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Mini-presentation

SPPI for

Renting and leasing of other machinery, equipment and tangible goods in Hungary

(ISIC 77.30)

Hungarian Central Statistical Office

Ildikó Hamvainé Holocsy with contribution Bertilla Bognár

Ildiko.Holocsy@ksh.hu

The views expressed in this paper are those of the author alone and do not necessarily represent the position of HCSO or any other organization with whom the author may be affiliated.



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1. INTRODUCTION

The overall objective of this paper is to contribute to the conceptual development of price statistics in the division "Rental and leasing activities" with adequate reflection to the real economic developments and provide an overview about the achievements concerning the new services producer prices indices (SPPIs) for renting and leasing of other machinery, equipment and tangible goods in Hungary. Tis research has been a continuation of the work carried out by the Hungarian Central Statistical Office (HCSO) so far on SPPIs for specific service industries (service divisions). Following our development strategy it has been improved the overall methodology for missing indicators, the related data base and index calculation process as well as the corresponding reference metadata for this area of business services.

This summary contains a description of the overall frame of the Hungarian service producer price observation-, index production- and data dissemination systems, which have been expanded to handle the development work on SPPIs as deflators for new areas required by the Framework Regulation for the Integration of Business Statistics (EBS).

On the one hand the general objective was to setting up the process for a regular and maintained production and transmission of new SPPIs at NACE Rev.2 division level, including the indices for subdivision 73.3 increasing the coverage of related national and European macro-economic indicators. On the other hand, the enlargement of the scope of SPPIs beside the national accounts also serves deflators for the new indicator – Index of Service Production (ISP).

In case of 73.3, the indices are computed on the basis of B2B SPPIs and the time series are available from Q1/2016.

The activities include among others the rental and leasing of a wide scale of tangible goods. The leasing of other machinery and equipment of the kind is often used for business operations, including other transport equipment to customers in return for a periodic rental or lease payment. Only the provision of operating leases is included in this division.

It should be noted that companies beside the main activity may offer secondary activities, primarily linked to the operations.

In the HCSO the price collection for producing of SPPIs is carried out by the experts of the Industrial and Services Prices Statistics Section at the Sectoral Statistical Department.

The publication of related quarterly and yearly price indices at the division level – Rental and leasing activities – started in June this year. However, monthly indices are produced as well for calculation of monthly ISPs.

Along with, it should be noted the challenges in connection with the coronavirus pandemic situation because of limitations (including infrastructural constraints of experts working partly in home office have been narrowed.

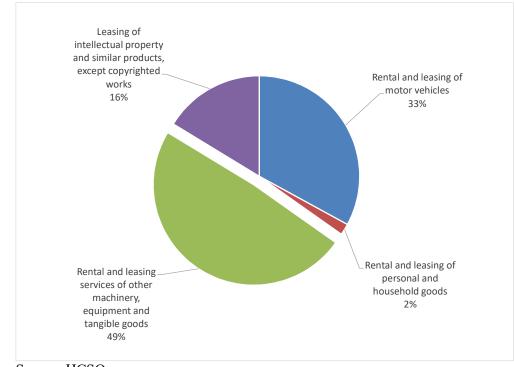
2. MARKET CONDITIONS AND CONSTRAINTS

To establish a cost efficient sample for the data collection with sufficient share from the total turnover of the related division, we have analyzed the Hungarian Business Register as well as the current statistical and administrative information systems of Hungarian service enterprises to select the most important businesses.



By the available structure business statistics (SBS) data, this division is dominated by operations of Rental and leasing services of other machinery, equipment and tangible goods n.e.c. (77.3) by the turnover share close to the 50%, followed by Rental and leasing of motor vehicles (77.1) by 33%. The proportion to the performance indicator of Leasing of intellectual property and similar products, except copyrighted works (77.4) is also significant by 16%, but areas of Rental and leasing of personal and household goods (77.2) have less importance regarding the turnover data. The related turnover shares are are presented by Figure 1.

