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Impact of 2022 high inflation on the poorest Italian households

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Abstract

In Europe and in Italy, as in other countries, the unexpected raise of inflation, spread all over the world, is mainly driven by the huge increase of prices of Energy products that has been going affecting all the products of the basket and in particular the prices of food and beverages.

The nature of these components (Energy and food), which consumption is difficult to reduce, implies that their relative weights are higher in the expenditure budget of the households with lower spending power with respect to that of the households with higher spending power.

Since 2012 (with time series available since 2005) the Italian national statistical institute (Istat), regularly estimates and disseminates information about the impact of inflation on 5 different groups of households.

Households are ranked by their expenditure value (derived from Italian Household Budget Survey, HBS), from those with the lowest spending power to those with the highest one and then divided in 5 groups of the same dimension. Afterwards the weights of HICP basket are estimated for each of these groups by using HBS data and updated each year. Taking into account these weights, harmonized indices of consumer prices are compiled on monthly and then grouped on quarterly basis.

In 2022 in a frame of general strong raise of inflation that is affecting all the households, its impact is clearly higher for the first group of households (with less spending power that means the poorest one) and lower for the fifth group (with more spending power that means the richest one). In the third quarter of 2022 the annual rate of change of HICP for the first group was equal to +11.6%, for the fifth one to +7.6% with a gap of four percentage point between the two (it was less than percentage point in the fourth quarter of 2021).

The details and implications of these data are analysed together with the methodology adopted. Moreover, some scenarios of the consequences on the monetary measures of Italian poverty are sketched.

1. Introduction¹

As soon as the crisis produced by the pandemic was close to the end (or at least to a substantial reduction of its effects), the fast and sharp rise of the inflation since the second part of 2021 in most of the countries has produced a new shock on the economic living conditions of the households. Given the main drivers of this rise (prices of energy followed by food products), this shock has mainly hit the poorest group of households that, considering their budget constraints, allocate a large part of their expenditure to these groups of products. As a consequence, the purchasing power of the poorest

¹ The introduction is drafted by Federico Polidoro

group of households has been eroded increasing the risk of a worsening of their living conditions and of an enlargement of the poverty and inequalities already wider for the pandemic effects.

A lot of government has adopted measures to contrast this risk, by using fiscal tools (mainly addressed to all the households), by cutting the gas and electricity bills of the low income families or by monetary subsidies to the poorest people in order to sustain their income and allow them deal with the rising inflation. In the Italian case, these measures consist of the reduction of the VAT on gas (since October 2021), of the excises on fuels (from November 2021) and of a wide enlargement (since April 2022) of the amount of the reduction of the gas and electricity bills addressed to the household under a certain thresholds of income (better of the indicator of the equivalent economic situation that considers, in addition to income, also components related to wealth and size of the households). Despite these measures inflation has been increasing and the issue related to the reduction of the purchasing power for the poorest group of households has been only partly reduced.

Since 2005, the Italian national statistical Institute (Istat) has been compiling and disseminating a measure of the impact of the inflation on five different groups of household of equal dimension but distinguished on the basis of their spending power (from the lowest of the first group to the highest of the fifth) used as a proxy of their income conditions. This impact is estimated via harmonised different indices of consumer prices that consider the different structure of consumption expenditure of each group of households that is summarised in the system of weights. In 2022 these indices have showed how the gap of the inflation impact has increased between the first and fifth group, providing quantitative evidences of the negative consequences of the current sharp rise of inflation on the poorest people.

In paragraph 2 of this paper it is described the methodology to identify the five groups of households and to estimate the weights to compile HICP for each of them. In paragraph 3 the recent evolution of inflation in Italy and in the Euro area is commented together with the focus on its impact, on the households with lower spending power (a proxy of the poorest ones) in comparison with those with higher spending power (a proxy of the richest ones). In paragraph 4 the characteristics of the group of households with lower spending power are analysed. In paragraph 5 some concluding remarks and future scenario of further insights are sketched.

2. Istat methodology to estimate the impact of inflation on 5 different groups of households

2.1 Identification of the groups using HBS data²

The last estimates of the system of weights for the five subgroups of households are based on the data derived from HBS³, carried out in 2021⁴. To this aim, a comparison of household consumption expenditure in terms of distribution was made using the equivalent household consumption expenditure, which takes into account that households of different size have different expenditure levels and needs. Household consumption expenditure is made equivalent by coefficients (Carbonaro equivalence scale, that takes into account the effect of economies of scale) which make it comparable to that of a two-member household, enabling comparisons among the expenditure levels of different-size households. If households are ordered on the basis of the equivalent consumption expenditure, they can then be organized by specific cut-point values.

