Banc Ceannais na hÉireann
Central Bank of Ireland

Eurosystem

Quarterly Bulletin

QB3 – September 2023

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Notes

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3. In some cases, owing to the rounding of figures, components do not add to the totals shown.

4. The method of seasonal adjustment used in the Bank is that of the US Bureau of the Census X-11 variant.

5. Annual rates of change are annual extrapolations of specific period-to-period percentage changes.

6. The following symbols are used:

e	**estimated**
n.a.	**not available**
p	**provisional**
. .	**no figure to be expected**
r	**revised**
–	**nil or negligible**
q	**quarter**
f	**forecast**

7. Data on euro exchange rates are available on our website at www.centralbank.ie and by telephone at +353 (0)1 224 5800.

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Comment

The intensity of domestic and some global capacity constraints, and their drag on growth in the domestic economy, is becoming more evident. Growth rates in the domestic economy, which were always going to ease from their post-pandemic surge, are expected to slow further as capacity constraints have become more binding. Tighter monetary policy, necessary to restore euro area inflation to its 2 per cent target, is gradually beginning to weigh on demand conditions both in Ireland and abroad. Inflation is easing, although it remains high, with its future path being sensitive to further global shocks that might materialise and the persistence of buoyant domestic demand.

Relative to the previous *Quarterly Bulletin* in June, the most significant change informing the economic outlook are some significant revisions to National Accounts data for recent years by the Central Statistics Office (CSO). These revisions mean that the domestic economy, as measured by Modified Domestic Demand (MDD), was some 3 per cent larger than previously thought last year. In and of itself this is a positive development, but when placed in the context of already obvious capacity constraints, it highlights the strength of underlying demand relative to supply conditions putting upward pressure on inflation.

The implications of these data revisions for the outlook are two-fold. First, the stronger post-pandemic recovery is now giving way to a more gradual pace of growth, as capacity constraints are in effect more binding. The domestic economy has been growing above trend, posing upside pressure on inflation. Second, the "excess" savings accumulated by the household sector since the pandemic that remain to support consumption and investment in the future are lower than previously estimated, albeit that they are still substantial (Box C). As a result, the potential for upside risk to the consumption outlook is diminished. Overall, with the domestic economy having grown more strongly than previously thought in 2022, the capacity of the economy to sustainably increase the supply of goods and services in-line with underlying demand conditions is diminished. The result of this is slower growth in MDD over the forecast horizon in this *Bulletin*, and marginally more upside risk to the inflation outlook.

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The outlook for global growth has modestly improved in recent months but remains weak by historical standards. Irish export growth has been muted in the first half of 2023, in both exports out of the State and contract-manufacturing exports undertaken abroad on behalf of Irish resident multi-natiaterprises (MNEs). The pharmaceuticals and information communication technology (ICT) sectors dominate these trends for Ireland. On the pharmaceuticals side, the slowdown in cross-border exports from Ireland likely reflects a reversion to more normal levels of activity, which had been boosted by pandemic-related production, in particular for vaccines. On the ICT side, there may be more fundamental cyclical and structural issues at play, with the higher interest rate environment, lower growth prospects in China and potential trade fragmentation weighing on growth (Box D). Going forward, there remains significant uncertainty around the precise path for export growth, the contribution of net exports and foreign-owned multi-national enterprises (MNE) to GDP growth, and how that will influence corporation tax receipts in the years ahead.

As in other countries, one of the key capacity constraints facing the Irish economy is a tight labour market, which has been particularly evident in sectors such as public administration, health, financial and professional services. Vacancy rates in these sectors have remained high in Ireland, although economy-wide vacancy rates have begun to ease back from historical highs in most recent data. The level of employment in the economy is also at an historical high of over 2.6 million, with the unemployment rate remaining just above 4 per cent – a level expected to be maintained over the forecast horizon. However, the pace of growth in employment is slowing, as the economy is operating at full employment. This slower growth is led by the private sector, as both the vacancy rate and indicators of labour demand are rising in sectors such as public administration and health.

On the basis of the mis-match between labour demand and supply that has been evident in Ireland, growth in hourly wage rates has been robust at approximately 4 to 5 per cent in recent quarters. However, it has not been excessive and is currently marginally below the euro area average. Indeed wage growth has been somewhat muted relative to what would have been expected based on conventional models in recent years. In a *Signed Article* accompanying this *Bulletin*, Boyd, Keenan and McIndoe-Calder (2023) examine the determinants of earnings growth and the potential reasons that might explain wage rate developments during the recent period of high inflation. The analysis points to some possible structural changes occurring in the labour force and the role of fiscal support to households through the cost-of-living measures in containing

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wage demands to date. However, the full effect of higher inflation, and its impact on inflation expectations, is yet to be fully reflected in wage rate developments. This, combined with the only gradual re-balancing of labour supply and demand over the forecast horizon, underpins the extent of wage growth and the gradual restoration of real wage levels to pre-pandemic levels foreseen in this *Bulletin*.

Higher labour costs arising in the absence of sufficient productivity growth and/or reduced profit margins are the factors that underpin domestically driven inflation, factors which can be exacerbated when an economy is operating at full capacity. Consumer price inflation in Ireland, as measured by the Harmonised Index of Consumer Prices (HICP), remains high, but is easing and is expected to continue to reduce further over the forecast horizon. Supply-side factors were the main drivers of the increase in inflation seen in the first half of 2022, and the subsequent disinflation evident since the last quarter of last year. At a headline level, this reflects the pass-through to consumer prices of developments in global commodity markets and in global supply chains, which in turn have been influenced by the Russian war in Ukraine, re-orientation of global value chains, and unfavourable weather conditions in many parts of the globe.[1] Demand conditions have remained prominent as a driver of services inflation, which is typically more domestically determined. The forecast of lower inflation out to 2025 in this *Bulletin* remains conditional on both global and domestic supply conditions continuing to become more benign, alongside more muted growth in domestic demand.

The transmission of tighter monetary policy is expected to play an increasing role in containing demand conditions and contributing to lower inflation as the forecast horizon proceeds. A key channel of that transmission is the pass-through from policy rates to retail interest rates on loans and deposits for households and businesses offered by the banking system. Evidence suggests that pass-through in Ireland to new mortgage lending rates and household deposit rates has been weaker so far relative to the rest of the euro area and relative to the last tightening cycle.[2] In order to restore price stability for the benefit of euro area households and businesses, the ECB Governing Council have raised policy interest rates by 4.5 per cent since July 2022. Based on their assessment of currently available data, the Governing Council judge that the policy rates are now at levels that, if maintained for a sufficiently long duration, will be appropriately restrictive to make a substantial contribution to to the

[1] See McLaughlin and Conefrey (2023) for a discussion of the supply and demand determinants of recent inflation in Ireland.
[2] See Byrne and Foster (2023) for a discussion on interest rate pass-through in the euro area.

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timely return of euro area inflation to target.Effective transmission of monetary policy to the Irish and wider euro area economy via the banking system is required to return euro area inflation to 2 per cent.

Given that the easing of domestic inflationary pressures will depend on the relative balance between domestic demand and supply conditions, it remains important that domestic policy does not work at cross-purposes to what monetary policy is trying to achieve. While not evident to date, if there were a more protracted period of high inflation in Ireland relative to the rest of the euro area in the future, that would ultimately prove damaging from a competitiveness perspective and reduce the scope for sustainable growth in Irish living standards. Consequently, in the near-term it will be important to ensure that the overall stance of fiscal policy is appropriate to contain demand, while enabling greater supply capacity to occur in the economy. The Government's Summer Economic Statement (SES), and the potential for additional stimulus over and above the SES parameters on Budget day, indicates a procyclical shift in the fiscal stance relative to previous plans. This would amplify demand in an economy already operating at capacity, and risks leading to inflation being higher in Ireland for longer than would otherwise be the case. Within the bounds of an appropriate fiscal stance which maintains near-term macroeconomic stability, sustainably funded and appropriately phased capital expenditure is necessary to address the infrastructure challenges in housing, climate change mitigation and the transition to net carbon neutrality. In addition, the public finances are in a unique position to ensure medium-to-longer term resilience, while seeing a stable reduction in the Government debt ratio (Box E). This can be achieved by ensuring that windfall gains from excess corporation tax are saved in a long-term savings fund over the coming years. Ensuring that highly concentrated, and potentially volatile corporation tax receipts are not immediately relied upon for permanent current expenditure is essential. It is therefore welcome that the Government is taking steps to establish this fund and to clarify details over its management. An appropriately resourced and managed fund has the potential to contribute to partially addressing the known costs of an ageing population that will emerge from the 2030's onwards.

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An Timpeallacht Gheilleagrach

Tá déine na srianta acmhainne intíre agus roinnt srianta acmhainne domhanda, mar aon lena sracadh ar fhás sa gheilleagar intíre, ag éirí níos soiléire. Maidir le rátaí fáis sa gheilleagar intíre, a bhí ceaptha i gcónaí maolú ón mborradh iarphaindéime, meastar go moilleoidh siad arís toisc go bhfuil srianta acmhainne ag éirí níos ceangailtí. Tá beartas airgeadaíochta níos déine, atá ag teastáil chun boilsciú sa limistéar euro a thabhairt ar ais chuig sprioc 2 faoin gcéad, ag cur isteach de réir a chéile ar dhálaí éilimh anseo in Éirinn agus thar lear. Cé go bhfuil boilsciú ag maolú, tá sé ard i gcónaí, agus tá conair an bhoilscithe íogaireach d'aon turraingí breise domhanda a thiocfaidh chun cinn agus do sheasmhacht an éilimh intíre bhuacaigh.

I gcomparáid leis an bh*Faisnéis Ráithiúil* roimhe seo a foilsíodh i mí an Mheithimh, is iad athbhreithnithe suntasacha ar na sonraí Cuntas Náisiúnta le blianta beaga anuas ag an bPríomh-Oifig Staidrimh (CSO) is mó atá mar bhonn eolais don ionchas eacnamaíoch. Ciallaíonn na hathbhreithnithe sin go bhfuil an geilleagar intíre, mar a thomhaistear é le hÉileamh Modhnaithe Intíre, 3 faoin gcéad níos mó ná mar a ceapadh anuraidh. Forbairt dhearfach atá sa mhéid seo ann féin, ach nuair a chuirtear san áireamh go bhfuil srianta acmhainne soiléire ann cheana féin, léiríonn sé neart an bhunéilimh i gcomparáid le dálaí soláthair a chuireann brú aníos ar bhoilsciú.

Tá dhá impleacht ag na hathbhreithnithe sonraí seo don ionchas. Ar an gcéad dul síos, tá luas céimseach fáis ag teacht in áit an téarnaimh láidir iarphaindéime, ó tharla go bhfuil srianta acmhainne níos ceangailtí iarbhír. Tá an geilleagar intíre ag fás os cionn na treochta, rud a chuireann brú aníos ar bhoilsciú. Ar an dara dul síos, tá coigilteas "iomarcach" arna charnadh ag earnáil na dteaghlach ó aimsir na paindéime i leith, agus atá fós ann chun tacú le tomhaltas agus le hinfheistíocht amach anseo, níos ísle ná mar a measadh roimhe seo, cé go bhfuil sé suntasach go fóill (Bosca C). Dá thoradh sin, maolaítear an fhéidearthacht go mbeidh riosca ar an taobh thuas ann don ionchas maidir le tomhaltas. Tríd is tríd, i bhfianaise gur tháinig fás ní ba láidre ná mar a measadh in 2022 ar an ngeilleagar intíre, maolaítear cumas an gheilleagair soláthar earraí agus seirbhísí a mhéadú go

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hinbhuanaithe i gcomhréir le bundálaí éilimh. Mar thoradh air sin, tuartar fás níos moille ar MDD thar thréimhse na réamhaisnéise san *Fhaisnéis Ráithiúil* seo, mar aon le beagáinín níos mó riosca ar an taobh thuas don ionchas maidir le boilsciú.

Tá an t-ionchas don fhás domhanda feabhsaithe beagáinín le míonna beaga anuas ach tá sé lag i gcónaí i gcomparáid le leibhéil stairiúla. Bhí maolú ar fhás ar onnmhairí na hÉireann sa chéad leath de 2023, lena n-áirítear onnmhairí amach as an Stát agus onnmhairí monararaíochta conartha a dhéantar thar lear thar ceann fiontar ilnáisiúnta atá cónaitheach in Éirinn. An earnáil cógaisíochta agus an earnáil teicneolaíochta faisnéise is cumarsáide (TFC) is mó atá taobh thiar na treochtaí seo i gcomhthéacs na hÉireann. Ó thaobh na cógaisíochta de, is dócha go léiríonn an moilliú ar onnmhairí trasteorann ó Éirinn go bhfuiltear ag filleadh ar ghnáthleibhéil gníomhaíochta arís, gníomhaíocht a bhí neartaithe ag táirgeacht a bhain leis an bpaindéim, go háirithe i ndáil le vacsaíní. Ó thaobh TFC de, seans go bhfuil saincheisteanna timthriallacha agus struchtúracha níos bunúsaí i gceist, le timpeallacht na rátaí úis níos airde, ionchais fáis níos ísle sa tSín agus ilroinnt trádála ionchasach ag cur isteach ar fhás (Bosca D). Ag féachaint romhainn, tá éiginnteacht shuntasach ann maidir le conair an fháis ar onnmhairí agus maidir leis an méid a rannchuideoidh glan-onnmhairí agus fiontair ilnáisiúnta le fás ar OTI, agus maidir leis an tionchar a bheidh aige sin ar fháltais ó cháin chorparáide sna blianta atá romhainn.

Mar aon le tíortha eile, tá margadh saothair dian mar cheann de na príomhshrianta acmhainne atá roimh gheilleagar na hÉireann, rud atá le feiceáil go soiléir in earnálacha amhail riarachán poiblí, sláinte, airgeadas agus seirbhísí gairmiúla. Tá folúntais sna hearnálacha sin ard i gcónaí in Éirinn, cé gur léir ó na sonraí is déanaí go bhfuil rátaí folúntais ar fud an gheilleagair ag maolú ó leibhéil a bhí ní b'airde ná riamh. Tá an leibhéal fostaíochta sa gheilleagar níos airde ná riamh freisin le breis agus 2.6 milliún, agus tá an ráta dífhostaíochta beagáinín os cionn 4 faoin gcéad - agus meastar go mairfidh an leibhéal sin thar thréimhse na réamhaisnéise. Mar sin féin, tá luas an fháis ar fhostaíocht ag moilliú, ó tharla go bhfuil an geilleagar ag feidhmiú ag lánfhostaíocht. Tá an fás níos moille seo á threorú ag an earnáil phríobháideach, ó tharla go bhfuil an ráta folúntais agus táscairí lena léirítear éileamh saothair ag ardú in earnálacha ar nós riarachán poiblí agus sláinte.

Ar bhonn na neamhréire idir éileamh saothair agus soláthar saothair atá le feiceáil in Éirinn, tá an fás ar rátaí pá in aghaidh na huaire láidir ag tuairim is 4 go 5 faoin gcéad le ráithí beaga anuas. Ní raibh sé iomarcach, áfach, agus tá sé beagáinín faoi bhun an mheáin don limistéar euro faoi láthair. Go deimhin, tá fás

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pá sách maolaithe i gcoibhneas leis an méid a bheifí ag súil leis bunaithe ar shamhlacha traidisiúnta le blianta beaga anuas. In *Alt Sínithe* a ghabhann leis an bh*Faisnéis Ráithiúil* seo, déanann Boyd, Keenan agus McIndoe-Calder (2023) scrúdú ar na tosca a mbíonn tionchar acu ar fhás ar thuilleamh agus na cúiseanna féideartha lena míneofaí na forbairtí ar rátaí pá le linn na tréimhse de bhoilscí ard a bhí ann le déanaí. Tugann an anailís le tuiscint go bhfuil athruithe struchtúracha ag tarlú sa lucht saothair agus go bhfuil ról ag an tacaíocht fhioscach arna tabhairt do theaghlaigh trí bhearta costais mhaireachtála ó thaobh éileamh pá a shrianadh go dtí seo. Ar a shon sin, níl éifeacht iomlán an bhoilscithe níos airde, nó a thionchar ar ionchais maidir le boilsciú, le feiceáil go hiomlán go fóill sna forbairtí ar rátaí pá. Tá sé seo, in éineacht leis an athchothromú de réir a chéile ar éileamh saothair agus ar sholáthar saothair thar thréimhse na réamhaisnéise, mar bhonn taca faoi mhéid an fháis pá atá tuartha san *Fhaisnéis Ráithiúil* seo agus faoi athbhunú céimseach leibhéil an fhíorphá go dtí leibhéil réamh-phaindéime.

Is iad costais níos airde saothair a thagann chun cinn in éagmais fás leordhóthanach ar tháirgiúlacht, agus/nó corrlaigh bhrabúis laghdaithe, na tosca atá taobh thiar den bhoilsciú arna spreagadh go hintíre, tosca a éiríonn níos géire nuair a bhíonn an geilleagar ag feidhmiú ar a lánacmhainn. Tá boilsciú ar phraghsanna do thomhaltóirí in Éirinn, arna thomhas leis an Innéacs Comhchuibhithe ar Phraghsanna do Thomhaltóirí (TCPT), ard i gcónaí, ach tá sé ag maolú agus meastar go aghdóidh sé tuilleadh thar thréimhse na réamhaisnéise. Ba iad tosca soláthair príomhspreagthaí an mhéadaithe ar bhoilsciú a chonacthas sa chéad leath de 2022, agus príomhspreagthaí an díbhoilscithe atá feicthe ó ráithe dheireanach na bliana seo caite. Ag leibhéal príomha, léiríonn sé seo go bhfuil forbairtí i margaí tráchtearraí domhanda agus i slabhraí soláthair domhanda á gcur ar aghaidh chuig praghsanna tomhaltóirí, ar forbairtí iad atá faoi thionchar ag cogadh na Rúise san Úcráin, ag treoshuíomh nua slabhraí luacha domhanda, agus ag dálaí aimsire neamhfhabhracha.[3] Tá boilsciú ar sheirbhísí, a chinntear ar bhonn intíre go hiondúil, á spreagadh go mór ag dálaí éilimh go fóill. Tá an réamhaisnéis san *Fhaisnéis Ráithiúil* seo maidir le boilsciú níos ísle go dtí 2025 ag brath i gcónaí ar fheabhsú dálaí soláthair domhanda agus intíre araon, i dteannta fás maolaithe ar éileamh intíre.

Meastar go mbeidh ról níos mó ag tarchur beartais airgeadaíochta níos déine maidir le dálaí éilimh a shrianadh agus rannchuidiú le boilsciú níos ísle le himeacht thréimhse na réamhaisnéise. Príomhchainéal an tarchuir sin is ea rátaí

[3] Féach McLaughlin and Conefrey (2023) le haghaidh plé ar na tosca soláthair agus éilimh a raibh tionchar acu ar bhoilsciú le déanaí in Éirinn.

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beartais a chur ar aghaidh chuig rátaí úis miondíola ar iasachtaí agus ar thaiscí do theaghlaigh agus do ghnóthaí arna dtairiscint ag an gcóras baincéireachta. Tugann an fhianaise le tuiscint gur laige an cur ar aghaidh chuig rátaí iasachta morgáiste nua agus rátaí taiscí do theaghlaigh in Éirinn go dtí seo i gcomparáid leis an gcuid eile den limistéar euro agus i gcomparáid leis an timthriall géaraithe deireanach.[4] D'fhonn cobhsaíocht praghsanna a athbhunú chun leasa na dteaghlach agus na ngnóthaí sa limistéar euro, tá rátaí úis beartais ardaithe ag Comhairle Rialaithe BCE faoi 4.5 faoin gcéad ó mhí Iúil 2022. Bunaithe ar a measúnú ar na sonraí atá ar fáil faoi láthair, measann an Chomhairle Rialaithe go bhfuil rátaí beartais ag leibhéil anois a bheidh sách sriantach, má choimeádtar ar bun iad go ceann tréimhse sách fada, chun rannchuidiú le filleadh ar bhonn tráthúil ar an sprioc do bhoilsciú an limistéir euro. Tá gá le tarchur éifeachtach beartais airgeadaíochta chuig geilleagar na hÉireann agus geilleagar an limistéir euro níós leithne tríd an gcóras baincéireachta chun go bhféadfar boilsciú sa limistéar euro a thabhairt ar ais chuig sprioc 2 faoin gcéad.

Ó tharla go mbeidh maolú brúnna boilscitheacha intíre ag brath ar an gcothromaíocht idir dálaí éilimh agus soláthair intíre, tá sé tábhachtach nach mbeidh an beartas intíre ag teacht salach ar chuspóirí an bheartais airgeadaíochta. Cé nach léir go fóill é, dá mbeadh tréimhse fhadaithe de bhoilsciú ard in Éirinn amach anseo i gcoibhneas leis an gcuid eile den limistéar euro, dhéanfadh sé damáiste don iomaíochas agus laghdódh sé an scóip a bheadh ann d'fhás inbhuanaithe ar chaighdeáin mhaireachtála in Éirinn. Dá bhrí sin, tá sé tábhachtach a chinntiú sa ghearrthéarma go bhfuil seasamh foriomlán an bheartais fhioscaigh oiriúnach chun éileamh a shrianadh, fad a éascóidh sé acmhainn soláthair níos fearr sa gheilleagar. Le Ráiteas Geilleagair an tSamhraidh (SES) ón Rialtas, agus leis an bhféidearthacht atá ann maidir le spreagadh breise de bhreis ar pharaiméadair SES ar lá an Bhuiséid, tugtar le tuiscint go bhfuil athrú comhthimthriallach ar an seasamh fioscach i gcomparáid le pleananna roimhe seo. Mhéadódh sé seo éileamh i ngeilleagar atá ag feidhmiú cheana féin ar a acmhainn, agus mhéadódh sé an baol go mbeadh an boilsciú in Éirinn ag leibhéal níos airde ar feadh tréimhse níos faide ná mar a bheadh i gceist murach sin. Laistigh de shrianta seasaimh fhioscaigh iomchuí lena gcoimeádtar cobhsaíocht mhaicreacnamaíoch ar bun sa ghearrthéarma, tá gá le caiteachas caipitiúil atá maoinithe ar mhodh inbhuanaithe agus céimnithe go cuí chun dul i ngleic le dúshláin bonneagair a bhaineann le tithíocht, le maolú ar athrú aeráide agus leis an aistriú chuig neodracht glanastaíochtaí carbóin. Ina theannta sin, tá deis ar leith anois athléimneacht a áirithiú sa mheantéarma agus san fhadtéarma

[4] Féach Byrne and Foster (2023) le haghaidh plé ar chur ar aghaidh rátaí úis sa limistéar euro.

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leis an airgeadas poiblí, fad a bheidh laghdú cobhsaí le feiceáil ar chóimheas fiachais an rialtais (Bosca E). Is féidir é seo a dhéanamh trína chinntiú go ndéanfar amhantar gnóthachan ó cháin chorparáide a chur i dtaisce i gciste taisce fadtéarmach sna blianta atá amach romhainn. Tá sé ríthábhachtach a chinntiú nach mbeifear ag brath láithreach ar fháltais ó cháin chorparáide le haghaidh caiteachas reatha buan, ar fáltais iad atá comhchruinnithe agus ar féidir leo a bheith luaineach. Dá bhrí sin, fáiltítear roimh na bearta atá á nglacadh ag an Rialtas chun an ciste seo a bhunú agus chun soiléiriú a dhéanamh ar shonraí maidir le bainistiú an chiste sin. Le ciste a bheidh maoinithe agus bainistithe go cuí, is féidir aghaidh a thabhairt go páirteach ar na costais aitheanta a bhaineann le daonra atá ag dul in aois ó na 2030idí ar aghaidh.

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The Irish Economy

Overview

The economy is expected to continue to grow over the forecast horizon, but the pace of growth has been revised downwards since the last *Bulletin*. Revised National Accounts data published by the CSO in July indicate that growth (measured by Modified Domestic Demand (MDD)) was more rapid in 2022 than initially reported, implying that the economy's post-pandemic recovery has been stronger than previously assessed. As capacity limits have become more binding and the impulse from external demand wanes, economic growth is expected to moderate. MDD is forecast to grow by 2.9 per cent this year and by 2.6 per cent in 2024 and 2.3 per cent in 2025.

Headline HICP inflation continues to decline from its peak in mid-2022 but the path back to sustainable rates of inflation is likely to be gradual and uneven. The contribution of external factors to headline inflation in Ireland has declined with domestic factors playing an increasingly important role in influencing inflation dynamics in 2023 and over the forecast horizon. Inflation is forecast to moderate to 3.2 and 2.3 per cent in 2024 and 2025, respectively, as energy, food and industrial goods price growth slows, offsetting more persistent upward pressure on inflation from services.

Employment growth is forecast to slow in the coming years as capacity constraints in the labour market and broader economy limit the scope for expansion in the labour force. The economy has reached full employment, enabled by inward migration, and measures of labour market slack are low. The pace of jobs growth is forecast to slow in the coming years as capacity constraints, including housing supply, bind further. With the unemployment rate projected to remain close to 4 per cent out to 2025, tight labour market conditions will place upward pressure on wages, allowing for a catch up in real incomes following the decline in 2022.

Downside risks to the growth outlook are more pronounced than at the time of the last *Bulletin*. Developments since June are consistent with more pronounced downside risks to growth and upside risk to inflation from weaker and more fragmented international trade. A more expansionary fiscal stance than previously announced for 2024 adds to the risk of higher inflation. The central forecasts are also contingent on energy prices continuing on their downward trajectory and monetary policy transmission proceeding in line with expectations.

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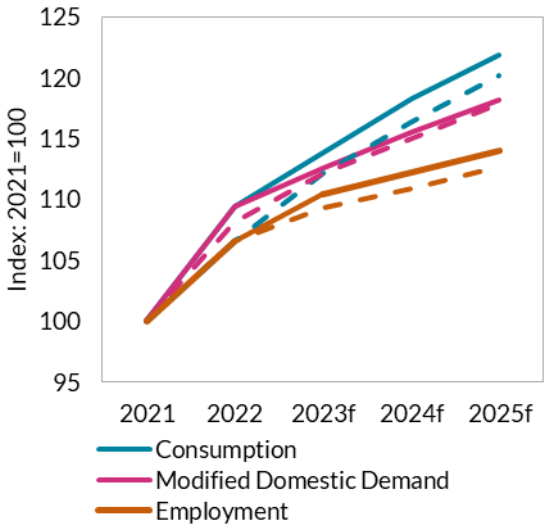
Table 1: Macroeconomic Projections for the Irish Economy
(annual percentage changes unless stated)

		2022	2023f	2024f	2025f
Constant prices	Modified Domestic Demand	9.5	2.9	2.6	2.3
	Gross Domestic Product	9.4	2.9	2.5	4.8
	Personal Consumer Expenditure	9.4	4.1	3.9	3.0
	Public Consumption	3.5	1.6	2.1	2.0
	Gross Fixed Capital Formation	5.1	-1.0	2.5	2.9
	Modified Gross Fixed Capital Formation	15.9	1.0	-0.2	0.6
	Exports of Goods and Services	13.9	0.2	2.9	5.2
	Imports of Goods and Services	15.9	-0.1	3.3	4.0
Total Employment (% change)		6.6	3.6	1.7	1.5
Unemployment Rate		4.5	4.3	4.3	4.2
Harmonised Index of Consumer Prices (HICP)		8.1	5.4	3.2	2.3
HICP Excluding Food and Energy (Core HICP)		4.6	4.6	3.1	2.7
Compensation per Employee		2.8	5.9	5.0	4.4
General Government Balance (% GNI*)		2.9	3.0	3.4	4.0
General Government Gross Debt (%GNI*)		82.3	76.7	73.4	70.0

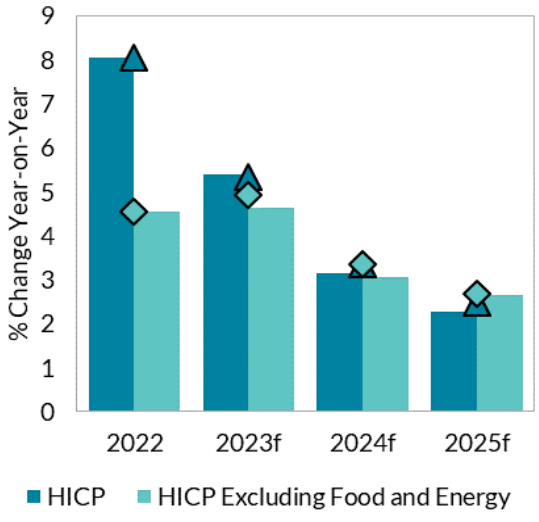
Revisions point to a higher level, but lower growth of domestic demand

Figure 1: MDD and Employment



Source: CSO and Central Bank of Ireland
Note: Dashed lines indicate forecast from QB2 (June 2023)

Figure 2: HICP Inflation



Source: CSO and Central Bank of Ireland
Note: Markers indicate forecast from QB2 (June 2023)

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Box A: The International Economic Outlook

By the Monetary Policy Division

According to the IMF World Economic Outlook (July 2023), global growth is projected to be higher than previous estimates, but it still remains weak by historical standards. Global growth is projected to fall from 3.5 per cent in 2022 to 3.0 per cent in both 2023 and 2024. Advanced economies have played a large part in the decline in global growth in 2022 and will continue to do so through 2023, with weaker manufacturing counteracting stronger services activity. For emerging economies, the growth outlook is holding relatively stable for 2023 and 2024, although with notable regional differences. Global headline inflation is expected to fall from 8.7 per cent in 2022 to 6.8 per cent in 2023 and 5.2 per cent in 2024. Heightened uncertainties surrounding weather related events and geopolitical tensions continue to pose potential risks to global economic landscape.

Euro area GDP is estimated to have risen in Q2 2023 by 0.3 per cent, after a decline of 0.1 per cent in Q1 2023. For the whole of 2022, euro area GDP increased by 3.5 per cent. Economic activity has proven to be stronger than expected in the beginning of 2023, which was in part driven by a boom in the tourism and services sector. However, consumer demand has, in the round, weighed on GDP growth in both Q1 and Q2 2023. ECB staff projections see growth remaining muted and picking up in 2024, as foreign demand approaches its pre-pandemic trend and real incomes grow. Growth in the euro area is projected to be 0.7 per cent in 2023, before rising to 1.0 per cent in 2024 and 1.5 per cent in 2025.

The labour market continues to remain historically strong in the euro area, with seasonally adjusted unemployment remaining stable at a record low level of 6.4% in July 2023. Employment continued to grow, albeit at a slightly slower pace, increasing by 0.2 per cent on a quarterly basis and 1.5 percent annually, in the flash estimate for Q2 2023. While leading indicators of wage dynamics suggest the recent acceleration in wage growth has plateaued, the rate of growth, in the range of 4-5 per cent, remains high, and if not accompanied by sufficient increases in productivity, poses upside pressure on inflation.

Euro area annual HICP inflation was 5.3 per cent in August, unchanged from July and down from 5.5 per cent in June. On a monthly basis, prices increased by 0.6 per cent in August. Between July and August, energy inflation increased (while remaining negative in annual terms), while services and non-energy industrial goods inflation both decelerated, to 5.5 and 4.8 per cent, respectively. Core inflation (i.e. HICP excluding energy, food, alcohol and tobacco, a key indicator of domestic inflationary pressures) remained elevated, but it declined from 5.5 per cent in July to 5.3 per cent in August. ECB staff

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projections see inflation averaging 5.6 per cent in 2023, 3.2 per cent in 2024 and 2.1 per cent in 2025.

In order to reinforce progress in bringing euro area inflation toward its 2 per cent target in a timely manner, the ECB governing council at its latest meeting in September decided to raise the three key interest rates by 25 basis points. Cumulatively, the key ECB interest rates have been raised by 450 basis points since the start of the hiking cycle last year; bringing the deposit facility rate, the main refinancing operations rate and the rate on the marginal lending facility to a level of 4.0 per cent, 4. 5 per cent and 4.75 per cent, respectively. Based on its current assessment, the Governing Council considers that policy rates are now at levels that, if maintained for a sufficiently long duration, will make a substantial contribution to bringing euro area inflation back to target. In order to determine the appropriate level and duration of restriction, the Governing Council will continue to take a data-dependant approach going forward, taking regard of the inflation outlook given incoming data, the path of underlying inflation, and the strength of monetary policy transmission.

In the United States, quarterly GDP rose at an annual rate of 2.1 per cent in the second quarter of 2023, after increasing at an annual rate of 2 per cent in the first quarter. The labour market remains strong, with the unemployment rate being 3.5 per cent in July. US inflation rose further by 0.2 per cent monthly in July, reaching an annual rate of 3.2 per cent, slightly higher than 3.0 percent in June; it had reached a peak of 9.1 percent in June 2022. Core inflation also rose by 0.2 per cent in July, reaching an annual rate of 4.7 per cent. In July, the Federal Open Market Committee (FOMC) of the U.S. Federal Reserve decided to raise the target range for the federal funds rate to 5.25 to 5.50 per cent. The FOMC stated that while inflation has somewhat moderated since the middle of last year, the process of getting inflation back down to the 2 per cent target still has a long way to go. The July rate hike came after the FOMC decided to maintain the target range in June in order to properly assess the state of the economy and the appropriate monetary policy stance. Recent resumptions of rate increases after a period of pause have also been made by both the Bank of Canada and the Reserve Bank of Australia.

In the United Kingdom, quarterly GDP increased by 0.2 per cent in the second quarter of 2023. The unemployment rate rose to 4.2 per cent in June from 4.0 per cent in May. UK CPI inflation was 6.8 per cent in July, down from 7.9 per cent in June, largely due to falling gas and electricity prices. Core inflation was 6.9 per cent in July, unchanged from June. At its August meeting, the Bank of England's Monetary Policy Committee (MPC) increased Bank Rate by 0.25 percentage points, to 5.25 per cent, to ensure inflation returns to the 2 per cent target.

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In China, following an initial reopening boost, the post-pandemic recovery is losing momentum. The People's Bank of China (PBOC) recently cut policy rates as it is dealing with inflation rates well below target, and potentially facing deflationary risks, with the one-year medium-term lending facility rate cut to 2.5 percent and the seven-day reverse repo rate cut to 1.8 percent in an effort to speed up monetary easing and to boost economic recovery. In Japan, inflation has recently been exceeding the Bank of Japan's (BOJ) target of 2 per cent, after several decades of the economy being in a deflationary environment. In July, the BOJ announced that, while the central target for the 10-year Japanese government bonds would remain 0 per cent (or within a range of -0.5 to 0.5 per cent), it will offer to purchase 10-year JGBs at a rate of 1 per cent, if necessary.

Recent Developments

The Irish economy grew strongly throughout 2022, as the domestic rebound from the pandemic and a relatively favourable global backdrop outweighed the drag of inflation on real incomes. Gross Domestic Product (GDP) grew by 9.4 per cent in 2022 driven by strong expansion in multinational-dominated sectors, while GNI* increased by 6.7 per cent in 2022. Modified Domestic Demand, another domestic measure of activity, expanded by 9.5 per cent in 2022. Compensation of Employees' share of GVA dropped to 25.3 per cent in 2022, while Net Operating Surplus and Consumption of Fixed Capital contributed 49.2 per cent and 25.3 per cent respectively.

With inflation easing, but remaining relatively high, and in the face of slowing global trade, the real domestic economy has remained broadly resilient in 2023. On an annual basis, real Modified Domestic Demand decreased by 0.3 per cent in Q2 2023 (Figure 3), owing mainly to lower modified investment, which in part reflects base effects relating to strong 2022 figures. However, Modified Domestic Demand increased by 3 per cent on a quarterly basis in Q2 2023, underpinned by strong government and private consumption.

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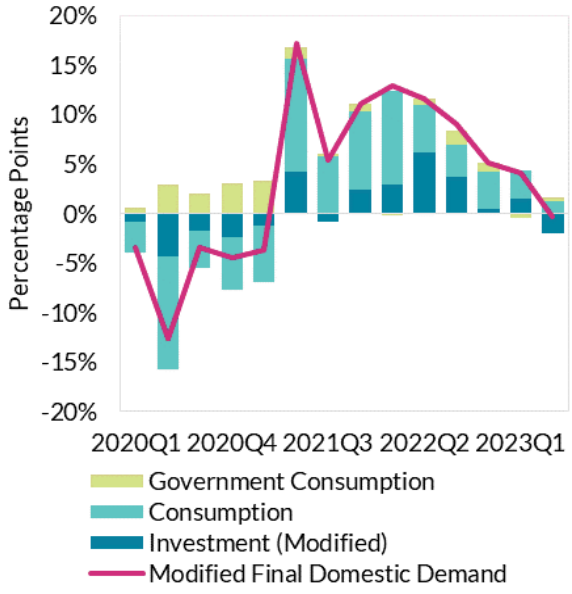
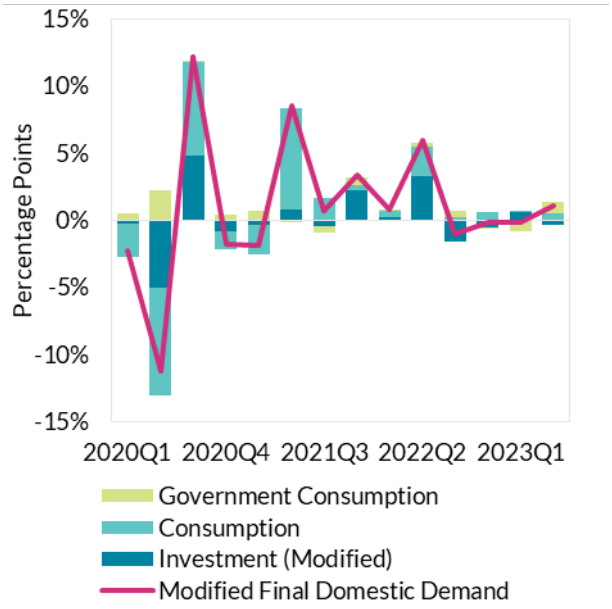
Modified Domestic Demand growth slowed slightly in Q2 2023

Figure 3: Contributions to Growth in Modified Final Domestic Demand Year on Year Growth



Source: CSO

Figure 4: Contributions to Growth in Modified Final Domestic Demand Quarter on Quarter Growth



Source: CSO
Note: Seasonally Adjusted data used for quarterly series

Total economic activity as measured by GDP decreased by 0.7 per cent in year-on-year terms in Q2 2023. This is a sharp slowdown relative to the experience in 2022 (Figure 5). The decline in GDP resulted from weaker investment, which decreased by 6.7 per cent on annual basis, and lower exports which decreased by 2.8 per cent in the year to Q2 2023. Imports also grew by close to 1.1 per cent on an annual basis. Quarter-on-quarter, GDP increased by just over 1.9 per cent.

