

DATA SOURCES ON TOURISM EXPENDITURE. THE AUSTRIAN EXPERIENCES TAKING INTO ACCOUNT THE TBoP REQUIREMENTS.

INTERNATIONAL WORKSHOP ON TOURISM STATISTICS

**Jointly organized by UN Statistics Division and UNWTO Department of Statistics and
Economic Measurement of Tourism**

UNWTO Headquarters, Madrid/Spain

17-20 July 2006

19 July 2006 - Afternoon Session

Statistics on visitor expenditure – data sources and data compilation issues

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List of abbreviations and acronyms

BMWA	Federal Ministry of Economics and Labour (Austria)
BoP	Balance of Payments
BPM5	Balance of Payments Manual, 5 th edition (IMF)
DWIF	Deutsches Wirtschaftswissenschaftliches Institut für Fremdenverkehr
ESA	European System of Accounts
EU	European Union
EUROSTAT	Statistical Office of the European Union
GDP	Gross Domestic Product
IMF	International Monetary Fund
ITRS	International Transaction Reporting System
NA	National Accounts
NACE Rev.1	Nomenclature générale des activités économiques dans les Communautés européennes, Statistical Classification of Economic Activities, 1 st revision (EU)
NUTS	Nomenclature des unités territoriales statistiques (European regional classification)
OECD	Organisation for Economic Co-operation and Development
OeNB	Austrian Central Bank
RTS	UNWTO Recommendations on Tourism Statistics
SNA	System of National Accounts (UN)
ST.AT	Statistics Austria
TBoP	Travel Balance of Payments
T-Mona	Tourism Monitor Austria
TSA	Tourism Satellite Accounts
TSA-RMF	TSA Recommended Methodological Framework
UNWTO	UN World Tourism Organization
VCE	Visitor Consumption Expenditure

1 Visitor Consumption Expenditure - definitions

1.1 Preliminaries

Economic statistics on total tourism demand, comprising those related to the amount of visitor consumption expenditure are among the most important indicators required by the tourism industry, in particular for policy makers, marketers and researchers. They are used for monitoring and assessing the impact of tourism on the national economy and on the various sectors of the industry.

Visitor consumption expenditure (VCE) is the basic component of total tourism demand. It is defined as the total consumption expenditure made by a visitor or on behalf of a visitor for and during his/her trip and stay at destination. This definition is generally recommended for the collection of data and their subsequent incorporation into tourism economic related statistics (i.e. Tourism Satellite Accounts).

Visitor consumption expenditure, apart from intermediate consumption of enterprises, will thus conform to the concept of "final consumption" in the system of National Accounts (NA), regardless of type of consumer.

There are various methodological differences related the definition of VCE taking into account Recommendations on Tourism Statistics (RTS) or Tourism Balance of Payments (TBoP) concepts.

1.2 Recommendations on Tourism Statistics (RTS)

According to the UNWTO Recommendations on Tourism Statistics (RTS) "visitor expenditure" is defined "as the total consumption expenditure made by a visitor or on behalf of a visitor for and during his/her trip and stay at destination" (para. 85 of RTS).

The concept of visitor consumption expenditure encompasses a wide variety of items, ranging from the purchase of consumer goods and services inherent in travel and stays to the purchase of small durable goods for personal use, souvenirs and gifts for family and friends.

Related to the RTS various components of VCE can be divided into three large groups, depending on whether these expenses are made in preparation for the trip or during the trip, or after the trip (para. 88):

- (a) necessary for the preparation and undertaking of the trip;
- (b) expenses arising when travelling and at the places visited;
- (c) travel related expenses made in the country of origin when returning from a trip abroad.

Nevertheless, there are expenses which should be excluded from VCE (para. 87):

- (a) Purchases for commercial purposes, that is, resale, made by any category of visitor and purchases made on behalf of their employer by visitors on business trips;
- (b) Capital type investments or transactions engaged in by visitors, such as land, housing, real estate, works of art and other important acquisitions (such as cars, caravans, boats, second houses), even though they may be used in the future for tourist travel purposes;
- (c) Cash given to relatives or friends during a holiday trip which does not represent payment of tourism goods or services, as well as donations made to institutions.

VCE can be broken down according to the following main categories:

1. Package travel (package holidays and package tours),
2. Accommodation,
3. Food and drinks,
4. Transport,
5. Recreation, culture, and sporting activities,
6. Shopping,
7. Other.

Excursus: Expenditure after the trip

According to international rules VCE comprises expenses before, during and after the trip, if these are related to the respected trip. - In particular travel related outlays made in the country of origin when returning from a trip are of particular relevance; three reasons may be taken into account:

(a) Consistency with the definition of tourism expenditure

In order to adhere consistency with the common definition of tourism expenditure, it is necessary to include post-trip expenditure within total VCE. The when and where of tourism expenditure is not taken into account, as long as the expenditure is related to the respective trip.

(b) Consistency with TSA-RMF

According TSA-RMF visitor consumption expenditure comprises three items (para. 2.61):

- (a) Domestic tourism consumption comprises the consumption of resident visitors within the economic territory of the country of reference.
- (b) Inbound tourism consumption comprises the consumption of non-resident visitors within the economic territory of the country of reference and/or that provided by residents.
- (c) Outbound tourism consumption comprises the consumption of resident visitors outside the economic territory of the country of reference and provided by non-residents.

