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# Minding the perception gap: how do consumers perceive inflation in Ireland?

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**Box D:** 

Central banks closely monitor consumer inflation expectations. Beliefs about future inflation can affect people's economic behaviour, such as their consumption, investment and labour market decisions, and subsequently feed into actual inflation as measured officially by a consumer price index (D'Acunto et al., 2024). Among other things, inflation perceptions, i.e., what people think inflation was in the recent past, is a significant determinant of inflation expectations, (Weber, Gorodnichenko and Coibion, 2022; Huber, Minina and Schmidt, 2023). Generally, consumer survey evidence shows that perceived inflation by consumers at the aggregate level is higher than officially measured inflation – that is, there exists a positive *inflation perception gap*. This may result in higher inflation expectations than in the case of a zero gap. Furthermore, inflation perceptions across consumers are widely dispersed.<sup>1</sup>

Since April 2022, the monthly Consumer Expectations Survey (CES) run by the European Central Bank (ECB) provides timely information on inflation expectations and perceptions in Ireland and other euro area countries.<sup>2</sup> Quantitative inflation perceptions are gauged by asking respondents "How much higher [lower] do you think prices in general are now

<sup>&</sup>lt;sup>1</sup> The same properties can also be noted for consumers' inflation expectations.

<sup>&</sup>lt;sup>2</sup> Eleven countries are covered: Belgium, Germany, Spain, France, Italy and the Netherlands since April 2020, with Ireland, Greece, Austria, Portugal and Finland included since early 2022.



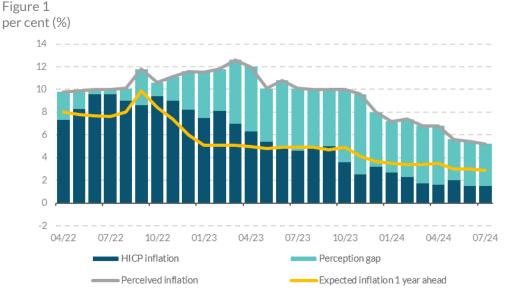
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compared with 12 months ago in Ireland?" The analysis in this Box uses these data to examine consumer inflation perceptions in Ireland between April 2022 and July 2024.

#### Determinants of inflation perceptions in Ireland

The median perceived inflation gap reported by survey respondents in Ireland was modestly positive in early 2022. By early 2023, the gap had widened substantially as consumer inflation perceptions increased while actual consumer price inflation, measured as the year-over-year percent change in the Harmonised Index of Consumer Prices (HICP), declined (Figure 1). In July 2024, median inflation perceptions are 3.7 percentage points above the official inflation rate.<sup>3</sup> Inflation perceptions are correlated with inflation expectations, which also exceed HICP inflation. Similarly, the perception gap is large and positive at the euro area level, although smaller than in Ireland (Figure 2).



In Ireland, the perceived inflation gap widened after inflation peaked in 2022 and remains large and positive.

Source: ECB CES, Eurostat.

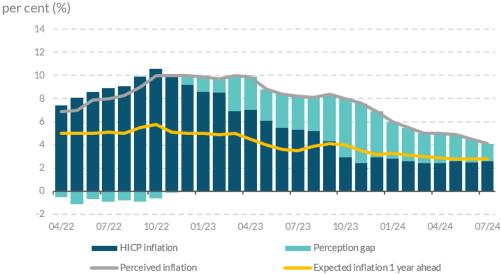
Notes: survey weights used to ensure population representation. Perceptions refer to a median value to abstract from outliers.

<sup>&</sup>lt;sup>3</sup> Similarly, if the Consumer Price Index (CPI) is used instead, the gap is large and positive. See <u>here</u> for more about the differences between HICP and CPI inflation.



### At euro area level, a positive perceived inflation gap also widened in 2023, but it remains smaller than in Ireland.

Figure 2



#### Source: ECB CES, Eurostat.

Notes: survey weights used to ensure population representation. Perceptions refer to a median value to abstract from outliers.

In an attempt to understand the drivers of the perception gap, we estimate a simple model based on the data collected among consumers in Ireland.<sup>4</sup> The baseline results show that sociodemographic characteristics matter but explain only a small share of the variation in the perception gap (less than 5 per cent). A higher inflation perception gap is associated with being a female, living in small cities and rural areas, lower education level, lower household income, being over 35 years old, actively paying for housing services through either a mortgage or rent, having children younger than 18 years. This is broadly in line with similar analysis for other countries (Arioli et al., 2017; Abildgren and Kuchler, 2021; Bignon and Gautier, 2022).

Systematic differences in inflation perceptions across sociodemographic groups likely reflect personal experiences with inflation, amongst other factors. A consumer's own

<sup>&</sup>lt;sup>4</sup> In the baseline Ordinary Least Squares (OLS) model, perceived inflation of an individual is regressed on a set of indicators reflecting main socio-demographic characteristics: gender, education, income, age group, region of residence, degree of urbanisation of residence location, housing tenure, employment status, the number of children, and country of birth. Survey weights used to ensure respondent sample is representative of the population. The full results are available from the author on request.