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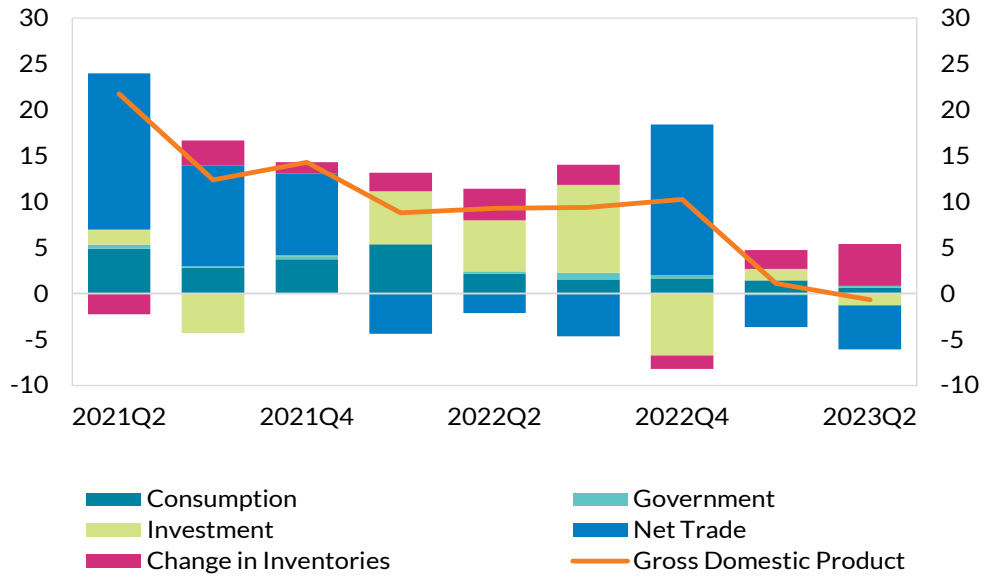
Lower net exports reduce GDP growth in first half of 2023

Figure 5: Contributions to year-on-year change in GDP (%)



Source: CSO

Gross Value Added (GVA) increased in Q2 2023, albeit at a slower rate than historical trends. GVA increased by 1.1 per cent annually in Q2 2023. Industry excluding construction grew by just 0.7 per cent on an annual basis, but increased by 2.3 per cent quarter-on-quarter. The Information Communication and Technology (ICT) sector rebounded somewhat in Q2 2023, and grew by 6.8 per cent on an annual basis (Figure 6). There was a notable rise in the domestic sectors with Financial and Insurance Activities increasing by 14.6 per cent and Distribution, Transport, Hotels and Restaurants increasing by 7.7 per cent in the year to Q2 2023. For the second consecutive quarter, the domestic sectors exhibited higher growth rates than foreign-owned MNE dominated sectors (Figure 7) and accounted for just under 47 per cent of total GVA in the economy in Q2 2023.

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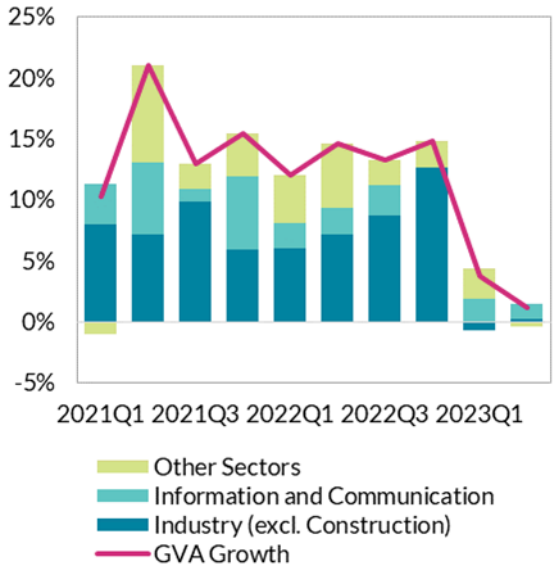
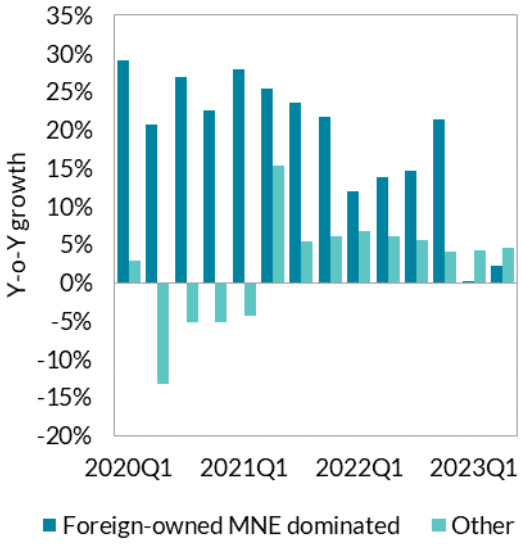
Gross Value Added is increasing at a slower rate, in particular foreign-owned MNEs.

Figure 6: Contributions to GVA Growth



Source: CSO

Figure 7: GVA Growth in MNEs and Domestic Sectors



Source: CSO

The Credit Union Consumer Sentiment Index has fallen for the first time in five months, but remains above its 2022 average. Consumer sentiment decreased to 62.3 in August 2023, from 64.5 in the previous month (Figure 8). The latest figures show some signs of resilience, although cost of living and job security concerns remain. The latest index reading is at its lowest level in four months. The volume of total retail sales showed signs of expansion in July increasing by 5.9 per cent on an annual basis, while an 8.6 per cent increase was recorded in value terms. When Motor Trades are excluded however, volumes rose by just 0.3 per cent when compared with July 2022, while values increased by 1.3 per cent.

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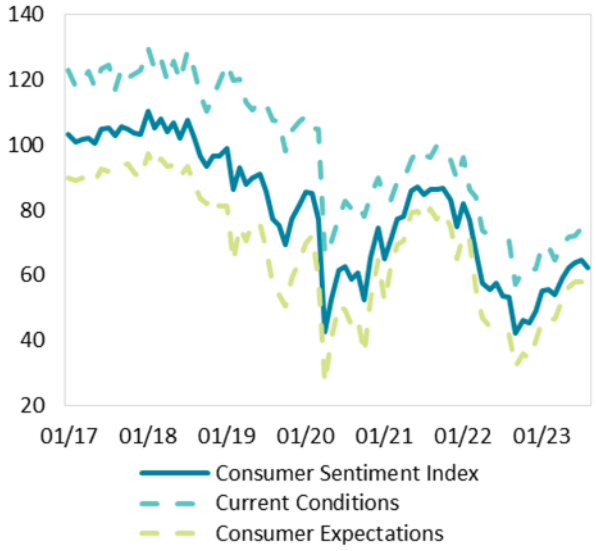
Consumer sentiment remains high, and PMIs present a broadly positive outlook.

Figure 8: Consumer Sentiment Index



Source: Credit Union Ireland

Figure 9: Purchasing Managers Indices

Source: CSO

The AIB PMI shows slight signs of expansion in the manufacturing sector, with the sector expanding for the first time in six months in August. The manufacturing PMI increased from 47 in July to 50.8 in August, driven primarily by an increase in new orders, and in particular new export orders (Figure 9). Stocks of finished goods also rose in the period, and both input and output prices continued to fall into August. The sector also saw its strongest rate of job creation in six months. Services activity continued to grow at a strong pace, albeit with the PMI decreasing slightly from 56.7 in July to 55 in August. Demand remained resilient, with new business volumes increasing, although slowdowns in the rate of expansion and new orders signalled a possible turning point in sentiment. Wage pressure has added to service input costs, while higher operating costs have continued to be passed on to output prices.

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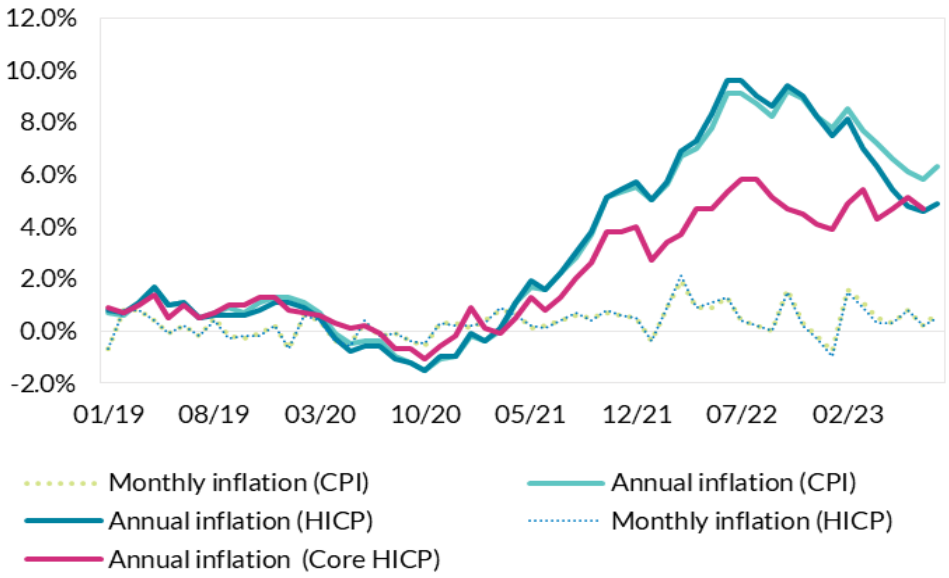
Inflation is easing but remains high

Figure 10: Consumer Price Inflation



Source: CSO

The headline rate of inflation has decelerated in 2023, with falling commodity prices beginning to feed through to consumer prices, yet core inflation has been more persistent. Headline prices were up by 4.9 per cent (HICP) over the year to August, with core inflation also reaching 4.9 per cent (Figure 10). The most notable changes in the year to August were increases in *Clothing & Footwear* (+4.2 per cent) and *Housing, Water, Electricity, Gas & Other Fuels* (+1.6 per cent). There were decreases in other subcomponents, such as *Recreation & Culture* (-0.9 per cent) and *Miscellaneous Goods & Services* (-0.2 per cent).

The labour market remains tight with the monthly unemployment rate measuring 4.1 per cent in August on a seasonally-adjusted basis. Revisions to the monthly series have resulted in the previously-recorded 20-year low of 3.8 per cent in May being adjusted upwards to 4.1 per cent where it has remained stable since. The CSO monthly payroll employee estimate increased annually by 2.6 per cent in June, the lowest rate of increase in over two years as pandemic-related distortions in official earnings data have largely subsided and there is a degree of competition amongst firms for additional labour.

Exchequer tax data in the year to August shows strong growth across income tax, VAT, and corporation tax. Total Exchequer tax revenue for the year so far is up 6.6 per cent (€3.3bn) compared to the same period in 2022. Despite August corporation tax coming in 36 per cent lower than August last year, cumulative corporation tax receipts are 7 per cent (€0.9bn) higher than in the

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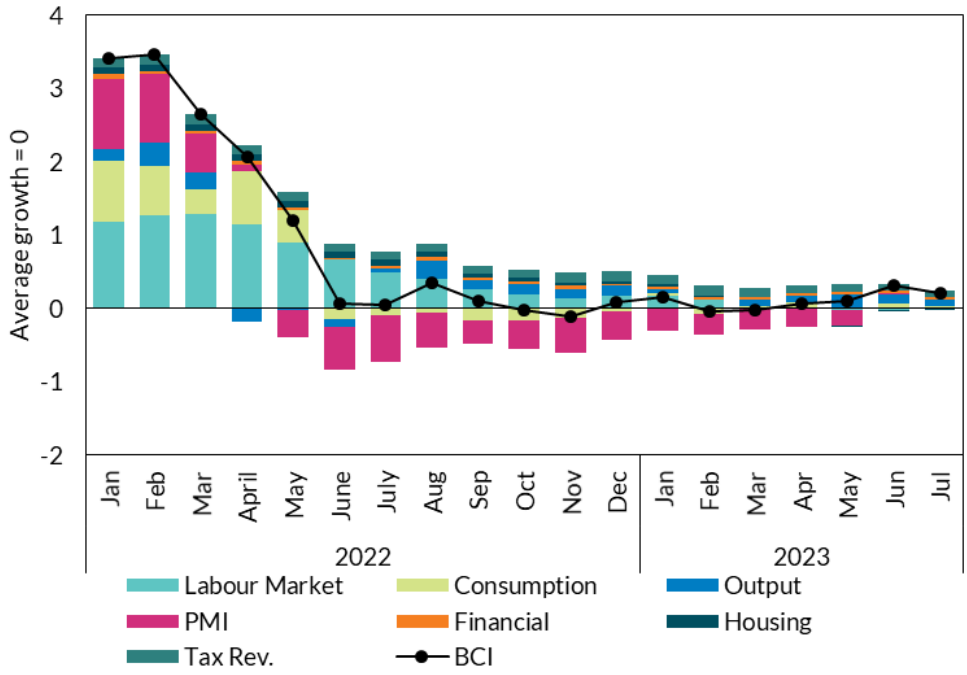
first eight months of last year. Income tax and VAT are up by 8 per cent and 11 per cent, respectively, in the year to August. Total gross voted expenditure increased by 9.5 per cent in the first eight months of the year, with particularly strong growth in capital spending (up 30 per cent). The continued growth in tax revenue is projected to lead to an increase in the budget surplus this year.

The Central Bank's Business Cycle Indicator (BCI) showed a slight pick-up in domestic economic activity towards the end of Q2 after remaining broadly flat over recent quarters. The positive estimates of the BCI for June and July were driven by the outturns of hard data such as tax revenue, retail sales, and indigenous sector output, and suggests that annual growth in economic activity was marginally above its historical average during these months (Figure 11). The PMIs contribution to the BCI has moved from negative to flat in June and July, reflecting longer-term trends in the PMIs such as continued strength in the employment outlook and the normalisation of input prices following their historical peak in the post-pandemic period. The labour market contribution to the BCI is also flat over recent months reflecting the unemployment rate remaining steady at around 4.1 per cent for the past 7 months.

The domestic economy is likely to be expanding through summer 2023

Figure 11: Central Bank's Business Cycle Indicator (BCI), (Jan 2022 – July 2023)



Source: Central Bank of Ireland

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Box B: Credit and deposits: An update on Irish household and business activity

By the Statistics Division

Lending to NFCs

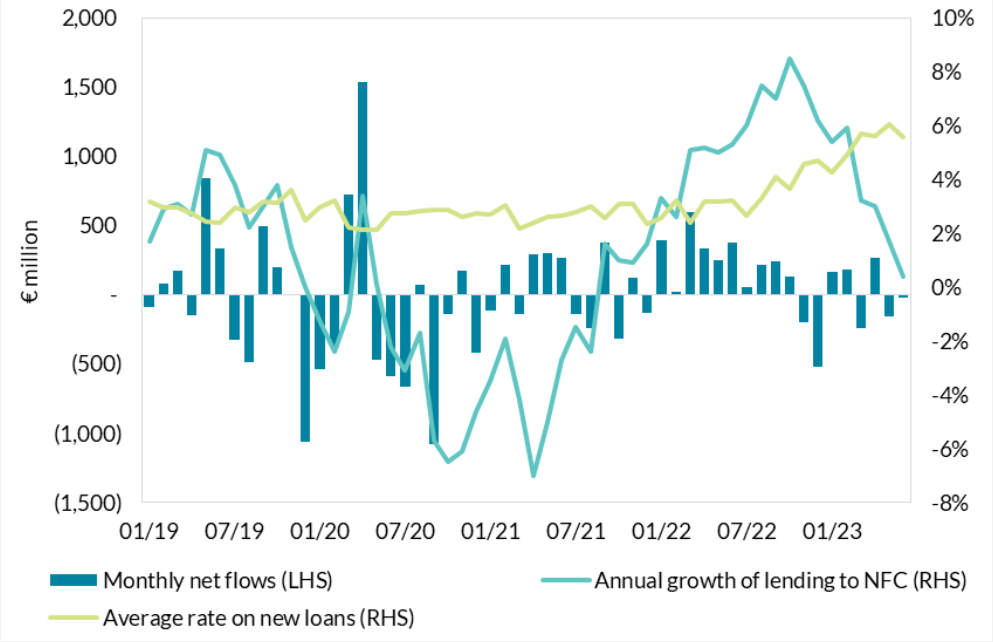
Outstanding bank loans to NFCs stood at €31.1 billion in June, which represents a 0.4 per cent increase compared to June 2022. Annual growth in NFC Outstanding loans has been easing since October 2022`, with the current pace of growth at its lowest level since August 2021, when outstanding loans to NFCs fell for the last time (Figure 1).

New lending during Q2 2023 dropped to €3.3 billion, compared to €3.7 billion at the end of the previous quarter and €4 billion in Q2 2022. Total new lending in Q2 2023 declined by 17.5 per cent year-on-year.

In terms of the breakdown of new loans, approximately 79 per cent of new lending in Q2 2023 were loans of more than €1 million, which tend to be linked to larger companies.

Annual growth of NFC lending at quarter-end approaches 0 per cent

Figure 1: Net lending flows to Non-Financial Corporations



Source: Central Bank of Ireland

The weighted average interest rate on new loans stood at 5.6 per cent in June 2023, a 235 basis points cumulative increase since June 2022 (Figure 2). Similarly, the average rate on outstanding amounts shows a 245 basis points cumulative increase, standing at 5.2 per cent at the end of June 2023 compared to 2.8 per cent in the previous year.

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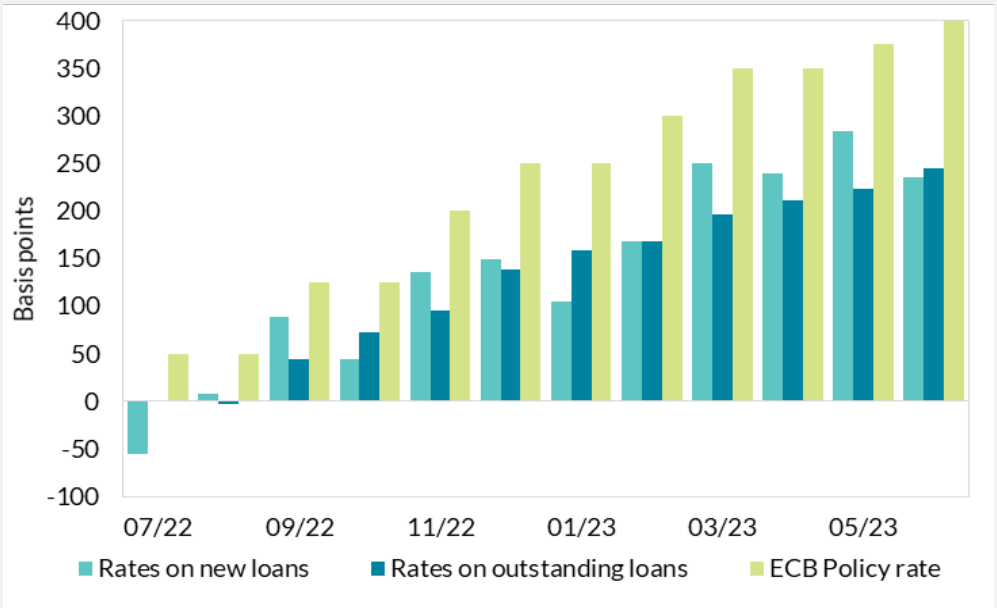
These developments are consistent with the latest results of the Bank Lending Survey, published in July 2023, in which banks reported a tightening of credit standards for firms in Q2 2023, while noting a slightly higher demand for credit. Banks expect additional tightening of credit standards in the upcoming quarter.

Average rate on outstanding NFC loans increases despite slight fall of rate on new loans

Figure 2: Cumulative increases in policy and NFC lending rates since June 2022



Source: Central Bank of Ireland and European Central Bank

Lending to SMEs

New lending to SMEs slightly increased in Q1 2023 to €985 million after a significant reduction in the previous quarter. However, it remains 2.7 per cent lower than in Q1 2022 (Figure 3). The average rate on new loans to SMEs has been rising since the start of the monetary policy tightening, but at a significantly slower pace in Q1 2023.

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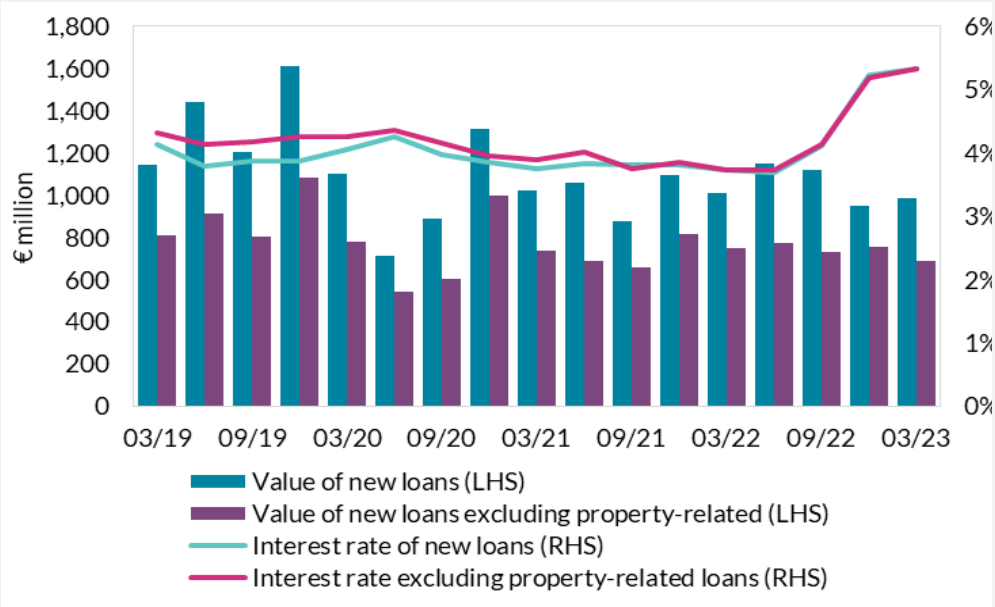
Average rate increases at a slower pace while new lending drops annually

Figure 3: New lending to SMEs and interest rates



Source: Central Bank of Ireland

Lending to households

Outstanding loans to households changed very little year-on-year in Q2 2023, reflecting growth in new consumer lending being offset by a slowdown in mortgage lending, particularly refinancing activity. The value of new mortgages lending in Q2 2023 (€2,429 million), was 14.8 per cent higher than new mortgages in Q2 2022. However, the annual growth has further slowed compared to Q4 2022 and Q1 2023, when new mortgages increased annually by 46.7 per cent and 39.5 per cent, respectively, also reflecting the strong rise in activity post-pandemic.

Banks did not a report tightening of credit standards for mortgages in Q2 2023. This is expected to change in Q3, which could lead to a further slowdown of lending activity for house purchase.

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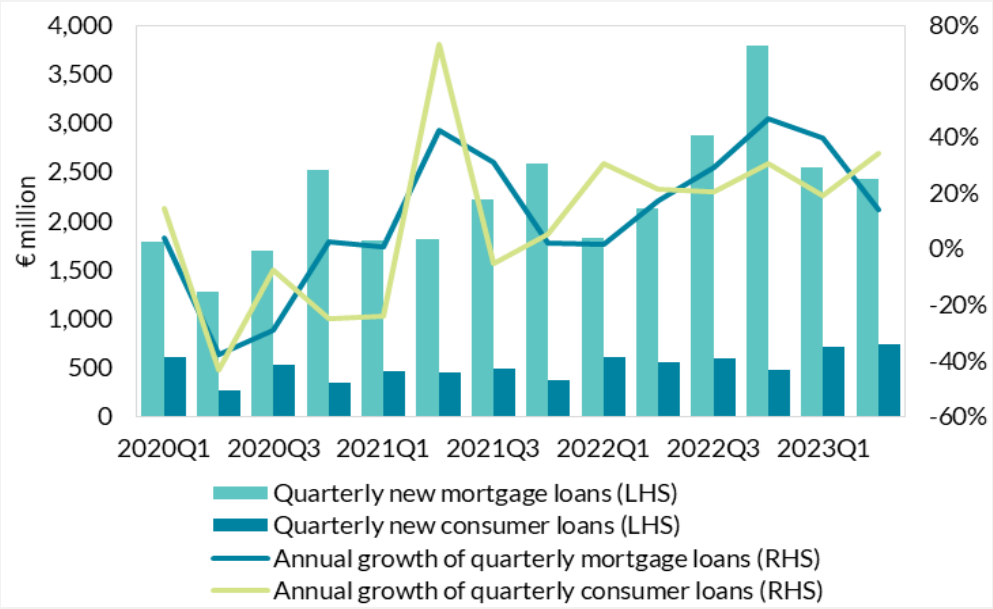
Slowdown of annual growth of new lending for house purchase and reduction with respect to the previous quarter

Figure 4: New lending to households by purpose



Source: Central Bank of Ireland

Average interest rates for new mortgage lending increased more slowly across euro area Member States in Q2 2023 than in the previous quarter (Figure 5). Malta and Cyprus were the only jurisdictions in which the average rates decreased, by 43 and 4 basis points, respectively.

Together with France, Ireland is one of the Member States in which the pace of rate increases accelerated in Q2 2023. As a result, Ireland stands close to the median in Q2 2023, while it was among the five euro area countries with the lowest average rates at the end of Q1 2023.

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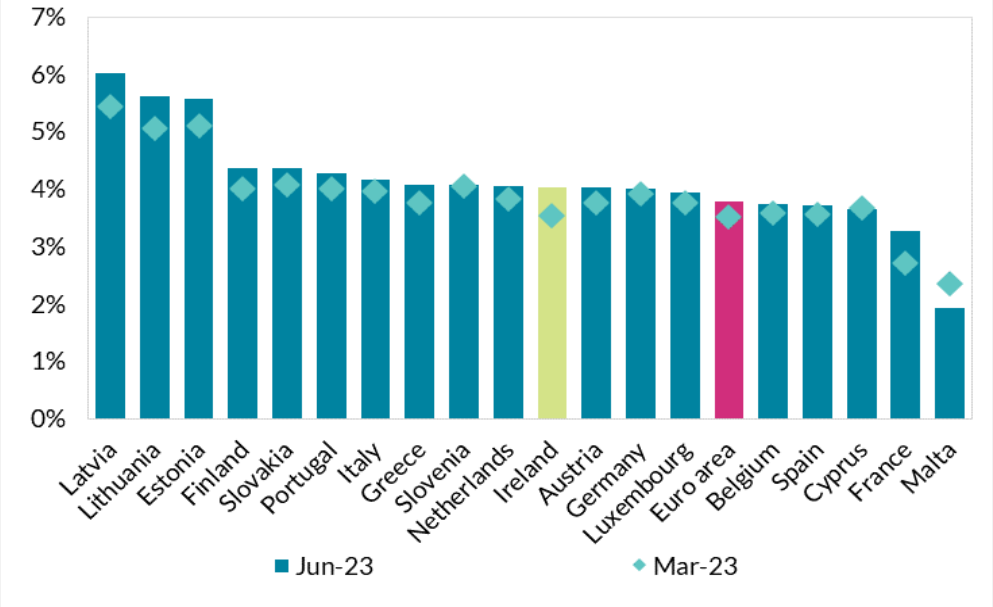
Ireland, among the countries with the highest relative growth during the quarter, is now in the median

Figure 5: Cross-country mortgage rates on new lending



Source: Central Bank of Ireland and European Central Bank

Deposits

Banking data show that annual growth in Irish household deposits has gradually slowed since its peak rate of increase of 13.8 per cent in February 2021. Yet, household deposits grew significantly in March 2023, with net inflows of €2.2 billion. Combined with positive revaluations for the existing stock of financial instruments and marginal levels of new borrowing, this growth in household deposits contributed to an increase in households' net wealth of €4.6bn in the first quarter of 2023. In May 2023, Irish households deposits experienced net outflows of €652 million. While the annual growth in deposits stood at 4.9 per cent at the end of June 2023, with inflation running somewhat higher there was a reduction of deposits in real terms. Euro area household deposits follow a similar trend, and as observed since the start of the pandemic, their growth rate remains below that of Irish deposits, at 1.5 per cent at the end of Q2 2023, 3.4 percentage points below the Irish rate (Figure 6).

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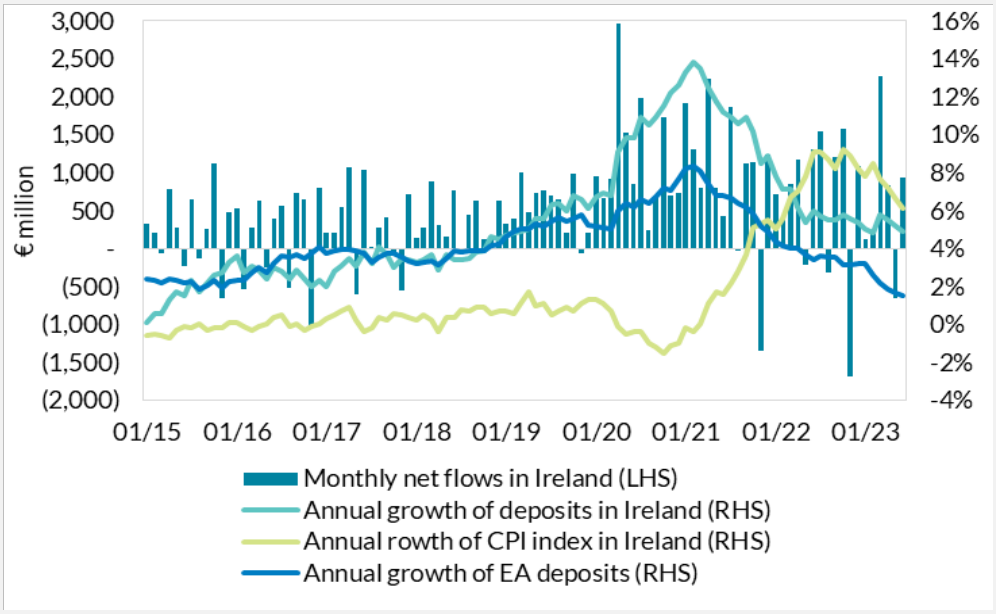
Slowdown of Irish household deposit growth, but still above Euro area average

Figure 6: Monthly net household deposit flows and growth rates



Source: Central Bank of Ireland, Central Statistics Office and European Central Bank

Deposit interest rates for households have shown an overall muted reaction to monetary policy tightening so far. While outstanding deposits steadily increase at a very slow pace, new deposits are benefitting most, with rates on term deposits more reactive to rising official rates since February 2023. Despite this, deposits with an agreed maturity represent a very small share of total value, both for new and outstanding deposits. Compared to overnight deposits, deposits with an agreed maturity only accounted for 6.3 per cent of total household deposits in June 2023. This explains the slow transmission of new rates to the average rate on outstanding deposits.

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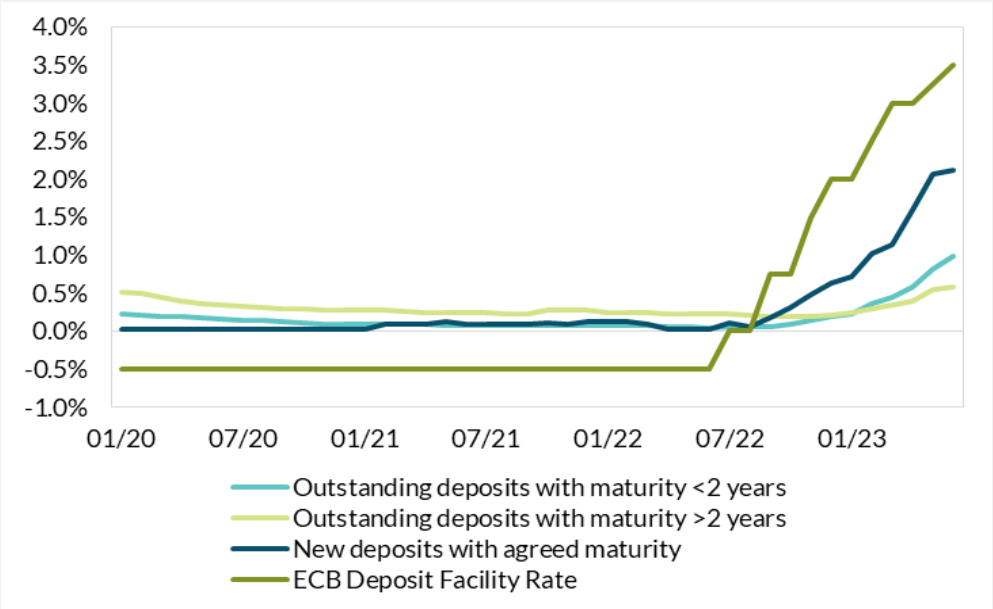
Remuneration of new and existing household deposits reacting to increased ECB Policy rate

Figure 7a: Rates on new and outstanding household deposits



Source: Central Bank of Ireland, European Central Bank

NFC deposit interest rates have responded more to monetary policy than household deposit rates. The rate on outstanding deposits with a maturity below 2 years has consistently increased, matching rates on new deposits with an agreed maturity. Rates on outstanding deposits with a maturity above 2 years have been more muted, increasing from 0.13 per cent in May 2023 to 0.73 per cent in June 2023, following a year of limited reaction to monetary policy tightening.

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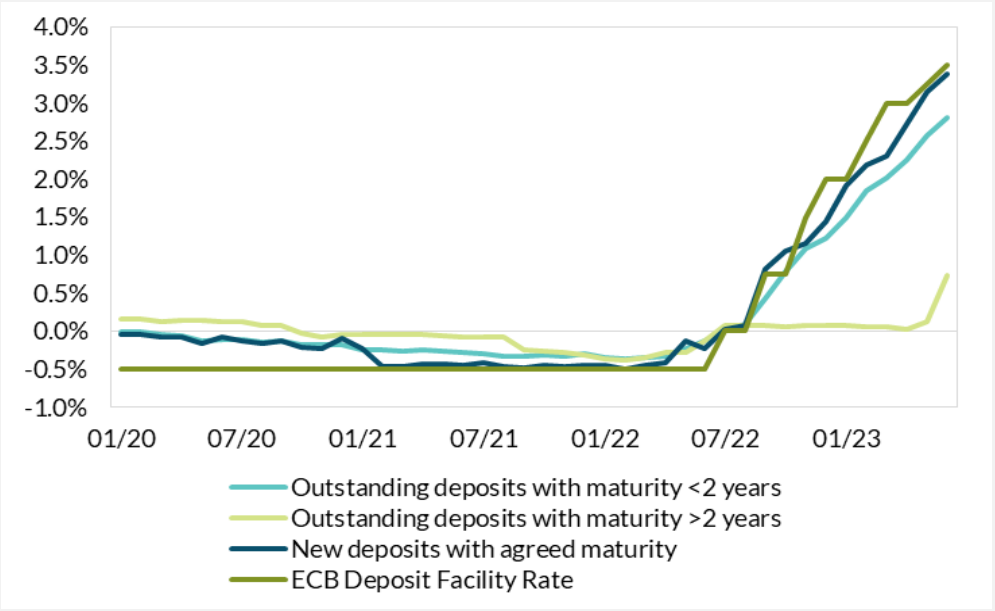
Remuneration of new and existing NFC deposits show a stronger reaction to increased ECB Policy rate

Figure 7b: Rates on new and outstanding NFC deposits



Source: Central Bank of Ireland, European Central Bank

Demand

Overview

The outlook for domestic demand continues to remain positive, underpinned by robust employment and income. With the gradual reduction in uncertainty and moderation in inflationary pressures, consumption has returned to pre-Covid levels. As a result, savings rates have declined towards pre-pandemic levels (see Box C). However, the higher price level, diminishing fiscal supports and strengthening pass-through of tighter monetary policy will continue to temper demand conditions.

Consumption and investment is expected to continue to grow, but at a more moderate pace. Modified Investment, which removes the distortionary effect of intellectual property as well as the purchase of aircraft by leasing firms, grew by 15.9 per cent in 2022 compared with 2021, primarily driven by investment in Machinery and Equipment. This growth rate was significantly higher than the euro area average and more than likely represents large investments by multinational firms. Looking ahead, the growth rate of modified investment is projected to moderate to more normal levels.

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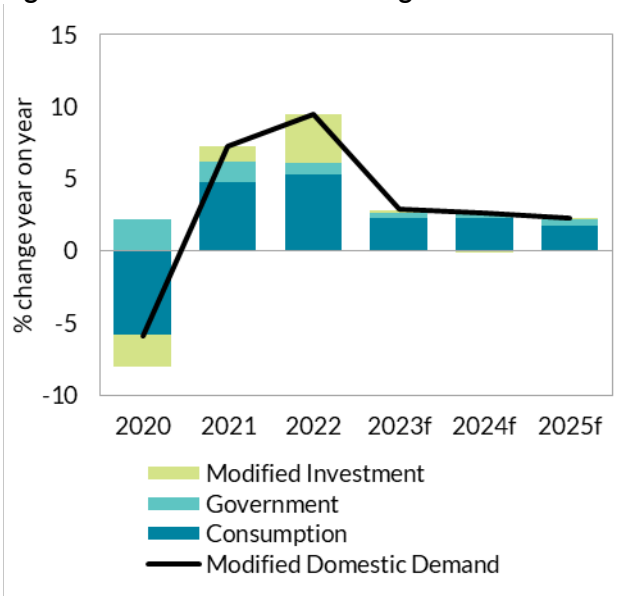
Modified domestic demand is forecast to grow by 2.9 per cent in 2023, 2.6 per cent in 2024 and 2.3 per cent in 2025, a slightly weaker pace than forecast in the June *Bulletin* (Figure 12 & Figure 13).

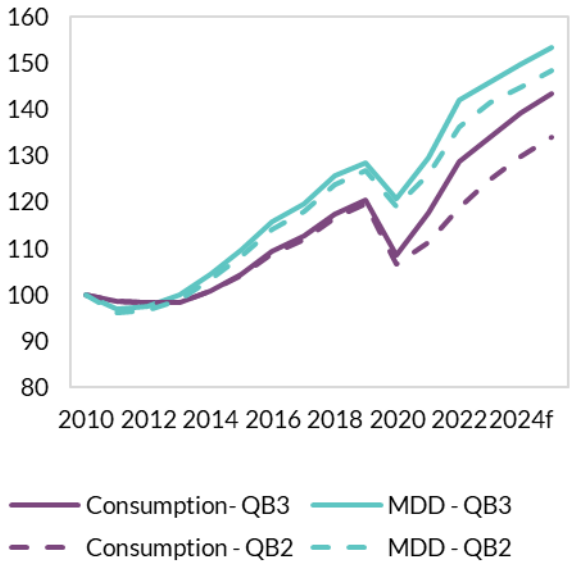
Consumption expected to be the main driver of MDD growth out to 2025

Figure 12: Contributions to MDD growth



Source: CSO, Central Bank of Ireland calculations.

Figure 13: Consumption and MDD revisions



Source: CSO, Central Bank of Ireland calculations.

Consumption

Consumption has shown unexpected resilience during the first quarter of 2023 and is forecast to maintain strong growth for the year as a whole. Despite the challenges posed by high inflation and relatively contained wage growth, consumption grew by 2.4 per cent in real terms in the second quarter on a year-on-year basis. High frequency data suggest that consumption and consumer sentiment remained buoyant in the third quarter (Figures 14 and 15). The combination of fiscal support measures, accumulated savings supporting household balance sheets, an easing of inflationary pressures and higher wage rates are likely to continue to underpin further growth in consumption this year (Figure 13).

Consumption growth will continue to lower the savings ratio (the proportion of gross disposable income that goes unspent), which has fallen to European norms in recent quarters. The savings ratio currently stands at 12 per cent, similar to the rate seen in the years preceding the pandemic (see Box C).

As price pressures gradually moderate and incomes improve, consumption is expected to continue to grow in 2023 and 2024. Consumption is forecast to expand by 4.1 per cent in 2023. As household incomes improve, uncertainty

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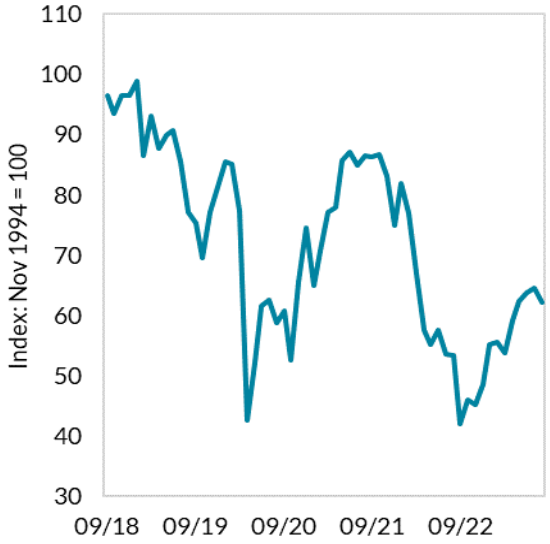
about price pressures ease and savings rates moderate, consumption is forecast to grow by 3.9 percent in 2024 and 3.0 percent in 2025.

