Banc Ceannais na hÉireann
Central Bank of Ireland
Eurosystem

Box E: QB 1 – March 2023

This Box content is extracted from the Quarterly Bulletin – Q1 2023

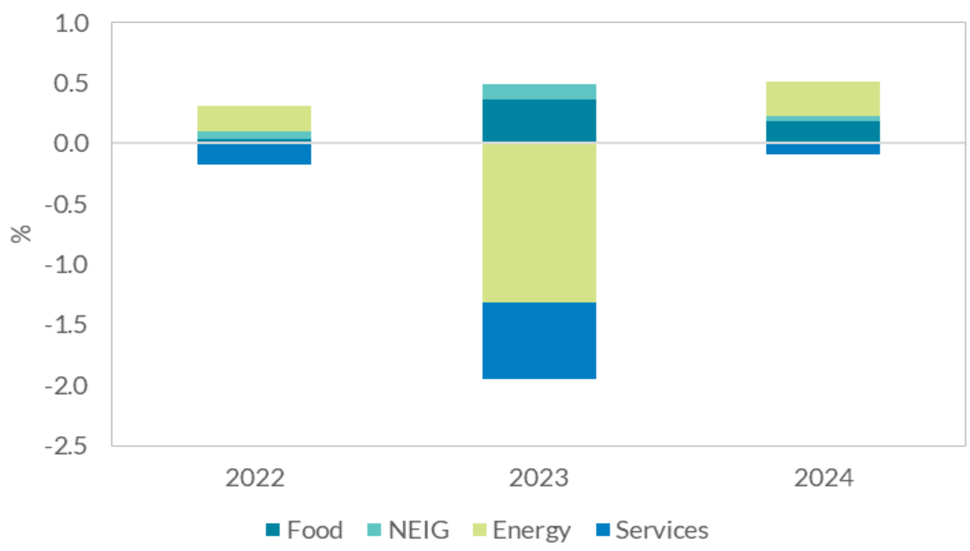
Inflation forecast revisions in this Bulletin

By Stephen Byrne, Darragh McLaughlin and John Scally

In this *Bulletin*, the forecast for HICP inflation in 2023 has been revised down by 1.3 percentage points compared with our previous projection in October. The largest contribution to this downward revision came from the energy component of inflation, and specifically the fall in futures prices for wholesale gas and oil which influence the energy component of the HICP forecast. In addition to the developments in futures prices it is also noteworthy that domestic inflationary pressures – particularly in services – have also been weaker in recent months than previously forecast. This has been evident in the deceleration of core inflation (HICP excluding energy and food) in Ireland since Autumn 2022, a development which is in contrast to trends in the wider euro area.

Contributions to Inflation revisions.

Figure 1: Inflation forecast errors & Revisions to inflation forecasts

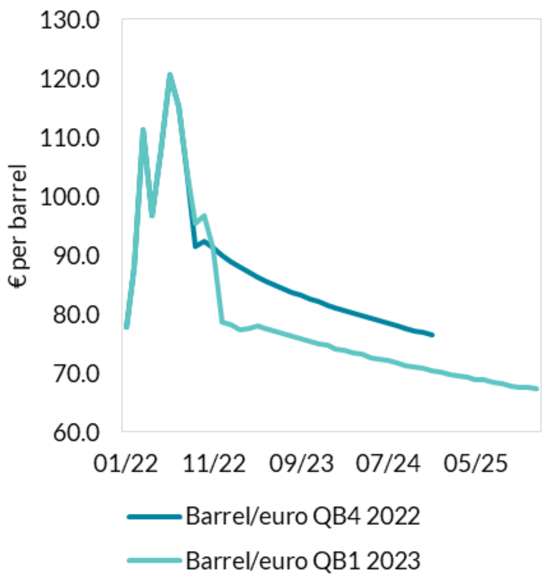


Source: Central Bank of Ireland calculations

Since the previous projection in October, wholesale energy prices have fallen significantly (Figures 2 and 3). Forecasts of energy prices are generated using assumptions about the future price of oil and gas derived from financial markets. At the time, the Bulletin highlighted that the projection was subject to considerable uncertainty, but the market-implied probability of such a sharp fall in gas prices was low. In October, the future price of natural gas and oil on wholesale markets for delivery in March 2023 was €221 per megawatt hour and $87 per barrel. As of the forecast cut-off for this Bulletin, gas for next day delivery averaged €55 per megawatt hour, while oil prices averaged $83 per barrel over the previous 10 days.