Figure 1



Net Turnover Structure in Hungary by the SBS (industry-based) statistics, 2019 Total Turnover for N77=100%

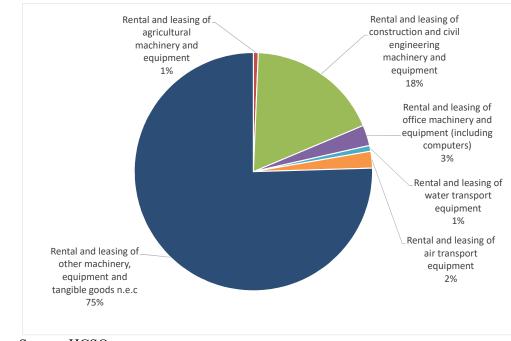
Rental and leasing activities

Source: HCSO

As already mentioned, in Hungary the survey frame is based on the national Business Register and the reporting units are enterprises. The sample is selected at the class level, taking into account the most important areas. In case of 77.3, the data collection has been organized for two classes, dominated by Rental and leasing services of other machinery, equipment and tangible goods n.e.c (NACE 77.39) with the share of 75% and the next in line was Rental and leasing of construction and civil engineering machinery and equipment (NACE 77.32) by the proportion of 18%. The turnover shares of related classes is illustrated by Figure 2.



Figure 2



Rental and leasing services of other machinery, equipment and tangible goods Net Turnover Structure in Hungary by the SBS (industry-based) statistics, 2019 Total Turnover for N77.3=100%

Source: HCSO

3. STANDARD CLASSIFICATION STRUCTURE AND DETAILS

Hungary uses harmonized national versions of NACE Rev. 2 industrial classification and CPA 2015 product classification systems. Activities related to the Rental and leasing activities are concentrated in section "N" under division "77" (the explanatory notes see in Annex).

- NACE Rev 2 / TEÁOR'08 (the statistical classification of economic activities in the European Communities / in Hungary).
- CPA'15 / TESZOR'08 (the European/ Hungarian Classification of Products by Activity).

The division Rental and leasing activities according to the NACE Rev. 2 includes twelve classes, of which six are classified to the 77.3.

The structure of the above mentioned classifications is the following:

CPA 2015 is harmonized with NACE Rev.2. Namely, from the 6 digits (XXXX.YY) the first four are the same as those for the NACE Rev. 2. This consistency and the hierarchical structure of the CPA make easier to calculate of higher level indicators from the lowest level of CPA.

The code structure of a representative service item on the Hungarian SPPI questionnaire follow this hierarchy (illustrated by the Figure 3).



4. EVALUATION OF STANDARD VS. DEFINITION AND MARKET CONDITIONS

Hungarian national versions of the classification systems NACE Rev 2 and CPA 2008 are fully harmonized with the European classification systems.

It should be noted that enterprises, beside the primary activity also provide secondary activities or bundled services for their clients. On the other hand companies classified beyond the industry 77.3 may also offer services related to the "Rental and leasing services of other machinery, equipment and tangible goods". One of the main challenges seems to classify special services and handle the international transactions of services.

In Hungary the main areas of secondary activities of companies classified to the subdivision 77.3 are "Construction" (F: 41, 42, 43)"Manufacture of computer, electronic and optical products" (C26), "Wholesale and retail trade and repair of motor vehicles and motorcycles" (G45), "Wholesale trade, except of motor vehicles and motorcycles" (G46), "Land transport and transport via pipelines" (H49).

5. DEFINICION OF THE SERVICE

Industry classification

According to the European classifications (NACE Rev.2, CPA 2008), activities related to the rental and leasing services of other machinery, equipment and tangible goods are concentrated in section "N" ADMINISTRATIVE AND SUPPORT SERVICE ACTIVITIES under division "77", which includes twelve classes for classification of several kind of rental and leasing services for business clients as well as for household classes of which sex belong to the "Rental and leasing services of other machinery, equipment and tangible goods" according to the NACE classification (see Annex).

77.3 Rental and leasing services of other machinery, equipment and tangible goods

Industry classification

- > 77.31 Rental and leasing of agricultural machinery and equipment
- 77.32 Rental and leasing of construction and civil engineering machinery and equipment
- 77.33 Rental and leasing of office machinery and equipment (including computers)
- > 77.34 Rental and leasing of water transport equipment
- > 77.35 Rental and leasing of air transport equipment
- 77.39 Rental and leasing of other machinery, equipment and tangible goods n.e.c.

In Hungary classes 77.32 and 77.39 have been selected to carry out a regular statistical data collection by questionnaire. The explanatory notes for the areas of 77.3 see in Annex (under NACE Rev.2, CPA 2015, and ISIC Rev. 4).



Product Classification

The central product classification CPC (Rev. 2) is the main product classification system applicable to this industry.

The CPA 2008 (Statistical Classification of Products by Activity in the European Economic Community) concerning the area of 77.3 includes 11 subcategories with a direct link to the NACE industry classification (details see in Annex). Due to the improvement of technologies and organization frames used, operations of companies may rapidly change accommodating to the market needs. It is a common practice for the company to procure the asset to be leased according to the needs of the customers, thus, it is difficult to stabilize the primary activity of the companies.

