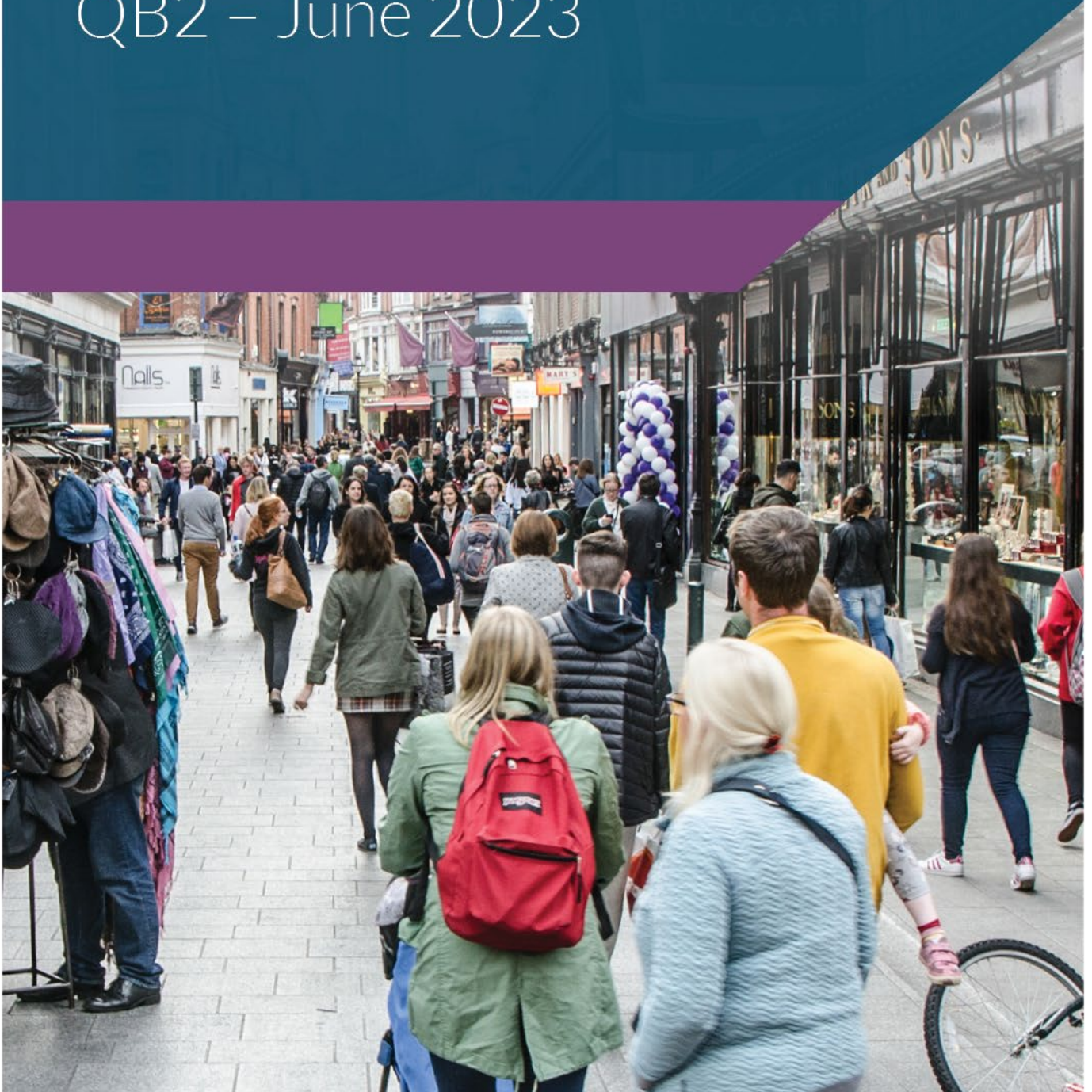




Banc Ceannais na hÉireann
Central Bank of Ireland
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Notes

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2. Unless otherwise stated, statistics refer to the State, i.e., Ireland exclusive of Northern Ireland.
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.

Enquiries relating to this Bulletin should be addressed to:

Banc Ceannais na hÉireann
 Bosca PO 559, Baile Átha Cliath 1, Éire
 Central Bank of Ireland,
 PO Box 559, Dublin 1, Ireland

Phone +353 (0)1 224 5800 Fax +353 (0)1 224 5550
www.centralbank.ie Email: enquiries@centralbank.ie

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Comment

With global energy and food prices continuing to ease, domestic factors are beginning to play a more important role in the inflation outlook. Growth in the domestic economy this year is expected to be slightly stronger than previously anticipated. Various indicators, particularly from the labour market, point to the economy operating at capacity. The tightening of monetary policy is beginning to feed through the economy and will contribute to dampening demand and economy-wide price pressures. In this environment, it will be important that fiscal policy charts a careful course that does not exacerbate the imbalance between demand and supply conditions across the economy.

Over Q4 2022 and Q1 2023, employment growth remained positive, the unemployment rate reached multi-decade lows, consumption was firmly expanding, as was the output of domestically oriented sectors of the economy. These data give a clear sense of the recent performance of the domestic economy. National Accounts data published by the Central Statistics Office, showing two successive quarterly declines in GDP in Q4 2022 and Q1 2023, highlights the difficulties with meaningfully interpreting GDP in the Irish context. The inherent volatility in GDP, and the significant proportion of it that reflects activities outside the State, means that it is important to look beyond this headline measure to gauge the temperature of the Irish economy.¹

Headline HICP inflation has continued to decline, as the direct effect of the spikes in energy and other globally-traded commodities that followed the Russian invasion of Ukraine wanes. The increase in wholesale energy prices last year passed through to consumer prices for energy more rapidly than would have been expected according to historical patterns (Box D). The disinflation, and recent decline in wholesale prices for food and energy that has already happened is expected to filter through to consumer prices for these

¹ The recent sharp swings in the volume of industrial production of the “modern” sector, which is estimated to have accounted for 35 per cent of total output in 2022, is a clear example of the volatility. Output in those sectors fell by 47.8 per cent on a monthly basis in March 2023, before increasing by 81.3 per cent on a monthly basis in April 2023.

categories as 2023 progresses. However, that pass-through may be more gradual than it was when wholesale prices were rising. Indeed, the extent of the easing in energy price inflation for consumers in Ireland has so far lagged that in the euro area as a whole.

Despite the disinflation now underway for energy and food prices, core inflation, which excludes these components, is not expected to peak until late 2023, and its decline thereafter is likely to be relatively gradual. Monitoring developments in core inflation is important, as it tends to be a better reflection of the tension between domestic demand and supply conditions. Its expected path over the current forecasting horizon reflects the combination of a number of countervailing forces.

On one side, spill-overs from energy price developments to the price of other goods and services should exert downward pressure on core inflation next year. In addition, the lagged effect of monetary policy tightening should dampen demand, easing inflationary pressures. Indeed, scenario analysis in this *Bulletin* suggests that inflation in Ireland could have been significantly higher over this year and next had monetary policy rates not risen as observed since July 2022 (Box C). The effectiveness of monetary policy transmission is in part determined by the extent of pass-through from policy rates to retail lending and deposit rates. More time is needed before a full assessment on the extent of interest rate pass-through and monetary policy transmission is possible, but there has already been a reaction across lending and deposit rates to varying degrees (Box B). Based on historical norms, the pass-through of policy rate changes to retail lending and deposit rates can be expected to continue in the period ahead.

Against these moderating influences, factors supporting demand in the economy, and hence putting upward pressure on core inflation, remain strong. This is most notable in the extended period of tightness in the labour market, supporting household incomes and demand in the economy. The unemployment rate is at multi-decade lows. Growth in the number of people in employment has continued, enabled by significant net inward migration, but not enough to allow for a reduction in the relatively high level of job vacancies across the economy. While growth in hourly wage rates has been relatively contained, the tight labour market and an anticipated degree of real wage catch-up is expected to contribute to strong wage rate increases over the forecast horizon. Survey evidence suggests that almost 40 per cent of workers expect to take some action, either themselves or through their trade union, to seek higher wages in the coming months (Box F). In addition, the economy-

wide household savings rate, which had been particularly elevated since the onset of the Covid-19 pandemic, has begun to revert toward pre-pandemic norms, providing further support to domestic demand.

