

# SERVICES PRODUCER PRICE INDICES

## METHODOLOGY

### 1. Purpose of the survey

The purpose of the quarterly survey for the services producer price indices (SPPI) is to facilitate macroeconomic analysis and trace the impact of price variations on the market. They also are used as deflators for the recalculation of the gross output in services at comparable prices.

Producer price indices (PPI) are one of the important indicators characterizing the economic situation in the country. Indices for a specific economic activity measured average change in prices of services offered by Bulgarian enterprises on the basis of a constant sample of group of services that is representative for the given activity.

The survey is conducted from 2006 according to Regulation 1165/98 and 1158/2005 of the European Union relating to short-term business statistics. From 2020, the requirements of Regulation (EU) 2019/2152 of the European Parliament and of the Council on European business statistics, repealing 10 legal acts in the field of business statistics (EBS-Regulation) come into force.

In the survey and by the calculation of SPPI are used the methods and the methodological requirements of Eurostat.

### 2. Information sources and object of the survey

SPPI is defined as the price index, which measures the average change in prices of services produced and sold by producers-residents. Imported services, i.e. services provided by enterprises that are registered in other countries, are not within the coverage of the survey.

The observed producer prices represent the actual revenue received by the manufacturer for the actual services to the consumer. They should reflect any discount or surcharge. Prices include subsidies on services, but do not include taxes levied on them (VAT, excise duties). Mainly are observed prices of services for use by business, rather than consumption, which are within the scope of the consumer price index (CPI).

The survey covers the following economic activities according NACE BG. 2008:

- 49.4 Freight transport by road;
- 50.20 Sea and costal freight water transport;
- 51.10 Passenger air transport (on schedule);
- 52.1 Warehousing and storage;
- 52.24 Cargo handling;
- 53 Postal and courier activities;
- 53.10 Postal activities under universal service obligation;
- 53.20 Other postal and courier activities
- 61 Telecommunications;
- 62 Computer programming, consultancy and related activities;
- 63 Information service activities;
- 69\_702 Legal, accounting and management consultancy activities;
- 71 Architectural and engineering activities; technical testing and analysis;
- 73 Advertising and market research

- 78 Employment activities;
- 80 Security and investigation activities;
- 81.2 Cleaning activities.

The observed units are defined specifically for each activity. In the survey are included the main producers of these services - with over 70% share of turnover. Selected for observation services must fulfil the following conditions:

- To be representative of the revenue from sales of the enterprise and for its typical range;
- To indicate the prices of the same services, ie the same single service under the same conditions of sale;
- The service and the conditions of sale must be described in sufficient detail so as to ensure comparison each quarter.

### **3. Used classifications**

For the purposes of the survey are used the Statistical Classification of Economic Activities NACE BG. 2008 and Statistical Classification of Products by Activity in the European Economic Community, 2015 version (CPA 2015), which are fully harmonized with the classifications used in EU.

### **4. Index calculation**

#### **Quarterly basic indices of producer prices**

Quarterly price indices are calculated by the Laspeyres formula with fixed base, which changes every 5 years and currently the base year is 2015. After receiving information from enterprises about the prices of representative services, indices are calculated for each of them (the price ratio of price of the current quarter/average price during the base year). Price indices of different levels of aggregation are calculated as weighted average through ascending weighting system, which is defined by the structure of NACE BG. 2008 and CPA 2015. For the weights is used the information on revenues from sales of services observed in the base year.

#### **Basic indices of producer prices for different periods and at different index base**

From the calculated basic indices can be calculated quarterly indices (e.g. quarterly index compared to the preceding quarter and corresponding quarter of previous year) and periodic indices (e.g. index in comparison with corresponding period of previous year or the period of another year).

Indices for a period at a fixed base are calculated as arithmetic average of the quarterly basic indices.

### **5. Quality changes in the observed services**

By the calculation of SPPI is particularly important to monitor the prices of services with constantly quality. Otherwise, the indices will be significantly deviated. To identify and eliminate differences in prices associated with changes in the quality, type or quantity, the selected services are defined by quantitative and qualitative characteristics. When there is a change in the characteristics of a service or if a specific service can no longer be observed it should be replaced with a new one from the same product group and with similar characteristics. The new service should also be representative for the enterprise. Different methods for correction in case of change in quality are used, in which the

substitution of a specific service is performed by connecting of the simple indices of the old and the new service.

## **6. Publicity and transparency**

Producer price indices in services for the last three years are published on the [NSI website](#) every quarter according to an approved schedule (60 days after the end of the reporting quarter). The announcement contains the basic producer price indices, as well as indices relative to the previous quarter and relative to the corresponding quarter of the previous year.

Dynamic rows with producer price indices in services are available in the [INFOSTAT](#) information system.