High frequency indicators point to a pickup in consumption in the first half of the year

Figure 14: Retail Sales

Source: CSO

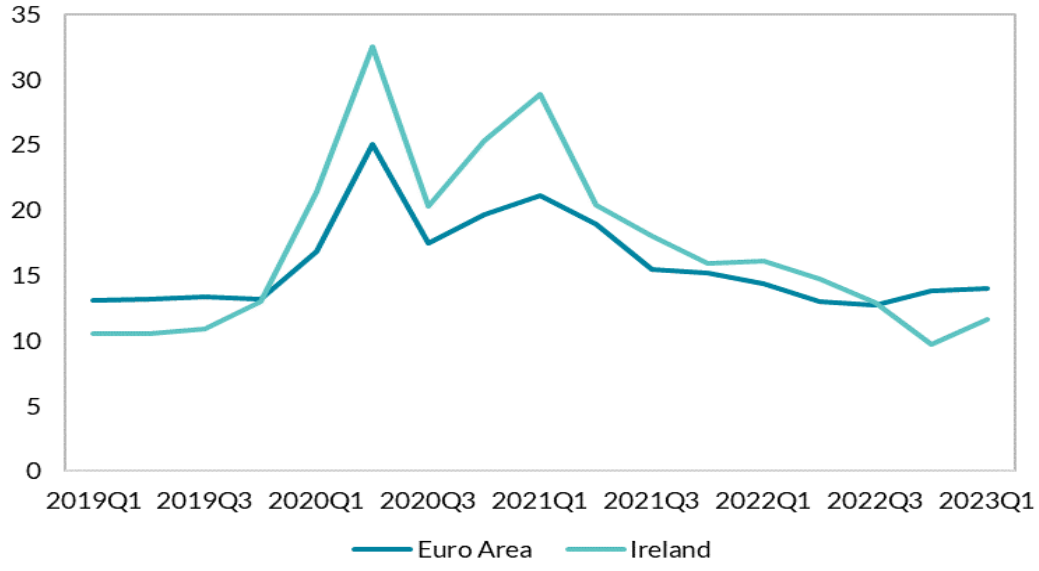
Figure 15: Consumer Sentiment



Source: CSO

The savings ratio has been revised down, and is now in line with the euro area average

Figure 16: Gross Household Savings Ratio (Seasonally Adjusted) (Ireland and Euro-area)



Source: Eurostat and CBI calculations

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Box C: Post-Pandemic excess savings in Ireland

By Stephen Byrne, Tara McIndoe-Calder and Kun Wu[5]

Over the pandemic, Irish households accumulated an unprecedented stock of savings. Public health restrictions, including lockdowns, led to a sharp reduction in consumption while gross incomes fell by much less as some sectors continued to trade during the pandemic and household incomes were supported by fiscal interventions. The stock of savings accumulated during the pandemic over and above the usual (defined here as the pre-pandemic trend, namely between 2015 and 2019) level of household savings has been referred to as "excess savings". Between the first quarter of 2020 and the first quarter of 2023, the accumulated stock of excess savings rose steadily to reach 24.4 per cent of (gross) disposable income (GDI) in Ireland, compared with 11 per cent in the euro area.[6] As the effect of the pandemic on the economy has broadly ended, the use of these savings will have significant implications for the economic outlook in the coming years.

The impact of these excess savings on developments in the economy in the coming years will be driven by two related factors. Firstly, the type of household who accumulated these savings is important. Previous research (Lydon and McIndoe-Calder, 2021) has shown that savings during the pandemic were primarily accumulated by high-income households with a comparatively lower marginal propensity to consume (amount spent per additional euro of income).[7] Second, as households accumulate savings they have the option to save them in assets with different liquidity profiles, for example cash and overnight deposits represent liquid assets that have the potential to be spent in the short-run, while financial assets with longer maturities are more likely to be held on household balance sheets rather than spent. In this regard, Ireland differs markedly from the euro area, with a higher tendency to hold savings in more liquid form.

Revisions to the level of savings

The savings rate is defined in the System of National Accounts as the portion of nominal household gross disposable income (GDI) that is not spent in a given quarter (income minus consumption). These data are measured by the CSO in Ireland. By definition, these savings flows accumulate into a stock of savings held in financial and non-financial assets on the balance sheets of households. Hence saving can be estimated indirectly by measuring financial transactions by households along with new investment in housing assets. The Quarterly Financial Accounts estimate financial transactions, and together

[5] Economists in the Irish Economic Analysis division.
[6] Euro area figure peaks at end 2022 (most recent data available for all countries) the figure remains at 10.8 per cent. In Ireland by 2023Q1 the figure was broadly stable (at 22 per cent of trend GDI).
[7] Households in Ireland in the first income decile have an MPC of around 54 per cent. This falls to 45 per cent for the highest income households.

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with the CSO's estimate of investment in housing this provides a net-asset-based estimate of saving. As different data sources are used, the two savings estimates are rarely exactly the same, and the difference between them is referred to as the statistical discrepancy in the Quarterly Financial Accounts (QFA) publication. In the 2022 Annual National Accounts, the level of consumption during the pandemic years was revised up substantially.[8] However, with only small revisions to income, the CSO has measured a significant downward revision in the savings ratio throughout 2021 and 2022, meaning that households have accumulated a lower level of savings than previously estimated. However, there has been no revision to the flows of financial transactions by households in the QFA, with the data pointing to a continued increase in households' net financial assets and investment in new housing. Accordingly, the changes in the savings rate have been reflected in large changes to the statistical discrepancy recorded between the National Accounts and the QFA. In and of itself this item has iterated between being large and positive and large and negative over time, owing to different compliation approaches and data sources. The scale and volatility of this discrepancy gives rise to a higher level of uncertainty about the level of excess savings and, as such, the projection for consumption.

Excess Savings

Taking these revisions on board, in the decade preceding the pandemic, the savings rate averaged around 8 per cent of disposable income, rising towards 12 per cent in 2019. During the pandemic, the savings rate reached 35.1 per cent at the peak, and remained high throughout the pandemic before falling more recently back to 11 per cent. Figure 1 shows the "excess" savings rate during the 2020-2022 period compared to its 2015-2019 trend.[9]

Figure 2 profiles household spending (final consumption expenditure or FCE) and GDI over the same period. Excess savings were generated due to large falls in spending, compared to trend, with a smaller role for income growth. Figure 1 plots FCE and GDI as published in the first estimate of the 2022 National Accounts as well as the most recent estimate. The upward revisions to FCE data from early 2021 have seen a substantial downward revision in the household savings rate in the period from 2021Q1, evident in Figure 2.

[8] Footnote consumption revisions
[9] Data are smoothed using a 4 quarter moving average.

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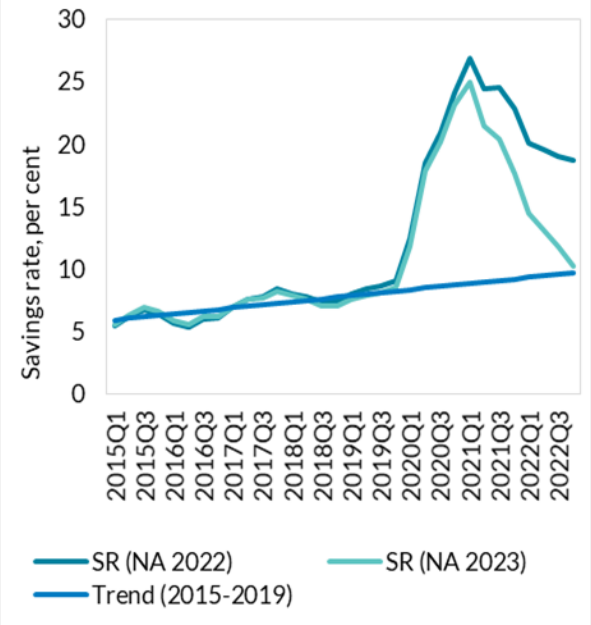
Savings rate increased substantially between 2020 and 2022, returning to pre-pandemic trend by early 2023

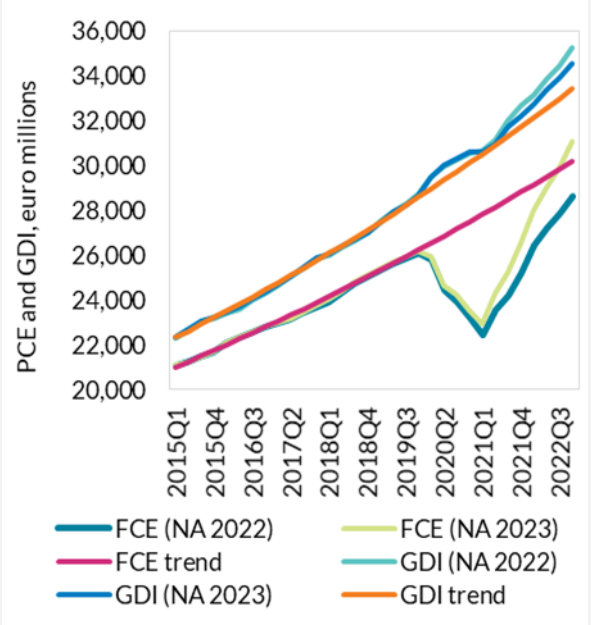
Figure 1: Savings rate: actual and trend 2015-201



Source: CSO and authors' own calculations.
Note: PCE and GDI series smoothed using 4Q moving average, linear trend calculated over 2015-2019 period using smoothed data. NA are Annual National Accounts.

Revisions to consumption underlying falling savings rate in recent quarters

Figure 2: Excess savings: trend income and spending compared to actual



Source: CSO and authors' own calculations.
Note: Excess savings is calculated as the area between the FCE trend line and actual FCE combined with the area above the GDI trend line and actual GDI. NA are Annual National Accounts.

Quarterly Financial Accounts (QFA) (Central Bank, 2023) data provides information on how households allocate their savings in financial assets, tracing the quarterly net flows of financial assets. Using QFA and the CSO's capital investment estimates we examin household savings through the net acquisition of financial and non-financial assets. To estimate how much of these savings can be deemed excessive, we estimate the trend level of each of these savings components in the period prior to the pandemic (2015-2019). The level of savings above this trend during the pandemic represents the excessive portion. This is provides similar results, in aggregate, to an estimation of excess savings flows as the difference between trend and actual income less consumption (Figures 1 and 2).

Figures 3 and 4 represent the cumulated deviations of the flow of savings across assets from their pre-pandemic trends, in percentages of trend GDI for Ireland and the euro area, respectively. The vast majority of non-financial assets in Ireland comprise "New Investment in Housing" although there is also capital formation in other assets by the self-employed. Other Financial Assets calculated as the residual of "Total Financial Assets" less of "Currency and Deposits" and "Loans" in the euro area, and mainly refers to stocks, bonds, insurance and pension assets.

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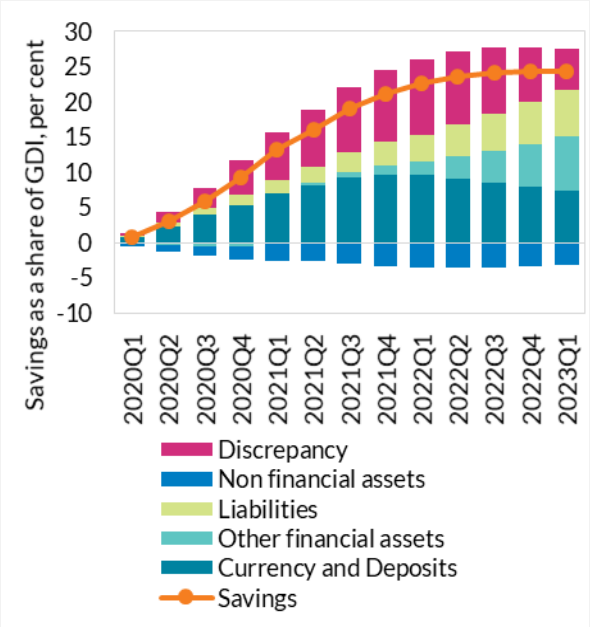
Excess savings increased in both Ireland and the euro area during 2020 and early 2021, falling gradually from the middle of 2021. Savings flows remained above trend into early 2023. However, as a share of GDI, households in Ireland have accumulated more than double the excess savings (24.4 per cent) compared with their euro area counterparts (11 per cent).[10]

Excess savings profile predominantly less liquid financial and real assets by 2023

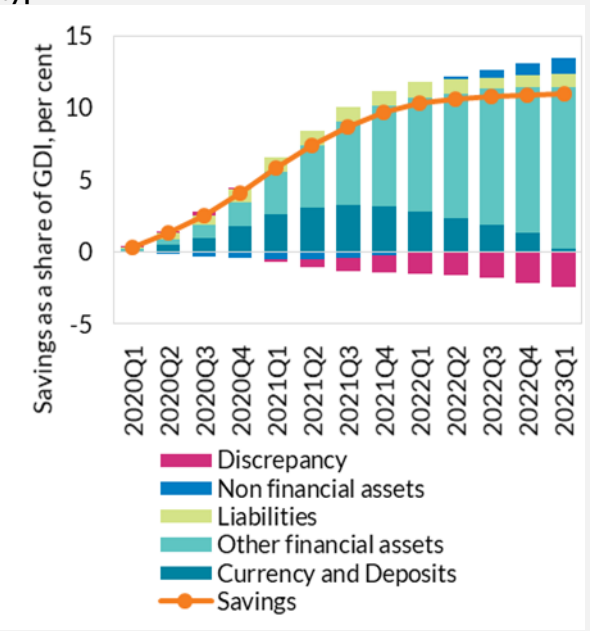
Figure 3: Excess savings in Ireland, by asset type



Source: Eurostat and authors' own calculations.
Note: Excess savings calculated as difference between smoothed actual savings flows and 2015-2019 linear trend.

Euro area households hold lower level of cumulated excess savings with small role for liquid financial assets by 2023

Figure 4: Excess savings in the Euro area, by asset type



Source: Eurostat and authors' own calculations.
Note: Excess savings calculated as difference between smoothed actual savings flows and 2015-2019 linear trend.

Asset types

In the euro area most excess savings were accumulated in illiquid financial assets, while over two-thirds of excess savings in Ireland were held initially as more liquid financial assets, predominantly cash and deposits (Figure 3). From 2021 onwards Irish households continued to save at a high rate, holding a substantial portion as deposits, even whilst increasing their holdings of less liquid financial assets and paying off loans (shown as a positive contribution to excess savings in the Figures 3-4). In addition, households in

[10] Consistent with ECB (2023) for euro area findings. The estimations in this box are highly sensitive to specific methodology employed. Analysis of excess savings may differ due to filter methods used, measurement definition, trend reference period, etc. While estimates may vary, we find our qualitative conclusions are consistent with ECB (2023).

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Ireland have saved less in non-financial assets, mostly housing, since the beginning of the pandemic.

The composition of assets held by households in the euro area suggests that the initial surge in excess savings was driven by liquid financial assets (currency and deposits) and other financial assets, in roughly equal parts. Over time, excess savings flows became more dominated by flows into illiquid financial assets, as the flows into currency and deposits reverted to their pre-pandemic trend. Conversely, in Ireland, the early accumulation of excess savings were predominantly in liquid financial assets, and these have remained an important asset class for excess savings flows. Indeed excess liquid savings in Ireland by end 2022 account for 30 per cent of total cumulative excess savings. Less liquid financial assets comprise over 31.8 per cent of the cumulative flow of excess savings, with this share increasing steadily over time.

Why is Ireland different?

The explanations for the size and composition of excess savings in Irish households are complex and interrelated. The size of the savings rate in Ireland between 2020 and 2022 was large compared to the euro area. The accumulation of substantial surplus savings in Ireland, primarily in liquid assets, and in the euro area, predominantly in illiquid assets, reflects a continuation of historical trends, albeit at significantly higher levels. Traditionally, Irish households have invested their illiquid wealth in real assets, particularly property. As the accumulation of savings stabilizes, a portion of these savings in Ireland has indeed shifted toward illiquid assets, but this transition has been slower than in euro area. One explanation for this could be greater constraints on investing in dwellings compared to financial assets.

What does it mean for the economic outlook?

The latest consumption and savings revisions to the National Accounts data suggest a slower pace of consumption growth going forward, with less upside risk. Consumption in 2021 and 2022 was higher than previously estimated, and this means the stock of excess saving available for consumption in the future is lower than understood at the time of the last *Bulletin*. However, as noted above there is some uncertainty over the precise size of the stock of excess savings at present and current data may be subject to further revision in future quarters. As interest rates rise and inflation moderates, households may have much higher incentive to allocate a larger portion of their savings into less liquid assets – which would further weigh on consumption over the forecast horizon.

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Investment

The outlook for investment is less favourable compared to the last *Bulletin*. While headline investment is broadly unchanged, the latest Quarterly National Accounts point to a likely weaker out-turn than previously expected for modified investment in 2023. This is due to downward revisions to the first quarter of the year as well as a weaker outturn for the second quarter of 2023 than expected. The overall outlook for investment is subject to considerable uncertainty, as captured by the World Uncertainty Index[11] (Figure 17) which remains above its long term historical average globally and at a national level. Market volatility, however, as measured by the VIX[12] (Figure 18) has been declining and is now below its long-term historical average. Negative factors that might affect future investment decisions include higher interest rates, tighter credit conditions and geo-political instability. Declining headline inflation, near record-high stock market valuations and profit margins and government budget surpluses point to the possibility of a more positive investment outlook.

After an exceptional increase in 2022, modified investment has been weaker in 2023. The concentration of high-value added MNEs operating in the State can result in large swings in Ireland's investment figures, and can be related to both the construction and fit-out of large high-value added plants. There has been particular volatility in machinery and equipment investment that has resulted in large swings in the modified investment figures in recent years. The latest Quarterly National Accounts point to some loss in momentum from last year's growth, with downward revisions to machinery and equipment investment occurring and some weakness in the data for the second quarter of 2023. Considering these revisions, modified investment is forecast to grow by 0.9 per cent in 2023. The forecast for 2024 and 2025 is more uncertain but an unwinding of some of the build-up in machinery and equipment investment and tighter financing conditions is expected to result in a slight decline of 0.2 per cent in 2024 before growth of 0.6 per cent in 2025. These are downward revisions compared to the previous *Quarterly Bulletin*.

[11] The WUI is computed by counting the percent of the word "uncertain" (or its variant) in the Economist Intelligence Unit country reports. The WUI is then rescaled by multiplying by 1,000,000. A higher number means higher uncertainty and vice versa.
[12] The VIX is a measure of volatility that captures the implied volatility of the S&P 500.

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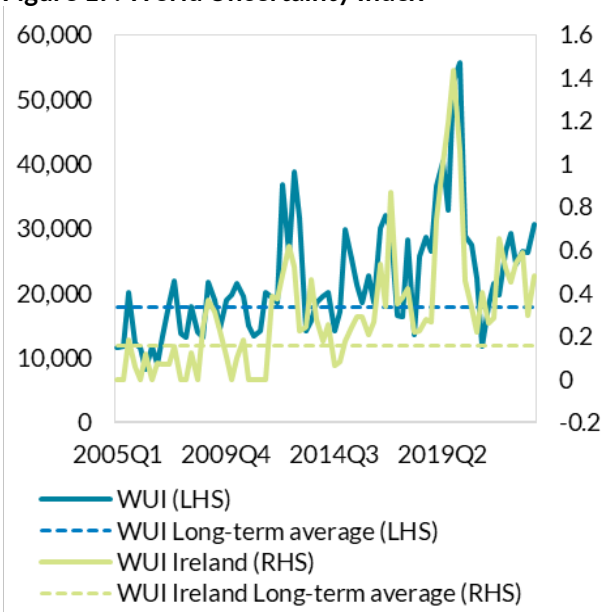
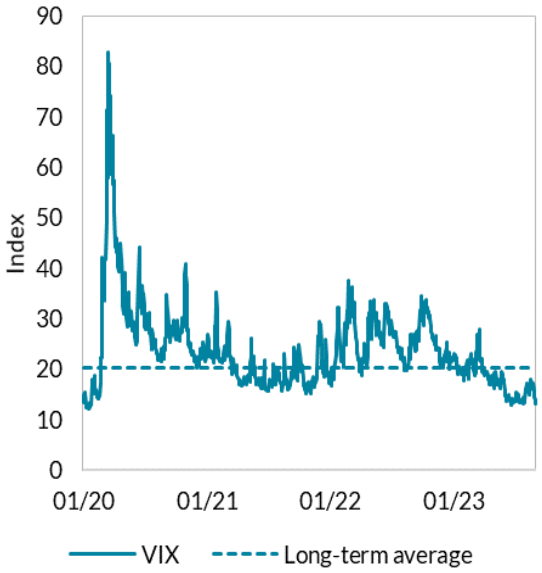
Uncertainty remains high

Figure 17: World Uncertainty Index



Source: IMF

Figure 18: VIX Volatility Index



Source: CBOE

On the housing front, there was a stronger than anticipated outturn in 2022 with completions for the year totalling just under 30,000. This is still significantly below estimated medium-term requirements. Forward-looking indicators, survey data, and commentary from industry representatives suggest that completions this year might reach similar levels to last year. However, growth in new completions is forecast to be constrained next year, reflecting the slowdown in planning permissions, and likely related to viability concerns with high construction input costs as well as tighter credit conditions (Figure 19). Figure 19 illustrates that there has been weakness in planning permission and commencements throughout the course of 2022 and into the first quarter of 2023. Commencements were running at about 30,500 on an annual basis in the second quarter of 2023. House completions are forecast to number approximately 30,000 this year, 29,000 in 2024 and 30,000 in 2025.

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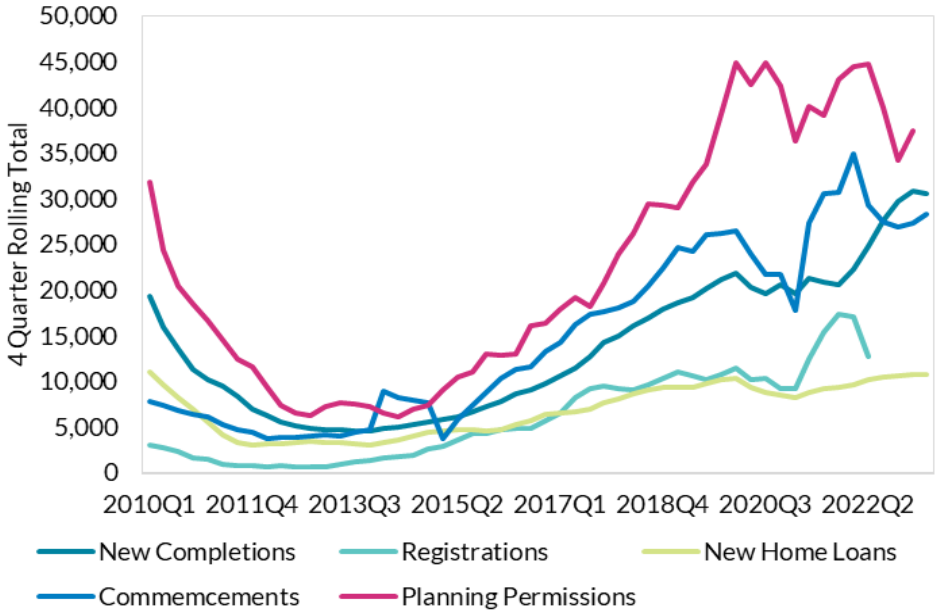
Planning permission and commencements weaken in 2023

Figure 19: Housing Supply Indicators



Source: CSO, DoHLGH, BPFI, Central Bank of Ireland

On the non-residential side, the outlook is less favourable than in the previous *Quarterly Bulletin*. Non-residential construction levels have not returned to pre-pandemic levels. The latest National Account data (2023Q2) point to a slowdown in the first half of 2023 with a decline of 0.7 per cent year-on-year. Increases in office vacancy space in Dublin along with tighter financial conditions have resulted in a downward revision to non-residential investment over the forecast horizon. The soft PMI data (Figure 20) point to some deterioration in the outlook for manufacturing orders and new business, which might affect firms' future investment decisions. The outlook for commercial and civil building investment is also weak according to the construction PMIs (Figure 21). The forecast for non-residential building and construction is for a 2 per cent expansion this year with no growth over the rest of the horizon. These forecasts are contingent on a pick-up in civil infrastructure and no major shocks to the domestic or international economy.

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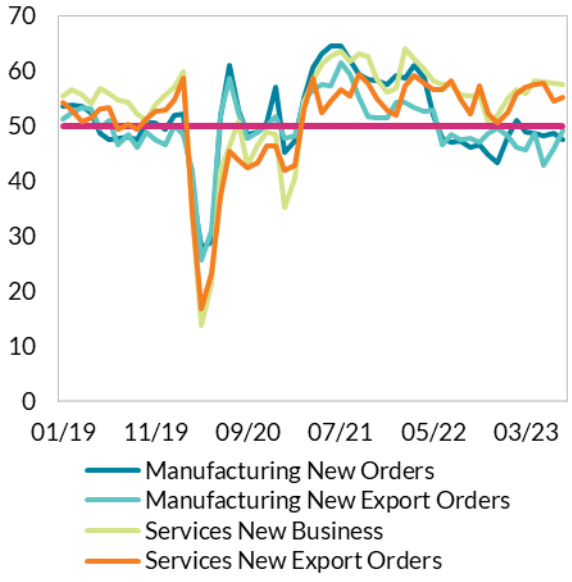
Signs of weakness in forward-looking indicators of Manufacturing activity but services strong

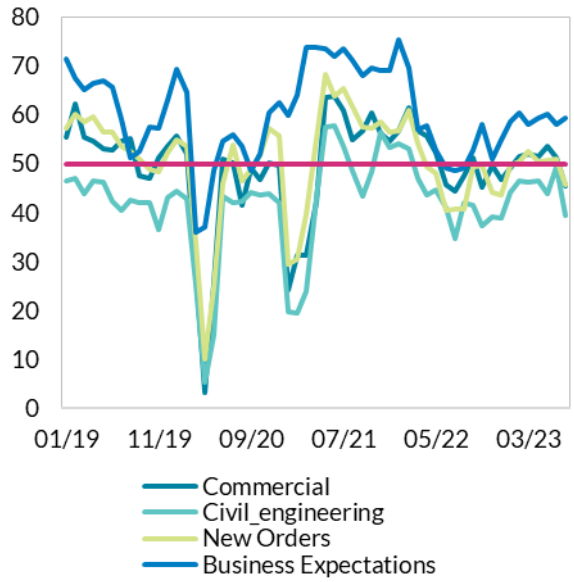
Figure 20: PMI – New Business and Orders



Source: IR AIB Purchasing Managers Index

Soft data point to slow down in non-residential activity

Figure 21: PMI - Construction sector new orders



Source:IR BNP PARIBAS Purchasing Managers Index

The outlook for machinery and equipment (M&E) investment is uncertain.
The volatility of equipment expenditures likely relates to the fit-out of large machinery-intensive MNE plants with specialised high-value machinery (Figure 23). Other forms of M&E expenditure are also likely to be at the root of the increase in this area in recent years, including on data centres and spending related to the decarbonisation of the economy. However, revisions to underlying M&E investment in the latest National Accounts (Figure 22) have resulted in a less favourable in the outlook for the year as a whole. M&E excluding transport (mainly aircraft) declined by 0.5 per cent in the first half of 2023 year-on-year. As a result, this component of investment spending is forecast to increase by 1 per cent this year. This is a considerable downward revision to the forecast contained in the last *Quarterly Bulletin*. M&E investment (excluding other transport) is forecast to decrease by 2 and 3 per cent in 2024 and 2025, respectively, as tighter financial conditions impact firm's future spending decisions. Overall, headline investment is forecast to decline by approximately 1 per cent in 2023, before increasing by 2 per cent in 2024 and 3 per cent in 2025.

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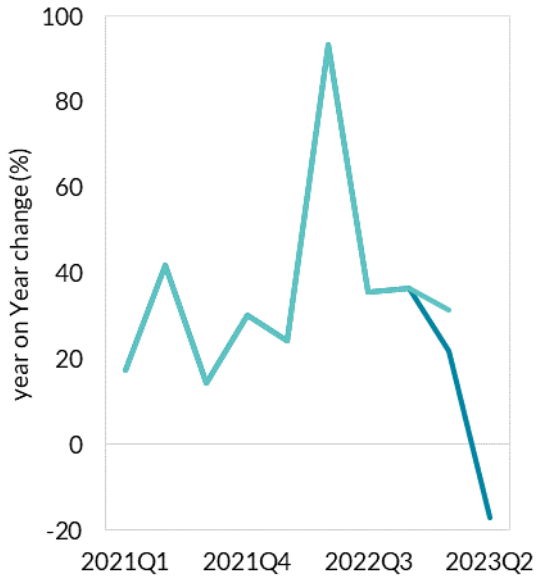
Less favourable outturn for M&E

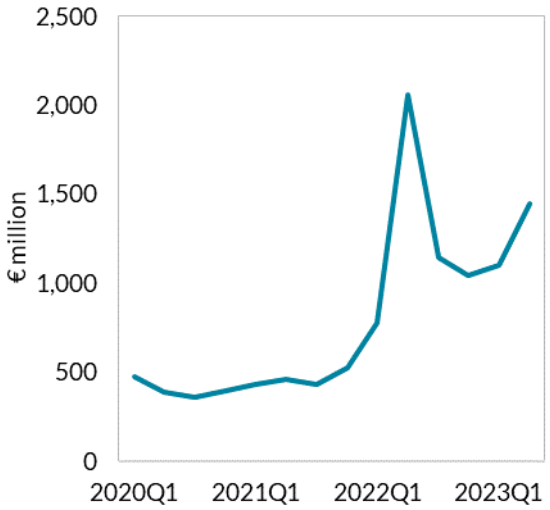
Figure 22: Modified machinery & equipment investment



Source: CSO

Imports of specialised machinery have risen alongside increased MNE investment in the State

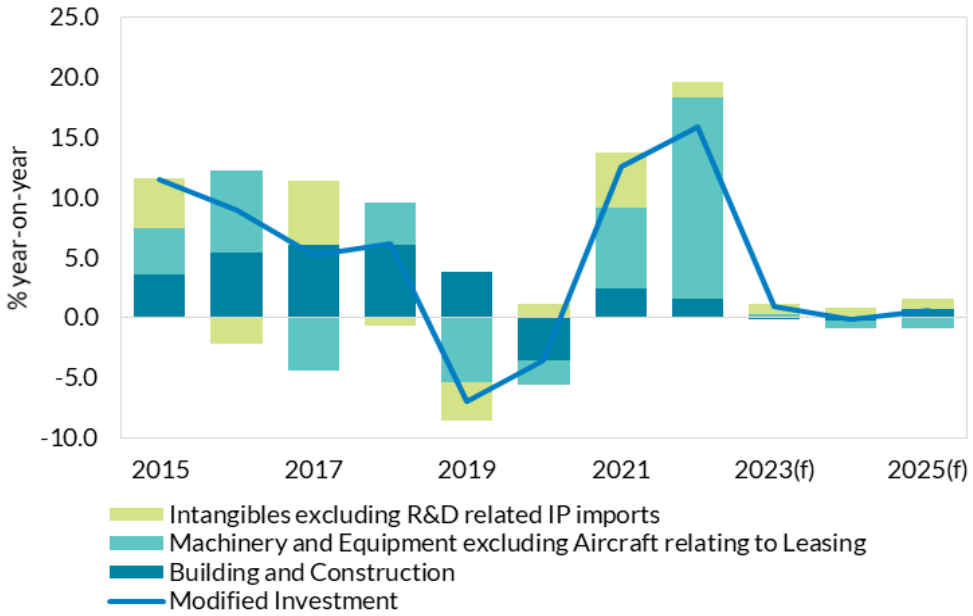
Figure 23: Specialised machinery imports



Source: CSO

Sharp slowdown in M&E investment expected this year

Figure 24: Contribution to Modified Investment



Source: CSO and Central Bank of Ireland

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Exports, Imports and Balance of Payments

Exports

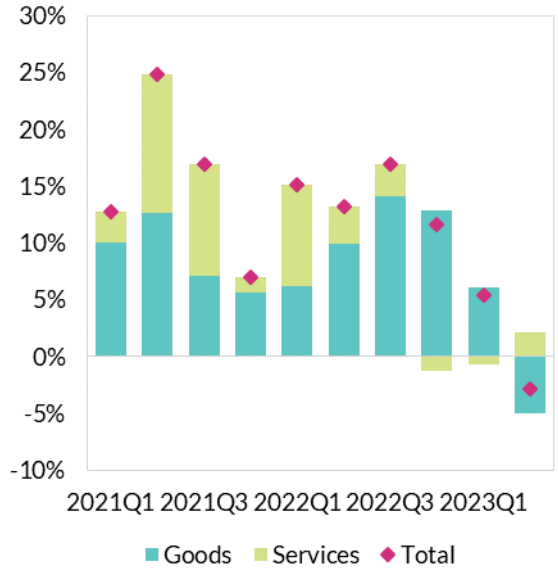
Overall export growth slowed further in 2023q2, with exports contracting in both quarter-on-quarter and year-on-year terms. Real exports fell by 4.1 per cent on Q1 2023 and by 2.9 per cent on the same quarter in 2022. Disaggregating exports across goods and services, goods exports were the primary driver of the decline, having fallen by 10.2 per cent on a quarterly basis and 9.3 per cent on an annual basis. In contrast, services exports grew over the quarter by 8.3 per cent, bringing year-on-year growth to 6.8 per cent in 2023Q2.

Weakness in goods exports offset services export growth in first half of 2023

Figure 25: Quarter-on-Quarter Growth, 2022q2-2023q2

Source: Author's calculations using CSO External Trade Data.

Figure 26: Year-on-Year Growth, 2022q2-2023q2



Source: Author's calculations using CSO External Trade Data.

As global trade conditions deteriorated further in the second quarter of 2023, annual growth rates across the majority of key Irish goods and services export sectors show increasing signs of weakness. Based on data for cross-border merchandise trade flows, growth rates across all 10 major product categories were lower in 2023H1 than in 2022H1, with a contraction of -2.9 per cent recorded for aggregate merchandise exports. Similarly, export growth for 2023H1 was lower in five of the six main services categories than in 2022H1, although overall growth was positive at 7.6 per cent. Some of the largest contractions were observed in the machinery and transport, medical and pharmaceutical products, and ICT services; sectors in which MNEs

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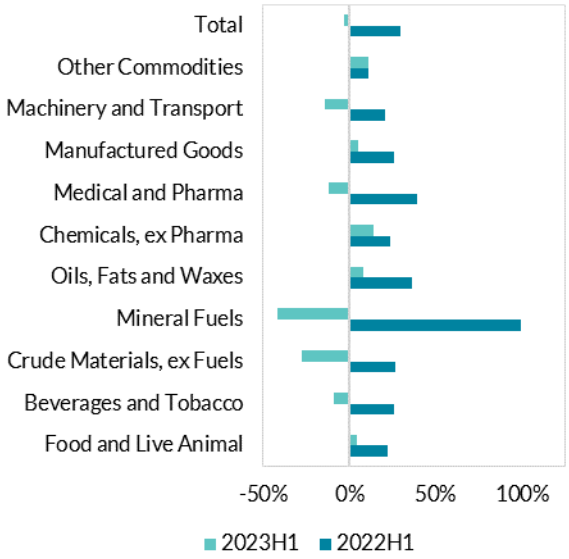
dominate production. Given that MNE activity in these sectors is primarily export focused, a decline in global demand may have played a role in these key sectors and may have negatively affected export growth (see Box D for a detailed discussion of recent developments in merchandise exports).

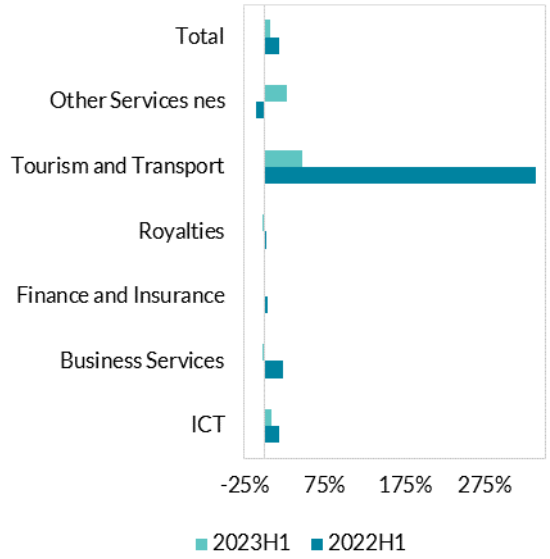
Weakness in both goods and services exports in 2023H1

Figure 27: Merchandise export growth by sector



Source: Author's calculations using CSO External Trade Data.

Figure 28: Services export growth by sector



Source: Author's calculations using CSO External Trade Data.

With protectionist trade policies, "nearshoring" and declines in key product sectors arising internationally, contract manufacturing declined sharply in 2023Q2, falling to levels observed during the first few quarters of the Covid-19 pandemic. Since the beginning of 2020, off-shore activities (including merchanting and contract manufacturing) by Irish-resident MNEs have played an increasingly important role in Irish export activities, particularly with respect to medical and pharmaceutical products and electronic machinery. Despite the supply chain issues caused by Covid-19, the value of off-shore exports associated with Irish firms rose from €16.8 billion in 2020Q1 to €46.1 billion in 2022Q4. However, off-shore export values declined sharply in the first two quarters of 2023, representing the first period of consecutive quarterly declines observed in the data since 2016. Similarly, the share of total exports accounted for by off-shore activities declined to 14.7 per cent in Q2; this is only the third time off-shore export shares have fallen below 15 per cent in the recorded data (beginning in 2015Q1). Given the volume of activity that is based in China (currently experiencing the effects of an economic slowdown), and the introduction of protectionist US trade policies (designed to promote domestically produced products over imported goods and services), it is

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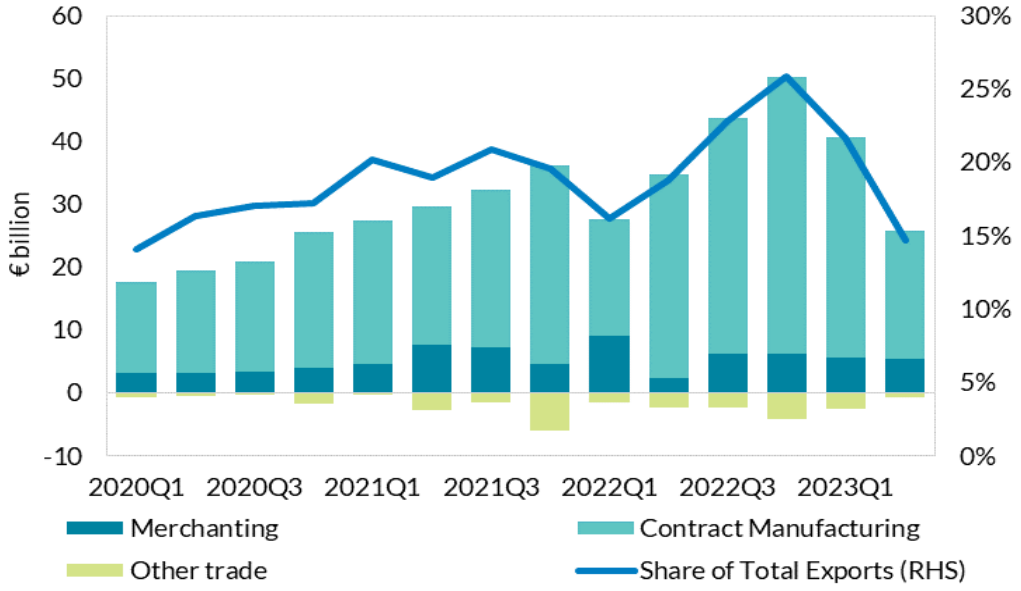
possible that future weakness in off-shore export activities could be observed in data for the rest of 2023 and into 2024.