To some extent, a period of real wage catch-up is to be expected, especially in light of the overall tightness of the labour market. The expected rise in labour costs has the potential to put upward pressure on core inflation. However, the extent to which this will be the case depends on the pricing decisions of businesses in light of developments in their input costs, their capacity to absorb higher costs through reducing profit per unit of output, or getting more output from the same level of resources through higher productivity. Total profits in the domestic sectors of the economy have grown substantially in the past two years, recovering from losses in 2020, and reflecting both growth in the volume of output and in the profit per unit of output. Businesses maintaining or increasing unit profits have contributed more to domestic inflation in 2021 and 2022 than higher labour costs (Box E). For the overall economy, this may provide some scope to absorb increased wages without price increases, although this is unlikely to be the case across all businesses and all sectors. The outlook in this *Bulletin* is consistent with a situation where relatively muted growth in unit profit and productivity will accompany stronger wage growth out to 2025 as core inflation gradually eases. However, if unit profits or wage rates rise more than currently expected, productivity growth in the domestic-oriented sectors of the economy would have to be higher than long-run averages for disinflation to emerge as envisaged.

Both monetary and fiscal policy have an active role to play in ensuring excessively high inflation does not become embedded in the economy. If that were to be the case it would be to the detriment of households and businesses and the scope for sustainable growth in living standards over the longer-term.

For the euro area as a whole, the outlook for inflation continues to be too high for too long. The Governing Council of the ECB has continued to raise interest rates in order to bring them to levels sufficiently restrictive so as to achieve a timely return of euro area inflation to its two per cent medium-term target. Once policy rates have reached a sufficiently restrictive level, they will be kept there for as long as necessary to ensure the target is met. Monetary policy decisions will depend on the Governing Council's assessment of the inflation outlook for the euro area in light of the incoming economic and financial data, the dynamics of underlying inflation and the strength of monetary policy transmission.

From a domestic perspective, fiscal policy will also be relevant in influencing the path of inflation in Ireland. The economy is effectively at full employment, with the attendant risk that overheating dynamics could emerge. Charting a course for fiscal policy which does not exacerbate the imbalance between demand and supply conditions in the near-term will accordingly be important.

In a *Signed Article* accompanying this *Bulletin*, Conefrey *et al* (2023) show that, given the current cyclical position of the economy, discretionary government spending increases or tax reductions outside the bounds of the Government's net 5 per cent spending rule would add significantly to demand and inflation in the coming years.² Indeed, the analysis finds that even under current plans where (net) spending is forecast to grow at 5 per cent, there would still be a risk of overheating pressures emerging given current conditions in the labour market. In both scenarios, albeit to different degrees, the results point to the potential rise of greater imbalances in the economy. An acceleration in domestic demand would crowd out the traded sector over the medium-term, as more upward pressure on prices and wages emerges. This highlights the need to be very careful in setting the fiscal policy stance at the current juncture, in order to promote sustainable increases in living standards over the medium term.

For the near-term, the net 5 per cent increase in spending allowed under the Government's spending rule should be considered to cover all expenditure. If the risks of overheating become more pronounced this year and next, it may be appropriate to adopt a tighter fiscal stance by the middle of the decade. Choices on specific priorities for tax rates and the tax base, reliefs, and all current and capital spending should be considered within this overall bound. Given the importance of public capital spending in addressing infrastructure gaps in housing, in climate change mitigation and in the transition to net carbon neutrality, prioritising capital expenditure within the context of the net 5 per cent spending rule should be considered. Indeed, it may be appropriate to consider revenue-raising measures to create the necessary space for the increase in public capital spending needed over the coming years.

Alongside taking the appropriate fiscal stance to contribute to near-term macroeconomic stability, there is also the scope to enhance medium-to-longer term resilience in both the public finances and the economy as whole. Actions to broaden the tax base in line with the recommendations of the Commission on Taxation and Welfare may be appropriate by the middle of the decade. This could be beneficial from a cyclical/inflationary perspective, but more

² <https://www.centralbank.ie/publication/quarterly-bulletins/signed-articles>

fundamentally could address vulnerabilities related to the overly-concentrated nature of corporation tax receipts and the known costs related to the ageing of the population emerging in the years ahead. Saving excess or windfall corporation tax receipts over the coming years offers an opportunity to build buffers in the public finances, to in part meet the additional financing needs related to the ageing of the population.

An Timpeallacht Gheilleagrach

Le praghsanna domhanda fuinnimh agus bia ag maolú i gcónaí, tá ról níos tábhachtaí á imirt anois ag tosca intíre san ionchas boilscithe. Meastar go mbeidh an fás sa gheilleagar intíre beagán níos láidre i mbliana ná mar a bhíothas ag súil leis roimhe seo. Tugann táscairí éagsúla le fios, go háirithe ón margadh fostaíochta, go bhfuil an geilleagar ag feidhmiú ar lánacmhainn. Tá gearú an bheartais airgeadaíochta ag tosú ag dul i bhfeidhm ar an ngeilleagar agus cuirfidh sé le héileamh agus brúnna praghsanna ar fud an gheilleagair a mhaolú. Sa timpeallacht seo, beidh sé tábhachtach go leagfaidh an beartas fioscach cúrsa amach nach ndéanfaidh an éagothroime níos measa idir dálaí éilimh agus soláthair ar fud an gheilleagair.

Le linn R4 2022 agus R1 2023, d'fhan fás fostaíochta dearfach, shroich an ráta dífhostaíochta rátaí ísle nach bhfacthas leis na scórtha de bhlianta, bhí tomhaltas ag leathnú go daingean, mar aon le haschur earnálacha den gheilleagar atá dírithe ar an mbaile. Tugann na sonraí seo tuiscint shoiléir ar fheidhmíocht le déanaí an gheilleagair intíre. Leagann sonraí na gCuntas Náisiúnta a d'fhoilsigh an Phríomh-Oifig Staidrimh, a thaispeánann dhá laghdú ráithiúla i ndiaidh a chéile ar OTI i R4 2022 agus R1 2023, béim ar na deacrachtaí a bhaineann le OTI a léirmhíniú ar bhealach suntasach i gcomhthéacs na hÉireann. Ciallaíonn an luaineacht bhunúsach in OTI, agus an cion suntasach de a léiríonn gníomhaíochtaí lasmuigh den Stát, go bhfuil sé tábhachtach breathnú níos faide ná an beart ceannlíne seo chun teocht gheilleagar na hÉireann a thomhas.³

Tá meath leanúnach tagtha ar bhoilsciú ceannlíne HICP, de réir mar a théann éifeacht dhíreach na n-arduithe tobann i bhfuinneamh agus tráchtarraí eile a thrádáiltear ar fud an domhain, tar éis ionradh na Rúise ar an Úcráin, i léig. Chuaigh an méadú ar phraghsanna mórdhíola fuinnimh anuraidh síos chomh fada le praghsanna tomhaltóirí ar fhuinneamh i bhfad níos tapa ná mar a bheifí

³Is sampla soiléir den luaineacht iad na hathruithe géara le déanaí i méid táirgeachta tionsclaíche na hearnála “nua-aimseartha”, a mheastar gurbh ionann iad agus 35 faoin gcéad den aschur iomlán in 2022. Tháinig laghdú 47.8% ar aschur sna hearnálacha sin ar bhonn míosúil i mí an Mhárta 2023, sular tháinig méadú 81.3% air ar bhonn míosúil in Aibreán 2023.

ag súil leis de réir patrúin stairiúla (Bosca D). Táthar ag meas go rachaidh an frithbhoilsciú, agus an laghdú le déanaí ar phraghsanna mórdhíola bia agus fuinnimh a tharla cheana féin, síos chomh fada le praghsanna do thomhaltóirí do na catagóirí seo de réir mar a théann 2023 ar aghaidh. Mar sin féin, d'fhéadfaí go gcuirfí na praghsanna sin ar aghaidh ar bhealach níos réidhe ná mar a tharla nuair a bhí praghsanna mórdhíola ag ardú. Go deimhin, tá leithead an mhaolaithe ar bhoilsciú praghsanna fuinnimh do thomhaltóirí in Éirinn chun deireadh ar an limistéar euro ina iomláine go dtí seo.

