Banc Ceannais na hÉireann
Central Bank of Ireland
Eurosystem

Box D: QB 4 – December 2023

This Box content is extracted from the Quarterly Bulletin – Q4 2023

Headline measures of inflation in Ireland: explaining the difference

By Zivile Zekaite (Irish Economic Analysis Division)

Two main inflation measures in Ireland

The official inflation measure in Ireland is based on the *Consumer Price Index* (CPI). [1] As Ireland is part of the euro area with common monetary policy set by the European Central Bank (ECB)[2], inflation is also measured using the *Harmonised Index of Consumer Prices* (HICP). Both CPI and HICP for Ireland are compiled by the Central Statistics Office (CSO), with the latter submitted to Eurostat and published along with the results for other euro area countries. In this way, inflation rates are comparable across the euro area. The ECB's inflation target of 2 per cent over the medium term is defined in terms of HICP inflation, thus, it is the relevant measure when deciding on euro area monetary policy.

In general, CPI and HICP inflation rates move together closely. CPI inflation has been higher than HICP by only 0.19 percentage points *on average* since January 2000. However, the difference in inflation rates can be much larger at specific points in time. In October 2023, CPI inflation stood at 5.1 per cent compared to the HICP inflation rate of 3.6 per cent.

---

[1] Inflation is defined as a percentage change in the price index over the 12-month period and reflects an overall change in prices of goods and services that people typically buy. See this video by the CSO for more information.
[2] National central banks contribute to the formation and implementation of monetary policy decisions.

The difference between the two measures arises because the HICP consumer basket is a subset of the CPI basket and excludes some items covered by the CPI. In total, items comprising a little over 6 per cent of the CPI basket are not included in the HICP. Most importantly, the CPI includes a measure of owner-occupied housing (OOH) costs, which are mostly excluded from the HICP.[3] In addition, motor tax, motor insurance, and union subscriptions are only covered by the CPI.[4]

OOH costs are the costs associated with owning, maintaining and living in one's home. There exist several ways to measure such costs. The CPI includes OOH based on the *payments* approach, with the "price" of OOH consisting of mortgage interest, building materials, home insurance related to dwellings, and Local Property Tax.[5] Mortgage interest is the largest of these components.

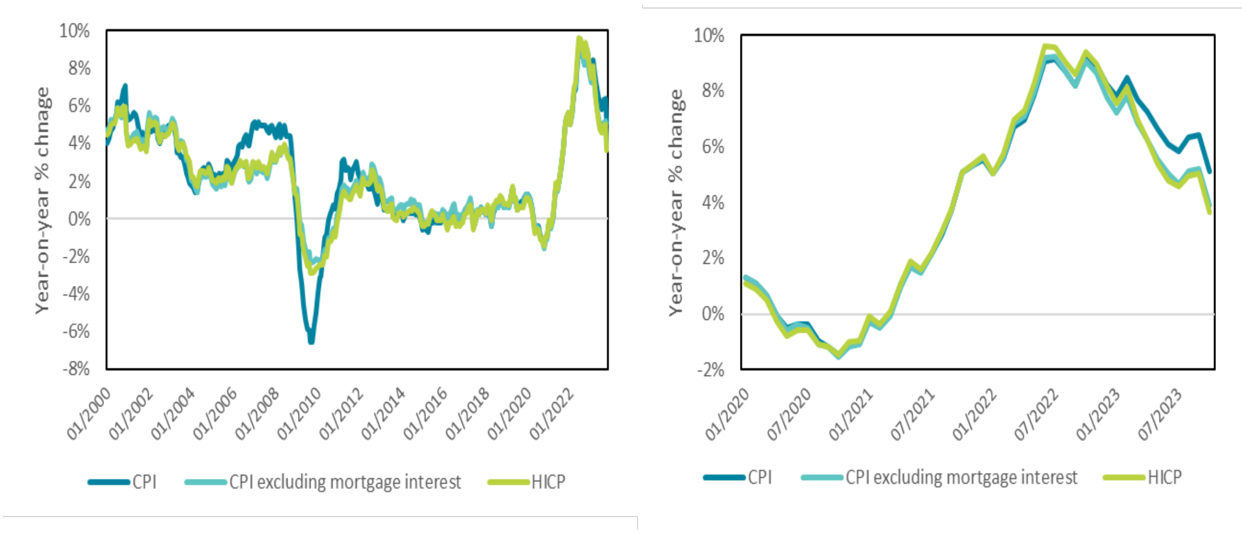
Once mortgage interest is excluded from the CPI, the measured inflation rate comes very close to the HICP rate for much of the period since 2000 (Figure 1). Developments in mortgage interest payments as estimated by the CSO largely reflect changes in average mortgage interest rates and only to a small extent changes in *estimated* outstanding mortgage debt, which is derived based on residential property prices.[6]