The main macroeconomic statistics according to the annual structural indicators at the subdivision level are shown in the Table 1.

Table 1

Macroeconomic indicators in Hungary by employment category, 2019

| SIZE_EMP / INDIC_SB | Number of e | nterprises | Turnover | Value added | Number of persons employed |
|---------------------------------|-------------|-------------------|-------------------|-------------------|----------------------------------|
| | | % | % | % | % |
| Total | 2084 | 100,0 | 100,0 | 100,0 | 100,0 |
| 250 persons employed or more | | | | | |
| From 50 to 249 persons employed | | | | | |
| From 20 to 49 persons employed | 30 | 1,4 | 14,9 | 12,0 | 12,2 |
| From 10 to 19 persons employed | 80 | 3,8 | 22,1 | 11,9 | 15,6 |
| From 0 to 9 persons employed | 1962 | <mark>94,1</mark> | <mark>34,5</mark> | <mark>40,4</mark> | <mark>46,5</mark> |

Rental ad leasing services of other machinery, equipment and tangible goods (77.3)

Source: HCSO

Looking at the data in Table1, the share of the number of enterprises in the lowest employment category is more than 94%, however concerning the employment band with 50 employees or more, data is sensitive, the cells in the table are empty, nevertheless he share of other indicators: turnover, value added and number of persons is also the highest in the lowest employment size category (34.5%. 40.4% and 46,5%).

The most important macro-economic data for service groups NACE "N", "77" and "77.3" are presented in Table2.



Table 2

| NACE Rev.2 | Number of enterprises | | Turnover | GDP | Number of persons employed |
|------------------------------------|-----------------------|-------|----------|-------|----------------------------------|
| | | % | % | % | % |
| Total NACE'08 05-63;68-82;85-96 | 839 779 | 100,0 | 100,0 | 100,0 | 100,0 |
| Ν | 52 322 | 6.2 | 3.2 | 5.4 | 8.0 |
| 77 | 5 161 | 0.6 | 0.6 | 1.1 | 0.4 |
| 773 | 2 084 | 0.2 | 0.2 | 0.1 | 0-2 |

Macroeconomic indicators in Hungary, 2019

Source: HCSO

Scope of the Survey

Rental and leasing activities in Hungary regarding turnover data are fully covered.

To calculate high quality volume indicators, for deflation of the output/turnover data appropriate SPPI's are needed. To meet this needs, a feasible price observation system has been developed, taking into account the structure of the total yearly turnover, the aggregation level and frequency of production.

Turnover structure

The turnover structure could be described as follows (with limited coverage and quality):

- Main activity + secondary activities information on secondary activities is available only for enterprises with more than 19 employees;
- Domestic + non-domestic/export (by residency) based on data of enterprises performing dual accounting;
- Data from survey + administrative data (e.g. for enterprises with less than 5 employees) + imputation of data (concerning missing data).

6. PRICES

Industry-based vs. product-based SPPI (deflator) data

Many data suppliers classified to the division 77 (as well as to the class 7730) account a relevant turnover share regarding secondary activities. This fact should be taking into account when assembling the weight structure.

For national accounts purposes it could be more appropriate a product-based SPPI. However, when the total turnover is dominated by the share of primary activity, a product-based SPPI could be used as proxy for the industry-based SPPI.



6.1. Record keeping practice

In Hungary the experimental data collection is based on a statistical survey. Price data has been collected quarterly, within the frame of the regular SPPI survey since Q1 of 2014.

The sample for producing of SPPIs can be selected by using of several different sampling methods of which combination of random stratified sampling and cut-off based on turnover and/or employment-size is used in Hungary. Irrespective of the methodology employed the market-leader establishments are usually selected. In the case of cut-off sampling, when only the largest establishments are included in the sample, it is assumed that they control the evolution of prices and the aggregated share of the total net sales figures at basic prices represent almost the entire market (possible more than 80%). This method can minimize both the cost of price collection and also the response burden on smaller establishments.

In addition to all of this, it is important to get price data as well as weights for every important submarket to ensure appropriate representativeness of the industry as a whole and also for significant product-groups.

Enterprises classified to different industries may be also selected for inclusion in the survey of this industry, if they generate significant turnover from the secondary activity related to the operations of Rental and leasing services of other machinery, equipment and tangible goods.

The data collection media is questionnaire by electronic data collection. The main source of information is national Business Register. Reporting units are legal units considered as enterprises.

6.2. Sample design

In Hungary generally B-B prices are collected directly from the service providers.

