

**THE ESTIMATION OF TRAVEL CREDITS
IN THE BALANCE OF PAYMENTS**

2019

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ABSTRACT

In September 2019, coinciding with a regular extraordinary revision (commonly known as a *benchmark revision*),¹ the results of the Tourism Expenditure Survey (EGATUR) of the Spanish National Statistics Institute (INE) were fully incorporated into travel credits in the balance of payments (BOP). This change marked the culmination of a process initiated some years ago, at the time of the euro cash changeover, and involves a significant improvement to the completeness and coherence of the Spanish statistical system. The modification was carried out in coordination with the INE, so that the figures included in the National Accounts (NA) are consistent with those in the BOP.

The information system used to measure travel for the BOP (and for the NA) became obsolete as a result of the Monetary Union as it was largely based on peseta foreign exchange transactions. To fill the gap, the former Tourism Studies Institute (IET), the INE and the Banco de España collaborated on the design and setting up of EGATUR, a border survey to estimate foreign visitors' expenditure and behaviour that was launched in 2002, for which the IET was responsible. Although designed for use in the BOP and the NA, it was difficult to fit the initial results into the macroeconomic data on account of their volatility and the differences with respect to certain related information. For this reason, up until 2015, for the compilation of the BOP and NA the EGATUR results were supplemented by other indicators.

In 2015, the INE took over responsibility for the EGATUR survey and reviewed its methodology, incorporating supplementary indicators into the compilation of the survey results. Since then, BOP travel credits have been estimated on the basis of the EGATUR survey data only. Initially, awaiting the availability of results using the new methodology for a longer period, the BOP data were temporarily calculated by applying annual growth rates obtained from EGATUR to the historical data.

With the 2019 benchmark revision of the BOP and the NA, the INE and the Banco de España incorporated the EGATUR levels into these statistics. The result has been an average annual increase in BOP travel credits of 5% in the period 1993-2018, with a maximum revision of 11%. The EGATUR tourism expenditure data published by the INE and the travel data included in the BOP and NA frameworks are now fully consistent. That does not mean, however, that identical figures are published for travel in the three statistics mentioned. First, some of the expenditure estimated by EGATUR is allocated in the BOP to other items, such as transport services. Second, the rest of the world account of the NA does not have a specific travel heading. Thus, the BOP travel figures are included in the rest of the world account, but part is allocated to non-residents' final consumption and another part to other items of the NA.

¹ See Banco de España (2019), Statistical Note 10, for a description of benchmark revisions and their justification, with particular reference to the content of the 2019 one.

1 Introduction

Tourism is one of the mainstays of the Spanish economy. According to the latest data available from the INE's Spanish Tourism Satellite Account (STSA), in 2017, goods and services associated with tourism contributed €137 billion (12%) to final demand, while the tourism industries generated 13% of total employment. The largest – and fastest growing – component was inbound tourism consumption, which relates to non-residents visiting Spain.² In 2018, Spain beat its foreign tourist record for the sixth consecutive year³ and was second in the world ranking, both as regards international tourist arrivals (after France) and international tourism receipts (after the United States).⁴ In terms of the BOP, as seen in Chart 1, the travel surplus represented 4% of GDP on average in the period 2012-2018, offsetting the goods deficit and giving rise to a current and capital account surplus.

Given the importance of tourism, the comprehensiveness and completeness of the tourism statistical system, in which EGATUR plays a central role, has always been a priority. EGATUR is an ongoing survey with monthly periodicity relating to non-residents in Spain that has been compiled by the INE since 2015. The sample is obtained at the main points of access, by road, air, sea and rail. The objectives of EGATUR are to quantify the number of non-resident visitors, measure their expenditure and identify the main characteristics of trips made. The survey is the result of collaboration between the former IET, the INE and the Banco de España and was first included in a National Statistics Plan in the 2001-04 one, when it was the responsibility of the IET. Since then, the results of the survey have been used to compile the tourism expenditure primary statistics, and to estimate BOP travel credits and consistent data for the rest of the world account of the NA.⁵

The incorporation of EGATUR into the BOP (and, on a consistent basis, into the NA, by the INE) has been gradual. It began in 2002, at the time of the euro cash changeover, but was not completed until the revision implemented in September 2019, when EGATUR became the sole data source for estimating the level of BOP travel credits (hereinafter “travel”). This latter change required the revision of the historical BOP travel time series, which has been carried out at the time of a benchmark revision of macroeconomic statistics coordinated at European level. It is important to note that this does not mean that the tourism expenditure of non-residents according to EGATUR is equal, as from this change, to BOP travel credits. The INE provides the Banco de España with the results of EGATUR, in sufficient detail to enable only what should be included in tourism, according to the BOP methodology established by international agencies, to be selected.