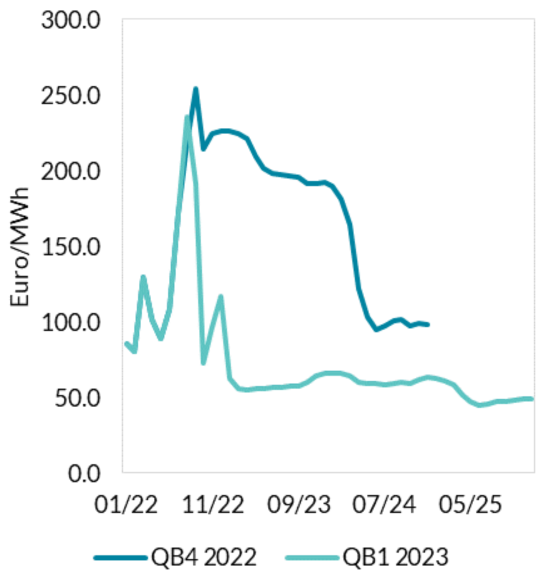
Oil Prices are lower with gas prices significantly lower.

Figure 2: Brent Crude Futures



Source: Refinitiv Eikon

Figure 3: TTR Gas Futures



Source: Refinitiv Eikon

The rapid falls represent a number of factors, chiefly the confidence of markets that the supply of gas in Europe will be sufficient to meet demand both during winter 2022/2023 and winter 2023/2024. It also reflects weaker implied global demand assumptions from markets. Lower energy prices have a direct effect on the forecast through the energy component, but second round effects on food prices, industrial goods and services inflation will also be lower as a result.

The second largest contribution to the downward revision, however, is to the services component. Services inflation, which is typically more domestically generated,[1] has fallen since the beginning of Autumn 2022, in contrast to dynamics in the euro area. This is also unexpected, given developments in the variables that typically drive services inflation. Figure 4 shows the results of a pseudo out-of-sample [2]forecast where the forecast is conditioned on the actual realisations of the unemployment rate, the unemployment gap[3], and a measure of energy prices. The black line shows the outturn for services inflation was approximately 1 percentage point lower in Q4 than implied by the median conditional forecast of the model (shaded green area). Taken together, these suggest that factors

[1] See Bermingham et al 2012, Gerlach et al 2015 and Byrne & Shayan Zakipour-Saber 2020.

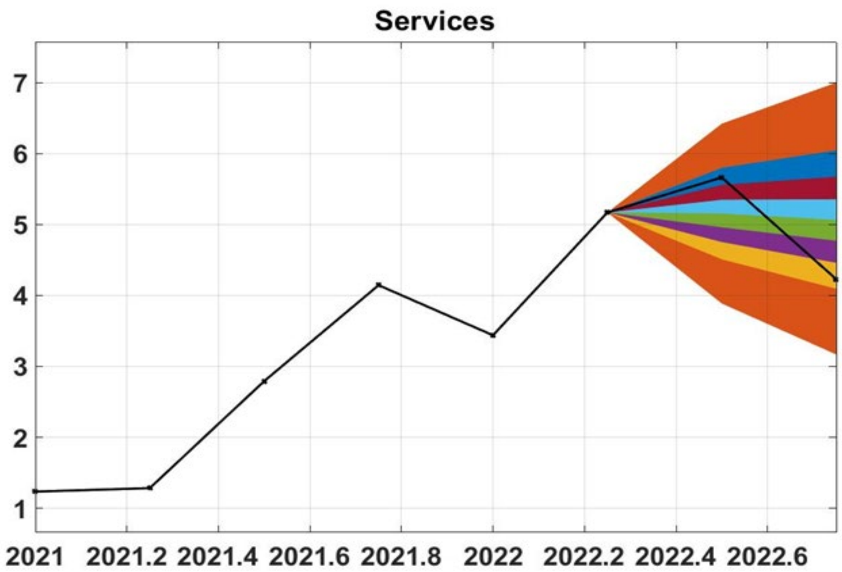
[2] A pseudo out-of-sample forecasting procedure simulates the performance of a model by estimating the model using data up until a cut-off date t, and a making h-step forecast for time t+h periods. It then compares the forecast with the actual realised data.