Non-merchandise goods exports showing signs of steady decline

Figure 29: Non-merchandise goods trade, 2020q2 – 2023q2



Source: Central Bank of Ireland calculations using CSO International Accounts data

Export forecasts have been revised downwards for the second time this year, with the possibility of negative real export growth in 2023. Since the last *Quarterly Bulletin*, further headwinds have been forecast by several international organisations, which may negatively affect trade over the short-to-medium term horizon, including: reduced global export and import demand, increased oil and gas prices, negative (trade-weighted) exchange rate movements, and further rises in global interest rates. Combined with downward revisions to Irish exports in 2022, and the potential for continued weakness in offshore export activities, export growth is projected to slow to 0.2 per cent in 2023, before rising to 2.9 per cent in 2024, and 5.2 per cent in 2025. However, should trade conditions worsen, real exports could decline for the first time since 2012. While this is not currently considered the most likely scenario for 2023, the possibility of negative export growth is higher than at any point in recent export projections.

Imports

Import growth in 2023Q2 also showed weakness due to trade conditions, but was marginally positive in both quarter-on-quarter and year-on-year terms. Declining services imports accounted for the majority of the weakness in aggregate imports in both quarter-on-quarter and year-on-year terms, having

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fallen by 2.8 per cent and 2.1 per cent over those periods, respectively. In contrast, goods import growth was positive in both quarter-on-quarter (6.8 per cent) and year-on-year (8.3 per cent) terms across 2023Q2.

Positive goods import growth offset by negative services imports growth

Figure 30: Quarter-on-Quarter Import Growth, 2022Q2-2023Q2

Source: Author's calculations using CSO External Trade Data.

Figure 31: Year-on-Year Import Growth, 2022Q2-2023Q2

Source: Author's calculations using CSO External Trade Data.

With the exception of "other merchandise commodities", all goods and services imports categories have recorded slower growth in 2023H1, relative to 2022H1 rates. While this reduced import growth contributes positively to aggregate GDP values, the net effect is likely negative, given Ireland's role in global value chains, and the use of lower-value raw material imports to produce higher-value finished products for export. Finance and Insurance services (-2.4 per cent), crude material (-6.3 per cent) and mineral fuels (-4.6 per cent) recorded the largest declines across goods and services imports categories.

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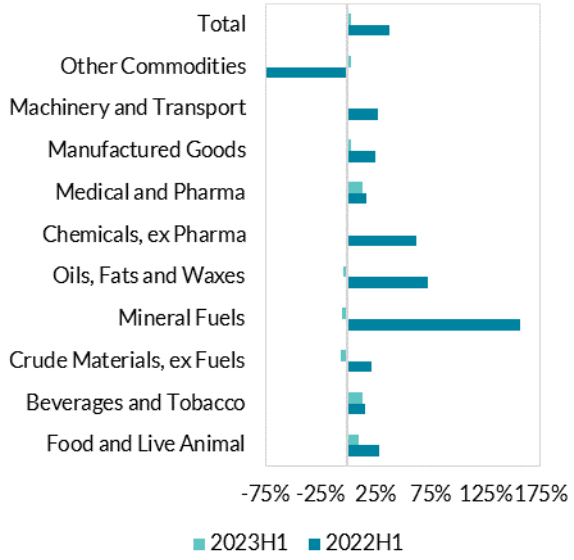
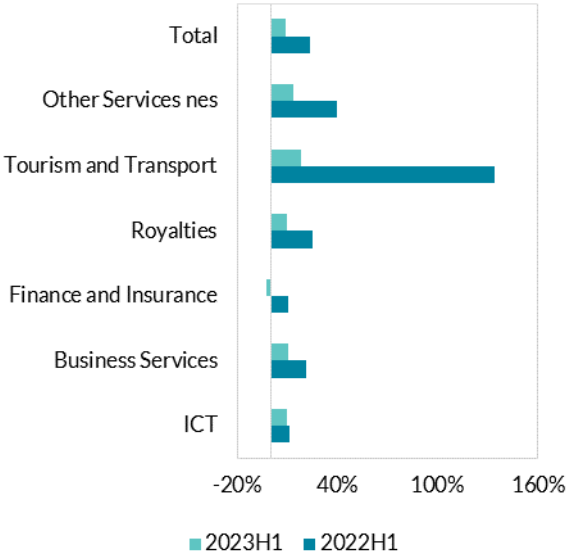
Weak goods and services import growth recorded in 2023H1, although growth in both categories remains positive.

Figure 32: Merchandise import growth by sector



Source: Author's calculations using CSO External Trade Data.

Figure 33: Services import growth by sector



Source: Author's calculations using CSO External Trade Data.

Global energy market prices continue to decline from their 2022 peaks, with price trends reflected in Irish energy import costs. Q2 expenditure on energy imports fell 5 per cent on the previous quarter in value terms, with import costs declining to levels observed prior to the energy price shocks that occurred in the aftermath of the Russia-Ukraine conflict. These declines appear to be fully price-based as both oil and petroleum, and gas import volumes were higher in 2023H1 than the first half of 2022 or 2021.

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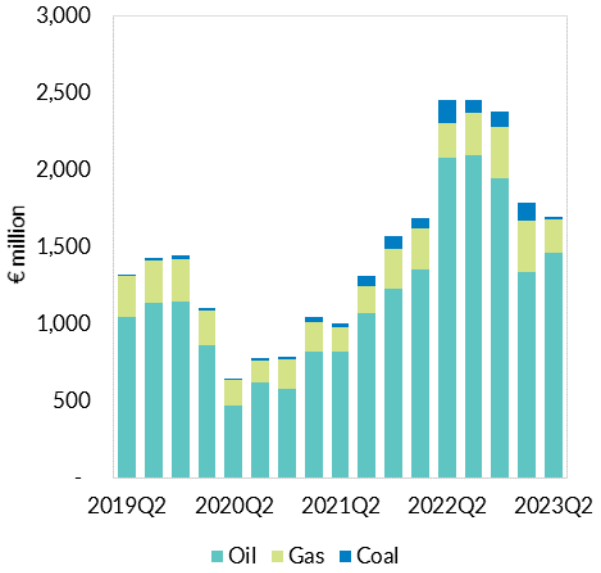
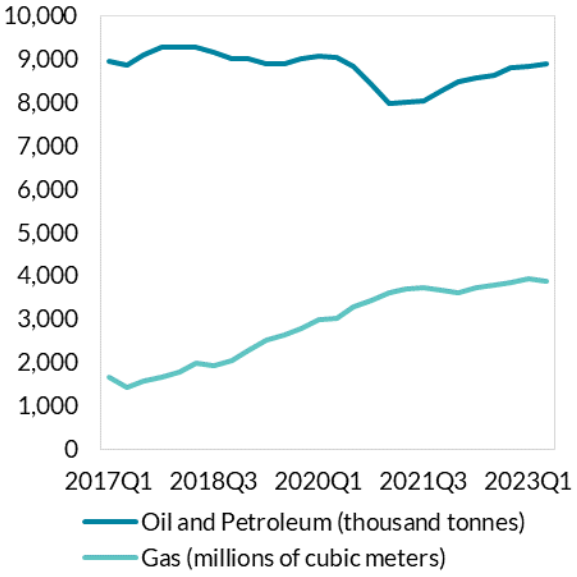
Energy import expenditures in value terms declined in 2023 H1 due to lower energy prices, with the volume of oil and gas imports rising moderately.

Figure 34: Energy Import Costs, 2021m6-2023m6



Source: Author's calculations using CSO External Trade Data.

Figure 35: Energy Import Volumes, cumulative 12-month rolling window, 2017q1-2023q2



Source: Author's calculations using Eurostat Energy Trade Statistics

Imports are forecast to grow in the short-to-medium term, but at a slower pace relative to previous trend rates of growth. With downward revisions to investment, consumption and exports, these factors are likely to reduce demand for imports into the economy, leading to downward revisions to import growth from our previous estimates in Q2. With weakness already observed in the first two quarters of data, a decline in imports of 0.1 per cent is forecast for 2023, with imports projected to increase by 3.3 per cent in 2024 and 4 per cent in 2025.

Net Trade and Balance of Payments

A decline in exports and a rise in imports combined to reduce the trade surplus in 2023Q2, relative to the previous quarter, although the net position remains strongly in surplus. Despite the observed weakness in export growth over the first half of 2023, the Irish trade balance remains in a strong surplus position, and a surplus is expected to persist over the medium term horizon. However, declining demand for imports in key trading partners (including the US and China), coupled with reduced offshoring activities from MNEs resident in Ireland, could cause further deteriorations in the trade balance.

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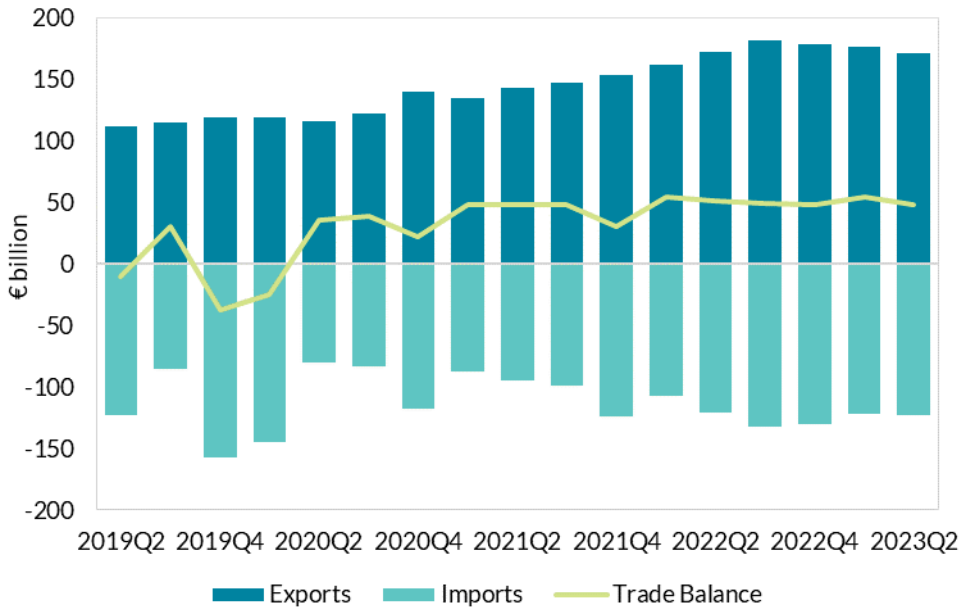
Trade balance showing moderate declines, primarily due to export contractions.

Figure 36: Exports, Imports and Net Trade, Seasonally Adjusted, 2019q2-2023q2



Source: CSO and Central Bank of Ireland

The contribution of net exports to output growth remains volatile, but has declined in the first two quarters of 2023. While two quarters of decline does not necessarily reflect a trend, it is noteworthy that the domestic section of the economy is contributing more to output growth than the external sector (see Figure 5 in *Recent Developments)*. With negative output contributions from net exports in four of the last five quarters, it appears that the changing nature of globalisation and the shrinking of supply chains could potentially cause a tapering of headline GDP growth from the double-digit rates that have characterised the Irish economy since 2015.

The headline current account recorded a surplus of €15.8 billion in 2023Q2. This figure represents an increase of €2.3 billion (16.7 per cent) in the surplus on the previous quarter, and was primarily driven by declining primary income debits and a change from a services deficit in Q1 2023 to a surplus position in Q2 2023. However, the decline in net merchandise trade surplus of €17.5 billion in Q2 2023 compared to Q1 2023 is worth noting, as it represents the largest quarterly reduction in the merchandise trade surplus, which extends back to 2002Q1.

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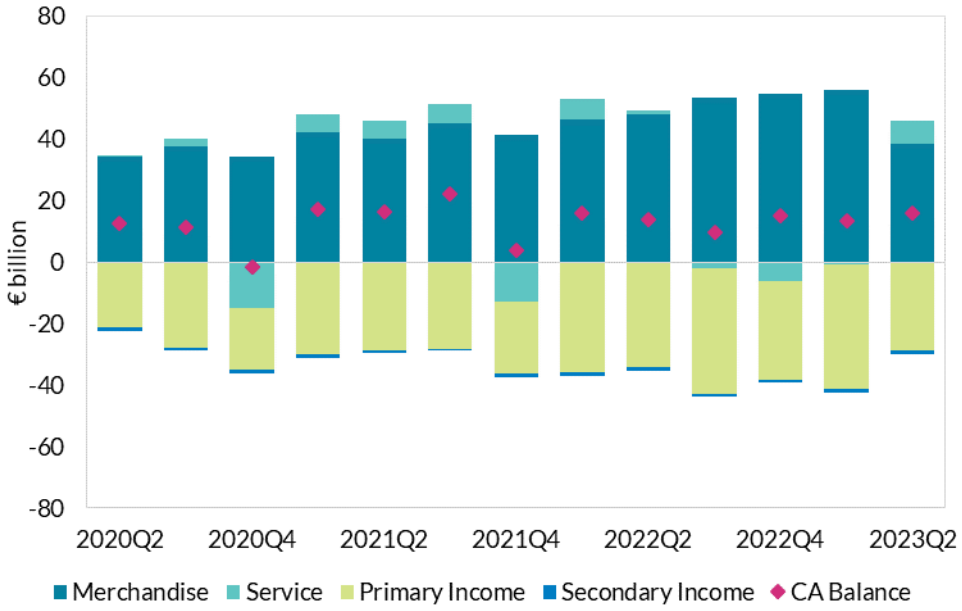
Reduced primary income outflows drove improvement in CA balance, despite declines in merchandise trade.

Figure 37: CA* and CA*/GNI* 1995-2022



Source: CSO and Central Bank of Ireland

Modified current account data for 2022 show declines in both the level of CA*, and the ratio of CA*-to-GNI*. Despite growth in nominal GNI* of 17.1 per cent in 2022, the modified current account surplus declined from €23.4 billion in 2021 to €19.5 billion in 2022. These opposing movements caused the CA* / GNI* ratio to decline by almost 3 percentage points, from its 2021 peak of 10 per cent. With continued growth, albeit weaker than previously forecast, the CA* / GNI* ratio is forecast to increase moderately to 7.4 percent in 2023, and 7.7 per cent in 2024, before rising to 7.8 per cent by 2025.

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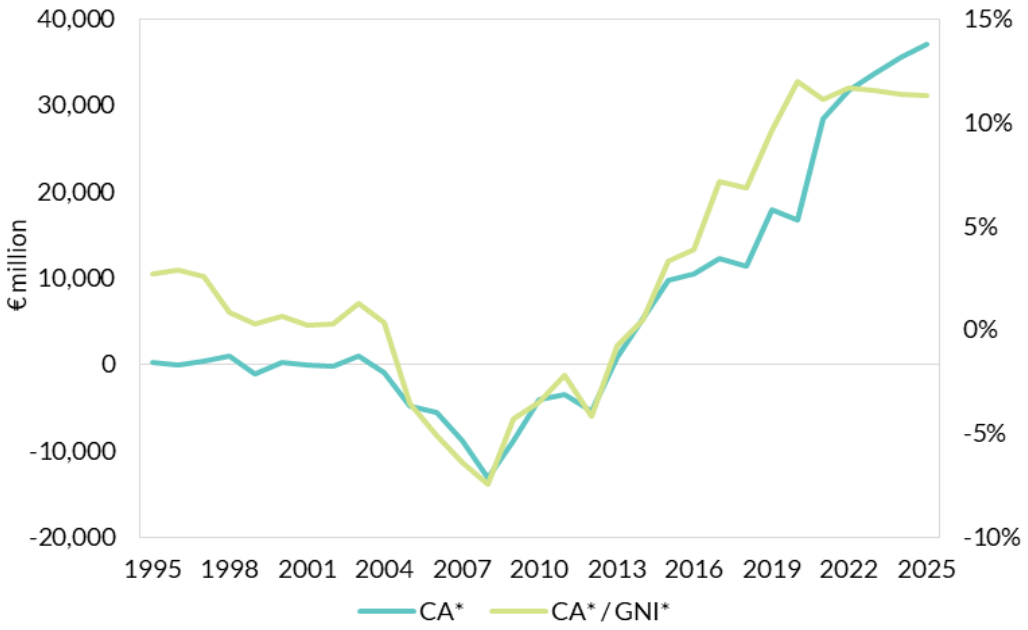
CA* surplus declined sharply in 2022, despite positive GNI* growth.

Figure 38: CA* and CA*/GNI* 1995-2022



Source: CSO and Central Bank of Ireland

Box D: What explains the decline in Irish exports in 2023?

By Thomas Conefrey and Darragh McLaughlin

The value of Irish merchandise (goods) exports increased by €42 billion or just under 26 per cent in 2022 – the largest annual growth in exports since 1998.[13] After this exceptional increase in 2022, the latest CSO Goods Exports and Imports release for June 2023 shows a decline of close to €3 billion in Irish goods exports in the first six months of 2023 compared with the same period in 2022 (Table 1). Driven by exports of high-value products from the fast-growing pharmaceutical and ICT manufacturing sectors, overall goods exports increased rapidly in the last decade – more than doubling in value between 2012 and 2022. This marks out the weak performance in the first half of 2023 as somewhat unusual. This Box examines the performance of exports over the first half of the year, using detailed data. The outturn for exports so far in 2023 illustrates the

[13] This Box uses data from the CSO's monthly Goods Exports and Imports release and related data from Eurostat. These data are based on the physical movement of goods between countries and the export data therefore reflect goods physically produced and exported from Ireland. The data do not include "goods for processing" – goods manufactured abroad on behalf of a multinational enterprise based in Ireland.

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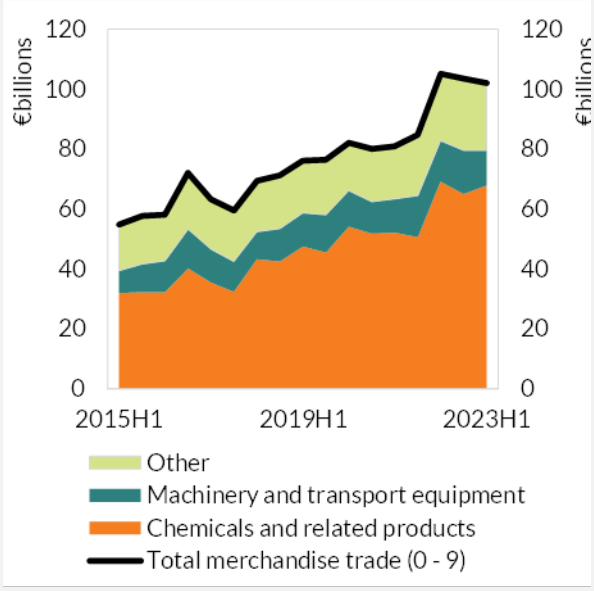
potential risks to the Irish economy resulting from the concentration of trade in a small number of high-value added, multi-national enterprise (MNE)-dominated sectors.

Value of goods exports declines in H1 2023 following large increase in 2022

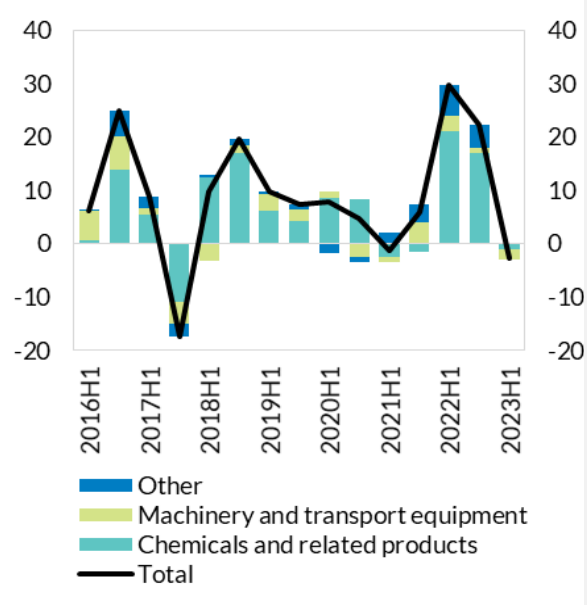
Figure 1: Value of Irish Exports by Product Category, 2015H1 – 2023H1, € billion



Source: CSO and author's calculations
Note: Figure shows sum of value of exports for six-month consecutive (half yearly) periods from 2015 H1 - 2023H1.

Exports of chemicals and machinery and transport equipment contract in H1 2023

Figure 2: Contribution to growth in overall goods exports (%): H1 on H1 growth rate



Source: CSO and author's calculations

Two product categories – *Chemicals and Related Products* and *Machinery* and *Transport Equipment* – dominate overall exports of goods from Ireland (Figure 1 and Table 1). Together, these two sectors accounted for 78 per cent of overall goods exports in the first half of 2023 and the majority of the growth in exports in Ireland up to end-2022 in turn has come from these two sectors (Figure 2). The value of exports from these sectors declined by 1.8 per cent and 14.4 per cent, respectively in the first half of 2023 compared with the same period in 2022, thereby accounting for the majority of the reduction in overall goods exports over this period (Table 1).

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Table 1: Goods exports by commodity, H1 2022 and H1 2023

	Jan-Jun 2022 (€ billion)	Jan-Jun 2023 (€ billion)	% of Total Goods Exports (H1 2023)	Change: Jan-Jun 2022 to Jan-Jun 2023 (€ billion)	Change: Jan-Jun 2022 to Jan-Jun 2023 (%)
Food and live animals	6846.1	7176.9	7	330.7	4.8
Beverages and tobacco	962	877.8	0.9	-84.3	-8.8
Crude materials, inedible, except fuels	1208.8	876.8	0.9	-332.1	-27.5
Mineral fuels, lubricants and related	880.4	516.7	0.5	-363.8	-41.3
Animal and vegetable oils, fats and waxes	75.6	81.8	0.1	6.2	8.2
Chemicals and related products	**69152.1**	**67904.3**	**66.5**	**-1247.8**	**-1.8**
Manufactured goods classified by material	1679.2	1677.1	1.6	-2.1	-0.1
Machinery and transport equipment	**13610.2**	**11656.5**	**11.4**	**-1953.7**	**-14.4**
Miscellaneous manufactured articles	10362.3	10991.9	10.8	629.6	6.1
Commodities and transactions (NES)	181.4	242.7	0.2	61.2	33.7
Unclassified estimates	75.8	42.5	0	-33.3	-43.9
Total	**105034.1**	**102044.8**	**100**	**-2989.3**	**-2.8**

Using Eurostat data, it is possible to examine in more detail the specific products behind the decline in exports in the two aggregate categories *Chemicals and related products* and *Machinery and transport equipment*. The decline in exports of *Chemicals and related products* is concentrated in the *Medicinal and Pharmaceutical Products* subcategory (Figure 3a). Within this subcategory, most of the decrease has resulted from a reduction in *glycoside and vaccination exports*, of which vaccines make up the most part (Figure 3b). The exceptional increase in overall exports of chemicals and related products in 2022 was linked to the increase in Covid-19 vaccine production. In addition, it is likely to have reflected in part a degree of stockpiling of pharmaceutical products in light of uncertainty over the path of the pandemic as well as concerns over global supply chain disruptions last year. As the pandemic has eased and global supply chain conditions improved, a run down of accumulated stocks and a return to more normal production levels are likely to explain a significant part of the decline in pharma exports in the first half of 2023 compared to 2022.[14]

[14] For example, in guidance to investors for 2023 published in January, Pfizer stated that it expected a 31 per cent decrease in revenues for 2023 compared to 2022 due entirely to expected revenue declines for Pfizer's COVID-19 products. See: https://investors.pfizer.com/Investors/News/news-details/2023/PFIZER-REPORTS-RECORD-FULL-YEAR-2022-RESULTS-AND-PROVIDES-FULL-YEAR-2023-FINANCIAL-GUIDANCE/default.aspx

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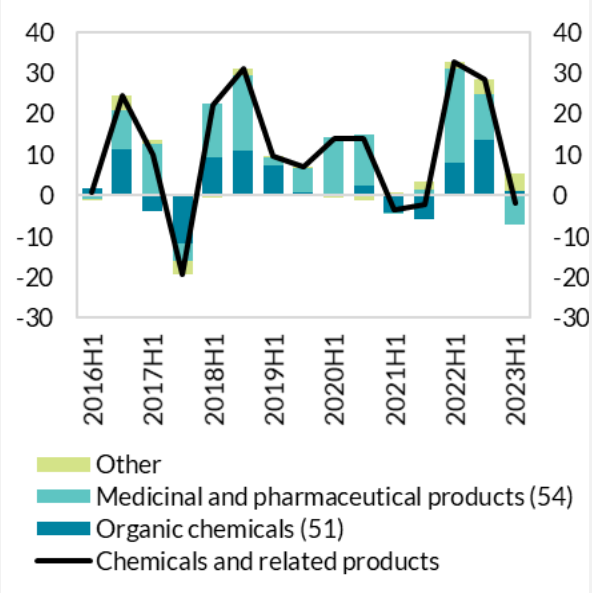
Value of medical and pharma exports declines in H1 2023

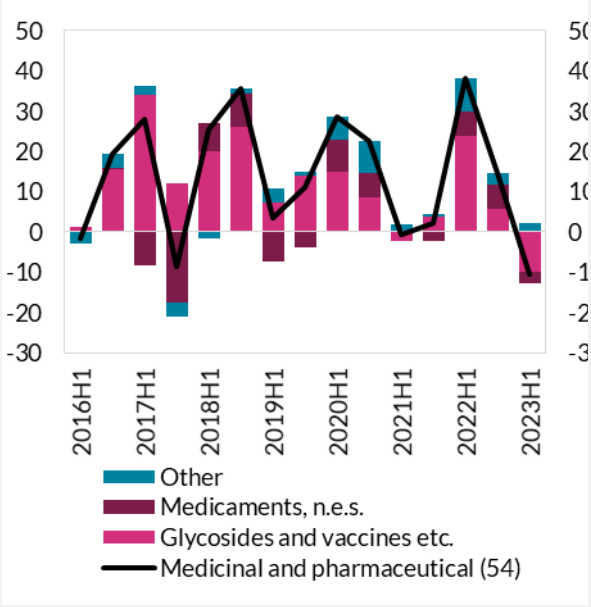
Figure 3a: Contributions to growth in exports of Chemicals and related products (%) (H1 over H1)



Source: CSO and authors' calculations

Reduction in vaccine exports accounts for majority of decline in medical and pharma products in H1 2023

Figure 3b: Contributions to growth in exports of Medical and Pharma products (%) (54) (H1 over H



Source: Eurostat and authors' calculations

Machinery and *Transport Equipment* is the other category that has registered a decline in the value of exports in 2023. Within this category, *Electrical Machinery* has been driving the decline in export growth (Figure 4a). Most of the export growth and subsequent declines in *Electrical Machinery* has resulted from the export of *Diodes and Semiconductors, with* semiconductors contributing to the majority of the change in export values (Figure 4b).

The precise causes of the reduction in semiconductor exports in 2023 are unclear at present but may reflect a number of developments adversely affecting this part of the global ICT manufacturing sector. China accounts for almost 70 per cent of all exports of semiconductors from Ireland and Figure 5 shows that the drop in exports in H1 2023 is due mainly to a reduction in exports to that market, as well as lower exports of semiconductors from Ireland to the US. It is possible that the decline in Irish exports in this sector reflects headwinds for the global economy coming from reduced Chinese trade, structural demand changes for specific products within the technology sector and government policy changes internationally. In relation to the latter, in October 2022, the Biden Administration announced new restrictions on exports to China of advanced integrated circuits (ICs), computers and components containing advanced ICs, semiconductor manufacturing equipment and related software and technology.[15] The

[15] See https://www.bis.doc.gov/index.php/documents/about-bis/newsroom/press-releases/3158-2022-10-07-bis-press-release-advanced-computing-and-semiconductor-manufacturing-controls-final/file

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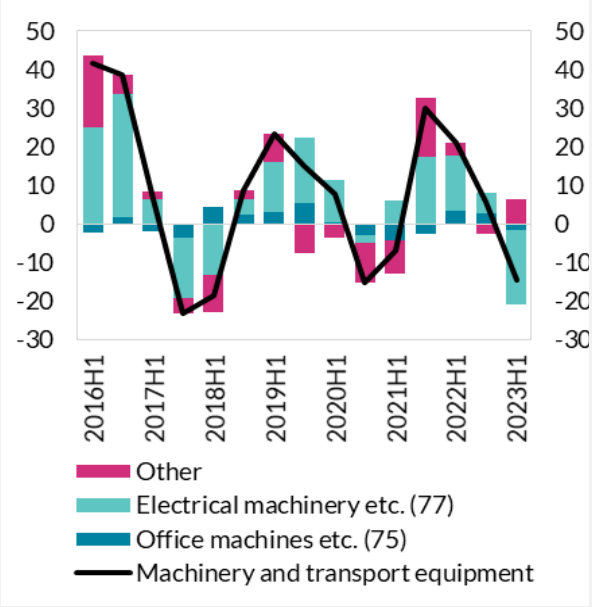
restrictions cover exports from US-based firms but they also apply to any company worldwide that uses US semiconductor technology in its production processes. It is not possible to determine from publically available information whether the export controls have affected exports of semiconductors from Ireland. However, since US-owned multinational enterprises account for a significant share of exports from this sector in Ireland, it is possible that the restrictions are playing a role in the weakness in Ireland-China ICT goods exports to date in 2023.

Sharp decline in exports of electrical machinery in H1 2023

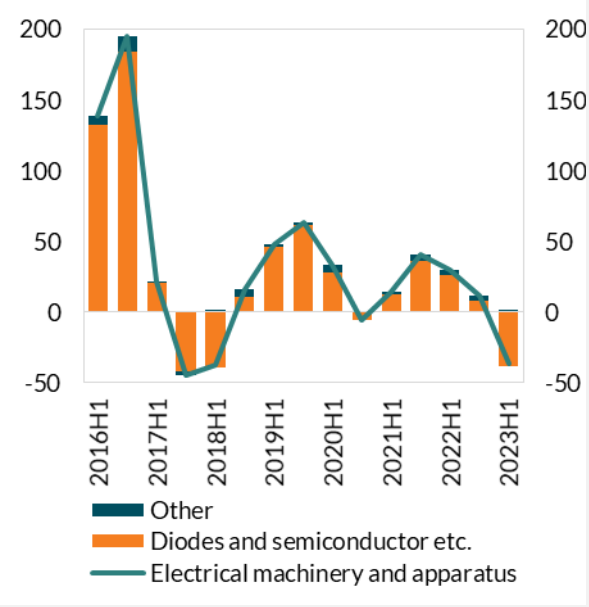
Figure 4a: Contributions to growth in exports of Machinery and transport equipment (H1 over H1) (%)



Source: CSO and authors' calculations

Semiconductor exports contract in H1 2023 following strong growth in previous years

Figure 4b: Contributions to growth in exports of Electrical Machinery (77) (H1 over H1) (%)



Source: Eurostat and authors' calculations

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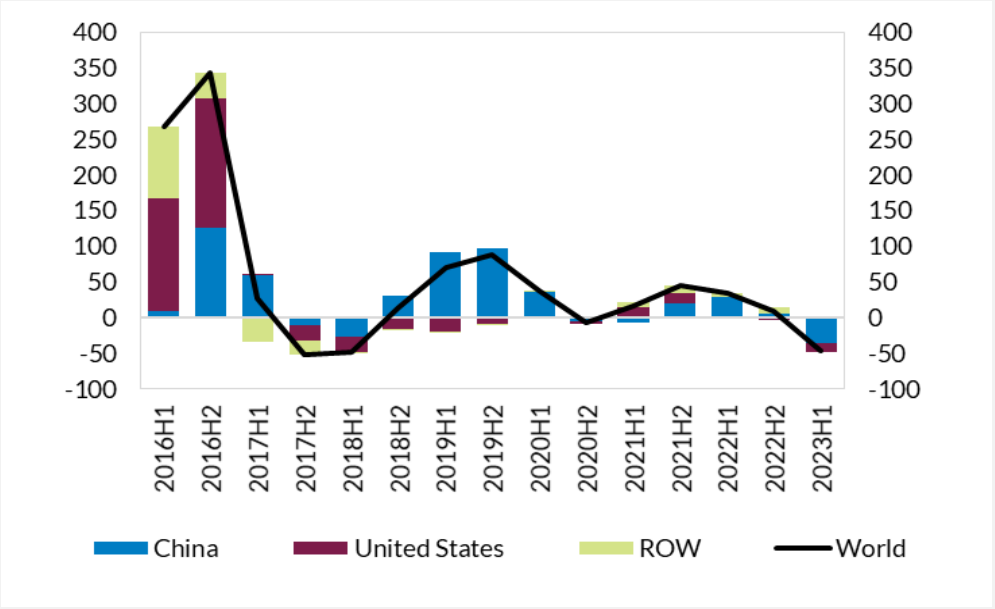
Decline in semiconductor exports concentrated in China

Figure 5: Export destinations contribution to diode and semiconductor export growth (%)



Source: Eurostat and authors' calculations

In summary, two product categories – *medical and pharmaceutical products* and *electrical machinery* – which account for four fifths of overall goods exports, and which expanded rapidly in 2022 and in the years previously, have both recorded declines in exports in the first half of 2023. In the case of pharma, the weakness in 2023 may reflect a return to more normal trading patterns following rapid expansion in 2022 linked to the Covid-19 pandemic. The precise reasons for the decline in exports of *electrical machinery* in 2023 are not fully apparent at present and require ongoing monitoring and analysis. It is possible that future quarters could see a rebound in exports from both sectors, in particular since large-scale physical investments have taken place over recent years to expand production facilities in both the pharmaceutical and ICT manufacturing sectors.[16]

Nevertheless, the decline in trade in the first half of 2023 is a reminder of the wider risks to the Irish economy from the concentration of exports in a small number of highly globalised, multinational-dominated sectors. This characteristic of the economy leaves it exposed in the event of a downturn in global demand, industry or firm-specific structural changes or an acceleration of geo-economic fragmentation.

[16] For example, In December 2022, Intel announced that it was spending an additional €12 billion and doubling its manufacturing space at its site in Leixlip. On 22 August 2023, the company announced that it had completed an important step towards beginning full production silicon at the site. In the pharmaceutical sector, Pfizer announced a €1.2 billion investment at its Grangecastle facility which the company stated will double the capacity for biological drug substance manufacturing at the site when completed.

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Prices and Costs

Consumer Prices

Consumer price inflation remains persistently high. While headline HICP inflation in year-on-year terms has slowed from near double-digit rates in 2022, this is largely the mechanical result of higher inflation in the early months of last year dropping out of the base.[17] Headline HICP inflation increased to 4.9 percent in August 2023, while core inflation, which excludes food and energy prices, was 4.8 per cent. Energy prices returned to positive year-on-year growth in August 2023 after some decline in the first quarter of the year, largely the result of higher oil prices with knock-on effects for automotive fuel and home heating oil. Energy prices for consumers in Ireland, particularly gas and electricity, remain higher and have been slower to decline compared to the euro area (Figure 39 and Figure 40).

This persistence in energy prices has permeated to higher production costs for most other domestically produced goods and services. There are tentative signs that measures of core or underlying inflation (Figure 41) are declining but this is likely due to declining imported goods prices rather than a slowdown in domestically generated inflation. The trimmed mean and common inflation component measured 4.9 per cent and 3.7 per cent in August 2023, respectively.[18] The proportion of goods and services experiencing a high rate of price increase is historically high at 55 per cent (Figure 42). There is increasing evidence that the strength of the domestic economy and associated domestic price pressures, including rising wages and robust profit margins are contributing to inflation. Indirect and second round effects are the main sources of inflation at present.

[17] See Box E in QB1 2023 for an explanation of base effects.
[18] See Box E in QB1 2022 for an introduction to the measure of "common" inflation.

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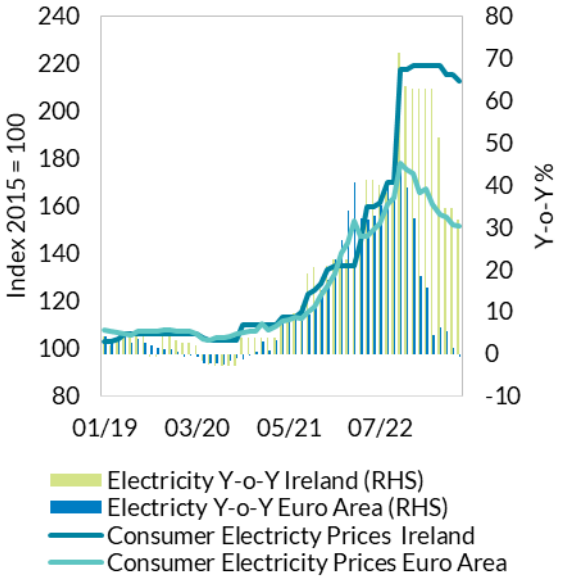
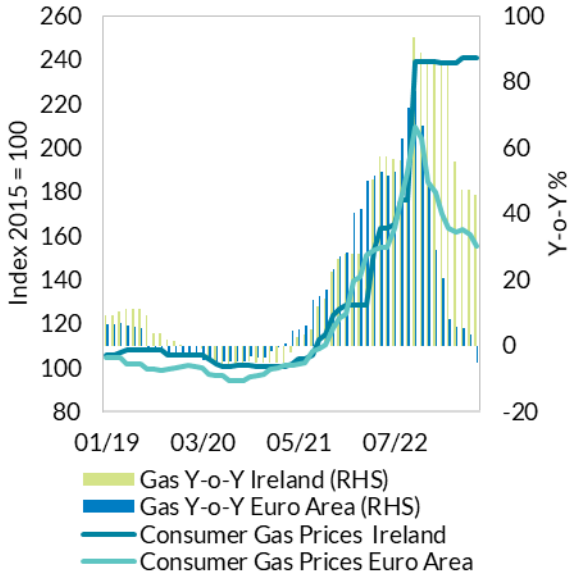
Consumer energy prices haven't declined as fast in Ireland as elsewhere

Figure 39: Consumer Electricity Prices



Source: Eurostat

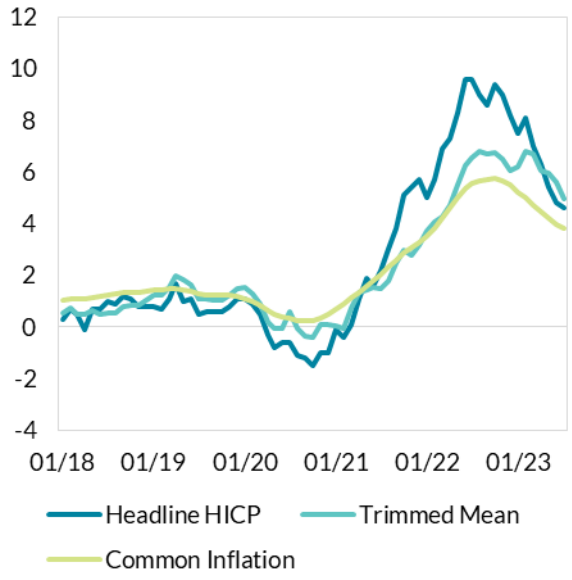
Figure 40: Consumer Gas Prices



Source: Eurostat

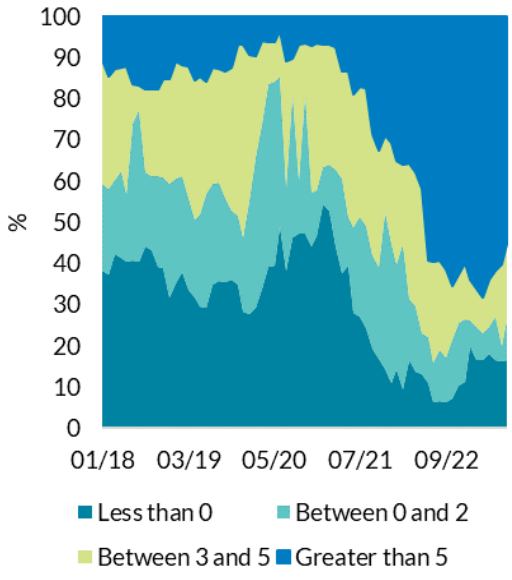
Price increases are broad-based but showing signs of a turnaround

Figure 41: Headline HICP, Trimmed mean and Common component measures of inflation



Source: Eurostat and CBI calculations.

