

### 4.3. THE EFFECT OF RISING ENERGY AND CONSUMER PRICES ON HOUSEHOLD FINANCES, MATERIAL DEPRIVATION AND ENERGY POVERTY IN THE EU

This section offers insights into the impact of rising energy prices and living costs on material and social deprivation and energy poverty in the EU, based on recent work by Menyhert (2022).<sup>(65)(66)</sup>

High and rising inflation is eroding the purchasing power of households. Given that inflation is driven mostly by the prices of energy and food, low-income households are likely to be impacted more strongly due to relatively high spending on those essential items and less elastic consumer demand. Analysis of microdata from the latest available wave of the Household Budget Survey (EU-HBS) from 2015 confirms that low-income households may spend up to 40% more of their total budget on food and energy (rather than goods or services) than more affluent population segments. Graph I.4.12 shows that the combined expenditure share of food and energy ranges from 23% to 66% across the EU, with substantial within-country differences between income quintiles, and with 'poorer' countries (in terms of GDP per capita or mean household consumption) ranking higher. Many of these differences in consumption structure are driven by food expenditures, but the share of households' energy spending also decreases with income. Further analysis also reveals that low-income households also tend to devote a higher fraction of their energy spending on less elastic housing-related expenses rather than on transportation.

**Consumers' assessment of the financial situation of their household continued to worsen, particularly among low-income households. An update of the analysis presented in the Summer 2022 interim forecast, based on the results from the**

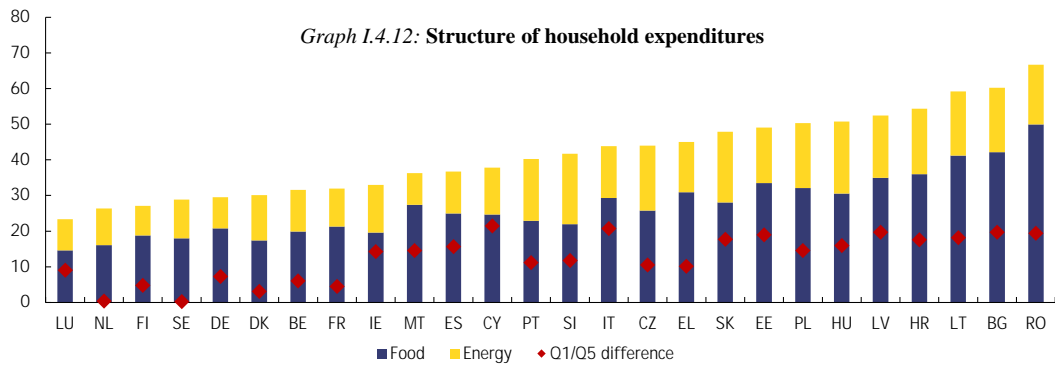
<sup>(65)</sup> Menyhert, B. (2022), The effect of rising energy and consumer prices on household finances, poverty and social exclusion in the EU, *JRC Science for Policy Report*, Publications Office of the European Union, Luxembourg.

<sup>(66)</sup> More detailed analysis will be included in European Commission (2022), Proposal for a Joint Employment Report 2023, November 2022, forthcoming.

Commission's harmonised EU-wide consumer surveys between June and October 2022, shows further significant deterioration of consumers' assessment of the past and expected financial situation of their household across all income groups. For the lower income group (which in the consumer surveys is the lower quartile), this deterioration also implies an ever-increasing share of people in financial distress – that is, having to draw on their savings or running into debt - from already high levels. At 30% in October 2022, this share was much higher than on average across the remaining three income quartiles (14.1%). Furthermore, the share of respondents reporting that their household's financial situation in the 12 months preceding the survey had got a lot worse has increased most sharply amongst lower income households. The same goes for the expected evolution of the financial situation over the 12 months following the survey.

Quantifying the potential impact of the effects of rising prices on the key indicators of poverty and social exclusion is not straightforward. Part of the reason lies with data lags and limitations surrounding European household surveys on income and consumption, but equally important is the fact that many leading social policy indicators used by the Commission are only indirectly affected by changes in households' living costs. For example, of the three components of the AROPE indicator measuring the share of population at risk of poverty or social exclusion, the material and social deprivation (MSD) component, or its severe variant (SMSD) respond unequivocally to losses in households' purchasing power.<sup>(67)</sup>

<sup>(67)</sup> The AROPE rate is the share of the total population that is either at risk of poverty; severely materially and socially deprived; or living in a household with a very low work intensity. The at-risk-of-poverty rate is based on the threshold of 60% of national median (equivalised) income, and is independent of purchasing power considerations. Similarly, the indicator of low-work-intensity has a non-monetary focus and is driven by changes in individuals' and households' labour force participation. For details on the indicator of material and social deprivation, see [https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Living\\_conditions\\_in\\_Europe\\_-\\_material\\_deprivation\\_and\\_economic\\_strain#Material\\_and\\_social\\_deprivation](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Living_conditions_in_Europe_-_material_deprivation_and_economic_strain#Material_and_social_deprivation).

