Issues Paper on ISIC 5510

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by

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1. Descriptions and characteristics of the industry

1.1. Definition of the industry

The services covered by this paper include on the one hand, the provision of accommodation, usually on a daily or weekly basis, mainly for short stays of visitors for which services include daily cleaning and bed-making. A number of additional services can be provided, such as food and beverage service, parking, laundry services, swimming pools and fitness rooms, recreational facilities, and conference and convention facilities.

In addition, the definition also covers the temporary provision of accommodation in enclosed spaces consisting of fully furnished rooms or areas for living/dining and sleeping, with cooking facilities or fully equipped kitchens. This can be in the form of apartments or apartments in small detached multi-storey buildings or groups of buildings or in the form of single-storey bungalows, chalets, cottages and cabins. Very few, if any, complementary services are offered.

The UN classification of economic activities (ISIC rev. 4) does not further divide these activities. This is different from the Statistical Classification of Economic Activities in the European Community (NACE), the North American Industry Classification System (NAICS) and the Japan Standard Industrial Classification (JSIC):

ISIC 4.0	NACE rev. 2	NAICS 2017	JSIC 12
5510 Short term accommodation activities	**55.10** Hotels and similar accommodation	**721110** Hotels (except Casino Hotels) and Motels	**7511** Hotels
	55.20 Holiday and other short-stay accommodation	**721120** Casino Hotels	**7521** Common lodging houses
		721191 Bed-and-Breakfast Inns	**7591** Lodging facilities of companies and associations
		721199 All Other Traveller Accommodation	**7592** Resort clubs

1.2. Market conditions and constraints

The importance of the industry within the service sector can vary greatly. In the countries that contributed to the mini-presentations in 2019, it varied between just under 1% and just under 5% of the turnover of the services sector. Among these, Spain is the country where ISIC 5510 is most important. In Spain, the tourism sector contributes almost 12% of GDP.

As far as statements on the development in the past years have been made, both turnover and the number of employees have increased in the recent past for the economic sector as a whole. However, this does not mean that the sector has grown in relation to other sectors of

the economy. This is illustrated by the contribution of Canada, where turnover has been growing steadily from 2012 to 2018, while the share of the accommodation sector's turnover in the service sector fluctuates between 0.88% and 0.93% during the same period.

Across all the countries considered, hotels have by far the largest share of turnover in the various short-term accommodation options. Individual data in the contributions indicate that the development of the different offers in this sector does not necessarily follow the same direction.

1.3. Specific characteristics of the industry

In Spain, where the accommodation industry is of comparatively great importance within the services sector, the share of turnover of main and secondary products was examined in more detail especially for hotels (NACE 55.1). It becomes clear that accommodation and catering are by far the most important services. All other services offered by hotels have a negligible share of turnover.

Also by the Instituto Nacional de Estateistica, the distribution of NACE 55.1 turnover by type of client (households, Spanish tour operators, foreign tour operators, Spanish and foreign travel agencies) was examined. It was found that more than ¾ of the turnover is accounted for by customer types other than households.

In general, it can be said that especially the enterprises in NACE 55.2 - i.e. accommodation in short term accommodations that do not provide any meals or daily room services - are in competition with the sharing economy. Travelers are making increasing use of information technology to obtain information, search for and book accommodation. This is forcing providers to modernize their processes, i.e. to digitize them.

In order to protect the housing market, attempts are being made to restrict the short-term letting of accommodation by private providers by means of numerous regulations. These are first of all clauses in contracts of lease, which prevent short term subletting completely or partly. Besides there are law initiatives, which are to ensure on the one hand the taxation of regular incomes from short term accommodation, and prevent on the other hand that potential dwelling in cities is converted durably into vacation homes.

In the contributions to this session in 2019, the sharing economy did not play a significant role in this industry. One reason for this is that it is about C2C services, which are not included in business statistics. On the other hand, however, it probably also has to do with the fact that the sharing economy is mainly in competition with accommodation without meals and without regular room service, which are less significant in the economic sector 5510.