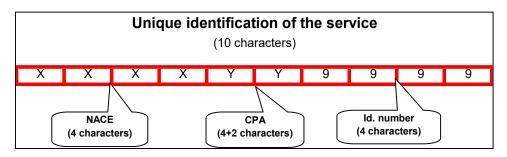
General questionnaires are available for respondents on the website of HCSO at the end of the reference quarter. New respondents are asked to complete a relatively open general questionnaire specific to the observed rental and leasing activities.

A "customized" questionnaire for each respondent is developed with the help of telephone interviews. As a result, pre-printed questionnaires are used. In order to follow the methodological development and ensure the quality of reported data, follow-up calls are made (for example on how to deal with new clients, new or replacement products, new market conditions). Respondents are required to provide an average price over the reference period for each specified service transaction.

In Hungary, according to the general framework of SPPI observation system, domestic prices of services (sold to the resident customers) and export prices of services (sold to the non-resident customers) are collected on separate pages. Turnover data are also collected for the previous year at CPA 4 and 6 digit-level on the SPPI questionnaire.



Figure 3



Structure of the code of a representative service on the SPPI questionnaire

Pricing unit of measure

In Hungary for the selected price representative items as the pricing unit of measure typically HUF/day, HUF/month or EUR/day, EUR/month is considered.

6.3. Discussion of pricing methods

Hungary intends to use the most appropriate pricing methods, taking into account available national and international experiences. Based on that, for some service groups it may be the best solution to combine the particular methods. However, selecting the most applicable pricing method(s) depends on the service provided, availability of alternative data sources as well as on the response burden.

In general, the average price change of the observed groups of services reflects primarily the specific features of the different service activities and the special needs of contractors, however, its value could be influenced by several other factors as well. Examples include the development of the HUF/EUR exchange rate, the market restructuring and changes in legislation.

Basically prices are collected for a detailed set of price specifications of products, for which the prices refers to a level of detail, where there are no further varieties of the products.

The choice of an adequate pricing method is based mainly on:

- pricing mechanism;
- easy identification of the service specification (e.g. in the business accounting system);
- repeatability of the price specification;
- response burden for businesses;
- resources in the NSI;

Recommended pricing methods for Rental and leasing activities are as follows:

The price of provided service basically depends on transaction partners, type of machinery or equipment, time of renting, type of the right(s), time period and/or the amount of the item and on additional criteria.

In Hungary, the main fields of operations are rental and leasing of various machinery and equipment.

In case of 77.32: Renting different types of civil engineering machinery for a short or long time.



In case of 77.39: Renting different types of machinery or equipment

Service providers are asked to select the most typical types of goods and the most important price determining factors to be fill in the questionnaires as follows:

| Representative service | | | | |
|--|---|-------------|--------------------|--|
| description | | code | Unit of measure | |
| | а | b | d | |
| Renting and leasing of other machinery, equipment and tangible goods n.e.c. (7739 in NACE Rev.2) A7739000000 | | | - | |
| Rental and lea | asing services of railroad vehicles (CPA'08 7739.11) | A7739110000 | _ | |
| Service 1: | | A7739110001 | HUF/month | |
| Service 2: | | A7739110002 | HUF/month | |
| Rental and lea | asing services of containers (CPA'08 7739.12) | A7739120000 | _ | |
| Service 1: | | A7739120001 | HUF/day | |
| Service 2: | | A7739120002 | HUF/month | |
| Rental and leasing services of motorcycles, caravans and campers (CPA'08 7739.13) A7739130000 | | | _ | |
| Service 1: | | A7739130001 | HUF/day | |
| Service 2: | | A7739130002 | HUF/month | |
| Rental and lea (CPA'08 7739. | asing services of telecommunications equipment 14) | A7739140000 | - | |
| Service 1: | | A7739140001 | HUF/day | |
| Service 2: | | A7739140002 | HUF/month | |
| Rental and leasing services of other machinery and equipment without operator and tangible goods n.e.c. (CPA'08 7739.19)A7739190000 | | | - | |
| Service 1: | · · · · · | A7739190001 | HUF/day | |
| Service 2: | | A7739190002 | HUF/month | |

A) Services sold to the resident customer

B) Services sold to the resident customer

Similarly, prices for non-domestic (export) services are also collected for selected representative items.

The most typical types of items:

- *civil engineering machinery road roller, wall support, scaffolding, crane, container;*
- other machinery, equipment: motor train, drilling rig, forklift, truck, backhoe loader



The most appropriate pricing methods – in theory – be may be the following:

- Unit values/average prices for the strictly defined type of service amount..., (e.g. per/time period, per service package);
- *Contract prices* of the large and representative customers: prices for standardized and repeated activities, for the same type of right (license trademark, brand, ..., with the same price determining factors);
- Percentage fee method (mainly for rights related to the trade of properties);
- Model pricing for unique or complex services;

Second best:

- Averages prices per unit of measure for the relatively openly defined type of service;
- Direct use of prices of repeated services;
- Using available price indices as proxies (CPI, PPI, other).