This note explains, following the benchmark revision of macroeconomic statistics implemented in September 2019, the relationship that now exists between the EGATUR, BOP and NA statistics (Section 2), how travel is now calculated (Section 3) and the revision of the historical time series that needed to be made (Section 4).

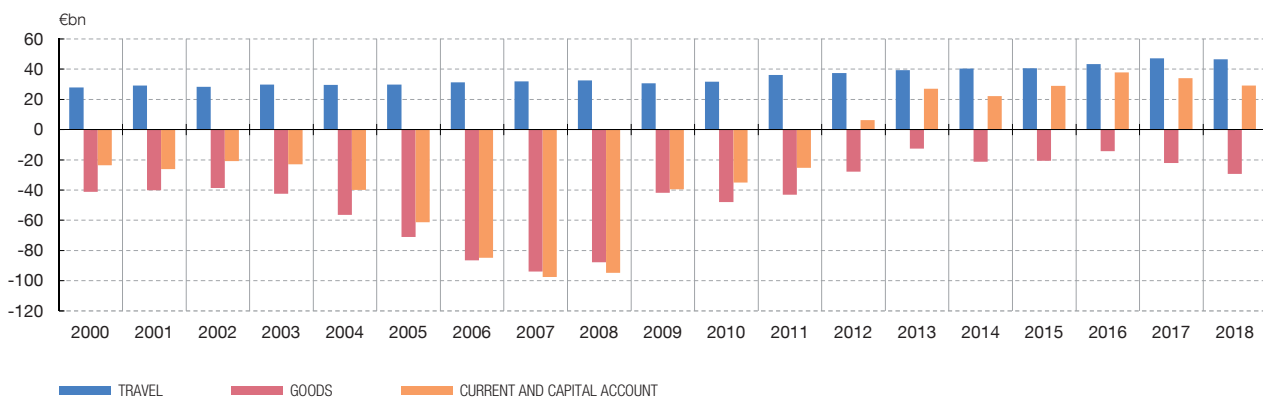
² INE (2019a).

³ INE (2019b).

⁴ World Tourism Organization (2019).

⁵ INE (2019c).

CURRENT AND CAPITAL ACCOUNT (BALANCES)



SOURCE: Banco de España.

2 Travel in the balance of payments and its relationship to consumption in the National Accounts and tourism expenditure in the EGATUR survey

In the statistical system, in general, and in the tourism one in particular, three types of information may be distinguished: primary statistics, systems of accounts and indicators. *Primary statistics* are obtained directly from surveys, censuses or administrative records, and are used in turn for the compilation of other statistics and are adapted to specific areas. *Systems of accounts* are coherent and integrated groups of accounts, balance sheets or tables compiled in accordance with internationally agreed standards. Finally, an *indicator* is a synthetic measure relating to a key phenomenon and can be used to show relative positions or positive or negative changes.⁶

The BOP and the NA are “systems of accounts”. Their main advantage is their completeness and coherence, describing the whole of an economy (NA), and its relations with other economies (the rest of the world account of the NA and the BOP), not just those arising from tourism, so that they are classified as “summary macroeconomic” statistics, without gaps or duplications. Moreover, they follow the same methodological principles.⁷ The results of EGATUR, which focuses on foreign visitors’ spending, along with other tourism-related transactions compiled and published by the INE (such as the Hotel Occupancy Survey, for example), are called “primary” statistics and follow their own methodological recommendations (that differ from those of the BOP and NA).⁸

