

Consumer prices indices. Basket, weight structure and survey updates Year 2022

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 2022, with reference to both the weights and the basket, reflect the constant evolution of household spending behaviours but also the impact of events, such as the pandemic still ongoing, which affect purchasing decisions and structure of consumer spending.

The 2022 basket for the Italian consumer price indices for the whole nation (NIC) and for blue and white-collar households (FOI) is made up of 1,772 elementary products (1,731 in 2021), which are grouped into 1,031 products and 422 product aggregates.

The 2022 basket for the Italian harmonized index of consumer prices (HICP) is made up of 1,792 elementary products (1,752 in 2021), grouped into 1,050 products and 426 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.

For 2022, the main products added to the basket that represent the changes in the household spending patterns, are: *Pulse Oximeter, Psychotherapy, Molecular test and Antigen test Covid 19, Serological antibody test Covid 19, Antigen self-test KIT Covid 19, Poke bowls takeaway and Streaming of audio content.*

On the other hand, *Compact disk and Hoverboard* have been removed from the basket.

In total over 32 million price quotations are used each month to estimate Italian inflation. They come from different sources: 392,000 of them are collected locally by the Municipal Offices of Statistics (MOS) and concern 51.7% of the basket in terms of weight; over 100,000 are collected directly by Istat (22.3% of the basket) and about 30 million come from scanner data (12.9% of the basket). Then, more than 68,000 quotes are collected from automotive fuels prices database of the Ministry of Economic Development (4.5% of the basket). In addition, tobacco prices are collected from Customs and Monopolies Agency for the detection of tobacco (2.2% of the basket) and, starting this year, one million and half house rent prices are provided by the Real Estate Market Observatory of the Tax Office (2.7% of the basket). It is worth to note that some of the elementary prices deriving from different sources (in particular local data collection and scanner data) contribute jointly to estimation of inflation of 3.7% of the products of the basket.

Data coming from 80 municipalities are processed to estimate monthly inflation; the coverage of territorial survey, with reference to provincial population, is equal to 83.3%.

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 90.3%.

In the municipalities, prices are collected in about 43,000 statistical units (including outlets, enterprises and institutions) and rents are collected for about 2,200 dwellings for social housing.

Price quotes collected through scanner data come from a sample of about 4 thousand outlets including hypermarkets, supermarkets, discounts, small sales areas and specialist drugs, which are representative of the whole Italian national territory and of 21 large retail chains. The weight of scanner data on the NIC basket is 12.9%.

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 around 12,800 petrol stations (66.8% of those in the data base).

With regard to expenditure divisions in the updated 2022 NIC basket, the weights for *Transport* and *Restaurants and hotels* increase, 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 (18.37%), followed by *Transport* (14.48%), *Housing, water, electricity, gas and other fuels* (10.97%) and *Miscellaneous goods and services* (9.41%).

The update of the basket of goods and services for 2022

The 2022 basket for the Italian consumer price index for the whole nation (NIC) and for blue and white-collar households (FOI) is made up of 1,772 elementary products, which are grouped into 1,031 products and into 422 product aggregates (they were 1,731 in 2021, grouped into 1,014 products and 418 product aggregates).

The 2022 basket for the Italian harmonized index of consumer prices (HICP) is made up of 1,792 elementary products, which are grouped into 1,050 products and then into 426 product aggregates (they were 1,751 in 2021, grouped into 1,033 products and 422 product aggregates)¹ (Table 1).

TABLE 1. CLASSIFICATION STRUCTURE FOR NIC AND FOI INDICES. YEAR 2022

Year 2022
12 expenditure divisions
43 product groups
102 product classes
233 product sub-classes
312 consumption segments
422 product aggregates
1,031 products
1,772 elementary products

As usual, the revisions made to the basket, in 2022, are mainly aimed at capturing the evolution of consumer spending habits. This year, although to a lesser extent than in 2021, the revisions are affected also by the effect of the health crisis due to Covid-19, which has directly or indirectly influenced consumer spending habits.

As far as products representing the evolution in spending habits in 2022 the following new products are added to the basket (Table 2):

Desk chair, Air fryer, Pulse Oximeter, Individual psychotherapy, Covid 19 Molecular test and Antigen test, Covid 19 Serological antibody test, Covid 19 Antigen self-test KIT, Gymnastic mat, Movie download, Streaming of audio content, Poké bowls takeaway.

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:

Bread with other flours, Striped prawn, Artificial sugar substitutes, Town gas and natural gas - free market, Women's jeans, Children's shorts, Reading glasses without a prescription, Pet carrier.

