

2011

CONSUMER PRICE INDICES

■ As from January 2011 consumer price indices will be calculated according to a new, more detailed classification scheme for consumer spending, which with some adjustments takes into account the proposed revision of the COICOP classification scheme defined at the European level.

■ The consumer price index for the whole nation (NIC, intera collettività nazionale) is published with a level of detail that reaches 319 *Consumption segments*, against the previous 204 Product items.

■ The Product divisions (formerly Items of expenditure) which benefit to a relatively greater extent from the increased level of detail in the indices are restaurants and hotels, and Communications.

■ The 2011 basket is made up of 1,377 products, which are grouped further into 591 representative items; it is on these that the related consumer price indices are calculated monthly.

■ Compared with 2010 the following new items are included in the basket for the first time: *Tablet PCs; Admission to national parks, zoological and botanical gardens; Integrated interurban multi-modal transport services, Ethnic fast food; Smoked salmon. The DVD rentals* item has been dropped.

■ Examples of items already contained in the previous index which are published as a result of the new classification include: Mobile telephone services (voice traffic and SMS) and Internet services via mobile networks.

Next scheduled publication: February 2012

■ In 2011, the municipalities of 85 provincial capitals are taking part in calculating the indices (as against 83 in 2010). The municipality of L'Aquila has begun collecting prices again after two years of inactivity due to the effects of the earthquake, Messina has joined them and Salerno has begun to participate once again, while Pesaro has stopped. Coverage in terms of provincial population is 86.7%.

■ In the municipalities of the provincial capitals considered there are approximately 42,000 outlets where prices are collected and 8,400 dwellings for which rents are observed. In total 578,000 price quotes are collected each month, of which 510,000 are collected locally and sent to ISTAT by municipal statistics Departments and 68,000 are collected by ISTAT centrally. Local price collection operations are carried out entirely using Ultramobile PCs (UMPCs) or Tablet PCs.

■ In the weighting structure of the NIC index, the relative weights have increased for the following divisions: *Transport; Housing; water, electricity, gas and other fuels; Health services and expenditure; education; Alcoholic beverages and tobacco*. In contrast, the largest decrease in absolute terms regarded *Furnishings, household equipment and household maintenance*.

■ Consumer price indices for the whole nation (NIC) and for blue- and white-collar worker households (FOI, famiglie di operai e impiegati) will be published as from January 2011 with 2010=100 as a reference base (the previous reference base was 1995=100), while the harmonised index of consumer price (HICP) continues to be published with 2005=100 as the reference base, in accordance with Regulation (EC) no. 1708/2005 of 20th October 2005.

CLASSIFICATION OF PRODUCTS FOR THE CALCULATION OF CONSUMER PRICE INDICES *

YEAR 2010

12 items of expenditure
38 product categories
109 product classes
204 product items

YEAR 2011

12 divisions
43 product groups
102 product classes
230 product sub-classes
319 consumption segments

* Following a number of adjustments, the number of product sub-classes and segments in the hierarchical structure for 2011 differs slightly from the number indicated in the corresponding summary of the *Information Note* entitled "Novità nella diffusione degli indici dei prezzi al consumo" (Changes in the publication of consumer price indices) published last 04th January.

The new classification of consumer spending

The classification of consumer spending adopted for the consumer price indices is the international COICOP (*Classification of Individual Consumption by Purpose*) classification, the hierarchical structure of which makes provision for three levels of disaggregation: *Divisions*, *Groups* and *Classes*, following international naming conventions. This classification scheme, adopted for calculating the harmonised index of consumer prices (HICP), until December 2010 provided for a further level of disaggregation for calculating the NIC and FOI indices: the *Product Items* level.

