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Voorburg Paper

Mini-presentation on Turnover and Output for Renting and leasing of other machinery, equipment and tangible goods (ISIC 7730) in Sweden

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1. Descriptions and characteristics of the industry

1.1 Definition of the industry

In the UN classification, ISIC Rev.4, all Renting and leasing of other machinery, equipment and tangible goods are grouped together in ISIC 7730. At European level this ISIC class corresponds to the NACE group 77.3 Renting and leasing of other machinery, equipment and tangible goods in NACE Rev.2. This group belongs to division 77 Rental and leasing activities within section N Administrative and support service activities.

Table 1 shows all relevant classes for renting and leasing of other machinery, equipment and tangible goods from ISIC, NACE and SNI2007 (the Swedish national classification).

Table 1. Industrial classification by activity for Renting and leasing of other machinery,

equipment and tangible goods in ISIC, NACE and SNI

| ISIC | ISIC Description | NACE Class | SNI2007 5-digit level | NACE and SNI Description |
|------|---|--------------------------|-----------------------------|---|
| 7730 | Renting and leasing of other machinery, equipment and tangible goods | 77.3 (group level) | | Renting and leasing of other machinery, equipment and tangible goods |
| | | 77.31 | 77.310 | Renting and leasing of agricultural machinery and equipment |
| | | 77.32 | 77.320 | Renting and leasing of construction and civil engineering machinery and equipment |
| | | 77.33 | 77.330 | Renting and leasing of office machinery and equipment (including computers) |
| | | 77.34 | 77.340 | Renting and leasing of water transport equipment |
| | | 77.35 | 77.350 | Renting and leasing of air transport equipment |
| | | 77.39 | 77.390 | Renting and leasing of other machinery, equipment and tangible goods n.e.c. |

Both NACE and the Swedish National Classification (SNI2007) has divided the group 77.3 into 6 different classes. These correspond with each other as shown in table 1 above. In SNI there is a possibility to further divide the NACE class into sub-classes at the 5-digit level, but in this case no further sub-classes have been created in SNI. The primary focus of this paper will be on NACE 77.3 (group level).

Table 2a. Classification of products for ISIC 7730 Renting and leasing of other machinery, equipment and tangible goods in CPA 2.1 and SPIN2015

| CPA 2.1 | SPIN2015 | CPA and SPIN description |
|----------|-----------|---|
| 77.31.10 | 77.310.00 | Rental and leasing services of agricultural machinery and equipment |
| 77.32.10 | 77.320.00 | Rental and leasing services of construction and civil engineering machinery and equipment |
| 77.33.11 | 77.330.01 | Rental and leasing services of office machinery and equipment (excluding computers) |
| 77.33.12 | 77.330.02 | Rental and leasing services of computers |
| 77.34.10 | 77.340.00 | Rental and leasing services of water transport equipment |
| 77.35.10 | 77.350.00 | Rental and leasing services of air transport equipment |
| 77.39.11 | 77.390.01 | Rental and leasing services of railroad vehicles |
| 77.39.12 | 77.390.02 | Rental and leasing services of containers |
| 77.39.13 | 77.390.03 | Rental and leasing services of motorcycles, caravans and campers |
| 77.39.14 | 77.390.04 | Rental and leasing services of telecommunications equipment |
| 77.39.19 | 77.390.05 | Rental and leasing services of other machinery and equipment without operator and tangible goods n.e.c. |

The Swedish product classification SPIN2015 is in most parts equal with the CPA classification (CPA Ver. 2.1.). The code structure is slightly different; the first four digits are always the same in SPIN and CPA, but the fifth digit and onwards differ slightly. The first four digits are identical in CPA and SPIN for ISIC 7730 as shown in table 2a. The code structure of SPIN follows the SNI classification (compare table 1 and table 2a).

