

Consumer prices indices. Basket, weight structure and survey updates Year 2023

As every year, Istat reviews the list of items included in the consumer price index basket and updates as well the survey techniques and the weights of each item to compile inflation.

The changes made in 2023, with reference to both the weights and the basket, reflect the constant evolution of household spending behaviours but also the impact of events which affect purchasing decisions and structure of consumer spending.

The 2023 basket for the Italian consumer price indices for the whole nation (NIC) and for blue and white-collar households (FOI) is made up of 1,885 elementary products (1,772 in 2022), which are grouped into 1,061 products and 423 product aggregates.

The 2023 basket for the Italian harmonized index of consumer prices (HICP) is made up of 1,906 elementary products (they were 1,792 also in 2022), grouped into 1,080 products and 427 product aggregates.

The review of the basket of products takes into account the changes in the household spending patterns (also due to legal provisions) and enriches, in some cases, the range of products representing consolidated consumption.

In 2023, the main products added to the basket to represent the changes in the household spending patterns or to improve the coverage of expenditure aggregates already represented in the basket, are: Sports medical examination, Smartphone repair, Smart speakers assistant, Organic range for some fresh fruits and for some fresh vegetables, Seedless grapes, Gold kiwi, Gentle lettuce, Freshly caught tuna, Farmed fresh turbot, Women's leggings, Radiography, Beauty massage.

In 2023 no product leaves the basket since all those already present do not show signs of obsolescence such as to justify their exclusion.

In total over 33 million price quotations are used each month to estimate Italian inflation. They come from different sources: 398,000 of them are collected locally by the Municipal Offices of Statistics (MOS) and concern 51.3% of the basket in terms of weight; about 189,000 are collected directly by Istat (24.8% of the basket) and about 33 million come from scanner data (13.6% of the basket). Then, more than 167,000 quotes are collected from automotive fuels prices database of the Ministry of Economic Development (5.8% of the basket). In addition, tobacco prices are collected from Customs and Monopolies Agency for the detection of tobacco (1.9% of the basket) and one million and half house rent prices are provided by the Real Estate Market Observatory of the Tax Office (2.6% of the basket).

Data coming from 79 municipalities are processed to estimate monthly inflation; the coverage of territorial survey, with reference to provincial population, is equal to 82.9%.

An additional group of 12 municipalities participate in the territorial survey with regard to a subset of products (local tariffs and some services) and for this subset, the territorial coverage is up to 90.0%.

In the municipalities, prices are collected in about 44,000 statistical units (including outlets, enterprises and institutions) and rents are collected for more than 2,700 dwellings for social housing.

Price quotes collected through scanner data come from a sample of about 4,300 outlets including hypermarkets, supermarkets, discounts, small sales areas and specialist drugs, which are representative of the whole Italian national territory and of 19 large retail chains. The weight of scanner data on the NIC basket is 13.6%.

The consumer prices of automotive/motor fuels (petrol, gas oil, LPG and methane) for the whole national territory are collected through the data base of the Ministry of Economic Development. Istat uses information provided by almost 16,500 petrol stations (74.0% of those in the data base).

With regard to expenditure divisions in the updated 2023 NIC basket, the weights for Restaurants and hotels and Housing, water, electricity, gas and other fuels increases, while at the opposite the weight for Food and non-alcoholic beverages decreases.

The expenditure division Food and non-alcoholic beverages continues to be the most representative in terms of weight (17.10%), followed by Transport (14.07%), Housing, water, electricity, gas and other fuels (12.13%) and Restaurants and hotels (10.85%).

The update of the basket of goods and services for 2023

The 2023 basket for the Italian consumer price index for the whole nation (NIC) and for blue and white-collar households (FOI) is made up of 1,885 elementary products, which are grouped into 1,061 products and into 423 product aggregates (they were 1,772 in 2022, grouped into 1,031 products and 422 product aggregates).

The 2023 basket for the Italian harmonized index of consumer prices (HICP) is made up of 1,906 elementary products, which are grouped into 1,080 products and then into 427 product aggregates (they were 1,792 in 2022, grouped into 1,050 products and 426 product aggregates)¹ (Table 1).