Visitor consumption expenditure may be realised according to the following timing of purchase of consumer durables (para. 2.54):

- (a) VCE during the trip comprises all consumer durables purchased on a trip (excluding those for commercial purposes).
- (b) VCE before the trip comprise all consumption on services made before a trip and clearly related to the trip (e.g., inoculations, passports, medical control); furthermore it includes all consumption on goods of small value purchased before the trip that are intended for consumption on the trip or are brought along as gifts (all single-purpose consumer durables).
- (c) VCE after the trip includes all consumption on goods and services purchased after the trip and clearly related to the trip (e.g., photograph development); furthermore, it comprises all purchases of tourism single-purpose consumer durables outside the context of a specific trip.

Domestic tourism consumption is the consumption of resident visitors within their country of reference. The final destination of the visitor might be within or outside the country of reference, but the consumption activity that is referred to has to take place within this country of reference. It might include goods or services produced abroad or by non-residents but sold within the country of reference (imported goods and services). Therefore, this definition is broader than the common understanding of the term “domestic” within tourism statistics which is involving residents of the country of reference travelling and remaining within the country; domestic tourism consumption also includes the domestic portion of outbound tourism consumption.

TSA is based on the domestic concept, in line with SNA production which means, that the place of production is central. Residence is determined by centre of economic interest and the domestic economy by the geographical borders of the country concerned (see also SNA 1993, para. 1.28). According to ESA 1995 (para. 2.10) the consumption of expenditure of households should be included, even if they go abroad for short periods, which is also including tourists travelling abroad.

Visitor consumption expenditure before and after a trip - as a contribution to the domestic production process - should be included, therefore.

(c) Marketing strategies and conditions of payments

Since the travel industry is concerned with similar economic conditions as other industries, travel companies may easily influence conditions of payment by marketing strategies. As pricing strategies are a very widespread tool in marketing it may be interesting for some producers to change the time of point of travel payment for incentive reasons.

At present it is usual to pay for travel services and goods (and packages) in advance or during a trip. Post-trip expenditure is negligible at present, but this might be subject to quick change in the near future. There might arise trends in the travel industry concentrating on special conditions of payment respectively offering a customer the incentive to pay for certain travel services (flight, accommodation or even the whole package) after the trip.¹⁾ This expenditure is linked to the trip and has to be included within tourism statistics, therefore.

¹⁾ Certain industries have already alternative established these conditions of payment; products such as cars, furniture and even refrigerators can be paid after taking them into use.

1.3 Travel Balance of Payments (TBoP)

1.3.1 IMF-definitions

In general the Balance of Payments (BoP) - the balance of all related monetary and physical transaction (goods and services) between countries - is traditionally done by the Central Banks in the countries.²⁾

The basic convention applied in constructing a balance of payments statement is that every recorded transaction is represented by two entries with equal values:

- (1) One of these entries is designated a credit with a positive arithmetic sign;
- (2) the other is designated a debit with a negative sign.

In principle, the sum of all credit entries is identical to the sum of all debit entries, and the net balance of all entries in the statement is zero.

Considering the travel item the BMP5 (para. 242) states that "Travel covers primarily the goods and services acquired from an economy by travellers during visits of less than one year in that economy. The goods and services are purchased by, or on behalf of, the traveller or provided, without aquid pro quo, for the traveller to use or give away. Excluded is the international carriage of travellers, which is covered in passenger services under transportation" (see Chart 1).

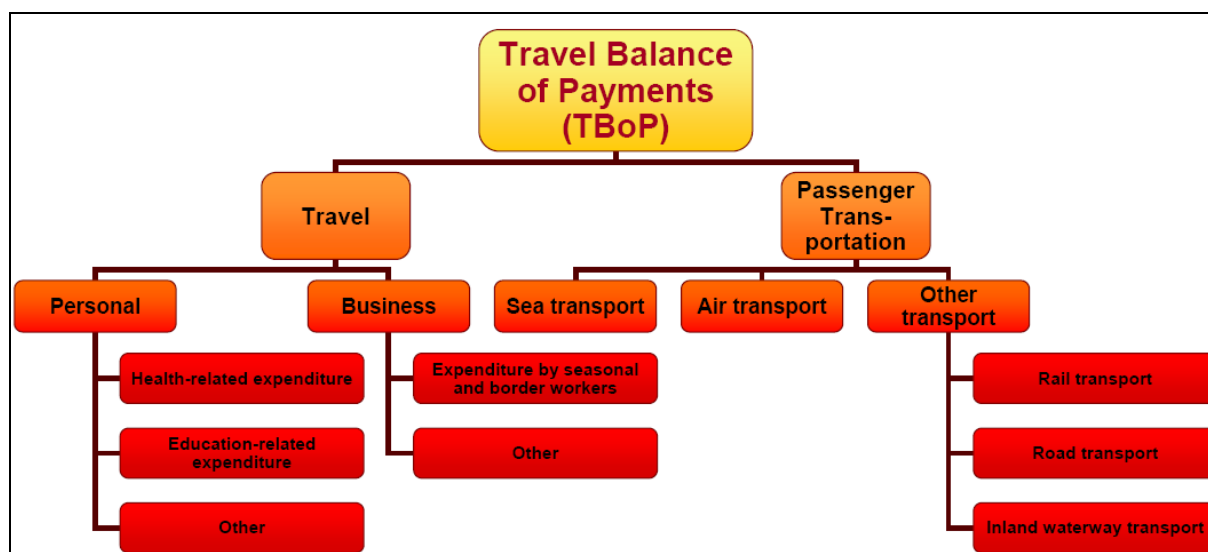
Tourism expenditure in the BoP concerns international tourism expenditure. Expenditures by outbound travellers are generally a debit of the given country, while expenditures by inbound travellers in the country constitute a credit.