On the contrary, *Compact disk* and *Hoverboard* are dropped from the basket 2022.

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 2022: 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 and GfK Italia S.r.l.

The COVID-19 pandemic had a significant impact on the consumption expenditure of households who are adjusting their consumption habits to the new circumstances. Therefore, 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, i.e. the data relating to year 2021.

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 2021), household final consumption data, are price-updated using the price changes measured between the average of year 2021 and December 2021.

Table 3 shows the 2022 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 the three indices, the expenditure divisions that in 2022 show a relative weight greater than 10%, are in order *Food and non-alcoholic beverages*, *Transport*, *Housing, water, electricity and fuels*².

TABLE 3. WEIGHTS USED TO CALCULATE CONSUMER PRICE INDICES BY EXPENDITURE DIVISION

2022, percentage values

EXPENDITURE DIVISIONS	WEIGHTS		
	NIC	HICP	FOI
Food and non-alcoholic beverages	18.3676	19.4554	17.2515
Alcoholic beverages. Tobacco	3.4038	3.6056	3.6654
Clothing and footwear	6.3855	7.3176	7.1436
Housing, water, electricity, gas and other fuels	10.9684	11.6179	11.0001
Furnishings, household equipment and routine household maintenance	7.9950	8.4989	6.9834
Health	8.8946	4.6145	7.1232
Transport	14.4843	15.3242	15.9564
Communication	2.5749	2.7265	2.9772
Recreation and culture	7.0540	5.7663	7.4398
Education	1.0835	1.1474	1.2182
Restaurants and hotels	9.3754	9.9319	9.9741
Miscellaneous goods and services	9.4130	9.9938	9.2671
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 is significantly lower than the weight calculated for the national indices (4.61 in respect to 8.89%).

With regard to changes in the weighting structure of the NIC index between 2021 and 2022, the highest increase in absolute terms concerns the expenditure division *Transport* (+1.7502 percentage points), which is largely due to the "spending effect" and partly also by the "revaluation effect"³. The increase of the weight of *Restaurants and hotels* (+1.0814 percentage points), is entirely due to the spending effect (Table 4). Lower increases are registered for the weight of *Furnishings, household equipment and routine household maintenance* (+0.2726) entirely determined by the spending effect and for *Education* (+0.0069) due to both the expenditure and the revaluation effect.

Looking at the expenditure divisions with reduced weight, in the 2022 NIC basket, the largest decreases concern the weights of *Food and non-alcoholic beverages* (-0.9729 percentage points) entirely due to the spending effect. The decline of the weight of *Health* (-0.6566) and of *Miscellaneous goods and services* (-0.6331) is essentially determined by the spending effect and minimally by the revaluation effect. The reduction of the weight of *Housing, water, electricity, gas and other fuels* (-0.2268) is due to the spending effect, mitigated by the revaluation one. The decrease of the weight of *Communication* (-0.2134) and *Alcoholic beverages, tobacco* (-0.2095) is largely determined by the spending effect. The decrease of *Clothing and*

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 16.5% of Italian households according to 2011 Census data (the remaining 83.5% of households own their dwellings, or occupy them as life tenants or free of charge).

³ The "spending effect" measures the impact on the change in the weights, in the two years compared, due to changes in the underlying expenditure shares for the purchase of different products by households; the "revaluation effect" instead measures the impact deriving from the procedure of revaluation of expenses (relating to a calendar year) with which the latter are reported at the basis of the calculation of the price indices, that is to December of the year t-1.

footwear (-0.1500 percentage points) and *Recreation and culture* (-0.0488), are largely affected by the revaluation effect.

TABLE 4. NIC INDEX: WEIGHTING STRUCTURE BY EXPENDITURE DIVISION
2021 and 2022, percentage values and absolute differences

EXPENDITURE DIVISIONS	2021	2022	Absolute difference	Spending effect	Revaluation effect
Food and non-alcoholic beverages	19.3405	18.3676	-0.9729	-1.0634	0.0905
Alcoholic beverages, tobacco	3.6133	3.4038	-0.2095	-0.1485	-0.0610
Clothing and footwear	6.5355	6.3855	-0.1500	-0.0460	-0.1040
Housing, water, electricity, gas and other fuels	11.1952	10.9684	-0.2268	-0.6305	0.4037
Furnishings, household equipment and routine household maintenance	7.7224	7.9950	0.2726	0.3557	-0.0831
Health	9.5512	8.8946	-0.6566	-0.4891	-0.1675
Transport	12.7341	14.4843	1.7502	1.4361	0.3141
Communication	2.7883	2.5749	-0.2134	-0.1876	-0.0258
Recreation and culture	7.1028	7.0540	-0.0488	0.0929	-0.1417
Education	1.0766	1.0835	0.0069	-0.0029	0.0098
Restaurants and hotels	8.2940	9.3754	1.0814	1.1177	-0.0363
Miscellaneous goods and services	10.0461	9.4130	-0.6331	-0.4344	-0.1987
ALL ITEMS	100.0000	100.0000			