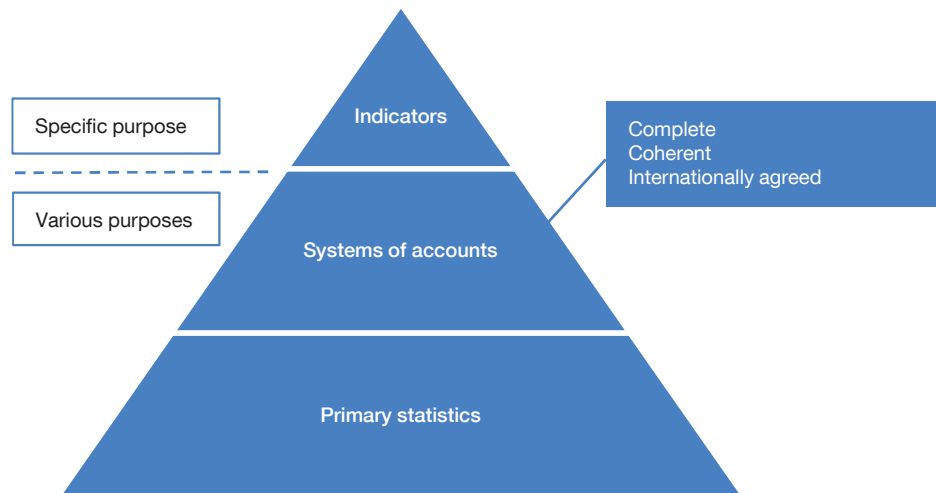
In the BOP, travel includes the goods and services acquired by the residents of an economy during their stay in another economy for business or personal reasons (including health and education), for periods of less than one year.⁹ These transactions are recorded under their own heading, in the services account of the aggregate current account which, added to the capital account, in net terms, makes up what is known as the net lending/net borrowing

⁶ Regulation (EU) No 99/2013 on the European statistical programme 2013-17 and Regulation (EU) No 2017/1951, which extends the programme to 2020.

⁷ The BOP is compiled in accordance with the Balance of Payments and International Investment Position Manual of the International Monetary Fund and the NA in accordance with the guidelines of the European system of national and regional accounts in the European Union.

⁸ United Nations (UN) (2010).

⁹ The one-year rule does not apply to students or patients undergoing medical treatment, who continue to be residents of their home economy (and therefore non-resident tourists in the one they are visiting), even if they remain for more than a year. In contrast, personnel assigned to a military base or government agency (including embassies) and the dependent persons accompanying them are never considered tourists, irrespective of their period of stay.



SOURCE: Regulation (EU) No 99/2013 on the European statistical programme 2013-17.

of an economy. The travel credits and debits recorded in the BOP are the same as the uses and resources of the rest of the world account of the NA. However, unlike in the BOP, in the NA they are not included under a specific “travel” heading, but are largely allocated to the item *final consumption of non-residents in the economic territory* and, to a lesser extent, to other items. The differences between the final consumption of non-residents and travel credits are specified in Table 1.

First, the transport, accommodation and maintenance expenses of business travellers are not included in the NA as final consumption, but are instead considered to be intermediate consumption. Second, spending on tourism packages purchased from intermediaries is included in BOP travel, while in the NA it is recorded as *other services*. Finally, the personal spending of diplomatic and similar personnel, which is recorded as final consumption in the NA, is included under government goods and services in the BOP.¹⁰

With regard to the differences between the methodology recommended for EGATUR tourism expenditure and that used to compile the BOP and the NA, these are set out in Table 2. As it is not always possible in practice to adjust the data to comply with the recommended methodologies, not all the theoretical differences are reflected in the results. Those that are in practice present in the Spanish case have been shaded in the table.

As can be seen, the methodological differences between these two sets of data derive from international transport and the rental expenses imputed to travellers with their own homes in Spain. The international transport of travellers is included in EGATUR expenditure as it is a product “characteristic of tourism” or, which amounts to the same, as it represents a significant part of the total spending of travellers and/or the spending on transport of travellers represents a significant part of the total supply of transport in the economy. In the BOP, however, the international transport of travellers is not included in tourism but, in

¹⁰ In the European arena, the long-term recommendation approved by the Committee on Monetary, Financial and Balance of Payments Statistics is for inclusion in the ESA of an item similar to BOP travel.

