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Box F:

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Diverging measures of labour costs: What to monitor for inflation purposes?

By Enda Keenan and Martin O'Brien¹

Recent analysis has outlined how the interaction of profits, productivity growth and labour costs influences domestically-driven inflation ([O'Brien, 2023](#)). For the disinflation currently underway in the Irish economy to proceed as expected, anticipated higher wage rates and other labour costs need to be accompanied by commensurate productivity growth and changes in profit margins. This *Box* outlines overall labour cost trends in recent quarters, noting the relative importance of wages and non-wage labour costs. We also discuss the divergence between labour costs on a per-employee and a per-hour-worked basis and the related implications for the outlook of wages, other labour costs and inflationary pressures over the forecast horizon.

Wage costs account for 84 per cent of total labour costs on average with the remainder made up of costs to the employer such as PRSI and private pension contributions (non-wage costs). Methodological issues regarding the Employment Wage Subsidy Scheme (EWSS) and the scale of take-up during the pandemic saw notable shifts in the growth rate of non-wage costs, particularly at the sectoral level.² Even as these distortions have washed out of more recent data, sectoral breakdowns show that the share of non-wage costs can vary considerably across sector with larger shares evident in the highest-earning sectors, such as ICT (23 per cent) and Finance (20 per cent) (Figure 1). These relatively higher non-wage costs may reflect efforts by firms to attract or retain highly-skilled or specialised workers through non-statutory contributions or benefit in kind while a

¹ Irish Economic Analysis Division

² See Box A in "[Earnings growth under high inflation](#)" (Boyd et al, 2023) Central Bank of Ireland Quarterly Bulletin Signed Article QB3 2023.



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continuing tight labour market may see further increases in both wage and non-wage costs to avoid losing staff to competitors.³ The Eurostat Labour Costs Index (LCI) measures changes in employer-reported wage and non-wages costs on a per-hour basis with total labour costs in Ireland increasing annually by 6.9 per cent in Q3 2023 (Figure 2). Wage costs rose by 6.3 per cent relative to 10.6 per cent growth in non-wage costs, though non-wage costs may still be affected by distortionary issues in annual comparisons.⁴ The pace of increase in non-wage and overall Irish labour costs has typically been above euro area average recently (Figure 2). However, in level terms, non-wage labour costs still make up a smaller proportion of total labour costs in Ireland than in the euro area as a whole (Figure 1). Announced taxation changes such as higher employer PRSI rates from October 2024 and the proposed pension auto-enrolment scheme would add to non-wage cost levels in Ireland, though growth in the share of total labour costs may be constrained by rises in wage costs such as minimum wage adjustments to a living wage and related second-round effects along the income distribution.⁵

³ Non-statutory social contributions: payments made by enterprises on behalf of their employees which include pension fund contributions, life assurance premiums, income continuance insurance as well as other employee related payments. Benefit in kind includes items such as shares or share options, subsidised crèche or canteen, subsistence claims paid to employees to cover meals if they are away for work, company car, staff discounts on company products.

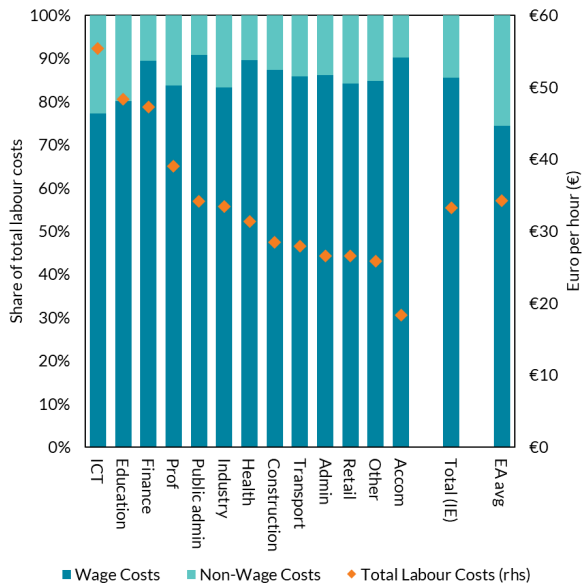
⁴ The LCI is based on data generated by the CSO EHECS quarterly survey and as such labour cost levels and growth rates may differ to those derived from GVA and other National Accounts data. Additionally, LCI data is seasonally and calendar-adjusted.

