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**METHODOLOGICAL BASIS AND PRACTICE OF ESTIMATING  
CORE INFLATION IN THE RUSSIAN FEDERATION**

**Invited paper submitted by the Federal State  
Statistical Service, Russian Federation**

The meeting is organized jointly with the International Labour Office (ILO).

**I. INTRODUCTION**

1. A most important indicator characterizing inflation in the Russian Federation is the consumer price index (CPI). Together with the CPI, however, a system of additional price indices is being developed for more detailed analysis of the situation in the country's consumer market. The methodology for building the whole system of price indices showing changes in consumer market prices is in fact based on the one used to construct the CPI.

2. The consumer price index system in the Russian Federation includes the following price indices covering:

- All goods and paid services for the population;
- All goods except alcoholic beverages;
- Food goods except alcoholic beverages;
- Food goods (including alcoholic beverages);
- Non-food goods;
- Paid services;
- All non-essential goods and services;
- All non-essential goods;
- Non-essential food goods;
- Non-essential non-food goods;
- Non-essential paid services;
- All goods and paid services (except non-essential goods and services);
- Food goods (except non-essential goods);
- Non-food goods (except non-essential goods);
- Paid services (except non-essential services);
- All goods and paid services (except vegetables, potatoes and fruit);
- Food goods (except vegetables, potatoes and fruit).

3. The core consumer price index (core inflation) is calculated together with the above group price indices.

4. An index of consumer prices for goods and paid services to the population not entered in the enumeration of goods and services being used to estimate core inflation is also compiled.

## **II. CHOICE OF AN OPTIMUM METHOD FOR ESTIMATING CORE INFLATION**

5. Several options were considered when defining approaches for the estimation of core inflation.

6. In preparation for the calculations, a study was made of the movement of prices for individual types or groups of goods and services for 1999-2003 (a period characterizing the development of the Russian economy after the economic crisis in 1998). On the basis of the data obtained, experimental estimations were completed using two methods for the exclusion of some goods.

7. The first option ("Variable list method") provided for the exclusion from the price index construction process of goods and services showing the greatest deviations (plus or minus 5%) from the average index value of prices for all goods and services. Applying the criterion of excluding 10% of goods and services whose prices were subject to the largest fluctuations (5% both upwards and downwards), monthly price index figures for individual goods and services and core inflation in general were calculated.

8. However, since the principle of using a constant set of goods and services over the length of a year was not observed in this calculation method, it was regarded as not meeting all the conditions for a price index construction methodology.

9. As a result of studies following the second option ("Constant list method"), an enumeration of goods and services listed more often than others as showing prices with the greatest fluctuations was compiled. This enumeration mainly included goods and services having seasonal price fluctuations, but also those subject to one extent or another to administrative price regulation at the federal or regional level. A list of goods and services that excluded goods and services entered in the above-mentioned enumeration was also compiled.

10. After the research conducted, it was decided that the most preferable way to approach estimating core inflation was to use a method making it possible to perform all calculations in a real-time mode and the most user-friendly manner. This method involves excluding a specified number of items from the set of goods and services formed to compile the consumer price index. On the basis of the set constituted in this way it became feasible to produce core inflation estimates.

11. An estimation of core inflation for 1999-2003 was made on the basis of the enumeration of goods and services compiled.

12. The research results were presented for discussion to interested economic bodies. In the light of the findings of the experimental calculations and after agreement with the interested departments, methodological recommendations were prepared for estimating core inflation in Russia.

### III. METHODOLOGICAL BASIS FOR ESTIMATING CORE INFLATION

13. Core inflation, as one of the components of the consumer price index (CPI), excludes short-term uneven price fluctuations caused by particular administrative, one-off or seasonal factors, and can be used to undertake certain calculations for analytical purposes.

14. The **purpose of calculating** the core inflation indicator is to detect the most stable trend of prices not subjected to the impacts of supply and demand shocks, seasonal factors, and also the administrative action of federal and regional authorities on price formation. Core inflation hence to the greatest extent characterizes underlying inflation.

15. The **basic approach to estimating** core inflation is to exclude from the calculation of the consumer price index changes in the prices of its component goods and services subject to substantial price fluctuations not related to general underlying inflation. The main prerequisite for estimating core inflation here is to draw up a constant list of goods and services whereby the influence of their price changes each month is eliminated from the official CPI.

16. **Core inflation** is estimated on the basis of the set of consumer goods and services used for the calculation of the composite consumer price index with the exclusion of individual commodity groups and types of goods and services whose prices are basically regulated at the federal and regional levels, but are also to a considerable extent subject to seasonal factors.

17. A list was compiled on the basis of international practice showing commodity groups and individual types of goods and services that may be excluded from the set of representative goods used for calculating the core consumer price index.

#### **Seasonal goods group**

18. This group may include fruit and vegetable products, live flowers, some kinds of transport services and housing rental, the prices and charges for which depend on holiday season discounts.

#### **Motor and heating fuel**

19. This group of goods includes only those types of fuel used for the heating of dwellings or for private transport.

#### **Goods for which prices are regulated administratively**

20. The administrative influence on prices and charges for this group may be of a federal or regional nature. Prices can be regulated here in various ways: direct action on the level of prices, fixed trade markups, special taxes, etc.

21. Applying the above criteria, fruit and vegetable products are excluded from the general list of **food goods**, since fluctuations in prices for them are of a clearly seasonal nature and significantly lower or raise the consumer price index (CPI) over the year as a whole.
22. As for the group of **non-food goods**, the estimation of core inflation does not include changes in the prices of fuel (including petrol), since the movement of prices for individual types of fuel, aside from the seasonal factor, is subject to administrative action by the federal and regional authorities.
23. Excluded from the group of **paid services to the population** are those kinds of services for which prices are generally set at the federal or regional level by decision of the relevant authorities (individual passenger transport services, communications services, virtually all residential and communal services, certain kinds of legal and banking services).
24. The share of consumer goods and services excluded from the estimation of core inflation amounts to approximately 17-18% of the overall structure of consumer expenditures of the population used as weights in constructing the CPI.
25. The **core inflation indicator** is calculated as part of federal State statistical monitoring of the level and dynamics of consumer prices, employing the methodology and tools that are being developed and approved by the Federal State Statistical Service in agreement with other interested agencies.
26. A single set of consumer goods and services is used in this process for all the 89 constituent entities of the Russian Federation and there is an individual system of weights for each entity.
27. **As weights** for the construction of the core consumer price index, reference is made to the structure of consumer expenditures of the population determined on the basis of the household budget survey for the preceding year with the exclusion of the weights of those components of the set of goods and services which do not form part of this computation. The normalization of weighting is done here so that the sum of the components upon inclusion in the core consumer price index figure would also be 1 (or 100%). With this procedure an additional weight is attached to each heading of goods or services for which price changes are included in the core inflation estimates.

#### IV. CONCLUSION

28. A core inflation estimate is now one of the most demanded indicators in the system of consumer price indices being calculated. Each month, together with the consumer price index, information on core inflation is published in the official bulletins of the Federal State Statistical Service, a fact that yet again confirms the importance of this indicator especially for transition economy countries, in which overall inflation rates remain quite high.

29. Work is being continued in Russia to improve the existing methodology for the collection of price information and the calculation both of the consumer price index and of the whole system of price indices, including core inflation. The main principle in this connection remains a systemic approach to the construction of price indices in all sectors of the economy that helps to support a logically designed and internally consistent system of price indices.

30. We wish to express our gratitude to the specialists of the statistical offices of the United Kingdom, Sweden, Finland and Germany for their guidance in the development of the methodology for estimating core inflation in the Russian Federation.

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