To summarise our experiences, in the machine rental business usually huge discount are given. In practice, the unit values pricing method was considered to be the best option.

Unit value method

The units have to be defined clearly for each product or service. The units should be as homogenous as possible, e.g. by type of machinery, equipment, area of the field of economy, time period. In defining the unit, detailed information about turnover/output and quantity of sold units have to be available.

If the services are homogeneous and can be quality adjusted if any changes occur, then the unit value method is an optimum choice. A drawback is that information about the quantity of products sold is often not available at the required homogenous level. Otherwise the unit value method should not be used.

Contract pricing

Each firm in the sample chooses some of their clients (representative clients) and prices of the same services (representative services) provided to the same clients on an ongoing basis. Contract pricing is the ideal method, due to the fact that it measures the price of real services. One of the disadvantages is that it is difficult to apply to the full range of services provided by the industry, in particular when enterprises produce unique services. Quality adjustment should be also ensured (e.g. when replacing an old license for a new).

Direct use of prices of repeated services

List prices for some type of licenses are often available via web sites. However, transaction prices reflect the relatively abundant on-line information. List prices can only be used if it is known that a sufficient quantity of services is actually sold at the list price.

How to produce SPPIs/deflators for this industry?

Example for (e.g. for a leasing service, using percentage fee method) *What pays the user of the rights?*

Price = (Entry fee) + License fee



Licence fee = X% of the sales (turnover) accounted for the previous time period (year/quarter).

How to deflate the licence fee?

Deflator = index of % * deflator for sales = index of % * proxy for SPPI = index of % PPI for the related product groups.

In practice, however, the collection of license fees from related companies (users of rights) is a challenge (e.g. from casinos in case of slot machines in) because of the next reasons:

- The users of rights are mostly in Hungary non-resident companies;
- They are located usually in several European countries, or worldwide;
- Collection of data in non-national territory seems to be very difficult, sometimes impossible (other legal rules, classifications, availability of indicators, deadlines);
- *Quality issues.*

Recommendation:

Yearly observation of percentages (%) and use proxy indicators for deflation of sales.

When users of rights are non-resident, it could be proposed

- For European countries EU-level indicators
- For non-European countries it seems to be difficult to estimate the price development (thus e.g. using of national indicators * exchange rate of currency of the most important country/countries).

6.4. Weighting and aggregation

Possible sources of data for the weighting purposes include turnover data collected directly from respondents, from associations, or obtained from other sources such as structural business statistics, the National Accounts or administrative data (if they exist).

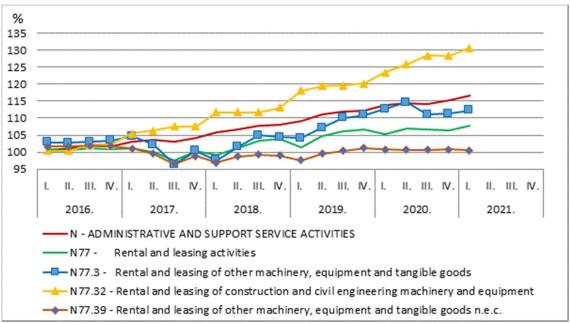
For aggregation of company-level and higher-level sub-indices of "big" companies Hungary uses "product-based" turnover data 1 year prior to the actual year collected in the frame of the SPPI survey. The NACE 2/CPA'15 (4-digit and higher level) weights at the level of the national economy are industry-based (SBS) turnover data from 2 years prior to the actual year. The indices are chain linked with annually updated weights.

Method for index calculation (B2B):

- Elementary price indices (price relatives)
- Individual price index for each company (unweighted geometrical average and/or weighted arithmetical average)
- Sub-index for "big" companies (full coverage, weighted arithmetical average)
- Sub-index for "small" companies (representative sample, unweighted geometrical average)
- Compiling indices for the products (CPA'08 4-digit level indices, weighted arithmetical average with rate of the turnover of "big" and "small" companies). For aggregation indices of "big" companies we apply product-based turnover data 1 year prior to the actual year collected by the SPPI survey.