² The sub-paragraph 2.1 is drafted by Ilaria Arigoni

³ The Italian Household Budget Survey (HBS), carried out by Istat every year, focuses on consumption expenditure behaviours of households residing in Italy. It analyses the evolution of level and composition of household consumption expenditure according to their main social, economic and territorial characteristics. The main focus of the HBS is therefore represented by all expenditures incurred by resident households to purchase goods and services exclusively devoted to household consumption (own consumptions, imputed rentals and presents are included); every other expenditure for a different purpose is excluded from the data collection (e. g., payments of fees and business expenditures).

⁴ As for the HICP, the weights of the five subgroups are updated every year.

In particular, Households have been divided into five groups of equal size (equivalent-expenditure quintile groups or fifths), the first fifth covers 20% of the households with the lowest equivalent consumption expenditure (less wealthy households), the last fifth covers the 20% of households with the highest equivalent consumption expenditure (wealthiest households). In a hypothetical situation of perfect equality, a share of 20% of the total expenditure sustained by all the households residing in the country would be placed in each fifth.

2.2 Estimation of the weights to compile inflation by different groups⁵

The consumer price indices by population subgroups are “satellite” indices of the Harmonized index of consumer price: 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. The indices of five subgroups share the set of basic information (basket of products and price elementary data) and the methodology of Italian HICP, but they are different each other for the system of weights used for their calculation.

In particular, for each subgroup, the weights are estimated by modifying the HICP weight at the product aggregate (10 digits) level of the classification used for the HICP⁶, on the basis of the share of the expenditure devoted by the target group of households to the purchase of the products in each product aggregate, 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 aggregates of product was mainly obtained at level of subclass (5 digits). In some 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 subgroup.

The all-item consumer price indices by population subgroups, as well as the indices of the special aggregates, were calculated from January 2005, with reference base year 2015=100, consistently with the HICP.

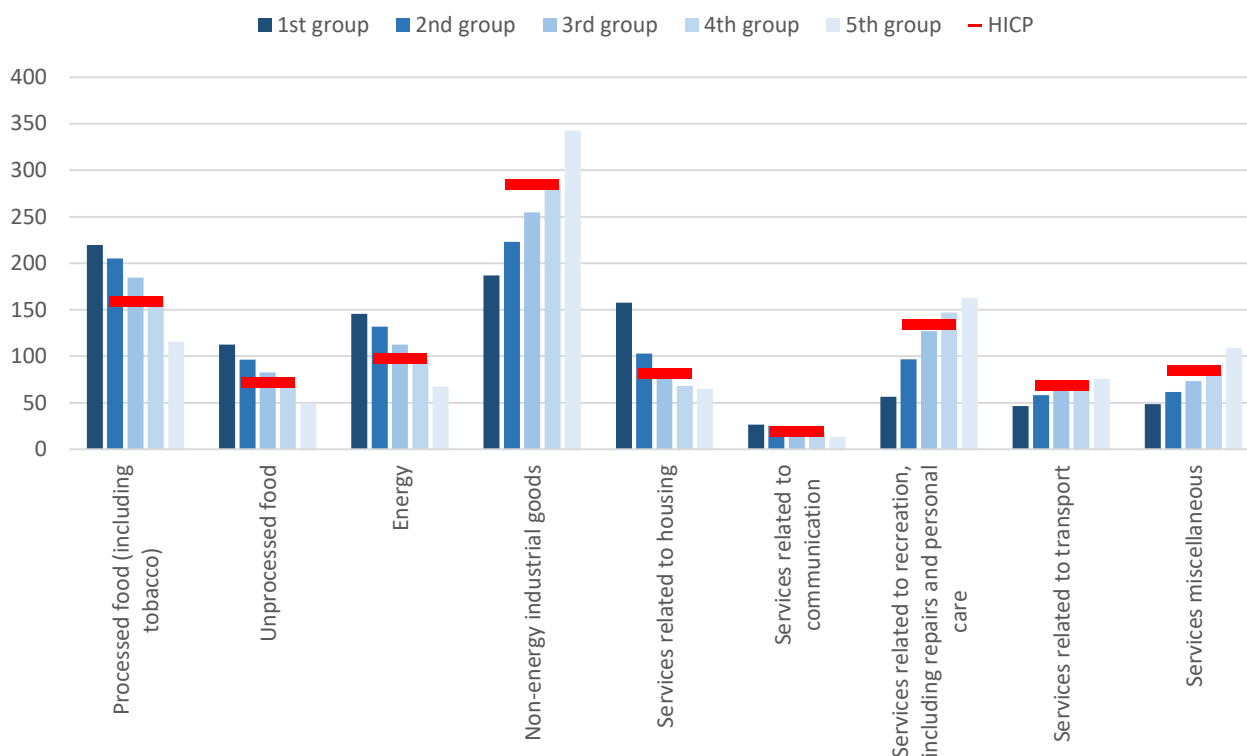
By comparing the system of weights of the five subgroups of population, some stylized facts emerge (Figure 1). The budget shares of food (including tobacco), energy and services related to housing tend to increase quickly as the total expenditure decline. In particular, for the households of the first group, the weight of these three components is well above the value estimated for the entire population and it is about double that of the last group. Similarly, the services related to communication seem to have a higher impact on the budget of the households with the lowest levels of total expenditure, even though the differences in this case seems to be less pronounced.

