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Mini-Presentation on SPPI by

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**ISIC 7730 Renting and leasing of other machinery,
equipment and tangible goods**

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Introduction

The paper provides an overview on the development and experience of the Services Producer Price Index (SPPI) calculations for the class 7730 Renting and leasing of other machinery, equipment and tangible goods in Estonia. The class 7730 is part of published SPPI for N77 - renting and leasing activities.

1. Descriptions and characteristics of the industry

1.1. Definition of the industry

According to the ISIC Rev.4 the renting and leasing of other machinery, equipment and tangible goods is classified into the class 7730. Renting and leasing of other machinery, equipment and tangible goods while in the NACE Rev.2 is classified into six classes.

The ISIC Rev.4, NACE Rev.2 and CPA 2.1 are coherent until code 773. NACE Rev.2 is giving 4th level detail and is coherent with CPA v. 2.1. CPA v. 2.1 is going to 6th level code.

CPC Ver. 2.1 is not comparable on higher level code 7 Financial and related services; real estate services; and rental and leasing services. The rental and leasing services are in one with financial and real estate services. The CPC 73 Leasing or rental services without operator corresponds to CPA 77 Rental and leasing services. But there is also possible to find a link on lower level codes like CPC 73122 Leasing or rental services concerning construction machinery and equipment without operator corresponds to CPA 77.32 Rental and leasing services of construction and civil engineering machinery and equipment.

Classifications names:

- International Standard Industrial Classification of All Economic Activities, Revision 4 (2008) – ISIC REV.4
- Statistical Classification of Economic Activities in the European Community, Rev. 2 (2008) – NACE REV.2
- Central Product Classification, version 2.1 (2013) – CPC Ver. 2.1
- Statistical Classification of Products by Activity in the European Union, Version 2.1 (2015) – CPA v.2.1

Table 1. Correspondence Table: ISIC_4 - Target classification: NACE_REV2

| ISIC Rev.4 | NACE Rev.2 |
|---|--|
| 77 - Rental and leasing activities | 77 - Rental and leasing activities |
| 773 - Renting and leasing of other machinery, equipment and tangible goods | 77.3 - Rental and leasing of other machinery, equipment and tangible goods |
| 7730 - Renting and leasing of other machinery, equipment and tangible goods | |
| | 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. |

Source: European Commission/Eurostat/RAMON/Correspondence Tables

International Standard Industrial Classification of All Economic Activities, Revision 4 (2008)

– ISIC REV.4

N Administrative and support service activities

77 Rental and leasing activities

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

7730 Renting and leasing of other machinery, equipment and tangible goods

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 and bicycles, see 7721

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

N ADMINISTRATIVE AND SUPPORT SERVICE ACTIVITIES

77 Rental and leasing activities

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

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.

Statistical Classification of Products by Activity in the European Union, Version 2.1 (2015) – CPA v.2.1

N ADMINISTRATIVE AND SUPPORT SERVICES

77 Rental and leasing services

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

77.31 Rental and leasing services of agricultural machinery and equipment

77.31.1 Rental and leasing services of agricultural machinery and equipment

77.31.10 Rental and leasing services of agricultural machinery and equipment

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

77.32.1 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

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

77.33.1 Rental and leasing services of office machinery and equipment (including computers)

77.33.11 Rental and leasing services of office machinery and equipment (excluding computers)

77.33.12 Rental and leasing services of computers

77.34 Rental and leasing services of water transport equipment

77.34.1 Rental and leasing services of water transport equipment

77.34.10 Rental and leasing services of water transport equipment

77.35 Rental and leasing services of air transport equipment

77.35.1 Rental and leasing services of air transport equipment

77.35.10 Rental and leasing services of air transport equipment

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

77.39.12 Rental and leasing services of containers

77.39.13 Rental and leasing services of motorcycles, caravans and campers

77.39.14 Rental and leasing services of telecommunications equipment

77.39.19 Rental and leasing services of other machinery and equipment without operator and tangible goods n.e.c.

Central Product Classification, version 2.1 (2013) – CPC Ver. 2.1

7 Financial and related services; real estate services; and rental and leasing services

73 Leasing or rental services without operator

731 Leasing or rental services concerning machinery and equipment without operator

7311 Leasing or rental services concerning transport equipment without operator

73111 Leasing or rental services concerning cars and light vans without operator

73112 Leasing or rental services concerning goods transport motor vehicles without operator

73113 Leasing or rental services concerning railroad vehicles without operator

73114 Leasing or rental services concerning other land transport equipment without operator

73115 Leasing or rental services concerning vessels without operator

73116 Leasing or rental services concerning aircraft without operator

73117 Leasing or rental services concerning containers

7312 Leasing or rental services concerning other machinery and equipment without operator

73121 Leasing or rental services concerning agricultural machinery and equipment without operator

73122 Leasing or rental services concerning construction machinery and equipment without operator

73123 Leasing or rental services concerning office machinery and equipment (except computers) without operator

73124 Leasing or rental services concerning computers without operator

73125 Leasing or rental services concerning telecommunications equipment without operator
 73129 Leasing or rental services concerning other machinery and equipment without operator
 n.e.c.