From January 2011 a new, more detailed classification scheme has been adopted which takes into account, with some adjustments, the proposed revision of the COICOP classification currently being discussed in Europe for disaggregation levels lower than *Classes*. The new classification scheme, which has been adopted for the three consumer price indices published by ISTAT, entails the introduction of two additional lower levels of disaggregation, *Product Sub-Classes* and *Consumption segments*, and is therefore structured in five levels, the names of which have been brought into line with international names.

The introduction of the level called *Consumption segment* takes as reference the definitions of Regulation (EC) no. 1334/2007 of 14th November 2007, on the basis of which it represents a set of transactions for the purchase of products which are homogeneous in terms of satisfaction of specific needs and which, as a result, may be considered equivalent by consumers.

With reference to the NIC indices, the adoption of a new, more detailed classification scheme means that the statistical information made available regarding consumer prices is significantly extended. The indices will in fact be published regularly with a level of detail that reaches 319 consumption segments, as against the previous 204 product items.

The number of indices calculated and published starting from January 2011 has increased for all of the divisions, with the exception of those regarding *Health services and expenditure* and *Education* (Table 1). The divisions that show the most detailed information are *Restaurants and hotels* and *Communications*. In absolute terms, the division which sees the largest increase in the number of monthly published indices is *Food and non-alcoholic beverages*.

TABLE 1. CONSUMER PRICE INDICES ACCORDING TO MAXIMUM LEVEL OF DETAIL OF THE CLASSIFICATION, BY DIVISION

Divisions	Product Sub-Groups 2010	Consumption Segments 2011	Absolute difference	Percentage Change
Food and non-alcoholic beverages	51	82	31	60.8
Alcoholic beverages, tobacco	6	10	4	66.7
Clothing and footwear	17	26	9	52.9
Housing, water, electricity, gas and other fuels	10	16	6	60.0
Furnishings, household equipment and routine household maintenance	23	39	16	69.6
Health	10	10	0	0.0
Transport	24	31	7	29.2
Communication	3	6	3	100.0
Recreation and culture	30	47	17	56.7
Education	5	5	0	0.0
Restaurants and hotels	7	17	10	142.9
Miscellaneous goods and services	18	30	12	66.7
All items	204	319	115	56.4

Here are some examples of the greater detail in the publication of consumer price indices for a number of divisions:

► *Food and non-alcoholic beverages*

With reference to the class *Fruit*, indices will be published regularly for the four sub-classes *Fresh*

or chilled fruit, Dried fruit, Frozen fruit, Preserved fruit and fruit-based products and Fruit kernels; within the sub-class *Fresh or chilled fruit* the indices for the consumption segments *Oranges, Other citrus fruits, Bananas, Apples, Pears, Peaches and nectarines, Other fruit with stone, Berries* and *Other fresh and chilled fruit*. Until December 2010, the maximum level of detail reached was the two product items *Fresh fruit* and *Dried and preserved fruit*. A greater level of detail will also be provided for the class *Vegetables*;

► *Clothing and Footwear*

Price indices will be available for some 19 sets of clothing products, distinguished by type and by category: clothing for men, women, children (3-13) and infants, compared with the 11 product items published up to now;

► *Communications*

With regard to *Telephone services*, distinct price indices will be regularly published for the following segments: *Landline telephone services, Mobile telephone services* and *Internet connection and other services*. In this case too, until December 2010 disaggregated indices were not published;

► *Recreation and culture*

With regard to *Information processing equipment*, price indices will be available for the following segments: *Desktop computers, Portable computers, palmtops and tablets* and *Accessories for information processing equipment*, a detail which was not published previously;

► *Restaurants and hotels*

With reference, for example, to *Restaurants*, price indices will be regularly made available for 11 sets of services, including *Restaurant meal, Meal at pizzeria, Fast food, Consumption of delicatessen products, Bar food and beverages*, and *Consumption of fresh ice-cream products*.

The new structure of the consumer price indices means the publication of 700 indicators regarding the NIC index (compared with around 370 published in December 2010), to which are added those already published by type of product, with the detail of the various kinds of *Goods and Services, Regulated and non-regulated services*, and *Products by different frequency of purchase*¹.