⁵ Employer PRSI class A rate will increase by 0.1 per cent to 4.1 per cent in addition to changes across all classes ([Advance notice for 2024](#))



Higher earning sectors exhibit higher shares of non-wage costs

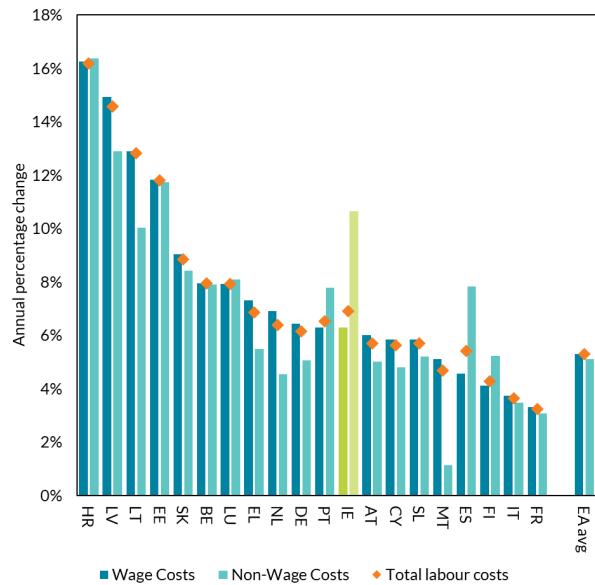
Figure 1: Share of wage and non-wage costs by Irish economic sector (Q4 2023)



Source: CSO; EHECS
Note: Data for euro area average are for 2022

Non-wage costs in Ireland are growing faster than wage costs

Figure 2: Annual growth in wage and non-wage costs (Q3 2023)



Source: Eurostat
Note: These data are sourced from employer surveys.

Labour costs can be calculated on either a per-hour or per-employee basis. Growth in these measures typically exhibit a close alignment to one another. However, since the onset of the pandemic the strong growth in employment has coincided with an initial sharp reduction and subsequent anaemic recovery in hours worked. The persistence of this [deviation between hours worked and employment growth](#) has meant average hours per employee remain below 2019 levels. As a result, hourly labour costs have increased for businesses, but declines in average hours worked continue to damp aggregate earnings growth on a per employee basis. On the basis of National Accounts data (in contrast to employer-survey data), the domestic-dominated sectors annual growth in labour costs per employee in 2023 has averaged 2.9 per cent relative to 4.8 per cent in labour costs per hour (Figure 3).⁶ If this divergence persists as employment growth eases then inflationary pressures could be maintained, as businesses seek to adjust to higher per hour labour costs. At the same time, the extent of real wage

⁶ We estimate the number of employees in domestic sectors from Labour Force Survey data using the same NACE codes for Gross Value Added (01-18, 22-25, 27-30, 33-56, 59-60, 64-75, 78-98). This sectoral approach may be an underestimation as CSO Business in Ireland 2021 uses firm level data to state foreign-owned enterprises employ 28 per cent of employees relative to 14 per cent in the above method.

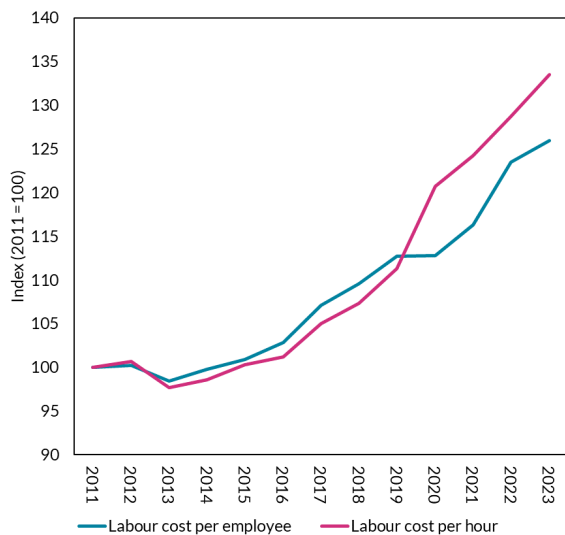


catch-up and subsequent increase in household disposable income supporting domestic demand could be more limited.

