INSTITUTO NACIONAL DE ESTADISTICA

Main methodological differences between the CPI and the HICP

1. Two indicators for the same objective?

- The Consumer Price Index (CPI) and the Harmonised Index of Consumer Prices (HICP) are two indicators that have the same objective: measuring the variation in the prices of goods and services that households dedicate to consumption. However, the methodologies they use to measure inflation differ in certain aspects.

- The difference between the two lies in their scope of application and the use that is made of each. In the case of the CPI, it is an indicator that is limited to a nationwide scope, so some of its methodological treatments and concepts used may not be comparable with those applied by other countries in our environment. However, these are the most suitable for the use that is made of this indicator (the most widespread is to serve as a reference for salary and pension reviews, for updating rental income, or insurance premiums, among others)

- For its part, the main objective of the HICP is to make comparisons between the countries of the European Union (EU), and between these and other countries that do not belong to the EU, as well as aggregations for the whole of the EU and the Monetary Union (MU). It is, therefore, an indicator whose importance lies in the fact that its methodology and concepts used are harmonised among all EU countries.

2. What is the origin of the HICP?

- The Maastricht Treaty was signed on 7 February 1992, and entered into force on 1 November 1993. This is the founding treaty of the European Union (in fact, it is known as the Treaty on the European Union) which, among other relevant aspects, lays the foundations of the Economic and Monetary Union (EMU). It essentially consists of the coordination of economic and fiscal policies, a common monetary policy and a common currency: the euro.

- To join the EMU, countries had to meet four convergence criteria, one of which refers to price stability. To achieve this, it was essential to have a comparable measure of inflation across all EU countries. Thus, in 1995 the first EU Council Regulation came into force, laying the foundations for the process of harmonising the CPIs of the EU countries, which would culminate in the first Harmonised Index of Consumer Prices (HICP) in January 1997.

- According to European regulations, the starting point for the harmonisation process had to be the domestic CPI of each country. Successive regulations have been implemented to date to address each methodological aspect that makes up this indicator, and each country must adapt to what is set out in these regulations in order to advance in their degree of harmonisation. Therefore, the closer the measures required by the EU for the HICP are to the methodology used by each country in its domestic CPI, the more similar both indicators will be.

- In the case of Spain, because the domestic CPI has always been an indicator aligned with the most advanced EU methodologies, from the beginning of the harmonisation process most of the methodological aspects required by the EU that define the HICP were already included in the CPI. Therefore, the production process, treatments and methodological aspects are essentially the same in the CPI and the HICP.

- However, not all methodological decisions at the EU level were adopted in the CPI. In some cases, this was due to conceptual issues, and in others because the proposed methodology might be suitable for most EU countries, but not for use in Spain's CPI. That is why there are certain methodological and conceptual differences.

3. The methodological and conceptual differences between the CPI and the HICP

- The two main differences between the two indicators are:

    - **National concept of consumption versus internal concept.**

      The HICP aims not only to establish comparisons of inflation between EU countries but also to calculate an aggregate for the Monetary Union and for the European Union. To achieve this, the indicators must be compatible with each other, which means that the consumption expenditure used to calculate the weights includes the expenditure of tourists within the national territory and excludes the expenditure of residents in Spain outside the country (domestic concept). This avoids overlapping the

spending between member states (for example, if Spain included the spending made by its residents in Germany, and Germany included the spending made by non-residents in German territory, the spending would be counted twice).

The CPI, however, is intended to be used as an inflation indicator that exclusively affects the country's residents (it is mainly used for salary reviews, rental contracts, pensions, etc.). Therefore, the consumption expenditure includes that made by residents inside and outside of Spain, and does not consider consumption expenditure by non-resident households (mainly tourists).

As a result, the weighting structures generally differ across all groups, and particularly in the most typically tourist groups (restaurants and accommodation services account for 17.03% in the CPI, and 18.10% in the HICP. Recreational activities have a 21% greater weight in the HICP than in the CPI). The difference between the weighting structures of both indicators is an important element that affects the result of both indicators.

CPI and HICP weightings by groups (as a percentage) in 2026

Groups	CPI	HICP
01. Food and non-alcoholic beverages	17.41	16.95
02. Alcoholic beverages and tobacco	3.51	3.27
03. Clothes and footwear	3.58	3.85
04. Housing	12.26	11.66
05. Furniture and household goods	4.74	4.79
06. Health care	5.23	4.90
07. Transportation	15.47	14.77
08. Information and Communications	3.75	3.6
09. Recreational activities, sport, and culture	7.48	9.06
10. Education services	1.61	1.47
11. Restaurants and accommodation services	17.03	18.10
12. Insurance and financial services	2.27	2.15
13. Personal care, social protection, and miscellaneous goods and services	5.67	5.42
TOTAL	100	100

- **Methodological treatment of the seasonality of clothing and footwear**

Clothing and footwear items are characterised by being markedly seasonal in nature. Throughout the year there are two clearly differentiated periods (the spring-summer season, from March to August, and the autumn-winter

season, from September to February) in which the baskets of garments consumed are completely different. Furthermore, linked to these seasonal changes are two clear periods of price reductions.