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basket of goods and services could be very different to that used to construct the official consumer price index. Consumers tend to form inflation perceptions relying heavily on their own shopping experience, especially on prices of frequently bought items, such as food, fuel and rents (<u>Huber, Minina and Schmidt, 2023</u>). According to the Central Statistics Office (CSO), certain groups of households experienced relatively greater inflation over the five years to September 2023. This includes households on lower income, homeowners with a mortgage, and people older than 35 years, in line with the results discussed above.<sup>5</sup>

Next, the baseline model is extended to include additional factors: respondents' assessment of the current unemployment rate, own knowledge and experience in financial matters, experienced changes in one's household's financial situation over the past year, as well as controls for common shocks and economic trends over time, e.g., actual inflation developments. While controlling for sociodemographic information, a higher perceived inflation gap is significantly associated with a more pessimistic view of the current unemployment rate, experienced deterioration in the household's financial situation and not being a sole maker of daily financial decisions. <u>Abildgren and Kuchler (2021)</u> also find that overly-pessimistic households in Denmark report higher inflation perceptions.

The extended model explains 14.5 per cent of variation in the perception gap. In terms of explanatory power<sup>6</sup>, the perceived unemployment rate, past changes in own financial situation as well as gender appear to be most important.<sup>7</sup> Among males who report a stable or improved financial situation and believe the current unemployment rate is 5 per cent or less (optimists), the median perceived inflation gap is 2 percentage points. This is five times lower than the median gap among females who report a worsened financial situation and believe the current a stable or a stable or improved financial situation perceived inflation gap is 2 percentage points. This is five times lower than the median gap among females who report a worsened financial situation and believe the current unemployment rate is above 5 per cent (Figure 3).

As the model explains only some of the perception gap variation, there are likely other factors behind the elevated inflation perceptions in Ireland. Consumer inflation perceptions could be influenced not only by certain frequently purchased items but also by items excluded from consumer price indices, e.g., house prices (Zekaite, 2020). Consumers underestimating prices they actually paid for their purchases in the past could

<sup>&</sup>lt;sup>5</sup> See the latest release at the time of writing <u>here</u>.

<sup>&</sup>lt;sup>6</sup> Measured as a change in the model's fit due to the inclusion of a respective variable.

<sup>&</sup>lt;sup>7</sup> The gender factor may be linked to grocery shopping duties (<u>D'Acunto, Malmendier and Weber, 2021</u>).



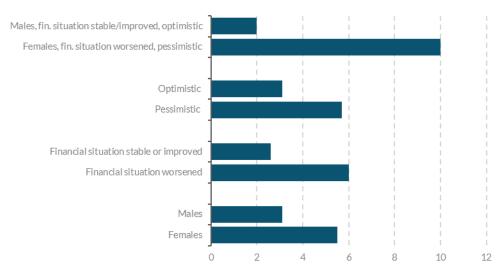
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also explain an upward bias in perceived inflation (<u>D'Acunto et al., 2024</u>). Observed price increases or inflationary news may have a bigger impact on inflation perceptions than price cuts or deflationary news (<u>Stanisławska, 2019</u>; <u>Baqaee, 2020</u>). In addition, consumers' attentiveness to inflation news more generally may have an effect on perceptions (<u>Guillochon and ter Ellen, 2023</u>; <u>Weber et al., 2024</u>).<sup>8</sup>

## Differences in gender, economic sentiment and past developments in own financial situation result in large differences in perceived inflation gap.

Figure 3





Source: ECB CES, own calculations.

Note: for each respondent, the gap is calculated as the inflation perception less actual HICP inflation rate for each month in the sample. Survey weights used to ensure population representation, inflation perceptions are winsorised at the 2<sup>nd</sup> and 98<sup>th</sup> percentiles. "Optimistic" denotes a respondent who believes current unemployment rate is 5 per cent or less, while "Pessimistic" respondent believes it is above 5 per cent. Financial situation change refers to self-reported worsening/improvement of household financial situation over the previous twelve months.

#### Conclusion

Overall, consumers in Ireland perceive inflation to be much higher than the official measures. The analysis in this *Box* suggests that inflation perceptions vary systematically across sociodemographic groups and relate to personal inflation experiences as well as economic sentiment. Further research is warranted to better explain the large positive

<sup>&</sup>lt;sup>8</sup> The list of potential factors discussed in this box is not exhaustive.



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perception gap in Ireland, why it is greater than at the aggregate euro area level, and whether it influences consumer behaviour in areas such as spending and saving decisions or in wage demands. The Central Bank continues to monitor consumers' inflation perceptions and expectations as part of its ongoing surveillance of the Irish economy.