Looking at the classification by type of products (Table 5), concerning goods, in 2022 the weight of *Energy* increases (9.25%, from 8.35% in 2021). This dynamic is the result on one side of the increase of the component of *Non-regulated energy products* (+2.1733) which is affected largely by the spending effect, and on the other side of the decrease of *Regulated energy products* (-1.2719), on which the spending effect (-1.4260) is mitigated by the revaluation one (+0.1541).

As for the other typologies of goods: *Food including alcohol* records a decline in the weight (19.53% from 20.61%) which is essentially due to the spending effect; *Tobacco products* decreases in the weight (2.24% from 2.34%) for both the spending and the revaluation effect; finally, *Non-energy industrial goods* increases to 27.10% (from 26.75%) as the result of the growth of the weights of *Durable goods* and of the greater decline to *Semi-durable goods*.

As for services, the largest increase concerns the weight of *Services related to recreation, including repair and personal care* (14.31% from 12.98%) entirely determined by the spending effect. At the opposite, there is a decrease in the weights of *Services–miscellaneous* (11.66% from 12.48%) and in those of *Services related to housing* (7.68% from 8.06%) that are due both to the spending and revaluation effect. The decline of the weight of *Services related to communication* (1.79% from 1.97%) is mainly caused by spending effect. The weight of *Services related to transport* is substantially stable (6.44% from 6.45%).

In 2022, the weight of all item index excluding energy and unprocessed food (Core inflation) registers a decline (83.22% from 83.79%).

TABLE 5. NIC INDEX: WEIGHTING STRUCTURE BY TYPE OF PRODUCT
2021 and 2022, percentage values and absolute differences

SPECIAL AGGREGATES	2021	2022	Absolute difference	Spending effect	Revaluation effect
Food including alcohol:	20.6108	19.5333	-1.0775	-1.1568	0.0793
Processed food including alcohol	12.7445	12.0047	-0.7398	-0.7403	0.0005
Unprocessed food	7.8663	7.5286	-0.3377	-0.4165	0.0788
Energy:	8.3480	9.2494	0.9014	0.0582	0.8432
Regulated energy products	3.0130	1.7411	-1.2719	-1.4260	0.1541
Non-regulated energy products	5.3350	7.5083	2.1733	1.4842	0.6891
Tobacco	2.3430	2.2381	-0.1049	-0.0551	-0.0498
Non energy industrial goods:	26.7520	27.0978	0.3458	0.7310	-0.3852
Durable goods	9.7748	10.5690	0.7942	0.9463	-0.1521
Non-durable goods	7.1239	7.0411	-0.0828	0.0140	-0.0968
Semi-durable goods	9.8533	9.4877	-0.3656	-0.2293	-0.1363
Goods	58.0538	58.1186	0.0648	-0.4227	0.4875
Services related to housing	8.0612	7.6842	-0.3770	-0.2303	-0.1467
Services related to communication	1.9708	1.7859	-0.1849	-0.1505	-0.0344
Services related to recreation, including repair and personal care	12.9835	14.3087	1.3252	1.4589	-0.1337
Services related to transport	6.4525	6.4440	-0.0085	-0.0406	0.0321
Services – miscellaneous	12.4782	11.6586	-0.8196	-0.6148	-0.2048
Services	41.9462	41.8814	-0.0648	0.4227	-0.4875
ALL ITEMS	100.0000	100.0000			
All items excluding energy and unprocessed food (Core inflation)	83.7857	83.2220	-0.5637	0.3583	-0.9220
All items excluding energy, food, alcohol and tobacco	68.6982	68.9792	0.2810	1.1537	-0.8727
All items excluding energy	91.6520	90.7506	-0.9014	-0.0582	-0.8432
Grocery and unprocessed food	23.1976	22.0483	-1.1493	-1.2142	0.0649

With regard to regulated and non-regulated products, the weight of *Regulated goods* declines (4.26% from 5.60%) and increases the weight of *Regulated services* (5.50% from 5.40%) (Table 6).