Table 2b. Classification of products for ISIC 7730 Renting and leasing of other machinery, equipment and tangible goods in CPC

| CPC Ver. 2.1 | | | ISIC | Description |
|--------------------|-----------------|---------------------|-----------|--|
| 731 (group) | | | | Leasing or rental services concerning machinery and equipment without operator |
| | 7311 (class) | | | Leasing or rental services concerning transport equipment without operator |
| | | 73113 (subclass) | 7730 | Leasing or rental services concerning railroad vehicles without operator |
| | | 73114 | 7710,7730 | Leasing or rental services concerning other land transport equipment without operator |
| | | 73115 | 7730 | Leasing or rental services concerning vessels without operator |
| | | 73116 | 7730 | Leasing or rental services concerning aircraft without operator |
| | | 73117 | 7730 | Leasing or rental services concerning containers |
| | 7312 | | | Leasing or rental services concerning other machinery and equipment without operator |
| | | 73121 | 7730 | Leasing or rental services concerning agricultural machinery and equipment without operator |
| | | 73122 | 7730 | Leasing or rental services concerning construction machinery and equipment without operator |
| | | 73123 | 7730 | Leasing or rental services concerning office machinery and equipment (except computers) without operator |
| | | 73124 | 7730 | Leasing or rental services concerning computers without operator |
| | | 73125 | 7730 | Leasing or rental services concerning telecommunications equipment without operator |
| | | 73129 | 7730 | Leasing or rental services concerning other machinery and equipment without operator n.e.c |

The CPC classification divides leasing and rental services without operator into three different groups, 731 – Leasing or rental services concerning machinery and equipment without operator, 732 – Leasing or rental services concerning other goods, and 733 – Licencing services

for the right to use intellectual property and similar products. Of these, it is in only group 731 where there is products connected to ISIC 7730. Group 731 divides into two classes as shown in table 2b, and only the subclasses connected with ISIC 7730 are included in the table.

1.2 Market conditions and constraints

Section N *Administrative and support service activities* accounts for 3 percent of net turnover, 3.6 percent of number of enterprises and 8.2 percent of the employees in the Swedish business sector in 2019.

Section N consists of Rental and leasing activities (NACE 77), Employment activities (NACE 78), Travel agency, tour operator and other reservation service and related activities (NACE 79), Security and investigation activities (NACE 80), Services to buildings and landscape activities (NACE 81), and Office administrative, office support and other business support activities (NACE 82).

In 2019 NACE division 77 had 14 percent of all enterprises in section N and 15 percent of the sections net turnover. Table 3 shows some basic information regarding NACE 77.3 *Renting and leasing of other machinery, equipment and tangible goods* in comparison with NACE 77.

Table 3. Basic data on NACE 77.3 Renting and leasing of other machinery, equipment and tangible goods, compared with data for NACE 77 Rental and leasing activities.¹

| Variable | Total NACE 77.3 | Total NACE 77 |
|------------------------------|--------------------|------------------|
| Number of enterprises | 3 418 | 5 213 |
| Number of employees (FTE) | 8 717 | 12 633 |
| Net turnover, SEK million | 28 968 | 44 403 |
| Value added, SEK million | 11 777 | 16 872 |
| Total assets, SEK million | 65 593 | 106 600 |
| Net investments, SEK million | 5 028 | 8 668 |

Source: Statistics Sweden, Structural Business Statistics 2019. Statistical unit Enterprise

NACE 77.3 Renting and leasing of other machinery, equipment and tangible goods consisted of 3 418 enterprises, or 66 percent of all enterprises within NACE 77 in 2019. The net turnover for these enterprises amounted to 28 968 SEK million, or approximately 2 736 MEUR, which is 65 percent of total turnover in division 77. Enterprises within 77.3 employed in total 8 717 persons, or 69 % of all employees in division 77.

5 av 15

SCB – Mini-presentation on Turnover and Output for Renting and leasing of other machinery, equipment and tangible goods (ISIC 7730) in Sweden

¹ Tables 3 and 4 are on the statistical unit enterprise based on European Council Regulation (EEC) No 696/93. Sweden has implemented a new definition of enterprise from reference year 2018 and onwards.

Table 4 shows number of enterprises, employees and net turnover divided by size classes for NACE 77.3 in 2019.