For an exhaustive analysis of the statistical information on consumer prices, readers are referred to the hierarchical structure of the indices, from division to consumption segment, which will be available – in addition to its inclusion with this note – from ISTAT's website at the following address: <http://www.istat.it/prezzi/precon/dati/>, on I.Stat, the data warehouse of statistics produced by the Institute (<http://dati.istat.it/>) and on the Conistat database (<http://con.istat.it/>), starting from 23rd February 2011, at the same time as the publication of the press release "Consumer prices – January 2011", *Final data*.

It is pointed out that the adoption of the new classification guarantees the continuity of most of the historical series of indices. Discontinuities mainly regard the lower level indices *Sub-classes* and *Consumption segments*.

The 2011 basket of goods

The basket is made up of 1,377 *products*, which represent the most elementary level in the structure of aggregation of household consumption, for which prices are observed on a monthly or bi-monthly basis throughout the year.

The next highest level of aggregation, *Representative items*, is made up of 591 aggregates. These constitute, with reference to the new classification level *Consumption segments*, the sample of products or of groups of products for which the consumer price indices are calculated monthly.

The change in the number of representative items compared with last year (in 2010 there were 521) and, as a result, in the number of products, is essentially due to the revision of the consumption classification structure carried out by ISTAT at the lower levels of hierarchical aggregation, which has led to the decomposition of items that were already in the basket.

The new representative items which make up the 2011 basket resulting from this operation do not only enhance the descriptive detail of the information produced but also increase the basket's

¹ In addition, indices of the representative items will continue to be provided on request.

representativeness, meaning greater capacity for analysing inflationary dynamics in relation to changes in consumer behaviour.

At the same time, ISTAT has conducted its usual annual revision of the basket, which aims to maintain its high capacity to represent the structure of consumer spending, change in which is affected, for example, by the technological development of products, trends in specific markets and regional differentiations. This operation entails the inclusion of those products that have taken on greater importance in households' actual spending and, conversely, the exclusion of others, of which consumption has become marginal.

Below we provide some significant examples of the effect that the change in the consumer spending classification scheme has had on the availability of price indices at the detailed level:

- ▶ in the division *Food and non-alcoholic beverages*, the composite item *Fresh fruit*, which was already in the 2010 basket, has undergone a disaggregation operation that has given rise to sixteen representative items (*Apricots, Mandarin oranges, Kiwi fruit, etc.*) within the sub-class *Fresh and chilled fruit*;
- ▶ the already-existing composite item *Vegetables* has been disaggregated into 22 representative items (*Salad vegetables, Aubergines, Courgettes, Peppers, etc.*) within the sub-class *Fresh or chilled vegetables other than potatoes*;
- ▶ in the division *Communications* the item *Mobile telephone services* has been disaggregated into two representative items: *Mobile telephone services (voice traffic and SMS)* and *Internet services via mobile networks* within the segment *Mobile telephone services*; the item *Landline telephone services* has been disaggregated into two representative items, *Dial-up landline telephone services* and *Fixed-line broadband telephone services*, respectively within the segments *Landline telephone services* and *Internet connections and other services*; similarly, the item *Mobile telephone devices* is replaced by two representative items, *Mobile telephones* and *Smartphones*;
- ▶ in the division *Recreation and culture*, the representative item *Personal computers: CPUs* has been disaggregated into four representative items: *Notebook PCs, Desktop PCs, Netbook PCs* and *Tablet PCs* within the sub-class *Information processing equipment*; similarly the item *Personal computers: peripherals* has been split into *Printers* and *LCD Monitors*; the already-existing representative item *Non-school books* has been disaggregated into two items, *Fiction* and *Other non-school, non-fiction books*.

