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The practice of calculating the consumer price index in Georgia and the methodological issues for its improvement

The National Statistics Office of Georgia has been carrying out the calculation of the consumer price indexes (inflation) since 1992. Measuring the change of the overall level of consumer prices in the country is made through the indexes.

The calculation of the consumer price indexes is carried out on a monthly basis in five cities of Georgia: Tbilisi, Batumi, Gori, Kutaisi and Telavi.

There exists the comparison criteria for calculating indexes, which as a rule is used at every stage of work. In particular, the fixed consumer basket; the fixed time for the registration of prices; the fixed marketing places and service centers, and the specific weights of goods and service.

The registration of consumer prices is carried out during the period of time from the 10th to 20th included of each month at the service and retail outlets, the number of which equals to 1300.

According to the international classification (COICOP) consumer price index (CPI) covers 12 commodity groups. The aggregated price indices for each commodity group are calculated on the basis of individual price indices for each city as well as for the whole country. The index is published on the 3rd day of the following month. From 2012 four types of indices are published: compared to the previous month, compared to the corresponding month of the previous year, compared to long term base period and 12-months average.

The consumer basket is the basis for the calculation of consumer price indices. It is the list of the most frequently consumable goods and services in the country and reflects the expenditure structure of   the average consumer of the country. The consumer basket is identical for the five cities. From 2012 the renewed consumer basket is based on the consumption structure defined by the system of the national accounts and reflects the latest expenditure pattern. The usage of weights derived from the national accounts in the process of formation of the consumer basket is one of the essential recommendations, which the Eurostat - the main statistic service of the EU - offers its member countries.

The regional data about the consumption expenditure spent by the population is based on household budget survey. The expenditure structure of the population being used today is formed on the basis of up to 7 000 households.

It should be noted that recently in Georgia there have been realized the positive changes in forming the consumer basket. In particular, a lot of new goods and services were taken into consideration. Currently the consumer basket consists of 288 consumption goods and services, which have their special weight in proportion to the overall consumption.

Compared to the consumer basket of 2010 there were involved 42 types of goods (services) in the renewed consumer basket. Among them : frozen chicken meat (half produce), smoked sausage, pasteurized milk, yogurt, cognac, service cost of a nurse, a new car, gas fuel, changing the oil and filter of a car and so on. There were taken out 20 types of goods (services) from the consumer basket. Among them: cherry, dressing gown, the cost of a flat sale, building blocks, a bar of wood shavings, a bed, a carpet and so on.

Compared to the consumer basket of 2010 the renewed one is positive. Besides the structural changes the method of the calculation was improved.

If the consumer basket of 2010 covered only the expenditure structure of the region and the weight of a city was defined according to the number of the population, the consumer basket of 2012 contains the expenditure structure of the whole region and the weight of the region is defined according to the volume of the expenditure of the region.

In the consumer basket of 2010 there was used the data of the household budget survey of 2007-2009. And in the basket of 2012 there is used the data of the national accounts system of 2010.

In the old consumer basket the outlets were selected according to their location. It covered all the districts and trading centers of a city. During the calculation of the consumer basket of 2012 the selection of the research units was made according to the volumes of turnover (on the basis of the information received from business statistics), it covers all the regions and all types of trading centers.

There has been improved the technical part of the price registration. The field work of collecting the data in the trading units is carried out by the interviewer during 10-20th of the calculating month. In 2010 this was done using the paper questionnaire. And in 2012 it is done using a handheld computer where the information is input into the computer electronically and the database is presented to the head office in the relevant terms. The usage of a portable computer

created the real preconditions for moving to the scanned base of the primary information, which is being planned in Georgia in the near future.

In 2010 the elementary index was calculated using the arithmetic mean formula that caused the gaps - the weights were defined implicitly according to the price level. Since 2012 the calculation of the elementary index has been made using the geometrical mean. An advantage of the formula is that weights are assigned deliberately or there are used equal weights for individual observations.

The positive changes are noticed in the part of the population expenditures. The volume of expenditure of the population spent on food has decreased from 40,1% to 30,3 % and increased on the categories of services, such as: education (6,1%), transport (12,8%), rest, entertainment and culture (6,8%), communication (5,6%) and so on.

The mentioned positive changes are represented on the diagram below.