Table 4. Number of employees, enterprises and turnover by size class for NACE 77.3

Renting and leasing of other machinery, equipment and tangible goods¹

| Size class (number of employees) | Number of enterprises | Number of Employees (FTE) | Net turnover, SEK million |
|----------------------------------|--------------------------|------------------------------|------------------------------|
| 0-9 | 3 248 | 1 703 | 8 424 |
| 10-19 | 89 | 952 | 2 827 |
| 20-49 | 54 | 1 164 | 3 282 |
| 50-249 | 23 | 2 099 | 6 609 |
| 250+ | 4 | 2 799 | 7 826 |
| Total | 3 418 | 8 717 | 28 968 |

Source: Statistics Sweden, Structural Business Statistics 2019. Statistical unit Enterprise

Most of the enterprises (95 percent) within NACE 77.3 are small. Microenterprises with 0-9 employees employed 1 703 persons, or 19.5 percent, in 2019. Net turnover in this size class amounted to 8 424 SEK million, which is approximately 795 MEUR, and 29 percent of the total in this industry. There were only 4 enterprises within NACE 77.3 with more than 250 employees, but they employed in total 2 799 persons or 32 percent of the total number of employees in 2019. These enterprises had a net turnover of 7 826 SEK million, which is approximately 739 MEUR. The medium-sized enterprises with between 50 and 249 employees employed 2 099 persons and had a net turnover of 6 609 SEK million or 624 MEUR in 2019.

Table 5. Variables in Swedish SBS survey for NACE 77.3 Renting and leasing of other machinery, equipment and tangible goods

| SBS Variable | Description | SPIN2015 |
|-----------------|--|-----------|
| v2015 | Agricultural machinery and equipment without driver | 77.310.00 |
| v2019 | Construction and civil engineering machinery and equipment without driver | 77.320.00 |
| v2023 | Office machinery and equipment (excluding computers) without operator | 77.330.01 |
| v2027 | Computers | 77.330.02 |
| v2007 | Water transport without staff | 77.340.00 |
| v2011 | Air transport equipment without staff | 77.350.00 |
| v1991 | Railroad vehicles without driver | 77.390.01 |
| v1995 | Containers | 77.390.02 |
| v1999 | Motorcycles, caravans and campers | 77.390.03 |
| v2035 | Telecommunications equipment without operator | 77.390.04 |
| v2031 | Machinery and equipment without operator and tangible goods without operator | 77.390.05 |

Source: Statistics Sweden, Structural business statistics 2019.

The Swedish SBS survey to enterprises within *Rental and leasing of other machinery, equipment and tangible goods* has in total 11 distinct variables connected to the Swedish product classification SPIN2015 as shown in table 5.

Turnover by product i SBS, SEK million

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Figure 1. Net turnover by product (SPIN2015) in Swedish SBS 2013-2019 for NACE 77.3, Kind-of-activity unit (KAU).

Source: Statistics Sweden, Structural business statistics 2019. Statistical unit: Kind-of-Activity-Unit (KAU)

In figure 1, the 11 distinct variables in SBS are grouped together on 5-digit SPIN instead of 7-digit SPIN to form 6 product groups to highlight the differences. The figure also shows "Other within 77" and "Other outside of 77" to present all activities that enterprises classified within NACE 77.3 perform. These two groups of activities are the second and third most common in the industry.

The largest product in 2019 was renting and leasing of "Construction and civil engineering machinery and equipment without driver" (SPIN2015: 77.320.00) with 16 452 SEK Million in net turnover (1 554 MEUR) which was 41 % of the total net turnover in NACE 77.3. This product has had a dominance in the industry since 2013, with between 40 and 45 % of the net turnover. The highest share for renting of construction and civil engineering machinery during the six- year-period occurred in 2016 and 2017 when this activity had 45 % of the net turnover.

The second largest product group, "Other within 77", consists of for example renting and leasing of cars, goods transport vehicles and other land transport equipment without driver, personal and household goods. This group had 25 % of the net turnover in 2013 but in 2019 the share had dropped to 20 % or a total net turnover of 7 941 SEK million (750 MEUR).

The combined group of "Renting and leasing of other machinery, equipment and tangible goods n.e.c." (SPIN2015: 77.390.01-05) includes for example railroad vehicles without driver, containers and telecommunications equipment. This group had a lower share (approximately 12-17 %) of the total net turnover over the time series. The peak was reached in 2017 when the share was 17 %. In recent years there has been a decline for this product group that only had 12 % of the total net turnover in 2018 and 2019. In 2019 renting and leasing of other machinery, equipment and tangible goods amounted to 4 893 SEK million (462 MEUR).

