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## Main features of the CPI base 2021

**In the new 2021 base, the CPI was adapted to household consumption patterns and the shopping basket and the weighting structure were updated**

**Among the new articles incorporated were hygienic masks and online newspaper subscriptions**

The INE is today publishing the first Consumer Price Index in base 2021. With the implementation of this new base, methodological innovations are incorporated to improve indicator accuracy, as well as changes in the composition of the shopping basket and a new weighting structure, which aids in increases representativeness.

The base change is a process carried out every five years, and its objective is to renew the CPI by adapting it to changes in household consumption patterns and incorporating methodological improvements. Therefore, two of the most important functions carried out are a review of the shopping basket and the updating of the weighting structure.

In the case of methodological changes, the CPI base 2021 incorporates **new processes to monitor clothing prices and process missing prices**, which will increase indicator precision.

In addition, as part of adapting the CPI to market changes in order to capture price movements more precisely, the INE continues to work on the development of automated information collection methods, by taking advantage of company databases (*scanner data*), automated Internet collection (*web scrapping*), and the use of computerized means for in-store price collection. These methods will be continually incorporated into CPI calculation during the new base.

Lastly, the CPI base 2021 updates the list of subclasses (aggregations of goods and services at the highest level of detail) of the European classification of consumption, called the ECOICOP (European Classification of Individual Consumption by Purpose), which is regularly disseminated. As a result of this update, based on the relative importance of household spending, 24 subclasses have disappeared from the CPI calculation, and two new ones have been incorporated.

Thus, **the number of subclasses, which was 221 in the 2016 base, becomes 199 in the new base.**

## Changes in the shopping basket

The selection of the products representative of the household consumption comprising the CPI shopping basket is carried out based on the importance of the expenditure made on each one of them. The composition of the basket is reviewed periodically, and is updated to include new products whose consumption is gaining significance, while excluding those whose consumption is no longer significant.

The most notable changes in the configuration of the 2021 base basket are **the incorporation of hygienic masks and online newspaper subscriptions**. On the other hand, some **examples of items that disappear from the basket are image players, portable players, and compact discs and DVDs**, among others.

As a result of these adjustments, **the CPI base 2021 shopping basket now has 955 items** (of which 462 are traditionally collected and the rest are collected using scanner data), compared to 977 in the previous base (with 480 from traditional collection).

## Updating of weightings

The ongoing adaptation of the CPI to changes in consumer behaviour also includes the permanent revision of its weighting structure. Each year, the weight and importance of the large aggregates comprising this indicator are updated, thus maintaining the current nature thereof. In addition, the complete structure is updated every five years for all levels of disaggregation.

The procedure usually followed to update the weights is based on the use of the Household Budget Survey (HBS) as the main source of information, which is completed using data from the National Accounts, the CPI itself and other sources of the offering from different sections.

On this occasion, and as occurred last year, in order to adapt the CPI to changes in household behaviour over the last two years due to COVID-19, the weighting structure has been updated using the usual process, with information from the 2020 Household Budget Survey and the National Accounts. In addition, specific action has been taken in the consumption categories most affected by COVID-19, where the most recent information available from alternative sources has been included.

This process of updating the weighting follows the recommendations of the European Statistical Office (Eurostat) and makes it possible to obtain a new structure adapted to changes in household consumption habits in the year following the restrictions caused by the pandemic.

As a result of this updating process, in 2022 the CPI weightings reflect the new patterns of household consumption; and in this way, the CPI reflects the changes in consumer habits that occurred in the last year.

Therefore, CPI base 2021 includes a **new weighting structure that more precisely represents household consumption patterns**.

The following table shows the weightings for the main groups used during 2021 and those that will be used during 2022 to calculate the overall CPI:

## Group weightings (how much per hundred)

Group	2021	2022	Variation (%)
01. Food and non-alcoholic beverages	23.6	22.6	-4.2
02. Alcoholic beverages and tobacco	3.2	3.1	-2.5
03. Clothing and footwear	6.4	6.0	-5.5
04. Housing	13.6	14.2	4.9
05. Furnishings, household equipment and routine maintenance of the house	5.9	5.8	-2.4
06. Medicine	3.9	4.4	11.1
07. Transport	12.4	13.0	4.2
08. Communications	3.7	3.6	-4.6
09. Leisure and culture	6.8	6.4	-6.2
10. Teaching	1.7	1.6	-4.1
11. Hotels, cafes and restaurants	11.6	13.0	12.0
12. Other goods and services	7.1	6.3	-11.1
<b>TOTAL</b>	<b>100</b>	<b>100</b>	<b>:</b>

The detailed information regarding the new weightings is available on the INE website ([www.ine.es](http://www.ine.es)).

It should be noted that incorporation of the data from the Final Monetary Consumption Expenditure of Households, from the National Accounts, will next year substitute the HBS as the main source of information for obtaining the weightings, thus fulfilling the norm dictated by the European regulation.

## Methodological changes in the processing of prices

The most important methodological changes introduced in the CPI base 2021 refer to processing of the prices collected.

On the one hand, adjustments have been made so that the CPI more accurately reflects price evolution in periods outside the traditional winter and summer sales. Better adaptation to the behaviour of prices in intermediate situations will thus be achieved. Similarly, adaptation to the entry periods of each new season has also been improved.

Another methodological change is the estimation methods used when no price is collected, and the criteria to establish when a variation is considered atypical.

## Postponement of the introduction of the free electricity market

One of the technical aspects included in the CPI Base Change Project is the review of the methodology of centralised items (those whose prices are the same throughout the country, which require specific calculation methods that include all the varieties of each service and consumption types). One of these items is electricity, whose review consists of expanding coverage by incorporating the liberalised market in CPI calculation.

This change, however, must be postponed until the information provided by the electricity companies can be obtained with a sufficient level of detail and with the technical criteria needed to comply with the methodological requirements demanded in CPI calculation. This will allow

for a clear explanation of the indicator's future evolution. On the other hand, the current market unpredictability does not favour the introduction of methodological changes, which could distort analysis of price evolution during 2022 and subsequent years.

It should be noted that any methodological change introduced to the CPI may produce a bias in the measurement of the annual rates throughout the first year of its incorporation. As such, the objective is to incorporate the methodological changes in such a way that they affect the results of the CPI as little as possible. In the case of free market inclusion, the magnitude of the bias depends on two factors:

- **Stability in the evolution of prices** in the previous year and in the year of the introduction of the new source. The larger the price fluctuations, the more significant will be the measurement bias. This requirement was not met during 2021.
- **Availability of precise information on household consumption and the measurement of price trends.** The information currently available does not correspond exactly with the CPI calculation methodology, meaning that it is necessary to continue with the work of making this information compatible. It is especially important that the information provided refer to the month in which the household enjoys the service (month for which the CPI is to be measured), in order to comply with European Union regulations.

For all these reasons, it is necessary to maintain the INE's current collaboration with the electricity companies (whom we thank for their efforts) over the coming months, in order to arrive at a system for obtaining information that is adapted to the requirements of the CPI.

## Chained series

The changes introduced in the CPI have caused some of the elements involved in the computation of this indicator to differ from those used for base 2016.

With the aim that the results of the CPI won't be affected by the incorporation of changes in the new base, the INE will elaborate the corresponding chained series, so as to provide continuity to the information that has been published until now. This link does not affect the variation rates already published.

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