In ainneoin an fhrithbhoilscithe atá ar siúl anois maidir le praghsanna fuinnimh agus bia, níltear ag meas go mbainfidh an croí-bhoilsciú, a eisiann na comhpháirteanna seo, buaic amach go dtí deireadh 2023, agus gach seans gur ar bhealach sách réidh a laghdóidh sé ina dhiaidh sin. Tá sé tábhachtach monatóireacht a dhéanamh ar fhorbairtí i gcroí-bhoilsciú, mar is nós leis a bheith ina léiriú níos fearr ar an teannas idir éileamh intíre agus dálaí soláthair. Léiríonn a chonair ionchasach sa tréimhse tuartha reatha an meascán de roinnt fórsaí frithchúitimh.

Ar thaobh amháin, ba cheart go gcuirfeadh iarmhairtí ó fhorbairtí praghsanna fuinnimh go praghas earraí agus seirbhísí eile brú anuas ar chroí-bhoilsciú an bhliain seo chugainn. Ina theannta sin, ba cheart go laghdódh éifeacht lagaithe an bheartais airgeadaíochta an t-éileamh, ag maolú brúnna boilscithe. Go deimhin, tugann anailís ar chásanna san *Fheasachán* seo le fios go bhféadfadh boilsciú in Éirinn a bheith i bhfad níos airde an bhliain seo agus an bhliain seo chugainn mura mbeadh rátaí beartais airgeadaíochta ardaithe mar a chonacthas iad ó Iúil 2022 (Bosca C). Cinntear éifeachtacht tharchur an bheartais airgeadaíochta go páirteach de réir fhairsinge an chur ar aghaidh ó rátaí beartais go rátaí iasachta miondíola agus taiscí. Tá gá le níos mó ama sula bhféadfar measúnú iomlán a dhéanamh ar fhairsinge chur ar aghaidh an ráta úis agus tarchur an bheartais airgeadaíochta, ach tá freagairt cheana féin ar fud rátaí iasachta agus taisce, agus iad éagsúil óna chéile (Bosca B). Bunaithe ar noirm stairiúla, is féidir a bheith ag tuar go leanfar le cur ar aghaidh athruithe ar rátaí beartais maidir le hiasachtaí miondíola agus rátaí taisce sa tréimhse amach romhainn.

I gcoinne na dtionchar maolaitheach seo, tá dálaí a thacaíonn leis an éileamh sa gheilleagar, agus dá bhrí sin ag cur brú aníos ar chroí-bhoilsciú, fós láidir. Is suntasaí é seo sa tréimhse níos faide déine sa mhargadh fostaíochta, ag tacú le hioncaim teaghlaigh agus leis an éileamh sa gheilleagar. Tá an ráta dífhostaíochta ag na rátaí is ísle leis na scórtha de bhlianta. Tá fás leanúnach i líon na ndaoine i bhfostaíocht, cumasaithe ag glan-imirce suntasach isteach,

ach níl dóthain ann chun an leibhéal sách ard folúntas poist ar fud an gheilleagair a laghdú. Cé go bhfuil srian a bheag nó a mhór coinnithe ar mhéadú ar rátaí pá in aghaidh na huaire, táthar ag súil go gcuirfidh an margadh docht fostaíochta agus leibhéal ionchasach de bhreith suas ar an bhfíorphá le méaduithe láidre ar ráta pá sa tréimhse réamhaisnéise. Tugann fianaise suirbhé le fios go bhfuil beagnach 40% d'oibrithe ag súil le gníomh éigin a dhéanamh, iad féin nó trína gceardchumann, chun pá níos airde a lorg sna míonna amach romhainn (Bosca F). Ina theannta sin, tá an ráta coigiltis teaghlaigh ar fud an gheilleagair, a bhí ardaithe go sonrach ó thosaigh paidéim COVID-19, tosaithe ag filleadh i dtreo noirm réamh-phaindéime, ag soláthar tuilleadh tacaíochta d'éileamh intíre.

Go pointe áirithe, táthar ag súil le tréimhse de bhreith suas leis an bhfíorphá, go háirithe i bhfianaise dhoichte fhoriomlán an mhargaidh fostaíochta. D'fhéadfadh an t-ardú a bhfuiltear ag súil leis i gcostais oibrithe brú aníos a chur ar chroí-bhoilsciú. Mar sin féin, braitheann a mhéid gur amhlaidh an cás ar chinntí praghsála gnólachtaí i bhfianaise forbairtí ina gcostais ionchuir, a n-acmhainneacht costais níos airde a ionsú trí bhrabús in aghaidh an aonaid aschuir a laghdú, nó níos mó aschur a fháil ón leibhéal céanna acmhainní trí tháirgiúlacht níos airde. Tá fás suntasach tagtha ar bhrabúis iomlána in earnálacha intíre an gheilleagair le dhá bhliain anuas, ag teacht chucu féin ó chaillteanas in 2020, agus ag léiriú fás i méid an aschuir agus sa bhrabús in aghaidh an aonaid aschuir araon. Is mó atá curtha ag gnólachtaí a choinníonn nó a mhéadaíonn brabúis aonaid le boilsciú intíre in 2021 agus 2022 ná costais níos airde saothair (Bosca E). Maidir leis an ngeilleagar foriomlán, d'fhéadfadh sé seo roinnt scóip a chur ar fáil chun pá méadaithe a ionsú gan méaduithe ar phraghsanna, cé nach dócha gur amhlaidh a bheith ar fud gach gnó agus gach earnála. Tá an dearcadh san *Fheasachán* seo comhsheasmhach le cás ina mbeidh fás measartha socair ar bhrabús agus ar tháirgiúlacht aonaid ag gabháil le fás pá níos láidre go 2025 de réir mar a mhaolaíonn croí-bhoilsciú de réir a chéile. Mar sin féin, má ardaíonn brabúis aonaid nó rátaí pá níos mó ná mar atáthar ag súil leis faoi láthair, chaithfeadh fás táirgiúlachta in earnálacha intíre an gheilleagair a bheith níos airde ná na muirchailleanna fadtréimhseacha le go dtiocfadh frithbhoilsciú chun cinn mar a mheastar.

Tá ról gníomhach le himirt ag beartas airgeadaíochta agus fioscach araon chun a chinntiú nach mbeidh boilsciú ró-ard leabaithe sa gheilleagar. Dá mba amhlaidh an cás, bheadh sé chun dochair do theaghlaigh agus do ghnólachtaí agus don scóip d'fhás inbhuanaithe i gcaighdeáin mhaireachtála san fhadtéarma.

Maidir leis an limistéar euro ina iomláine, tá an t-ionchas boilscithe ró-ard i gcónaí le haghaidh tréimhse rófhada. Lean Comhairle Rialaithe an BCE de rátaí úis a mhéadú chun iad a thabhairt go leibhéal atá sách sriantach chun boilsciú an limistéir euro a thabhairt ar ais go tráthúil go dtí a sprioc meántéarmach de dhó faoin gcéad. Nuair a shroichfidh rátaí beartais leibhéal atá sách sriantach, coinneofar ansin iad chomh fada agus is gá chun a chinntiú go mbainfear an sprioc amach. Beidh cinntí beartais airgeadaíochta ag brath ar mheasúnú na Comhairle Rialaithe ar an ionchas boilscithe don limistéar euro i bhfianaise na sonraí eacnamaíocha agus airgeadais atá ag teacht isteach, dinimic an bhunbhoilscithe agus neart tharchur an bheartais airgeadaíochta.

Maidir leis an dearcadh intíre, beidh beartas fioscach ábhartha freisin chun tionchar a imirt ar chonair an bhoilscithe in Éirinn. Tá an geilleagar a bheag nó a mhór ag lánfhostaíocht, agus riosca ag baint leis go bhféadfadh dinimic de róbhorradh teacht chun cinn. Dá réir sin, beidh sé tábhachtach cúrsa a leagan amach do bheartas fioscach nach ndéanann an éagothroime idir dálaí éilimh agus soláthair níos measa sa ghearrthréimhse.