2. Turnover/output measurement

2.1. General framework

The measurement of sales and output for this industry was addressed in the 2019 contributions by Mexico and Sweden. Both countries have both a business survey and a structural survey for the services sector. In Mexico, the business survey is conducted monthly, in the EU it is currently still quarterly. In the EU, the statistical unit in short-term business statistics is the "kind of activity unit". In both countries, the results of the business survey are published in the form of indices.

In terms of their set of characteristics, the structural surveys clearly exceed those of the business surveys. The results are published in absolute values.

2.2. Measurement issues

As in many other sectors of the economy, both company surveys and the use of administrative data are used. Mexico collects data for both purposes through business surveys, while Sweden uses primarily administrative data from tax returns for both the short-term and structural surveys. These are supplemented in the short-term statistics by interviewing a random sample and in the structural statistics by interviewing the top 500 companies.

The most important users are national accounts, central banks, ministries (tourism, labor and social affairs, transport) and scientists and economic research analysts.

2.3. Description of methods for measurement

The basis for measuring output is the income collected for both structural statistics and short-term statistics. They are used by the national accounts to calculate GDP and growth. The turnover indices of the short-term statistics provide both the nominal development and the real development. SPPIs are used to deflate the nominal results.

3. Measurement of SPPI

3.1. General framework

The methodology of the price indices presented in 2019 by Canada, Spain and Hungary is very different. This is mainly due to the fact that development of these indexes has been oriented towards different objectives.

The Canadian index TASPI (Traveller Accommodation Service Price Index) represents the development of income (excluding taxes) that a company generates by renting a certain room to business or private customers. It is based on the definition of revenue measurement and thus also on the purpose of deflating these revenues. The methodology of the Spanish HPI (Hotel Price Index) is based on the needs of the hotel industry and is therefore limited to the price development of hotel rooms. Other types of short-term accommodation are not considered. The Hungarian producer price index for ISIC 5510 is still under development. An attempt is made to take into account the data needs of various major users by aiming for a breakdown between B2B and B2C. A limitation to specific products is not planned.

3.2. Measurement issues and description of pricing methods

Canada:

The Canadian index TASPI measures the development of transaction prices. It is not limited to companies with a specific economic focus. It can probably be described as a product index. It is collected and calculated monthly. The index is broken down into price trends for business and private customers and by geographical criteria. The associated weights are updated every 5 years, but there is no revision for the overlap period between the new base period for the weighting and the date of changeover to the new weighting.

Within the elementary indices, the measurement figures are aggregated unweighted with the geometric mean. The aggregation on the higher levels follows the Laspeyres principle.

The survey is carried out via the Internet supported by telephone inquiries during the reporting month for the current month. For private customers, the price is collected on the 3rd Saturday of the month, for business customers on the 3rd Wednesday of the month. For both types of customers, the amount paid for a standard double room (B2C) or for a single room (B2B) when booking 14 days before arrival is charged. There is no seasonal adjustment. Nevertheless, as with most travel services, the price development shows a clear seasonal pattern.

Spain:

The Spanish HPI measures the development of average daily prices in hotels. It is therefore limited to a certain type of accommodation. The population is all hotels in Spain. The data is collected by questionnaire directly from all hotels in a region, i.e. from branches. In the case of hotels that are part of a company with a different economic focus, it goes beyond branch 5510. In this case, too, one can therefore speak of a product index. It is also collected and calculated monthly. The HPI is much more detailed than the TASPI with regard to the type of client. Since hotel rooms in Spain ¾ are not booked by households, there is a detailed breakdown into tour operators, travel agencies, online and offline bookings, direct bookings etc. in addition to the regional breakdown. The associated weights are updated in annually. Beyond that there is a separate weighting scheme for each month of the year, so that one must actually speak of 12 adjacent indices, which are not additive. The monthly indices are each separately chained to the corresponding index of the previous year.