Moving on to changes in the composition of the basket, the following representative items have been added in 2011:

- ▶ *Tablet PCs* within the segment *Laptop, palmtop and tablet PCs* forming part of the division *Recreation and culture*;
- ▶ *Admission to national parks, zoological and botanical gardens* in the sub-class *Recreational services*, again in the division *Recreation and culture*;
- ▶ *Ethnic fast food* within the *Fast food* segment in the division *Restaurants and hotels*;
- ▶ *Smoked salmon* within the segment *Dried, smoked or salted fish and seafood* in the division *Food and non-alcoholic beverages*;
- ▶ *Integrated interurban multi-modal transport services* within the segment *Multimodal passenger transport* in the division *Transport*.

The item *DVD rentals* in the division *Recreation and culture* has been dropped from the basket.

New price collection and calculation method for seasonal product price indices

Starting from January 2011 a new method has been adopted for observing and calculating the prices of seasonal products, in accordance with Regulation (EC) no. 330/2009 of 22nd April 2009,

which sets out minimum standards for dealing with seasonal products in the HICP. This methodological innovation has also been introduced for the NIC and FOI indices. The standards provided for by the aforementioned Regulation apply to the product groups and classes *Fish, Fruit, Vegetables, Clothing and Footwear* and define as a *seasonal product* one which, during certain periods of the year (of at least a month), it may not be possible to purchase, or is purchased in modest or insignificant volumes by consumers. The Regulation also establishes that in a given month seasonal products are considered “in season” or “out of season”. On the basis of this standard a monthly calendar for the whole of 2011 has been introduced, which establishes in a given month when each specific product belonging to the abovementioned categories or groups must be considered “*in season*” or “*out of season*”, with the exception of fresh fish products, for which – on the basis of current quantitative evidence – products ascribable to the category of seasonal products as defined by the Regulation are absent.

The adoption of a seasonality calendar entails that a regional consumer price survey is carried out only in the months in which the product in question is defined as “*in season*”, while the prices of “*out of season*” products will be estimated on the basis of a method that is consistent with the provisions contained in the aforementioned European Regulation.

Organisational and technological innovations in price collection

The process of re-engineering information processing systems for consumer price statistics has been completed. Local price collection operations have now been completely computerised, i.e. conducted entirely using Ultramobile PCs (UMPCs) or Tablet PCs with UMTS cards, which have been distributed to data collectors at all of the municipal statistics departments involved in collection. At the same time, the Institute has provided data collectors and staff responsible for checking and managing data with training interventions geared towards acquiring and consolidating appropriate skills for carrying out the activity within the context of the new organisational set-up. The redesign of information processing systems for consumer price statistics has seen the adoption of web technologies and the development of specifically dedicated technologies. These have developed in tandem with the reorganisation of field surveys, which hinged around the systematisation of the calendar of survey rounds, structured throughout the 21 days set aside for data collection.

These measures have enabled the implementation – which is still in the development and completion phase – of a continuous, on-line, real-time system for monitoring price collection activities and the quality of the data collected. This has led to a further improvement of the information produced, both in terms of non-sampling errors and in the timeliness of data acquisition and statistical processing of the data.

The new weighting structure

The differences in the weighting structure of the three indices calculated by ISTAT are significant, especially if one considers the European harmonised index of consumer prices (HICP) on one hand, and the domestic NIC and FOI indices on the other.

By ordering the divisions according to their relative weight, the three indices, with the exception of the division *Health services and expenditure*, show relatively small differences. For all three of the indices the divisions that have a comparatively higher weight in the weighting structure are those of *Food and non-alcoholic beverages* and *Transport*, with weights ranging between 15.2% and 17.2%.

In the case of the NIC index, the divisions with the highest relative weight are *Food and non-alcoholic beverages* (16.2%), *Transport* (15.2%), *Restaurants and hotels* (11.3%) and *Housing, water, electricity, gas and other fuels* (10.1%)².

