Appendix to 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 December 20, 2022

no. 41

Approved by the order of the Chairman of the Committee on Statistics of the Ministry of National Economy of the Republic of Kazakhstan

dated December 15, 2015 209

**Methodology for the formation of indicators for domestic trade statistics**

**Chapter 1. General Provisions**

1. This Methodology for the formation of indicators for domestic trade statistics (hereinafter – the Methodology) refers to the statistical methodology approved in accordance with the Law of the Republic of Kazakhstan "On State Statistics" (hereinafter – the Law).

2. The 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) and its territorial divisions when conducting nationwide statistical surveys in order to form indicators on domestic trade statistics.

3. This Methodology has been developed in accordance with the following and international recommendations:

1) "International recommendations on statistics of retail and wholesale trade" 2008, developed by the Statistical Committee of the United Nations (UN);

2) "Methodological recommendations for statistical monitoring of retail trade turnover and calculation of its physical volume index", developed by the Interstate Statistical Committee of the Commonwealth of Independent States (CIS Statistical Committee) in 2011.

4. This Methodology uses concepts in the meanings defined in the Law and their definitions:

1) retail price index – an indicator characterizing the change in retail prices for goods sold to the population in retail trade enterprises, and calculated according to the structure of retail trade turnover;

2) wholesale price index – an indicator that characterizes the change in prices for goods, products sold by wholesale trade enterprises to various users for their further professional use or their subsequent resale at retail;

3) secondary type of activity – a type of activity, in addition to the main one, which is carried out for the purpose of producing goods and services for third parties;

4) the main type of activity – a type of activity, the added value of which exceeds the added value of any other type of activity carried out by the entity;

5) legal unit – a unit endowed with a legal status;

6) trade margin – an element of the seller's price that provides reimbursement for the costs of selling goods and making a profit;

7) statistical unit – an abstract unit created on the basis of a legal one for use for statistical purposes;

8) commodity stocks – the quantity of goods in monetary or physical terms, located in trading enterprises, warehouses, in transit on a certain date;

9) consumer price index – an indicator that characterizes the change in time of the average price level for a fixed basket of goods and services purchased by the population for personal consumption.

**Chapter 2\_ \_ \_ \_ \_ \_**

5. In national statistical practice, the scope of internal trade statistics includes retail trade, wholesale trade, car maintenance and repair services, provision of food and beverage services.

6. Domestic trade statistics reflect the characteristics and activities of structural units related to section G "Wholesale and retail trade, repair of cars and motorcycles" of the General Classification of Economic Activities (hereinafter – GCTEA), regardless of their size, legal form and forms of ownership. Catering services are classified under a separate activity "Services in the provision of food and beverages".

7. Section G includes wholesale and retail trade (sale without modification) of all types of goods and the provision of services related to the sale of goods. Also, the section includes services for the maintenance and repair of vehicles.

8. Retail trade includes entrepreneurial activity in the sale to the buyer of goods intended for personal, family, home or other use not related to entrepreneurial activity.

9. Wholesale trade includes entrepreneurial activity for the sale of goods intended for subsequent sale or other purposes not related to personal, family, household and other similar use.

10. Wholesale trade for remuneration (through commission agents) is defined as income (remuneration) received as a result of the intermediary activity of the respondent.

11. The national statistical business register (hereinafter or SBR) uses several types of statistical units. The following units are used in domestic trade statistics:

1) the statistical unit “enterprise” is the smallest combination (i.e. one or more) of legal units operating in one or more places on a commercial or non–commercial basis;

2) the statistical unit "local unit" (LU), which corresponds to an enterprise or part of an enterprise (workshop, factory, store, office, mine) located outside the location of the enterprise. That is, in order to obtain the geographical distribution of the collected data, it becomes necessary to appropriately separate enterprises that operate in more than one place. This definition includes only one item, since it does not refer to the type of activity carried out by the unit.

12. When forming the main indicators, local units with activities of section G “Wholesale and retail trade; car and motorcycle repair.

One local unit is considered to be all the facilities of an enterprise within the smallest geographical area. Similarly, for the type of activity “Provision of food and beverage services ” (code GCTEA 56).