Renting and leasing of "Air transport equipment without staff" (SPIN2015: 77.350.00) shows the highest degree of development during 2013-2019. Up to 2015, this product only had approximately 3 % of the total net turnover but from 2015 and onward, the share of this product has increased. In 2019 this product had over 9 % of the total with 3 794 SEK million (358 MEUR).

Enterprises classified in NACE 77.3 are sometimes engaged in more than one activity. A proof of that is that the combined group "Other outside of 77" was the third largest product group with 6 274 SEK million (592 MEUR) in net turnover in 2019. The largest activities in this group were wholesale trade and construction.

1.3 Specific characteristics of the industry

In addition to dividing net turnover by product, all enterprises in the sample for SBS will have to divide net turnover by type of customer. The survey has 11 variables for this purpose, for example Sales to Swedish group companies, Sales to households and individuals within Sweden, Sales to county councils within Sweden and 8 others. In figure 2 these 11 variables have been grouped based on whether the customer is a business (B2B), a consumer (B2C) or within the public sector (B2Pub). B2B consists of all sales to other enterprises, B2C consists of households, individuals and households' non-profit organisations, and B2Pub consists of the public sector including municipalities and county councils.

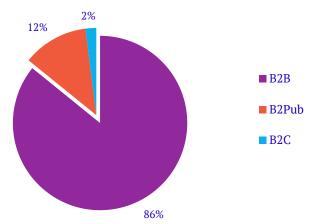


Figure 2. Net turnover in NACE 77.3 per type of customer (KAU level)

Source: Statistics Sweden, Structural business statistics 2019. Statistical unit: Kind-of-activity unit (KAU)

For enterprises within NACE 77.3, 86 % of turnover comes from B2B relations as shown in figure 2. This division of net turnover by customer follows for a majority of size classes, and is even more distinguished for the enterprises with more than 250 employees.

2% 0,4% 10% ■ Sales to other companies within Sweden ■ Sales to Swedish group companies Sales to other customers in a non-EU member state ■ Sales to other customers in 18% an EU-member state ■ Sales to group companies in an EU-member state ■ Sales to group companies in a non-EU member state 65%

Figure 3. Net turnover B2B in NACE 77.3 divided by type of enterprise (KAU level)

Source: Statistics Sweden, Structural business statistics 2019. Statistical unit: Kind-of-activity unit

With a further division of net turnover for B2B, figure 3 shows that Swedish customers generated 83 % of net turnover in NACE 77.3, and customers abroad only generated 17 % in 2019. This indicates that it is more common to use rental and leasing firms in the surrounding area.

SPPI and SBS

To analyse NACE 77.3 a bit further, figure 4 illustrates the development measured in net turnover by SBS and the development of SPPI for products 77.32 and 77.39 (SPIN2015). SPPI surveys prices during the reference year (monthly/quarterly), and SBS surveys turnover per product annually the year after the reference year.

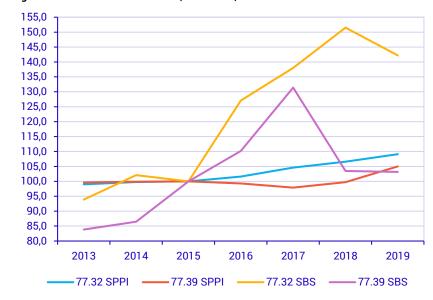


Figure 4. SPPI and SBS 2013-2019, 2015=100, SPIN2015

Source: Statistics Sweden, Structural business statistics and Producer Price Index for Services (SPPI)

The development of net turnover in SBS increased more significantly between 2013 and 2019 for product 77.32 than the increase in producer prices. This indicates an increased sale (larger volumes) for these products, since the prices have remained at roughly the same level.

For product 77.39 SBS and SPPI does not follow the same pattern. SBS shows a peak in 2017 that later decrease to a lower level for 2018 and 2019, whereas SPPI shows a decrease in prices from 2016, and later a small, but steady, increase 2018 up to 2019. This peak in SBS 2017 can be the result of differences in the sample where individual enterprises can influence the aggregate at both product and NACE level.

2. Turnover/output measurement

2.1 General Framework

Short-Term Statistics (STS)

Turnover in the service sector falls under the Council Regulation of Short Term Statistics, (EC) No. 1165/98. The target population is nonfinancial enterprises in the service sector. The sections covered are E, G, H-J and L-S according to NACE. The statistical unit as well as the unit of collection is the kind-of-activity unit (KAU). The National Accounts (NA) in their calculations of private consumption and Gross Domestic Product (GDP) mainly use the results. Turnover in the service sector is published monthly.