The differences between the weighting structures of the NIC, FOI and HICP indices are largely ascribable to the different definition of the economic aggregate of reference for the three indices.

² It is pointed out that, in Italy, as in Europe, spending items in the division *Housing, water, electricity, gas and other fuels* exclude house purchase, as it is an investment and not a consumer item, while they take into rents, which regard 17.1% of Italian households (the remaining 82.9% of households own their homes, or occupy them as usufructuaries or free of charge).

This has particularly significant implications for determining the weight of the division Health services and expenditure, and in particular the weight of pharmaceutical products. The NIC and FOI indices include expenditure by public administration on the consumption of pharmaceutical products on the part of households, which is in contrast excluded from the calculation of the HICP. As a result, the weight of the division *Health services and expenditure* in the basket of the harmonised index of consumer prices (3.8%) is significantly lower than the weight calculated for the domestic indices.

TABLE 2. WEIGHTS USED FOR CALCULATING CONSUMER PRICE INDICES
2011, percentage values

Divisions	Weights		
	NIC	HICP	FOI
Food and non-alcoholic beverages	16.2227	17.1500	15.7827
Alcoholic beverages, tobacco	2.9053	3.0688	3.2654
Clothing and footwear	8.4996	9.5012	9.3461
Housing, water, electricity, gas and other fuels	10.1104	10.7012	9.9686
Furnishings, household equipment and routine household maintenance	8.0610	8.5463	8.7063
Health	8.2730	3.8356	7.1687
Transport	15.1950	16.0595	16.4246
Communication	2.7294	2.8867	2.8927
Recreation and culture	7.5905	6.6484	8.1369
Education	1.1336	1.1929	1.2575
Restaurants and hotels	11.3012	11.9554	9.6783
Miscellaneous goods and services	7.9783	8.4540	7.3722
All items	100.0000	100.0000	100.0000

With regard to changes made between 2010 and 2011, in the weighting structure of the NIC index five divisions have undergone a change in their relative weight: *Transport*; *Housing, water, electricity, gas and other fuels*; *Health services and expenditure*; *Education* and *Alcoholic beverages and tobacco* (Table 3). In absolute terms, the largest increase regards the *Transport* division (+0.9168 percentage points), while the largest decrease concerns the *Furnishings, household equipment and routine household maintenance* division (-0.6031 percentage points).

TABLE 3. NIC INDEX: WEIGHTING STRUCTURE BY DIVISION
Percentage values

Divisions	2010	2011	Absolute difference
Food and non-alcoholic beverages	16.5324	16.2227	-0.3097
Alcoholic beverages, tobacco	2.8970	2.9053	0.0083
Clothing and footwear	8.6523	8.4996	-0.1527
Housing, water, electricity, gas and other fuels	9.6100	10.1104	0.5004
Furnishings, household equipment and routine household maintenance	8.6641	8.0610	-0.6031
Health	8.1489	8.2730	0.1241
Transport	14.2782	15.1950	0.9168
Communication	2.8281	2.7294	-0.0987
Recreation and culture	7.7184	7.5905	-0.1279
Education	1.0740	1.1336	0.0596
Restaurants and hotels	11.3511	11.3012	-0.0499
Miscellaneous goods and services	8.2455	7.9783	-0.2672
All items	100.0000	100.0000	

Considering the weighting structure by type of consumption, the weights relating to the two main components have undergone slight changes for 2011, with goods falling from 56.9% to 56.3% while services rose from 43.1% to 43.7% (Table 4).