At the opposite, the expenditure shares of non-energy industrial goods, recreational services, cultural and personal care, as well as transport services and miscellaneous services tend to increase with the total expenditure of households.

⁵ Sub-paragraph 2.2 is drafted by Alessandro Brunetti

⁶ It is the lowest level at which the national indices are compiled.

Figure 1. Weights by 5 groups and main special aggregates in 2022



3. Inflation in Italy in 2022 and in the Euro area and the impact on the poorest group

3.1 Inflation in Italy and in the Euro area in 2022⁷

The current year, as well the final part of 2021, has been characterized, in Italy, in the European Union and in the world, by a sharp increase of the rates of change of consumer price indices.

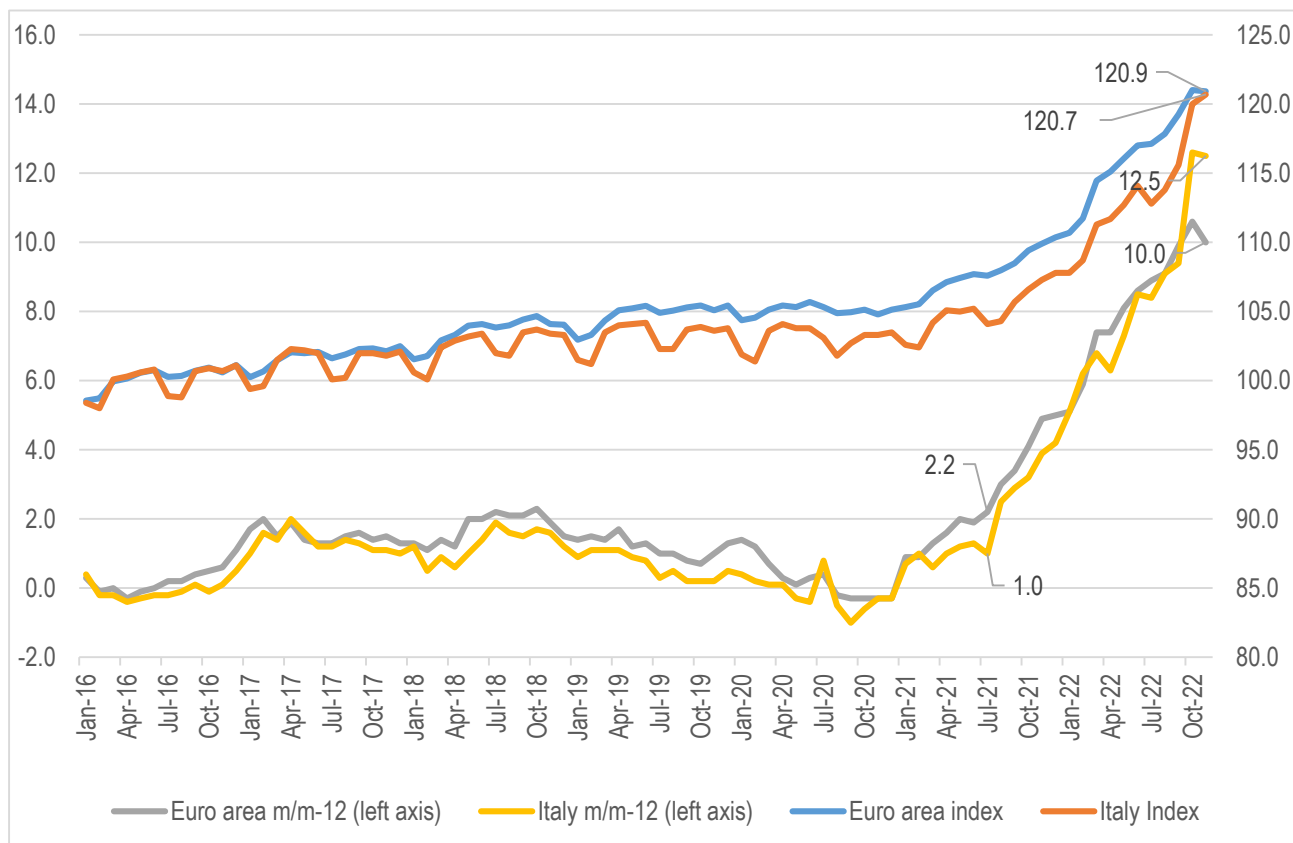
If we have a glance at the data in the last months (Figure 2), Italian inflation measured by HICP has raised from +1.0% in July 2021 (+2.2% in the Euro area) to +12.5% in November 2022 (+10.0% in the Euro area; preliminary estimates). Prices of Food including alcohol and tobacco increased in November 2022 on November 2021 respectively by 12.0% in Italy and by 13.6% in the Euro area and those of Energy by 34.9% and by 67.8%. HICPs referred to Non-energy industrial products and to Services, although high, registered a lower annual rates of change.