1.2. Market conditions and constraints

In 2019, the rental and leasing activities share was only 1% from total turnover of enterprises. From total number of enterprises only 1.5 % provided rental and leasing services.

Table 2. Financial statistics of enterprises by Indicator, 2019

| NACE Rev.2 | Number of enterprises | Average number of persons employed | Turnover, MEuros |
|---|-----------------------|------------------------------------|------------------|
| Economic activities total | 95 407 | 486 373 | 72 493 |
| N Administrative and support service activities | 5 294 | 34 256 | 2 077 |
| N77 Rental and leasing activities | 1 451 | 3 571 | 698 |

Source: Statistics Estonia, Structural Business Statistics

Since 2015 is the turnover of total economy increasing by 37%. In rental and leasing activity the growth has been nearly 100%. But still the activity is rather small compared to the total economy.

Table 3. Turnover of enterprises by Economic activity, MEuros

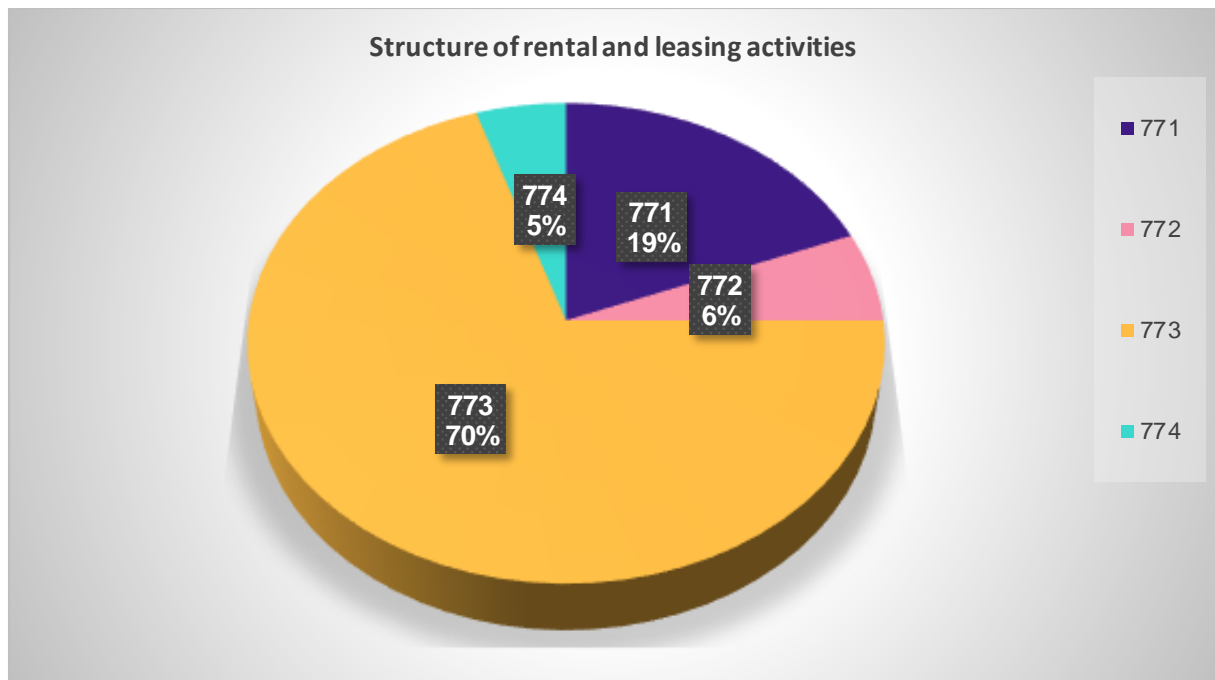
| NACE Rev.2 | 2015 | 2019 | Change, % |
|---|--------|--------|-----------|
| Economic activities total | 52 967 | 72 493 | 37 |
| N Administrative and support service activities | 1 309 | 2 077 | 59 |
| N77 Rental and leasing activities | 348 | 698 | 101 |

Source: Statistics Estonia, Structural Business Statistics

Figure 1 illustrates the structure of rental and leasing activities by turnover. About 70% of rental and leasing activities are provided by enterprises that operate rental and leasing of other machinery, equipment and tangible goods. A very large role in this are construction machines and equipment rentals. In most cases, for large enterprises, both the enterprises main activity and the service provided coincide.