Here too, the measurement figures within the elementary indices are aggregated unweighted with the geometric mean. When aggregating to an overall index on the type of customers, hotel categories and regions, the occupancy rates of the rooms for the respective customer type, hotel category and region in the previous year are used in the weighting.

By calculating indices with their own weighting schemes for each individual month of the year, it is not possible to compare the index levels between the months and the graphic representation of the index levels no longer shows a seasonal trend.

Hungary:

The Hungarian SPPI for ISIC 5510 is still under construction. A B2All index is planned here, which will be divided into B2B and B2C if possible. The Hungarian Statistical Office (HCSO) has access to the National Data Supply Centre, where the anonymized data of the tourism office on travel and turnover are available. These contain for every establishment a consecutive number for the guest, the number of overnight stays by room and guest and the income generated from these with and without business clients. This is also transaction data, which is used to calculate the price index and needs to be supplemented by the characteristics of the accommodation. The Hungarian paper from 2019 classifies the measurement of prices above the average price per person or per room in the breakdown by type of accommodation service, region, length of stay and season as the most appropriate. It emphasizes in particular the difference between transaction prices and offer prices.

3.3. Criteria for choosing the pricing method

It has become clear that all price indices presented are calculated using average values of transactions that actually took place. There are probably several reasons for this:

First of all, companies in this sector react very dynamically to changes in demand and the occupancy rate of accommodation. As a result, supply prices change daily or even hourly and are very much dependent on when the price is collected. They can therefore deviate greatly from the prices actually achieved. The average of charged prices in an accommodation for a certain room type are relatively easy to determine by the interviewed companies and have to be delivered to the tourist office in Hungary anyway.

Alternatively, model prices could be collected, whose method is usually difficult to communicate to the respondents. Another alternative, which is usually considered the preferred price measurement method, is to collect prices for repeated services (e.g. via web scraping). This is extremely difficult in this dynamic environment. It requires a very accurate representation of the customers' booking behavior and yet is not able to take into account rebookings or cancellations.

On the other hand, the collection of average values from transaction data is also not without problems. It requires a very narrow definition of the smallest aggregates. Just if a hotel mixes different room categories in one average value, the index can be influenced by different utilization of these room categories. Therefore, extreme care must be taken in the delineation and in the communication with the reporting agents.

4. Evaluation of measurement

The presented methods of turnover surveys in this economic sector follow the classical survey methods of short term and structural surveys. Thus, they measure the nominal development of the turnover of those enterprises that have their economic focus in ISIC 5510 (or in the deeper subdivisions of other classifications of economic activities).

The price indices presented here follow only to a limited extent the goal of providing suitable deflators for the turnover of the economic sector. The first deviation is the design as product indices. In addition, the product indices described here are strongly focused on the main product "hotel room rental".

The decision in favor of product indices instead of economic activity indices is certainly in the interest of national accounts, which are more interested in deflators for production values of products. However, product indices are only of limited use for the early provision of service production indices. Whether they are suitable as estimates for deflating the development of turnover in short-term business statistics depends, of course, heavily on what proportion of turnover is covered by the scope of the product index. The example of Spain clearly shows that hotels in the accommodation sector and overnight stays in the hotel sector dominate. These restrictions to the prices of stays in hotels carry the risk of distorting the deflator. It goes without saying that the completion of such an index is always a cost-benefit analysis.

The most important finding from the price measurement methods presented is the preferred use of average transaction prices.

The influence of the digitalization of distribution channels seems to have only limited effects on the measurement of turnover, output and prices. The rental of accommodation for short periods of time is mainly done online. The industry has adapted to these new distribution channels and is reacting with very dynamic prices. For price statistics, this means that the classic price measurement method of collecting data on recurring services has become prone to errors. The statistical offices have adapted to this.

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