**On approval of the Methodology for constructing producer price indices for services**

Order of the Chairman of the Statistics Committee of the Ministry of National Economy of the Republic of Kazakhstan dated December 26, 2016 No. 324. Registered with the Ministry of Justice of the Republic of Kazakhstan on January 25, 2017 No. 14726.

      In accordance with subparagraph 5) of Article 12 of the Law of the Republic of Kazakhstan "On State Statistics" and subparagraph 22) of paragraph 17 of the Regulations on the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan, approved by Decree of the President of the Republic of Kazakhstan dated October 5, 2020 No. 427, **ORDER** :

     Footnote. Preamble - as amended by the order of the Head of the Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan dated 08/06/2021 No. 13 (shall be enforced ten calendar days after the day of its first official publication).

      1. Approve the attached Methodology for constructing producer price indices for services.

     2. The Department of Price Statistics, together with the Legal Department of the Committee on Statistics of the Ministry of National Economy of the Republic of Kazakhstan, shall ensure in the manner prescribed by law:

     1) state registration of this order with the Ministry of Justice of the Republic of Kazakhstan;

     2) within ten calendar days from the date of state registration of this order, sending a copy of it in printed and electronic form in Kazakh and Russian to the Republican State Enterprise on the right of economic management "Republican Center for Legal Information" for official publication and inclusion in the Standard Control Bank of regulatory legal acts of the Republic of Kazakhstan;

     3) within ten calendar days after the state registration of this order, send a copy of it for official publication in print periodicals;

     4) placement of this order on the Internet resource of the Committee on Statistics of the Ministry of National Economy of the Republic of Kazakhstan.

     3. The Department of Price Statistics of the Committee on Statistics of the Ministry of National Economy of the Republic of Kazakhstan to bring this order to the structural subdivisions and territorial bodies of the Committee on Statistics of the Ministry of National Economy of the Republic of Kazakhstan for guidance and use in work.

     4. To impose control over the execution of this order on the supervising Deputy Chairman of the Committee on Statistics of the Ministry of National Economy of the Republic of Kazakhstan (G.M. Kerimkhanov).

     5. This order shall enter into force ten calendar days after the day of its first official publication.

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| *Chairman of the Statistics Committee of the Ministry of National Economy of the Republic of Kazakhstan* | *N. Aidapkelov* |
|   | Approved by the order of the Chairman of the Committee on Statistics of the Ministry of National Economy of the Republic of Kazakhstandated December 26, 2016 324 |

**Methodology for constructing producer price indices for services**

**Chapter 1. General provisions**

      1. The methodology for constructing producer price indices for services (hereinafter - the Methodology) refers to a statistical methodology formed in accordance with international standards and approved in accordance with the Law of the Republic of Kazakhstan dated March 19, 2010 "On State Statistics" (hereinafter - the Law).

     2. The methodology defines the main aspects and methods of national statistical observations of the level of producer prices for services, the selection of surveyed sample sets, the formation of weights and the calculation of price indices of various levels of aggregation.

     3. This Methodology is applied by the Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan (hereinafter - the Bureau of National Statistics) and its territorial divisions when conducting nationwide statistical observations of prices and constructing producer price indices for services.

     Footnote. Paragraph 3 - as amended by the order of the Head of the Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan dated 08/06/2021 No. 13 (shall be enforced ten calendar days after the day of its first official publication).

     4. The methodology was developed taking into account the principles and recommendations of the Producer Price Index Manual: Theory and Practice prepared by the International Labor Organization, the International Monetary Fund, the Organization for Economic Co-operation and Development, the Statistical Office of the European Communities, the United Nations Economic Commission for Europe and the World Bank, and "Eurostat and the Organization for Economic Co-operation and Development Methodological Guidelines for the Development of Producer Price Indices for Services".

      5. Producer price index for services (hereinafter - PPIS) characterizes the change in prices of domestic producers in the service sector and is a sub-index of the producer price index.

     The purpose of constructing PPIS is to measure the average change in prices for various types of services at the time of their provision.

     Producer price indices for services are used to:

     1) obtaining an inflation indicator in the service sector;

     2) output or intermediate consumption in the national accounting system, as a deflator;

     3) calculation of the index of the physical volume of industries in the service sector;

     4) other economic and analytical purposes.