The structure shown in the figure 1 has remained more or less the same for the last five years. It is quite possible that a pandemic situation will increase the share of this activity to some extent.

Figure 1. Structure of N77 Rental and leasing activities by turnover in 2019, %



Source: Statistics Estonia, Structural Business Statistics

Legend to the Figure 1:

771 - Rental and leasing of motor vehicles

772 - Rental and leasing of personal and household goods

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

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

Around 50% of rental and leasing enterprises are renting and leasing of other machinery, equipment and tangible goods. Most of enterprises are very small. There are some big enterprises which have over 10 employees. They have several offices in larger centres.

Table 4. Number of enterprises by size groups of employees, 2019

| | Total | 1 to 9 | 10 to 19 | 20 to 49 | 50 to 99 | 100 to 249 |
|---|-------|--------|----------|----------|----------|------------|
| N77 Rental and leasing activities | 1451 | 1400 | 30 | 16 | 2 | 3 |
| N77.1 Renting and leasing of motor vehicles | 567 | 560 | 5 | 2 | 0 | 0 |
| N77.2 Renting and leasing of personal and household goods | 90 | 82 | 1 | 5 | 1 | 1 |
| N77.3 Renting and leasing of other machinery, equipment and tangible goods | 748 | 714 | 22 | 9 | 1 | 2 |
| N77.4 Leasing of intellectual property and similar products, except copyrighted works | 46 | 44 | 2 | 0 | 0 | 0 |

Source: Statistics Estonia, Structural Business Statistics

2. Measurement of SPPI

2.1. General framework

The Service Producer Price Index (SPPI) of activities – expresses the development in the producer prices of services sold by Estonian service suppliers.

The index is used primarily for calculation of index of services production (ISP) and as a deflator for national accounts.

The SPPI for rental and leasing activities (NACE2008 N77) is compiled and available since 1 quarter 2017. The quarterly SPPI is published t+45. The data have been published at the time announced in the release calendar. The SPPI for Renting and leasing of other machinery, equipment and tangible goods (NACE2008 N77.3) is not published separately.

The sample design starts with defining a statistical population – all enterprises whose main or secondary economic activity is renting and leasing of other machinery, equipment and tangible goods (NACE2008 N77.3). For sample frame is used the list of economic units who are active in the field of renting and leasing of other machinery, equipment and tangible goods. This list is generated from the Business Register for Statistical Purposes. Detailed data on services turnover are received from the Commercial Register (administrative data). As analyse showed the most important is to sample separately enterprises how show the turnover for renting and operational leasing of construction and civil engineering machinery and equipment without operator (N77.32). All other enterprises are included separate sample frame (N77.31, N77.33 - N77.39). Total sample size is around 30 units and 60 prices per month.

Some challenges about sampling. Enterprises main and secondary economic activity is sometimes not correct. Enterprises interpretation of the NACE codes is different from the official version. We explain the content of the NACE codes to enterprises and we also cooperate with the Business Register for Statistical Purposes.

2.2. Description of price determining characteristics and index calculation

The monthly surveyed prices are prices from internet web-sites. The prices are adjusted from the value added tax. The list of services for price collection is prepared and followed since December t-1. The list of services is renewed and prepared for every year. Services that are no longer provided will be removed from the list and new services will be added.

The main reason to register the prices from web-sites is to minimise the response burden of enterprises.

There are some challenges concerning the internet web-site prices. For example: web-sites with pricelists could be closed any time, available only for registered clients or enterprise does not have it at all. But pandemic situation influenced enterprises to have updated, open and active web-sites.

The list of services is specific for every enterprise in the sample. Selection of important services is done for every enterprise. The full list for prices is not taken from internet. The services are described in detail:

- Type of machinery or type of equipment (including model number, technical parameters, etc. and usually a picture is added)
- Renting terms (period, inclusion of transport etc. Rental prices are shown as full-service rental, i.e. all maintenance and replacement of spare parts due to normal wear and tear is included in the rental price).

The (chain) Laspeyres formula is used. The weights system of the service producer price index of activities and base prices for calculation are updated every year. The weights system corresponds to the turnover of enterprises in the year $t-2$. The base prices for the calculation of the service producer price index were the prices of the last year ($t-1$) December.

3. Evaluation of measurement

For the future is needed more effective production system. Perhaps deploy web scraping instead of collecting only part of prices from web sites. Integration of all available SPPI-s for different activities into one system.

All service activities do not have the breakdown of sales to B2B and B2C. If this breakdown is done, than is easy to use consumer price index to measure price changes for private consumers. In this case, it is only necessary to collect the prices of services provided to business customers. The response burden will be lower.