DIFFERENCES BETWEEN NON-RESIDENTS' FINAL CONSUMPTION AND TRAVEL CREDITS

TABLE 1

Cause	NA	BOP
	Non-residents' final consumption	Travel credits
Transport, accommodation and maintenance expenditure of business travellers	No (a)	Yes
Spending on tourism packages purchased from intermediaries	No (b)	Yes
Personal spending of diplomatic and similar personnel	Yes	No (c)

SOURCE: Devised by authors.

- a Recorded as intermediate consumption.
- b Recorded as other services.
- c Recorded as government goods and services.

METHODOLOGICAL DIFFERENCES BETWEEN TOURISM EXPENDITURE AND TRAVEL

TABLE 2

Cause	Tourism expenditure	Travel
Type of traveller:		
Border, seasonal and other short-term cross-border workers	No (a)	Yes
Students and long-term patients	No	Yes (b)
Nomads and refugees	No (a)	Yes
Type of good or service:		
International transport	Yes	No
Valuables or consumer durables	Yes (c)	Only if below the threshold for customs declarations (c)
Free of charge or own production (e.g. accommodation in own dwelling)	No	Yes

SOURCE: Devised by authors.

- a In practice they are not excluded.
- b In practice they are not included.
- c Neither expenditure nor tourism include those above €6,000.

accordance with its nature, under a specific transport services heading, which includes freight transport, in addition to passenger transport.¹¹

However, at the beginning of the section we said that the BOP and the NA, in contrast to the primary statistics, ensure completeness, as well as consistency. In this respect, they include the rent imputed to travellers who own their own homes in Spain when they stay in

¹¹ Note that, in line with the explanation given at the beginning of this section on the completeness and consistency of the summary macroeconomic statistics (BOP and NA), while in the primary tourism and transport statistics we can find duplicated items, when they are included in the summary statistics we must ensure that there are no overlaps (and, obviously, that nothing is missed out either). This ensures that the different phenomena are measured consistently.

them. The imputed amounts are estimated separately and added to the EGATUR results. To understand why these amounts should be reflected in the BOP (and in the NA¹²), note that the housing in question is an asset that yields rental income. For the purpose of international comparability (another issue that the statistics within the accounting framework of the BOP and the NA should completely ensure), the rent and accommodation services are considered to be produced, irrespective of who is occupying the property. That said, if the occupant is the owner, the latter is considered to receive the rent and to spend it instantaneously on paying for the accommodation. Thus, the rent received by the non-resident owner is recorded in the BOP as an investment income debit and the spending on accommodation as a travel credit. Note that, in net terms, the recording of these items has no impact at all on the net lending/net borrowing of the economy, although it does have an impact, on one hand, on the goods and services balance (increasing (reducing) the surplus (deficit)) and, on the other, on the income balance (decreasing (increasing) the surplus (deficit)).

3 How are travel credits calculated in the balance of payments?

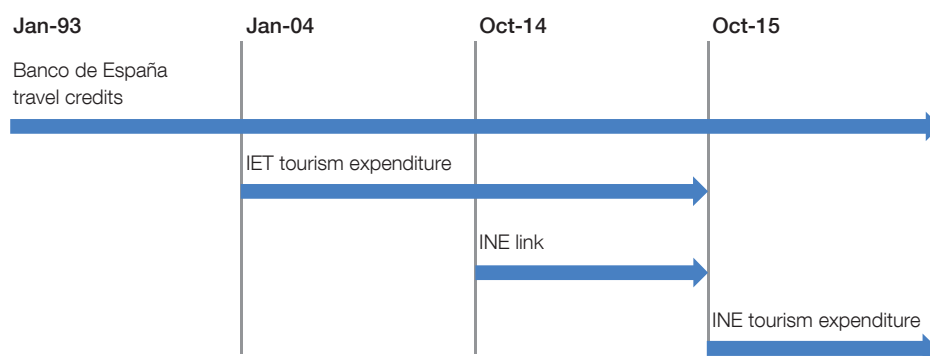
Until the euro cash changeover in 2002, the general system for reporting receipts and payments between residents and non-residents to the Banco de España was the main source of information for estimating BOP travel. This system provided information on bank transfers, with details of the statistical item, currency exchange transactions, settlements of credit card debts and purchases and sales of banknotes between resident credit institutions and their foreign correspondent banks. With the introduction of the euro, this was no longer possible, because a significant part of the information (already affected by progressively raised reporting thresholds) was lost, not only because residents of the euro area travelling to Spain no longer had to exchange currency, but also because travellers from outside the euro area were able to acquire euro banknotes in countries other than Spain. This was compounded by a change in the pattern of travellers' use of means of payment other than banknotes (for example, cards and cheques), which made it difficult to use the information still available.