      6. This Methodology uses concepts in the meanings defined in the Law and the following definitions:

     1) aggregation - combining low-level economic indicators into larger aggregates at all subsequent levels;

     2) price registration - collection of primary statistical data on prices (tariffs) for goods and services in the course of nationwide statistical observations;

      3) aggregate price index - a relative indicator that characterizes the change in prices for a separate subgroup, group or phenomenon under study as a whole and is formed on the basis of individual price indices;

      4) individual price index - a change in the prices of one element of the studied population (a specific product, service);

      5) base object - a legal entity selected for monitoring and recording prices in it;

      6) specifications - a description or list of characteristics that are used to identify an individual product selected for price registration;

      7) classification - division of a set of objects into groups according to similarity or difference in accordance with accepted features;

      8) the weight of the index is a value that reflects the significance of each individual element in their totality;

     9) type of activity - the process of creating a homogeneous set of products (goods and services) that characterize the most disaggregated categories of the classification of types of activity. The main type of activity of a legal entity is a type of activity, the added value of which exceeds the added value of any other type of activity carried out by a legal entity. Secondary type of activity of a legal entity - a type of activity that is carried out in addition to the main one for the purpose of producing products (works, services) for third parties;

      10) representative service - a set of certain types of services in a group that differ from each other in minor features that do not affect the quality and basic properties of services and are homogeneous in their consumer purpose;

     11) weighting - a procedure used in index calculations to obtain summary indicators and ensure the commensurability of different goods, services that are not directly summable;

      12) weighting scheme - a set of weights for specific types of products (goods, services), determined by all degrees of aggregation according to the standard classification.

     Footnote. Paragraph 6 as amended by the order of the Chairman of the Committee on Statistics of the Ministry of National Economy of the Republic of Kazakhstan dated 06/20/2019 No. 2 (shall be enforced ten calendar days after the day of its first official publication).

**Chapter 2. Coverage and classification**

     7. The scope of the index and the limiting boundaries (sample frames) are determined by the ultimate goal of its compilation and the main direction of use.

     For PPIS, the scope of economic, sectoral and geographical coverage, statistical units of observation (categories of basic objects) are defined.

     8. As part of economic coverage, when developing price indices for services, the importance of the industry for the country's economy, its share in the total volume of services produced is taken into account. PPIS includes operations for the production of services in the Republic of Kazakhstan, valued at market prices, regardless of their provision in the domestic market or outside the country (for export).

     PPIS covers all domestic production of services provided to all categories of users: legal entities for intermediate use and the public for final consumption. Separate PPIS exist for each of the categories listed, reflecting the fact that there are price differences and price changes for different service users.

     The following indices are calculated by purpose:

     1) PPIS "business to business" ( B to B ) characterizes the change in prices for services provided by domestic service providers to domestic businesses. The index covers services provided to legal entities, including the public sector;

      2) PPIS "business to consumer" ( B to C ) characterizes the change in prices for services provided by domestic producers of services to households. The main source for these price indices are consumer price indices valued at purchase prices;

     3) final PPIS "business to all" ( B to A ll ) characterizes the change in prices for services provided by domestic service providers in all markets. The index is calculated by aggregating business-to-business and business-to-consumer price indices.

      9. Sectoral coverage of PPIS assumes the accounting of services related to economic activities of the service sector. The sphere of services produced by legal entities for legal entities of other types of economic activity and the population is considered.

     10. As part of the geographic coverage for building PPIS, basic objects are surveyed in all regions of the Republic of Kazakhstan. Regional price indices are significant because of differences in the markets for the services provided and the existence of inter-regional differences in prices for homogeneous types of services produced.

     When constructing PPIS, for each type of economic activity, a separate approach is applied to the formation of regional indices due to the specifics of individual service industries, which consists in a limited number of enterprises in the industry or their concentration in only a few regions. The limited number of enterprises in the region for a specific type of economic activity does not allow the formation of regional PPIS or reduces their representativeness.

     Geographic coverage provides for selective accounting of legal entities providing services at their location, regardless of the place of registration of the legal entity.

     11. There are two approaches to the formation of the index:

     1) on the basis of types of services;

     2) based on industries.

     When developing an industry-based PPIS, the base objects are enterprises of one particular type of activity, regardless of the presence of volumes of services in secondary activities.