Therefore, travel covers goods and services - including those related to health and education - acquired from an economy by non-resident travellers (including excursionists) for business and personal purposes during their visits (of less than one year) in that economy. Travel excludes international passenger services, which are included in transportation. Students and medical patients are treated as travellers, regardless of the length of stay. Certain others - military and embassy personnel and non-resident workers - are not regarded as travellers. However, expenditures by non-resident workers are included in travel, while those of military and embassy personnel are included in government services n.i.e.

TBoP exceeds data collection of the accommodation statistics, due to the inclusions of same-day visitors and those visiting friends and relatives, as well as cross border workers and students. Furthermore, it includes expenditure for the purchases of durable and valuable goods (e.g. cars, furniture, work of arts etc). The TBoP should also contain reliable estimations for expenditure on illegal goods and services, such as for drugs and smuggling cigarettes, and expenses for prostitutes as well, being consistent with the "Rest of the World Account" of the National Accounts (NA).

²⁾ In Austria BoP is quarterly published by the Austrian Central Bank (OeNB), so far. From 2006 onwards, on behalf of OeNB the current account (including the TBoP) is compiled by Statistics Austria.

Chart 1: The Travel Balance of Payment (TBoP) - items



Source: ST.AT

1.3.2 UNWTO Recommendations on Tourism Statistics

Within the UNWTO Recommendations on Tourism Statistics (RTS) international tourism receipts and expenditure are also taken into account.

- (a) International tourism receipts are defined as "expenditure of international inbound visitors including their payments to national carriers for international transport. They should also include any other prepayments made for goods/services received in the destination country. They should in practice also include receipts from same-day visitors, except in cases when these are so important as to justify a separate classification. It is also recommended that, for the sake of consistency with the balance of payments recommendations of the International Monetary Fund, international fare expenditure be classified separately" (para. 90). International fare receipts are defined as "any payment made to carriers registered in the compiling country of sums owed by non-resident visitors, whether or not traveling to that country" (para. 91).
- (b) International tourism expenditure is defined as: "expenditure of outbound visitors in other countries including their payments to foreign carriers for international transport. It should in practice also include expenditure of residents traveling abroad as same-day visitors, except in cases when this is so important as to justify a separate classification. It is also recommended that, for the sake of consistency with the balance of payments recommendation of the International Monetary Fund, international fare expenditure be classified separately" (para. 92). International fare expenditure is defined as "any payment made to carriers registered abroad by any person resident in the compiling country" (para. 93).

1.4 Recommendations on Tourism Statistics versus TBoP - methodological differences

Considering Tourism Statistics rules and TBoP-requirements related VCE there are methodological differences.

The IMF definition of the "Travel" item - in particular the expenditure of international "travellers" - is broader than that of tourism and the "visitor" within tourism statistics. This leads to some major differences between what is included in the TBoP and what is included in international tourism expenditure from the conceptual approach of RTS:

(a) Students and medical patients:

The TBoP considers students and medical patients as residents of their economy of origin, even if their length of stay is longer than one year; their expenditure is included under "Travel", therefore. Such travellers are excluded from the visitor concept in the Recommendations on Tourism statistics (RTS) because their length of stay exceeds one consecutive year. Furthermore, in the visitor concept students are excluded if their accommodation establishment belongs to the sector of private housing or student hostels regardless of the length of stay.

(b) Seasonal and border workers:

The TBoP includes expenditure of seasonal and border workers under "Travel". By contrast, the definition of the visitor in the RTS excludes seasonal and border workers because their main purpose is the exercise of an activity remunerated from within the place visited, and their expenditures are therefore excluded from international tourism expenditure.

(c) "Illegal" activities:

In order to achieve accordance with NA-statistics (Rest of the World Account) those items of final consumption which derive from hidden economy are taken into account within TBoP. VCE for smuggled drugs, cigarettes and alcohol as well as expenditure for prostitutes is taken into account, therefore.

(d) Durable goods:

In the visitor concept important acquisitions of valuable durable goods (and sometimes of multipurpose use) such as cars, caravans, etc. (see chapter 1.2) are excluded while those are included in the TBoP. However, purchases of capital investment type such as housing, real estate are excluded in both systems.

(e) Expenditure in the place of residence:

The definition of expenditure in BPM5³⁾ as well as in the European BoP-Regulation⁴⁾ is strictly restricted to those expenditure that are payments from one economy to another. Therefore, only goods and services are covered that are acquired by travellers from an economy during their visits.