In *Airteagal Sínithe* a ghabhann leis an *bhFeasachán* seo, léiríonn Conefrey *et al* (2023), i bhfianaise staid thimthriallach reatha an gheilleagair, go gcuirfeadh méaduithe lánroghnacha ar chaiteachas an rialtais nó laghduithe cánach lasmuigh de theorainneacha riail chaiteachas de 5 faoin gcéad glan an Rialtais go mór le héileamh agus boilsciú sna blianta amach romhainn.⁴ Go deimhin, faightear amach san anailís, fiú faoi phleananna reatha ina dtuairtar go bhfásfaidh caiteachas (glan) ag 5 faoin gcéad, go mbeadh an baol ann fós go mbeadh brúnna róbhorrtha ag teacht chun cinn i bhfianaise na ndálaí reatha sa mhargadh fostaíochta. Sa dá chás, bíodh is gur go pointí éagsúla a bheadh sé, léiríonn na torthaí go bhféadfadh méadú teacht ar neamhchothromaíochtaí níos mó sa gheilleagar. Chuirfeadh géarú ar éileamh intíre an earnáil thrádáilte de dhroim seoil sa mheántéarma, de réir mar a thagann níos mó brú aníos ar phraghsanna agus ar phá chun cinn. Leagann sé seo béim ar an ngá a bheith díograiseach agus seasamh an pholasaí fhioscaigh á leagan síos ag an bpointe seo, ar mhaithe le méaduithe inbhuanaithe ar chaighdeáin mhaireachtála a chur chun cinn sa mheántéarma.

Sa ghearrthéarma, ba an glanmhéadú 5 faoin gcéad ar chaiteachas a cheadaítear faoi riail caiteachais an Rialtais a mheas chun gach caiteachas a chumhdach. Má éiríonn na rioscaí a bhaineann le róbhorradh níos suntasaí i mbliana agus an bhliain seo chugainn, b'fhéidir go mbeadh sé oiriúnach seasamh fioscach níos déine a ghlacadh faoi lár na ndeich mbliana seo. Ba

⁴<https://www.centralbank.ie/publication/quarterly-bulletins/signed-articles>

cheart roghanna ar thosaíochtaí sonracha maidir le rátaí cánach agus an bonn cánach, faoisimh chánach, agus gach caiteachas reatha agus caipitil a mheas laistigh den cheangal foriomlán seo. I bhfianaise a thábhachtaí atá caiteachas caipitil phoiblí chun aghaidh a thabhairt ar bhearnaí infreastruchtúir i dtithíocht, sa mhaolú ar an athrú aeráide agus san aistriú chuig glan-neodracht charbóin, ba cheart measúnú a dhéanamh ar thosaíocht a thabhairt do chaiteachas caipitil laistigh de chomhthéacs riail an ghlanchaiteachais 5 faoin gcéad. Go deimhin, d'fhéadfadh sé a bheith cuí breithniú a dhéanamh ar bhearta bailithe ioncaim chun an spás riachtanach a chruthú don mhéadú ar an gcaiteachas caipitil phoiblí a theastóidh sna blianta amach romhainn.

Chomh maith leis an seasamh cuí fioscach a ghlacadh chun cur le cobhsaíocht mhaicreacnamaíoch ghearrthéarmach, tá an scóip ann freisin chun acmhainneacht mheántéarmach go fadtéarmach a fheabhsú san airgeadas poiblí agus sa gheilleagar ina iomláine. D'fhéadfadh gníomhaíochtaí chun an comhbhonn cánach a leathnú i gcomhréir le moltaí an Choimisiúin um Chánachas agus Leas a bheith oiriúnach faoi lár na ndeich mbliana seo. D'fhéadfadh sé seo a bheith tairbheach ó thuiscint thimthriallach/bhoilscitheach, ach níos bunúsaí fós, d'fhéadfadh sé aghaidh a thabhairt ar leochaileachtaí a bhaineann le nádúr ródhlúth na bhfáltas cánach corparáide agus na costais aitheanta a bhaineann le dul in aois an daonra a bheidh ag teacht chun cinn sna blianta amach romhainn. Trí fháltais chánach corparáide farasbairr nó amhantair a shábháil sna blianta amach romhainn, beidh deis ann cúlchistí a chothú san airgeadas poiblí, chun freastal go páirteach ar na riachtanais bhreise mhaoinithe a bhaineann le dul in aois an daonra.

The Irish Economy

Overview

The near-term economic growth outlook has improved since the last *Bulletin*.

Household real income growth is expected to turn positive in the second half of this year and to continue to grow thereafter, supporting consumption growth. Continued investment in plant and machinery in high-growth sectors in Ireland is also forecast to support growth in modified investment. Overall, modified domestic demand is forecast to grow by 3.7 per cent this year, and by 2.5 per cent in 2024 and 2025.

Headline inflation has slowed in recent months (Box D), but the rate remains significantly higher than historical averages.

Inflation dynamics in 2023 are primarily being driven by the second round effects of the energy and other commodity price shocks seen throughout 2022 and early 2023. As 2024 progresses and in 2025, the primary factor driving inflation is expected to be the strength of the domestic economy and associated capacity constraints. Core HICP is expected to peak in late 2023 and gradually decline thereafter, averaging 2.7 per cent in 2025.

Growth as measured by GDP continues to be distorted by the activities of multinational firms. The timing and magnitude of the movement of intellectual property assets, as well as lower cross-border and contract manufacturing trade by MNEs has led to volatile movements in GDP in recent quarters. The net trade contribution to GDP growth is assumed to return to close to its long-run average over the forecast horizon.

The labour market is forecast to remain very tight over the projection horizon. Labour force growth is expected to depend on continued net inward migration. The unemployment rate is expected to average 4 per cent this year. Slower employment growth and a pick-up in wage growth is expected as capacity constraints become more binding.

Uncertainty is high, but has diminished relative to the last *Bulletin*. Risks to the domestic growth outlook are broadly balanced, while those for inflation are marginally to the upside. The central forecast is contingent on geopolitical tensions not escalating, energy prices continuing on their downward trajectory, monetary policy transmission proceeding in-line with expectations and domestic fiscal policy being broadly neutral.

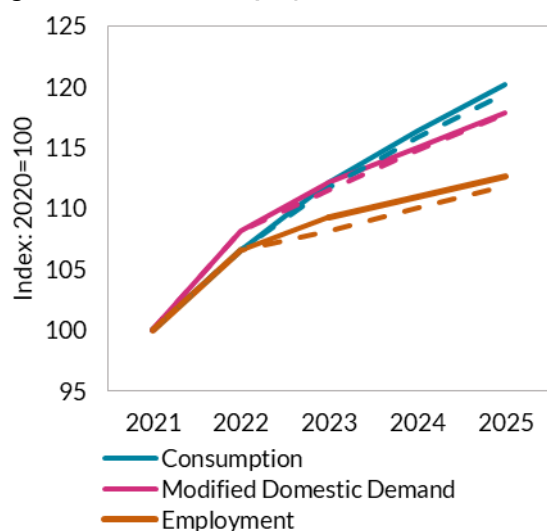
Table 1: Macroeconomic Projections for the Irish Economy
(annual percentage changes unless stated)

	2022	2023f	2024f	2025f	
Constant prices	Modified Domestic Demand	8.2	3.7	2.5	2.5
	Gross Domestic Product	12	5.3	5.0	3.8
	Personal Consumer Expenditure	6.6	5.2	3.8	3.3
	Public Consumption	0.7	1.6	0.3	2.1
	Gross Fixed Capital Formation	25.9	-0.5	3.7	3.6
	Modified Gross Fixed Capital Formation	19.8	2.3	1.3	1.0
	Exports of Goods and Services	15	6.3	7.5	6.7
	Imports of Goods and Services	19	4.9	7.4	7.5
Total Employment (% change)	6.6	2.5	1.5	1.6	
Unemployment Rate	4.5	4.0	4.1	4.2	
Harmonised Index of Consumer Prices (HICP)	8.1	5.3	3.4	2.5	
HICP Excluding Food and Energy (Core HICP)	4.6	4.9	3.4	2.7	
Compensation per Employee	4.3	6.2	5.9	4.4	
General Government Balance (% GNI*)	3	3.3	4.9	4.9	
General Government Gross Debt (%GNI*)	83.1	76.5	72.4	67.8	

GDP is reported here, as it is the standard measure used in international comparison and forms Ireland's contribution to the Eurosystem staff projections. Caution should be used in interpreting GDP developments for Ireland, as it is heavily influenced by globalisation and the activities of multinational enterprises. A more detailed set of forecasts are available on our website.