TABLE 1. CLASSIFICATION STRUCTURE FOR NIC AND FOI INDICES. YEAR 2023

Year 2023
12 expenditure divisions
43 product groups
102 product classes
234 product sub-classes
313 consumption segments
423 product aggregates
1,061 products
1,885 elementary products

As usual, the revisions made to the basket, in 2023, are mainly aimed at capturing the evolution of consumer spending habits, considering that the basket of consumer prices is by now so complete and detailed that the number of products entering and leaving the price collection each year is limited.

As far as products representing the evolution in spending habits in 2023, the following new products are added to the basket (Table 2):

Sports medical examination, Smartphone repair, Smart speakers assistant.

In order to expand the range of items covering expenditure aggregates already represented in the basket of the consumer price indices, the following products are included:

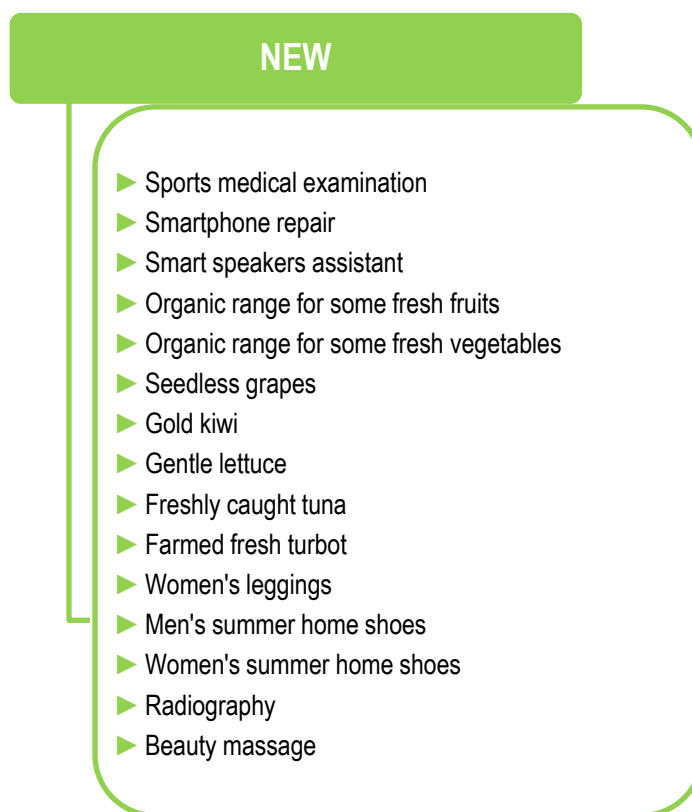
Organic range for some fresh fruits (oranges, tangerines, lemons, bananas, apples, pears, peaches, kiwis), Organic range for some fresh vegetables (salad tomatoes, aubergines, zucchini, peppers, carrots, onions), Roman cauliflower, Seedless grapes, Gold kiwi, Gentle lettuce, Freshly caught tuna, Farmed fresh turbot, Women's leggings, Radiography, Beauty massage.

Starting from January 2023, a further 19 sub-indices (“aggregate of products”) relating to packaged aged cheeses, and fresh fruit and vegetables (only non-seasonal products sold in fixed-weight packages) are collected using scanner data previously collected with the local survey by municipal statistics offices.

In 2023 no product leaves the basket since all those already present in 2022 do not show signs of obsolescence such as to justify their exclusion.

¹ The difference between the two baskets is mainly due to two elements: on the one hand in the HICP basket (but not in the NIC/FOI one), contributions to the NHS for pharmaceutical products, specialist practices and services of medical analysis (six items) are included; on the other hand in the NIC/FOI basket (but not in the HICP one), Games of chance are included.

TABLE 2. CONSUMER PRICE INDICES BASKET 2023: NEW PRODUCTS



The weighting structure

The weighting coefficients of indices are determined on the basis of the values of the household final consumption expenditure and of the household final monetary consumption expenditure (for HICP), as derived from National Accounts. Additional information used to define weights is originated from the Household Budget Survey, from other Istat surveys and from external sources, which have an auxiliary function, such as Ac Nielsen, GfK Italia S.r.l. and IQVIA SOLUTIONS ITALY S.r.l..