³⁾ IMF 1993, para. 246 and 247.

⁴⁾ European Commission 2005, page 35.

In contrary to BoP definitions it might be useful - for some analytical reasons - to include payments that are advance outlays necessary for the preparation and undertaking of the trip (i.e. payments for travel insurance, transport, the purchase of travel goods) and travel related purchases made in the place of residence after returning from a trip (payments for film development, transport, additional information material of the destination).⁵⁾

However, within RTS it is not explicitly mentioned that necessary outlays for the preparation and undertaking of the trip should be included⁶⁾. If this expenditure is taken into account it mainly occurs in the place of residence which would be an obvious difference to the concept of TBoP statistics. In that sense RTS follows a broader definition of the term "expenditure", including the expenses done at the place of residence.

⁵⁾ see also Eurostat 1998 (A), para. 125.

⁶⁾ UNWTO 1993, para. 88.

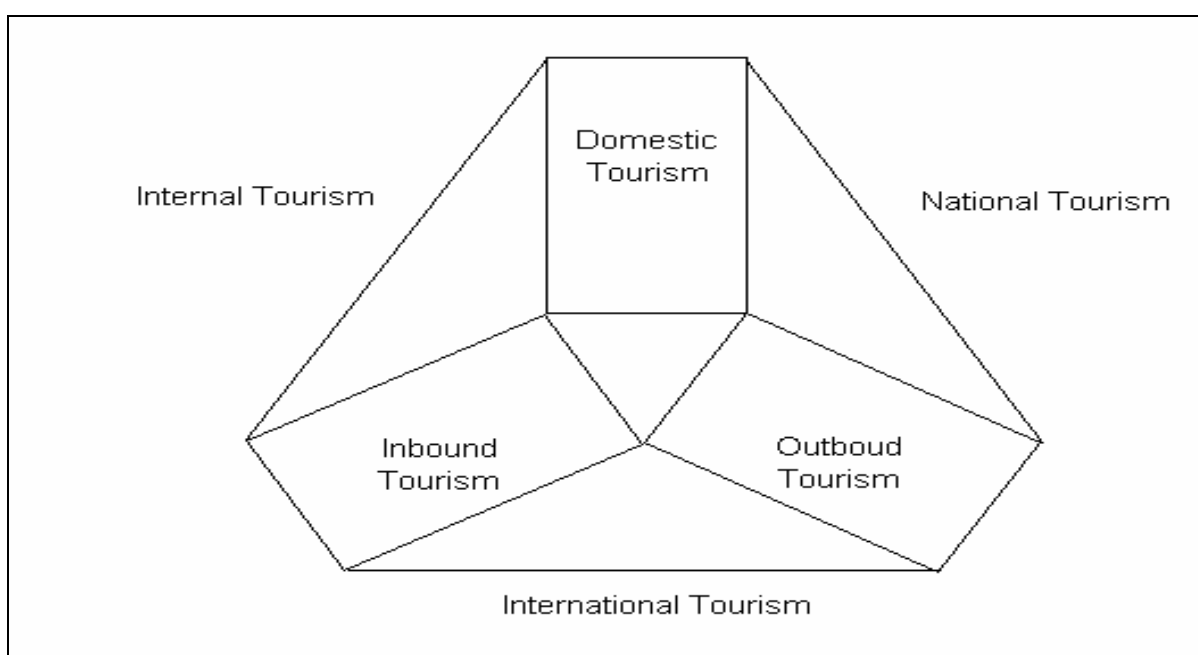
2 Visitor Consumption Expenditure - data sources in Austria

Receiving reliable information on visitor consumption expenditure (VCE) a variety of data sources have to be taken into account which concerns tourism statistics in the narrow sense and additional/ supplementary data sources as well.

According to the RTS three forms of tourism (see *Chart 2*) are distinguished (para. 11):

- (1) Domestic tourism, involving residents of the given country travelling only within this country;
- (2) Inbound tourism, involving non-residents travelling in the given country;
- (3) Outbound tourism, involving residents travelling in another country.

Chart 2: Forms and categories of tourism



Source: UNWTO

Taking into consideration that VCE could be incurred by non-residents and residents alike the payment streams are split into

- (1) domestic tourist consumption (comprises the consumption of resident visitors within the economic territory of the country of reference in their non-usual environment);
- (2) inbound tourist consumption (comprises the consumption of non-resident visitors within the economic territory of the country and/or that of residents);
- (3) outbound tourist consumption (comprises the consumption of resident visitors outside the economic territory of the country of reference and provided by non-residents).

In order to receive more information on VCE, different data sources are used in Austria, which concerns either tourism demand or tourism supply related information.

2.1 Domestic visitor consumption expenditure

Measuring VCE on domestic tourism, various data sources are used which provide information either for inbound or outbound tourism expenditure. The main data sources are the official accommodation statistics on overnights and arrivals, T-Mona (Tourism Monitor Austria) and the quarterly household surveys on the travel habits of the Austrians; these data sources are explicitly discussed in the following chapters 2.2 and 2.3.