Figure 4

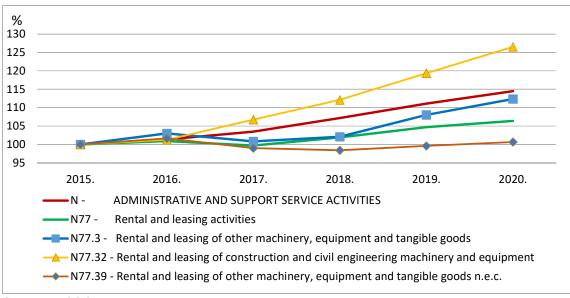


Rental and leasing of other machinery, equipment and tangible goods, N 77.3 Quarterly SPPIs in Hungary, 2015=100%

Source: HCSO

Figure 5

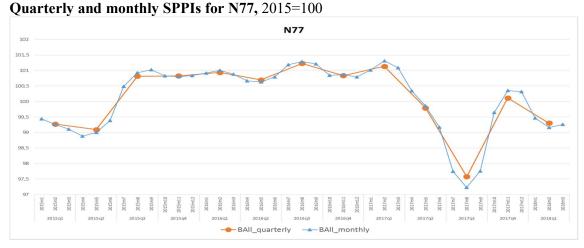
Rental and leasing of other machinery, equipment and tangible goods, N 77.3 Annual SPPIs in Hungary, 2015=100%



Source: HCSO



Figure 6



Monthly data produced by the temporal aggregation method are available at the division level.

Source: HCSO

7. QUALITY ADJUSTMENT AND METHODOLOGY

In Hungary, generally the recommendations of international organizations and methodological guidelines are followed. Concerning the quality adjustment methods the main used practices are the overlapping method, applying prices of previous periods, imputation of averages of similar categories or higher level aggregates as well as comparable adjustment – taking into account the nature of the service and the relationship between statistical office and data suppliers.

Further possibility to ensure appropriate quality of reported prices could be to compare productlevel average price of an enterprise with the average price at the national level.

8. EALUATION OF COMPARABILITY REGARDING TURNOVER/OUTPUT MEASURES

For estimation of the real productions of services as well as of the GDP at constant prices – as the most appropriate deflators – SPPIs are recommended.

Industry-based vs. product-based SPPI (deflator) data

Hungary primarily produces product-based SPPIs, which reflect the average price development of sold services produced/performed by domestic enterprises. It is in consistency with the services performance indicators, because according to the new EBS regulation kind of activity units (KAU-s) are considered as statistical units in service statistics.

Regarding export (non-domestic) and international services, Hungary follows the residency approach. The non-domestic part of the SPPI index is under development.



9. SUMMARY

In Hungary the pilot SPPI survey for Renting and leasing activities including began in 2014 by a quarterly experimental questionnaire. The general formula was prepared by experts of the NSI, however, a customized product list has been developed by close contribution of companies – taking into account specifications of services provided. B2B for domestic and non-domestic transactions as well as turnover data are received. Industry is dominated by services provided for businesses, in many cases on the base of a license agreement. For this reason a B2B SPPI may be an adequate estimation for a B2All SPPI.

The main fields of operations observed are as follows: "Rental and leasing services of construction and civil engineering machinery and equipment" (CPA'15 7732.10) and "Rental and leasing services of other machinery and equipment without operator and tangible goods n.e.c." (CPA'08 7739.19) including rights related to license agreement.

In the machine rental business usually huge discount are given. In practice, the unit values pricing method was considered to be the best option.

Services are mainly provided for domestic as well as for non-resident companies.

Concerning the export services and license agreements, especially using of the percentage fee method, the data collection by questionnaires may be difficult and time-consuming. In this case using of appropriate price indices as proxies for SPPIs could be proposed for deflation of related revenues. To improve the quality of SPPIs, yearly observation of percentages (%) could be also considered.

APPENDIX

References – General methodological information

Handbooks

- Eurostat-OECD Methodological Guide for Developing Producer Price Indices for Services. Second Edition. OECD Publishing. Paris. DOI: 10.1787/9789264220676-en http://ec.europa.eu/eurostat/documents/3859598/6485893/KS-04-14-661-EN-N.pdf
- Essential SNA: Building the basics, Eurostat, 2013 <u>http://ec.europa.eu/eurostat/documents/3859598/5927149/KS-RA-13-003-EN.PDF/c544a279-51d9-4a8c-b0cc-ea9b1b6d212f?version=1.0</u>
- European System of Accounts ESA 2010. Handbook http://ec.europa.eu/eurostat/documents/3859598/5925693/KS-02-13-269-EN.PDF/44cd9d01-bc64-40e5-bd40-d17df0c69334