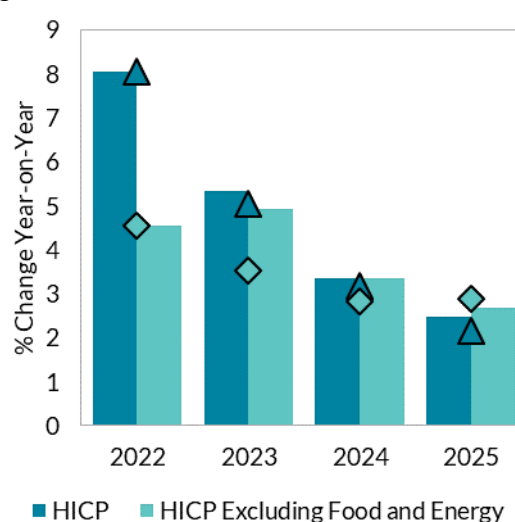
Higher growth and core inflation now expected relative to previous forecast

Figure 1: MDD and Employment



Source: CSO and Central Bank of Ireland
Note: Dashed lines indicate forecast from QB1 (Mar 2023)

Figure 2: HICP Inflation



Source: CSO and Central Bank of Ireland
Note: Markers indicate forecast from QB1 (Mar 2023)

Box A: The International Economic Outlook

By the Monetary Policy Division

After peaking at elevated levels towards the end of 2022, inflation in major advanced economies has been on a declining path. This occurred as global prices of energy and commodities moderated after the extremely elevated levels they reached as a result of a strong post-pandemic surge in demand meeting supply shortages, combined with the effects of the Russian war in Ukraine. Generally faced with strong domestic inflationary pressures and high core inflation, central banks across the world have continued raising interest rates.

According to the OECD June 2023 economic outlook, after growing by 3.2 per cent in 2022, which is more than 1 percentage point less than expected at end 2021, GDP growth for the world economy in 2023 and 2024 is forecasted to reach 2.7 per cent and 2.9 per cent, respectively. This would represent the slowest rate of growth for the world economy since the global financial crisis. Inflation in the OECD is predicted to fall from 9.4 per cent in 2022 to 6.6 per cent in 2023 and 4.3 per cent in 2024, with core inflation remaining particularly persistent. The IMF world Economic Outlook (April 2023) paints a similar picture, with global growth forecasted to be 2.8 per cent in 2023 and 3.0 per cent in 2024. The slowdown in growth in advanced economies is predicted to be significantly more pronounced than for developing economies, with growth in these economies falling from 2.7 per cent in 2022 to 1.3 per cent in 2023. The IMF also sees inflation to be elevated but declining throughout the forecast horizon.

Due to the energy price shock and declining post-pandemic momentum, euro area growth slowed down considerably throughout 2022, with GDP contracting marginally, by 0.1 per cent, in both Q4 2022 and Q1 2023. In annual terms, GDP was 1.0 per cent higher in Q1 2023 compared to the same quarter a year before (as opposed to a 1.8 per cent year-on-year growth rate in Q4 2022). Improvements in the trade balance as energy prices continued falling from their 2022 peaks contributed positively to growth, while domestic activity, weighed down by inflation, had a negative contribution to GDP. ECB staff projections published in June 2023 see GDP growth slowing significantly in 2023, to 0.9 per cent, recovering somewhat to 1.5 and 1.6 per cent in 2024 and 2026 respectively. The ECB further predicts inflation to decline gradually through the projection horizon, falling from 8.4 per cent in 2022 to 5.4, 3.0 and 2.2 per cent in 2023, 2024 and 2025.

The labour market remained exceptionally strong in the euro area, with the seasonally-adjusted unemployment rate declining to 6.5 per cent in April 2023, a new record low.. In terms of the number of persons employed, this continued to grow at a strong pace in the first quarter of 2023, increasing by 0.6 per cent on a quarterly basis, and 1.6 per cent

annually, accelerating from 1.5 per cent growth year on year in Q4 2022. The strong labour market continues to put upward pressure on wages and thus medium-term inflation.

Euro area annual HICP inflation continued to steadily decline from the two-digit rates reached at the end of last year, due in great part to a sharp drop in energy inflation. HICP inflation fell to 6.1 per cent in May according to a Eurostat flash estimate, down from 7.0 per cent in April and below forecasters' expectations. The month-on-month rate of inflation was zero. All the major sub-components of the index saw a decline in their growth, with energy inflation turning negative (-1.7 per cent year-on-year and -2.2 per cent month-on-month). Food inflation decelerated to 12.5 per cent from 13.5 per cent in April and 15.5 per cent in March, but remains the largest contributor to overall euro area HICP inflation. Core inflation (i.e. HICP excluding energy, food, alcohol and tobacco) declined to 5.3 per cent from 5.6 per cent in April. Services inflation, the largest component of the HICP basket, declined from 5.2 per cent to 5.0 per cent.

As euro area inflation remains well above the European Central Bank's target of 2 per cent, and noting in particular the strength of underlying inflationary pressures, the ECB Governing Council has continued to bring interest rates into sufficiently restrictive territory to ensure inflation returns to target in the medium term. At its latest meeting in June, the Governing Council decided to raise the three key interest rates by 25 basis points, while maintaining a data-dependent and meeting-by-meeting approach for future decisions. Cumulatively, the key ECB interest rates have been raised by 400 basis points since the start of the hiking cycle last year; this brought the deposit facility rate, the main refinancing operations rate and the rate on the marginal lending facility to a level of, respectively, 3.50, 4.00 and 4.25 per cent after the June Governing Council meeting. As previously announced, reductions in the ESCB's holdings of assets under the APP programme will amount to €15 billion per month until the end of June 2023; these reductions will be done by only partially reinvesting maturing securities under the APP. At the June meeting, the Governing Council confirmed it will then discontinue all reinvestments under the APP starting from July, implying a faster reduction in asset holdings.

In the United States, quarterly GDP increased by 0.3 per cent in the first quarter of 2022, after another 0.6 per cent increase in the previous quarter. In annual terms, GDP growth rebounded to 1.6 per cent in Q1 2023 from 0.9 per cent in Q4 2022. The labour market remains particularly strong, although the unemployment rate unexpectedly increased to 3.7 per cent in May, from 3.4 in April. US inflation further declined to 4.0 per cent in May 2023 from 4.9 the previous month; it had reached a peak of 9.1 per cent in June 2022 and had been falling since. Core inflation in the US, at 5.3 per cent in May, is now higher than headline inflation. In June, the Federal Open Market Committee (FOMC) of the US

Federal Reserve decided to maintain the target range for the Federal Funds Rate at its current level of 5.00 to 5.25 per cent. The FOMC stated that this pause will allow the Federal Reserve to properly assess the state of the economy and the appropriate monetary policy stance, maintaining the options open for further increases in the federal funds rate at later meetings. Recent resummptions of rate increases after a period of pause have been made by both the Bank of Canada and the Reserve Bank of Australia.

In the United Kingdom, quarterly GDP increased by 0.1 per cent in the first quarter of the year, following the same growth in the previous quarter. The unemployment rate slightly increased to 3.9 per cent in March from 3.8 per cent in February. UK inflation in April declined to 8.7 per cent from 10.1 per cent in March 2022 partly due to a fall in energy inflation; meanwhile, core inflation accelerated to 6.8 per cent. At its May meeting, the Bank of England's Monetary Policy Committee voted to increase the Bank Rate by a further 25 basis points, to 4.5 per cent, to ensure inflation returns to the 2 per cent target.

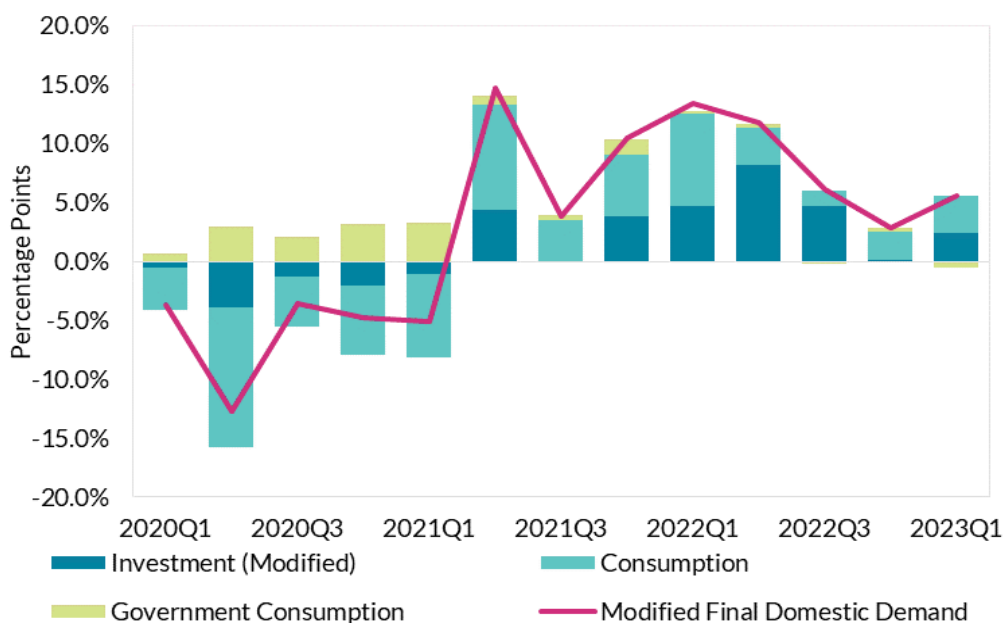
The People's Bank of China, on the other hand, was one of the few outliers in terms of monetary policy stance over the past year. Inflation in China has fallen well below 2 per cent since the beginning of 2023 and the country is even potentially facing deflationary risks. In June, the PBOC lowered its seven-day reverse repo rate by 10 basis points to 1.90 per cent.