TABLE 4. NIC INDEX: WEIGHTING STRUCTURE BY TYPE OF CONSUMPTION
Percentage values

Special aggregates	2010	2011	Absolute difference
Food including alcohol:	17.2393	16.9057	-0.3336
Processed food including alcohol	10.5638	10.7385	0.1747
Unprocessed food	6.6755	6.1672	-0.5083
Energy:	7.1027	7.9111	0.8084
Regulated energy products	3.0070	3.1378	0.1308
Non-regulated energy products	4.0957	4.7733	0.6776
Tobacco	2.1901	2.2223	0.0322
Other goods:	30.3680	29.3023	-1.0657
Durable goods	10.0427	9.9460	-0.0967
Non-durable goods	8.3224	7.8445	-0.4779
Semi-durable goods	12.0029	11.5118	-0.4911
All goods	56.9001	56.3414	-0.5587
Services related to housing	6.5668	6.8043	0.2375
Services related to communication	2.3347	2.2428	-0.0919
Services related to recreation and personal care	16.4974	16.6300	0.1326
Services related to transport	8.1437	8.2805	0.1368
Miscellaneous services	9.5573	9.7010	0.1437
All services	43.0999	43.6586	0.5587
ALL ITEMS	100.0000	100.0000	
All items index excluding energy and unprocessed food (<i>Core inflation</i>)	86.2218	85.9217	-0.3001
All items index excluding energy	92.8973	92.0889	-0.8084
Non-regulated services	38.1429	38.5007	-0.3578
Regulated services:	4.9570	5.1579	0.2009
Locally regulated services	1.9441	2.2222	0.2781
Nationally regulated services	3.0129	2.9357	-0.0772
High-frequency purchases (frequent out-of-pocket purchases)	38.9062	38.9018	-0.0044
Medium-frequency purchases	42.5764	42.2085	-0.3679
Low-frequency purchases	18.5174	18.8897	0.3723

In the various components of the aggregate of goods we should point out in particular the decrease in the weight of *Other goods* from 30.4% to 29.3%, as a result of the reduction in *Non-durable goods* and in *Semi-durable goods* (respectively from 8.3% to 7.8% and from 12.0% to 11.5%). *Food* also recorded a decrease, although this was smaller (from 17.2% to 16.9%) and attributable exclusively to *Unprocessed foods*. The largest increase is in *Energy products*, from 7.1% to 7.9%, mainly as a result of the increase in *Non-regulated energy products*. Overall, the weight of the *All items component* of the NIC index has fallen slightly (by three tenths of a percentage point), obtained by excluding the most volatile components in terms of price dynamics (fresh food and energy products).

Geographical basis and rate of coverage

In 2011 the geographical basis of the survey is made up of 85 municipalities (20 regional capitals

and 65 provincial capitals). The regional capital of L'Aquila has recommenced price collection activities after an interruption due to the 2009 earthquake, while the provinces of Messina and Salerno have joined. The province of Pesaro, on the other hand, will not participate in the calculation of the index.

Overall, the coverage of the index, measured in terms of resident population in the provinces with capitals participating in the survey, is 86.7%. The participation of provincial capital municipalities is total for 10 regions (Piedmont, Aosta Valley, Liguria, Trentino Alto Adige, Veneto, Friuli Venezia Giulia, Emilia Romagna, Umbria, Campania and Basilicata), while it remains incomplete in the others, in particular in Puglia (40.6%), Sardinia (53.7%) and Marche (65.2%).

At the macro-regional level, coverage is total in the North-East, 93.6% in the North-West, 83.2% in the Centre, 77.0% in the South and 74.4% in the Island regions.

Price survey methods

The data that contribute to the construction of the monthly consumer price indices are traditionally collected through two distinct surveys: the local survey, conducted by municipal statistics departments, and the central survey, carried out directly by ISTAT.

Local survey

In the 85 municipalities taking part in the consumer price survey in 2011 there are around 42,000 outlets where municipal statistics departments monitor the price of at least one product (including small retail businesses, large-scale retailers and local markets), as well as around 8,400 dwellings for observing rents.

Around 510,000 prices will be sent monthly to ISTAT by municipal statistics departments every month, more than in 2010.

2.3% of the current product references (417,000) derive from the annual update to municipal price collection plans: 0.4% is accounted for by new products, while the remaining 1.9% are products that were already included in last year's basket for which new references have been selected.