Diagram 1
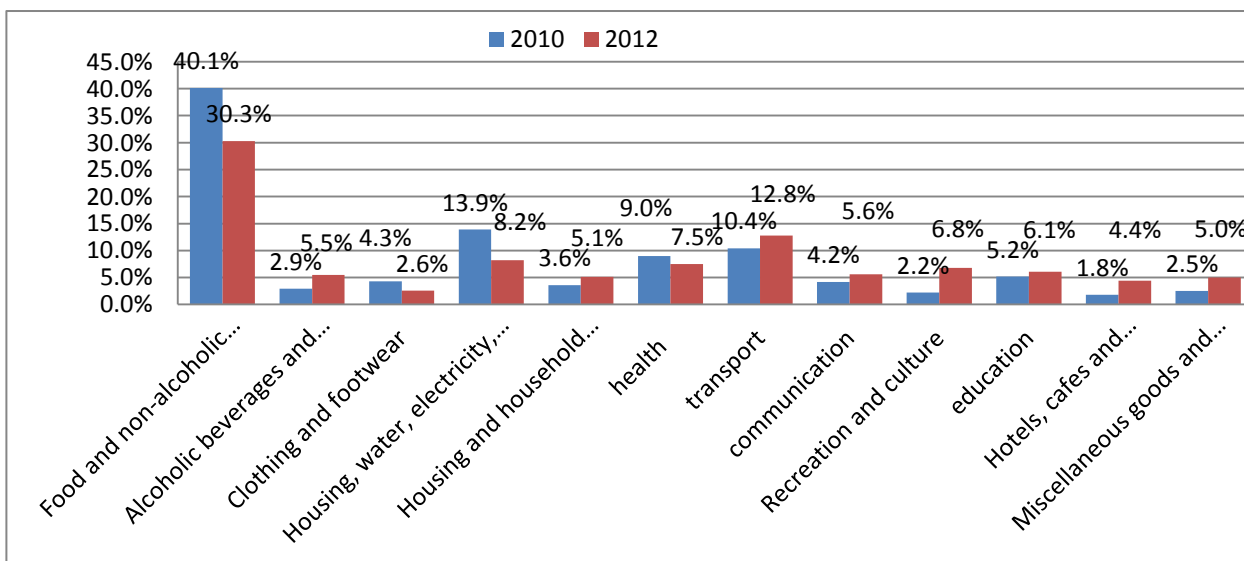
The software product of the calculation of the price index has also been improved. Today the program is successfully completing the calculation changes of prices on seasonal and temporary non- existing products.
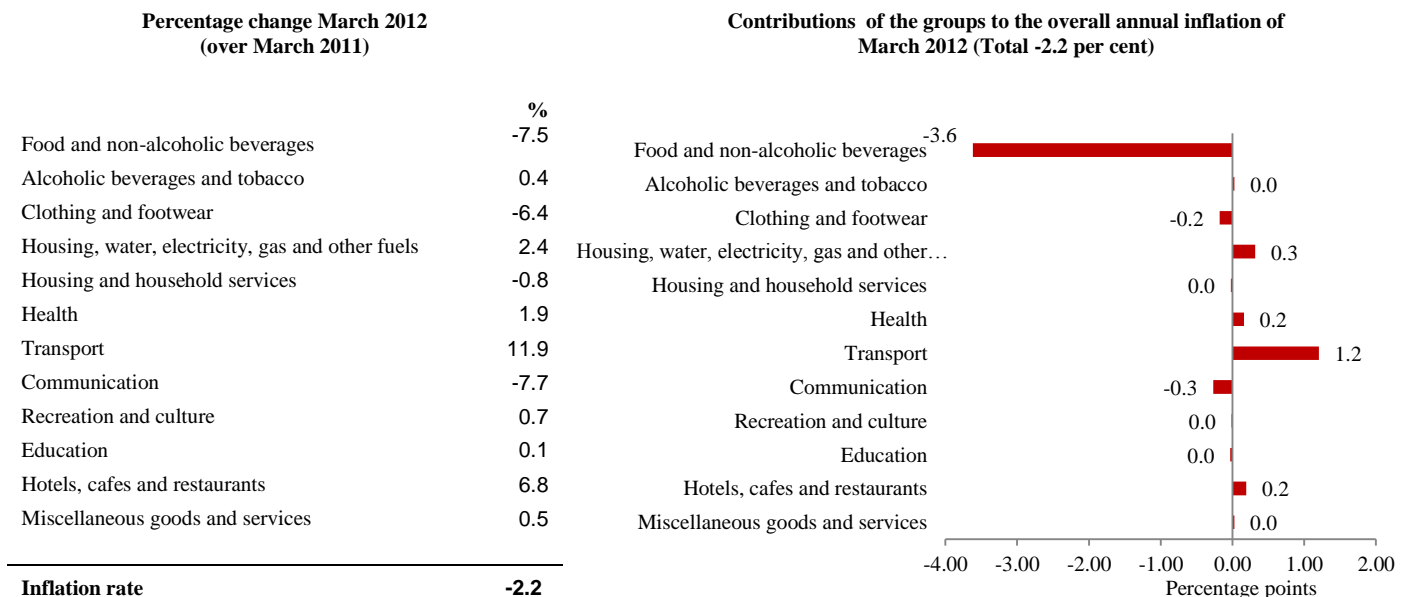
In order to calculate consumer price indices of the categories of seasonal and temporary non-existing goods on sale which are distinguished by their sharp seasonal character there is used a price imputation method. The aim of calculation is to reduce the inaccuracies to minimum, which traditionally exist when calculating the consumer price index on seasonal and temporarily non-existing goods. It should be noted that the method of imputation recommended by the International Monetary Fund for calculating the seasonal goods prices has been completely introduced in the practice of Georgian statistics.

As for the methodology of calculating the consumer price index it is calculated on the basis of Laspeyres index, accordingly to renewing the population expenditure and consumer basket once every 3 years.