Figure 42: Weighted share of prices in HICP



Source: Eurostat and CBI Calculations

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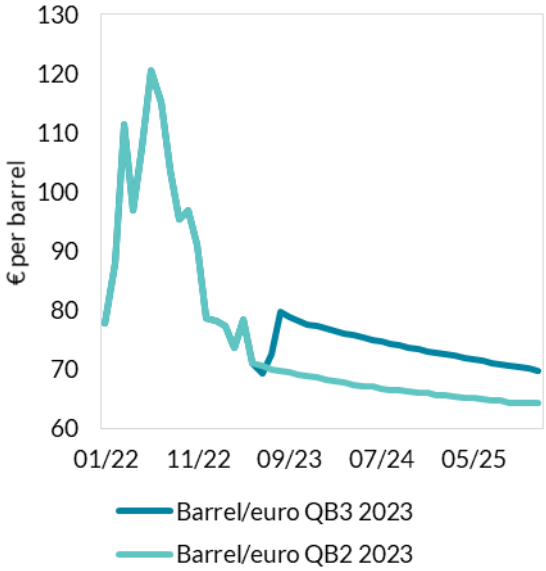
Oil futures are lower than at time of June 2023 QB

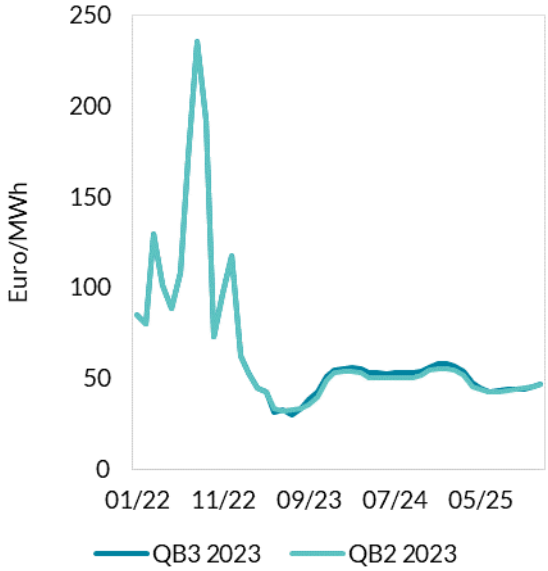
Figure 43: Brent Crude Futures



Source: Refinitiv Eikon

Gas futures have also declined marginally since June projections

Figure 44: TTR Gas Futures



Source: Refinitiv Eikon

Oil futures prices have increased since the last *Quarterly Bulletin*. Tightening supplies and expectations that OPEC+ leaders would extend output cuts through the rest of the year have resulted in higher prices in the last quarter. In addition, there are market views that Russia will cut oil exports and that inventories of oil in the US have fallen by more than expected. Gas futures prices are largely unchanged from the previous Bulletin, as reserves are high and demand has weakened, particularly from the German manufacturing sector.

Other international commodity prices have moderated. Agri-food commodity futures have moderated with a decline in prices forecast in the latter stages of 2023, accelerating into the early part of 2024. These assumptions, however, are subject to considerable uncertainty since Russia pulled out of the Black Sea Initiative and has targeted Ukrainian grain export hubs. Moreover, environmental-related volatility has substantially increased uncertainty and concerns around food production. Consumer food prices, however, are forecast to contribute significantly to inflation this year and next, increasing by 7.6 and 2.1 per cent this year and next as past commodity market increases continue to pass-through to prices. Food prices are forecast to grow by 0.1 per cent in 2025. The outlook for industrial goods prices, which are largely imported and conditional on good and energy futures and exchange rates, is for

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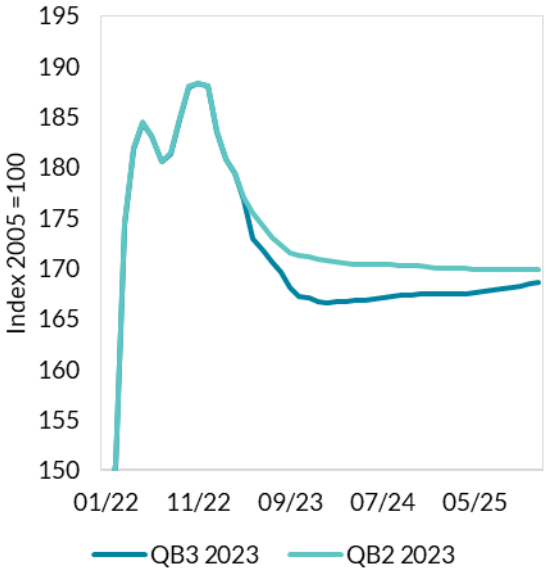
inflation of 3.3 per cent in 2023 to moderate to 0.9 and 0.4 per cent in 2024 and 2025. These are substantial downward revisions since the last Quarterly Bulletin, resulting from lower than expected recent outturns and lower commodity assumptions. It remains to be seen whether the recent negative outturns reflect genuinely lower import prices or are a result of known problems in the measurement of Irish industrial good prices.[19]

Food commodities futures are lower than in June 2023

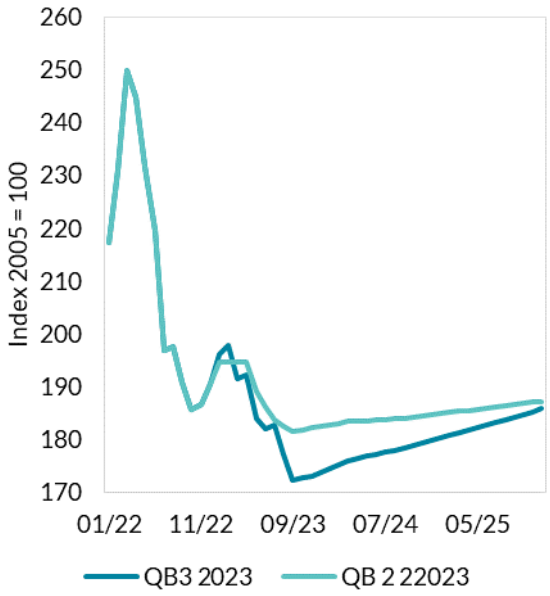
Figure 45: Aggregate Food Futures



Source: ECB internal calculations

Industrial goods futures prices also lower than June 2023 assumptions

Figure 46: Aggregate Industrial Futures



Source: ECB internal calculations

Supply chain conditions have improved considerably. The Global Supply Chain Pressure Index (Figure 47), which combines data on global transportation costs with delivery times, backlogs and purchased stock data in global PMIs, suggest that the positive trend in supply chain pressures continued through the summer with the index now below its historical average. There were significant improvements in euro are delivery times. This is corroborated by an improvement in manufacturing delivery times (Figure 48) as measured by the AIB Manufacturing PMI.

[19] https://www.cso.ie/en/media/csoie/methods/consumerpriceindex/Ireland.pdf

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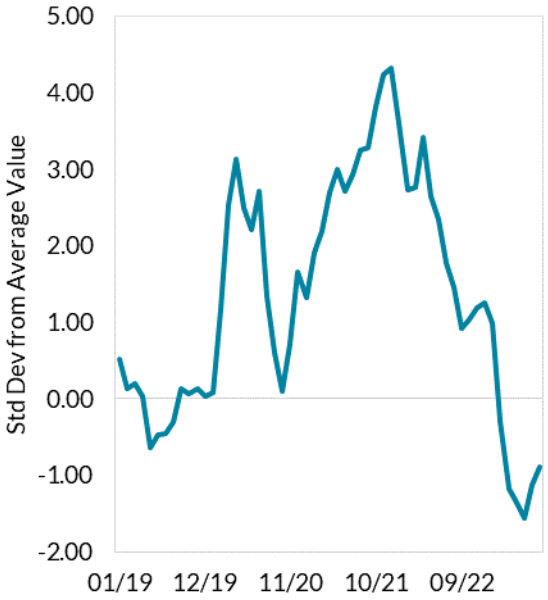
Supply chains better than in 2020

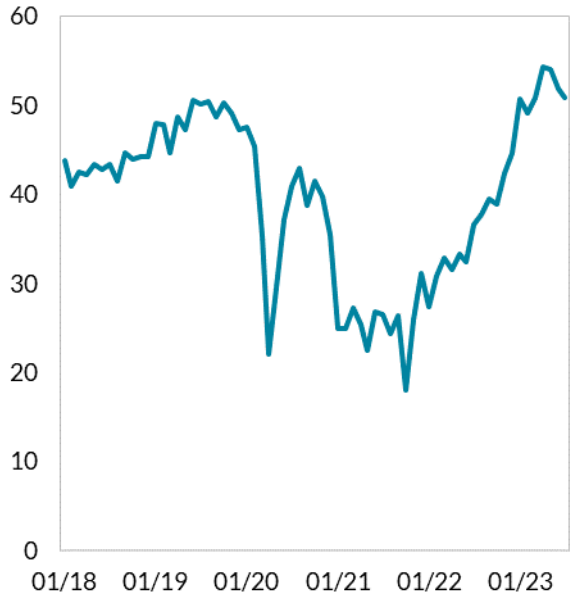
Figure 47: Global Supply Chain Pressure Index



Source: NY Fed.

Delivery times improving

Figure 48: Manufacturing Delivery Times



Source: IR AIB PMI Manufacturing

Core inflation has been volatile but remains persistently high, registering a 4.8 per cent year on year increase in August 2023. Figure 49 shows the drivers of core inflation (HICPX) in terms of its component contributions from non-energy industrial goods (NEIG) and services inflation. Services inflation has been dominating the evolution of HICPX, with a declining, but still positive, contribution from NEIG. The declining contribution from NEIG is largely from reduced imported inflation while the services component is related to domestic cost pressures in an economy running at capacity.

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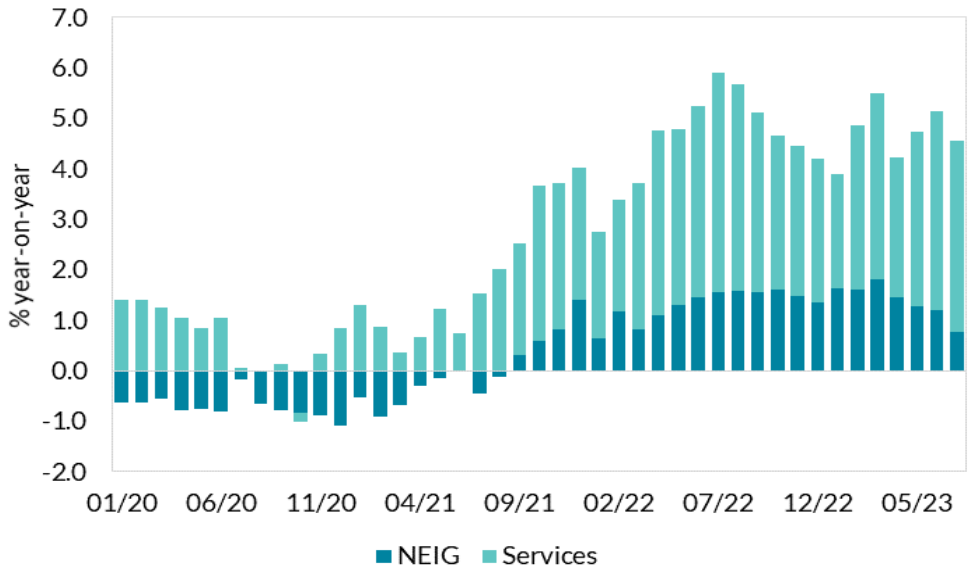
Services inflation is driving core inflation

Figure 49: Contributions to HICPX



Source: Eurostat and Central Bank of Ireland

Conditional on current macroeconomic assumptions and no further energy or supply chain shocks, inflation is expected to average 5.4 per cent in 2023. Consumer energy prices are likely to remain elevated in 2023 as the effects of the hedging strategies of energy companies continue to impact consumer prices. In addition, the planned reversal of VAT and excise declines and increased carbon taxes imply a pickup towards the end of the year. The extent of the lag between wholesale and retail energy prices is the subject of some uncertainty, with some major suppliers pointing to the use of forward contracts in excess of 12 months. While these contracts may have protected Irish consumers to some extent from the large increases in wholesale prices internationally, the cost of this insurance means that Irish prices are still amongst the highest in Europe. Wholesale energy prices have been declining for the past year, and subject to the effectiveness of the hedging strategies and the margins providers are targeting, could be expected to put downward pressure on consumer energy prices over the near term. Based on current oil, gas and electricity futures, in addition to estimated lags in pass-through to consumer prices and expected increases in taxes on energy, the forecast is for moderation in the increase of consumer energy prices over the horizon. HICP inflation is forecast to moderate to 3.2 and 2.3 per cent in 2024 and 2025, respectively, as energy, food and industrial goods price growth slow over the forecast horizon. (Figure 50).

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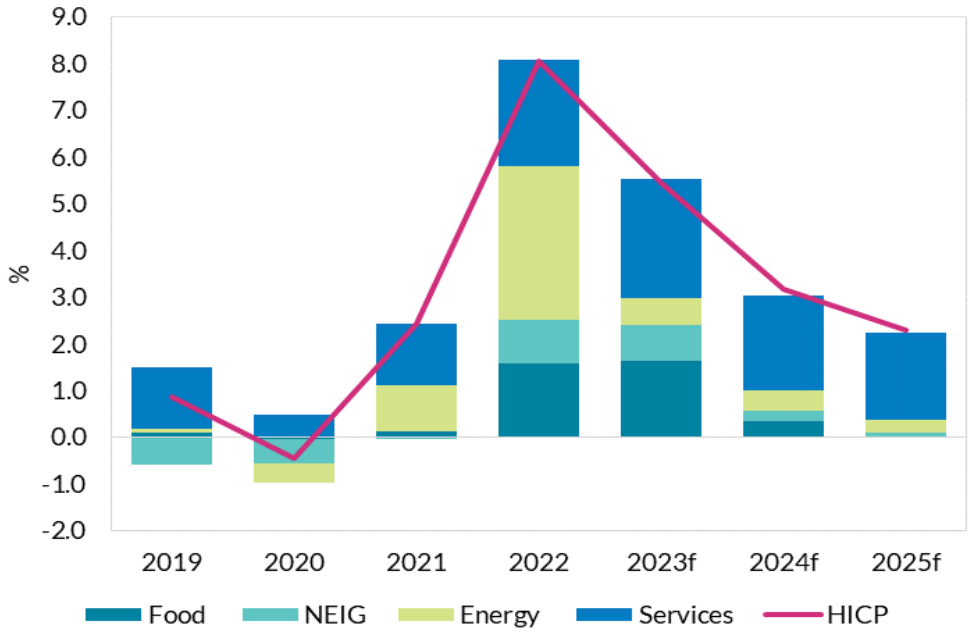
Food and services driving inflation

Figure 50: HICP Forecast



Source: CSO and Central Bank of Ireland

The inflation forecasts contained in this Bulletin are subject to both upside and downside risks, but upside risks dominate. European energy markets have adjusted since the onset of Russia's war in Ukraine. How quickly the decline in wholesale commodity prices pass-through to consumer products is the subject of considerable uncertainty. There could be some asymmetry in the rate and extent of pass-through between the upward and downward commodity price shocks. Other upside risks remain, most importantly, environmental disasters and the outlook for food prices, an escalation of geo-political tensions and adverse fragmentation of international trade or de-globalisation, which could result in higher prices. Some internalising of fossil fuel externalities is likely to result in upward pressures on global energy prices in the years ahead. The substantial investments required for the transition to a green economy coupled with the anticipated decline in fossil fuel subsidies could result in considerable volatility in energy prices in the years ahead. On the downside, a decline in demand associated with recent interest rate increases could accelerate price declines more than anticipated.

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Table 2: Inflation Projections

	2022	2023	2024	2025
HICP	8.1	5.4	3.2	2.3
Goods	11.4	5.5	2.2	0.9
Energy	41.2	6.4	5.0	3.1
Food	7.3	7.6	2.1	0.1
Non-Energy Industrial Goods	4.2	3.4	0.9	0.4
Services	4.7	5.1	4.0	3.7
HICP ex Energy	5.1	5.2	2.9	2.2
HICP ex Food & Energy (Core)	4.6	4.6	3.1	2.7
Modified Domestic Demand Deflator	7.4	5.5	3.3	2.2
Private Consumption Deflator	6.5	6.2	3.5	1.5
Modified Investment Deflator	10.9	5.9	3.7	3.9

Broader Costs in the Economy

Domestically, PMI survey data (Figure 52) point to a downward trend in input and output prices in the manufacturing, services and construction sectors. Manufacturing input and output prices are below 50 which signals a decline. Services input and output prices are trending downward, but are still above 50, signalling continued inflation but at a moderating pace. This is an indication that pipeline pressures may be easing.

Disinflation is also evident in other non-consumer items, including domestic or home sale wholesale prices (Figure 51). The decline in wholesale energy prices is evident, down from triple digit highs in 2022 to a decline of 58 per cent year-on-year in July 2023. Domestic manufacturing costs have also moderated in year-on-year terms, increasing by just 0.2 per cent in April 2023. Domestic building and construction wholesale costs also registered moderating year-on-year increases of 2.4 per cent in July 2023.

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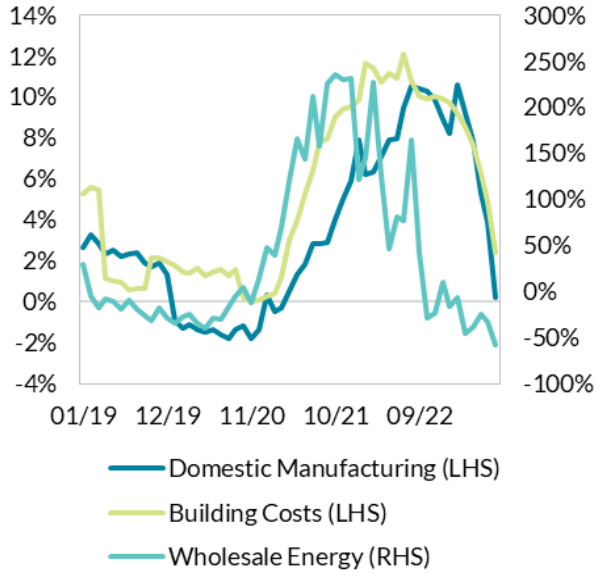
Wholesale prices declining led by energy

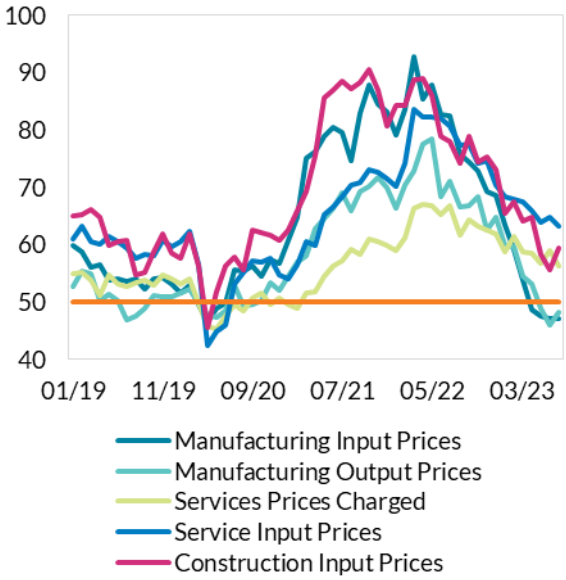
Figure 51: Wholesale Price Index



Source: CSO

Input and output prices improving

Figure 52: PMIs



Source: Refinitiv Eikon

Labour Market

Labour Force Survey figures for Q2 2023 show continued strong growth in employment, though the pace of growth is showing signs of slowing. Employment increased by 3.5 per cent annually (88,400 persons) in the second quarter, down from 4.1 per cent in Q1 2023. These recent developments may reflect labour market growth reaching its natural peak following notable expansion in the pandemic recovery period.[20] Employment growth in the second half of the year is projected to moderate further as reduced availability of labour slack and continued reliance on inward migration may curb the pace of job growth. Signs of a slowdown in employment growth are also observed in the CSO monthly employee estimate with the annual change in levels for June 2023 the lowest since the pandemic (Figure 53). The latest month-on-month change has turned negative for the first time in over two years. On the strength of data in the first half of the year, employment growth for 2023 has been revised upwards to 3.6 per cent, before then slowing to 1.7 per cent in 2024 and 1.6 per cent in 2025.

The detachment between growth in employment and total hours worked has continued in the second quarter, as average hours worked are further away

[20] Employment growth of 12.3 per cent was recorded in Q1 2022 due to base level effects following a large outflow of persons as a result of pandemic-related health restrictions on business activities.

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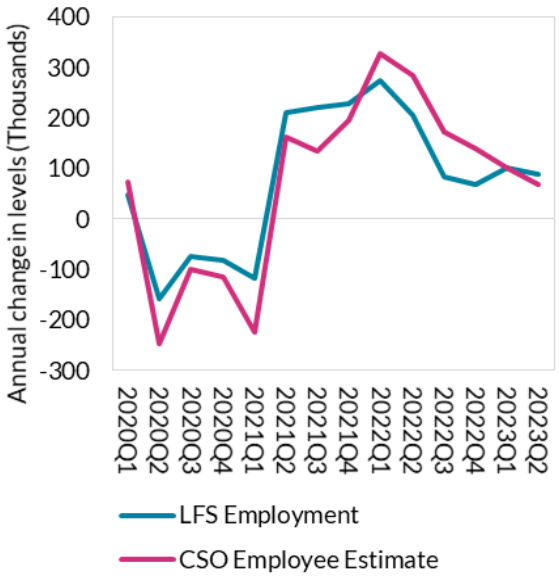
from pre-pandemic levels. Total hours worked increased by 1.3 per cent annually relative to 3.5 per cent employment growth in the second quarter, resulting in average hours worked now measured at 3.2 per cent below pre-pandemic levels despite the share of part-time employment remaining broadly unchanged (Figure 54).[21] While the pace of employment growth is projected to slow over the forecast horizon due to availability constraints, increases in average hours worked may alleviate some labour demand pressures in a number of sectors. Employment growth in Q2 2023 was broad based across many sectors with the largest increases observed in public administration (11.2 per cent) and other services (8.8 per cent), while declines were recorded in the industry (-1.2 per cent) and agricultural (-6.2 per cent) sectors. The majority of the latest employment growth has been for females, accounting for 71 per cent of the annual increase, with increases primarily observed in the health sector.

Slowdown in annual change in employment levels

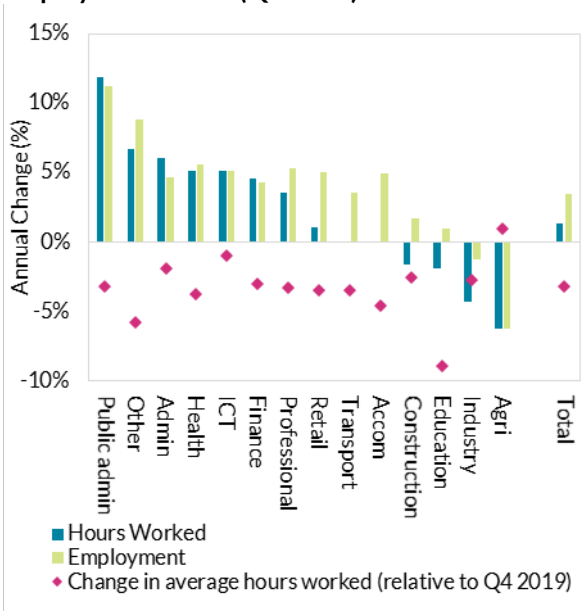
Figure 53: Annual change in employment levels



Source: CSO
Note: Monthly employee estimate figures are averaged for each quarter

Average hours worked is lower than the pre-pandemic period for the majority of sectors

Figure 54: Annual growth in hours worked and Employment sector (Q2 2023)



Source: CSO

The labour force increased by 3.4 per cent annually in Q2 2023 due mainly to increased net inward migration. The labour force increased by 89,700 annually in Q2 2023, of which, 60,300 were non-Irish nationals from non-EU and non-

[21] ECB analysis points to this occurrence in the euro area as a whole, with possible factors including the rise in the public share of total employment, secular drivers and labour hoarding.

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UK countries. This inward migration has been the main driver of the 2.7 per cent increase in the working age population over the year to Q2 2023, a rate of expansion previously observed in the mid-2000s when persons from then EU-accession countries migrated to Ireland. Inward migration flows may be decelerating as the number of employment permits issued from January to July 2023 is down 24 per cent on the previous year.[22] Although overall levels are elevated relative to the pre-pandemic period, there is an evident annual decline in the ICT sector, which may reflect weakening labour demand arising from layoffs announced in recent months (Figure 55).[23] The labour force participation rate (LFPR) increased by 0.5 percentage points annually to measure 65.7 per cent in Q2 2023, which represents the highest point in the aggregate series since the onset of the global financial crisis.[24] The main drivers of growth were females aged over 35 years which may suggest a continuation of age cohort effects as identified by Boyd et al (2022) with the female LFPR (61 per cent) notably surpassing its previous peak of 60.1 per cent in Q4 2021.[25] Growth in the labour force is expected to average 3.4 per cent in 2023 before slowing to 1.6 per cent the following year as inward migration begins to moderate toward pre-pandemic levels.

[22] Employment permits are required for persons from outside the European Economic Area, UK or Switzerland to work in Ireland. Persons from India and Brazil account for 46 per cent of the 18,367 permits issued in the year to July 2023.
[23] See Conefrey et al (2023) for outline of recent developments in the ICT sector.
[24] The peak LFPR measured for Ireland was 67.3 per cent in Q3 2007.
[25] An example of the age cohort effect is that a woman aged 40 in 2023 is far more likely to participate in the labour force than a 40-year-old woman in 1998. The aggregate female LFPR has been increasing steadily over the past 20 years as older women with very low participation rates retire and are replaced by younger women whose participation rates are much higher.

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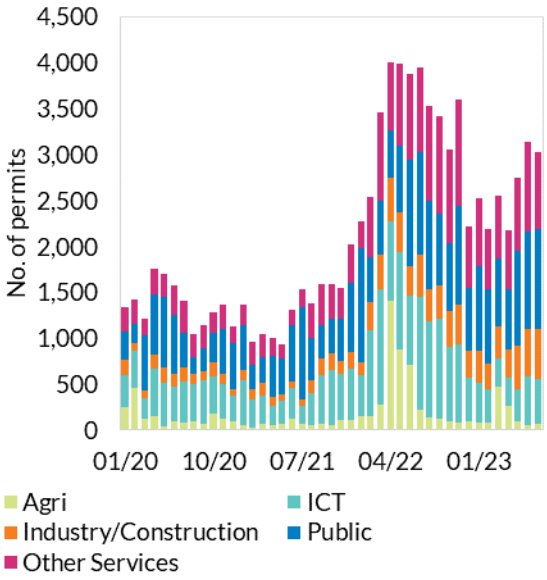
Level of employment permits issued has slowed due to falls in ICT and Agri sectors

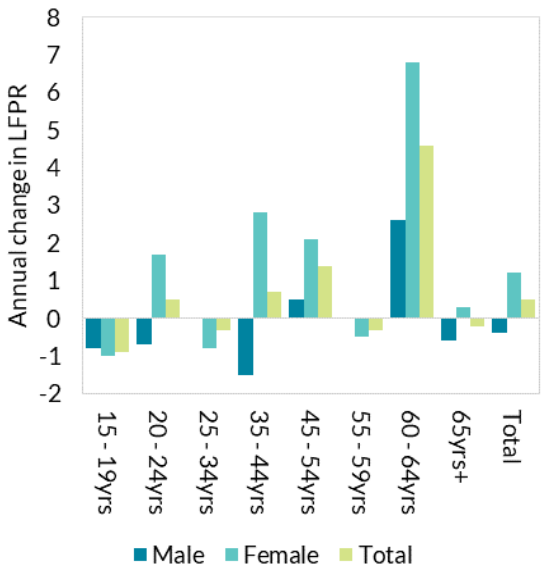
Figure 55: Employment permits issued by sector



Source: Dept. of Enterprise, Trade and Employment
Note: Public refers to Health, Education and Public Admin sectors. Other services includes Retail, Accom, Transport, Other, Prof, Admin and Finance.

Increased participation amongst over 35 years cohort has contributed to female LFPR reaching new peak

Figure 56: Annual change in LFPR by gender and age (Q2 2023)



Source: CSO

The ILO unemployment rate in Q2 2023 increased to 4.4 per cent from 4.1 per cent in the previous quarter. The recent increase to 121,200 persons is primarily driven by persons in short-term unemployment (less than one year), while long-term unemployment (1.3 per cent) is at its lowest rate since 2002 (Figure 57). The number of persons in the Potential Additional Labour Force (PALF) has increased to 99,200 with PALF as a share of the total working age population now being at 2.4 per cent, up from an average of 1.8 per cent in 2022.[26] This increase in labour slack may serve to help facilitate further jobs growth in certain sectors in the short-term. Overall labour market conditions, however, remain relatively tight which could contribute to wage pressures within a number of sectors.[27] Data revisions to the seasonally-adjusted monthly unemployment rate in recent months has resulted in the 20-year low of 3.8 per cent recorded in May 2023 being adjusted to 4.1 per cent and it has

[26] The Potential Additional Labour Force (PALF) is a supplementary measure of labour market slack and consists of two groups classified as outside of the labour force: 'Available for work but not seeking' and 'Seeking but not immediately available'. These groups have a historically higher transition rate to employment compared to other cohorts outside of the labour force.
[27] See Signed Article analysis for discussion on measures of labour market slack and potential implications for earnings developments.

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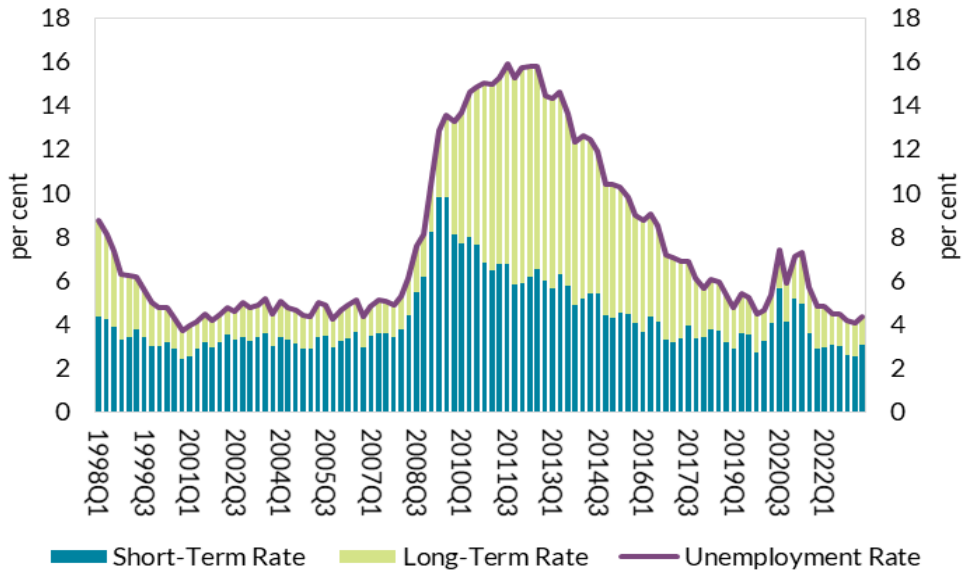
remained at this rate through to August. Looking ahead, the ILO unemployment rate is forecast to average 4.3 per cent in 2023 and 2024, respectively.

Long-term unemployment close to historic low

Figure 57: Short-Term and Long-Term Unemployment



Source: CSO
Note: Short-Term unemployment refers to persons unemployed for a duration of less than one-year. unemployment is defined as greater than one-year

Earnings and Income

Average hourly earnings from CSO EHECS data increased by 5.1 per cent in nominal terms in Q2 2023, up from 4.2 per cent recorded in the previous quarter. The highest growth rates continue to be observed in the public sector due to the effect of the public sector pay agreements on annual comparisons, although the 4.6 per cent increase in private sector earnings is the highest recorded growth rate since the pandemic period.[28] In real terms, private sector earnings declined annually by 0.7 per cent in Q2, with aggregate level earnings down 0.2 per cent. The largest real sectoral earnings increases were recorded in Finance (2.6 per cent) and Public Admin (2.3 per cent) (Figure 58).

[28] Average hourly earnings in the private sector increased by 5.1 per cent in Q3 2019. Distortions during the pandemic caused by compositional changes in employment and the impact of wage subsidy schemes contributed to a 9.1 per cent growth rate in Q1 2021. Pandemic effects on earnings developments are outlined in Box A of the Signed Article accompanying this *Bulletin*.

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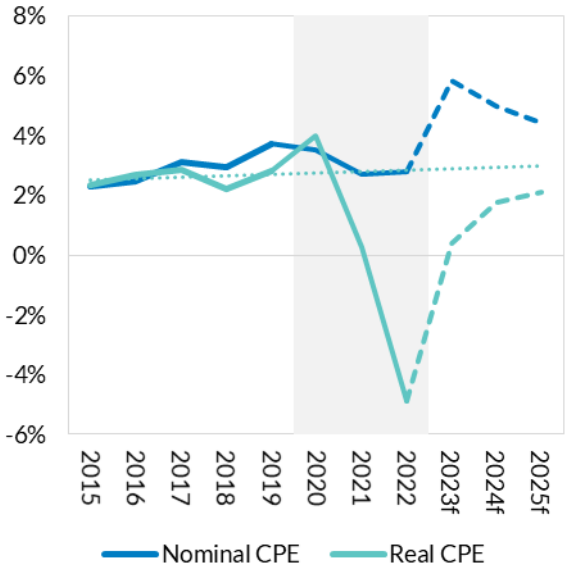
Positive real earnings growth beginning to emerge across certain sectors

Figure 58: Annual growth in nominal and real hourly earnings and employment by sector (Q2 2023)

Source: CSO; EHECS

Signs of positive real earnings developments in second half of 2023 if inflation continues to subside

Figure 59: Annual change and projected change in nominal and real compensation per employee



Source: CSO and CBI calculations
Note: Grey shaded area denotes period in which pandemic income support schemes were in operation that had distortionary effects on earnings analysis. Linear trend line plots growth trajectory of real CPE growth from 2015 to 2019

Nominal earnings growth on a compensation per employee (CPE) basis of 5.9 per cent is projected for 2023, resulting in a real increase of 0.4 per cent. There are early signs in CPE data that real earnings growth is beginning to recover from its trough in 2022, while continued moderation in the inflation rate may give rise to positive real earnings growth in aggregate in the second half of this year (Figure 59). Signed Article analysis points to a period of real earnings catch-up over the medium-term horizon as earnings adjust to more fully reflect conditions in the economy and the tightness of the labour market. This catch-up will be assisted by an expected moderation in inflation with real CPE growth of 1.8 per cent 2.1 per cent anticipated in 2024 and 2025, respectively. When factoring in the role of taxes and social transfers, total gross disposable income developments (GDI) will improve again on the previous year (Figure 60), with 3.4 per cent real growth, while real GDI per household is set to grow by 2.4 per cent in the same period (Figure 61).

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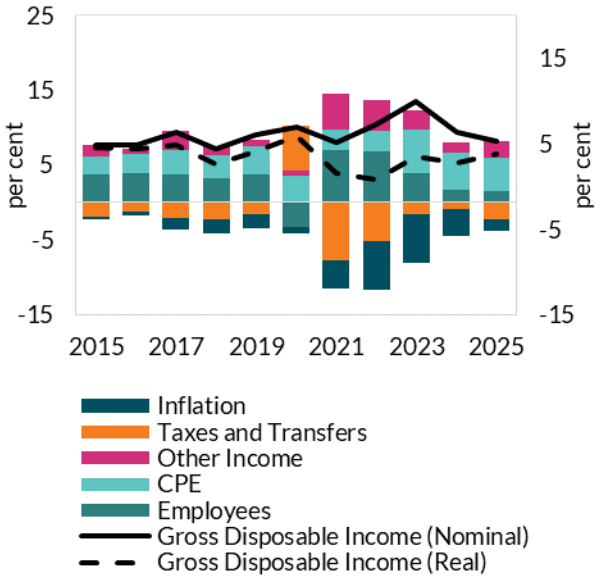
Gross Disposable Income to increase in real terms over forecast horizon

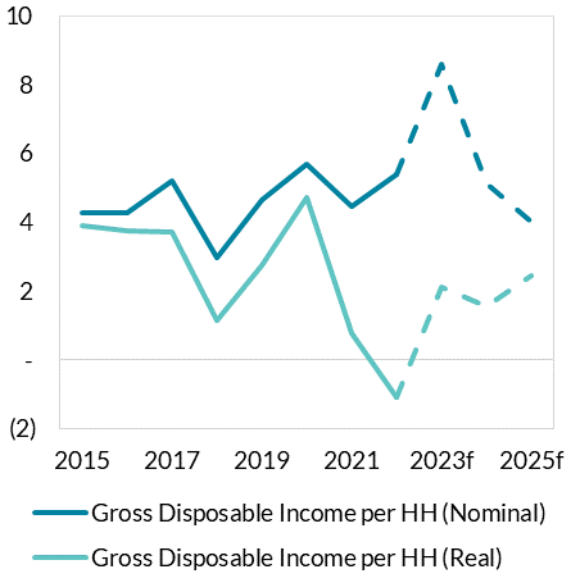
Figure 60: Decomposition of Gross Disposable Income



Source: CSO; National Accounts

Gross Disposable Income per Household set to return to positive real growth

Figure 61: Gross Disposable Income per Household



Source: CSO; National Accounts

Labour demand as observed through the Indeed job postings index has moderated in recent months, which has coincided with a slowdown in posted wage growth. The latest Indeed job postings data for end-August showed levels at 25 per cent above the pre-pandemic period, down from an equivalent figure of 54 per cent recorded in January 2023 (Figure 62). Occupational analysis identified a weakening amongst tech and professional services-related job advertisements.[29] A similar slowdown is observed in posted wage growth of 3.8 per cent in July, the lowest rate in fifteen months; however, this movement is in line with recent developments in core HICP. Posted wages have been slowing across euro area economies and the US in recent months, likely reflecting the impact of monetary policy developments on firms as labour demand wanes.