2.2 Inbound visitor consumption expenditure

Related to the estimation of the inbound VCE the main data source is the official accommodation statistics which is the key indicator for describing the volume of overnight non-resident (and resident) visitors in Austria. Receiving the respective expenditure per day a rather new Austrian guest inquiry called "T-Mona" is also taken into account. For measuring expenditure of same-day visitors mirror data of partner countries are mainly used.

2.2.1 Accommodation statistics

Important information concerning Austrian tourism is based on the accommodation statistics. For this branch of official statistics cooperation with communes is most significant. The data related nights spent and concerning capacity of tourist accommodation are reported by about 1,600 "reporting communes".

Monthly data on tourist arrivals and overnight stays is reported by type of accommodation and country of origin, accommodation capacity surveys are conducted once a year for the several months of winter and summer season.

The legal basis for tourism statistics are primary the "Federal Statistics Act 2000" and the "Tourism Statistics Decree 2002" of the Austrian "Federal Ministry of Economics and Labour" (BMWA). Moreover, the tourist's registration is also based on the "Registration Act 1991" of the Austrian "Federal Ministry of Interior".

The classification of the accommodation establishments follows the European activity classification NACE Rev. 1; the following types of accommodation are considered:

- Hotels and similar accommodation;
- Youth hostels and mountain refuges;
- Camping Sites, including caravan sites;
- Other provision of lodging (not including student houses, university halls, boarding schools and hostels for migrant workers);
- Private accommodation facilities.

The information gathered by the survey includes the number of arrivals and overnight stays segregated by following variables:

- Country of origin,
- Length of stay,
- Kind of accommodation,
- Municipality level (NUTS 5).

2.2.2 Tourism Monitor Austria (T-Mona)

T-Mona is an instrument for analysing domestic and inbound visitors and their behaviour which is carried out in Austrian destinations. The survey concerns those visitors, who are staying in Austria for holiday reasons at least one night; business tourism is not taken into account, therefore. The interviewees are older than 14 years. As one important variable the expenditure behaviour of the visitors is included. ⁷⁾

Standardised face to face interviews are permanently conducted in all nine Austrian provinces. In total there are carried out approximately 18.000 interviews per year. The data are published via Internet in a joint data base, the respective results are made available to all registered users. The results can be broken down, e.g. by nationality, hotel category, travel reason etc. The calculation of the appropriate quotas is based on the following criteria: region, period, country of origin and kind of accommodation. Basic information about these criteria is delivered by Statistics Austria (accommodation statistics).

One of the results of T-Mona concerns the average daily expenditure of international and domestic visitors in Austria. This figure can be segregated by nationality which leads to an accurate geographical breakdown. Due to detailed questions it is possible to break down the daily expenditure into specific travel items, such as expenses for food, accommodation, entrance fees etc. Since the interviews are carried out permanently and figures are updated in short intervals, the “Austrian tourism community” is constantly informed about the current expenditure behaviour of international tourists.

Based on the data of the accommodation statistics - by multiplying the average daily expenditure with the number of overnight stays - total VCE of domestic and inbound visitors may be estimated.

2.2.3 Partner country data (mirror statistics)

Same-day visitors are neither covered by T-Mona nor included in the official accommodation statistics. Receiving information about the number of same-day visitors by country of origin and their average expenditure, VCE-data on outbound trips from neighboured countries are taken into account. However, the methods of the so-received mirror data vary from country to country and range from border surveys to household surveys.

⁷⁾ Austrian Tourism Board, Tourism Monitor Austria (T-Mona), the New Austrian Guest Inquiry, carried out by MANOVA (www.manova.at), Vienna 2006.

2.2.4 Additional data sources

For more detailed information related VCE supplementary data sources are used, which does not belong to tourism statistics in the narrow sense; the following may be mentioned:

(a) Central Population Register:

By this administrative data source the number of second home owners in Austria is revealed. An imputed length of stay combined with average expenses leads to the total expenses of second home owners.

(b) Credit card data:

Credit card data provide a good coverage for several TBoP relevant items and partner countries' data, in particular related to those countries of origin, which are not considered in the accommodation statistics (mainly rather unimportant tourism generating countries).

(c) University and Erasmus statistics:

These data sources inform about the number of students currently studying in Austria. As it is possible to impute average expenses of these students the total expenses can be calculated.

(d) Fuel Tourism:

An increasing and rather new phenomenon is that of non-resident visitors (respectively Germans) who fuel in Austria which causes inbound receipts. These travellers are not considered as same-day visitors in the narrow sense; they have to be taken separately into account, therefore. For the time being (and this basically depends on the current price differential between two countries and might be subject to quick changes, therefore), the amount of expenditure of "fuel tourists" is rather high. Therefore, an econometric model based on various data sources is used to measure this expenditure properly.

2.3 Outbound visitor consumption expenditure

For measuring the expenditure of Austrians abroad quarterly household surveys are used as a main data source. Furthermore, supplementary data sources are considered estimating the VCE of outbound visitors, which is not covered by the quarterly household survey.

