, then a new problem emerges: As the output of these services is not sold on the market, how are these own-account dwelling services supposed to be valued? In this respect, ESA 1995 states in its paragraph 3.64 that “... the output of services of owner-occupied dwellings should be valued at the estimated value of rental that a tenant would pay for the same accommodation, taking into account factors such as location, neighbourhood amenities, etc. as well as the size and quality of the dwelling itself ... The rental value of owner-occupied dwellings abroad, e.g. holiday homes, should not be recorded as part of domestic production, but imports of services and the corresponding net operating surplus as primary income received from the rest of the world. For owner-occupied dwellings owned by non-residents, analogous entries should be made”.

By valuing the own account dwelling services at the real market price, the estimation of the main macro-aggregates that are used for establishing the contribution of Member States to the EU budget and for the granting of EU funds are not affected by the ratio of owner-occupier to rented dwellings, since the own-account dwelling services are just treated as if they were real or market dwelling services.

4.4.2 TSA methodology

The following paragraphs of the TSA-RMF 2008 are most relevant paragraphs with regard to the treatment of housing services provided by vacation homes on own account:¹

- §2.37. “For the sake of comparability between households renting their dwellings and those occupying a dwelling tem own, and because of the importance of housing expenses within the current expenditure faced by a household, the SNA 1993 recommends the imputation of a housing service on own account for all dwellings occupied and used by their owners. When this occurs, the value of housing services is estimated, based either on the characteristics of the dwelling and costs of maintenance or, when an active and representative rental market exists, on the actual average market rental for similar units.
- §2.38. “This recommendation does not apply only to the principal dwelling of a household but to all other dwellings owned and retained for the use of its members; thus, it also applies to vacation homes used on own account. The value of the housing service has to be imputed, both as a production activity for the owner and as part of tourism consumption. This service is part of tourism supply and of tourism consumption irrespective of whether the dwelling has been actually visited in the period of reference on a tourism trip or not.”
- §3.14. “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

¹ Besides that the TSA-RMF 2008 also includes sharing arrangements and other innovative types of vacation home ownership (par. 3.18 to 3.20).

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.

- §3.17. “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 (SNA 1993, paragraph 9.59).”

From the above paragraphs it can be derived that from the TSA standpoint, the imputation of own-account housing services is consistent with the accounting principles stated by the NA. The only peculiarity is that in the case of the TSA this imputation is only referred to vacation homes, given that these are only liable for tourism purposes, as the main house is by definition located in the household’s usual environment.¹

Nonetheless, the estimation of housing services by second homes on own account does not pose any specific problem from the TSA perspective with respect to NA. If in NA the output of own-account dwelling services for the households’ main dwelling and the output of vacation homes are calculated separately, then the estimation of such services from the TSA perspective does not pose any specific problem.

4.4.3 The approach to estimate own account housing services: The stratification method

As mentioned above, the output of own-account dwelling services - and subsequently the demand of these services - should be valued at the real market price of the corresponding house and the real market price is defined in ESA 1995 paragraph 3.64 as “...value of rental that a tenant would pay for the same accommodation, taking into account factors such as location, neighbourhood amenities, etc. as well as the size and quality of the dwelling itself”.

Notwithstanding, the ESA 1995 criterion is not clear on what should be understood as “the same accommodation”. Consequently, and taking into account the significant effect that this imputation might have in the GDP and GNP, the Commission approved a Decision in which the approach to be used by Member States for estimating the own-account dwelling services is described in full detail.² According to this Decision, the method to be used for the estimation of own-account dwelling services should consider the following principles:

- First of all, the approach used to estimate these services has to be based on the so-called stratification method, according to which all the stock of dwellings in the economy of reference have to be classified in different strata, depending on the characteristics of the houses.
- Secondly, the relevant stratification variables are to be selected by means of statistical techniques. The Decision explicitly asserts that “in order to guarantee comparable

¹ The IRTS 2008 explicitly excluded vacation homes from the usual environment.

