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**IMPROVEMENT OF THE METHODOLOGY FOR THE MONITORING OF PRICES OF GOODS
AND SERVICES AND CPI CALCULATION IN THE AZERBAIJANI REPUBLIC**

Transmitted by the State Statistical Committee of the Azerbaijani Republic

I. Introduction

1. The past few years have seen a profound transformation of the Azerbaijani economy: the principles of its regulation have altered and it is no longer command-driven but market-driven. The price system has changed significantly: whereas in the days of the planned economy prices were mainly set by the State, free-market prices now predominate.

2. For statisticians, the liberalization of prices for goods and services, the privatization of service enterprises, the creation of new commercial and private structures and the emergence of a large number of informal markets have made objective measurement of price levels and trends in the consumer goods and services sectors more difficult and necessitated improvements in the methodology for monitoring prices and calculating price indices. Resolution of these problems - the transformation of price statistics in the light of international practice and the requirements of international comparison - has been a focus of statistical work since 1993. It is the policy of the State statistical authorities to develop a system for calculating the consumer price index (CPI) - considered the most important indicator of the effectiveness of the economic reforms - that is consistent with the country's new economic circumstances.

II. Stages in the establishment and improvement of the methodology for CPI calculation

3. The principal step in the first stage, and the one that laid the long-term foundation for the development of a system of consumer price indices, was the establishment within the State Statistical Committee of a special price service for monitoring and recording changes in prices and tariffs. This service was the first in the history of the Republic to use the index of retail prices for goods and services (RPI) as an indicator of inflationary processes in the consumer sector. Calculation of the RPI began in 1991, with the specific aim of converting the then value indicators for retail trade and services into comparable prices.

4. The switch from the old, regulated process of price formation to "free" pricing and the unsuitability of the RPI for defining the true extent of inflation made it vital to have a trustworthy indicator corresponding to the new economic circumstances and to international standards.

5. The State Statistical Committee began preparing for the designing of a CPI in 1992. The basic project for the building of the index started in April 1993, at the time of a special mission from the International Monetary Fund (IMF). The work was scheduled to last until the end of 1994 and called for a particular sequence of activities by specialists from the Committee. Under the guidance of IMF experts (who visited the State Statistical Committee in two separate years: 1993 (April and November) and 1994 (October)), the coverage of the CPI was fixed, the shopping basket (268 representative commodity groups) and weights were defined, and a new system and rules for recording prices, as well as software for making the calculations, were developed.

6. Use of the improved procedures for recording prices for goods and services began in November 1993. As a result, it was possible as from 1994 to make experimental calculations of the CPI in parallel with the RPI, to compare these two indices for the same periods of time, to refine the methodology and study its advantages in practice, and to do all the work needed for the introduction of the CPI in Azerbaijani statistical practice. In addition, retrospective calculations were made for the period from 1990 onwards. The last IMF mission checked all the results of the calculations and found them correct. Accordingly, the CPI was officially introduced in January 1995 as the main instrument for measuring inflation in Azerbaijan.

7. A special feature of Azerbaijan's system for calculating the CPI is the combination with weekly monitoring of consumer prices and computation of the RPI for consumer goods and services.

8. The index is calculated using the Laspeyres formula, with weights for the previous year. The weights themselves reflect consumer expenditure on goods and services as determined by household surveys. The index covers the entire population and has as its base the previous year.

9. The shopping basket comprises 268 goods or services divided into eight groups: food; clothing and footwear; rent, water, heating and electricity; household goods; medical care; transport and telecommunications; leisure, education and culture; personal care and hygiene.

10. Price information is collected by officials from the local statistical organs in all the country's major towns. Regional indices are aggregated for the country on the basis of each region's share of the total population.

11. The CPI is calculated on a weekly and monthly basis. It is published at the beginning of the following month in seven forms: by reference to the previous month; for the quarter by reference to the previous quarter; by reference to the corresponding month of the previous year; for the quarter by reference to the corresponding quarter of the previous year; by reference to December of the previous year; for the period since the beginning of the year by reference to the corresponding period of the previous year; by reference to December 1990.

III. Current methodology for compiling, and features of the Azerbaijani CPI

12. With a view to obtaining objective information on price levels and trends, the set of enterprises for which prices will be recorded is chosen to reflect local conditions in trade and services as closely as possible. It must, in particular, include outlets of a variety of sizes (large, medium, small) and types and forms of ownership (State or cooperative; commercial or private commission; municipal or unofficial markets) in the various neighbourhoods of the town.