2.3.1 Household Survey

The survey is conducted on a quarterly basis, interviewing 12.000 individuals per year (3.000 per quarter) about their outbound and domestic holiday and business trips. Furthermore data on outbound same-day visits is collected in order to provide expenditure data for the TBoP. The survey is carried out by (CATI)⁸) technique in the following month of the reporting quarter in order to minimize possible memory gaps.

⁸) Computer Assisted Telephone Interviews.

The selection of eligible respondents is carried out by a multi-stage sampling procedure (1st stage: 9 Austrian Federal Provinces; 2nd stage: Age; 3rd stage: sex; 4th stage: nationality). As sampling frame the “Central Population Register” and the public telephone book are used. Individuals, living in private households, aged 15 years and older are selected from the resident Austrian population regardless their nationality. The sampling procedure is repeated every three months, excluding those individuals that have been selected for any other survey, conducted by Statistics Austria during the last twelve months.

Based on the data gathered through complete interviews with individuals from the survey sample, the results are extrapolated to the Austrian population of 15 years and older. The distribution of parameters for the investigated population is derived from the distribution in the survey sample. The population basis for the extrapolation is the latest available Microcensus survey (a household survey conducted on a quarterly basis, containing mainly questions on employment and housing issues). The raising factors are calculated according to age, Austrian Federal Province and gender.

The household survey on holiday and business trips is partly affected by item non-response or implausible records. The interviewing phase is computer assisted which means that the latter problem can be largely tackled by programming standard warnings that pop up during the interview when implausible answers are given.

Similar measures are taken regarding travel expenditure: Warnings automatically pop up when respondents indicate zero. The interviewer is urged to clarify if the respondent does not remember respectively does not know the amount paid (because somebody else paid for the trip) or simply refuses to answer this question. Again, the interview cannot be continued unless the error is corrected.

Thresholds for very low or very high values are not processed during the interview process, but in the ensuing analysis of the raw data file.

Generally speaking, item non-response or implausible records on travel expenditure are by far a bigger problem than for any other variable⁹⁾, since travel expenditure consists of a variety of components (transport, accommodation, food and beverages, goods and services in the destination etc.).

In order to simulate a “complete” data file, missing/implausible values are replaced by “imputed” (synthetic values) values. These synthetic values are obtained as the result of some technique that attempts to estimate the missing values.

⁹⁾ Imputation rates in this survey are, apart from variables concerning travel expenditure, very low.

Regarding quantitative variables investigated in the survey (in this case, mainly variables concerning expenditure are affected) an imputation technique is used that replaces the missing values by “the mean within groups”; on the basis of one or more qualitative auxiliary variables, the sample is divided into a number of non-overlapping groups (in this case the data set is divided into groups of “similar trips”). Within a group a missing value is replaced by the mean of the available observations in that particular group. The groups are composed according to auxiliary variables, such as duration of the trip (in days), number of participating members of the household, destination, travel reason (leisure or business) and kind of accommodation.¹⁰⁾

2.3.2 Additional data sources

For more detailed information related VCE of outbound visitors the following supplementary data sources are used:

(a) Car Registration Statistics:

This statistics delivers data on imported cars for private use (no commercial use). By estimating an average price level the total amount of expenditure can be calculated.

(b) Wage Tax Statistics:

Number and wages of seasonal and border workers are registered via their income declaration. Average expenses can be estimated.

(c) Partner country data (mirror statistics):

Partner country data are used as a source to assure quality and reliability of the outcome of the household survey.

(d) Estimates on “illegal” activities:

Expenses caused by illegal activities such as drug, alcohol and cigarette smuggling as well as expenses for prostitution cannot be measured by common statistical means. Nevertheless, the expenses for those activities are part of the overall expenditure and have to be taken into account, therefore. At present and mainly for BoP reasons expenditure on illegal prostitution is estimated.

2.4 Links between Tourism Statistics and TBoP

From the BoP perspective, the statistical unit to be considered differs according to the system used. For the BoP two broad approaches have been used to measure travel expenditure:

- (1) International Transaction Reporting System (ITRS);
- (2) Enterprise surveys and additional surveys relating directly to visitors and their expenditure.

In the European Union (EU) with the introduction of a common European currency (Euro), it is impossible to obtain information on cash receipts and payments made between EU Member states, so that the current data collection systems – mainly the ITRS – has to be replaced by other methods.

¹⁰⁾ Other measures taken in order to improve the quality of the survey:

- Advance letters: Respondents are informed about their having been selected in the sample.
- Services provided to the respondents: Hotline and in-box for further inquiry.
- Downloads available on the internet: Publication of the questionnaire extracts and results.
- Interviewer training: Training and provision of explanatory notes to the interviewers.
- Supervision during the interviewing phase.

In principle, the most obvious way seems to be to obtain information on BoP-debits through household surveys. The exchange of information between EU Member States provides each country with credit data. The remaining credits could be estimated through visitor surveys or other estimates, and information could also be exchanged with some other countries using a system similar to the one applied at EU level.

The information obtained from household surveys in intermediate periods could be supplemented by supply statistics (e.g. nights spent in tourist accommodation, number of passengers carried, travel agency data etc.) or international receipts and payments data.

A closer link between international receipts and payments and tourism supply and demand statistics should be established. For example, the use of the latter to estimate, compare and check the former should improve the overall quality of data.