---

[3] Currently, the HICP covers the costs of maintenance and minor repairs and other running costs (e.g., water supply, refuse and sewage collection, utilities) for both tenants and owner-occupiers.
[4] The CPI also applies a different treatment to some insurance-related items. For more details see the relevant methodological manuals for the CPI here and HICP here.
[5] The payments approach measures actual cash flows of a household to cover costs associated with homeownership (see e.g., Allen et al., 2022).
[6] Mortgage interest is a product of 1) a weighted average interest rate on mortgages (fixed rate for different fixation periods, variable and tracker rates, new and existing loans) and 2) a measure of mortgage debt outstanding for a house bought in each month over the last 20 years. The house price for each month is taken from the Residential Property Price Index produced by the CSO and is adjusted to reflect loan repayments over time. For a given month, interest outstanding is the sum of adjusted house prices multiplied by average interest rate in each month over the preceding 20 years. Interest debt can then be compared to its value in the previous month to derive a price relative for mortgage interest payments between two months. We thank Anthony Dawson from the CSO for providing this information. See also here for methodological information.

The difference between CPI and HICP inflation rates is driven by mortgage interest

Figures 1a: CPI; Figure 1b: HICP inflation

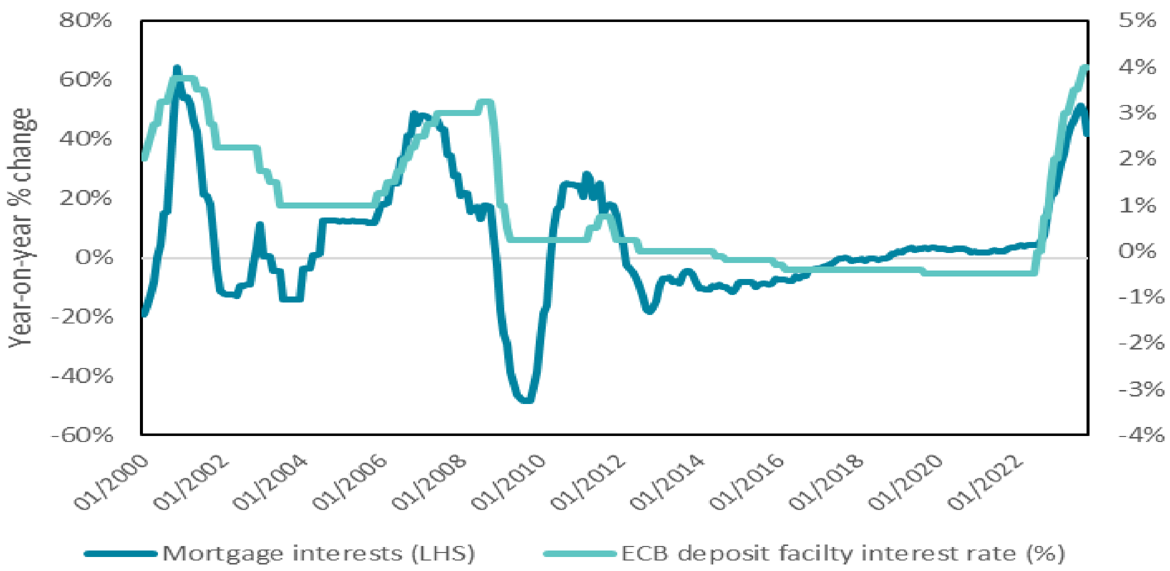


Source: CSO

Since the start of 2023, the gap between the two inflation measures has been increasing, reflecting the current monetary policy tightening cycle and the resultant higher lending interest rates as a result. The annual percentage change in mortgage interest payments tends to move closely with the key ECB policy interest rates (Figure 2).

Mortgage interests payments tend to rise (fall) with increasing (decreasing) ECB policy interest rate

Figure 2: Mortgage interest and ECB deposit interest rate



Source: CSO and Central Bank of Ireland

Mortgage interest reflects both interest rates paid on existing mortgages and interest rates offered on new mortgages. Thus, the variation of the gap depends on how quickly changes in the ECB policy interest rate feed through to new and outstanding mortgage rates. Around two thirds of mortgage holders in Ireland have their mortgage interest rate fixed, thus, the pass-through also depends on how long is the remaining period on a fixed rate (Byrne et al., 2023; Byrne and Foster, 2023).