13. Local retail units correspond to retail stores, with the exception of the shop–in–shop form of retail (like a shopping center, shopping house), where the owner of a retail facility leases out part of its retail space to other retailers. At the same time, the owner of the retail facility and other retailers located in the same premises are treated as separate statistical units.

14. Trading markets function similarly to the shop–in–shop trading form. A merchant market has as many local units as there are merchants, including the owner of the merchant market.

15. Farmers Selling their products in trading markets are not treated as trading units. Selling is seen as a secondary activity compared to the production of agricultural products.

16. Statistical information on the formation of domestic trade indicators on a monthly basis is formed according to the plan of statistical work as follows:

1) continuous accounting:

for medium and large enterprises according to the data of the nationwide statistical observation "Report on the sale of goods and services" for the reporting month;

2) selective accounting:

for small enterprises (10% of the general population) according to the data of the nationwide statistical observation “Report on the sale of goods and services” for the reporting month;

3) settlement:

for individual entrepreneurs – 1/12of the annual nationwide statistical observation data on the activities of individual entrepreneurs for the last reporting period;

for enterprises with a secondary type of activity "Trade" (regardless of the number) – 1/12of the annual volume of enterprises with a secondary type of activity of nationwide statistical observations: structural statistics and taking into account surveys in various areas of statistics for the last reporting period.

17. Statistical information on the formation of indicators of domestic trade on an annual basis is formed according to the plan of statistical work as follows:

1) continuous accounting:

for medium and large enterprises according to the data of the nationwide statistical observation "Report on the sale of goods and services" for the reporting year;

2) selective accounting:

for small enterprises (30% of the general population) according to the data of the nationwide statistical observation “Report on the sale of goods and services” for the reporting year;

3) selective accounting:

for individual entrepreneurs (10% of the general population) according to the data of the nationwide statistical observation “Report on the sale of goods and services” for the reporting year;

4) Estimation of the additional calculation of the volume for the secondary type of activity is carried out on the basis of annual surveys of respondents for whom the “Trade” sector is not the main type of activity.

**Chapter 3. Main indicators of domestic trade statistics**

**Paragraph 1. Volume of sales of goods and services**

18. The volume of sales of goods and services characterizes the amount of cash proceeds received for the sold goods, products and services rendered for cash and non–cash payments.

19. For the purposes of statistical observation, the volume of sales of goods is given in actual sales prices, including the trade margin, without value added tax, excises.

20. The volume of sales of goods includes the value of goods sold or exchanged by the trade unit at its own expense.

This item includes all other invoiced shipping, packaging and other costs that are passed on to the buyer.

This figure subtracts cashback, price discounts and similar benefits on return products provided to consumers and the cost of return packaging. This item includes goods removed by owners from the trade unit for their own use. The value of these goods is calculated at the proper market price. If this is not possible, the goods seized by the owners are valued at the acquisition cost.

In domestic trade statistics, the volume of sales of goods is determined by retail (volume of retail trade) and wholesale trade (volume of wholesale trade), and services – by maintenance and repair of cars, catering.

21. An obligatory sign of a transaction related to the wholesale trade turnover is the presence of an invoice for the shipment of goods, to the retail trade turnover – a cash receipt (account).

22. The volume of retail trade includes the cost of consumer goods sold to the population for cash or non–cash (paid by credit cards, bank settlement checks) settlement.

23. Retail turnover includes:

1) the cost of goods sent to buyers by mail with payment by bank transfer (at the time of delivery of the parcel to the post office);

2) the cost of goods sold on credit (as of the moment the goods are released to the buyer) in the amount of the full cost of the goods;

3) the cost of goods sold in the commission trade (under a commission, commission or agency agreement) in the amount of the full value at the time of the sale of goods;

4) the cost of goods sold through retail firms through an electronic trading system (via Internet channels, an electronic data exchange system or other online systems) at the time of issuing an invoice or delivery to the buyer, regardless of the time of actual payment for the goods by the buyer;

5) the value of goods sold through vending machines;

6) the total cost of goods sold to certain categories of the population free of charge or at a discount (drugs, fuel and other goods);

7) the cost of printed publications sold by subscription (at the time of issuing the invoice, excluding delivery costs);

8) the cost of a package that has a selling price that is not included in the price of the goods;

9) the value of the sold empty containers sold to the public with the goods, minus the value of the empty containers returned by the population;

10) the cost of gift cards (certificates). Gift card sales are included in retail turnover at the time the gift card is redeemed;

11) the cost of goods sold to the population through a retail trade network or through trade establishments of non–trade organizations, on account of wage arrears, pensions with subsequent payment to trade organizations by enterprises or social security agencies.