[3] The unemployment gap is defined as the difference between actual unemployment and the non-accelerating inflation rate of unemployment (NAIRU) as per a Philips curve type relationship linking unemployment and inflation.

outside of the model, and specific to Ireland, are behind the decline. We suggest three possible explanations: government measures, base effects, and a more pronounced return to normal consumption patterns and seasonal effects.

Services inflation in H2 2022 has been lower than implied by domestic developments

Figure 4:



Source: Central Bank of Ireland calculations

Firstly, Figure 5 shows the contributions to services inflation for Ireland in 2022. Most of the downward trend in the second half of the year can be explained by the decline in transport inflation. The government introduced a range of cuts to public rail, tram and bus transport charges[4] as part of the cost of living measures. Other non-transport discretionary measures affecting inflation were the cut to third level university fees[5] in Budget 2023. Car insurance premiums also declined (Figure 6). There has been no announcement regarding the temporary or permanent nature of these cuts, and so in level terms these prices are assumed to persist over the forecast horizon and the effect of the change eventually drops out of the inflation projection. In addition, there was a methodological

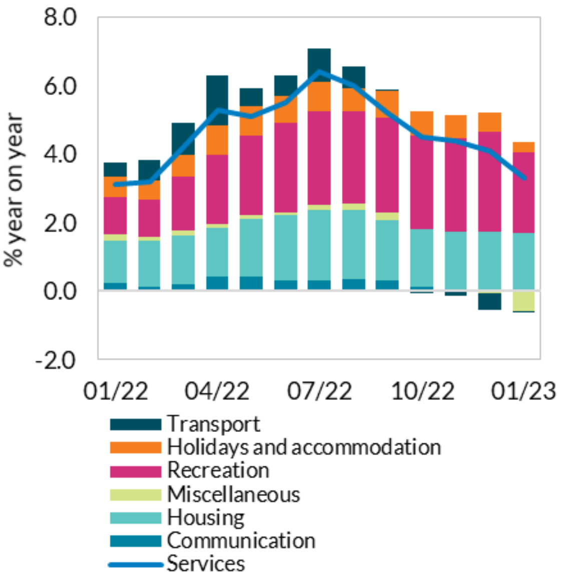
[4] A 20 per cent fare reduction on Dublin Bus, Luas, Go Ahead Ireland and Iarnrod Eireann commuter and DART services was introduced in May 2022, in addition to a 50 per cent cut to those under 25. The 50 per cent cut was extended to private operators in September.

[5] The government introduced a €1,000 euro contribution to third level university fee in Budget 2023.

change to the measurement of package holidays which resulted in a large negative year-on-year figure in January 2023[6].

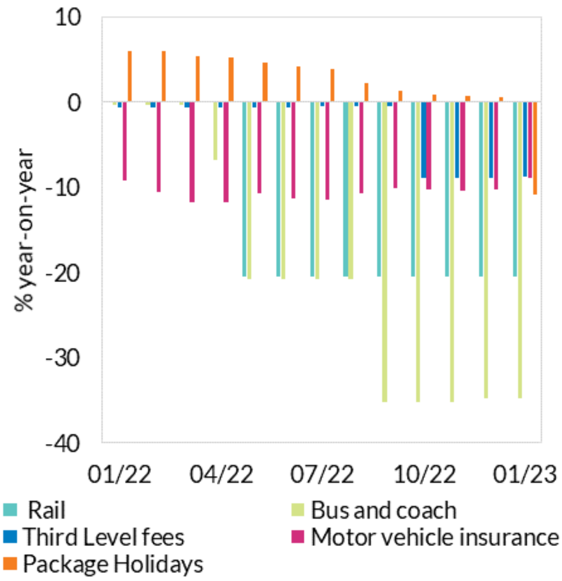
Services Inflation Contributions & Measures taken reduced services inflation