This general and summary analysis regarding the components behind the all-item index profile, clearly shows as the recent boost of inflation rate has affected in Italy the purchasing power in particular of the households with less spending capacity given the wider weights that Food including alcohol and tobacco and Energy products have on their budget as it clearly assessed in Figure 1.

The specific measures regarding the impact of inflation measured by HICP on the first and the fifth group of households (identified through the methodology described in the previous paragraph) are analysed in the following, confirming this preliminary evaluation arising from the yearly rates of change of consumer prices recently registered.

⁷ Sub-paragraph 3.1 is drafted by Federico Polidoro

Figure 2. HICP Indices and annual rates of change. Italy and Euro area. 2016 – 2022. Percentage values



3.2 The impact on the poorest group of household: the current situation and the historical profile⁸

In the Figure 3, the yearly rates of change of consumer prices since 2016 are showed with reference to all-item index for the population as a whole, for the first group of households (with less spending power) and for the fifth ones (with higher spending power).

It is evident that in the phases of lower inflation (from January 2016 to June 2021) the gap between the all-item HICP of the first group and that of the fifth group, has swung between -0.7 and 1.0 percentage points.

Moreover, in the two years when consumer prices in Italy decreased (2016 and 2020, the latter for the side effects of the pandemic), the first group experimented inflation rates lower (or consumer price decreases wider) than those that affected the fifth group. Also in those cases this negative gap (as such in favour of the families with lower spending power) was mainly due the evolution of the prices of energy products, despite in 2020 prices of Food including alcohol and tobacco increased by 1.6% and those of Processed food by 2.8%.