Since then, as in other European countries, the general information system used in Spain for the BOP has evolved towards a system with diverse and specific information sources for each heading. The general trend was to use surveys to estimate services and border surveys of visitors' spending, to estimate travel credits in particular. Against this background, the former IET, the INE and the Banco de España agreed to collaborate on a project to set up the EGATUR survey for use in compiling the BOP and the NA. EGATUR was first included in a National Statistics Plan in the 2001-04 one and was launched under the responsibility of the former IET.

Although EGATUR was originally designed to meet the information requirements of the BOP and the NA, its direct use to compile these statistics was not initially possible owing to the volatility of the results and their lack of correlation with other related information (fundamentally, overnight hotel stays from the Tourist Accommodation Occupancy Survey (EOHyAT by its Spanish initials)). Thus, until 2015 the BOP and NA data were estimated by means of a factorial econometric model, which used other indicators to supplement the survey data. Both supply and demand-side indicators were used (inter alia, international flight passengers, prices and overnight stays).¹³ In 2015, the INE became responsible for the FAMILITUR, FRONTUR and EGATUR statistics, whereupon it carried out an in-depth review of the EGATUR methodology in order to improve the coherence of the tourism

¹² Imputed rent is also estimated for the NA for housing in Spain owned by residents.

¹³ See Álvarez, Camacho, Pérez Quirós and Tello (2007).



SOURCE: Devised by authors.

statistical system, incorporate international recommendation updates and increase efficiency. The following changes were made: a) integration of the FRONTUR and EGATUR surveys (design and conduct); b) new road survey points; c) use of administrative records; d) implementation of the FRONTUR on cruises; d) adaptation of the questionnaire; e) change in treatment of lack of response; f) calibration on the EOHyAT; and g) expenditure modelling.¹⁴ These changes succeeded in bringing the FRONTUR, EGATUR and EOHyAT into line and reduced the volatility of the results. In December 2015, the INE began to publish the spending of international tourists (starting with data for October) and estimated a link for the series.

The information available for each period, following the transfer of responsibility to the INE, is shown in Figure 2. As can be seen, to facilitate the transition from the results of the IET to those of the INE, for data from October 2014 to September 2015 (base year), a link was estimated that simulates, on the basis of the original IET microdata, the changes introduced by the INE, especially the calibration on the EOHyAT and expenditure modelling.¹⁵

Also in December 2015, the Banco de España changed the method for estimating travel credits. It began to use the EGATUR results that the INE had started to publish, abandoning other indicators that it had been using to supplement them, since these were now directly incorporated into the EGATUR result compilation process by the INE. In the compilation of the BOP, EGATUR began to be used for the growth rates of travel credits. When a longer series was available for the new results and their consistency had been checked, it was agreed with the INE that the levels should be incorporated, and the historical time series were re-estimated. The results were published with the 2019 benchmark revision of the BOP and NA.

4 Revision of the historical time series of travel credits in the balance of payments

Following the recommendations of the Committee on Monetary, Financial and Balance of Payments Statistics on the need for a revision in some depth of the sources and methods of the summary macroeconomic statistics every five years,¹⁶ the INE and the Banco de España agreed to publish in September 2019, in coordination with other European countries, a benchmark revision of the BOP and NA. The advantage of benchmark revisions

¹⁴ INE 2019c.

¹⁵ INE (2015).

¹⁶ Committee on Monetary, Financial and Balance of Payments Statistics (CMFB) (2017).