Since 2021 basket, to take into account the changed consumption expenditure deriving from the health emergency due to Covid-19, for the estimation of the weighting coefficients, it was decided, also in accordance with the guidelines drawn up by Eurostat, to use the most recent National Accounts data available. This choice was confirmed for the 2023 basket as well and therefore the reference expenditures are, for both sources, those relating to 2022. It should be emphasized that, for reasons of timeliness, the weight system used for the preliminary estimate of inflation for January 2023 is calculated on the basis of the National Accounts data available last December, relating to the first three quarters of the year. The extension of the information to cover the entire calendar year, available at the beginning of February 2023, will allow a further refinement of the weighting structures which will be published, in the final version, on 22 February next, on the occasion of the dissemination of the definitive indices.

Price changes of goods and services included in the basket contribute to the calculation of the All-item index with their own weight in terms of the expenditure share sustained by households to purchase them. However, in order to measure the expenditure shares with reference to the value of the computation base period of

indices (December 2022), household final consumption data, are price-updated using the price changes measured between the average of year 2022 and December 2022.

Table 3 shows the 2023 weighting structures by expenditure division of NIC, HICP and FOI indices and their differences. By ordering expenditure divisions according to their relative weights, the three indices, with the exception of *Health*, show relatively small differences. For all the indices, the expenditure divisions with a comparatively higher weight are those of *Food and non-alcoholic beverages*, *Transport*, *Housing, water, electricity gas and other fuels*² and *Restaurants and hotels*.

TABLE 3. WEIGHTS USED TO CALCULATE CONSUMER PRICE INDICES BY EXPENDITURE DIVISION
2023, percentage values

EXPENDITURE DIVISIONS	WEIGHTS		
	NIC	HICP	FOI
Food and non-alcoholic beverages	17,1025	18,1443	16,1159
Alcoholic beverages. Tobacco	2,9875	3,1698	3,2619
Clothing and footwear	6,4371	7,4403	7,3502
Housing, water, electricity, gas and other fuels	12,1287	12,8704	12,27
Furnishings, household equipment and routine household maintenance	7,6987	8,1963	6,9236
Health	8,3284	4,0100	6,6344
Transport	14,0656	14,8974	15,3567
Communication	2,3406	2,4851	2,7405
Recreation and culture	7,8807	6,4516	8,259
Education	0,9135	0,9691	1,1679
Restaurants and hotels	10,851	11,5117	10,7788
Miscellaneous goods and services	9,2657	9,854	9,1411
ALL ITEMS	100.0000	100.0000	100.0000

The differences among the weighting structures of NIC, FOI and HICP indices are largely due to the different definition of the reference economic aggregate for the three indices. This issue has relevant consequences for determining the weight of the expenditure division *Health* and in particular the weight of pharmaceutical products. The NIC and FOI indices include expenditure incurred by public administration for the household consumption of pharmaceutical products and health services, whereas this expenditure is excluded from the calculation of the HICP. Therefore, the weight of *Health* in the basket of the harmonised index of consumer prices (4.01%) is significantly lower than the weight calculated for the national indices (8.33%).

With regard to changes in the weighting structure of the NIC index between 2022 and 2023, the highest increase in absolute terms concerns the expenditure division *Restaurants and hotels* (+1.4756 percentage points), which is entirely due to the "spending effect", mitigated by the "revaluation effect". The increase of the weight of *Housing, water, electricity, gas and other fuels* (+1.1603 percentage points), is largely determined to the "revaluation effect" (Table 4), instead that of *Recreation and culture* (+0.8267 percentage points) is due to the increase of expenditure. Lower increase is registered for the weight of *Clothing and footwear* (+0.0516) largely determined by the "spending effect".