[29] See Indeed (2023) "Irish Job Postings Continue to Gradually Cool, But Still Elevated"

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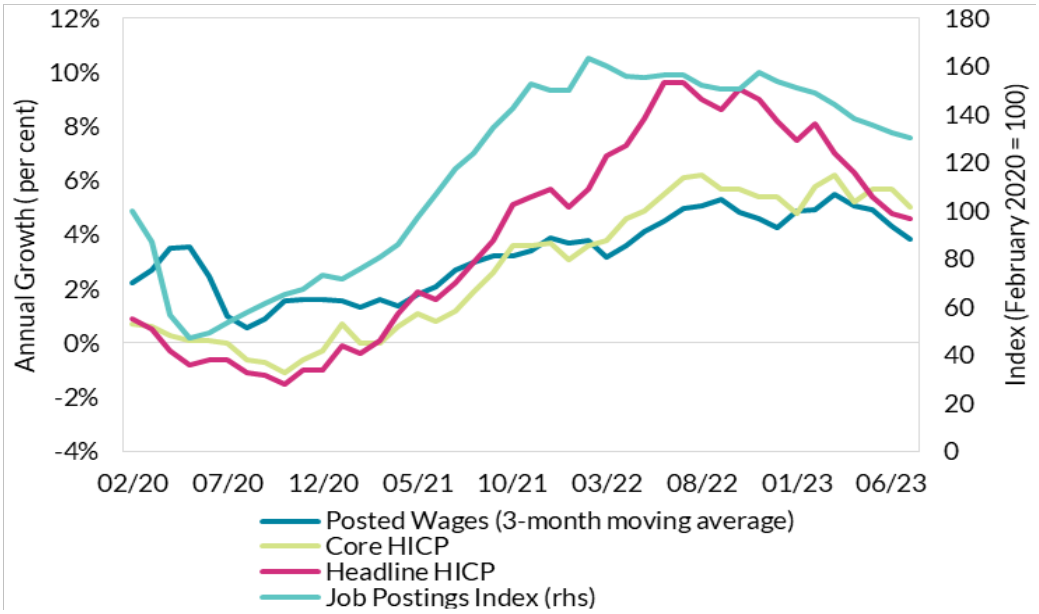
Slowdown in labour demand is matched by trends in posted wages and core inflation

Figure 62: Growth in job postings, posted wages and inflation



Source: CSO and Indeed

The EHECS job vacancy rate continued to slow in the second quarter to 1.3 per cent, down from 1.4 per cent at the start of the year. This reduction in the job vacancy rate coincides with a pick-up in the ILO unemployment to further highlight the downwards-slope in the Beveridge Curve (Figure 63).[30] At a sectoral level, the largest vacancy rates were recorded in the Public Admin (3.4 per cent) and Financial sectors (2.5 per cent) (Figure 64). Since the previous year, there has been a 6,100 decline in the level of vacancies with falls observed in the majority of sectors apart from those in the public domain with Health and Public Admin now accounting for 34 per cent of total job vacancies. The vacancy-to-slack ratio has increased slightly in the quarter with approximately 7.8 persons available for every vacant job though this remains relatively close to historical lows.[31]

[30] The Beveridge Cure is a graphical representation of the inverse relationship between the unemployment rate and the job vacancy rate.
[31] The vacancy-to-slack ratio compares the number of persons in ILO unemployment as well as those in the Potential Additional Labour Force to the level of job vacancies. This ratio peak at 69.1 persons per vacancy in Q4 2009 while average levels prior to the pandemic in 2019 were 12.3 persons.

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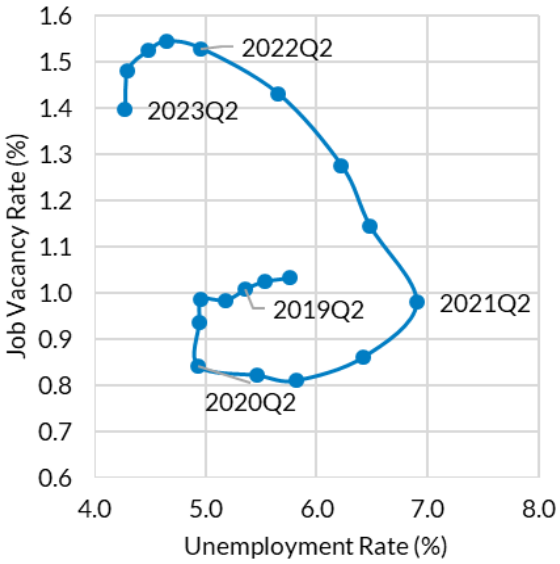
Change in slope of Beveridge may indicate early signs of slowdown in labour market

Figure 63: Beveridge Curve (2018 Q4 – 2023 Q2)



Source: CSO
Note: Data are calculated on a four-quarter moving average

Vacancy rates fall in all sectors apart from Public admin and Health

Figure 64: Sectoral job vacancy rate (Q2 2023)

Source: CSO; EHECS

Table 3: Labour Market Projections

	2021	2022	2023f	2024f	2025f
Employment (000s)	2,389	2,547	2,639	2,682	2,723
% change	6.1%	6.6%	3.6%	1.7%	1.5%
Labour Force (000s)	2,547	2,667	2,757	2,802	2,843
% change	6.5%	4.7%	3.4%	1.6%	1.5%
Participation Rate (% of Working Age Population)	63.3%	64.8%	65.4%	65.4%	65.5%
Unemployment (000s)	158	119	119	120	121
Unemployment Rate (% of Labour Force)	6.2%	4.5%	4.3%	4.3%	4.2%

The Public Finances

Overview

Having recorded a large surplus last year, the headline general government balance (GGB) is expected to strengthen further over the medium term. The GGB is projected to run a surplus of 3 per cent this year as continued favourable revenue developments are offset by strong increases in government spending. While not growing at the exceptional rates of previous

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years, tax receipts still recorded a broad-based increase of 6.6 per cent in the first eight months of the year with income tax, VAT and corporation tax all performing strongly. Gross voted expenditure was 9.5 per cent higher over the same period, as both current and capital spending increased strongly, with the former €1.1bn ahead of profile. The headline GGB is expected to strengthen in the coming years, with the surplus projected to grow to 4.0 per cent of GNI* by 2025. A key factor in this improvement is the anticipated withdrawal of most of the remaining temporary or 'non-core' expenditure measures that have been introduced in recent years - estimated to cost 2.5 per cent of GNI* this year - by the end of the projection horizon. This outlook fully incorporates the information provided in the Summer Economic Statement (SES). The introduction of any additional, as of yet unannounced, cost of living measures in Budget 2024 could result in lower surpluses than contained in these projections in the short term.

Following a very large improvement in 2022, the general government debt (GGD) ratio is expected to decline further in the coming years. The debt ratio fell by 25 percentage points over the past two years, driven by exceptionally strong nominal GNI* growth and a sharp improvement in the primary balance (see Box E). Further improvements are projected over the medium term, with the ratio projected to fall to 70 per cent of GNI* by 2025. Despite the increase in sovereign borrowing rates over the past year, debt dynamics are expected to remain favourable reflecting robust nominal growth, a low average interest rate on the debt stock and the expectation of large primary surpluses. From a funding perspective, the relatively low level of bonds maturing in the coming years, coupled with the large cash balances held by the National Treasury Management Agency (NTMA) provide the sovereign with flexibility in the years ahead.

While baseline Irish fiscal projections are favourable over the medium term, the outlook for the public finances faces a number of challenges and risks.[32] Significant corporation tax (CT) receipts have played a key role in supporting the return to a budget surplus, a large portion of which cannot be explained by underlying developments in the economy. Excluding these 'excessive' CT inflows – which may be vulnerable to a sudden reversal - reveals a much less favourable outlook for the 'underlying' GGB. It would remain in deficit in 2023 and the projected surpluses in 2024 and 2025 would be significantly smaller. Other challenges include ensuring sufficient resources are available to meet

[32] For a more detailed discussion of these challenges and risks see Conefrey et al, 'Managing the Public Finances in a Full Employment Economy', Central Bank of Ireland Quarterly Bulletin 2, June 2023.

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future ageing and climate transition costs, appropriately supporting necessary public capital expenditure, maintaining an appropriate fiscal stance at a time when the economy is already growing at full capacity, and ensuring that temporary spending measures are withdrawn as planned. While temporary measures have played a key role in supporting households and businesses through the Covid-19 pandemic and the high inflationary environment, 2024 will represent the fifth successive year where 'non-core' measures have been significant in scale. This increases the risk that elements of planned temporary spending become permanent in nature.

Table 4: Fiscal outlook under a baseline scenario

	2021	2022e	2023f	2024f	2025f
GG Balance (€bn)	-6.8	8.0	8.8	10.7	13.1
GG Balance (% GNI*)	-2.9	2.9	3.0	3.4	4.0
GG Balance (% GDP)	-1.6	1.6	1.7	1.9	2.2
GG Debt (€bn)	236.1	224.8	225.0	231.5	232.2
GG Debt (% GNI*)	101.2	82.3	76.7	73.4	70.0
GG Debt (% GDP)	54.4	44.4	42.2	41.8	39.4
Excess CT (€bn)	5.7	11.2	11.2	10.6	11.0
Underlying GGB (€bn)	-12.5	-3.2	-2.4	0.1	2.1
Underlying GGB (% GNI*)	-5.4	-1.2	-0.8	0.0	0.6

Fiscal Outlook 2023 to 2025

The latest indicators point to the GGB surplus broadly stabilising this year as favourable revenue developments are offset by strong expenditure growth. Having improved significantly to record a surplus of 2.9 per cent of GNI* last year, a GGB of 3 per cent is projected for 2023 (increasing in nominal terms from €8.0bn to €8.8bn). Total revenue is projected to increase by 7.4 per cent. While tax revenue growth has moderated from the exceptional levels experienced in 2021 and 2022, receipts continue to increase at a strong pace, growing by 6.6 per cent in the year to August. This reflects the positive underlying performance of the labour market, wage growth and other nominal variables such as private consumption. Income tax and VAT increased by 8.2 and 11.2 per cent respectively, while corporation tax receipts were 7.3 per cent higher. The latter recorded a large annual monthly decline in August, and while this followed very strong growth in the same month of the preceding year, it also highlighted the narrowness and volatility of the tax base. We project that government expenditure will increase by 7.2 per cent, up from 1.7 per cent last year. The acceleration in the growth rate reflects continued strong growth in core or permanent spending coupled with a slower unwinding

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of non-core or temporary measures compared to previous years. The latter are expected to decline by 0.4 per cent to a still significant 2.5 per cent of GNI* (see Table 4). Within this we assume that the €1.2bn of unallocated spending outlined in the Stability Programme Update (SPU) is fully utilised. As noted in the SPU, the majority of the unallocated provision relates to reserve funding for non-core measures 'which will be allocated over the course of the year, if required'. With around €500m of this earmarked for humanitarian assistance to Ukrainian migrants, this would leave a further €700m to be utilised for additional non-core spending - such as cost of living measures - without impacting our budgetary projections. Additional measures above this amount could lead to a worse GGB, however. Exchequer data revealed gross voted expenditure was 9.5 per cent higher in the year to August, with large increases on both the current and capital side (8.0 and 30.1 per cent higher respectively). Current spending was also €1.1bn (2.2 per cent) above its budgetary profile, reflecting large overspends in the Departments of Children and Health.

Table 5: Evolution of non-core expenditure (percentage of GNI*)

	2020	2021	2022e	2023f	2024f	2025f
Covid-19	7.2	5.3	1.4	0.5	0.2	0.1
Cost of Living Measures	-	-	1.1	0.8	-	-
Humanitarian Support	-	-	0.4	0.5	0.8	-
Unallocated	-	-	-	0.4	-	-
Other	-	-	0.1	0.2	0.3	-
Total	7.2	5.3	2.9	2.5	1.3	0.1

Source: CSO, Department of Finance and Central Bank of Ireland Estimates

A further improvement in the budget balance is anticipated in 2024 and 2025 as, despite strong core expenditure growth, total spending is limited by the withdrawal of most of the remaining non-core measures (see Figure 65). The outlook for the GGB in the coming years is less favourable relative to *Quarterly Bulletin 2*, primarily reflecting the budgetary measures outlined in the SES, most notably significant additional resources for non-core spending (primarily a contingency for humanitarian support), planned tax cuts and additional capital expenditure financed by windfall receipts. Despite this, the GGB is still projected to record surpluses of 3.4 and 4 per cent of GNI* (€10.7bn and €13.1bn) in 2024 and 2025 respectively. These outcomes are contingent on almost all of the remaining non-core spending being withdrawn by the end of the projection horizon, a development that is due to offset much of the expected strong increase in core expenditure. Under the Government's Medium Term Expenditure Framework core Exchequer spending can increase by 5 per cent per annum, although this target was surpassed in 2022 and will

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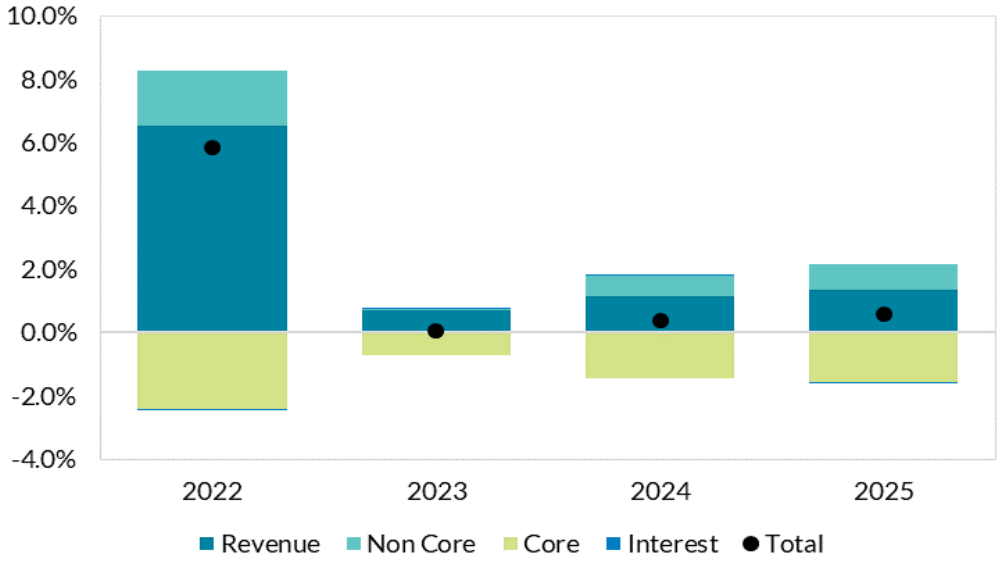
continue to do so over the medium term under the budgetary strategy outlined in the SES.[33] The unsuitability of the proposed EU economic governance reform for Ireland – reflecting its use of GDP denominators – places even more of a burden on domestic fiscal rules (see Box E). Reflecting these contrasting developments, total spending is expected to grow by an average of 3 per cent per annum over this period. Revenue growth is also projected to moderate, averaging 4.5 per cent per annum in 2024 and 2025. This reflects weaker nominal consumer spending and income growth as inflationary pressures start to dissipate, a slowdown in employment growth and the anticipated negative impact of international tax reform on CT receipts. Weaker multinational activity could also weigh on CT receipts in the coming years.

GG surplus projected to strengthen further over medium term

Figure 65: Factors driving the change in GGB Ratio (% of GNI*)



Source: CSO, Department of Finance, Central Bank of Ireland Projections

While the headline budget balance is set to record large surpluses over the medium term focusing on the 'underlying' balance – which excludes estimates of excess corporation tax (CT) - presents a less favourable outlook. Much of the recent improvement in the budgetary position has been driven by developments in CT, which was the State's second largest tax revenue source last year. CT receipts have grown rapidly since 2015, and a large part of this increase cannot be explained by underlying developments in the Irish

[33] The budgetary strategy in the SES outlined core spending growth of 6.1 per cent in 2024 and 5 per cent in 2025 and 2026 respectively. When planned 'windfall capital investment' is included, however, spending growth would be in breach of the Government's medium term expenditure target throughout the period.

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economy. Given the risk that these excess CT receipts could be subject to sharp reversals, it is prudent to adjust the GGB to exclude such inflows. Doing so reveals that the outlook for the 'underlying' fiscal position is not as strong as the 'headline' projections would suggest. The underlying GGB would remain in deficit this year and would record much smaller surpluses in 2024 and 2025 (see Table 4). Accordingly, fiscal buffers to deal with any future negative economic shocks or to finance known medium to longer term expenditure pressures would be substantially smaller. The decline in CT receipts in August – albeit after very strong growth a year earlier – provides a reminder of the volatility of these flows and the narrowness of the base that leave the public finances exposed to the decisions of a small number of firms.

The general government debt (GGD) ratio is projected to decline over the forecast period, albeit at a slower pace than in 2021 and 2022. Last year, the debt ratio recorded a large decline of 18 percentage points, largely due to the very favourable interest growth differential (see Figure 66). Nominal GNI* growth is projected to remain higher than the effective interest rate over the projection horizon (averaging 6.7 and 1.5 per cent respectively), supporting favourable debt dynamics. The size of the differential is expected to narrow in the coming years, however, and, as a result, large primary surpluses become the main driver of the decline in the debt ratio from 2024 onwards (see Box E for a discussion of how less favourable underlying assumptions affect the debt outlook). These favourable developments are partly offset by an increase in the deficit debt adjustment (DDA). The DDA explains the difference between the change in gross government debt and the budget balance, and in this case primarily reflects the Government's plans to increase cash balances. The effective interest rate is expected to remain low despite rising bond yields in the euro area. This is because the NTMA, in recent years, replaced relatively expensive debt with low interest rate debt at long maturities. The NTMA's refinancing need in the coming years is therefore relatively small, and exposure to market interest rates is limited. These factors combine to reduce the debt to GNI* ratio to 70 per cent by end 2025, down from 107.4 per cent in 2020 but still well above pre-financial crisis levels.

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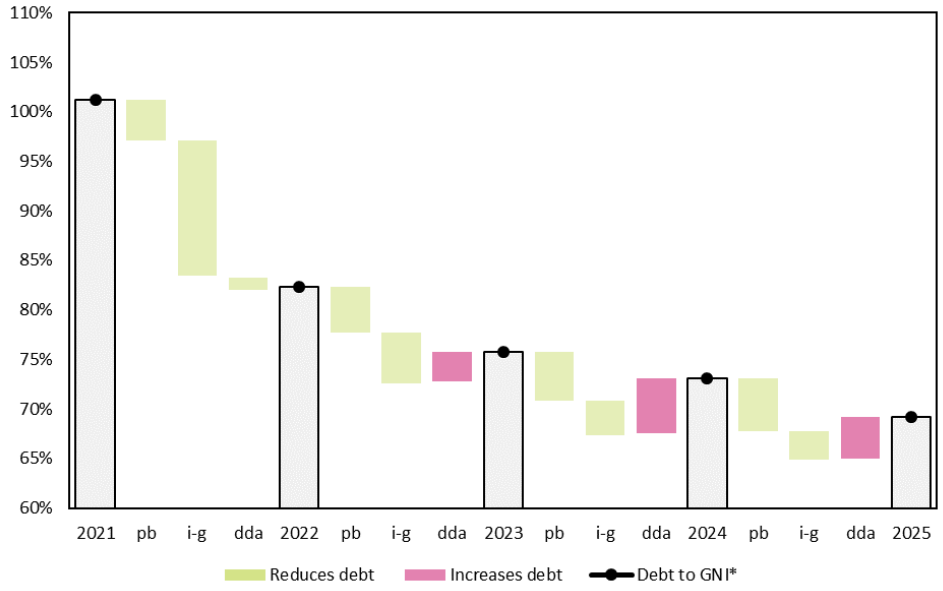
GG debt projected to fall to 70 per cent of GNI* by 2025

Figure 66: Factors driving the change in GG Debt Ratio (% of GNI*)



Source: CSO, Department of Finance, Central Bank of Ireland Projections
Note: pb = primary balance, i-g = interest growth differential, dda = deficit debt adjustment

Irish sovereign borrowing rates have continued to increase in line with broader euro area developments. The yield on 10-year Irish sovereign debt has now risen to 3 per cent, up roughly one percentage point from the same time last year (Figure 67). While this makes refinancing debt (or financing budget deficits) more costly, the large projected headline budget surpluses combined with the favourable debt maturity profile maintained by the NTMA reduce the risk of higher market interest rates passing through to the actual interest expense borne by the exchequer. For example, there are no government bonds maturing in the remainder of 2023, and the bonds maturing in 2024 (€8bn at 3.4 per cent) and 2025 (€11.5bn at 5.4 per cent) have interest rates above Ireland's current borrowing costs. This implies that refinancing them at current rates would actually reduce the effective interest rate. The period 2026 to 2030, however, will see €55bn of Government bonds maturing, all with interest rates below the current 10 year yield. In terms of issuance, the final bond auction of the year will take place this month, with the NTMA expected to finish with a total issuance for the year at the lower end of its €7bn - €11bn target. NTMA data shows that issuances completed so far in 2023 have a long-weighted average maturity, averaging 19.5 years, helping to maintain an overall weighted maturity of debt well above the euro area average (11 years compared to 7.9 years). Cash balances remain substantial,

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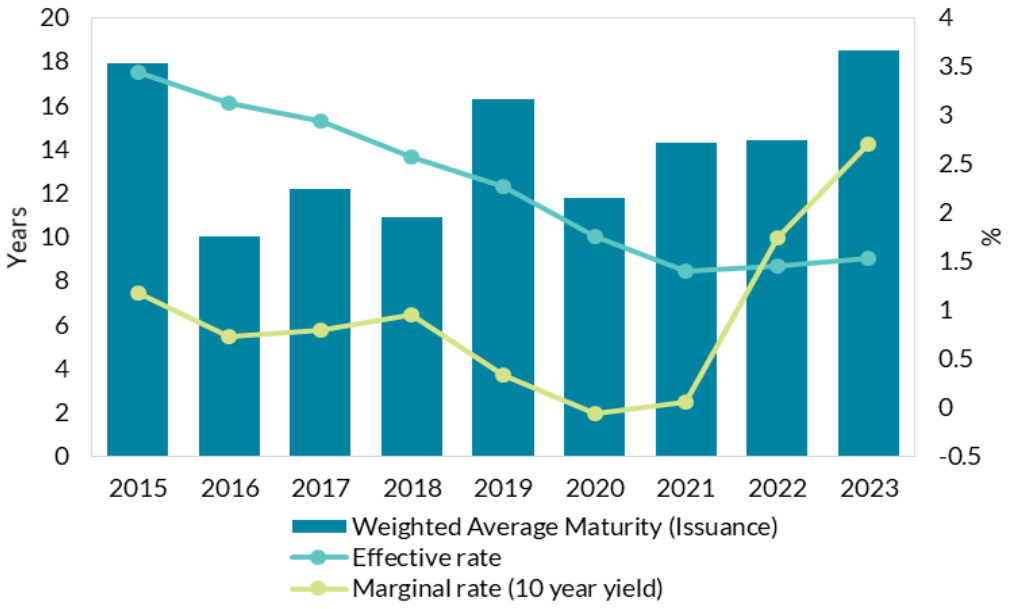
standing at €27.5bn as of July 2023, up from €23bn at the beginning of the year.

'Marginal' borrowing rates continue to rise but 'average' rate still low

Figure 67: Marginal and effective sovereign borrowing rates



Source: NTMA, Refinitiv, CBI calculations

In May, the Government set out a range of options for a long-term savings vehicle.[34] Unlike the National Reserve Fund, [35] which is intended as short-term countercyclical measure, this fund would help to provide for long-run structural costs such as ageing. The fund is expected to be capitalised with windfall receipts from corporation tax, which are currently estimated to be in the region of €11bn per year. In the Summer Economic Statement, it was noted that draft legislation will be published this Autumn which will provide further detail on the functioning of this long-term fund.

[34] Future proofing the public finances, Department of Finance, May 2023
[35] National Surplus (Reserve Fund for Exceptional Contingencies) Act 2019

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Box E: Government Debt Sustainability Analysis – An Update

By Rónán Hickey and David Staunton

Recent developments in Irish public debt

Having experienced a Covid-19 related increase in 2020, the Irish general government debt ratio has resumed its downward path in recent years. The ratio fell to 82.3 per cent of modified national income (GNI*) in 2022, a 13-year low, and is projected to decline further over the projection horizon (see Figure 1).[36] The 25 percentage point fall in the ratio over the past two years has been driven by exceptionally strong nominal GNI* growth and a sharp improvement in the primary balance. Nominal GNI* growth averaged 16 per cent per annum in 2021 and 2022 against the backdrop of high inflation. When compared to an effective interest rate of just 1.5 per cent, this resulted in extremely favourable debt dynamics. The general government primary balance (the budget balance excluding expenditure on debt interest payments) moved from a large pandemic related deficit of 7.3 per cent in 2020 to a surplus of 4.1 per cent last year, supported by much larger than expected inflows of corporation tax receipts. In nominal terms, gross public debt was €225bn last year, just over €20bn higher than its pre-pandemic level. This primarily reflects the large primary deficits recorded in 2020 and 2021 when the Government introduced significant measures to limit the impact of the pandemic on households, businesses and the broader economy.

The extent of the reduction in the debt ratio in Ireland since end-2020 is particularly notable when compared to that in the euro area as a whole for the same period (see Figure 2). The euro area debt ratio declined by 6 percentage points since end-2020. The much smaller decline relative to Ireland reflects weaker nominal growth in the euro area (average 8 per cent per annum) and the persistence of primary deficits since the emergence of Covid-19. As a result, the Irish debt ratio has now fallen below the euro area average for the first time in over a decade, but it remains high relative to many other countries in the region (see Figure 3) and compared to its pre financial crisis position.

[36] We have extended the Quarterly Bulletin's projection horizon to t+3 for the purpose of this Box. For 2026 we have incorporated the Government's latest projections for nominal GNI*, interest rates and the deficit-debt adjustment to facilitate the extension. We assume the primary balance remains unchanged at its 2025 ratio.

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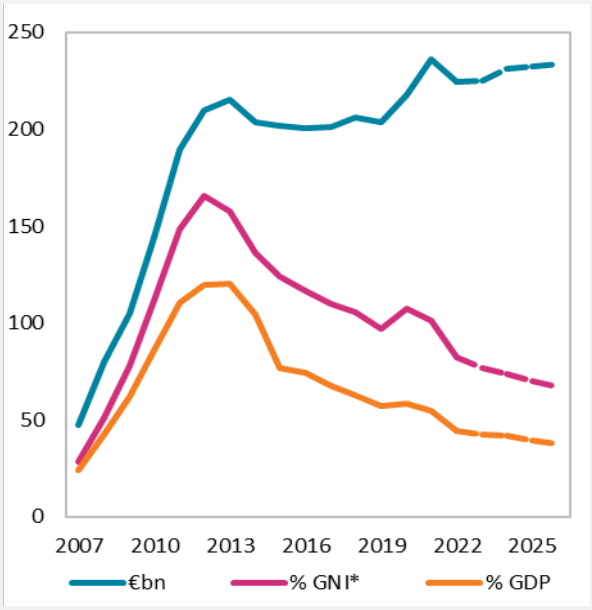
Public debt ratios projected to continue downward trend in coming years

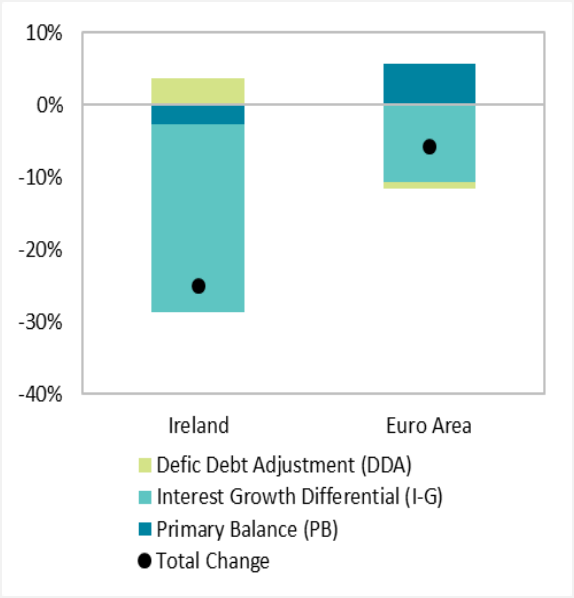
Figure 1: Developments in Gross Irish GG Debt



Source: CSO, CBI Projections

Decline in public debt significantly higher in Ireland than the Euro area in 2021-22

Figure 2: Factors driving change in GG Debt since the end of 2020



Source: Eurostat, CBI Calculations

Deterministic Debt Sustainability Analysis

The baseline projection for general government gross debt in Ireland– which sees debt as a percentage of GNI* decline to 67 per cent in 2026 – is underpinned by relatively positive assumptions about the factors that determine changes in the debt ratio. Given the high level of uncertainty that still surrounds the domestic and global outlooks, it is prudent to assess how this baseline could be affected by less favourable paths for these key assumptions. Accordingly, we produce scenarios that illustrate the sensitivity of the debt-to-GNI* ratio to more adverse outcomes for economic growth, interest rates and the primary balance than in the baseline forecasts.[37] With the exception of the 'combination' shock these scenarios are independent, only affecting the variable in question. The adverse shocks have a mixed impact on the gross debt ratio (see Figure 4). In the case of the interest rate shock, the projected impact on the debt ratio is marginal, reflecting the very low average interest rate on the outstanding debt stock coupled with the low

[37] The growth shock is calculated as one standard deviation of nominal GNI*'s long term average growth rate. This shock is applied to 2024 and 2025 and results in GNI* contracting in each year. The interest rate shock sees the marginal interest rate increase by 2 percentage points in each year from 2024 onwards. There are two primary balance shocks. The first, a €10.6bn primary balance shock, is consistent with the Central Bank's estimate of excessive corporation tax receipts in 2024. The actual shock could, of course, by driven by a number of factors including higher than planned government spending and unexpected tax cuts. The second is a €5.3bn primary balance shock which is consistent with half of the Central Bank's estimate of excessive corporation tax receipts. A combination shock is also included which combines the negative impacts of the growth, interest rate and €10.6bn primary balance shocks.

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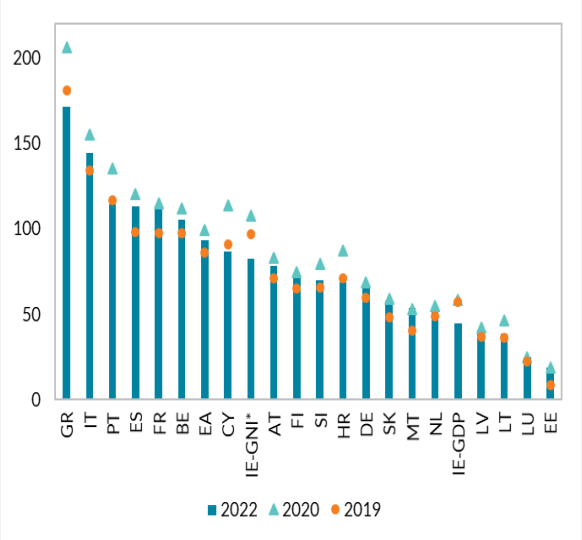
projected Exchequer borrowing requirements. In the case of the combination shock, by comparison, the impact is significant, with the ratio 20 percentage points higher than in the baseline. Between these two bounds, the growth shock and €10.6bn primary balance shock would see the debt ratio not falling from its current high level over the medium term. One caveat here relates to the very high level of cash balances currently held by the National Treasury Management Agency. These amounted to €27.5bn (10.1 per cent of GNI*) at end July, and further increases are anticipated by the Government in the coming years.[38] As a result the net debt ratio was lower at 68 per cent of GNI* last year, considerably lower than the 82 per cent of GNI* gross debt ratio.

Irish GNI* debt ratio still amongst highest in the Euro area

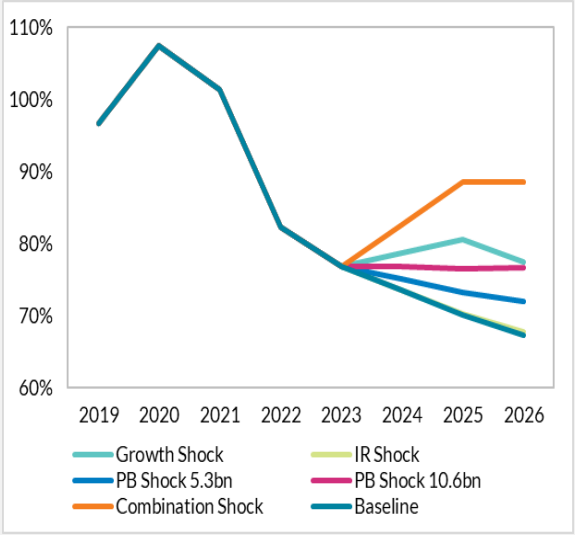
Figure 3: GG Debt Ratios in the Euro area



Source: Eurostat, CSO
Note: Percentage of GDP unless stated

Negative shocks would see debt ratio persist at high levels over the medium term

Figure 4: Deterministic Debt Sustainability Analysis



Source: CBI Calculations

Note: PB = primary balance, IR = interest rate

Stochastic Debt Sustainability Analysis

The results presented above are sensitive to the specific shock scenarios that are used. A stochastic debt sustainability analysis (DSA) is an alternative methodology that includes a wide range of feasible scenarios by allowing for uncertainty in the path of GNI* growth, the effective interest rate, and the primary balance. By creating a large number of potential paths for these key variables, central debt forecasts can be produced along with potential outcomes in the upper and lower tails of the distribution. Essentially, the model produces a distribution of possible outcomes rather than a single point estimate.[39] It also allows us to

[38] See Government of Ireland, 'Stability Programme Update', April 2023.
[39] See Conefrey et al. Managing the Public Finances in Uncertain Times for more information on the stochastic DSA.

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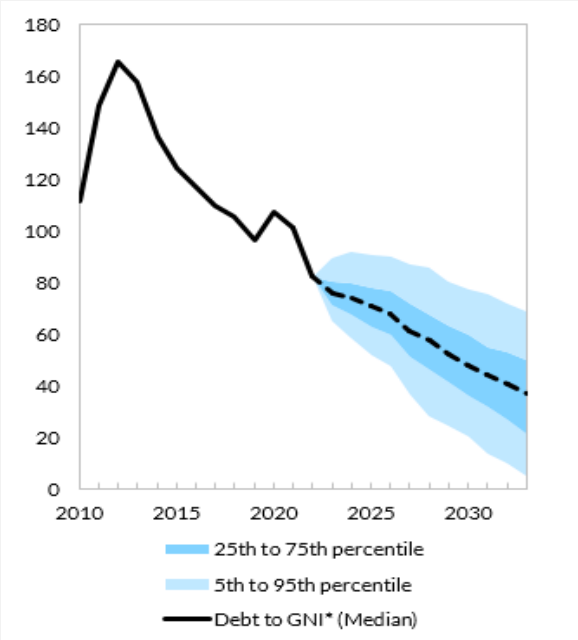
assess debt sustainability over a longer period (out to t+10 in this exercise). Results suggests that, given the baseline forecast, the most likely outcome is for debt to decline to around 40 per cent of GNI* by 2033, with the debt ratio falling even in the most adverse scenarios (see Figure 5a). This favourable result is partly driven by the large surpluses projected in the baseline forecast.

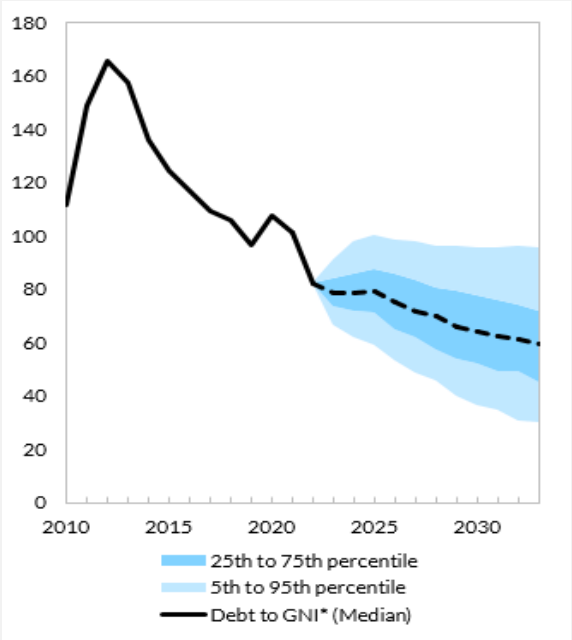
The most adverse scenarios see the debt ratio rising from current levels

Figure 5a: Baseline stochastic DSA



Source: CBI Calculations

Figure 5b: €10.6bn primary balance shock stochastic DSA



Source: CBI Calculations

Figure 5b shows the results of the DSA if, before the shocks are generated by the model, we assume an adverse outturn for the primary balance. In this case, the baseline projection is adjusted so that the full amount of estimated excess CT revenue (around €11 billion) is permanently lost in 2024. The stochastic DSA procedure is then applied to this projection. The result is a much less favourable outlook for the debt-to-GNI* ratio. The median outcome implies a 20 percentage point decline in the debt ratio over the next ten years (compared to a 40 percentage point reduction in the baseline), with adverse scenarios seeing the debt ratio rise by 20 percentage points, to around 100 percent of GNI*.

Economic Governance Reform in the EU

The key objectives of the European Commission's proposed new economic governance rules are (i) to strengthen debt sustainability and (ii) promote sustainable and inclusive growth in the region.[40] Under the proposals, a Member State with a debt ratio above 60

[40] See 'Commission proposes new economic governance rules fit for the future'.

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per cent of GDP would have to prepare a multiannual adjustment plan to ensure the debt trajectory is placed on a plausibly downward path by the end of the adjustment period. To simplify the rules, and increase transparency, a single operational indicator – net primary expenditure[41] – would serve as the basis for setting this adjustment path. Within the framework there would be a more prominent role for debt sustainability analysis, both in underpinning the Commission's 'technical guidance' to countries at an early stage and in assessing the plausibility of Member State's adjustment paths. One continued complication in the Irish case is the use of GDP as the denominator for debt ratios in the new rules. Given the impact that the multinational sector has had in inflating the value of GDP in Ireland it is highly unsuitable for this purpose as it considerably understates the debt burden. The Irish debt-to-GDP ratio was one of the lowest in the euro area last year, almost 40 percentage points lower than the more appropriate GNI* ratio (see Figure 3). If the revised rules as currently proposed by the EC were applied for 2023, they would not impose any material binding requirements on Ireland as the debt-to-GDP ratio is below 60 per cent and the headline budgetary position is in surplus. The rules if applied at present would simply require that the budget deficit is kept below 3 per cent of GDP and debt maintained below 60 per cent. The use of GDP severely undermines the guidance that the revised governance framework will have for Irish fiscal policy.

Summary

While baseline Irish fiscal projections are favourable over the medium term – anticipating continued large surpluses and a declining debt ratio - the outlook for the public finances also faces a number of challenges and risks. Discussed in more detail in Conefrey et al (2023)[42], these include concerns over the sustainability of corporation tax receipts, along with the fiscal impact of ageing and climate transition costs. Fiscal policy also faces the challenge of maintaining an appropriate fiscal stance at a time when the economy is already growing at full capacity and inflationary pressures are elevated. In terms of general government debt, while the ratio has recorded a significant improvement in recent years – driven by very strong economic activity – it remains high relative to many other countries in the euro area and vulnerable to unfavourable developments in growth and the primary balance. This is particularly important in the current environment where sovereign interest rates are increasing once again and market participants may place more focus on differentiations in debt burdens across countries. Accordingly, public debt reduction should remain a key priority for Government fiscal policy in the coming years.

[41] This is expenditure net of discretionary revenue measures and excluding interest expenditure, cyclical unemployment expenditure and expenditure on Union programmes that is fully matched by revenue from Union funds.
[42] See Conefrey et al, 'Managing the Public Finances in a Full Employment Economy', Central Bank of Ireland Quarterly Bulletin 2, June 2023.

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Signed Articles

The articles in this section are in the series of signed articles on monetary and general economic topics introduced in the autumn 1969 issue of the Bank's Bulletin. Any views expressed in these articles are not necessarily those held by the Bank and are the personal responsibility of the author.