Recent Developments

With inflation easing, and despite tighter financing conditions, the domestic economy remained resilient into 2023. On an annual basis, Modified Domestic Demand rose by 5.5 per cent in Q1 2023 (Figure 3), owing to increased consumption and investment. Modified Domestic Demand increased by 2.7 per cent on a quarterly basis in Q1 2023, underpinned by a strong outturn for investment in machinery and equipment by MNEs in the State, an uptick in building and construction activity, and resilient personal consumption.

Private Consumption and modified investment grow.

Figure 3: Contributions to Growth in Modified Final Domestic Demand



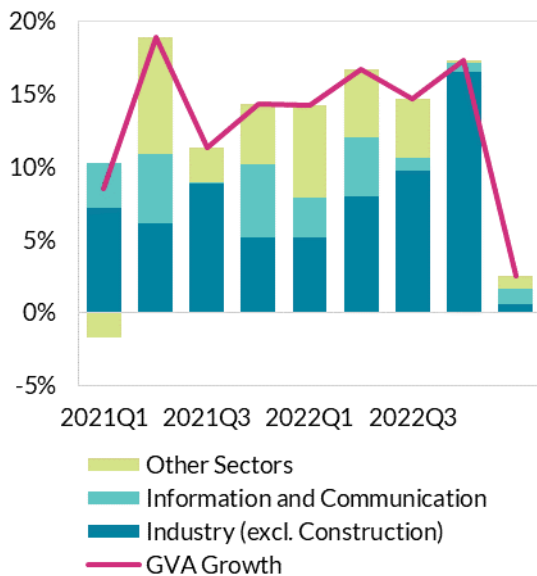
Source: CSO and Central Bank of Ireland
 Note: Percentage change compared to same period of the previous year

Total economic activity as measured by GDP decreased by 0.3 per cent annually in Q1 2023. Exports, driven by ICT services and pharmaceutical sectors, continued to grow in the year to Q1 2023, increasing by 6.1 per cent on an annual basis. Quarter-on-quarter, GDP decreased by just over 4.6 per cent in seasonally-adjusted terms. This represents the second consecutive quarter-on-quarter fall in GDP. The quarter-on-quarter decrease in GDP was driven by a quarterly decrease in exports and investment.

While still positive, the rate of growth in Gross Value Added (GVA) in Q1 2023 declined sharply. Gross Value Added increased by 2.5 per cent annually, with growth being driven by a mix of multinational-dominated and domestically-orientated sectors. Industry excluding construction grew by 1 per cent on annual basis, but declined by 19 per cent quarter-on-quarter. The Information Communication and Technology (ICT) sector grew by 6 per cent on an annual basis (Figure 4). There was a notable rise in the domestic sectors with Construction increasing by 14 per cent and Distribution, Transport, Hotels and Restaurants increasing by 11 per cent in the year to Q1 2023. The domestic sectors exhibited higher growth rates than foreign-owned MNE dominated sectors (Figure 5) and accounted for just under 47 per cent of total GVA in the economy in Q1 2023.

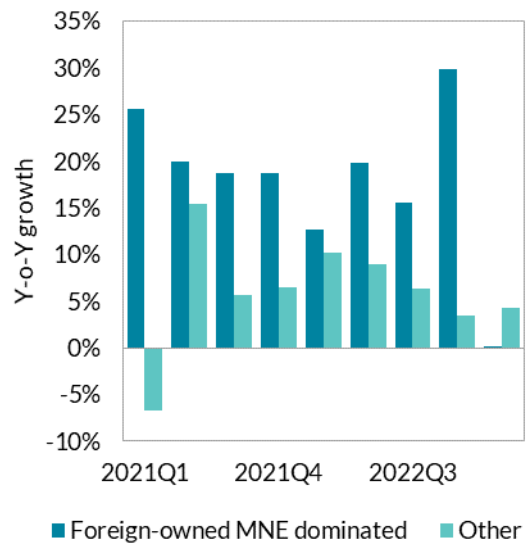
Large decrease in the contribution of foreign owned MNE's to GVA growth, as the domestic sector's growth surpasses MNE growth.

Figure 4: Contributions to GVA Growth



Source: CSO

Figure 5: GVA Growth in MNEs and Domestic Sectors



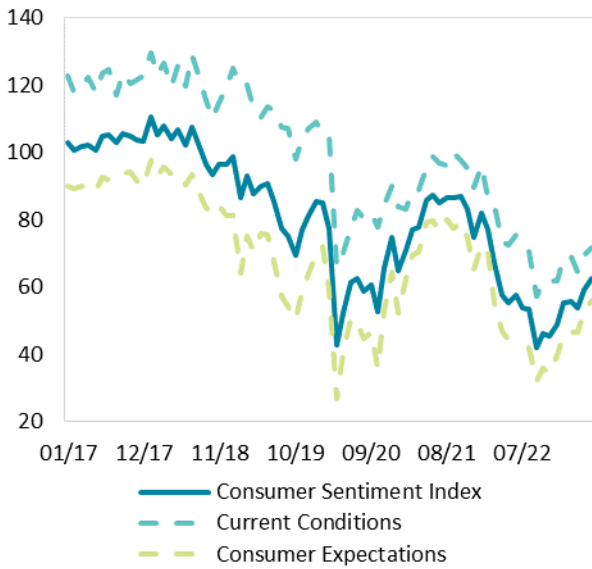
Source: CSO

The Credit Union Consumer Sentiment Index has risen to its highest level in 14 months in May 2023.⁵ Consumer sentiment increased to 62.4 in May, up from 59.2 in the previous month (Figure 6). The latest figures show some signs of rising confidence albeit cost of living concerns remain (see Box D on pipeline pressures). The latest index reading is the highest since March 2022. The volume of total retail sales remained static in April and increased by 7.5 per cent on an annual basis, while a 13.9 per cent increase was recorded in value terms. When Motor Trades are excluded however, volumes decreased by 0.4 per cent when compared with April 2022, while values increased by 3.9 per cent.

⁵ The KBC sentiment series migrated to Credit Union Ireland as part of KBC's exit from the Irish market.

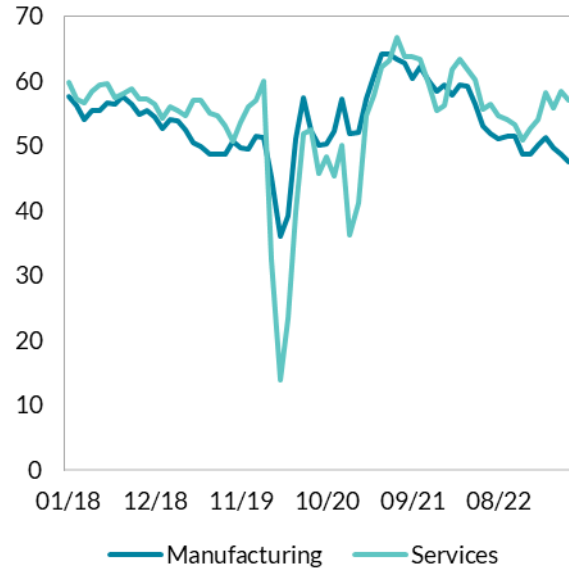
Consumer and business services sentiment continue to provide positive signals through 2023.

