

## Inflation measures for population subgroups Methodological note

The consumer price indices by population subgroups are "satellite" indices of the Harmonized index of consumer price (HICP): they are computed starting from the same basic information used for the HICP (i.e. the same basket of products and the same price elementary data) by modifying the system of weights used for their calculation. Specifically, the estimates of the system of weights for the five subgroups are based on the data derived from Household Budget Survey (HBS), which involved about 28.000 households every year.

For each subgroups, the weights are estimated by modifying the HICP weight at the level of classification corresponding to consumption segments<sup>1</sup>, on the basis of the share of the expenditure devoted by the target group of households to the purchase of the products in each consumption segment, with respect to the whole population.

For that purpose, it has been necessary to define a link between the HBS data and the basket of products used for the calculation of the HICP. The link between the HBS elementary expenditure data and HICP consumption segments was in some cases straightforward (for example, for food items). In other cases it was necessary to make a link at a more aggregated level of expenditure data (as for durable goods, assistance, education) in order to maintain the significance of estimates related to each subgroups. As a result, the HBS elementary expenditure data were merged into about 90 expenditure groups and then linked to the HICP consumption segments. In more details, for approximately half of these groups the link was one-to-one (about 30% of cases) or one-to-two (around the 21% of cases); in approximately 28% of cases it was necessary to make a link with five or more consumption segments.

Table 1 shows the index of dissimilarity between the weights structures of the five subgroups and the one of the HICP, for year 2013. Notably, the weights structure of the fourth fifth proved to be the closest one to the structure of the HICP.

The all-items consumer price indices by population subgroups, as well as the indices of the special aggregates, were calculated from January 2005, with reference base year 2005 = 100, consistently with the HICP. The diffusion of these indicators, twice a year, enlarge the statistical information on the temporal dynamics of consumer prices allowing an evaluation of the effects of inflation on specific subgroups of population, identified according the total expenditure level of the households.

<sup>&</sup>lt;sup>1</sup> In Italian HICP classification scheme, consumption segments are 323.

	1 <sup>st</sup> fifth	2 <sup>nd</sup> fifth	3 <sup>rd</sup> fifth	4 <sup>th</sup> fifth	5 <sup>th</sup> fifth	HICP
1 <sup>st</sup> fifth	0,00					
2 <sup>nd</sup> fifth	0,13	0,00				
3 <sup>rd</sup> fifth	0,20	0,08	0,00			
4 <sup>th</sup> fifth	0,28	0,16	0,08	0,00		
5 <sup>th</sup> fifth	0,44	0,33	0,25	0,18	0,00	
HICP	0,29	0,18	0,10	0,05	0,15	0,00

Table 1. DISSIMILARITY INDEX CONCERNING THE DISTRIBUTION OF HICP WEIGHTS FOR SUBGROUPS Year 2013