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Earnings growth under high inflation

Laura Boyd, Enda Keenan, Tara McIndoe-Calder[43]

Abstract

The Irish economy is currently experiencing a tight labour market and high inflation. Using the framework of the Phillips curve – which relates changes in wages to labour market tightness and inflation - we find that since 2018, nominal earnings growth has been lower than this model would predict. The gap between observed and estimated earnings growth based on the Phillips curve widened to 1.3 percentage points in 2022. Our analysis finds that this gap most likely reflects a delayed catch-up of wages to the sharp drop in real incomes in 2022. Fiscal supports and savings may also have contributed to dampening wage pressures by providing temporary cushioning to households. Our results suggest that a degree of real wage catch up is likely over the medium term. However, with the economy now operating at full capacity, it is important that the fiscal stance does not add further stimulus to the economy.

1. Introduction

Ireland's labour market is at full employment. The number of employed persons expanded to a new peak of 2.64 million in the second quarter of 2023. At the same time, the job vacancy rate (1.3 per cent) remains elevated compared to the long-run average and the labour force participation rate (at 65.7 per cent) is at levels last recorded in the mid-2000s. The ILO unemployment rate stood at 4.4 per cent in Q2 2023, this is broadly similar to the early 2000s when unemployment averaged below 5 per cent in each year from 2000 to 2006. In addition, a supplementary measure of labour market

[43] Irish Economic Analysis. With thanks to Vasileios Madouros, Robert Kelly, Martin O'Brien, Thomas Conefrey, Gerard O'Reilly, Niall McInerney and Graeme Walsh for comments and to the Labour team in the CSO for granular data access. Remaining errors are our own. The views expressed here do not necessarily reflect the views of the Central Bank of Ireland nor the European System of Central Banks. Corresponding author: enda.keenan@centralbank.ie

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slack – the potential additional labour force (PALF) – stood at 99,200 persons or 2.4 per cent of the working age population.[44] While this pool of additional labour supply may serve to support further job growth and ease wage pressures in certain sectors, its relative share of the working age population has declined from the 2.8 per cent recorded prior to the pre-pandemic.

Alongside this tight labour market, inflation is high by historical comparison and expected to remain so in the short-term. Headline consumer price inflation (HICP) in Ireland moderated to 4.9 per cent over the year to August 2023, while core inflation (excluding volatile energy and food components) measured 4.8 per cent. The sharp increase in inflation was driven primarily from higher energy prices in 2022. As a net energy importer, this represented a negative terms of trade shock for the Irish economy, resulting in a drop in national income. Fiscal policy has been used to help partially shield households and businesses from the effects of high inflation but cannot offset the full extent of the negative terms of trade shock for all households.

In this *Article*, we use compensation per employee (CPE) as our preferred measure of earnings. This measure is derived from the National Accounts and encompasses gross wages and salaries as well as the value of social contributions paid by employers. It is highly correlated to total labour costs data from the Earnings, Hours and Employment Costs Survey (EHECS) and benefits from having the longest available time series. It is also used as the wage projection variable in *Quarterly Bulletin* analysis.[45] The most recent data shows that CPE experienced annual growth of 2.9 per cent in the year to Q1 2023, but in real terms, growth is negative at 4.3 per cent.[46]

The relationship between earnings growth and unemployment – or slack – can be described using the earnings Phillips curve, which asserts a negative relationship between the two series (Phillips, 1958).[47] Previous Central Bank research (Linehan, Lydon, McIndoe-Calder, Reddan & Smyth, 2017) found evidence of a non-linear relationship between earnings growth and

[44] PALF consists of two groups classified as outside of the labour force: 'Available for work but not seeking' and 'Seeking but not immediately available'. These groups have a historically higher transition rate to employment compared to other cohorts outside of the labour force.
[45] EHECS hourly earnings data only begins in Q1 2008. There is a strong relationship between EHECS and CPE data as hourly earnings typically comprise 85 per cent of firm labour costs shown in Figure 4. See Box A for further details.
[46] CPE is calculated by dividing Compensation of Employees from the National Accounts by the number of employees in the State to generate a per worker series. To analyse annual changes in real terms, CPE is deflated by the Personal Consumption Deflator (PCD), which is highly correlated with the CPI. Many macroeconomic variable have their own specific deflator series.
[47] The original Phillips curve described the relation between unemployment and price growth.

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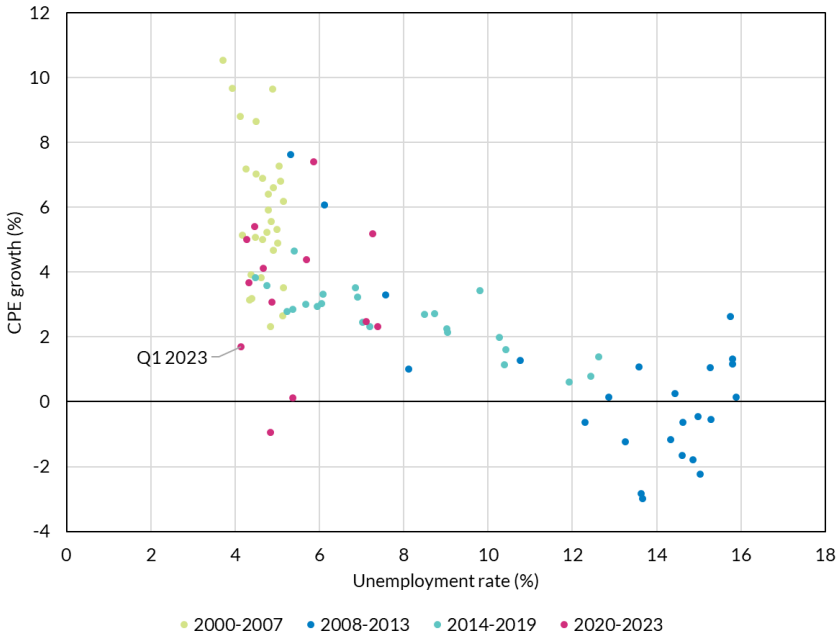
unemployment for the period 2000-2017, with growth more sensitive to periods of very low or high unemployment. However, the curve for Ireland today (shown in Figure 1) appears less amenable to non-linear formulations. This has prompted a return to questions about the effectiveness of the Phillips curve in generating insights into the evolution of earnings in Ireland.[48]

In this *Article*, we examine the key determinants of earnings growth in Ireland and provide an updated Phillips curve analysis by extending the estimation to the end of 2019 and revisiting the specification of the Phillips curve equation. In the earnings Phillips curve framework we deploy, slack is captured using a newly developed measure which includes both persons in unemployment and those in PALF with previous work experience. Using this measure is a key change from previous Central Bank analysis which allows us to capture a wider pool of potential workers whilst also contributing to the literature exploring the use of alternative measures of slack.

Figure 1: Earnings Phillips curve (Q4 2000 to Q1 2023)



Source: CSO and authors' own calculations.

Our analysis seeks to answer the following three research questions:

(i) How well does the earnings Phillips curve explain earnings growth in Ireland up to the pandemic, as measured by CPE?

[48] Earlier research, such as Faubert, (2020), has queried the usefulness of the Phillips curve as an analytical tool for Ireland.

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(ii) Is post-pandemic earnings growth where we would expect it to be *given* current labour market conditions?

(iii) Could stronger real earnings growth emerge over the short-to-medium term?

The results of our refreshed Phillips curve analysis suggest that the earnings Phillips curve remains a useful tool for explaining earnings developments in Ireland. The model tracks actual developments very closely from 2013 to 2018. A gap of 1.1 percentage points emerges at the end of 2019 as the economy approached full employment and actual earnings growth was lower than predicted. Since then, while unemployment has approached historically low levels and the composition of employment has considerably altered from the pre-pandemic period, recent earnings growth has been relatively moderate. At the end of 2022, our analysis finds the gap between model estimates of earnings growth and observed growth has widened slightly to 1.3 percentage points.

A decomposition of the difference between actual and estimated earnings growth suggests that inflation accounts for the majority of the gap. Under our estimate of the Phillips curve, the sharp increase in inflation would have been expected to result in higher earnings growth than was observed in 2022. Given the inflation surge was large and unexpected, it is likely to take time for earnings to adjust to price developments. A slower adjustment may also reflect access to cost of living supports and household savings which may have altered expectations and reduced demand for immediate earnings adjustment. Structural factors, for example a change in workforce composition or preferences, could also be playing a role.

Nevertheless, the magnitude of the gap is similar to other periods of notable changes in employment composition and, based on these previous episodes, we would expect the gap to close over the coming quarters with the cumulative differences between predicted and actual earnings growth dissipating.[49] However, the degree and speed of real earnings catch-up will likely vary by sector reflecting differences in the balance of labour supply and demand in each. Our findings have implications for considering the likely path of earnings and prices in the years ahead, and in turn, for Ireland's future labour supply and demand. Given the economy is now operating at full capacity, the analysis highlights how further policy actions to provide additional large, untargeted

[49] Previous occurrences of changes in employment composition would be the notable decline in construction employment following the GFC. This sector accounted for 10.7 per cent of average employment in 2007, which then fell to 6.6 per cent in 2009.

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fiscal supports could be inflationary and risks triggering potentially damaging overheating dynamics.

The remainder of this *Article* is structured as follows. Section 2 outlines how earnings have evolved in Ireland in recent years. Section 3 examines current labour supply and demand, and presents the augmented slack rate to be deployed later in our empirical analysis. Section 4 describes other factors which are important for determining earnings growth in Ireland. In Section 5, we estimate the earnings Phillips curve and discuss the results. Finally, Section 6 concludes.

2. Earnings growth

Following the Global Financial Crisis (GFC) of 2008-2009, growth in aggregate nominal earnings was relatively stagnant in Ireland. Annual growth in nominal CPE averaged 1.3 per cent between 2011 and 2018, during which time the average inflation rate was marginally above zero. However, as the economy approached full employment, nominal growth picked up to average 3.2 per cent in 2019 or 2.5 per cent in real terms.

The subsequent pandemic period significantly changed the composition of Ireland's workforce as the disruption to business activities saw different types of workers leave employment, particularly those who were younger, working part-time or in lower paid roles.[50] As a result, there were changes in the relative shares of lower and higher earners, and in turn, an overall upward shift in aggregate earnings growth, peaking in Q3 2021 at 4.9 per cent.

The changes in workforce composition can be seen in Figure 2, which breaks down changes in the share of employment by sector, gender and age. The largest, notable decline is amongst workers in the consumer-facing services sectors, which is yet to recover to its 2019 share of employment. Non-consumer facing private sectors, by contrast, increased their relative share of employment in each year. These substantial changes in underlying employment during the pandemic complicate the analysis of changes in average earning levels during this period. To illustrate the extent of the challenge, we analyse earnings data from EHECS by sector (Figure 3). This shows, for instance, the Accommodation & Food services sector recording average hourly earnings growth of 12.8 per cent over the period 2019 to 2020, but this sector experienced employment loss of 20.1 per cent.

[50] See IGEES (2022) "Trends in Post-PUP Employment" for further details on flows of workers between sectors.

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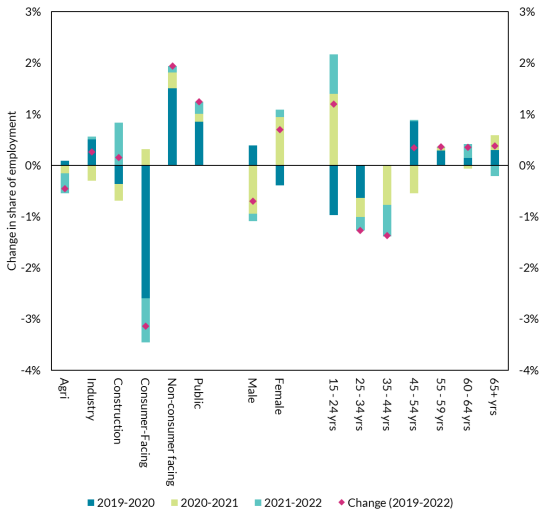
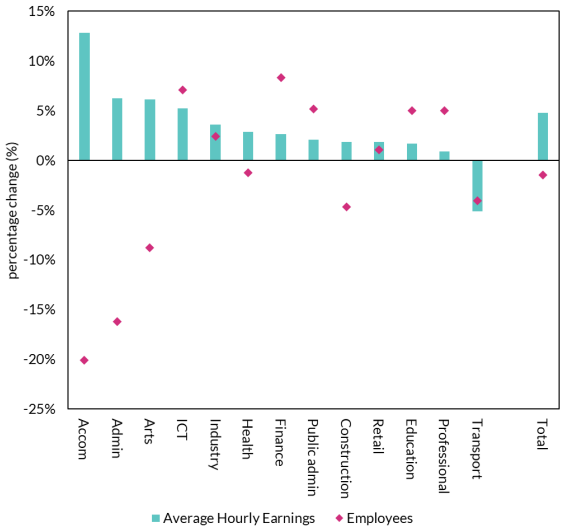
Figure 2: Change in share of employment relative to previous year by sector and demographic group



Source: CSO and authors' own calculations.
Note: Consumer facing sectors include Admin, Accom, Retail, Transport and Other. Non-consumer facing sectors include ICT, Finance and Professional.

Figure 3: Annual change in hourly earnings and employees by sector (2019 – 2020)



Source: CSO and authors' own calculations.
Note: Hourly earnings defined as the wages received by the employee from the employer for hours worked and are not inclusive of overtime, bonuses or non-wage costs such as employer social insurance etc.

As a result of these compositional changes, it is difficult to rely on data from the pandemic period as an accurate reflection of underlying earnings dynamics, i.e. earnings changes excluding the impact of compositional effects. Non-wage labour costs are also impacted by pandemic distortions due to how wage subsidy schemes were treated and reported by firms in surveys such as EHECS. See Box A at the end of this Section for further detail.

At the aggregate level, earnings growth can be analysed using National Accounts data, whereby the total economy earnings bill is driven broadly by two main components: employee levels (labour quantity) and CPE (labour costs). Figure 4 shows a decomposition of the total compensation of employees. Throughout the pandemic recovery (Q2 2021 to Q2 2022), substantial changes in the number of employees was the dominant factor driving increases in earnings; a reflection of more young and lower-earning workers either returning to their previous roles or entering into new employment in 2021 and 2022 (Boyd, Byrne, Keenan & McIndoe Calder, 2022). These earnings dynamics, where income growth is driven by employment growth, are similar to those that existed in the Irish economy from 2013 to 2017, as analysed by Linehan et al (2017).

Up to Q1 2023, nominal earnings growth in Ireland has been moderate despite the backdrop of relatively low and falling unemployment. Growth in earnings

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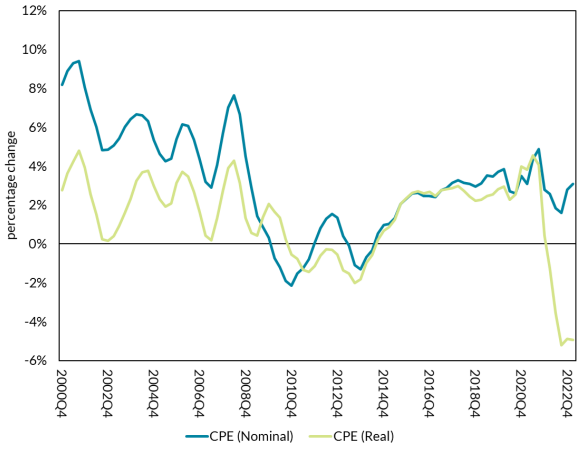
(as measured by CPE) increased by 2.9 per cent annually in the first quarter of 2023. However, continued elevated levels of inflation resulted in negative real growth of 4.3 per cent in Q1 on an annual basis, which represents the sixth consecutive quarter of real earnings decline (Figure 4).

Figure 4: Decomposition of annual growth in compensation of employees

Source: CSO and authors' own calculations.
Note: Changes in the number of hours worked can also affect the aggregate economy wage bill but the contributions are relatively low.

Figure 5: Annual growth rate of compensation per employee (CPE)



Source: CSO and authors' own calculations.
Note: Data are calculated as a four-quarter moving average.
Last observation: Q1 2023

Ireland is not unique in experiencing negative growth in real earnings of late. Similar trends have been observed in countries such as the US and UK. Across the euro area, analysis of CPE data shows that no country experienced positive real earnings growth in 2022, reflecting the impact of the negative terms of trade shock experienced by economies across the euro area. For both earnings growth and inflation, Ireland was positioned towards the lower end of the euro area in 2022, with the largest increases in CPE observed in economies with higher headline inflation (Figure 6).[51]

[51] Eurostat data for Q1 2023 shows a continuation of negative real CPE growth for 11 of the 17 euro area countries for which data are available. Real earnings growth in Figure 6 is calculated using HICP inflation rather than the Personal Consumption Deflator.

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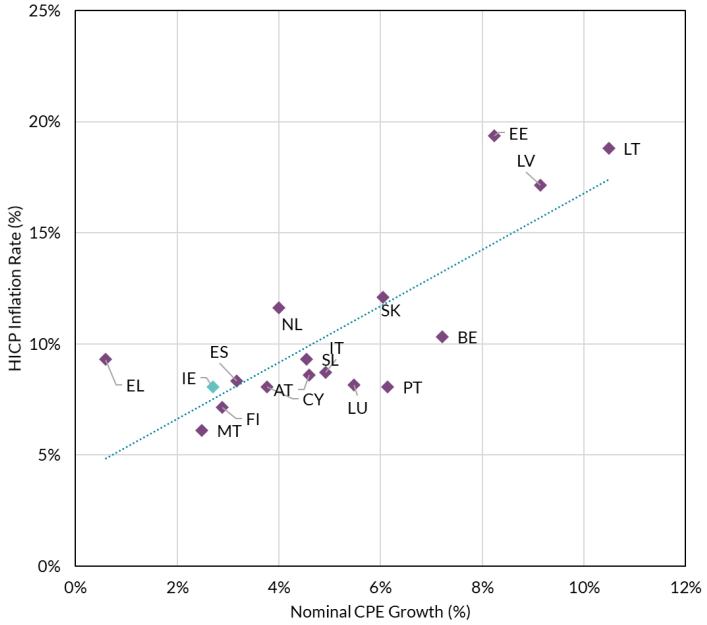
Figure 6: Nominal CPE growth and HICP inflation (2022, average)



Source: Eurostat and authors' own calculations.
Note: Data reflects annual growth rates in HICP and nominal CPE respectively over the year to end 2022.

Looking ahead, posted wages as published by job advertisement website *Indeed*, can provide insight into the possible future path of earnings growth. Posted wages are a useful forward-looking indicator that can be used alongside traditional backward-looking earnings data to assess earnings dynamics.[52] Figure 7 shows that posted wages increased by 4.8 per cent in Q2 2023 compared to Q2 2022, with growth moderating further to 3.8 per cent for July 2023. The series had been moving in tandem with Core HICP since 2019 (as employment expanded and labour demand increased) and a slowdown in posted wages may suggest a moderation in labour demand against the backdrop of monetary policy tightening.

[52] Posted wages are a wage growth tracking series produced by Indeed to produce employment-weighted series for various euro area countries. See Adrjan and Lydon (2022) "Wage Growth in Europe: Evidence from Job Ads"

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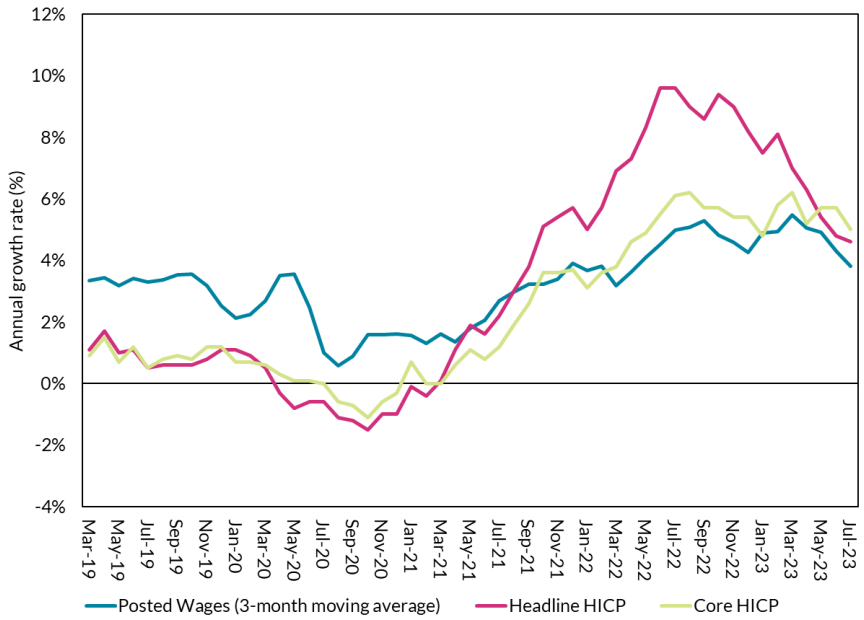
Figure 7: Annual growth rate of Indeed.ie posted wages and inflation (March 2019 – July 2023)



Source: Indeed and CSO.

Box A: Impact of Pandemic Wage Supports on Measured Earnings

The two main CSO data sources on earnings– National Accounts' Compensation of Employees (COE) and EHECS – sometimes provide different headline estimates of earnings developments, making it hard to decipher actual changes in earnings in the economy. In this *Box*, we summarise the distortionary issues impacting earnings data, with a particular focus on the issues for non-wage costs in EHECS, arising from the treatment of wage subsidy schemes during the pandemic.

Changes in COE are driven by a combination of changes in the number of those at work, the average number of remunerated hours worked, and total labour costs which are then subdivided amongst hourly earnings levels and other hourly labour costs. Each of these variables are collected in the EHECS firm-level survey and allow for the construction of a composite quarterly EHECS series to match aggregate National Accounts data and monitor movements in the underlying components of the aggregate economy earnings bill (Figure 1).

Annual growth rates can be calculated from Q1 2009 onwards with both series showing a high degree of alignment in the pre-pandemic period. Slight differences emerge following the onset of the pandemic and the associated compositional issues arising from changes in the workforce. When comparing the annual growth rates of

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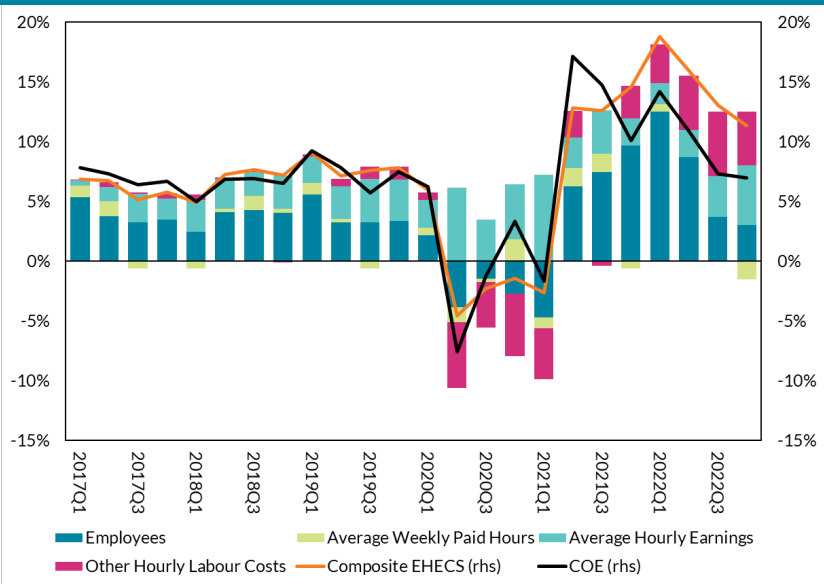
the two series, COE increased by 11.4 per cent in 2022 compared to 14.9 per cent growth in the composite EHECS labour costs series.

Total labour costs – consisting of hourly earnings levels and other hourly labour costs have increased by 7.6 per cent annually in 2022.[53] However, this is not all earnings growth received by the employee. In fact, most of it reflects a return to the pre-pandemic trend, as various pandemic support schemes were phased out and accounting treatments of wage subsidies were subsequently normalised.

Figure 1: Composite EHECS component growth



Source: CSO; National Accounts, EHECS and authors' own calculations.

Note: Composite EHECS series is equal to total hourly labour costs times the number of hours worked and employment and is then scaled to each quarter.

The income-support schemes introduced during the pandemic were intended to assist firms and maintain worker income levels. They included the Temporary Wage Subsidy Scheme (TWSS) established in March 2020, and its replacement, the Employment Wage Subsidy Scheme (EWSS) from September 2020 onwards (Keenan and Lydon, 2020). In EHECS, both TWSS and EWSS payments were included in hourly earnings levels as this income is administered directly from employers through the firm payroll system. However, the amounts received by firms under these schemes are also included within 'other hourly labour costs'. Specifically, these are treated as 'subsidies and refunds', intended to offset part or all of the cost of wages and salaries. Other more typical examples of 'subsidies and refunds' would be Government payments associated with sick leave or maternity/paternity breaks.

[53] In 2022, hourly earnings rose by an average of 3.2 per cent, while other hourly labour costs rose by 4.4 per cent.

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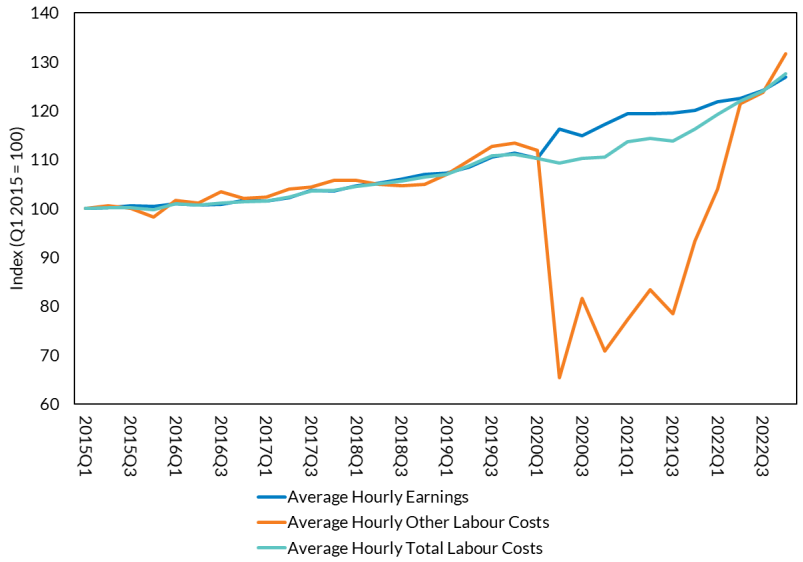
On a net basis, 'subsidies and refunds' are usually a small deduction for firms that has relatively little effect on the overall other hourly labour costs averaged over the entire firm or sector. However, such was the take-up of wage subsidy schemes during the pandemic that it resulted in large negative values for certain sectors. For example, prior to the pandemic, a firm paid the wage of a worker on sick leave, maternity leave or working as part of the SOLAS scheme before then availing of the relevant subsidy from the government. The subsidy is then recorded as a refund when completing the quarterly EHECS form. The TWSS/EWSS payments were treated in the same way. However, the scale of EWSS take-up in severely-affected sectors meant that when these refunded payments were deducted from 'other labour costs' it resulted in substantially lower total labour costs values or even negative values in the most adversely-affected sectors.[54]

Therefore, the large increase in 'other labour costs' recorded in early 2022, as shown in Figure 2, reflects the return to the pre-pandemic trend of the non-wage element following the closure of the EWSS. 'Other labour costs' increased by 45 per cent annually in Q2 2022, compared to a relatively modest increase in average hourly earnings of 2.6 per cent. These developments are particularly notable at the sectoral level as Accommodation and Food services, a sector acutely affected by the pandemic restrictions through both declining employment levels and take-up of income support schemes, experienced an almost 100 per cent annual increase in total labour costs in Q2 2022 following the phasing out of the EWSS scheme.

Figure 2: Indexation of Total Labour Costs



Source: CSO; EHECS.

[54] The TWSS/EWSS scheme directly supported 29.9 per cent of all employments active in October 2020, going as high as 81.9 per cent in the Accommodation and Food sector. See CSO EAADS 2021.

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3. Current labour supply and demand

One of the most important determinants of earnings developments is the level of spare capacity – or slack – available in the labour market, which is indicative of the reserve supply of labour. Traditionally, this is measured using the ILO unemployment rate (as illustrated by the earnings Phillips curve in Figure 1). However, this measure may not accurately reflect the large flows of workers from inactivity to employment as part of the pandemic recovery and the ILO methodological treatment of persons on pandemic support schemes.[55]

To better capture the effect of flows into and out of the labour force, we include the Potential Additional Labour Force (PALF) as an alternative measure of slack. This group encompasses the inactive population who have a relatively strong labour force attachment (which can be identified for example, by whether an individual has previous work experience or not). This is relevant when thinking about slack as many workers bypass unemployment status by going directly to/from inactivity. Data from the Labour Force Survey (LFS) shows that transition rates are higher for those who have previously worked than for other inactive groups.[56] We identify persons with previous work experience as they may have relatively greater human capital or face lesser barriers to employment re-entry than those with no previous work experience and thereby, have relatively more impact on the wage bargaining process.

Deploying alternative measures of labour market slack in Phillips curve analysis is becoming more widespread in the literature (for example Byrne and Zekaite (2018) and Byrne and Zakipour-Saber (2020)). To that end, using LFS microdata, we generate an "augmented slack rate" which is defined as follows:

$$Augmented\ Slack\ Rate = \frac{U* + PALF*}{U* + PALF* + Employed}$$

where $U*$ and $PALF*$ are the number of unemployed and PALF persons with previous work experience respectively. $Employed$ is the number of individuals classed in ILO employment at the aggregate level.[57]

A further measure of slack is the short-term unemployment rate. This reflects those unemployed for less than 12 months, distinguishing this cohort from

[55] See Byrne and Keenan (2020) for further details.
[56] The average transition rate to employment for PALF with previous work experience (13.9 per cent) is similar to the unemployment-employment transition rate (16.9 per cent), while for those in PALF without previous work experience, it is closer to the inactive-employment transition rate (3.9 per cent).
[57] LFS microdata contains previous employment and sector data for two thirds of PALF respondents. We can match data for persons back to individual NACE sectors to calculate slack subject to CSO conditions on data size classifications.

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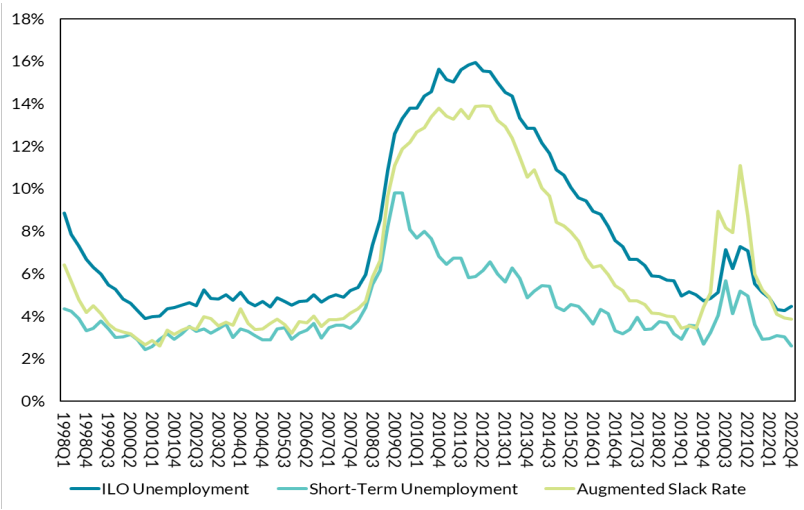
those whose duration of unemployment exceeds one year. This is a useful measure as it has been well established in the economic literature that there is a negative relationship between the duration of unemployment and prospects for re-employment e.g. McGregor (1978). Furthermore, Ball and Mazumder (2015) surmise in a similar earnings Phillips curve analysis that increases in short-term unemployment can place greater downward pressure on earnings than long-term unemployment, as the latter group has a weaker attachment to the labour force. Similarly, Bermingham et al. (2012) use the trend in the short-term unemployment rate as their preferred measure of slack in their Phillips curve analysis for Ireland.

Figure 8 plots the three labour slack measures. Short-term unemployment, as a sub-component of the ILO unemployment rate, has the lowest level of the three measures and a less steep decline between the end of the GFC and the start of the pandemic. The most recent data for Q1 2023 shows it to be only 0.2pp above its historical low point.

Figure 8: Unemployment, short-term unemployment and augmented slack rates (Q1 1998 – Q4 2022)



Source: CSO and authors' own calculations.

Our augmented slack rate tracks both unemployment measures well. It was close to the short-term unemployment measure up to 2008 and equalled it in Q3 2019 before rising during the pandemic, where it exceeded the ILO measure, indicating more slack in the labour market than suggested by the traditional unemployment measure.[58] In more recent quarters, slack (like short-term unemployment) is falling whereas the ILO unemployment rate

[58] Byrne and Keenan (2020) identify the methodological difficulties of interpreting the unemployment rate or other slack measure during the pandemic period. As these difficulties are present across many slack measures and impact the long-run relationship with explanatory variables, we exclude the pandemic period from the Phillips Curve analysis.

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remains relatively flat. Based on the advantages of using a broader measure of capacity in the labour market that considers individuals close to the labour market but not formally counted as unemployed, the Phillips curve estimation in Section 5 uses the augmented slack rate.

On the labour demand side, the tightness of Ireland's labour market is traditionally illustrated using job vacancy data. As of Q2 2023, the job vacancy rate for the total economy remains above its long-term average at 1.3 per cent. The relationship between slack and vacancies can be illustrated visually using the Beveridge curve, whereby the steeper the curve, the tighter the labour market conditions. Figure 9 plots two versions.

The first presents the aggregate data across two different time periods and shows that current market conditions are much tighter than in the previous 2008-2019 period, as characterised by lower slack and higher vacancy rates. The second plot presents a sectoral view and shows that while at an economy-wide level there is evidence of labour market tightness, non-consumer facing sectors appear to be experiencing tighter labour market conditions than the consumer facing sectors.

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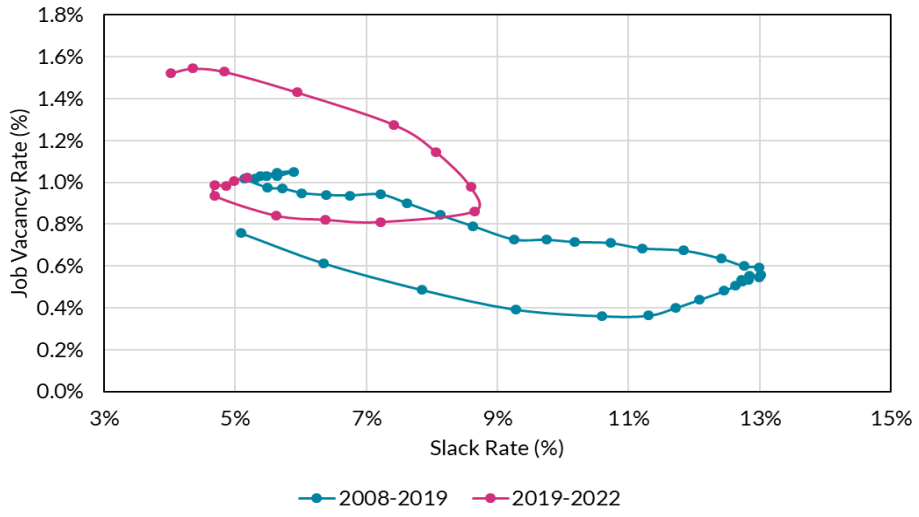
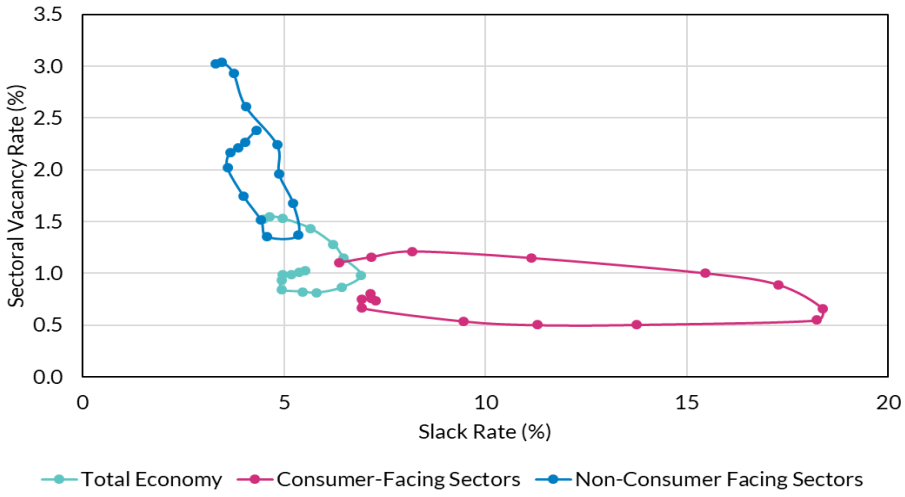
Figure 9: Beveridge curves

a. Aggregate (Q4 2008 – Q4 2022)



b. By sector (Q1 2019 – Q4 2022) *



Source: CSO and authors' own calculations.
Note: Data are calculated on a four-quarter moving average. Consumer facing services include Retail & Wholesale Trade, Accommodation, Admin Support, Transport and Other. Non-consumer facing services include ICT, Finance and Professional. Data for slack are calculated using LFS microdata with Q4 2022 being the most recently available period.
* In order to create a sectoral slack measure, persons must be in either unemployment or PALF and have previous work experience within a specified NACE sector.

Labour market tightness influences earnings growth through its impact on the ability to fill vacancies and workers' bargaining power. As new workers are hired, the pool of available labour shrinks, leading to more tightness. This creates conditions for earnings increases (which are more pressing the tighter the labour market becomes), as firms compete to hire workers while at the same time they may need to increase earnings to retain their existing workforce.

These dynamics can be seen in Table 1 which shows that sectors with positive real earnings growth display higher job vacancy rates. In contrast, vacancy

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rates are lowest for the consumer-facing and construction sectors. These sectors also have relatively high slack rates, indicating a larger potential labour supply that may lessen pressure on earnings demands. Hence, slack is negatively related to earnings growth and understanding its potential path is critical for the outlook of earnings.[59] Since Q4 2019, the share of job switchers has grown in the non-consumer facing and public sectors at the expense of the consumer-facing sector with the overall level of switchers remaining relatively unchanged. This alteration in worker flows may reflect the change in real earnings over this period.[60]

Table 1: Real earnings growth, slack rate, vacancy rates and job switching by sector (average, %)

	Real earnings growth	Augmented slack rate	Vacancy rate	New hires as % of total job switchers
Sector	Q4 2019-Q4 2022	Q4 2022	Q4 2022	Q4 2022 *(Change from Q4 2019)*
Consumer-facing	-3.0	5.6	0.8	32.8 *(-15.2)*
Construction	-2.7	3.9	0.9	6.0 *(-0.3)*
Industry	-1.3	2.6	1.1	9.9 *(2.1)*
Non-consumer facing	1.5	3.4	2.6	26.5 *(9.3)*
Public	3.6	3.0	1.4	24.7 *(3.8)*
Total	1.7	3.9*	1.3	

Source: CSO and authors' own calculations.
Note: Agriculture excluded from analysis. Augmented slack rate calculated by authors using earlier formula in Section 3. Real earnings growth in the table is derived from EHECS data. Q4 2022 is compared to Q4 2019 as it eliminates the distorting compositional issues associated with the pandemic period.
* Likely represents a lower bound as previous sector of employment unknown for some individuals.
^Job switchers are defined as persons moving from one employment to another within a given quarter.