     When developing a PPIS based on types of services, the basic objects are enterprises, regardless of the type of activity, that produce certain types of services. The approach requires the availability of service statistics disaggregated by type of service. In service statistics, for most types of services, value data are available by primary and secondary activities, and the price indices are developed predominantly using a service-based approach.

     Footnote. Paragraph 11 - as amended by the order of the Head of the Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan dated 08/06/2021 No. 13 (shall be enforced ten calendar days after the day of its first official publication).

      12. The classification system is the basis for sampling and determines the structure of the indices and the coverage of types of services. The use of standard statistical classifications produces meaningful data series that are usable and internationally comparable.

     The statistical classifications used to construct PPIS are used to define the types of economic activity and types of services provided.

**Chapter 3. Selection of basic objects**

      13. The construction of PPIS is sample based. The selection of basic objects for statistical observation is carried out by combining the methods of purposeful sampling and random (probabilistic) selection:

      1) for industries with a large concentration of large and medium-sized businesses, a targeted method is applied;

     2) for industries with a large number of small businesses, a random selection method is used.

      Within one industry, the stratification method is used, and the total population is divided into subgroups (strata). Each element of the population belongs to only one stratum. Within each stratum, elements are selected using targeted or random sampling methods.

     The advantage of sampling methods is obtaining data characterizing the general population based on a detailed survey of individual units, processing information and generating results in a short time and with the least expenditure of resources.

      14. The sample set includes basic facilities that operate on a permanent basis. To form a sample of basic objects, data from the statistical business register and service statistics on the volume of services provided in selected types of economic activity are used.

     15. The selection of basic objects is carried out taking into account the following principles:

     1) scale: the inclusion of objects of all types and various forms of ownership;

     2) geographical representativeness: selection of objects located in different regions of observation;

     3) typicality: the inclusion of objects that have typical working conditions (a range of services, technological processes, etc.) characteristic of this type of economic activity.

      16. Selective observation provides for the annual updating and revision of the selected basic objects, depending on the infrastructure of the markets for the services provided. Actualization is carried out on the basis of the analysis of primary statistical data on the volume of services. The list of basic objects includes new entities that have regular volumes of services and meet the selection principles specified in paragraph 15 of this Methodology. Service providers that have left the market are excluded from the sample. When the observable base objects are liquidated or reorganized, replacement is carried out to obtain reliable price information on a regular basis for all the set of services defined for observance.

**Chapter 4 Selection of services**

     17. The selection of services for price monitoring is carried out in two stages and at each the appropriate criteria for their selection are used.

     At the first stage, on the basis of the current standard classification and data reflecting the state of the surveyed markets, a certain list of services is selected for price observation. All types of services that are most important and significant for this type of economic activity are included. The list is developed at the republican level and provides a unified approach to the formation of PPIS.

     18. The list of types of services for price monitoring is compiled according to the following criteria:

     1) representativeness. The selected types of services are of decisive importance for the surveyed segment and have a significant share in the overall structure;

     2) relevance and regularity. Services are in demand in the market and available for a long period of time;

     3) representativeness of price dynamics. The movement of prices for the selected type of service does not differ from their dynamics for other, non-selected types, and reflects the economic reality of the price situation on the market.

     19. As an information source for the selection of types of services, data from national statistical observations on the volume of services rendered for a certain year are used. To identify the significance of types of services, their structure in the corresponding types of economic activity is determined.

     20. At the second stage, in accordance with the list of types of services and market research, representative service representatives are selected. One or more representative services are selected from each type of service. The volume of selected representative services has a predominant share in its structure.

     The list of representative representative services includes the following services:

     1) regularly produced and used in the process of production activities by legal entities;

     2) having constant quality parameters and a single unit of measurement;

     3) available from the point of view of collecting information, and their price changes are typical for this group of services.

     21. Coverage of the types of services provided within the framework of one representative service is ensured by drawing up specifications for them, which include the technical and qualitative characteristics necessary to determine its price.

     A detailed description of the representative service is carried out in order to ensure full comparability of the quality of service performance when registering a price in the next reporting period.

     Footnote. Paragraph 21 - as amended by the order of the Head of the Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan dated 08/06/2021 No. 13 (shall be enforced ten calendar days after the day of its first official publication ).

     22. The accuracy of the calculated indices at all levels of aggregation depends on the correct selection and representativeness of service representatives. The selected representative services and their specifications remain unchanged throughout the year. Revision and replacement of previously selected service representatives is carried out at the beginning of the year with a change in the weighing scheme. In exceptional cases, they are replaced during the year to maintain the continuity of the price range and calculate price indices.

