

Box A: Changing consumer habits pose risks to forecasts of inflation

Both the Covid-19 pandemic and the cost-of-living crisis have dramatically changed the composition of consumer spending in Ireland. This box looks at the impact that the changing composition of the basket of goods and services that consumers buy can have on forecasts of inflation.

The Harmonised Index of Consumer Prices (HICP) is an index of the level of prices in the economy. Price changes are weighted by expenditure. This means that the weight attached to changes in prices of certain goods or services in the index depends on the proportion of expenditure that consumers spend on that good or service. Eurostat updates these expenditure weights annually based on the proportion spent on each consumer product in the previous year. For instance, the expenditure weights used to calculate HICP in 2022 are based on the weights for the consumption basket in 2021.

Despite the constantly changing consumption basket, forecasters of inflation generally assume that the consumption basket is fixed for their entire forecast horizon. This means that the expenditure weights used to calculate HICP do not change in the years being forecast.

In normal times, this is a reasonable assumption: the consumption basket does not change drastically from year to year, so the impact that this assumption has on inflation forecasts is relatively small.

However, both the Covid-19 pandemic and the current cost-of-living crisis have seen large shifts in the composition of consumer spending and large price changes. During the acute phase of the pandemic, consumers switched from spending on services to goods. This reflected the lockdown measures that curtailed access to bars, restaurants and hospitality. This resulted in the weight attached to services in HICP falling from 55% in 2020 to 48% in 2021. During the current cost-of-living crisis, consumers have had to spend much more on electricity, heating and transport, at the expense of other items.

Illustration of impact of increased energy expenditure on inflation forecasts

When prices of certain goods and services increase relative to other goods and services, consumers often reduce their consumption of that item and potentially substitute away from it. This would limit the impact that a price increase would have on the HICP index as it would be offset by a lower expenditure weight. However, as energy is a necessity it is difficult to reduce consumption of energy in the short term, despite the rising prices.

In producing its inflation forecasts for *Budget 2023*, the Department of Finance, like many forecasters (including central banks), has kept the HICP consumption basket weights constant at 2022 levels for each year from 2022 to 2025.

To illustrate the potential impact that the relative increase in the expenditure on energy — both this year and next year — can have on the inflation forecasts, we undertake an exercise using the Council's Benchmark projections of the price changes of the subcomponents of HICP.²

We assume that these projections of the price changes of the subcomponents are correct, but when combining these components to arrive at a HICP forecast, we adjust the weights attached to these price changes to account for this relative increase in energy expenditure.

In this scenario, we assume that the weight attached to the energy component is larger next year and the following year — reflecting higher nominal energy consumption this year and even higher nominal energy consumption next year — before reverting back towards 2022 levels.³ To simplify the illustration, we assume that the higher energy consumption is at the expense of “core services” consumption. That is, the weight attached to “core services” falls as the energy weight increases.⁴ Figure A1.B shows the energy weights assumed, with the energy weight peaking in 2024 at 15%.

Figure A1.A shows the impact that the changing consumption basket has on the baseline inflation forecasts. As energy prices are expected to increase relatively more next year than other prices, the higher weight attached to energy prices in 2023 now results in a higher forecast for inflation next year. Under

² The Department only forecast the subcomponents of HICP for six quarters, 2022Q3–2023Q4. Thereafter, they forecast on the basis of headline and core HICP. As they do not have individual forecasts of energy and “core services” after 2023Q4, the Council's Benchmark projections of HICP components are used here as an illustration instead. The conclusions for headline HICP remain the same.

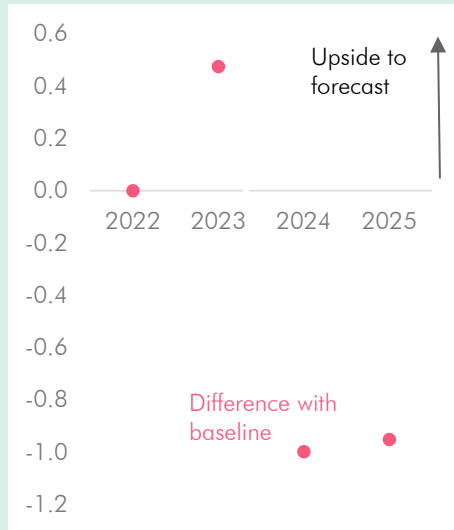
³ As outlined above, the weights used to calculate HICP for next year would be based on the consumption basket this year, while the weights used to calculate HICP for 2024 would be based on the consumption basket next year. This higher share of energy in the consumption basket can arise from consuming the same volume of energy, but at relatively higher prices.

⁴ The “core services” component is services excluding rental prices.

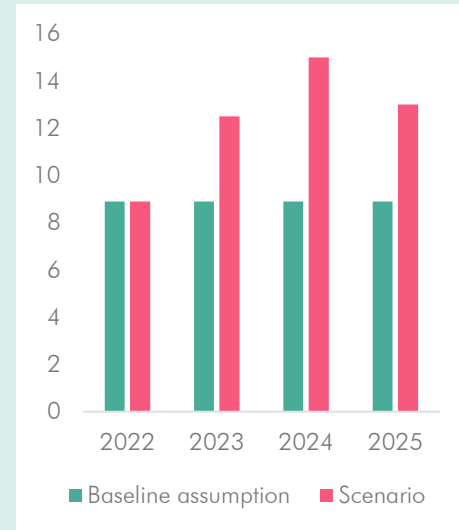
the alternative scenario, the inflation forecast is 0.5 percentage points higher in 2023. As energy prices are expected to fall in 2024, this higher weight on energy leads to a lower inflation rate in 2024, with inflation in the alternative scenario approximately 1 percentage point lower in 2024 than forecast. Similarly in 2025, inflation would be 1 percentage point lower than forecast under the alternative scenario.

Figure A1: The changing consumption basket presents risks to inflation forecasts

A. Risks to baseline HICP forecast
p.p difference with baseline



B. Energy weights assumed
% of consumption basket



Sources: Eurostat; Department of Finance; and Fiscal Council workings. [Get the data.](#)

This illustration shows that there are potential upsides to the Department of Finance’s HICP inflation forecast for next year, and there are potential downsides to the forecast for inflation in 2024 and 2025 if the changing energy consumption were to be factored into the forecasts. This illustration also shows that, all else equal, as energy prices fall, headline inflation may fall more rapidly than forecast.

As Ireland is a net importer of energy, the rise in energy prices implies lower national income in Ireland and higher national income in energy-exporting countries. As energy is an important input to all parts of the economy, it can have a significant bearing on potential output and higher steady-state prices will put the economy on a permanently lower output path.

Figure 1.3a, which replicates European Central Bank analysis for the Euro Area by Battistini *et al.* (2022), shows the broadly inverse relationship between the energy weight in the HICP consumption basket and the terms of trade (shown as the ratio between the GNI* deflator and the personal consumption deflator).⁵ Figure 1.3b uses real energy prices (scaled with HICP, available up to October 2022) to illustrate that the terms-of-trade index is likely to decline for 2022, meaning a relative weakening of consumers’ purchasing power. The period between 2015 and 2021 was broadly characterised by a lower real price of energy and this boosted Ireland’s terms of trade and living standards. This

As a net importer of energy, Ireland has suffered a terms of trade loss from higher global energy prices

⁵ The correlation coefficient for the two series in Figure 1.3a is -0.44.