² Commission Decision of 18 July 1995 specifying the principles for estimating dwelling services for the purpose of implementing Article 1 of Council Directive 89/130/ECC, Euratom on the harmonization of the compilation of gross national product at market prices

results, a correlation coefficient of at least 70% is recommended as threshold” when a multi-regression analysis is used to choose the stratification variables.

- Thirdly, for each stratum the actual rent is needed, and this rent is understood as the rent due for the right to use of an unfurnished house of those characteristics.

Thus, the own-account dwelling services can be easily calculated by multiplying the average actual rent of each stratum by the number of houses within that stratum.

$$ODS = \sum_{i=1}^k R_i \times n_i$$

Where ODS is the total output of own-account dwelling services, R_i is the average actual rent for stratum i , and n_i is the stock of dwellings in stratum i .

This approach is applied to the whole stock of owner-occupied dwellings in the economy of reference, including both the household’s main housing unit and second houses that are used for leisure purposes during short periods of time and weekends. It is evident that it is the output of these holiday homes that is relevant for TSA purposes, since the households’ main housing units does not fall within the scope of the TSA framework.

Obviously it does not seem very sensible that the average actual rent used to estimate own-account main housing unit services should be also applied to estimate housing services provided by vacation homes on own account, because somehow the actual rents of vacation homes should reflect a lower occupation time.

Thus, the most suitable approach to estimate the output of vacation homes - which is the one proposed in the Decision - would consist in dividing the stock of holiday homes into separate strata from those for main housing units, according to the specific characteristics of these vacation homes, such as the geographical location (seaside, mountain, etc), their amenities, characteristics of the building etc. For each stratum of vacation homes, an average actual annual rent for vacation homes is subsequently needed (these actual annual rents of vacation homes implicitly reflect the average time of occupation of these types of dwellings).

Although the reasoning of the approach above is rather simple, it is a time consuming method that requires a great amount of very detailed information on the stock of dwellings (their number, their characteristics, the real rents etc). Therefore, it is recommended for practical reasons to apply the stratification method for the year of reference of the most recent dwelling and population census. For the rest of the years, the Decision allows member states to extrapolate the figures by using quantity and price indicators.

4.4.4 The recording of transactions linked to vacation homes services

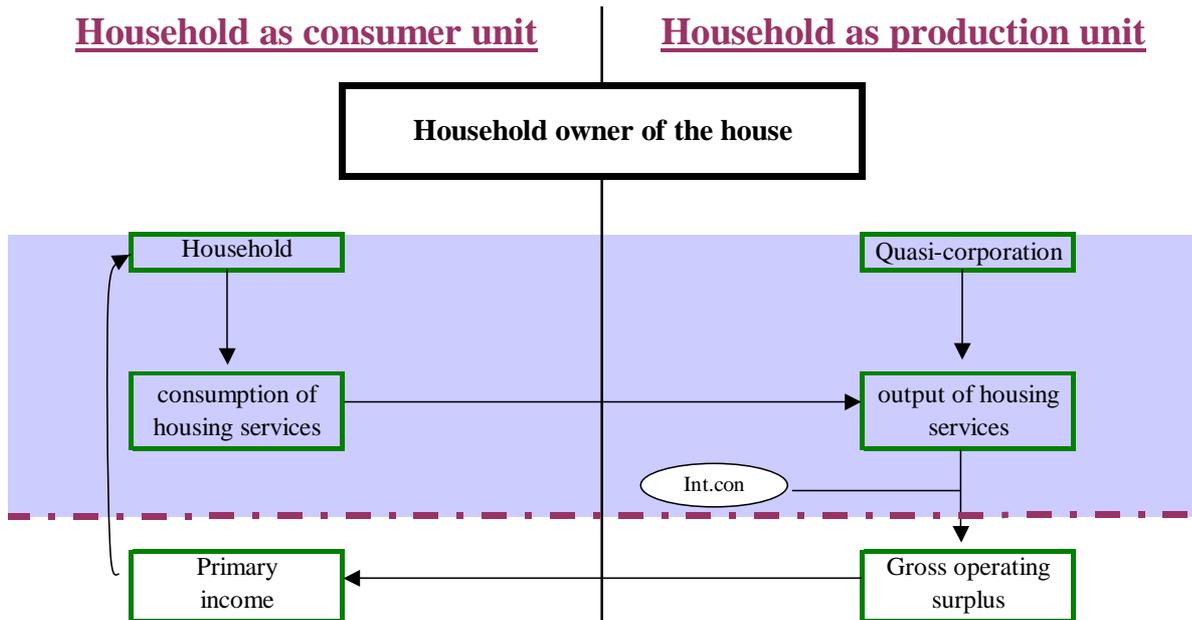
At the time of analysing the accounting treatment of dwelling services, it is first necessary to recall that the “real estate industry”, according to the international classifications, comprises both real dwelling services and own-account dwelling services.