€m

Year	Previously	Revised	Revision	
			Absolute amount	% of previous series
1993	15,451	15,451	0	0.0%
1994	17,688	17,688	0	0.0%
1995	19,360	19,360	0	0.0%
1996	21,225	21,320	95	0.4%
1997	23,827	24,058	231	1.0%
1998	26,841	27,234	393	1.5%
1999	30,278	30,853	575	1.9%
2000	33,443	34,315	872	2.6%
2001	35,319	36,448	1,129	3.2%
2002	34,680	35,900	1,220	3.5%
2003	36,263	37,801	1,537	4.2%
2004	37,690	39,368	1,678	4.5%
2005	39,985	41,930	1,945	4.9%
2006	42,199	44,563	2,364	5.6%
2007	43,649	46,289	2,640	6.0%
2008	43,563	46,445	2,882	6.6%
2009	39,856	42,720	2,864	7.2%
2010	41,218	44,375	3,157	7.7%
2011	44,712	48,450	3,738	8.4%
2012	45,268	49,279	4,011	8.9%
2013	47,164	51,590	4,426	9.4%
2014	49,010	53,883	4,873	9.9%
2015	50,988	56,309	5,321	10.4%
2016	54,660	60,351	5,691	10.4%
2017	60,293	66,682	6,388	10.6%
2018	62,481	69,023	6,542	10.5%

SOURCE: Banco de España.

is that, first, they allow data to be updated from the beginning of the time series. Second, they allow changes to be accumulated that, were they introduced separately, could give rise to successive contradictory results (effects of opposite sign on the basic aggregates that may eventually offset one another). One of the reasons benchmark revisions are needed is that new sources of information appear or existing ones change. This has been the case of travel, as the changes explained in the previous section had occurred since the last benchmark revision (2014). Thus, the improvements incorporated in 2019 include starting to use the EGATUR as the sole source of information for estimating the level of tourism, adjusting the data to the BOP and NA methodology.

Specifically, the levels obtained from the EGATUR survey results have been included since October 2014 and have been linked backwards, keeping the level of the series prior to 1995 unchanged. Thus, the first three years of the time series, 1993-95, prior to the increase in reporting thresholds and the introduction of the euro, were not revised. The historical evolution of BOP travel credits was used to make the link.

REVISION OF TRAVEL CREDITS IN THE BALANCE OF PAYMENTS

CHART 2

ANNUAL RATES OF THE SERIES BEFORE AND AFTER REVISION IN 2019

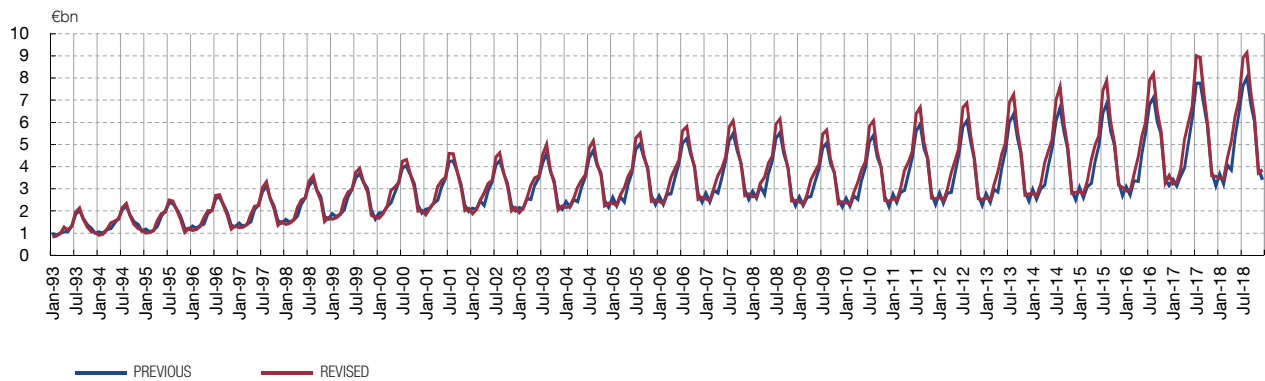


SOURCE: Banco de España.