 24. Not included in retail trade turnover:

1) the cost of goods sold that have not survived the warranty period of service;

2) the cost of travel tickets, coupons for all types of transport, lottery tickets, telephone cards, express payment cards for communication services;

3) the cost of goods sold through the retail trade network to legal entities and individual entrepreneurs (social organizations, special consumers) for use in production purposes.

25. Retail, wholesale turnover is measured in value terms, and for individual commodity items in physical terms.

26. The volume of sales of services for the provision and provision of food and beverages represents the proceeds from the sale of own culinary products (dishes, culinary products, semi–finished products) and purchased goods without cooking (flour, confectionery and bakery products, fruits, alcoholic and non–alcoholic drinks and other goods) to the population for consumption in the places of their sale (in most cases), to organizations and individual entrepreneurs for catering for various contingents of the population.

27. As part of the turnover of the provision of food and beverage services includes the cost of own culinary products and associated goods without culinary processing, released: to employees of enterprises and organizations with subsequent deduction from wages; for subscribers, coupons in the amount of the actual cost of food; students of schools in canteens of schools, colleges, higher educational institutions and other educational institutions for cash; organizations of the social sphere (hospitals, sanatoriums and other institutions) in the amount of the actual cost of food; at home by orders of the population; to workplaces by orders of enterprises and individual entrepreneurs; transport enterprises along the route of land, air, water transport; for receptions, banquets.

28. For public catering enterprises, the volume of services rendered is equal to its turnover, including the supply of prepared food. Sold beverages and food are material costs and are included in the volume of production.

29. The volume of sales of services for the maintenance and repair of vehicles reflect the cost of work (services) provided to the population by enterprises and individual entrepreneurs engaged in this type of activity.

**Paragraph 2. Index of physical volume of sales of goods and services**

30. The index of value volumes of turnover at current prices characterizes the change in turnover volumes due to changes in prices and the number of goods sold. Determined by the following formula:

|  |  |
| --- | --- |
|   | (1) |

Where,

– the volume of sales of goods (services) for the reporting and base periods, respectively, at current prices.

31. In physical terms, the index of the volume of sales of goods and services is calculated by deflating the present value of the volume of sales using appropriate price indices. The corresponding price index is used as a sales volume deflator.

32. The index of the physical volume of turnover shows how the turnover changes as a result of changes only in its physical volume, excluding the influence of price changes.

To calculate the index of the physical volume of sales of goods (services), the turnovers of the reporting and base periods are compared in the prices of the same period taken as the base period (in constant prices):

|  |  |
| --- | --- |
|  | (2) |

Where,

– index of the physical volume of the turnover of the sale of goods (services);

– price index – corresponding turnover deflator.

**Paragraph 3. Inventory**

33. Inventory includes the value of all inventory owned by an enterprise, either on the premises of the enterprise or elsewhere. This includes inventory held in auxiliary units, warehouses, during transportation. Materials owned by others but held by the unit for processing should be excluded.

34. Inventory is measured based on the value of the goods brought into the inventory minus the costs incurred and any periodic loss of goods included in the inventory. Inventories are valued at purchase prices, including any duties and taxes payable by the buyer, excluding value–added tax, cash refunds or discounts provided by the seller, or at market prices (excluding taxes on products, shipping costs and selling margin), or at cost of production if the products are produced by the unit itself.

35. The volume of commodity stocks in the statistics of domestic trade is measured in value terms for the republic and for the regions.

36. For the analysis and accounting of commodity stocks, a system of the following statistical indicators is considered:

1) the volume of commodity stocks at the beginning and at the end of the reporting period;

2) change in commodity stocks ( *ΔЗ* ), which is calculated by the following formula:

*ΔЗ* = *Z to* – *W n*

where, *Z to, Z n* – stocks, respectively, at the end and beginning of the reporting period;

3) the structure of commodity stocks, characterized by indicators of stocks of individual goods, commodity groups in value terms, as a percentage of the total;

4) average (average monthly) inventory ( ),

for a specific period of time is calculated by the formula:

= ,

for a longer period of time than a month (quarter, half year, year):



where, n – the number of dates for which goods are registered;

5) inventory capacity ( 3e ).