Figure 5: Contributions to Services Inflation



Source: Eurostat

Figure 6: Discretionary Measures



Source: Eurostat

Secondly, some of the decline in Irish services inflation in the latter part of 2022 can be attributed to base effects. Because the inflation rate each month is the increase in the price level compared with the same month in the previous year, unusual factors in the base period (i.e. one year ago) affect the inflation rate in the current year. This was particularly evident in the price of off-licence alcohol in January 2023, when the impact of the large increase in January 2022 fell out of the year-on-year comparison. The large month-on-month increase in 2022 related to the introduction of minimum unit pricing. Thirdly, the effects of the Covid-19 restrictions in early 2021 have had a large impact on some services in 2022, particularly in the hospitality sector. The switch to services consumption following the reopening of the economy in 2021 resulted in a pick-up in month-on-month inflation in a time when services prices would normally be declining. When the seasonal patterns returned to more normal conditions (negative inflation in the second half of 2022), this mechanically resulted in a decline in the year-on-year rate of inflation in 2022. Over the forecast horizon, as Irish consumers

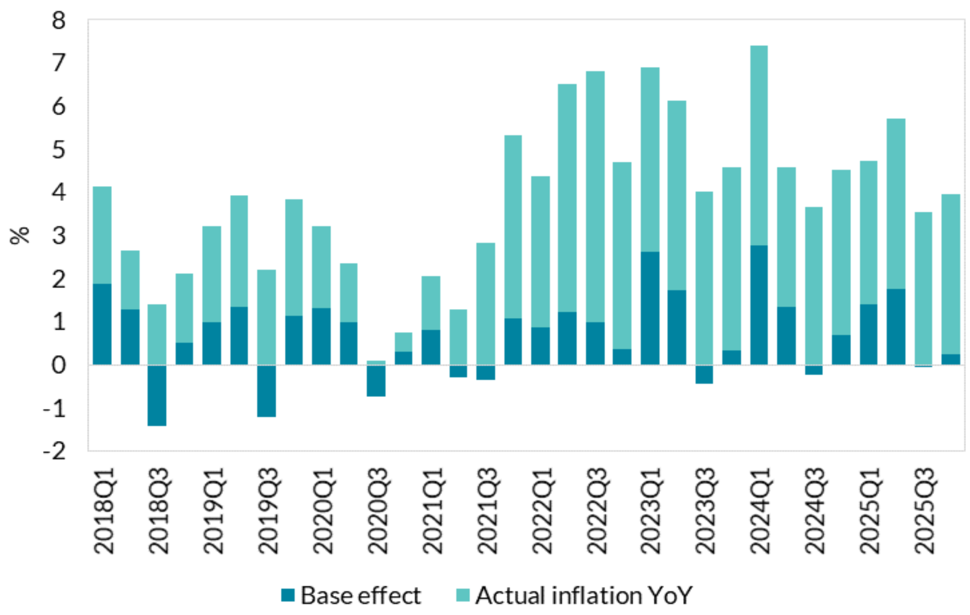
[6] The change in methodology introduces seasonality into the price of package holidays where none existed before. The negative swings recorded in January should be offset by positive swings in later months.

normalise their spending habits post-covid, base effects will remain a feature of services inflation in Ireland (Figure 7).

The downward revision to the 2023 forecast for HICP services inflation in part reflects the effect of the reasons which led to services inflation being weaker than expected in late 2022. In addition, the significantly lower path for energy prices also reduces the prospects for services inflation in the current forecast, as the ultimate pass-through from energy is reduced.

Base effects will remain a prominent feature of services inflation over the forecast horizon

Figure 7: Base effects in Services Inflation



Source: Central Bank of Ireland calculations

To conclude, the forecast for HICP inflation in 2023 has been revised down by 1.3 percentage points compared with our previous projection in October. Technical assumptions underpinning the energy forecast have contributed the bulk of the revision. However, domestic inflationary pressures – particularly in services – have been weaker than forecast primarily because of fiscal policy measures in areas such as transport prices and third-level fees. However, the effect of government measures are not indicative of any wider disinflationary trend.