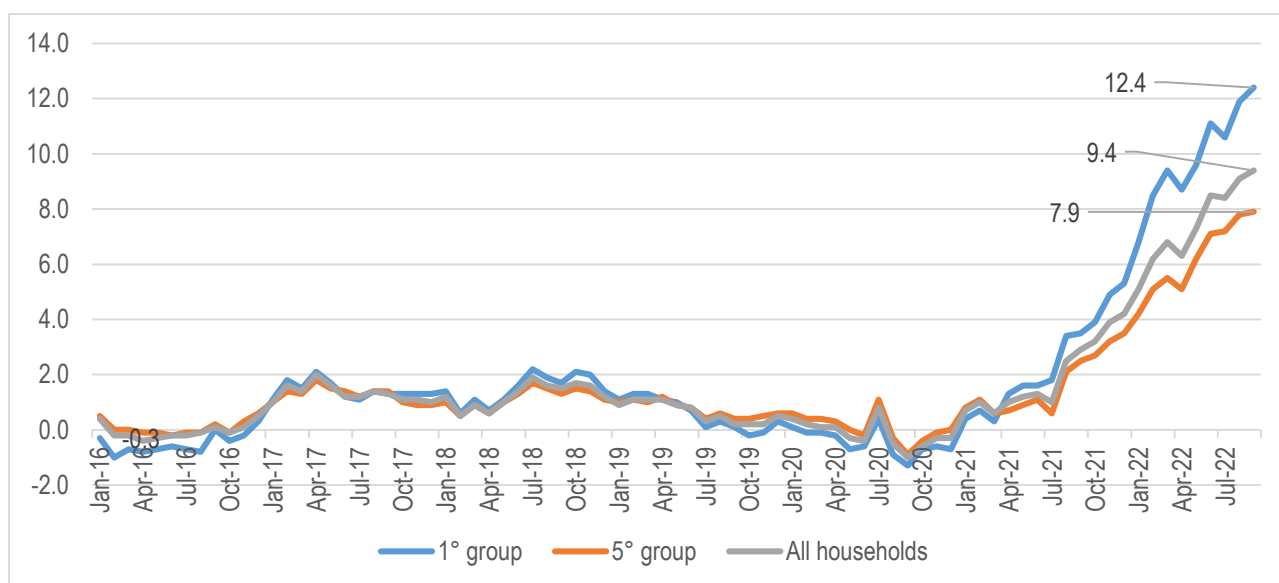
Since July 2021 the gap (positive, that is not in favour of the first group, from April 2021) started enlarging, up to 1.2 percentage point in July 2021, to 2.6 in January 2022 and arriving at 4.5 in September, registering the highest level since when these indices are compiled (2005). Also 4.5 are the percentage points of gap if we consider the rate of change between September 2022 and the average 2015 that become about 8 if we take into account the increase of consumer prices from 2005 to September 2022. This means that the ascending cycles of inflation, given that they are mainly

⁸ Sub-paragraph 3.2 is drafted by Federico Polidoro.

driven by energy products, are cumulating their effects on the people with lower spending power not only in the short but also in the long term.

Recent studies carried out by ECB (E. Charalampakis et al, 2022) have confirmed these results, showing as the consequences of the recent sharp rise of inflation have affected the low-income families in all the Euro-area and the gap between the increase of consumer prices the households with lower income (in this case the analysis is conducted by making reference to HICP compiled for households' groups identified by using income distribution in HBS data) has arrived at its peak in September 2022 (1.9 percentage points).

Figure 3. Italian HICP annual rates of change. 1st group, 5th group of households and all the households. 2016- 2022. Percentage values



4. The characteristics of the group of households with lower spending power on the basis of HBS data⁹

According to data from the Household Budget Survey (HBS)¹⁰, carried out by Istat every year, in 2021 54.7% of households with the lowest expenditure level (first fifth of equivalent household consumption expenditure) lived in the South and the Islands, especially in Campania (15.1%), Puglia (13.4%) and Sicilia (12.2%). They were mainly households with at least three members, essentially couples with children and single parents (only 16.0% were households of other typologies, namely composed by more households living together), basically composed by all national members (79.1%).

As is well known, precarious economic conditions affect households in the first fifth: in 2021, for 27.4% of them the reference person (RP) was in the position of employee as worker and for another 20.6% the RP was inactive but not retired from work. For 41.9% of them, the RP obtained up to the lower secondary school certificate. In 2021, the estimate of mean monthly consumption expenditure for households with the lowest expenditure level was 1,205 euros at current values, about

⁹ Sub-paragraph 4 is drafted by Ilaria Arigoni and Valeria de Martino

¹⁰ The Italian HBS focuses on consumption expenditure behaviours of households residing in Italy. It analyses the evolution of level and composition of household consumption expenditure according to their main social, economic and territorial characteristics. The main focus of the HBS is therefore represented by all expenditures incurred by resident households to purchase goods and services exclusively devoted to household consumption (self-consumptions, imputed rentals and presents are included); every other expenditure for a different purpose is excluded from the data collection (e. g., payments of fees and business expenditures). The Italian HBS represents the informative base for the official estimates of relative and absolute poverty in Italy.

half of consumption expenditure estimated for all households. As far the key indicators food-share (ratio of household expenditure on food and non-alcoholic beverages to total household consumption expenditure) is considered, for households in the first fifth in 2021 it was 26.0%, rather higher than the percentage observed in the total population (19.3%), and particularly significant considering that, according to Engel's Law, it increases as economic conditions worsen.