**Chapter 5**

     23. For manufacturing services, depending on the industry studied and the specific specifications of the service provider, the following pricing methods are used:

     1) the method of direct use of the prices of recurring services. This method is used to observe standard services performed in the same way over a long period of time;

     2) contract price method. With this method, the price of a real transaction is observed. The advantage of the method is the presence of the price of a specific transaction, and the disadvantage is the volatility of contract prices. This method is used when observing prices for engineering services, information technology, cleaning services, security;

     3) model price method. This method is used for unique services. The contract prices are included in the model, and the company calculates the price for the service every reporting period. The method is used for road freight, information technology, engineering, forwarding services;

     4) the unit cost method. Based on information about sales revenue and the number of units sold, the price of the service is calculated. The method is used for telecommunications services and air travel;

     5) method of percentage of prices (tariffs). When applying this method, information on the volume of services rendered and the established interest rate are used. The method is used in evaluating the activities of employment agencies (percentage of first salaries), legal services (percentage of the amount considered in court), tax consulting, architecture services (percentage of the cost of the building);

     6) price method from components. With this method, the service is broken down into components for which it is possible to determine the price. The components and the weighing scheme for them are constantly updated;

     7) the method of accounting for working time. The price of a real transaction is observed for the time to provide the service, and not for the volume. Applies to services rendered on an hourly basis. It is used for legal, accounting, IT services, management and consulting services, for the selection of labor force;

     8) the method of determining the margin. Under this method, the price of a service is measured by the difference between the observed purchase and sale prices.

     Footnote. Clause 23 as amended by the order of the Head of the Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan No. 13 dated August 6, 2021 (shall be enforced ten calendar days after the day of its first official publication).

**Chapter 6 Registration** **of** **prices**

     24. Registration of producer prices for services is carried out on a monthly or quarterly basis in accordance with the frequency of forms of national statistical observations.

     25. The basis for filling in statistical forms are accounting documents (contracts, invoices, price lists and others). Prices are registered without value added tax.

     26. Prices are registered for specific representative services with predetermined specifications (characteristics).

      The basic principle of comparability of registered prices is that there are no significant differences between the specifications that determine their value.

      27. The average price for the specified period is recorded. To determine the average price for a specific type of representative service, one of the methods described in Chapter 5 of this Methodology is used.

     28. When registering prices during the year, it becomes necessary to replace temporarily missing prices for services in the relevant types of economic activity. Substitution of prices for temporarily absent representative services is carried out by using "conditional" prices.

     The following substitution methods apply:

     1) the use of a "conditional" price equal to the price of the previous period;

     2) the use of a "conditional" price adjusted for price changes for similar types of services with similar specifications (characteristics);

     3) the use of a "conditional" price adjusted for changes in prices for similar services representing other basic objects.

     When constructing PPIS, the first substitution method is used, which is based on the fact that the service is provided and reliably reflects price changes. The use of the "conditional" price at the price level of the previous period is carried out until the next fact of the service. The method is applied with a relatively stable price dynamics, when the costs of services rendered over this period remain unchanged. If it is impossible to register the price for the representative service for more than two or three periods, the procedure for replacing the old version of the representative service with a new one is applied in the base object.

     29. In case of closure of basic facilities or termination of the provision of services during the reporting year, "conditional" prices for this service are applied until the end of the reporting year.

     Footnote. Paragraph 29 - as amended by the order of the Head of the Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan dated 08/06/2021 No. 13 (shall be enforced ten calendar days after the day of its first official publication).

**Chapter 7. Weighing scheme**

     30. One of the steps in building a PPIS - the formation of a weighting scheme that allows aggregation from the lowest to the highest level according to the applied classification.

     Weighing schemes are formed centrally. To calculate the weights for constructing PPIS, information is used from the tables "Resources-Use" of the national accounting system, containing aggregated data by types of services. At a more detailed level, data from nationwide statistical surveys are used on the income received by enterprises from the provision of services, in current prices for a certain year. In their absence or insufficiency, data are requested directly from the base objects selected for observation.