Figure 6: Consumer Sentiment Index



Source: Credit Union Ireland

Figure 7: Purchasing Managers Indices



Source: Allied Irish Banks

The AIB PMI shows signs of contraction in the manufacturing sector, with demand waning. The manufacturing PMI decreased from 48.6 in April to 47.5 in May, with declines in output and new export orders being the main cause of the downturn in sentiment. Inventories continued to scale back. Falling input prices has lead firms to reduce their output prices for the first time since September 2020 (Figure 7). Services activity continued to grow at a strong pace, with the PMI decreasing slightly from 58.4 in April to 57.0 in May. There were notable increases in activity and strong growth in new business, both domestically and internationally.

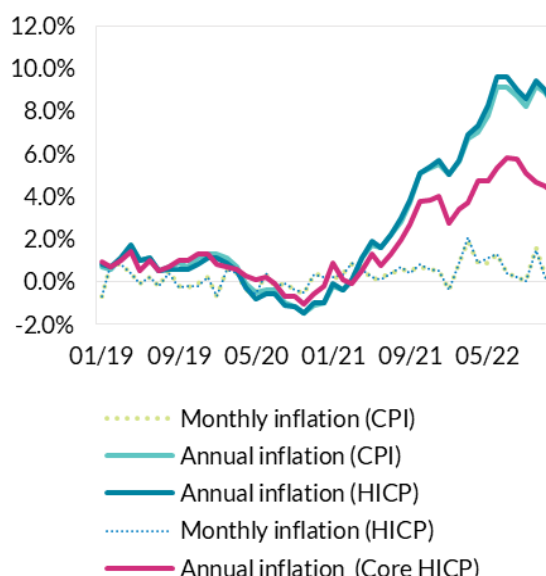
First round Consumer price inflation pressures appeared to have turned a corner.

Figure 8: PMI Input Prices



Source: Allied Irish Banks

Figure 9: Consumer Price Inflation



Source: CSO, Eurostat

The headline rate of inflation has begun to ease in recent months with the decline in global commodity prices beginning to affect consumer prices, yet core inflation remains more persistent. Headline prices were up by 5.4 per cent (HICP) over the year to May, with core inflation reaching 4.7 per cent. The most notable changes in the year to June were increases in Food & Non-Alcoholic Beverages (+12.6%), Housing, Water, Electricity, Gas & Other Fuels (+11.1%), and Restaurants & Hotels (+8.6%), while Education decreased by (-6.3%).

The labour market has continued to tighten with the monthly unemployment rate at a record low of 3.8 per cent. The number of employees increased by 2.7 per cent annually in April 2023 to a new peak of 2.4 million persons as the rate of expansion continues to moderate. ICT employee levels were up 4 per cent from the previous year, though there has been a slight decline in recent months reflecting the impact of layoffs announced in the sector.

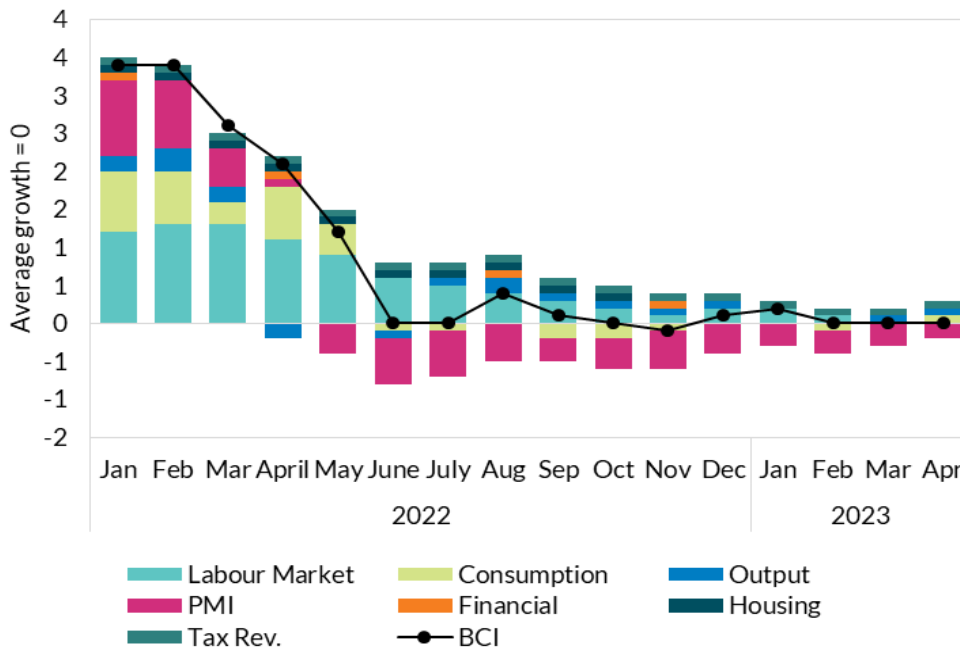
Exchequer tax data in the year to May 2023 shows a continuation of the favourable trends experienced last year. Total Exchequer tax revenue is 10 per cent higher than in the first five months of 2022. While corporation tax continues to grow faster than any other tax head, recording an increase of 21 per cent: income tax and VAT are also well ahead of their cumulative May 2022 levels (by 9 per cent and 12 per cent respectively). Total gross voted expenditure was 6.3 per cent higher, with both current and capital spending increasing. The strong tax performance, combined with the unwinding of non-

core measures on the expenditure side, leads to a projected improvement in the general government balance this year.

The Central Bank’s Business Cycle Indicator (BCI) remained positive in April and signals continuing growth in activity going into Q2. After a post-pandemic surge in activity that dominated the first half of 2022, the BCI has been broadly flat over recent quarters, indicating that annual growth in domestic economic activity has been close to its historical average (Figure 10). Hard data on labour market conditions, personal consumption, indigenous sector output, and the public finances, continue to make positive contributions to the BCI. However, PMI data weigh on the indicator, reflecting the more challenging conditions for the manufacturing sector in particular.

Business Cycle Indicator remains positive in April

Figure 10: Central Bank’s Business Cycle Indicator (BCI), (Jan 2022 – April 2023)



Source: authors’ calculations

Box B: Spending, credit, and deposit activity of Irish households and businesses

By the Statistics Division

This *Box* provides an overview of the latest developments in Irish non-financial corporation (NFC) and household credit, spending and saving activity. Lending conditions have tightened recently in response to higher ECB policy rates, though the extent of tightening differs across types of bank lending. Interest rates have risen noticeably on lending to NFCs and household mortgages, while interest rates on consumer lending have risen more gradually. Correspondingly, the impact of these rate increases on the volume of lending also varies based on the type of lending. NFC and mortgage lending growth has slowed, while consumer lending continues to grow strongly, driven in part by higher consumer prices. Card spending has also continued to grow, but high inflation suggests more subdued growth in real spending activity. Growth of households' savings has moderated from the pandemic peak, but remains above the average for the pre-pandemic period. Interest rates on deposits have increased, but the rise is muted when compared to loans.

Lending to NFCs

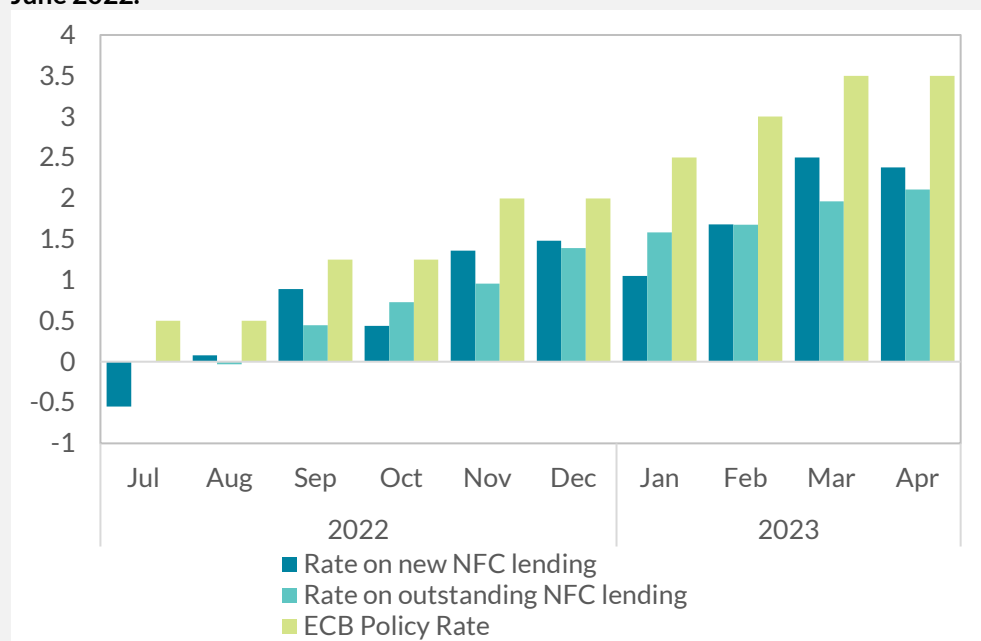
The weighted average interest rate on new NFC bank lending in April 2023 was 5.60 per cent, a cumulative increase of 293 basis points from when the upward trend in interest rates began after July 2022. The weighted average interest rate on outstanding bank loans to NFCs began to increase shortly thereafter in September 2022, having now risen to 4.89 per cent, **an increase of 210 basis points over the same period (Figure 1)**.