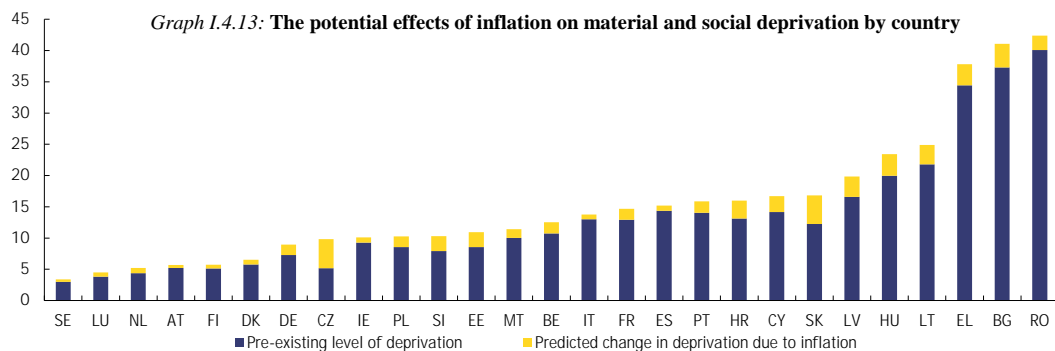


Notes: Analysis of microdata from the 2015 wave of the EU-HBS based on Menyhart (2022). The bars represent the average share of food and energy expenditures in households' total consumption by country. The markers denote the percentage point difference in the combined food and energy expenditure share across households of the first (Q1) and fifth (Q5) income quintiles in each country. Data for Austria are missing.

Between January and September 2022, rising living costs likely increased Material Social Deprivation by around 2 pps. at EU level and by up to 6 pps. in some Member States (Graph 1.4.13). The predicted effects of inflation on (standard or severe) material and social deprivation are estimated using a regression-based analysis that identifies (within-household) changes over time from (between-household) differences in the cross-section, based on the strong statistical relationship between household income and the incidence of (standard or severe) material and social deprivation among national populations. The predicted changes in SMSD are somewhat smaller than those discussed here but qualitatively similar. The relevant estimates do not include the impact of income support measures, nor do they factor in substitution effects or other ongoing behavioural or institutional changes. For more methodological details. The strong cross-country correlation shown by the Graph between predicted effects and pre-existing deprivation rates suggests that inflation has widened existing inequalities in

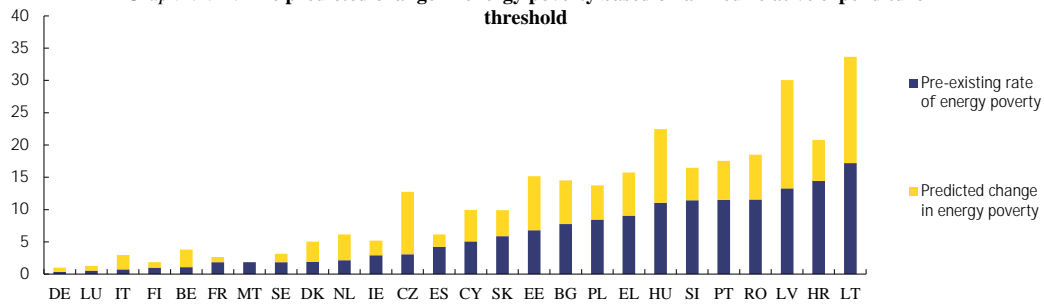
social deprivation across the EU.

It is also possible to quantify the effect of rising energy and consumer prices on measures of energy poverty. The latter is defined as a situation in which households are unable to access essential energy services, and is measured in a variety of ways. One set of energy poverty indicators focuses on households' self-reported inability to keep one's own home adequately warm, or pay one's utility bills without arrears. Using the same data and methodology as the one used for MSD predictions, Graph 1.4.14 shows the predicted increase in energy poverty as a result of rising living costs. Between January and September 2022, rising living costs likely increased households' energy poverty based on self-reported deprivation by 0-3 pps. in most Member States. Since these calculations do not account for potential demand-side effects or relative price changes, the relevant estimates are best considered as lower-bound estimates of the true effect of rising prices on self-reported deprivation-based energy poverty.

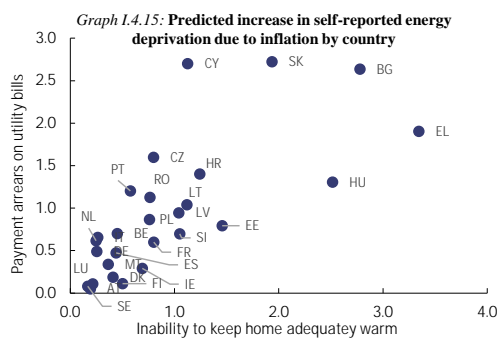


Notes: Analysis of microdata from the 2019 wave of the EU-SILC based on Menyhart (2022). The bars represent the pre-existing level and predicted change in the MSD rate, as calculated from the change in households' living cost adjustments and estimated real income elasticities

**Graph I.4.14: The predicted change in energy poverty based on a fixed relative expenditure threshold**



Notes: Calculation based on microdata from the 2015 wave of EU-HBC based on Menyhart (2022). The figures represent the share of population whose energy expenditure share exceeds 30% of total household expenditures, based on both observed energy expenditures (i.e. pre-existing rate of energy poverty) and inflation adjusted hypothetical data (i.e. predicted change in energy poverty). Figures for Austria are missing.



Notes: Analysis of microdata from the 2019 wave of the EU-SILC based on Menyhart (2022). The markers represent the predicted change (in pps.) in energy poverty based on two deprivation-based indicators of energy poverty.

comparative statics (e.g. pre-inflation and post-inflation comparisons) and simple thresholds for financial distress (e.g. a 30% threshold for the energy expenditure share), one can infer where financial distress from rising energy prices is expected to increase. Graph I.4.14 shows that, assuming no energy saving or substitution on the part of households, rising energy prices between January and September 2022 would have increased the share of households' with energy expenditures above 30% by 5 pps. in the EU as a whole and up to 17 pps. in some Member States. Given the likely fiscal support measures and behavioural responses, the true effects are expected to be somewhat smaller.

Alternative gauges of energy poverty that focus on households' energy expenditures tend to predict considerably higher consequences. These metrics allow for a more direct consideration of energy price trends as the main driver of inflation. Using basic