2.4.1 Relation with tourism demand

The BPM5 recognises that "Travel differs from other international services components in that it is a demand-oriented activity". With respect to the measurement of international tourism transactions (credits and debits in the Balance of Payments), demand-related surveys can provide valuable information:

- (1) Household surveys on outbound trips provide data on international tourism expenditure for the given country (i.e. debits);
- (2) Inbound tourism can be estimated according to the following two complementary systems:
 - ✓ Household surveys on outbound tourism provide data with a geographical breakdown by destination. The exchange of information between countries allows the calculation of inbound tourism from other countries (mirror statistics).
 - ✓ Furthermore, sample surveys at international arrival and departure points or at visitor destination points can be used to calculate inbound tourism from countries.

Demand oriented surveys are based on the information given by the customer. Therefore, the outcomes of these surveys represent the amount of final consumption for tourism goods and services; problems arise when there is the need to allocate these expenditures either to the country of residence or to the country of destination. In many cases customers are not aware of the underlying supply net structures of their bought goods and services, especially when the purchases of their travel services takes place in the country of residence. This case applies to buying a travel product via a travel agency (see also *Excursus related expenditure for package tours*).

2.4.2 Relation with tourism supply

Although the relationship between international tourism expenditure and statistics on tourism supply is clear, questions such as what share of tourism supply is actually used by visitors or what share of these visitors is non-resident are raised. In some cases, it is easy (tourist accommodation establishments) or possible (international transport) to check, while in others it is highly difficult to ascertain (restaurants, cafeterias, museums, etc.). Moreover, part of international tourism consumption goes beyond the scope of tourism supply (for instance, non-typically tourism purchases).

However, statistics related to tourism supply provide estimates on international tourism expenditure:

- (a) The number of nights spent in tourist accommodation by non-residents by country of residence can be compared with tourism expenditure and the geographical breakdown of this expenditure estimated through other means.
- (b) Passenger transport statistics provide a double source of data. They provide data on the number of non-resident passengers transported by resident carriers, and the number of resident passengers travelling abroad. Data provided by resident carriers and non-resident carriers' branches established in the economy are generally used to estimate the item "Passenger transport" within the BoP statistics.

2.5 Problems

The following problems related to various data sources – in particular related the compilation of the TBoP - may arise:

- (a) Surveys carried out at accommodation establishments, both questioning travellers and the tourist providers, are limited in several respects: they only cover the credit side and they disregard same-day visitors as well as visitors spending nights in private non-paid accommodation. Moreover, surveys of tourist providers only produce physical data.
- (b) Partner country data are theoretically able to provide any type of information. It is obviously assumed that at least one of the two partner countries actually collects "primary" Travel data.
- (c) Estimates and, to a lesser extent, administrative sources can provide only partial information, but virtually on all segments. The latter, however, typically do not provide monetary data and cannot help to correct package tour data.

- (d) Credit card data provide a good coverage for many BoP relevant items and partner countries' data but they show some limitations, as they do not cover, by definition, the other types of means of payments.
- (e) Surveys of tourist intermediaries (travel agencies and tour operators) are one of the most adequate primary data source to deduct non-Travel related expenditure from package tours.
- (f) One of the main data source for measuring travel expenditure abroad are household surveys. - However, the achieved outcome is not exactly in accordance with the requirements of the TBoP. The results comprise the "total expenditure for travelling abroad" which differs from the expenditure actually spend abroad. Therefore, it is necessary to subtract that expenditure (=domestic) - not flowing to the country of destination - from total expenditure.

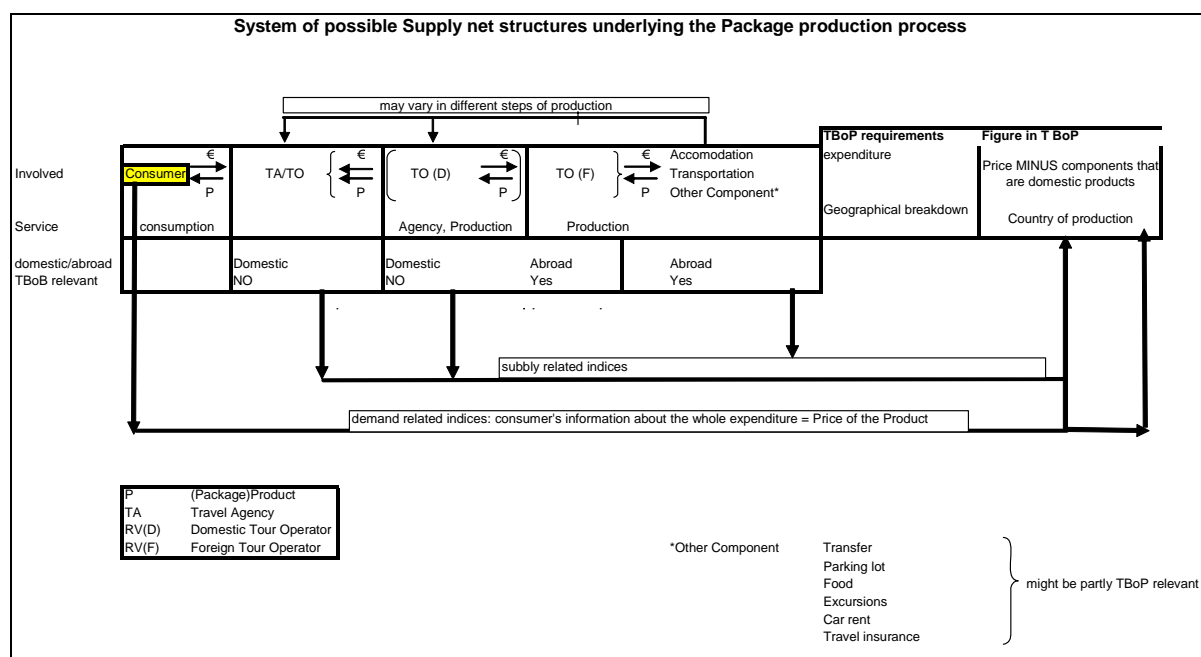
Excursus: Expenditure related package tours – division into its components for TSA and TBOP reasons