ECB strategy review and OOH treatment in the HICP

The inclusion of OOH costs in the HICP index helps to better reflect inflation experiences of households and would enhance the comparability of overall inflation across countries.[7] Following the monetary policy strategy review in 2020-2021, the ECB has recommended the inclusion of OOH within the HICP measured using the *net acquisition* approach.[8] Due to some

[7] OOH costs comprise a big part of households' total expenditure. In many European countries the homeownership rate is high at around 70 per cent or above and it varies substantially from country to country (from around 50 per cent to just over 90 per cent).
[8] The net acquisition approach treats a dwelling as a durable good that is part asset (land) and part consumable (structure) and the costs are measured using a market price at the point of a purchase. Only dwellings that are

practical and conceptual challenges, the implementation may take time.[9] Currently, the HICP remains the main inflation measure for monetary policy purposes, while OOH inflation plays a supplementary role in monitoring inflationary pressures (Eiglsperger et al., 2022).

The measure of OOH costs based on the ECB's preferred net acquisition approach already exists for nearly all European Union countries. Eurostat has developed *experimental* OOH price indices (OOHPI) and is regularly publishing this data for Ireland and other euro area countries.[10] The OOHPI measures the changes in the price of acquisition of new dwellings for own-use (including self-built dwellings and major renovations) as well as other costs related to the acquisition and ownership of dwellings (e.g. major repairs and maintenance, insurance, etc.). Nevertheless, there are several issues to be addressed before integrating this index into the HICP. As it contains house prices, the asset component would be introduced into the consumer price index, which measure the costs of consumption, not investment. This drawback is also true for the CPI. Furthermore, the OOHPI is only available on a quarterly basis and with a long publication lag, which would affect timeliness and quality of the HICP.

Despite these challenges, the proposed *net acquisition* approach is preferred for the HICP over the *payments* approached used for the CPI. The inclusion of mortgage interest payments in the CPI makes the index unsuitable for monetary policy purposes and can complicate communication with the public. A central bank increases (decreases) its policy interest rate to reduce (increase) inflation by dampening (boosting) demand relative to supply in the economy. Thus, a higher policy rate would directly add to measured inflationary pressures through higher mortgage interest payments. Furthermore, interest payments reflect the cost of borrowing rather than consumption, which is conceptually not in line with the CPI or HICP.

OOH inflation in Ireland

OOHPI inflation as measured by Eurostat using the net acquisitions approach moves in line with inflation in residential property prices, however, it is typically not as large in terms of magnitude and is much less volatile (Figure 3). On average since 2011, OOHPI inflation in

new to the household sector are covered, including self-built housing, while transactions between households are excluded. In addition, the costs associated with the acquisition or construction (e.g., fees and taxes), dwelling insurance, major renovations and repairs are also covered (Eiglsperger et al., 2022).

[9] Before the OOH price index can be included to the HICP, several adjustments need to be made as outlined in the roadmap proposed by the ECB (ECB, 2021).

[10] The data only begins in 2010Q1. For more information on the index see here.

Ireland has been 2.8 per cent. More recently, it measured 7.6 per cent in 2023Q2 from the all-time peak of 9.4 per cent recorded in the first quarter of the year.