Inventory intensity shows how much inventory per unit of turnover:

3e =

Where,

O – the volume of trade;

6) security of trade turnover with commodity reserves ( 3oi ).

This indicator reflects the number of trading days for which there will be enough commodity stocks before they are completely depleted. It is calculated for a specific product or for a combination of products, in trading days, according to the following formula:

3oi =

Where,

3ki – stocks at the end of the period of the i –th product;

m i – one–day turnover of the i –th product, which is calculated according to the following formula:

m i =

where, t – the number of trading days in the analyzed period.

37. The methodology for calculating indicators characterizing the level of commodity stocks provides for the calculation of these indicators for trading enterprises.

**Paragraph 4. Additional indicators**

38. The following indicators are additionally formed in the domestic trade statistics:

1) retail trade turnover per capita, which is defined as the ratio of trade turnover to the average population for the period;

3) the turnover of retail trade per unit of retail space is calculated by dividing the turnover by the retail space;

2) the specific weight (share) of each product or group in the total volume of trade (commodity structure);

4) the number of trade facilities.

**Chapter 4 Sources of data**

39. Statistical surveys of trade units are the main source of information for compiling domestic trade statistics. Surveys are carried out by a continuous method, by interviewing all units of the population, or by a sample method, by obtaining answers from only a few representative units selected by scientific methods from the general population.

40. Internal trade statistics provide statistical forms of annual and monthly periodicity, on the basis of which the main indicators of internal trade statistics are formed, including turnover and volume index by trade sector, intended for the purposes of the System of National Accounts (hereinafter – SNA):

1) for small, medium and large enterprises with the main type of economic activity GCTEA 45–47“Wholesale and retail trade; Automotive and Motorcycle Repair, GCTEA 56, Provision of Beverage Catering Services (monthly and yearly);

2) for individual entrepreneurs with the main type of economic activity GCTEA 45–47“Wholesale and retail trade; repair of automobiles and motorcycles, GCTEA 56, Provision of Beverage Catering Services (annually).

41. To monitor the implementation of certain state sectoral programs, to form target indicators and for other purposes, surveys on exchange trading, electronic commerce, and trading markets are provided.

**Chapter 5. Editing and imputing data**

42. Editing and imputation are used to address missing, incorrect or inconsistent responses.

43. Editing is the systematic review of data to identify and then change unacceptable, inconsistent, questionable or impossible values. This procedure is critical to ensure the quality of the information collected.

44. Distinguish between micro–editing and macro–editing. Micro–editing focuses on primary data, as opposed to macro–editing, which checks aggregated data.

45. Editing includes the following checks:

1) current checks: used to check the actual availability of answers to all questions asked;

2) validation checks: used to check the validity of the received responses. The response to a particular item on the statistical form is checked against the allowable range of values specified for that purpose. Any value that is outside of this allowed range of values is checked to make the necessary corrections;

3) data validation: a set of checks based on a statistical analysis of the data received from the respondents. Many checks take the form of a ratio of two variables that is within specified limits. Another type of data validation is the arithmetic test, which determines that the sum of certain variables equals a specified value.

46. Data editing is carried out at the input stage and at subsequent stages. Most of the checks are carried out programmatically using various types of control (arithmetic, logical and format controls).

47. There are influential or non–influential, random or systematic errors.

48. Random registration errors occur due to typos, inattention and negligence of respondents. Systematic errors appear in connection with the deliberate distortion of information by the respondent, or with a misunderstood meaning of the question or with a violation of the rules for recording the answer. The reason is incorrectly formed questionnaires or forms, insufficient or incorrect instructions for filling them out.

49. Large random respondent errors are identified through data validation by comparing received data with previous values or comparing the ratios of received data with reasonable limit values or administrative data.