What is the level and dynamic of inflation like in Georgia?

Compared to March of 2011 in March 2012 the level of inflation in Georgia equaled to -2,2%. Below on the tables there is presented the percent change in the prices of goods and services contained in the consumer basket and the corresponding contributions to the overall inflation rate.

Diagram 2

Percentage change March 2012 (over March 2011)	%
Food and non-alcoholic beverages	-7.5
Alcoholic beverages and tobacco	0.4
Clothing and footwear	-6.4
Housing, water, electricity, gas and other fuels	2.4
Housing and household services	-0.8
Health	1.9
Transport	11.9
Communication	-7.7
Recreation and culture	0.7
Education	0.1
Hotels, cafes and restaurants	6.8
Miscellaneous goods and services	0.5
Inflation rate	**-2.2**

Contributions of the groups to the overall annual inflation of March 2012 (Total -2.2 per cent)

|	Percentage points
Food and non-alcoholic beverages	-3.6
Alcoholic beverages and tobacco	0.0
Clothing and footwear	-0.2
Housing, water, electricity, gas and other…	0.3
Housing and household services	0.0
Health	0.2
Transport	1.2
Communication	-0.3
Recreation and culture	0.0
Education	0.0
Hotels, cafes and restaurants	0.2
Miscellaneous goods and services	0.0

In 12-month period of time the formation of the noted index was influenced by the price changes in the following groups:

- Food and non-alcoholic drinks: in this period of time the prices were decreased by 7.5% and the share of the group made -3.6 percentage point in the overall rate of the annual inflation. The high rate of the price decrease was fixed at the following sub-groups: fruit and grape (34,3%), vegetable, greens, potato and other bulbous plants (17.8%), sugar and other sweets (14,4). The prices were increased on the sub-groups of meat and meat-products (10.9%).

- Transport: prices were increased by 11,9 %. Accordingly, the group share in the annual inflation rate made 1,2 percentage point. In the mentioned group the significance increase was fixed at the transport sub-group (19,3%) and the sub-group of the maintenance of the personal transport means(4.1%).

The dynamic of consumer price indices of the same month of the previous year is positive (2010-20120). See, diagram 3.

Diagram 3
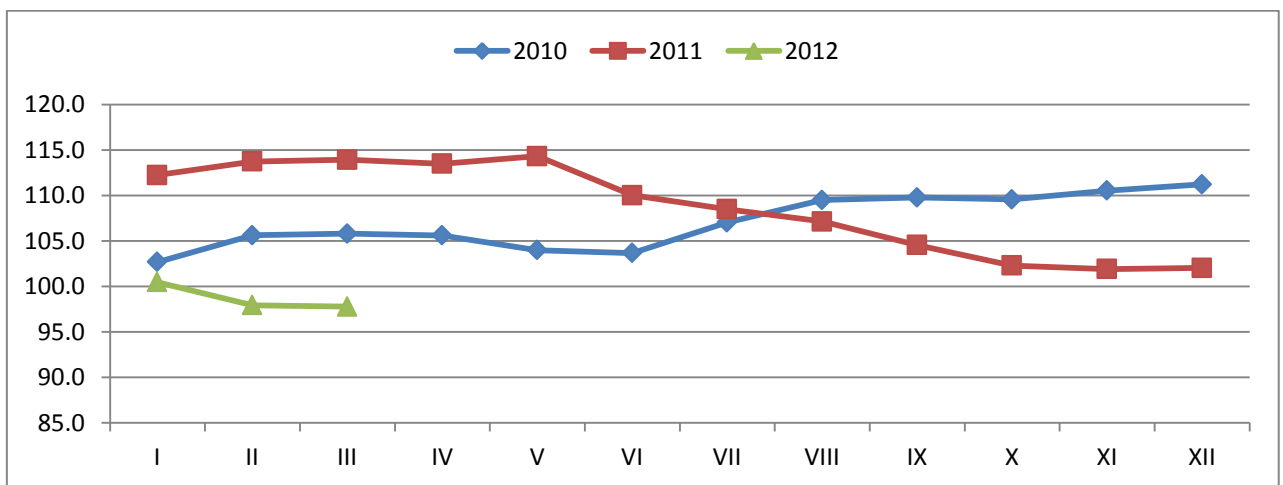
Today in order to calculate the consumer price index there is taken into account:

1. Calculating the short term index (Str-Short Term Index) on a city level.
2. Imputed indexes. The imputation is carried out while calculating short term indexes (Str Imputation) on a city level;
3. Calculating the long term indexes (Str-long term Index) on a city level;
4. Calculating the long term indexes of the groups on a city level;
5. Calculating the short term indexes of the groups on a city level;

6. Calculating consumer price indexes on the national level.

Nowadays owner-occupied housing is not included in the consumer basket and the National Statistics Office of Georgia is developing the methodology of accounting the real estate and its consideration in the consumer price index.

It should be noted that since 2012 there has been planning to renew the consumer price basket annually. This will undoubtedly be a serious step forward, which will create the steady basis for refining the methodology of calculating the consumer price index and its further development.