A decline in average hours worked is a feature of [many euro area labour markets](#), with corresponding issues for labour costs on a per employee and per hour basis. National Accounts data for Q3 2023 show that labour costs per hour for Ireland, inclusive of the multinational-dominated sectors, increased by 3.5 per cent annually with larger growth rates evident in the five largest euro area economies (Figure 4). Labour cost per employee or compensation per employee (CPE) increased comparatively by 1.9 per cent. A convergence in average hours worked towards pre-pandemic levels would alleviate discrepancies between labour cost measures. However, analysis to date suggests that hours worked developments across Europe since 2020 may be structural and pre-date trends observed in the aftermath of the pandemic ([Astinova et al, 2024](#)).

Labour cost measures have diverged as employment growth has outstripped that of hours worked

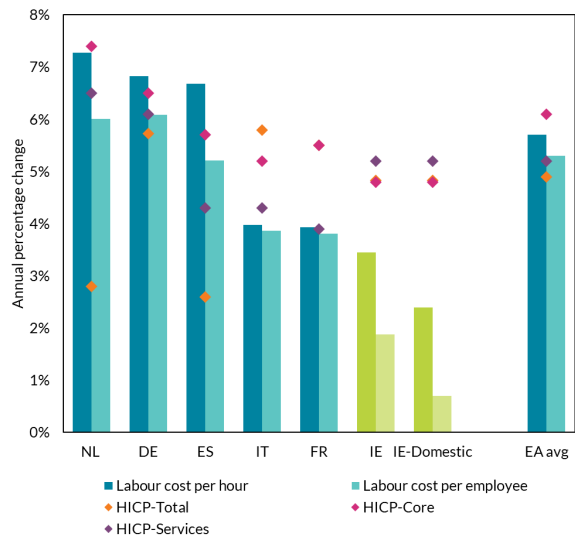
Figure 3: Indexation of annual average labour cost per employee and labour cost per hour in domestic sectors



Source: CSO

Irish labour cost growth is lower relative to average euro area developments

Figure 4: Annual change in labour costs and HICP measures (Q3 2023)



Source: CSO and Eurostat

Note: These data are sourced from National Accounts

Minimising the extent to which rising hourly labour costs passes through to consumer prices charged by businesses requires those rising costs to be absorbed through either higher productivity or lower profit margins. Unit labour costs (ULC) are a summary measure combining the average cost of labour per unit of output and the productivity of labour. Growth in ULC arises where labour costs are rising faster than labour productivity. The pace of increase in ULC per hour in 2023 is estimated to have