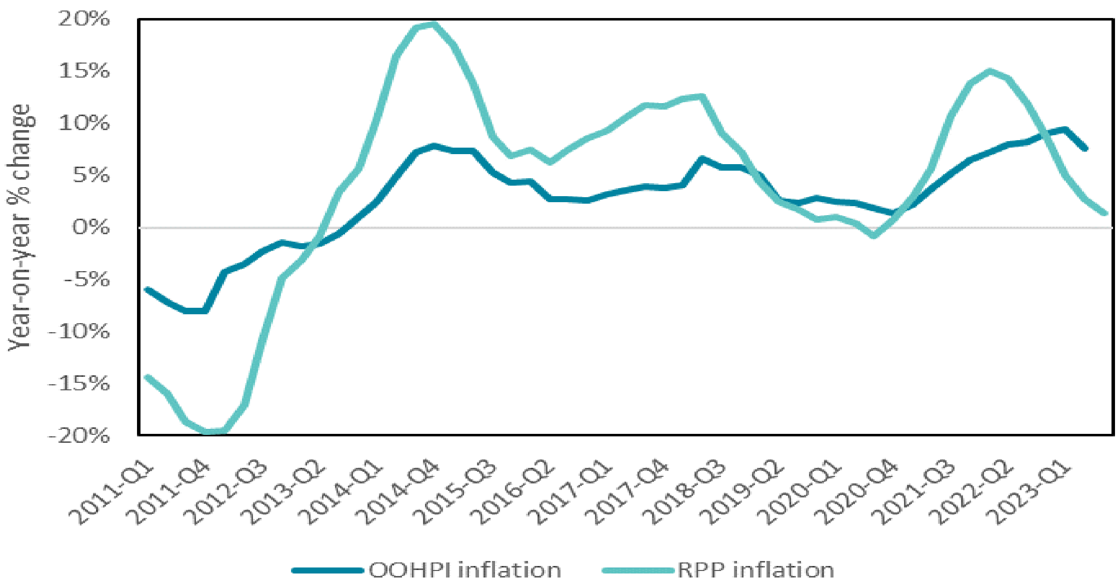
While house price inflation has been on a decline since the first quarter of 2022, OOHPI inflation has been gradually increasing until the second quarter of this year when it fell for the first time since late 2020. This can be explained by a different coverage of the indices and different price dynamics of new and existing dwellings. The house price index includes both new dwellings as well as secondary market purchases, i.e., acquisitions between households. OOH price index does not include house prices in the secondary market. The sharp decline in house price inflation has been predominantly driven by prices of existing houses stagnating and then starting to fall.[11] At the same time, prices of new houses continued to rise, with annual inflation of 10.4 per cent in 2023Q3.

Figure 4 shows main sub-components of the OOHPI for Ireland. The inflation rate of new dwellings prices has remained stable at a high level and inflation in costs of ownership (major repairs and maintenance, insurance, etc.) has only started to decline most recently. Developments in self-build and renovation costs as well as costs of services related to acquisitions have also kept OOH inflation more persistent than house price inflation.

[11] Existing house prices have been falling since 2022Q4 and fell also in annual terms in 2023Q3.

OOHPI inflation moves broadly in line with house price inflation but is less volatile