Looking at the expenditure divisions with reduced weight, in the 2023 NIC basket, the largest decreases concern the weight of *Food and non-alcoholic beverages* (-1.2651percentage points) entirely due to the "spending effect" mitigated by "revaluation effect". The decline of the weights of *Health* (-0.5662) and *Alcoholic beverages, tobacco* (-0.4163) are mainly affected by the "expenditure effect" and in addition by "revaluation effect". The decrease of *Transport* (-0.4187) is mainly due to the "revaluation effect" whereas that the decline of the weight of *Furnishings, household equipment and routine household maintenance* (-0.2963) is entirely

² In Italy, as in the other European countries for HICP, items in the expenditure division *Housing, water, electricity, gas and other fuels* exclude dwelling purchase, as it is an investment and not a consumer item. This expenditure division includes actual rentals for housing, regarding about 20.5% of Italian households, according to survey of Statistics on Income and Living Conditions (EU-SILC) 2021 (the remaining 79.5% of households own their dwellings, or occupy them as life tenants or free of charge)

due to the decline of expenditure. The decrease in the weight of *Communication* (-0.2343), *Education* (-0.1700) and *Miscellaneous goods and services* (-0.1473) that of are affected by the reduction of expenditure.

TABLE 4. NIC INDEX: WEIGHTING STRUCTURE BY EXPENDITURE DIVISION
2021 and 2023, percentage values and absolute differences

EXPENDITURE DIVISIONS	2022	2023	Absolute difference	Spending effect	Revaluation effect
Food and non-alcoholic beverages	18,3676	17,1025	-1,2651	-1,5227	0,2576
Alcoholic beverages, tobacco	3,4038	2,9875	-0,4163	-0,4000	-0,0163
Clothing and footwear	6,3855	6,4371	0,0516	0,1075	-0,0559
Housing, water, electricity, gas and other fuels	10,9684	12,1287	1,1603	0,2850	0,8753
Furnishings, household equipment and routine household maintenance	7,9950	7,6987	-0,2963	-0,3245	0,0282
Health	8,8946	8,3284	-0,5662	-0,4130	-0,1532
Transport	14,4843	14,0656	-0,4187	0,2973	-0,7160
Communication	2,5749	2,3406	-0,2343	-0,2417	0,0074
Recreation and culture	7,0540	7,8807	0,8267	0,9116	-0,0849
Education	1,0835	0,9135	-0,1700	-0,1632	-0,0068
Restaurants and hotels	9,3754	10,8510	1,4756	1,5519	-0,0763
Miscellaneous goods and services	9,4130	9,2657	-0,1473	-0,0882	-0,0591
ALL ITEMS	100.0000	100.0000			

Looking at the classification by type of products (Table 5), concerning goods, in 2023 the weight of *Energy* increases (10.09%, from 9.25% in 2022) due to the component of Non-regulated energy products on which both the “expenditure” and the “revaluation effect” have an impact.

As for the other typologies of goods: Food including alcohol records a decline in the weight (18.14% from 19.53%) which is entirely due to the “spending effect”; Tobacco products decreases in the weight (1.95% from 2.24%) because the “expenditure” and the “revaluation effect” declines both; finally, Non-energy industrial goods increases to 27.43% (from 27.10%) as the result of the decline of the weights of Durable goods and of the greater growth to Semi-durable goods.

As for services, the increase in the weight of *Services related to recreation, including repair and personal care* (15.59% from 14.31%) and that of *Services related to transport* (6.58%, from 6.44%), is due to the rise of “expenditure effect”.

At the opposite, there is a decrease in the weights of *Services–miscellaneous* (11.24% from 11.66%), *Services related to housing* (7.39% from 7.68%) and *Services related to communication* (1.57% from 1.79%) that is due to the decline of both expenditure and prices.

In 2023, the weight of all item index excluding energy and unprocessed food (Core inflation) registers a slight increase (83.26% from 83.22%).

TABLE 5. NIC INDEX: WEIGHTING STRUCTURE BY TYPE OF PRODUCT
2022 and 2023, percentage values and absolute differences