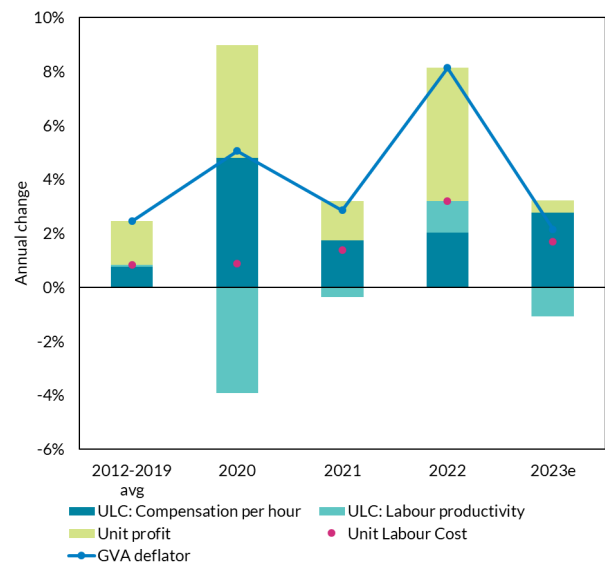
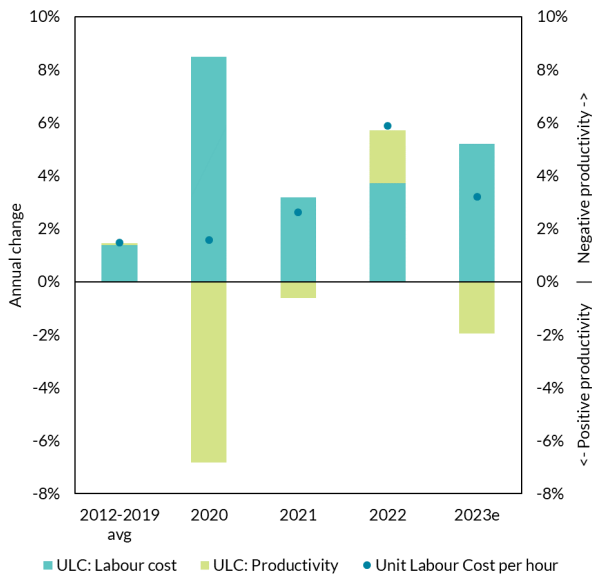
eased to 3.2 per cent, still above but converging toward its average growth rate over the 2012 to 2019 period (Figure 5). In contrast to the experience of that period, ULC growth in 2023 saw the higher growth in labour costs per hour (up 5.2 per cent) partially offset by productivity growth (down 2.0 per cent).⁷ Domestic inflationary pressures in the presence of higher labour cost are also a function of the capacity of businesses to absorb those higher costs through lower profit margins. Inflationary pressures during 2022 reflected a rise in both ULC and in unit profits, a proxy for profit margins (Figure 6). The disinflation that began in 2023, however, corresponded with profit margins being relatively flat, alongside the rise in labour productivity and higher wage and non-wage labour costs noted above.

Productivity growth has partially offset the most recent rise in labour costs

Easing of inflationary pressures as productivity growth and lower profit margins offset higher labour costs

Figure 5: Contribution of annual change in labour cost and productivity to unit labour cost growth (Ireland – Domestic sector)

Figure 6: Annual change in GVA deflator and contributions from unit labour costs and unit profits (Ireland – Domestic sector)



Source: CSO Productivity in Ireland Quarterly Frontier Release and Central Bank staff estimates.
Note: Data refer to domestically-dominated sectors, excluding rental and leasing. See Background Notes in the [Productivity in Ireland Frontier Release](#).

Source: CSO Productivity in Ireland Quarterly Frontier Release and Central Bank staff estimates.
Note: Data refer to domestically-dominated sectors, excluding rental and leasing. See Background Notes in the [Productivity in Ireland Frontier Release](#). Unit profits are roughly equivalent to an EBITDA margin in a company's financial accounts.

⁷ Labour costs or labour compensation includes wages and salaries (wage costs) as well as employer social insurance or pension contributions (non-wage costs). If labour costs rise faster than productivity, then ULC increases, and its contribution to domestic inflation may also increase.



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The baseline projection in this *Bulletin* is for wage growth per employee in Ireland averaging 4.7 per cent per year in nominal terms out to 2026, with overall labour costs rising at a similar pace. The slowdown in average hours worked across the economy will likely see a higher growth rate of labour costs in per hour terms, with the commensurate implications for business costs. In order for ULC and inflationary pressures to remain contained alongside rising hourly labour costs, productivity growth in the domestically-dominated sectors of the economy will have to be higher than the average witnessed over the 2012 to 2019 period and/or growth in profit margins would have to be below that witnessed in those years. Our estimates for the domestic sector in Ireland show nominal ULC per hour averaging 3.2 per cent annual growth in 2023, which is below the realised data up to Q3 2023 euro area average (6.3 per cent) and the total Irish economy including multinational-dominated sectors (6.9 per cent). While a level of wage catch-up is expected to compensate for elevated inflation levels, ULC growth must be monitored to assess implications for the economy and wider competitiveness issues.