Demand related information about expenditure on package tours on the debit side cannot be directly integrated into the BoP, since it is necessary to disaggregate the total amount of expenditure for package tours into three items:

- (1) Firstly, as package products mostly consist of a variety of components that belong to different BoP positions (travel and transport) it is necessary to disaggregate them into its components, therefore.
However, it is not possible to disaggregate them by demand related information due to the single price paid by the costumer which comprises all elements of the package. Therefore, a system has to be established that allows disaggregating this figure using supply-oriented indices.
- (2) Secondly, package products are including a lot of components that might be attributed to the domestic economy (resident) on the one hand (e.g. margins, taxes, service charges, transportation etc.) and to the economy of the travel destination (non-resident) on the other hand (e.g. Hotel supplier, transfer service, transportation etc.). Following the BoP requirements it is necessary to identify those components that are relevant for the TBoP. According to these requirements package tours expenditure are disaggregated with the help of a model based on demand and supply oriented indices.
- (3) Thirdly, package services might be provided by travel agencies/ tour operators that are resident in third countries. Considering that a third country is involved (which might quite often happen via TUI Germany for instance) in the production process, the demand related information would lead into a strong bias between TBoP requirements (the country who is actually producing a package product and travel destination (the country where the package product is finally consumed). Due to BoP rules the place of production has to be taken to account which must not be the destination of the trip; the geographical breakdown of the package tour aggregate has to be disaggregated according to the TBoP requirements, therefore.

In order to disaggregate the total expenditure for package products, it is of essential importance to reveal the underlying supply-net-structure as reliable as possible (see also Chart 3). A model based on demand and supply oriented indices offers the framework for quantifying these sub-aggregates. Consequently each sub-aggregate can be separately analysed whether its components are relevant for BoP and which country is concerned.

Chart 3: Package tours – supply net structures



Source: ST.AT

In Austria, the following steps of disaggregating and adjusting package products are done:

- (1) Firstly, a pre-structuring of the total amount of package tour expenditure is done by demand related indicators. In this way several subsets of package products related to their overall composition (e.g. flight packages, bus packages, etc.) are disclosed.
- (2) Secondly, a further disaggregation of these subsets is done in order to reveal the different underlying supply-net-structures of these subsets. Therefore, various supply related indicators are incorporated.

In the following these indicators are exemplarily shown for the subset "flight packages" which are carried out by domestic carriers:

- Average share of flight services related to the total package product;
- Proportion of imported and non-imported flight services of domestic airlines;
- Share of imported package products related to all package products sold in the domestic market.

By simple mathematical operations some of these indicators are applied to demand related indicators to receive derived indices.

One of these important derived indicators is the

share of non-imported domestic flight services exclusively used for package products related to the total amount of domestic flight services.

In this respect a sufficient disaggregation of the total amount of package products is possible. In the following these subsets are adjusted by using an additional set of indicators. These indicators are used to separate those components which are attributed to the domestic economy and do not fulfil the TBoP requirements, therefore. Examples for this kind of indicators are:

- Average rate of commission paid to a travel agency;
- Average rate of the contribution margin gained by a domestic tour operator.

3 Conclusion

Statistical information on the nature, progress and consequences of tourism is mainly based on arrivals and overnight stay statistics. Consequently, governments and businesses may not receive the sufficient information necessary for effective public policies and efficient business operations. Therefore, information on the economic role that tourism plays in national economies throughout the world is particularly deficient, and credible data concerning the scale and significance of tourism is needed.

However, there is an increasing awareness of the role tourism is playing in the economy, mainly in terms of generation of value added; data on visitor consumption expenditure is a very important aggregate, therefore, in order to receive more information on that. Countries need reliable information and indicators on expenditure data enhancing the credibility of the measurements concerning the economic importance of tourism.

Several countries have already established a wide and diverse range of tourism data sources on visitor consumption expenditure, while other countries have not yet developed reliable systems on that. Therefore, the revision of the UNWTO Recommendations on Tourism Statistics as a common language for tourism statistics in general, and tourism expenditure in particular is indispensable to the work of policy makers and the private sector.

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