The estimation of the output of real dwelling services does not pose any specific problem from the NA point of view, since these services constitute a transaction between a market production unit (the real housing service providers) and the tenants. Consequently, these transactions are recorded in NA as an ordinary market transaction.

In the case of own-account dwelling services, some peculiarities arise from the fact that when

a household occupies its own house, there is no real market transaction between two different units. Nonetheless, in order to ensure the international and the inter-temporal comparability of the data, it is assumed in NA that the production of own-account dwelling services falls within the production boundary. Obviously, if the output of these services is included in the estimations from the supply point of view, then all the concomitant transactions such as consumption, intermediate consumption, income etc. derived from second home services have to be recorded as well.

Figure 28: Economic flows linked to owner occupied dwellings



To record these fictitious transactions, it is assumed in NA that the second home itself is considered a quasi-corporation whose only activity is to produce housing services. The total output of these dwelling services is deemed as if it were purchased by the household who owns the house, and so recorded as household final consumption. The house, in its capacity as quasi-corporation, produces and “sells” dwelling services, and during this production process it generates a gross operating surplus that is in turn received as property income by the proprietor household. All these fictitious economic flows are represented in a schematic manner in the following figure.

In contrary to usual houses, the economic territory where the vacation house is located and the economic territory of residence of the proprietor households do not necessarily have to coincide. At this point it is important to recall some of the ESA 1995 accounting principles (§2.12 and 2.15). According to these principles, the quasi-corporation (vacation house) is a resident production unit in the economy where it is located, regardless of the country of residence of the proprietor household. As a consequence, for the recording in the TSA and NA of the fictitious economic flows summarised in the above figure, it is necessary to take into account whether those transactions are carried out between two resident units or between a resident and a non-resident unit.

The following table 12 resumes the transactions illustrated in the above figure according to the economy of residence of the proprietor household and the economy of residence of the

quasi-corporation that coincides with the economy where it is located. For the economy of reference there are three cases of interest, as the fourth one (the grey box) is referred to the transactions between two non-resident units.

Table 12: Transactions linked to owner occupied dwellings according to the residence of the proprietor household and the economy of residence of the quasi-corporation

Dwelling location	Proprietor household	
	<i>Resident</i>	<i>Non-resident</i>
<i>In the economic territory</i>	<u>Case 1</u> <ul style="list-style-type: none"> • Domestic production • Households' final consumption • Property income 	<u>Case 2</u> <ul style="list-style-type: none"> • Domestic production • Export of dwelling services • Property income paid to the Rest of the world
<i>In the rest of the world</i>	<u>Case 3</u> <ul style="list-style-type: none"> • Non-domestic production • Import of dwelling services • Property income received from the Rest of the world 	

Given that the accounting treatment of housing services provided by vacation homes on own account in the TSA framework is fully consistent with the principles of NA, no specific estimation is needed in the TSA. When estimating the output of own-account dwelling services in NA, it is implicitly assumed that the first characteristic to classify the total stock of dwellings is according to their use. As specific strata for vacation homes are used in NA, the figure of the total domestic output of vacation homes can be easily obtained when applying the stratification method.