Structural Business Statistics (SBS)

Structural Business Statistics is a survey carried out annually in accordance to "Regulation (EC) No. 295/2008 [...] concerning structural business statistics" (the regulation consists of a number of annexes and the description below is valid for annexes I-IV and VIII, or NACE 05-82 (excluding 64-66) and 95). Furthermore, detailed results (much more detailed than demanded in the above-mentioned regulation) of the survey are delivered to the National Accounts. The SBS has been produced in its current format since 2003.

The statistical unit in the regulation is enterprise but for NA purposes, the unit is KAU.

2.2 Measurement issues

Short-Term Statistics

The base for the short-term statistics is Administrative VAT data, combined with a sample survey. The sample survey is conducted monthly. The total number of enterprises surveyed in the service sector lies around 7 500. The un-weighted response rate is approximately 85 per cent while the weighted response rate is approximately 90 per cent. The observation variable varies depending on NACE code. For enterprises in NACE 77 the observation variable is domestic turnover excluding VAT.

Structural Business Statistics

Information is collected on enterprise level or in some cases KAU level for the entire non-financial business sector.

The survey is based on administrative data, more precisely on income statements and balance sheets from the Swedish Tax Authority. The administrative data is, at least in theory, available for the entire population of around 1 000 000 enterprises. Non-response in administrative data (15 percent un-weighted, 4 percent weighted) are dealt with through mean value imputations based on industry and size class. This material is used for what is called the common variables within the income statement and balance sheet, such as turnover, other operating income, depreciation costs, personnel costs and total assets.

In addition to the administrative data, two separate sample surveys (specification of income statement and specification of investments) are carried out to provide information in more detail.

The survey regarding specification of income statement consists of preprinted values from the administrative data that the respondents have do distribute in specifications of turnover by product, detailed costs and personnel costs. A sample of approximately 16 500 enterprises is used for this part of the survey, allocated in 300 strata based on the demands of NA. The sample method used is πps , i.e. probability proportional to size. The response rate in this survey is usually around 85 percent unweighted and 95 percent weighted. The survey regarding specification of investments is similar to the specification of the income statement, but is less detailed and thus demand lower sample sizes. Approximately 3 000 enterprises get the investment questionnaire.

The 450 most significant enterprises, based on importance in each strata, are surveyed independently of the tax data. This is due to their importance to the business sector (roughly one-third of value added) and their often complex organisations. These enterprises are asked to complete a questionnaire consisting of a detailed income statement (including turnover by product and detailed costs), a balance sheet and a specification of investments. The response rate for these enterprises has been 98-100 per cent in recent years.

2.3 Descriptions of methods for measurement

Short-Term Statistics

Monthly data is used for the service production index and quarterly data for the production value index. The results are presented as development indices both in current and constant prices (calendar adjusted and seasonally adjusted). Results are published 35 days after the end of the reference period.

Structural Business Statistics

Preliminary results are compared with STS and other short-term indicators for consistency. Preliminary results are transmitted to Eurostat 10 months and final results 18 months after the end of the reference period. Final detailed results are transmitted to NA 13 months after the end of the reference year. Preliminary and final results are also published in on-line databases, 11 months and 16 months after the end of the reference year respectively. Results are published on enterprise (institutional) level as well as KAU (functional) level and for some variables local KAU (regional) level. The regional information is produced via a model-based approach.

2.4 Evaluation of comparability of Output data with Price data

Structural Business Statistics

Besides being an important input to the NA calculations, the collection of turnover by product is also an important input to the Business Register and to Prices. The detailed information makes it possible to detect any change in activity within the enterprises, and thus keep the Business Register as updated and correct as possible. Prices use the turnover by product as input in the sampling of enterprises for the SPPI survey.

4. Evaluation of measurement

The new Eurostat regulation EBS (applies from reference year 2021) have influenced both the STS and the SBS. The STS are now working according to EBS, and the SBS are preparing for these changes.

With the implementation of the statistical unit enterprise in the SBS a new design of the Swedish SBS will take place 2020-2023 to further develop accurate and cohesive statistics. In line with this implementation, the Kind-of-activity units will be evaluated and improved.