International studies

- Ulrich Eidman, 2010. A comparison of methods used to compile PEEIs in short-term business statistics,
- Statistics in Focus 52/2010, Eurostat;
- Statistics in Focus 103/2008, Eurostat;



ANNEX

NACE Rev. 2

Statistical Classification of Economic Activities in the European Community, Rev. 2 (2008)

N ADMINISTRATIVE AND SUPPORT SERVICE ACTIVITIES Detail

- 77 Rental and leasing activities **Detail**
 - 77.3 Rental and leasing of other machinery, equipment and tangible <u>Detail</u> goods
 - 77.31 Rental and leasing of agricultural machinery and equipment Detail
 - 77.32 Rental and leasing of construction and civil engineering <u>Detail</u> machinery and equipment
 - 77.33 Rental and leasing of office machinery and equipment (including <u>Detail</u> computers)
 - 77.34 Rental and leasing of water transport equipment Detail
 - 77.35 Rental and leasing of air transport equipment Detail
 - 77.39 Rental and leasing of other machinery, equipment and tangible <u>Detail</u> goods n.e.c.

77 Rental and leasing activities

This item includes: This division includes the rental and leasing of tangible and non-financial intangible assets, including a wide array of tangible goods, such as automobiles, computers, consumer goods, and industrial machinery and equipment, to customers in return for a periodic rental or lease payment. It is subdivided into: (1) the rental of motor vehicles, (2) the rental of recreational and sports equipment and personal and household equipment, (3) the leasing of other machinery and equipment of the kind often used for business operations, including other transport equipment and (4) the leasing of intellectual property products and similar products. Only the provision of operating leases is included in this division.

This division excludes:

- financial leasing, see 64.91
- rental of real estate, see section L

- rental of equipment with operator, see corresponding classes according to activities carried out with this equipment, e.g. construction (section F), transportation (section H)

Reference to ISIC Rev. 4: 77

77.31 Rental and leasing of agricultural machinery and equipment

This class includes:

- rental and operational leasing of agricultural and forestry machinery and equipment without operator:

• rental of products produced by class 28.30, such as agricultural tractors etc.

77.32 Rental and leasing of construction and civil engineering machinery and equipment

This class includes:

- rental and operational leasing of construction and civil engineering machinery and equipment without operator:



• crane lorries

• scaffolds and work platforms, without erection and dismantling

This class excludes:

- rental of construction and civil engineering machinery or equipment with operator, see division 43

- rental of agricultural and forestry machinery or equipment with operator, see 01.61, 02.40

77.33 Rental and leasing of office machinery and equipment (including computers)

This class includes:

- rental and operational leasing of office machinery and equipment without operator:
- computers and computer peripheral equipment
- duplicating machines, typewriters and word-processing machines
- accounting machinery and equipment: cash registers, electronic calculators etc.

office furniture

77.34 Rental and leasing of water transport equipment

This class includes:

- rental and operational leasing of water-transport equipment without operator:
- commercial boats and ships

This class excludes:

- rental of water-transport equipment with operator, see division 50

- rental of pleasure boats, see 77.21

77.35 Rental and leasing of air transport equipment

This class includes:

- rental and operational leasing of air transport equipment without operator:
- airplanes
- hot-air balloons

This class excludes:

- rental of air-transport equipment with operator, see division 51

77.39 Rental and leasing of other machinery, equipment and tangible goods n.e.c.

This class includes:

- rental and operational leasing, without operator, of other machinery and equipment that are generally used as capital goods by industries:

- engines and turbines
- machine tools
- mining and oilfield equipment
- professional radio, television and communication equipment
- motion picture production equipment
- measuring and controlling equipment
- other scientific, commercial and industrial machinery
- rental and operational leasing of land-transport equipment (other than motor vehicles) without drivers:
- motorcycles, caravans and campers etc.
- railroad vehicles

This class also includes:

- rental of accommodation or office containers
- rental of animals (e.g. herds, race horses)
- rental of containers
- rental of pallets



This class excludes:

- rental of bicycles, see 77.21
- rental of agricultural and forestry machinery and equipment, see 77.31
- rental of construction and civil engineering machinery and equipment, see 77.32
- rental of office machinery and equipment, including computers, see 77.33

Reference to ISIC Rev. 4: 7730

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N ADMINISTRATIVE AND SUPPORT SERVICES

- 77 Rental and leasing services Detail
 - 77.3 Rental and leasing services of other machinery, equipment and tangible goods
 - 77.31 Rental and leasing services of agricultural machinery and equipment