13. For each good (service), 2-3 prices are recorded in various outlets in the centre of the town and 3-4 prices in a variety of housing estates and on the outskirts of the town. It is important to ensure that for any given good or service only one record is made in any one outlet.

14. For consumer goods and paid services, prices and tariffs are recorded and mean prices and price indices are calculated weekly and monthly in special registers. The procedures for the weekly and monthly recording of prices and keeping of the registers are the same. The difference between the registers is one of format: the monthly register records sales over a six-month period by using one page per type of sales channel per good (so that total sales of the good via all channels in that period are covered in three pages), whereas the weekly register uses one page per good to cover sales via all channels over a one-month period. At least five prices comparable with prices from the preceding period are recorded for each form of ownership (trade). The recording interval is respectively ± 3 days for monthly recording and ± 1 day for weekly recording.

15. The registers contain information on the place of observation and the price level for the recording and base periods. A description must also be given of the representative good (service) concerned; the description must include the brand, the country of manufacture, the model or model number, the precise nature of the article, the size and other details enabling the good in question to be distinguished from others of the same type so that it can be accurately recorded in the next period.

16. One of the difficulties in monitoring prices of consumer goods and services is to find representative goods (services) that were recorded in the same base enterprises in the preceding period. Calculating indices for two successive periods (a week or a month) can be complicated by the temporary absence of goods or services from the market.

17. National practice and foreign experience offer a variety of possible approaches to the calculation of indices for goods and services when price information is unavailable or discontinuous. The State Statistical Committee, however, favours the use of two main methods for ensuring that there is no break in the calculation of price indices when a good is temporarily absent from the market: duplication of the representative good (service); use of a notional price (the mean price for the period preceding the item's disappearance corrected by the overall price index for a group of similar items).

18. The first of these methods - the duplication of the chosen representative good (service) - entails monitoring of the chosen item itself and, in order to ensure that the price series is continuous, parallel monitoring of an analogous item with a similar price trend.

IV. Example

19. As already mentioned, only one record per good (service) may be made at any given outlet. This rule has only one purpose - to increase outlets' representativeness. Suppose that, to monitor the good "Man's suit", we choose to monitor "Suit A"; we may simultaneously monitor the prices at the same outlet of Suit B, but no entry will be made for that suit in the register and only the prices for Suit A will be taken into account in calculating the indices.

20. If, however, Suit A temporarily disappears from the market during the reporting period, a notional price may be calculated for it from the price trend for Suit B:

	January price	February price	March price	April price
Suit A	55 000	60 000	60 000	...
Suit B	...	75 000	75 000	80 000

21. The price index for Suit B in April compared with March will be 106.7% ($80,000 \div 75,000 \times 100\% = 106.7\%$), making the notional April price for Suit A 64,020 ($60,000 \times 106.7\% \div 100\%$). The price obtained for Suit A in this way can be taken as the April price and used in subsequent calculations of price indices. With the duplication method, Suit A can, if its absence from the market is protracted, be replaced by Suit B. In such instances, a price for Suit B for the previous period can be calculated from the price trend for Suit A.

22. In the above example, the price index for Suit A in February compared with January is 109.1% ($60,000 \div 55,000 \times 100\%$), so the notional January price

for Suit B will be 68,744 ($75,000 \div 109.1\% \times 100\%$). This notional price can be used in subsequent calculations of price indices employing the substitute representative good.

23. The second preferred method involves calculating the price for a temporarily missing representative good from the price for that good during the period preceding the good's disappearance as corrected by the index for a group of similar items. It is therefore possible, by using this correction factor, to calculate a base-period price for a good that reappears on the market after being absent.

24. National-level aggregate indices for commodity groups are calculated by applying population weights. In principle, this method will be employed until household statistics have been improved and there is reliable information on household consumption by region. Because prices (tariffs) for goods (services) differ appreciably and rise at different times from one area to the next, Azerbaijan has studied a variety of methods of regional-level aggregation of commodity-group indices.

25. For the moment, the CPI is calculated weekly and monthly for the country as a whole and for each of the major towns.

IV. Conclusion

26. The approach adopted in 1995, with its basis in the weekly recording of prices, allows for flexibility in the collection and processing of price information and in CPI calculation. The methods used by the Azerbaijani State statistical authorities to collect price information and calculate the CPI correspond to the methods for assembling similar information employed in other countries and espoused by international economic organizations.

27. The Azerbaijani State Statistical Committee is continuing its efforts to improve the present methodology for collecting price information and calculating the CPI. It is, in particular, seeking ways of taking the quality of goods into account in recording and CPI calculation and of including allowance for seasonal factors in CPI calculation.

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