     31. The process of building a weighing scheme includes the following operations:

     1) determination of cost data on the volume of services rendered and their distribution between types, classes, groups included in the observation. For non-covered types, classes, groups of services, cost data are redistributed among the surveyed groups that provide types of services that are homogeneous in purpose, or proportionally for all components included in the observation;

     2) linking the average annual cost data on the provision of services and the price level by type of service according to a single time period taken as a comparison base (adjusted cost data);

     3) re-distribution of adjusted cost data between types, classes, groups of services (final cost data).

     The found costs by types, classes, groups of services depend on the specialization and the existing structure of the services provided in the Republic of Kazakhstan.

     32. During the reporting year, the weighing scheme remains constant. With a significant change in the structure of the cost of services rendered, it is updated.

**Chapter 8 Calculating of price indices**

**Paragraph 1. Calculation of individual and aggregate price indices**

     33. Depending on the extent to which elements of the sample are covered, individual and aggregate price indices are calculated.

     The individual price index for representative services is calculated as the ratio of prices registered in the basic objects according to the formula:



                             (1)

     where:

       *ἱ* t j - an individual price index for a type of service *j* ;

       *P* tj - the price for the type of service *j* in the reporting period *t* ;

       *P* ( b ) j - the price for the type of service *j* in the base period *b* .

     The calculation of the individual price index by type of service is carried out according to the formula of a simple (unweighted) geometric average of individual price indices for representative services (the Jevons index):



                             (2)

      where:

       *I* j – individual price index for the type of service *j* ;

       *i* 1 *, i* 2 *,…, i* k – individual price indices for representative services;

       *k* - the number of representative services.

      34. To ensure representativeness, the calculation of the price index is carried out if there are at least three prices for one service from different basic enterprises in the reporting period.

      35. At all subsequent stages, individual price indices, in accordance with the hierarchical structure of the classification and using appropriate weights, are combined into higher-level indices - aggregated indices.

     To calculate price indices at higher levels of aggregation (class, group, section, section), a modified version of the Laspeyres formula is used, which makes it possible to calculate indices based on successive observations of price changes, weighted through a constant weighting scheme:



(3)

where:



– price index for the reporting period *t* relative to the base month (quarter);



– individual price index for the type of service;



– the cost of services rendered in the prices of the base year, taken as standard weights for aggregation;

**Paragraph 2. Calculation of price indices for different periods**

     36. The calculation of price indices for the corresponding period of the previous year (cumulative period) is carried out by the basic method, which provides for the "linking" (linking) of price indices with each other to form a consistent dynamic series, having a fixed reference point or a base period as a base. The base period chosen as the starting point changes every five years.

      The price index to the base period is found by multiplying the individual price index of the reporting period by the price index of the previous period to the base period:



,                                   (4)

     where:

       *I* b - the price index of the reporting period *t* to the base period *b* ;

       *I* b ( t -1) - price index of the previous period *t -1* to the base period *b* ;

       *I* t – individual price index of the reporting period *t* .

     37. Calculation of the price index of the reporting period of the reporting year to the corresponding period of the previous year is carried out by dividing the price index in the base index row of the reporting year by the price index in the same row of the previous year:



,                             (5)

     where:

       *I* t – price index for the period *t* of the reporting year *g* to the corresponding period of the previous year *g -1* ;

       *I* tg - price index for the period *t* of the reporting year *g* in the index row;

       *I* t ( g -1) – price index for period *t* of the previous year *g -1* in the index series.

     38. Cumulative price indices for the corresponding period of the previous year are determined by dividing the sum of price indices of the compared period by the same sum of price indices of the previous year in one index series:



, (6)

where:



– price index with cumulative total of the reporting period *g* to the corresponding period of the previous year *g -1* ;



– price indices for the periods of the reporting year *g* in the index series;



– price indices for the periods of the previous year *g -1* in the index series.

**Chapter 9 Dissemination of Official Statistical Information**

     39. Producer price index for services is published according to the Statistical Work Plan. Information, detailed by classes, groups, sections and types of services, about price changes is distributed simultaneously to all users in the form of bulletins, collections by posting them on the Internet resource of the Bureau of National Statistics.

     For users, the publication of price indices is accompanied by brief methodological explanations.

     The publication of price indices is carried out subject to their representativeness for the region or the Republic of Kazakhstan.

     Footnote. Paragraph 39 - as amended by the order of the Head of the Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan dated 08/06/2021 No. 13 (shall be enforced ten calendar days after the day of its first official publication).

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