SPECIAL AGGREGATES	2022	2023	Absolute difference	Spending effect	Revaluation effect
Food including alcohol:	19,5333	18,1442	-1,3891	-1,6712	0,2821
Processed food including alcohol	12,0047	11,4951	-0,5096	-0,9111	0,4015
Unprocessed food	7,5286	6,6491	-0,8795	-0,7601	-0,1194
Energy:	9,2494	10,0949	0,8455	0,5333	0,3122
Regulated energy products	1,7411	1,7949	0,0538	0,0383	0,0155
Non-regulated energy products	7,5083	8,3000	0,7917	0,4950	0,2967
Tobacco	2,2381	1,9458	-0,2923	-0,2515	-0,0408
Non energy industrial goods:	27,0978	27,4337	0,3359	0,3396	-0,0037
Durable goods	10,5690	10,4401	-0,1289	-0,1841	0,0552
Non-durable goods	7,0411	6,9611	-0,0800	-0,1319	0,0519
Semi-durable goods	9,4877	10,0325	0,5448	0,6556	-0,1108
Goods	58,1186	57,6186	-0,5000	-1,0498	0,5498
Services related to housing	7,6842	7,3873	-0,2969	-0,1889	-0,1080
Services related to communication	1,7859	1,5699	-0,2160	-0,1927	-0,0233
Services related to recreation, including repair and personal care	14,3087	15,5995	1,2908	1,4525	-0,1617
Services related to transport	6,4440	6,5828	0,1388	0,2336	-0,0948
Services – miscellaneous	11,6586	11,2419	-0,4167	-0,2547	-0,1620
Services	41,8814	42,3814	0,5000	1,0498	-0,5498
ALL ITEMS	100.0000	100.0000			
All items excluding energy and unprocessed food (Core inflation)	83,2220	83,2560	0,0340	0,2268	-0,1928
All items excluding energy, food, alcohol and tobacco	68,9792	69,8151	0,8359	1,3894	-0,5535
All items excluding energy	90,7506	89,9051	-0,8455	-0,5333	-0,3122
Grocery and unprocessed food	22,0483	20,7578	-1,2905	-1,6384	0,3479

With regard to regulated and non-regulated products, the weight of *Regulated goods* declines (3.92% from 4.26%) as well as the weight of *Regulated services* (5.15% from 5.50%) (Table 6).

TABLE 6. NIC INDEX: WEIGHTING STRUCTURE BY REGULATED AND NON-REGULATED PRODUCTS
2022 and 2023, percentage values and absolute differences

REGULATED AND NON-REGULATED PRODUCTS	2022	2023	Absolute difference
Non-regulated goods	53,8587	53,6943	-0,1644
Regulated goods	4,2599	3,9243	-0,3356
Goods	58,1186	57,6186	-0,5000
Non-regulated services	36,3774	37,2279	0,8505
Regulated services	5,5040	5,1535	-0,3505
Services	41,8814	42,3814	0,5000
ALL ITEMS	100.0000	100.0000	

Finally, concerning products by purchase frequency (Table 7), the weights of *High-frequency* and *Low-frequency* purchases decrease, while the weights of *Medium-frequency* purchases show an increase.

TABLE 7. NIC INDEX: WEIGHTING STRUCTURE BY PURCHASE FREQUENCY

2022 and 2023, percentage values and absolute differences

PURCHASE FREQUENCY	2022	2023	Absolute difference
High-frequency purchases	41,4890	40,0828	-1,4062
Medium-frequency purchases	38,7426	40,1642	1,4216
Low-frequency purchases	19,7684	19,7530	-0,0154
ALL ITEMS	100.0000	100.0000	

Geographical basis and coverage rate

In 2023, the geographical basis of the survey is made up of 79 municipalities, which contribute to the indices calculation of all the product aggregates included in the basket. Other 12 municipalities³ participate in the survey for a subset of products which includes local tariffs (water supply, solid waste, sewerage collection, gas for domestic use, urban transport, taxi, car transfer ownership, canteens in schools, public day nursery, etc.) and some local services (sport events, cinemas, theatre shows, secondary school education, canteens in universities, etc.).

For the whole basket, the coverage of the index in terms of resident population in the provinces, whose chief towns take part in the survey, is 82.9%. The participation of provincial chief towns is total for six regions (Valle D'Aosta, Trentino-Alto Adige, Veneto, Friuli-Venezia Giulia, Emilia-Romagna and Umbria) but it is still incomplete for the others, in particular in Puglia (41.0%), Abruzzo (48.1%) and Sardinia (56.6%).

At the macro-area level, coverage is total in the North-East, it is equal to 88.0% in the North-West, 83.2% in the Centre, 65.7% in the South and 75.4% in the Islands.