REVISION OF TRAVEL CREDITS IN THE BALANCE OF PAYMENTS

CHART 3

MONTHLY SERIES BEFORE AND AFTER REVISION IN 2019



AVERAGE REVISION OF MONTHLY DATA 1993-2018

TABLE 4

Percentage revision for each month	
January	-10%
February	1%
March	3%
April	27%
May	12%
June	4%
July	11%
August	10%
September	3%
October	-2%
November	-9%
December	9%

SOURCE: Banco de España.

4.1 METHODOLOGY

The steps followed to link the historical time series were as follows:

The starting point is a monthly series for total world travel credits (without including imputed rent), which combines the levels of EGATUR from October 2014 to December 2015 (first complete year of the INE methodology) with back-calculated levels, using annual growth rates from the BOP for the period January 1994-September 2015. A preliminary annual series was obtained by aggregating the monthly series.

A condition was imposed on the preliminary annual series according to which the annual values in 1995 and in 2015 were equal to the historical value of the BOP and of EGATUR, respectively. To ensure that the annual series complies with these restrictions, a loss function-based approach is employed. This approach consists of proposing an optimisation programme, the objective function of which is to penalise annual difference deviations, in relative terms, with respect to the preliminary annual series.

When the linked annual series had been obtained, a monthly series is obtained using as reference the preliminary monthly series for the period January 1993-January 2015, and imposing the condition that the levels in October 2014-December 2014 are equal to the EGATUR levels in those months.

Completing this series with the EGATUR expenditure series for 2016-2018, a monthly series of travel credits without imputed rent is obtained for the period 1993-2018.

Aggregating the monthly values of the imputed rent series to the series obtained previously, a revised monthly series is calculated for the complete travel heading for the period 1993-2018.

Using a similar approach, linked historical time series are obtained for travel credits by geographical destination (counterpart area and country) consistent with the world total series obtained previously.

4.2 RESULTS

Table 3 sets out the 1993-2018 time series (published before the revision), the revised series and the absolute and relative revisions. The average percentage revision in the period is approximately 5% of the previous level, with a maximum revision of 11%.

Chart 2 depicts the annual growth rates of the previous series and of the revised one. The evolution is very similar, the rates of change being slightly higher in the case of the revised series.

As regards the monthly series (depicted in Chart 3), the main result is that the seasonal effects in the Easter and summer months of the revised series are more pronounced than in the series published prior to the revision.

The average percentage revisions for each month in the period 1993-2018 are set out in Table 4. The average revisions were positive in April, May, July and August, and negative in January, October and November.

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- 1 STATISTICS AND CENTRAL BALANCE SHEET DEPARTMENT: Registering financial intermediation services on the national accounts as of 2005. (The Spanish original of this publication has the same number.)
- 2 STATISTICS AND CENTRAL BALANCE SHEET DEPARTMENT: Valuation of shares and other equity in the Financial Accounts of the Spanish Economy. (The Spanish original of this publication has the same number.)
- 3 STATISTICS AND CENTRAL BALANCE SHEET DEPARTMENT: Registering Financial Intermediation Services on the National Accounts as of 2005. Addendum. (The Spanish original of this publication has the same number.)
- 4 LUIS GORDO MORA AND JOÃO NOGUEIRA MARTINS: How reliable are the statistics for the Stability and Growth Pact?
- 5 STATISTICS DEPARTMENT: Methodological notes on the Financial Accounts of the Spanish Economy.
- 6 STATISTICS DEPARTMENT: Methodological notes on the Financial Accounts of the Spanish Economy. ESA-2010.
- 7 STATISTICS DEPARTMENT: Holding companies and head offices within the framework of the SNA 2008 / ESA 2010.
- 8 STATISTICS DEPARTMENT: Presentation of the results of the Banco de España statistics user satisfaction survey.
- 9 STATISTICS DEPARTMENT: Changes in the balance of payments and in the international investment position in 2014.
- 10 STATISTICS DEPARTMENT: Impact of the 2019 benchmark revision on the net lending/ net borrowing and international investment position of the Spanish economy.
- 11 STATISTICS DEPARTMENT: The estimation of travel credits in the balance of payments.

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