4. Other earnings determinants

Aside from the simple earnings-slack relationship, there are other factors that affect the development of earnings. In this section, we outline the most important additional factors for Ireland, which should be captured in an earnings Phillips curve framework to reflect the specific characteristics of the Irish labour market. Those are:

1. **Inflation expectations.** Workers form expectations of how prices might grow in the future and in turn, incorporate this into their earnings demands. Annual inflation, as measured by the Harmonised Index of Consumer Prices (HICP), averaged 8.1 per cent in 2022. While this rate has moderated to 5.8 per cent in July 2023, it still represents rates not

[59] Real earnings growth in the public sector is also a reflection of the payment of lump sum salary arrears and negotiated increases as part of the public sector pay deal.
[60] The job switching rate at Q4 2022 measured 7.8% of total employment, up marginally from 7.4 per cent in Q4 2019 and above the long-run average of 6.8 per cent.

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seen since the 2000s. Under such circumstances, workers may demand higher earnings to compensate for their loss of purchasing power and any future expected losses. A positive relationship therefore exists between inflation expectations and earnings growth.

To better understand consumer expectations, the Central Bank of Ireland Expectations Survey (CBIES) was launched in February 2023. Keenan and Zekaite (2023) recently summarised the data collected over February and May 2023, which showed that workers, on average, expect inflation to be 6.1 per cent for the 12 months from May 2023 to May 2024. This figure exceeds workers' expectations for nominal earnings growth, suggesting that Irish workers expect a real earnings decline over the next 12 months. Despite this, the survey also found that 46 per cent of respondents stated that they are "not currently planning to take any action" to seek higher earnings. While expectations data are not error free, the results do not indicate widespread earnings demands in line with or in excess of current inflation.

2. **Productivity.** How effective workers are at adding value is another important determinant that is positively related to earnings growth. Since the 1970s, the economic importance of foreign direct investment (FDI) and multi-national enterprises (MNEs) have grown in Ireland (Osborne-Kinch, Mehigan & Woods, 2020). There is a large presence of MNEs in the more productive traded sectors of the Irish economy such as high tech manufacturing and ICT services. These are sectors that are currently experiencing higher earnings growth (Table 1).

   While GDP per worker is typically used as the preferred productivity metric in wider literature, the unsuitability of GDP as a measure of both the size of the Irish economy and its rate of growth has been well documented for over 20 years (Byrne et al, 2021). This requires selecting a productivity series that removes the distortionary effects of MNE activity and better reflects developments in the domestically-oriented part of the economy. O'Brien (2023) identifies that productivity growth in the non-MNE domestic sectors averaged 1.6 per cent per annum from 2001 to 2022 This analysis uses domestic Gross Value Added (GVA) that is GVA within the non-MNE domestic sectors,

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as the preferred measure of output.[61] This series is then adjusted on a total hours worked basis to calculate a measure of productivity growth.

3. **Effective exchange rates.** Exchange rate movements are a third factor to consider given their impact on the price of traded goods. Here, two channels are possible for how currency movements could impact prices and in turn, earnings.

   The first channel relates to the impact on the domestic prices of goods and services that Irish workers consume. All else constant, an appreciation in the euro would result in a lower effective price for imports (meaning one euro could buy more of a good or service valued in another currency). This implies reduced inflation and therefore, dampened wage demands. This channel is supported by evidence, such as Reddan and Rice (2017), who find the pass-through associated with a simulated positive, exogenous shock to the nominal effective exchange rate is large and fast for import prices.

   The second channel relates to the impact on the export prices of goods and services that Irish workers produce. All else constant, an appreciation in the euro would make Irish exports more expensive, leading to a decline in trade competitiveness. As a result, wage growth could be restricted in exporting sectors if exporting firms are not willing to absorb the total revenue cost arising through lower profitability or increased productivity. Empirical studies to date, including the previous earnings Phillips curve analysis by Linehan et al., (2017) find a negative relationship between exchange rate movements and earnings, explaining this in the context of the second channel which they refer to as 'margin pressures'.

   Aside from exchange rate movements, it is worth noting that as a small open economy, Ireland is also susceptible to importing inflation directly, particularly through higher energy prices (Byrne and Zakipour-Saber (2020). This is relevant for our analysis as a significant driver of the inflation surge in 2022 was energy prices, which are largely priced in dollars, a currency which experienced appreciation against the euro throughout much of 2022.

4. **Migration trends.** Historically, inward migration has been correlated with employment growth and is expected to remain a key source of

[61] The Foreign-MNE dominated sectors include NACE 2 digit activities such as *Software and communications activities* and *Chemicals and chemical products*. See CSO for further details.

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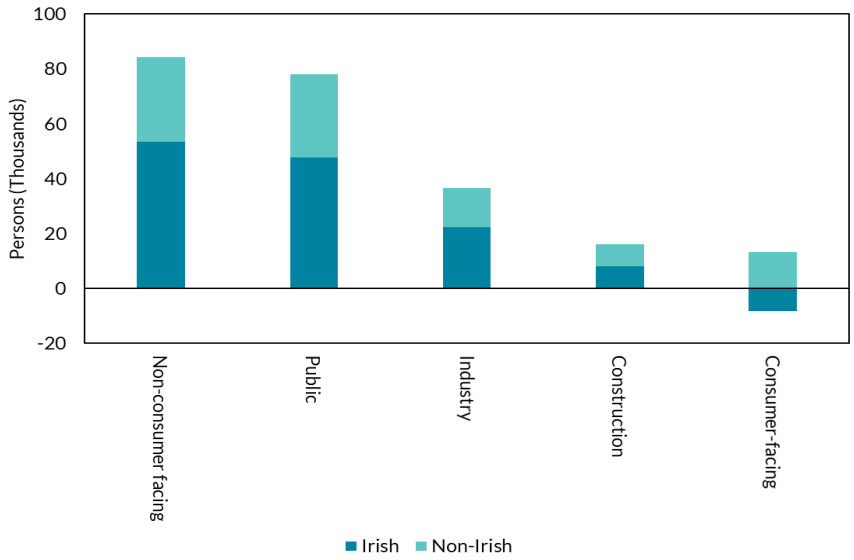
future growth in the work force (Byrne and McIndoe-Calder, 2019). Annual population and migration estimates indicate that net inward immigration in the year to April 2022 increased to its highest level since 2008, at over 61,000 persons; of which, 46,000 were from non-EU and non-UK countries.[62] In the same year, the majority of annual labour force growth (80 per cent) was due to the demographic effect of non-Irish nationals joining the workforce.

Figure 10: Net employment gain by nationality (Q4 2019 – Q4 2022)



Source: LFS microdata and authors' own calculations.

Figure 10 shows that public and non-consumer facing sectors (where earnings growth between Q4 2019 and Q4 2022 has been comparatively higher) also experienced higher employment growth in foreign workers over the same period. Therefore, migration flows are an important determinant of potential additional labour supply, which can alleviate labour market tightness and in turn, the domestic pressure for earnings increases. As a result, it is expected that a negative relationship exists between migration flows and earnings growth.[63] For our Phillips curve estimation in Section 5, we use LFS microdata to calculate the

[62] See Conefrey and Keenan (2022) "Population Change and Migration in Ireland – Recent Evidence" Central Bank of Ireland Quarterly Bulletin. Box E, QB4 2022.
[63] Byrne and McIndoe-Calder (2019) find that due to the increasing skills and education level of the workforce, attracting migrants may occur at higher wage differentials going forward than seen in the 2004-2007 period, implying that the wage dampening effect of net inward migration may be subdued when compared to the pre-GFC period.

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number of recent migrants (resident less than 12 months) that are in employment as a share of total employment.[64]

5. Earnings Phillips curve estimation

To estimate the determinants of earnings growth in Ireland more formally, we draw on the earnings Phillips curve framework and follow an approach similar to previous work by Linehan et al. (2017) which covered 2000-2017.

We estimate the following model using quarterly data on a sample covering Q1 2000 to Q4 2019 to assess predicted earnings growth prior to the onset of the pandemic. We exclude data for the period Q1 2020 – Q4 2022 from our estimation given the distortions to measured earnings growth during the pandemic, as discussed in Box A.

(1) $$inflation\ exp_{t-1} = \alpha_0 + \alpha_1 * \frac{\pi_t + \pi_{t-1} + \pi_{t-2} + \pi_{t-3}}{4} + \theta_t$$

(2) $$\Delta CPE_t = \beta_0 + \beta_1 inflation\ exp_{t-1} - \beta_2 slack_{t-1}$$
$$-\beta_3 \Delta\ migration_{t-1} - \beta_4 \Delta neer_{t-1} + \beta_5 \Delta prod_{t-1} + \epsilon_t$$

Inflation expectations are proxied by the moving average of the observed personal consumption deflator (PCD) in the previous four quarters (equation (1)). In our main model, indicated in equation (2), we apply an instrumental variable regression whereby the inflation rate is treated as an endogenous variable in relation to nominal earnings growth, as denoted by equation (1), and instrumented using the lag of inflation. Using a lag allows us to account for the delay that exists between expectations and wage demands, while inflation expectations have a strong relationship with lagged inflation (Ehrmann, 2021).[65]

The dependent variable (ΔCPE) in equation (2) is the year-on-year change in log nominal CPE from the National Accounts. Inflation expectations are proxied using the first lag of the PCD deflator ($inflation\ exp_{t-1}$).[66] While, for labour market slack, we use the newly developed slack rate from Section 3,

[64] We consider only recent migrants in employment as we want to observe the effect of persons that impact the aggregate wage-bargaining process through the provision of labour. LFS data shows that the employment rate for non-Irish persons aged 15-64 years is higher than Irish persons (Q4 2022 data showed 76.6 per cent compared to 72.4 per cent).
[65] The use of lagged inflation to proxy inflation expectations is supported by research such as Leddin (2010) who found that there is an important "retrospective element" to the wage determination process.
[66] We obtain first stage results to measure the relevance of the instrumental variable. The results indicate useful predictive power for inflation with an R-squared of 0.93 and the F-stat (208.3) far exceeds the 2SLS critical value of 16.4.

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which includes both persons in unemployment and PALF with previous work experience (u_t). Alternative models were tested using the ILO unemployment rate and the short-term unemployment rate, but the slack rate was found to be the most accurate labour measure in predicting CPE growth.

The model also incorporates the annual change in the share of recent migrants in total employment ($\Delta\ migration_{t-1}$), log difference of the nominal effective exchange rate ($\Delta neer_{t-1}$) which reflects the Irish trade-weighted exchange rate for the 12 largest trading partners, and log difference of domestic GVA per total hours worked ($\Delta prod_{t-1}$).[67] These variables are included in first difference to ensure their stationarity and lagged to account for delays in the pass-through of these variables to earnings growth given that earnings, particularly the wage component, is typically fixed in the short-term.[68]

The coefficients associated with the earnings Phillips curve are presented in Table 2. All of the variables are statistically significant at the 95 per cent confidence level and show the expected signs. Inflation expectations and productivity (as measured by change in domestic GVA per hour worked) are positively related to earnings growth. In contrast, the level of labour slack, change in nominal effective exchange rate and the change in recent migrants in employment are negatively related.

Key differences are noted between our estimation and the previous earnings Phillips curve analysis by Linehan et al. (2017). Unlike the earlier work, we do not find significant non-linear effects for our slack rate. In addition, our coefficient for inflation expectations implies a pass-through of around 40 per cent from price growth to earnings growth, which is less than the earlier estimate for this variable. These differences emphasise the importance of refreshing the analysis on a regular basis to account for developments in Ireland's labour market and economy over time.

[67] Recent migrants are identified in the LFS as persons who are resident in Ireland for less than one year.
[68] Data were smoothed to reduce volatility. Unit root tests and residual plots were used confirm that all variables are stationary.

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Table 2: Coefficients from earnings Phillips curve estimation of annual earnings growth

	Q1 2000 – Q4 2019
Inflation expectations	0.388***
Slack	-0.519***
Change in nominal effective exchange rate	-0.050**
Change in share of recent migrants	-0.814***
Change in domestic GVA per hour worked	0.118**
Constant	5.648
R-squared	0.851

Source: Authors' own calculations.
Note: Results based on a pooled IV regression of quarterly data. OLS standard errors are used. The dependent variable is the year-on-year change in log of nominal CPE. Inflation expectations are instrumented using the first lag of the personal consumption deflator.

Figure 11 plots the fitted values for CPE growth alongside the actual growth. Considering the plot for the period of our estimation sample (Q1 2000-Q4 2019), the Phillips curve performs reasonably well in estimating earnings growth, particularly between 2013 and 2018, which coincides with a period of recovery after the GFC and a relatively stable composition of employment.

The estimated earnings growth series captures turning points in the realised data well. However, it fails to fully capture some peaks and troughs related to changes in the composition of employment around the time of the GFC. The predicted values also diverge from the actual series from Q1 2019, where slightly higher earnings growth values are estimated by the model compared to the realised outturn. The gap between predicted and actual CPE growth in Q4 2019 was 1.1 percentage points.

Looking ahead to the most recent period, Figure 11b shows the predicted values of our model to Q4 2022. Data from Q3 and Q4 2022, when the income-support schemes were fully phased out, are incorporated in this extension. Pink dotted lines over the 2020Q1 and 2022Q2 period represent the trend implied by the predicted values of the estimated model between Q4 2019 and Q3 2022.[69] The plot shows that the estimated earnings gap has widened slightly to 1.3 percentage points in Q4 2022. Altogether, these results imply that post-pandemic earnings growth has been slightly lower than predicted by the model based on observed macroeconomic conditions.

[69] Using a smoothed trend allows us to abstract from the challenges associated with fitting an earnings Phillips curve during the pandemic period.

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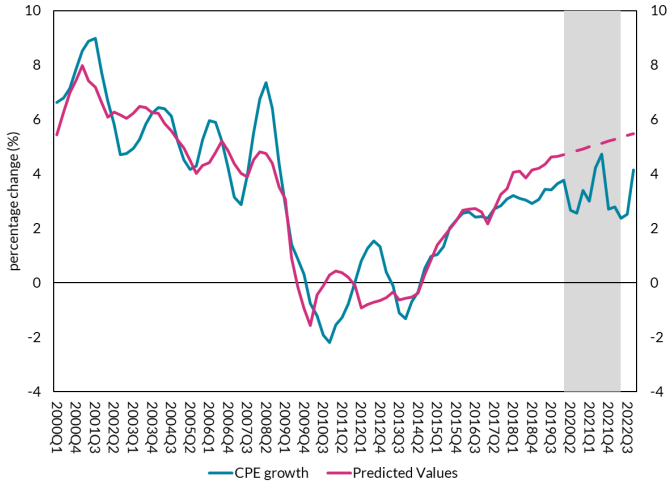
Figure 11: Phillips curve predictions

a. Phillips curve estimations (Q1 2000 –Q4 2019)

b. Phillips curve estimations (Q1 2000 – Q4 2022)



Source: CSO and authors' own calculations.
Note: Grey shaded area represents pandemic period of Q1 2020 – Q2 2022.

In an effort to understand the drivers of this gap, we decompose the difference between actual and estimated earnings growth. The decomposition is implemented as follows. Working sequentially, we allow all the explanatory variables to vary except one, which we hold constant at its Q3 2017 levels, and calculate proxy fitted values for 2022 using our Phillips curve model.[70] We then measure the difference between the proxy fitted values and actual earnings growth. This difference provides the contribution of developments in the explanatory variable that is held constant to the gap between actual and estimated earnings growth. We repeat this exercise until we have a difference

[70] 2017Q3 represents the smallest gap between the estimated Phillips curve and observed earnings growth data.

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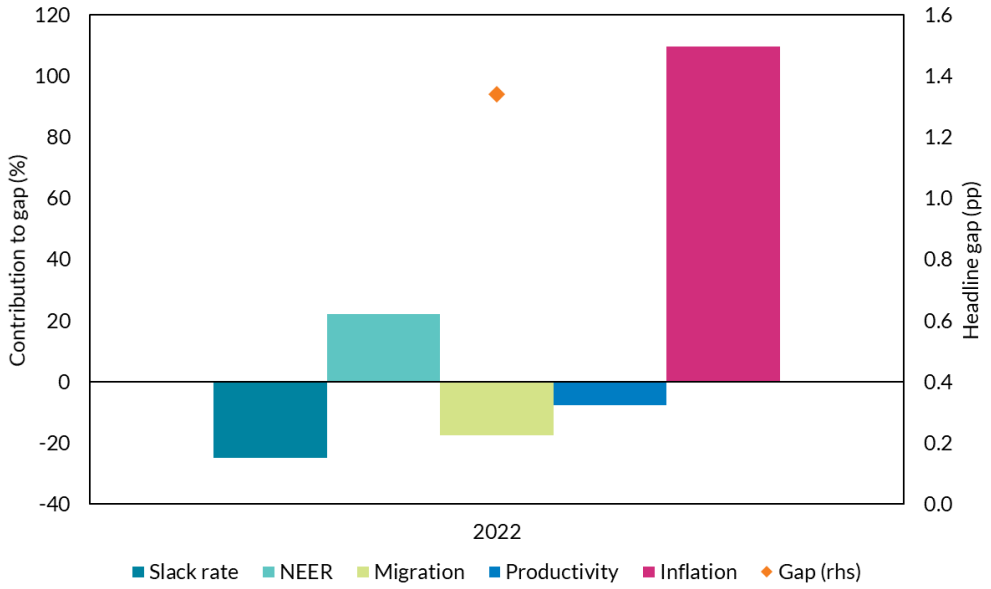
(or "contribution") calculated for each explanatory variable. These differences are shown in Figure 12. The contributions are shown relative to the headline gap, i.e. the bars represent the share of the gap accounted for by each explanatory variable using 2017 as a base year for comparative purposes. The decomposition analysis allows for explanatory variables to contribute non-additively to the headline gap (so the contributions do not sum to 100).

Figure 12: Decomposition of Gap between Actual and Estimated Earnings Growth



Source: Authors' own calculations.
Note: The decomposition is implemented as follows. We sequentially hold the explanatory variables constant at their Q3 2017 levels and calculate proxy fitted values. We then compare the contribution of developments in each of the explanatory variables to the overall gap between actual and estimated earnings.

The overall gap (indicated by the orange dot) between actual and estimated earnings growth is positive and increased between 2017 and 2022. However, there is heterogeneity in the role of individual explanatory variable developments over this period in the headline gap. For example, in 2022 if productivity growth had been similar to 2017, the gap between actual and estimated earnings growth would have been smaller than is the case when using observed changes in productivity in 2022. This means that developments in productivity between 2017 and 2022 have exerted upward pressure on the estimate of earnings. The scale of this upward pressure, in terms of the headline gap, amounts to around 22 per cent.

Looking at 2022, developments in slack, the exchange rate, migration and productivity, over the 2017-2022 period, contribute between -10 per cent and 24 per cent to the headline gap. But, it is inflation developments over the

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period that explain the vast majority of the difference between estimated and observed wage growth in 2022. This is consistent with the high inflation in 2022 being largely unexpected by wage earners. This implies that it may take longer for the pass through of higher consumer prices to earnings growth than had the inflation surge been expected.

That the contribution of the other explanatory variables to the gap is relatively muted provides confidence that the Phillips curve remains a useful tool for analysing earnings growth, including for forecasting. Assessing the evolution of the gap over the near term may suggest a clear structural break in the earnings Phillips curve in Ireland, however assessment to date does not provide strong evidence for this to be driving a large portion of the gap between actual and estimated earnings growth. We do not however, rule out the possibility that structural changes may be driving at least some of the gap and trace some of these potential channels below.

Explaining the gap

The economics literature and the nature of the Irish economy suggest several possible explanations for the gap between the Phillips curve estimation of earnings and actual earnings growth since 2019. Those are:

1. **Natural lag in wage adjustment process.** Wages, a key component of earnings, are not fully flexible in the Irish labour market. Some firms may operate a cycle which only allows salary negotiations and promotions at certain times of the year. The public sector is characterised by strict pay scales which are modified only after pay settlements are agreed, and the minimum wage (set by public policy) is only updated on an infrequent basis. These rigidities mean there is a natural lag in nominal wages adjusting to prices. Given the inflation surge in 2022 was large and unexpected, the gap is most likely driven by delayed adjustment of wages, as firms and workers wait to see if inflation turns out to be persistent and if so, the degree of that persistence. This explanation is supported by the results of the earlier decomposition exercise (presented in Figure 12) showing that inflation was the main contributor to the earnings gap in 2022.

   Positive real wage growth (and in turn positive real earnings growth) is, however, likely to materialise in the medium term given the overall tightness of the labour market. Ireland has previously experienced real

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wage catch-up following economic downturns.[71] The speed at which aggregate wages adjust depends on a number of factors such as the persistence of inflation, sector-level wage negotiations and productivity, and household saving buffers among others. The projected inflation profile in the *Quarterly Bulletin* points to core inflation gradually easing over the medium-term horizon and monetary policy actions taken, together with continued effective communication from the ECB in relation to monetary policy strategy to curb inflation growth over this period, should help in anchoring inflation expectations.

How people perceive past outcomes is also important to the wage process (Leddin, 2010) and could be further delaying the adjustment of wages. For instance, workers and firms may be planning to use the public sector pay agreements to benchmark their own future wage negotiations, which take time to complete. ECB analysis points to public wages in the euro area expected to grow at rates that are cumulatively higher than inflation over the projection horizon. However, stronger rates tend to appear in countries with higher inflation in 2022 reflecting backwards-looking compensation.[72] In addition, it is unclear at this stage the extent to which workers will expect future earnings growth to match price growth as opposed to a future earnings level which corresponds to the new price level.

To assess potential earnings developments over the medium-term horizon, we estimate an out-of-sample forecast for CPE using the model coefficients from Table 2 and holding all explanatory variables constant at Q4 2019 values with the exception of inflation, which we allow to follow the projection path out to Q4 2025, as outlined in the *Quarterly Bulletin* forecasts. We allow only inflation to change over time, as it is shown to be the primary driver of the earnings gap in 2022. The results are presented in Figure 13.

[71] For example, during the early 1990s under the Programme for Economic and Social Progress (PESP).
[72] Checherita-Westphal and Vlad (2023) "Inflation and the response of public wages in the euro area" ECB Economic Bulletin, Issue 5/2023.

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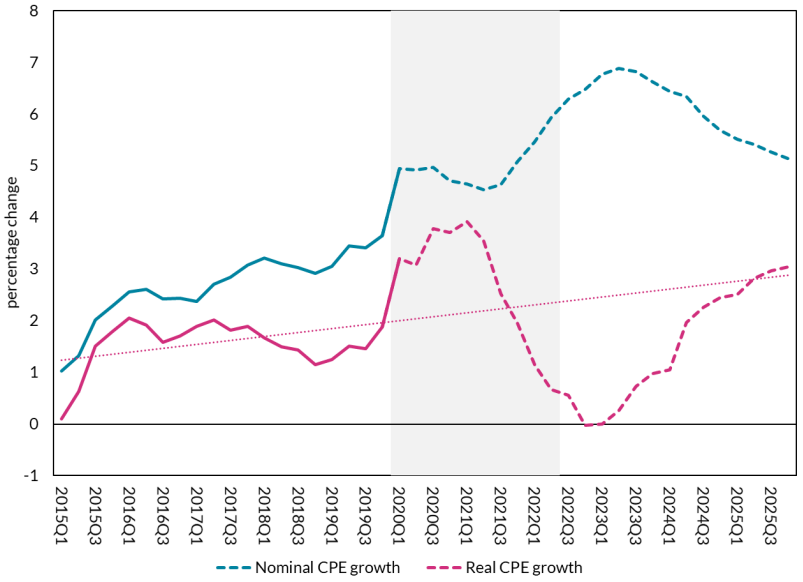
Figure 13: Scenario forecast of nominal and real earnings growth



Source: CSO and authors' own calculations.
Note: Grey shaded area represents pandemic period of Q1 2020 – Q2 2022. The linear trend line is estimated on real annual CPE growth from Q1 2015 to Q4 2019 and projected forward.
These estimates are calculated under a specific scenario whereby inflation follows a gradually moderating path out to Q4 2025. Changes to the slack rate and other explanatory variables that are held constant at Q4 2019 values. The predicted values shown in the chart may differ from CPE estimates in the central forecast as shown in the main Quarterly Bulletin.

The estimated path, as shown by the dotted lines, suggests that nominal CPE would increase by an average 6.7 per cent in 2023 under these specifications before then gradually slowing in 2024 and 2025, respectively. In real terms, CPE growth would slowly return to its pre-pandemic trend by the end of 2025 thereby compensating workers for increases in the price level. Survey evidence collected from the CBIES suggests that the majority of respondents seem to expect earnings to catch-up with inflation developments over the medium term (Keenan and Zekaite, 2023).

2. **Structural changes in the labour market.** While our results suggest a cyclical explanation is most likely behind the current gap, it could also partly reflect some structural change in the labour market. For instance, the rise of remote working following the pandemic could be revealing a change in workers' preferences around labour contracts. Workers may be accepting lower earnings growth in exchange for the ability to work flexibly or remotely.

   Looking at data from 34 countries, Aksoy, Barrero, Bloom, Davis, Dolls & Zarate (2022) find around a third of full-time employees either work from home entirely or on a hybrid basis. The authors find employees, on

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average, value the option to work from home between 40 per cent and 60 per cent of their time at around 5 per cent of pay. We also find early tentative evidence, from the LFS microdata, that working from home may have lessened wage pressures, though further, detailed research is needed to confirm this result.[73]

Another structural factor to consider is the impact of the change in workforce composition. This was highlighted earlier in Section 2, but may not be fully captured in our model. In addition, the augmented slack measure in our Phillips curve estimation is intended to reflect spare capacity in the form of number of potential workers. However, it does not consider capacity through the lens of hours worked. While LFS data for Q2 2023 shows employment is 12.1 per cent higher than its pre-pandemic level, growth in total actual hours worked has not yet resumed its long-term trend. Average hours per worker are 3.2 per cent below pre-pandemic levels, while the part-time composition of employment has remained broadly similar to its Q4 2019 share.

It is therefore possible that there is more labour slack available than captured currently in the model, if average hours worked were to converge towards previous levels. ECB analysis at the euro area level finds, however, that the public sector accounted for a sizeable share of growth in employment since the pandemic (similar to Ireland) with typically lower average hours worked contributing to declines at the aggregate level.[74] Other possible explanations suggest an element of labour hoarding despite the differences amongst job retention schemes across various countries. However, this may become less attractive to firms faced with rising labour and financial costs, leading to a normalisation of average hours worked.

Related to this is net migration. While our model captures the change in the share of recent migrants in employment, it does not capture the future potential flows, which could add further potential labour supply and in turn, help contain wage pressures.

New labour market entrants typically have lower wage bargaining power due to the time involved in building up skills, experience and confidence to change jobs, which are all factors associated with

[73] We run a regression using microdata from the LFS where the dependent variable is gross pay and find the coefficient for 'whether an individual worked from home' is positive in 2019, but turns negative in 2022.
[74] See Arce et al (2023) "More jobs but fewer working hours" ECB Blog, 7th June 2023.

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increasing wages (and in turn, earnings). LFS microdata shows that the share of workers with less than 12 months experience in their current role averaged 7.7 per cent in 2022, compared to 6.8 per cent before the pandemic.

The labour force participation rate has increased by 3.1 pp since the pandemic to 65.7 per cent in Q2 2023. Boyd et al (2022) present evidence that the participation expansion supporting the employment recovery relates to youth and women over 35 years. In particular, the higher levels of female participation could be sustained given demographic changes in recent decades such as educational attainment that has seen greater labour force attachment amongst this cohort. While sensitive to the economic cycle, these gains can provide a boost to overall labour supply and support economic growth.

3. **Non-wage sources of compensation.** The pandemic and subsequent high inflation period were accompanied by substantial fiscal supports for firms and households alike. SILC data shows that households received, on average, €2,059 in Covid-19 income supports in 2020 and €1,677 in 2021. These amounts correspond to 7.2 per cent and 5.6 per cent of nominal net equivalised household disposable income respectively. However, it was as high as 12.4 per cent for some households.[75]

   Subsequently, over 2022-23, the Government provided €5.3bn of financial support to households and firms to address cost of living pressures.[76] The supports included increased child benefit for 650,000 families; a rent tax credit of €500 estimated to benefit 400,000 tenants, and up to 1.3 million individuals receiving a €200 cost of living lump sum payment.[77] Conefrey, Hickey, Lozej, Staunton & Walsh (2023) estimate that around two-thirds of the measures were untargeted; most notably an energy credit worth €600 was available to all households.

   These measures provided direct income support to households, but are not captured by CPE in our model. Adding the estimated energy credit expenditure in 2022 to Central Government data for social benefits

[75] This figure reflects households in income decile 4 in 2021 (SILC, 2022).
[76] This figure is derived from data taken from the Department of Finance's document "The Fiscal Response to the Cost of Living Challenge". It does not include revenue measures. For more detail, see footnote 55 of Conefrey et al. (2023).
[77] Figures sourced from Government press releases on child benefit payments; rent tax credit, and cost of living lump sum payments.

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amounts to €4,816 per person, up from €4,026 in 2019.[78] The Government's own analysis estimates that the cost of living supports boosted net equivalised weekly disposable income by 1.6 per cent, and by 3 per cent when the full Budget 2023 measures are considered.

The scale of these supports, and anticipation of future supports in Budget 2024, may have dampened the pressure for workers to be compensated quickly via salary increases and altered expectations regarding the business cycle. The nature of the supports may also have played a role. ECB analysis indicates that, across the euro area, discretionary fiscal support over 2022-23 was split fairly equally between measures which affected prices directly (by limiting energy costs) and measures which boosted incomes. In Ireland, however, the measures were almost entirely income supports.

The mechanisms through which government supports have cushioned households during the pandemic and high inflation periods remains an area of active research. For example, cross-euro area analysis by Dao, Dizioli, Jackson, Gourinchas & Leigh (2023) finds that the fiscal measures may have suppressed inflation in 2022 by 1 to 2 percentage points, and helped to anchor long-term inflation expectations. However, the authors caution that had the increase in energy prices been more persistent, or the economy more overheated, then they could have had greater inflationary consequences and contributed to an increase in core inflation which risked de-anchoring expectations. Therefore, policymakers should be mindful that further, large increases in overall public spending could add to inflationary pressures, with the potential for triggering harmful overheating dynamics.[79]

4. **Built-Up Household Savings** Many workers may have built up a stock of financial buffers during the pandemic, which could have provided further resilience against cost of living pressures. Panel data from the Household Finance and Consumption Survey (HFCS) shows that almost half of Irish households were able to save more during the pandemic. [80] Lydon and McIndoe-Calder (2022) show that pandemic savings were

[78] Calculation assumes that the majority of additional expenditure associated with other cost of living supports is captured in social benefits data.
[79] See Conefrey, Hickey, Lozej, Staunton & Walsh (2023) for a wider discussion around managing public finances in a full employment economy.
[80] The HFCS provides survey data on household balance sheets across the euro area. The most recent 2021 survey showed that of the Irish panel households able to save more, specifically between March to June 2020, the majority (92 per cent) reported this was due to the closure of shops and reduced expenditure.

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more likely to have been accumulated by higher income households, who are also least likely to draw down on these, even accounting for pent-up post-pandemic consumption.

Aggregate data shows the household savings rate moved from 10 per cent to 22 per cent during the pandemic, although recent quarters have seen this rate moderate closer to its long-run average. Similarly, Central Bank data shows that while household deposit levels increased annually by as much as 18.2 per cent in February 2021, the rate of growth has since decelerated to 3.5 per cent in July 2023, though the latest stock figures for July remain 36.4 per cent above January 2020 amounts. This savings buffer may have acted to, and indeed continue to, curb pent-up earnings demand for households higher in the distribution.

6. Conclusion

In this *Article*, we provide an updated Phillips curve analysis for Ireland which shows that the Phillips curve remains a useful framework for explaining wage growth and performs well when slack is captured using an augmented slack rate which includes both persons in unemployment and those in PALF with previous work experience. Predictions for earnings growth in Q4 2019 are 1.1 percentage points higher than observed earnings growth. However, in terms of the post-pandemic period, the gap between Phillips curve estimates and actual earnings growth widens, with observed earnings growth around 1.3 percentage points lower in Q4 2022.

There are a number of possible explanations for actual aggregate earnings growth being weaker than expected under our Phillips curve estimation. Conducting a decomposition of the difference between actual and estimated earnings growth, we find a cyclical explanation is most likely. As the inflation surge was large and unexpected, the adjustment of wages (and in turn, earnings) may be slower. The availability of cost of living supports and households own savings buffers, may have further contributed to a slow adjustment by providing temporary cushioning which in effect insulated (earning) households from the full effects of price increases during 2022. This may have resulted in workers being less likely to demand earnings adjustments for price increases.

While we find current earnings growth to be conservative in light of the recent high inflation episode, our analysis nevertheless suggests a period of real earnings catch-up is likely over the medium term, as earnings adjust to more fully reflect conditions in the economy and labour market. Employment growth

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is strong and substantially above pre-Covid trend. Even if all persons in PALF at Q4 2022 with previous work experience were to flow into employment or unemployment, the LFPR would only increase by an estimated 0.7pp.[81] High rates of future net inward migration may continue to provide some additional capacity, but attracting migrants in the context of tight labour markets across Europe will be challenging and is dependent on investment in infrastructure, particularly housing.

With the economy operating at full employment, ongoing tightness in the labour market combined with continued demand for labour will place upward pressure on wages, and in turn, earnings. The extent of this will likely vary across sectors in line with their respective balances of labour supply and demand.

The most recent inflation forecast points to inflation slowing in Ireland and the euro-area, which may alleviate pressure for stronger wage demands. But if inflation were to prove more long-lasting and workers perceive inflation to be more persistent, we may observe stronger wage demands that could in turn, translate into higher earnings growth. Given the economy is now at full capacity, there is also a risk that an additional package of large, untargeted cost of living supports could add to demand, generate further inflationary pressures, and threaten overheating.

Looking ahead, increases in earnings in line with productivity growth could help maintain participation rates, attract new workers, and restore household purchasing power, which would support aggregate consumption and employment levels. The extent to which higher earnings, may be passed on to consumer prices is dependent on future market conditions and the pricing decisions of firms. Policies to enhance labour force participation and employment growth over the medium term will be important to build further capacity in the economy, reduce overheating risks and support earnings growth in line with productivity.

[81] This analysis is based on Q4 2022 data.

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References

Arce, O., Consolo, A., Dias da Silva, A., & Mohr, M., (2023). More jobs but fewer working hours. ECB Blog, published on ECB website (7th June 2023).

Aksoy, C. G., Barrero, J. M., Bloom, N., Davis, S. J., Dolls, M., & Zarate, P. (2023). Working from home around the globe: 2023 report.

Ball, L., & Mazumder, S. (2019). A Phillips curve with anchored expectations and short-term unemployment. Journal of Money, Credit and Banking, 51(1), 111-137.

Bankowski, K., Othman, B., Checherita-Westphal, C., Freier, M., Jacquinot, P., & Muggenthaler, P. (2023). Fiscal policy and high inflation. ECB Economic Bulletin, Issues 2/2023.

Bermingham, C., Coates, D., Larkin, J., O' Brien, D., and O'Reilly, G. (2012). Explaining Irish inflation during the financial crisis. Central Bank of Ireland, Research Technical Paper, 9/RT/12.

Boyd, L., Byrne, S., Keenan, E., & McIndoe Calder, T. (2022). Labour market recovery after a pandemic. Central Bank of Ireland, Quarterly Bulletin Q3 2022 Signed Article.

Byrne, D., & Zekaite, Z. (2018). Missing wage growth in the euro area: is the wage Phillips curve non-linear? Central Bank of Ireland, Economic Letter No.9.

Byrne, S., & McIndoe Calder, T. (2019). Employment growth: Where do we go from here?. Central Bank of Ireland, Quarterly Bulletin Q3 2019 Signed Article.

Byrne, S., & Zakipour-Saber, S. (2020). Evaluating the determinants of Irish inflation. Central Bank of Ireland, Economic Letter No.1.

Byrne, S., & Keenan, E. (2020). Measuring and forecasting the unemployment rate during COVID-19. Central Bank of Ireland, Quarterly Bulletin Q4 2020 – Box D.

Byrne, S., & Conefrey, T. and O'Grady, M. (2021). The disconnection of GDP from economic activity carried out in Ireland. Central Bank of Ireland, Quarterly Bulletin Q4 2021 – Box C.

Castle, J. L., Hendry, D. F. & Martinez, A. B. (2022). The historical role of energy in UK inflation and productivity and implications for price inflation in 2022. Available at SSRN 4211994.

Checherita-Westphal, C., & Aurelian, V. (2023). Inflation and the response of public wages in the euro area. ECB Economic Bulletin, Issue 5/2023.

Back to "Contents"

Conefrey T., Hickey R., Lozej M., Staunton D., and Walsh G. (2023). Managing the public finances in uncertain times. Central Bank of Ireland, Quarterly Bulletin Q2 2023 Signed Article.

Conefrey, T., & Keenan, E. (2022). Population change and migration in Ireland – recent evidence. Central Bank of Ireland, Quarterly Bulletin Q4 2022 – Box E.

Cunningham, K., Garabedian, G., & Zekaite, Z. (2022). A snapshot into inflation and earnings expectations by Irish residents. Central Bank of Ireland, Economic Letter No.2.

Dao, M. C., Dizioli, A., Jackson, C., Gourinchas, P-O., & Leigh, D. (2023) Unconventional fiscal policy in times of high inflation. European Central Bank. Presented at ECB Forum on Central Banking, 26-8 June 2023.

Department of Finance (2023). The fiscal response to the cost of living challenge. Published April 2023 on finance.gov.ie.

Ehrmann, M. (2021) Inflation target types and the anchoring of inflation expectations. ECB Working Paper Series No.2562 / May 2021.

Faubert, V. (2021). Is the Irish Phillips curve broken?. Economic & Social Review, 52(4).

IGEES (2022). Trends in post-PUP employment: examining the employment transitions of those closing their pandemic unemployment payment claims. Working Paper / April 2022.

Keenan, E., & Zekaite, Z. (2023). Inflation and earnings expectations: Survey

evidence from Ireland. Central Bank of Ireland, Quarterly Bulletin Q2 2023 – Box F.

Keenan, E., & Lydon, L. (2020). Wage subsidies and job retention. Central Bank of Ireland, Economic Letter No.11.

Leddin, A. (2010). “The Phillips curve and the wage-inflation process in Ireland”, in (S. Kinsella and A. J. Leddin, eds.), Understanding Ireland's Economic Crisis: Prospects for Recovery, pp. 159–77, Blackhall Publishing, Dublin.

Linehan, S., Lydon, R., McIndoe-Calder, T., Reddan, P., & Smyth, D. (2017). The labour market and wage growth after a crisis. Central Bank of Ireland, Quarterly Bulletin Signed Article, 66-79.

Lydon, R., & McIndoe-Calder, T. (2021). Saving during the pandemic: waiting out the storm. Central Bank of Ireland, Economic Letter No.4.

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McGregor, A. (1978). Unemployment duration and re-employment probability. The Economic Journal, 88(352), 693-706.

O'Brien, M., (2023). Wages, profits and productivity in an inflationary environment. Central Bank of Ireland, Quarterly Bulletin Q2 2023 – Box E.

Osborne-Kinch, J., Mehigan, C., & Woods, M. (2020). Understanding the presence of MNEs in Ireland as an end user. IFC Bulletins chapters, 52.

Phillips, A.W. (1958). The relation between unemployment and the rate of change of money wage rates in the United Kingdom, 1861–1957. Economica 25, 1958, pp. 283–299.

Reddan, P., and Rice, J. (2017). Exchange rate pass-through to domestic prices. Central Bank of Ireland, Economic Letters No.8.

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