Figure 3: OOHPI and RPP inflation



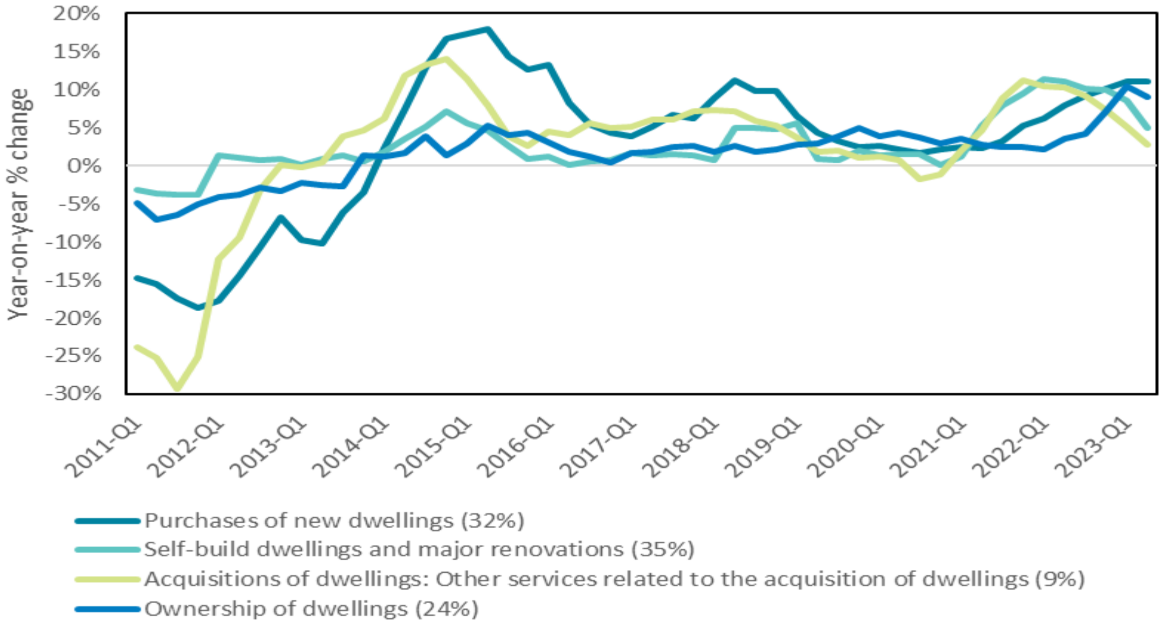
Source: CSO and Eurostat

Figure 5 compares OOHPI inflation and mortgage interest inflation.[12] It is notable that the two series often move in the opposite direction. In the aftermath of the global financial and sovereign debt crises, mortgage interest inflation declined sharply, turned negative and remained negative, indicating falling mortgage interest costs until the end of 2018. At the same time OOHPI inflation increased, turned positive and then fluctuated well above zero. More recently, the two measures of OOH costs have behaved more similarly and have risen sharply since 2021. In addition, the magnitude of percentage changes in OOHPI are greatly different from percentage changes in mortgage interest. While the mortgage interest item has a weight of only 3.2 per cent in the CPI basket, it can make a large contribution to overall CPI inflation when mortgage interest inflation is either very high or very low. If OOHPI were to be included in the HICP, its weight in the HICP+OOH basket would approximately be 9 per cent (see ESS (2023) for more detail), thus contributions to overall HICP inflation when OOHPI inflation is very high or very low would likely not be as significant.

[12] We focus here on the mortgage interest component only, however the CPI, as noted in the first section, also includes some other items of OOH (with a smaller weight) based on the payments approach.

Increases in new dwellings prices and costs of ownership keeps OOHPI inflation elevated

Figure 4: OOHPI components



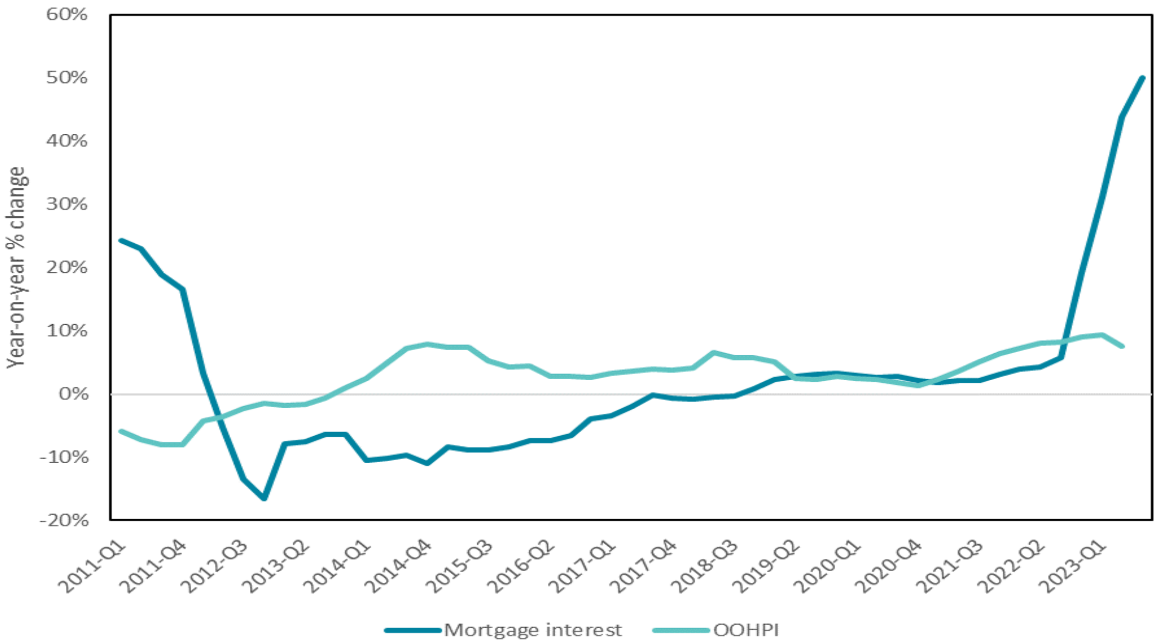
Source: CSO, Eurostat
Note: figures in brackets reflect the weights of the components in the total OOHPI.

Conclusion

The two main inflation measures for Ireland can at times provide different signals about inflationary pressures. This *Box* has shown that the gap between CPI and HICP inflation rates can be largely explained by dynamics in the mortgage interest payments included in the CPI. Following the Monetary Policy Strategy Review, the European Central Bank recommended including a measure of OOH costs into the HICP, although based on an alternative measurement approach. Different approaches, however, lead to very different outcomes for OOH inflation. Thus, the inclusion of OOH in the HICP may not help close the gap between CPI and HICP.

Different measures of OOH costs often send conflicting signals

Figure 5: Mortgage interest and OOHPI inflation



Source: CSO and Eurostat