50. The list of "influential" values is determined on the basis of a parameter that is calculated for each report as the difference between the growth rate (decrease) in turnover with the participation of this enterprise in the calculation and the rate obtained without the participation of the enterprise, as follows:

T (for all respondents) \u003d O t / O t–1\* 100%,

Т (without respondent) =О t without respondent / О t–1without respondent \*100%,

R = T (for all respondents) – T (without a respondent)

Where,

R – assessment of "impact";

T – growth rate of sales volume;

O – the volume of sales.

51. First of all, the respondent with the highest level of “influence” (R) is checked. The list of respondents with a significant absolute value of R is marked as "needing verification".

52. It is necessary to carry out the analysis of anomalous values during the editing procedure. Outliers are a special category of definitive survey evidence that is accurate but unusual in the sense that it is not representative of the sample population and therefore tends to skew estimates. Outliers are identified and carefully controlled as they can have a significant impact on the estimates. If the extrapolation factor (spreading factor) is large enough and an anomalous value is included in the sample, then the final estimate will be much higher than the required one and will practically not be representative, since it is determined by one extreme value. The simplest way to handle an outlier is to reduce its weight to one (ensure that it is only representative of itself).

53. After micro–editing proceed to the macro–editing procedure. This procedure involves analyzing aggregated data for consistency, including consistency of estimates over time, links to non–survey data (eg retail trade turnover with household expenditure survey data). Macro editing is carried out by comparing with data from previous periods, comparing with data from other sources, determining the ratio of volumes in different subsamples.

54. If the results of macro–editing are unsatisfactory, then return to the micro–editing procedure. Macro editing is not done when the scores are satisfactory.

55. In most trade surveys, there are missing data items, which creates problems in data editing. Data are missing for a particular report item (non–response to individual questions) or the respondent did not submit a report (unit refusal). To assess missing data in case of non–response, a data imputation procedure (data imputation) is carried out.

56. The data imputation procedure consists of replacing one or more erroneous or non–responses in one or more records with valid and internally consistent values.

57. There are various imputation methods. The choice of the appropriate method depends on the purpose of the analysis and the type of missing data. The most widely used data imputation methods include the following:

1) mean/most likely imputed value: imputation of the mean value of a variable for missing data;

2) replacement is based on the availability of comparable data. The modified data are the values for a given respondent obtained from the same survey for the previous year, adjusted for the average increase (decrease) in the value of that data item in the corresponding stratum. There are several data replacement models. The first model is used if the respondent has values in the specified periods and is presented as the following formula:

T t =T t–1\*(T t–12/T t–13)

where,

Т – observed variable (parameter);

t – the reporting month.

This model is suitable for units that sell goods that have a pronounced seasonal character. In the absence of previous year data for a given respondent, the following model is applied:

T t =T t–1\* ∑ i ϵ MTt i /∑ i ϵ MTt–1i

where, M - a group (set) of units with similar characteristics of the enterprise.

The third model is used last, when it is impossible to implement methods 1), 2)

T t =(T t–1+ T t–2+T t–3)/3.

There are other data imputation methods that are used in the absence of the required values, but which are based on methods 1) or 2). For example:

T t =T t–2\*(T t–12/T t–14 ).

58. In case of non–response from the respondent (refusal of the unit), in most cases re–weighing is used. The sample is reweighted to ensure that it contains only responding sample units.

59. The procedure for calculating the volumes of enterprises that did not submit reports is expressed by the following formula:

Y = X ij \*U ij

Where,

Y - the volume of the variable (parameter) for unreported enterprises,

I – indicator of the type of activity,

J - an indicator of the size of the enterprise,

X - the average value of the variable (parameter) per 1enterprise,

U - the number of enterprises that did not submit reports.

**Chapter 6. Short–term domestic trade statistics**

60. \_ The priority for short–term statistics is the timely compilation of monthly and quarterly indicators of the dynamics of the retail and wholesale trade sector, even if this leads to a decrease in accuracy and detail, a reduction in coverage. Initial figures are subsequently revised or adjusted as additional data becomes available and analyzed.

61. Statistical observation on short–term statistics is carried out on the basis of a monthly reporting form. This form covers legal entities (including structural and separate divisions) with a type of activity related to section G GCTEA 45, 46, 47and section I GCTEA 56.

62. To ensure coverage of the turnover of individual entrepreneurs, on a monthly basis, at the regional level, according to the plan of statistical work, additional counts are carried out for individual entrepreneurs.