Less favourable economic conditions also reflect in poor housing conditions: in 2021, 36.4% of households in the first fifth lived in rented dwellings (twice as many as the percentage observed in the total population) and 31.7% paid a rent below the market price (compared to 25% in the total population).

From the indicators of household economic distress, other signs emerge of the greater difficulties that households in the first fifth have to face. In 2021, 57.4% declared inability to face unexpected financial expenses for an approximate amount of 850 euros¹¹ (twice as many as the percentage observed in the total population) and 60% evaluated as totally inadequate (poor or insufficient) their economic resources over the last 12 months (compared to 34% in the total population). Barely 15.2% of households with the lowest expenditure level in 2021 saved a share of their annual income (against 36% for all households), while 14.3% spent it all and used savings or borrows to support their consumption expenditures (8.4% in the total population).

In a hypothetical situation of perfect equality, a share of 20% of the total expenditure sustained by all the households residing in Italy would be placed in each fifth: actually, in 2021, households in the first fifth spent only 7.9% of the total expenditure (while those in the last fifth accounted for 40.0%). Added to this is the fact that households with the highest expenditure had an overall equivalent-expenditure level equal to 5.0 times that of households in the first fifth.

In 2021, 36.7% of households in the first fifth was absolute poor (almost five times the values observed on the total population) and they represented 97.4% of absolute poor households in Italy. Half of absolute poor households in the first fifth were couples with children and single parents. The incidence of absolute poverty reached 47.3% for couples with three or more children, 42.2% for households of other typologies and 38.1% for single parents.

5. Concluding remarks¹²

The recent shocks in the increase of consumer prices that have affected the most part of the countries all over the world have confirmed that high inflation has in particular negative consequences for the poorest households whose purchasing power is eroded more widely than that of the richest households.

Consumer price indices, tailored to specific groups of households identified on the basis of their consumption expenditure level, provide a quantitative measure of the gap and the availability of these indices in the regular production of inflation indicators since 2005 has allowed Istat to promptly deal with the issue of measuring the consequences of the inflation sharp rise.

In Italy year 2022, despite some signals of slowdown in November, will end with an average inflation around to +8.7% (this is, in November 2022, the consolidated rate of change in 2022 for the all-item HICP), that should be +9.9% for the first group of households and +6.4% for the fifth group (more 3.5 percentage points on average in 2022 the inflation gap between the first and the fifth group of households). This means a scenario where a monetary measure of poverty will take into account this worsening of the purchasing power of the poorest households that will imply, with high probability, an increase in the poverty rate in Italy. As a matter of fact, if we look at the 2021 data of

¹¹ The reference amount for unexpected financial expenses is based on data from Income and Living Conditions Survey (IT-SILC), carried out by Istat every year. It is fixed equals to 1/12 of the annual value of the national at risk-of-poverty threshold. The calculation of the threshold for year 'n' comes from year 'n-2' IT-SILC data.

¹² The concluding remarks are drafted by all the authors.

the absolute poverty rate, its stability was mainly due to rising in inflation (+1.9% in 2021) in the absence of which the share of households in absolute poverty would have fallen to 7.0% (instead of 7.5%) and that of individuals to 8.8% (instead of 9.4%).

Therefore, it is evident as high inflation (considerably over the objective of around 2%, for instance, established by ECB) has come back not only as an awful issue in macroeconomic and monetary terms but as a further element that could enlarge poverty and inequalities of the household revealing the strong socio-economic consequences of this phenomenon. The measures adopted by government to reduce the impact of the recent sharp increase of consumer prices have produced limited effects (even if not negligible): the gap estimated by Italian HICP in September 2022 between the two groups of households and analysed before is the highest since 2005 despite the enlargement of the cuts in the gas and electricity bills introduced by the government since April 2022. This evidence stresses the necessity of enhancing the attention of the policy makers on this exogenous shock that, after the pandemic, has affected the living conditions of the more vulnerable families.

At the light of the overview traced in the previous paragraphs, two main research objectives can be defined. The first, in the short term, is the evaluation of the impact of the policies adopted and specifically addressed to the low income sector of the population in terms of reduction of the impact of inflation and reduction of the consequent gap with respect to the high income sector. The second, in the long term, is the compilation of HICP/CPI by groups of households identified on the basis of income distribution (not on the basis of expenditure level as a proxy of the income). The 2023 meeting of the Group of Experts on Measuring Poverty and Inequality could be the occasion to discuss these other topics.

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