Central survey

In 2011 the percentage of products observed directly by ISTAT, calculated according to the weight assigned to each product within the NIC, is 20.3%. The division *Communications* is the one for which the greatest use of centralised observations was made, having been monitored exclusively by ISTAT, while prices of products included in the divisions *Food and non-alcoholic beverages* and *Clothing and footwear* are collected exclusively by the municipal statistics departments.

Changes in the central price collection activities on the occasion of the 2011 re-basing regard - as usual - the revision of the samples in their composition, numbers and weighting structure, as well as the introduction of methodological improvements.

Some of the main changes are described below:

► *Transport* division

The indices for *Rail transport services*, in particular those regarding national services (medium and long distance), have been completely redesigned, with the aim of rendering them more consistent with a market characterised by a gradual process of liberalisation. Medium- and long-distance services now include the new operators that have recently entered the market. In addition to collecting prices paid by users for tickets purchased on the day of departure, for most services the new system takes into account prices paid for tickets bought in advance. In addition, starting from 2011, the survey will also include discounted fares offered to customers. The calculation of the index is based on simulations of ticket purchases. The survey dates are set out in a dedicated calendar drawn up at the beginning of the year. Finally, the survey of regional rail transport services has been updated to include the new operators that are more significant at the regional level. For *Air transport services*, the prices of *low cost* flights have been included in the survey also for *Intercontinental flights*;

► *Communications* division

Within the segment *Mobile telephone services*, for the item *Internet services via mobile networks* the survey of Internet access services via mobile networks has undergone a thorough revision. The new survey, based on consumption profiles, follows the tariff schemes offered by the major operators and considers rates from PCs (Internet dongle) or tablets, as well as from mobile or smartphones. It also includes tariffs expressed in quantities (kilobytes) as well as those calculated according to time. With reference to the segment *Postal Services*, in the construction of the indices new operators offering express courier services aimed at consumer users have been considered;

► *Division Recreation and culture*

The series of surveys centred upon technological products has been revised, with the aim of creating an even more integrated, consistent system. In this context the Institute has designed a new survey of *Tablet PCs*, which have absorbed a significant share of personal computer sales over the course of 2010. The survey of *Digital cameras* has been centralised and makes provision for the collection of the prices of the two types of product with the largest market share, *compact digital cameras* and *single-lens reflex cameras*. The new survey considers the entire range of models offered by the main manufacturers operating on the Italian market.

Updating of the reference base for the NIC and FOI indices

Consumer price indices are calculated using a chained Laspeyres formula, in which the basket of products and the system of weights are updated yearly. Monthly indices for the current year are calculated with reference to December of the previous year (calculation base) and subsequently chained over the period chosen as a reference base in order to be able to measure price trends over a period of time of more than a year.

Starting from data for January 2011, ISTAT has begun publishing the NIC and FOI indices with the new reference base 2010=100. The updating of the base regards both national indices and those calculated at the local level. This operation ensures greater accuracy in measuring inflation.

The HICP index, on the other hand, will continue to be calculated and published with a reference base of 2005=100, in line with other European Union countries and in accordance with Regulation (EC) no. 1708/2005 of 20th October 2005.

TABLE 5. REFERENCE BASES FOR CONSUMER PRICE INDICES

	Reference base as of January 2011	Previous reference base
NIC National indices	2010=100	1995=100
NIC Local indices	2010=100	December 1998=100
FOI National indices	2010=100	1995=100
FOI Local indices	2010=100	1995=100
HICP	2005=100	2005=100

In order to ensure the temporal comparability of the series expressed according to the new reference base and those expressed according to the previous bases, the corresponding linkage coefficients will be made available. Methods for using these coefficients for calculating percentage variations between indices in different bases are illustrated in the *Methodological note* included with the press release "Consumer prices".