Concerning the basket subset including local tariffs and some local services - whose weight on the NIC basket is equal to 3.8% - taking into account the participation of the other 12 municipalities, the coverage of the survey, in terms of provincial resident population, rises to 90.0%. The participation becomes total for 10 regions and it is stable in the others.

Price data sources and survey methods

Data contributing to the calculation of monthly consumer price indices are traditionally collected using different sources: the *local survey*, carried out by municipal statistics offices, under Istat supervision and coordination; the *central survey* carried out directly by Istat or through different data providers; the *scanner data*; the *administrative sources*.

In 2023, the weight of the products exclusively collected through the local survey is equal to 51.3% and that of products collected through the central survey is 24.8%. In addition to these two ways, the acquisition of elementary prices (for grocery products) is carried out through scanner data with regard to the large scale retail trade distribution channels that are hypermarkets, supermarkets, discounts, small sales areas and specialist drug (for 13.6% in terms of weight), where traditional data collection is no longer carried out. Finally, administrative sources are used: the database of fuel prices of Ministry of Economic Development whose weight is equal to 5.8%; the data provided by the Real Estate Market Observatory of the Tax Office for the survey of the prices of real rentals for private dwellings which weighs 2.6% and the Excise, Customs and Monopolies Agency for the survey on tobacco products, which accounts for 1.9% of the basket.

³ Asti, Chieti, Foggia, Frosinone, l'Aquila, Matera, Monza, Prato, Ragusa, Savona, Verbania and Vibo Valentia.

Local survey

In the 91 municipalities (79 for the full basket and 12 for a subset of products) taking part in the 2023 survey, prices are collected in about 44,000 statistical units (including outlets, enterprises and institutions) and rents are collected for more than 2,700 dwellings for social housing. 398,000 price quotes are sent by Municipal Offices of Statistics to Istat each month (392,000 in 2022).

Following the annual update of the municipal survey plans, 10.2% of the current price quotes are new (4.9% in 2022): of these, 4.2% are price quotes of new products, while the remaining 6.0% refers to products already in 2022 basket.

The tariffs of the Gas network for domestic use - regulated market are acquired centrally by Istat on the website of Regulatory Authority for Energy Networks and Environment (ARERA).

Central survey

In 2023, prices/quotes collected each month directly by Istat are almost 189,000, thereof:

- ✓ almost 188,000 via web, also using *web scraping techniques*, or collecting data from different providers. The main data providers for the central price data collection are the following:
 - ▶ Italian Association of Concessionaries Highways and Tunnels (Aiscat) and ASTM for motorway tolls;
 - ▶ Farmadati and IQVIA, for pharmaceutical products;
 - ▶ Italian Association of Publishers (AIE), for prices of school books;
 - ▶ Specialized magazine “Quattroruote” for prices quotes of cars and second hand cars;
 - ▶ Sanguinetti Editore, for prices of cars, motorcycles and motorbikes, caravans and motorhomes;
 - ▶ GfK Italia S.r.l., for information on a large sub-set of technical consumer goods;
 - ▶ Portal offers, public website created and managed by *Acquirente Unico*, in accordance with the procedures established by the Regulatory Authority for Energy Networks and Environment (ARERA), for the collection of offers of electricity and natural gas free market;
 - ▶ Regulatory Authority for Energy Networks and Environment (ARERA), for the collection of offers of electricity and natural gas regulated market;
- ✓ about 400 quotes directly provided by insurance companies which refer to protection against most risks connected to property, such as fire, theft and other damages and are used for the Housing insurance services price index compilation.
- ✓ more than 700 collected using internal sources.

Scanner data

Since 2018, Istat has been using scanner data of grocery products (excluding fresh food) in the production process of the consumer price indices.

A probabilistic sampling is used for the selection of outlets and the dynamic approach has been implemented to the selection of the elementary items.

At present, scanner data feed the calculation of 103 sub-indices (“aggregate of products”) belonging to six ECOICOP Divisions (01, 02, 05, 06, 09, 12).

In agreement with large scale retail trade chains (RTCs) and with the fruitful collaboration of the Association of Modern Distribution and Nielsen, Istat receives scanner data for 4,283 outlets, including 483 hypermarkets, 1,577 supermarkets, 588 discounts, 1,066 outlets with surface between 100 and 400 s.m. and 569 specialist drug. These outlets belong to the main 19 RTCs and they cover the entire national territory. Istat receives scanner data on a weekly basis at item code level. The sample of outlets is stratified by provinces (107) and retail trade channels (5).