TABLE 6. NIC INDEX: WEIGHTING STRUCTURE BY REGULATED AND NON-REGULATED PRODUCTS
2021 and 2022, percentage values and absolute differences

REGULATED AND NON-REGULATED PRODUCTS	2021	2022	Absolute difference
Non-regulated goods	52.4504	53.8587	1.4083
Regulated goods	5.6034	4.2599	-1.3435
Goods	58.0538	58.1186	0.0648
Non-regulated services	36.5498	36.3774	-0.1724
Regulated services	5.3964	5.5040	0.1076
Services	41.9462	41.8814	-0.0648
ALL ITEMS	100.0000	100.0000	

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

TABLE 7. NIC INDEX: WEIGHTING STRUCTURE BY PURCHASE FREQUENCY

2021 and 2022, percentage values and absolute differences

PURCHASE FREQUENCY	2021	2022	Absolute difference
High-frequency purchases	41.3974	41.4890	0.0916
Medium-frequency purchases	39.6313	38.7426	-0.8887
Low-frequency purchases	18.9713	19.7684	0.7971
ALL ITEMS	100.0000	100.0000	

Geographical basis and coverage rate

In 2022, the geographical basis of the survey is made up of 80 municipalities, which contribute to the indices calculation of all the product aggregates included in the basket. Other 12 municipalities⁴ 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 83.3%. 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 (40.9%), Abruzzo (48.0%) and Sardinia (56.4%).

At the macro-area level, coverage is total in the North-East, it is equal to 89.4% in the North-West, 83.3% in the Centre, 65.8% in the South and 75.3% in the Islands.

Concerning the basket subset including local tariffs and some local services - whose weight on the NIC basket is equal to 4.3% - taking into account the participation of the other 12 municipalities, the coverage of the survey, in terms of provincial resident population, rises to 90.3%. The participation becomes total for 12 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 2022, the weight of the products exclusively collected through the local survey is equal to 51.8% and that of products collected through the central survey is 22.1%. 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 13.0% 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 4.5%; the data provided by the Real Estate Market Observatory of the Tax Office (which use was introduced this year) for the survey of the prices of real rentals for private dwellings which weighs 2,7% and the Excise, Customs and Monopolies Agency for the survey on tobacco products, which accounts for 2.3% of the basket. Finally, for some products, which account for 3.6%, the survey is carried out in a mixed manner.

⁴ Asti, Chieti, Foggia, Frosinone, l'Aquila, Matera, Monza, Prato, Ragusa, Savona, Verbania and Vibo Valentia.

Local survey

In the 92 municipalities (80 for the full basket and 12 for a subset of products) taking part in the 2022 survey, prices are collected in about 43,000 statistical units (including outlets, enterprises and institutions) and rents are collected for about 2,200 dwellings for social housing. 392,000 price quotes are sent by Municipal Offices of Statistics to Istat each month (390,000 in 2021).

Following the annual update of the municipal survey plans, 4.9% of the current price quotes are new (6.7% in 2021): of these, 2.2% are price quotes of new products, while the remaining 2.7% refers to products already in 2020 basket.

For the tariffs of the Gas network for domestic use - protected market the survey is conducted also for municipalities not participating in the survey. For the latter, the data are acquired centrally by Istat with automatic data collection procedures via web scraping on the portal of one of the main operators of the protected market Gas.

Central survey

In 2022, prices/quotes collected each month directly by Istat are more than 100,000, thereof:

- ✓ over 100,000 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, 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;
- ✓ 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 84 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 4,007 outlets, including 471 hypermarkets, 1,453 supermarkets, 567 discounts, 1,000 outlets with surface between 100 and 400 s.m. and 516 specialist drug. These outlets belong to the main 21 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 19 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 ECR⁵ 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 11 million references thereof about 30 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 2022, more than 68,000 price quotes are monthly used to estimate inflation and they come from about 12,800 fuel stations on the territory that is 66.8% of the ones present in Ministry database.

The sample of fuel stations covers the geographical areas of country. Specifically: around 3,200 are located in the North-West; more than 2,800 in the North-East, almost 2,900 in the Centre; around 2,800 in the South and more than 1,200 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.

More than one and a half million rents are used 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:

- for each provincial capital city, the rent index is calculated as a weighted arithmetic means of strata using weights calculated from administrative data;
- for each region, index is calculated as a weighted arithmetic means of indices for provincial capital cities using weights calculated on the bases of the population living in rented houses.

⁵ 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:

Federico Polidoro

Istat – National Institute of Statistics

Integrated system on economic conditions and consumer prices

Via C. Balbo. 16 – 00184 Rome. Italy

polidoro@istat.it

ph. +39.06.46732307