From a methodological standpoint, seasonality poses a problem, since these types of items disappear from the market when not in season (winter clothes are not sold in summer, and vice versa), which prevents the tracking of prices month by month, as is usually done with the rest of the products in the CPI shopping basket.

Generally, the absence of a product in an establishment on a circumstantial basis (the surveyor visits the establishment to record the product's price and it is out of stock) is resolved by the price estimation method, which is based on the variation rates of that same product in the other establishments in the sample. However, when it comes to a seasonal item, this is not possible since the product is not available in any other establishment.

There are various methods to overcome this problem, and all of them are subject to their own initial assumptions. The European regulation adopted a method that consists of estimating the price of an item out of season by using the price variations of clothing items that are in season (that is, resting on the assumption that the evolution of winter clothing prices, although they do not exist, is comparable to the evolution of summer clothing prices).

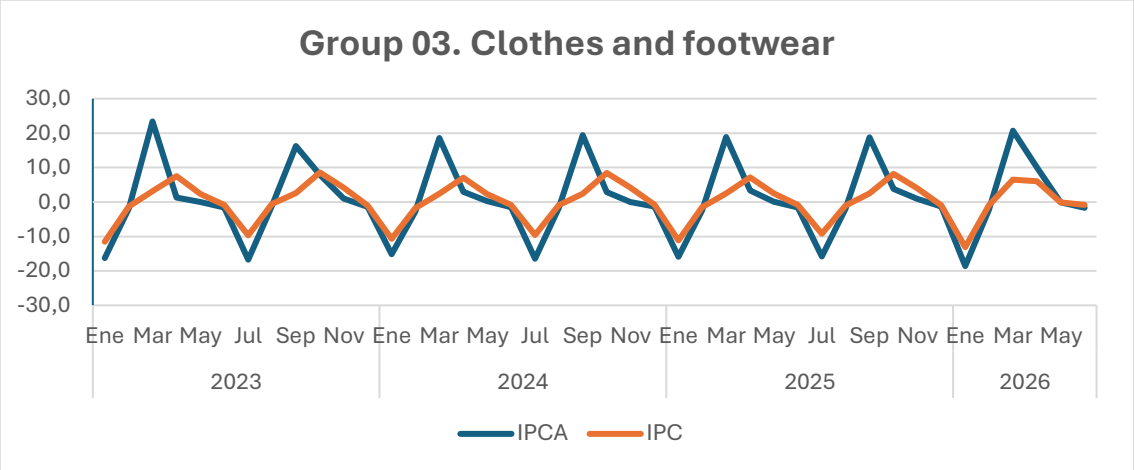
However, in the domestic CPI this problem is solved by considering the hypothesis that when the product is not in season its price variation is zero (in fact, this is the case when there is any out-of-season garment left on the market).

It should be noted that the European regulation on seasonal or out-of-season items affects not only clothing and footwear but also fruit and vegetables. In these cases, the proposed method is indeed applied in the domestic CPI, since the seasonality of these products does not occur for all of them at the same time, but rather each fruit and each vegetable has its own seasonal pattern and, therefore, it is consistent to estimate the price during the few months in which it is not placed on the market.

In the case of clothing and footwear, given their marked seasonality, the duration of each season and the fact that this affects a significant part of the clothing and footwear basket as a whole, it is considered that estimating the prices of summer clothes with those of winter and vice versa does not correspond to reality, especially in a country like Spain where the seasons are so clearly differentiated. Therefore, a neutral solution based

on estimating the price variations of non-existent products under the assumption that the price variation is zero is preferable.

These two ways of dealing with the same problem have different results. The following graph shows the monthly rates of change for the group *Clothes and footwear* from 2023 to mid-2026. The HICP has rates well above those of the CPI in the months when the different seasons begin, and more pronounced negative rates in the sales periods, due to the methodology applied.



4. Conclusion

- The process of calculating the CPI and the HICP and their methodological treatments are essentially the same. This is because almost all of the methodological treatments regulated by the EU were already being applied previously in the domestic CPI in Spain, so no changes had to be made.

- Only for specific occasions was the measure required for the HICP not being applied to the CPI. When this happens, the choice can be made to include it in the national indicator or not. The criterion used is exclusively methodological: if the measure enhances the quality and accuracy of the CPI, then it is incorporated. However, if the methodological measure does not result in a gain in the accuracy of the CPI, then its implementation is discarded. This is the case with the methodology of seasonal items.

- The two methodological differences between CPI and HICP combined are what explain the differences in the results.