More than 20 million price quotes are collected each week to estimate inflation. For each barcode (GTIN), prices are calculated taking into account turnover and quantities (weekly price=weekly turnover/weekly quantities). Monthly prices are calculated as the arithmetic mean of weekly prices weighted with quantities.

Concerning the selection of the sample of items, a dynamic approach has been adopted. Specifically, in each month a sample of GTINs is selected within each outlet and ECR⁴ market (representative of elementary aggregates). A set of filters have been implemented to select the matched sample each month comparing the current month with the preceding month. In January, the sample includes more than 12 million references thereof about 33 million elementary prices enter the indices compilation.

Scanner data indices of ECR market are calculated at outlet level as unweighted Jevons index (geometric mean) of GTINs elementary indices. The ECR market indices are then linked to the base period (December of the previous year). In turn, provincial indices of ECR market are calculated as the weighted arithmetic means using sampling weights of outlets and turnover by retail trade channel. Finally, provincial indices of aggregate of products are calculated as the weighted arithmetic mean of ECR markets using expenditure shares (referred to one year before) for the weights.

Administrative sources

The administrative data sources for the calculation of consumer prices are several. Among these are those relating to tobacco whose data are provided by the Excise, Customs and Monopolies Agency (ADM). The indices calculated relate to three products: Cigarettes, Cigars and cigarillos and Other tobacco (shredded for cigarettes, snuff and chewing tobacco, other smoking tobacco, inhalation tobacco). The sample and the weighting system are obtained on the basis of the annual sales value of the main manufactured tobacco products on the market.

Starting from 2017 also the automotive fuels price indices are calculated from administrative data using the database supplied by the Ministry of Economic Development that collects prices for these products. In 2023, around 167,500 price quotes are monthly used to estimate inflation and they come from almost 16,500 fuel stations on the territory that is 74.0% of the ones present in Ministry database.

The sample of fuel stations covers the geographical areas of country. Specifically: almost 4,000 are located in the North-West; almost 3,500 in the North-East, around 3,600 in the Centre; more than 3,700 in the South and around 1,750 in the Islands.

Starting from 2022 the estimation of private housing rents index is based on administrative data in particular rents contracts database provided by the Real Estate Market Observatory of the Tax Office. The production of the indices benefits from the collaboration of the Central Directorate for Real Estate Market Observatory and Estimating Services (OMISE) of the Tax Office. The new data source contains information about rents contracts registered in the reference quarter. Only contracts where the property owner is a person and referring to some cadastral categories (civil properties, economic properties and popular properties) are used for inflation estimation. Stratification has been carried out for index calculation. In particular, dwellings have been stratified according to:

- the position in terms of OMI zones distinguishing between urban macro area if existing or, alternatively, to groups of zones;
- the type of the contract (free or agreed fee contract) and the duration (long or short term contract);
- the surface classes.

After data cleaning and integration more than one and a half million rents are available for monthly estimation; part of them refers to contracts to be updated according to the consumer prices for blue and white-collar worker households index (FOI).

The methodology used for calculation is the same as the methodology used for other products in the basket but the set of internal weights is constructed in a different way. In particular:

- the product aggregate index of the provincial capital city is calculated as the weighted arithmetic means of strata calculated for the provincial capital city and for the non-capital municipalities belonging to the provincial capital (these are 143 non-capital municipalities selected so as to ensure an adequate number of observations per month); the weights of the strata are calculated on the basis of administrative data and are updated on an annual basis; the aggregate product index in the region is calculated as the arithmetic means of the indices of the capital city of the region weighted on the bases of the population living in rented houses.

⁴ ECR markets are the lowest level of the ECR classification (classification shared by industrial and distribution companies) and they have been linked to the aggregates of product of ECOICOP classification.

For more details please refer to the Italian version

Contact person:

Alessandro Brunetti

Istat – National Institute of Statistics

Integrated system on economic conditions and consumer prices

Via C. Balbo. 16 – 00184 Rome. Italy

albrunet@istat.it

ph. +39.06.46732307