The main problem when assigning the flows derived from the vacation homes is of a statistical nature. Since this total domestic output is referred to the output of resident quasi-corporations (cases 1 and 2), some additional information on the country of residence of the proprietor household and on the houses of resident households abroad is required. Unfortunately, the usual sources of information (population and dwelling census, propriety registers etc.) are not able to provide the detail needed for this aim.

Finally, the accounting practice - both in NA and in the TSA - and the main statistical difficulties of the three possible cases of tables 12 are explained.

Case 1

In this case, both the production unit (the quasi-corporation or household itself) and the proprietor household are resident units in the economy of reference. Hence, there is no transaction with the rest of the world.

In NA, and from the supply point of view, the production of vacation home services should be included in the estimation of the total output of the economy. From the demand side, the consumption of these vacation home services by the proprietor household should be registered as household final consumption. Finally, the gross operating surplus generated by the quasi-corporation is received by the proprietor household in the form of property income.

From the TSA perspective, the output of these services should be reflected in the corresponding tourism activity in T5, and the consumption of these services is in domestic tourism consumption (T2).

For case 1, the main statistical difficulty is to determine the country of residence of the proprietors of holiday homes in the economic territory in order to be able to identify the part of the domestic output of second homes that should be recorded as households' final consumption.

The primary sources of information that could be used are:

- As the holiday houses are located in the economic territory, the number of vacation homes could be derived from the dwelling and population census or from administrative registers. It would be necessary to know which of those houses are owned by resident households.
- The actual rents are referred to holiday houses located within the economic territory, so the actual rents can be obtained from surveys, such as HBS, or by applying an occupation ratio to the rents paid for a similar house when used as main housing unit.

Case 2

Although the proprietor of the vacation home is a non-resident, the quasi-corporation, it is considered from the NA perspective as a notional resident unit in its capacity as owner of a building.

Thus, the production of vacation home services is considered as domestic output, while from demand point of view these services are purchased by a non-resident unit and consequently recorded as export of services. Finally, the gross operating surplus generated by the quasi-corporation is received by the non-resident owner and registered in the transaction property income paid to the rest of the world.

From the TSA perspective, the output of these services should be also incorporated in T5 in the corresponding activity, and the corresponding export of services is considered as an element of the inbound tourism consumption (T1).

Similarly to case 1, case 2 gives rise to the same statistical difficulty: It is necessary to know the total number of vacation homes in the economic territory that belong to non-resident units, information that usually is not available. In terms of actual rents, the situation is analogous to case 1, as the vacation homes are also located in the country of reference.

Nevertheless, if no information is available about the residence of the owners, then case 2 could be treated as case 1 for TSA purposes, that is to say, it is assumed that all vacation homes belong to resident households. Despite a misallocation between inbound and domestic tourism consumption, at least the tourism GDP is not underestimated this way. Moreover, this treatment would be in line with NA, because if there is no information, it is very likely that all

domestic second home services have been allocated to household final consumption.

Case 3

In case 3, a resident household owns a holiday house abroad. By applying the ESA95 criteria, the quasi-corporation is deemed as a non-resident unit, and hence its output should not be registered in the economy of reference. The vacation home services produced are demanded by a resident household, and so recorded as import of services. The gross operating surplus is transferred to the resident household as property income received from the rest of the world.

In the TSA, only the imports of these services have to be recorded in the outbound tourism consumption table, which is also reflected in table 6 in the column devoted to imports.

Case 3 poses severe statistical problems that make impossible the estimation of the concomitant transactions. On the one hand it would be indispensable to know the number of holiday houses in the other countries whose owners are resident households; on the other hand, an average real rent of vacation homes would be needed for every country.

However, the imports of housing services provided by vacation homes on own account in this case are fortunately related to outbound tourism. This has no effect in the economy of reference, as is illustrated by the fact that the data of outbound tourism expenditure is not needed for the balancing of supply and demand in T6.

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European Commission

Tourism Satellite Accounts Volume 3

Luxembourg: Office for Official Publications of the European Communities

2009 — 104 pp. — 21 x 29.7 cm

ISBN 978-92-79-14186-7

ISSN 1977-0383