77.31.10 Rental and leasing services of agricultural machinery and equipment Detail

- 77.32 Rental and leasing services of construction and civil engineering machinery and equipment

| 77.32.10 Rental and leasing services of construction and civil engineering machinery and equipment | Detail | | | | | |
|---|---------------|--|--|--|--|--|
| - 77.33 Rental and leasing services of office machinery and equipment (including computers) | <u>Detail</u> | | | | | |
| 77.33.1 Rental and leasing services of office machinery and equipment (including computers) | <u>Detail</u> | | | | | |
| 77.33.11 Rental and leasing services of office machinery and equipment (excluding computers) | Detail | | | | | |
| 77.33.12 Rental and leasing services of computers Detail | | | | | | |
| 77.34 Rental and leasing services of water transport equipment | | | | | | |
| 77.34.10 Rental and leasing services of water transport equipment Detail | | | | | | |
| - 77.35 Rental and leasing services of air transport equipment | | | | | | |
| 77.35.10 Rental and leasing services of air transport equipment <u>Detail</u> | | | | | | |
| - 77.39 Rental and leasing services of other machinery, equipment and tangible goods | | | | | | |
| n.e.c. 77.39.1 Rental and leasing services of other machinery, equipment and tangible goods n.e.c. | | | | | | |
| 77.39.11 Rental and leasing services of railroad vehicles Detail | | | | | | |
| 77.39.12 Rental and leasing services of containers Detail | | | | | | |
| 77.39.13 Rental and leasing services of motorcycles, caravans and campers | <u>Detail</u> | | | | | |
| 77.39.14 Rental and leasing services of telecommunications equipment Deta | <u>uil</u> | | | | | |

77.39.19 Rental and leasing services of other machinery and equipment without <u>Detail</u> operator and tangible goods n.e.c.



ISIC, Rev. 4 - Code 77

Section: N - Administrative and support service activities Division: 77 - Rental and leasing activities

Group:

771 - Renting and leasing of motor vehicles

772 - Renting and leasing of personal and household goods

773 - Renting and leasing of other machinery, equipment and tangible goods

774 - Leasing of intellectual property and similar products, except copyrighted works

Explanatory note

This division includes the renting and leasing of tangible and non-financial intangible assets, including a wide array of tangible goods, such as automobiles, computers, consumer goods and industrial machinery and equipment to customers in return for a periodic rental or lease payment. It is subdivided into: (1) the renting of motor vehicles, (2) the renting of recreational and sports equipment and personal and household equipment, (3) the leasing of other machinery and equipment of the kind often used for business operations, including other transport equipment and (4) the leasing of intellectual property products and similar products. Only the provision of operating leases is included in this division.

This division excludes financial leasing activities (see class 6491), renting of real estate (see section L) and the renting of equipment with operator. The latter is classified according to the activities carried out with this equipment, e.g. construction (section F) or transportation (section H).

Hierarchy

Section:
N - Administrative and support service activities
Division:
77 - Rental and leasing activities
Group:
773 - Renting and leasing of other machinery, equipment and tangible goods
Class:
7730 - Renting and leasing of other machinery, equipment and tangible goods

Explanatory note

This class includes: - renting and operational leasing, without operator, of other machinery and equipment that are generally used as capital goods by industries: * engines and turbines * machine tools * mining and oilfield equipment * professional radio, television and communication equipment * motion picture production equipment * measuring and controlling equipment * other scientific, commercial and industrial machinery - renting and operational leasing of land-transport equipment (other than motor vehicles) without drivers: * motorcycles, caravans and campers etc. * railroad vehicles - renting and operational leasing of water-transport equipment without operator: * commercial boats and ships - renting and operational leasing of air transport equipment without operator: * airplanes * hot-air balloons - renting and



operational leasing of agricultural and forestry machinery and equipment without operator: * renting of products produced by class 2821, such as agricultural tractors etc. - renting and operational leasing of construction and civil-engineering machinery and equipment without operator: * crane lorries * scaffolds and work platforms, without erection and dismantling - renting and operational leasing of office machinery and equipment without operator: * computers and computer peripheral equipment * duplicating machines, typewriters and word-processing machines * accounting machinery and equipment: cash registers, electronic calculators etc. * office furniture.

This class also includes: - renting of accommodation or office containers - renting of containers - renting of pallets - renting of animals (e.g. herds, race horses).

This class excludes: - renting of agricultural and forestry machinery or equipment with operator, see 0161, 0240 - renting of construction and civil engineering machinery or equipment with operator, see division 43 - renting of water-transport equipment with operator, see division 50 - renting of air-transport equipment with operator, see division 51 - financial leasing, see 6491 - renting of pleasure boats, see 7721 - renting of bicycles, see 7721.