63. The additional calculation of the volume for individual entrepreneurs is carried out for each region separately.

64. The information base for the calculation is the primary data of the nationwide statistical observation of annual periodicity on the activities of individual entrepreneurs.

65. To the results of annual and short–term surveys, an adjustment is made for the volume of sales of wholesalers, retailers, services for technical maintenance and repair of cars, services for the provision and provision of food and drinks for which the branch "Trade" is not the main activity. They are evaluated on the basis of annual surveys of enterprises in structural statistics and taking into account surveys in various branches of statistics. The resulting turnover is distributed in equal shares over all months.

**Chapter 7. Calculation of the gross output of the industry "Trade"**

66. Domestic trade output is measured as the total value of the trade margin earned on goods purchased for resale.

67. A trade margin is defined as the difference between the actual or imputed price resulting from the sale of a product purchased for resale and the price that a trader had to pay to purchase an identical product (to replace one sold) at the time it was sold or used in some other way. Trade margins for some goods are negative if prices have been reduced or not sold due to damage or theft.

68. The trade margin depends on two factors – turnover and the normal level of the trade margin. The normal level of the trade margin is a fairly stable value. For the purposes of the SNA, the trade margin is defined as a certain proportion of the total volume of sales of goods and services for all activities of Section G of the GCTEA. The normal level of the trade margin is established on the basis of the results of statistical surveys.

69. In order to calculate the index of the physical volume of trade turnover for the whole sector "Trade", the indices at the lowest levels of section G are aggregated. This aggregation is carried out by using weighting factors determined based on the share of trade turnover of each type of activity in the base year.

70. \_ Gross output of public catering services is the value of services provided by all service providers, regardless of the form of ownership and the number of employees (including individual entrepreneurs) and taking into account the volumes formed in the non–observed economy.

71. To estimate the non–observed economy (NOE), a tabular approach to the classification of NOE types used in the Statistical Office of the European Communities is used. The table base is divided into 7components. Within the framework of sectoral statistics, NOE is accounted for by components N3and N7a.

Component N3includes manufacturers who, in accordance with the law, are not required to register. This category includes households that produce goods for their own consumption, for the formation of their own fixed capital, construction and repair of housing. Or the producer has a small market output, but it is below the set level at which they would be required to register as an entrepreneur.

72. The source of information for component N3(informal sector) is the results of household surveys on form D–004 “Quarterly Questionnaire on Household Expenditures and Income”.

73. Gross output is calculated by summing the output of registered enterprises and individual entrepreneurs for all types of trade and services classified according to GCTEA codes 45–47and 56of NOE output, calculated by types of services:

Vs = Vc + Vic + Vue + Vdh, (3)

Where

Vs – gross output in terms of services;

Vc - the volume of services provided by small, medium and large enterprises;

Vic – the volume of services of individual entrepreneurs;

Vue – assessment of the volume of services in the non–observed economy;

Vdh - the volume of households.

Enterprise service volume includes the service volume of reported enterprises and an estimate of the volume of unreported enterprises (non–observed economy for statistical reasons).

The volume of services provided by small, medium, large enterprises and individual entrepreneurs is formed based on the results of nationwide statistical observations.

Adjustments for the non–observed economy for subtype N7a are made at the micro level for gross output for each type of activity according to the following formula:

Y = Xij \* Uij, (4)

Where

Y – counting volume,

I – indicator of the type of activity,

J – enterprise size indicator,

X – the average value of the aggregate per 1enterprise,

U – the number of enterprises that did not submit reports.

Matching results

Agency for Strategic Planning and Reforms of the Republic of Kazakhstan – Director of the Department Samat Sovetovich Zhasuzakov, 30.11.202217:38:22, positive result of the EDS verification

Ministry of Trade and Integration of the Republic of Kazakhstan – Vice Minister Kairat Kalmukametovich Torebaev, 05.12.202215:14:32, positive result of EDS verification

Ministry of Justice of the Republic of Kazakhstan – Alma Kairatovna Mukanova, Vice Minister of Justice of the Republic of Kazakhstan, 12/19/202221:11:46, positive result of EDS verification

Signing results

Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan – Head of the Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan Zh.