Since September 2021, NFC lending has grown strongly, driven particularly by shorter-term lending to large enterprises in the manufacturing and property sectors (see [Dempsey and Saupe](#)). **However, the growth of new NFC lending has begun to slow following the raising of interest rates. New lending advanced to businesses in Q1 2023 was €3.8 billion, its lowest level since Q4 2020. New lending in April was 35.9 per cent lower than in the same month of 2022. The outstanding amount of lending to Irish resident NFCs stood at €31.4 billion at end-April 2023, with a growth rate of 3.0 per cent, down from 5.2 per cent at the end of April 2022.**

Data from the Bank Lending Survey shows a **tightening of credit conditions for lending to businesses in both Q4 2022 and Q1 2023. This primarily reflected banks' heightened perceptions of risk, both due to the general economic outlook and industry or firm-specific risks, particularly with regards to lending to larger enterprises.**

Interest rates on NFC lending have risen sharply.

Figure 1: Interest rates on new and existing lending to NFCs, cumulative monthly change June 2022.



Source: Central Bank of Ireland

Looking at the demand for business credit, data from the Central Credit Register on credit enquiries show a decline in the early part of 2023 (see [Sherman and Woods](#)). Enquiries for longer-term finance have fallen, potentially reflecting reduced investment activity or capacity building in the current uncertain environment, while enquiries for shorter-term and revolving facilities have risen.

Household Mortgage Lending

The weighted average interest rate on new mortgage lending reached 3.63 per cent in April 2023, the highest level since December 2015. The increase of 56 basis points in March is the largest single month increase since the series began. The weighted average interest rate on outstanding mortgages began increasing in August 2022, shortly after the ECB began increasing rates, while interest rates on new mortgages only began increasing in December 2022 (Figure 2).

The most direct transmission of policy rate changes to outstanding mortgages is attributable to tracker mortgages. Pass-through of interest rates differs by type of mortgage, and so affects different categories of borrowers to varying degrees (see [Byrne et al](#)). While interest rates on new fixed and floating rate mortgages did not experience increases until Q4 2022, tracker mortgage rates began increasing in Q3 2022 alongside ECB rates.

Mortgage interest rates have increased as ECB policy rates have risen.

Figure 2: Interest rates on new and existing lending to households for house purchases cumulative monthly change since June 2022.



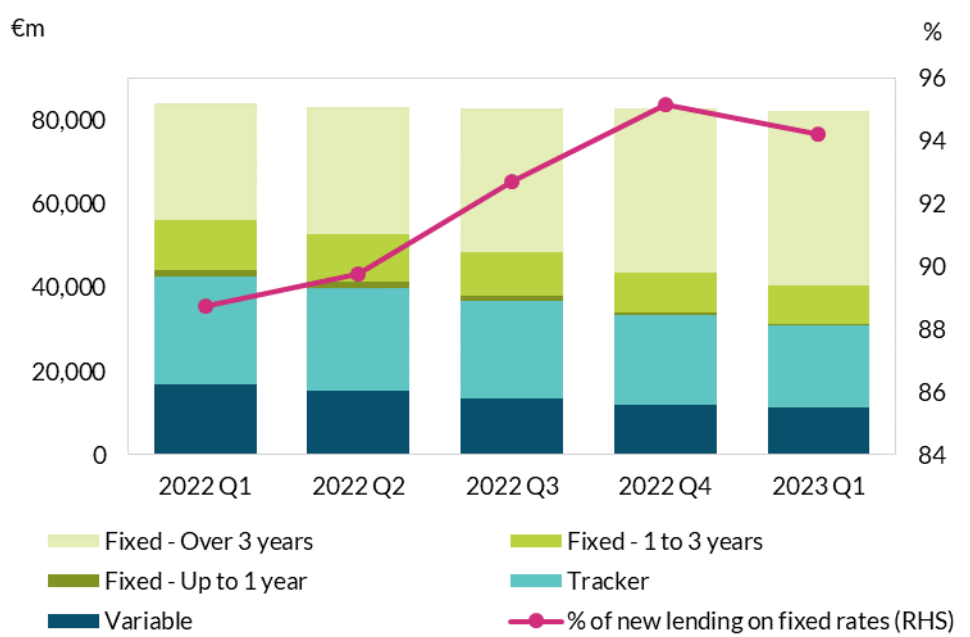
Source: Central Bank of Ireland

The immediate pass through of interest rates to remaining tracker mortgages and the shifting composition of new mortgage lending in favour of fixed rate mortgages, particularly those with durations of fixation of greater than three years, influences the responsiveness of the interest rates on outstanding mortgage lending relative to new mortgage lending. As of March 2023, the banks’ mortgage lending book was comprised of 24 per cent tracker mortgage lending, 62 per cent fixed rate lending, and 14 per cent **other floating rate lending. However, of new mortgage lending in March 2023, 94 per cent had a fixed interest rate (Figure 3).**

The weighted average interest rate on new Irish mortgages are close to the euro area average, as illustrated in Figure 4. However, while all euro area countries saw average mortgage rates rise in the first part of 2023, borrowers in Ireland experienced the second largest increase over the year to date, behind only Latvia. This is a reversal from what was seen prior to March 2023, when pass-through of ECB policy rates to new mortgages had been comparatively slow in Ireland.

Borrowers are increasingly opting for fixed mortgage rates.

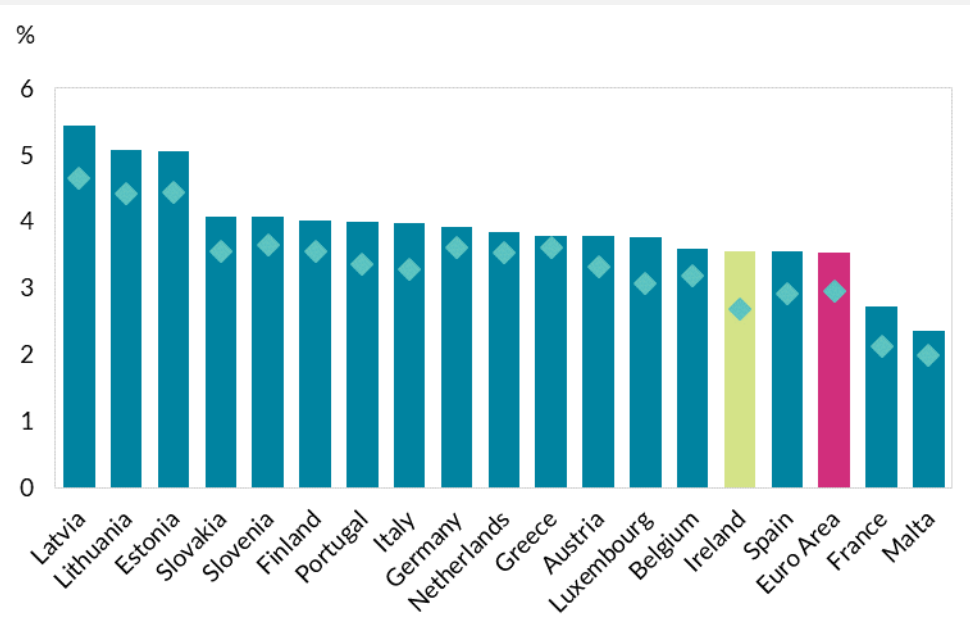
Figure 3: Breakdown of bank lending to households for house purchase by interest rate type.



Source: Central Bank of Ireland

Mortgage rates in Ireland grew the fastest in Q1 2023, but remain amongst the lowest compared to other euro area countries.

Figure 4: Mortgage rates cross-country comparison.



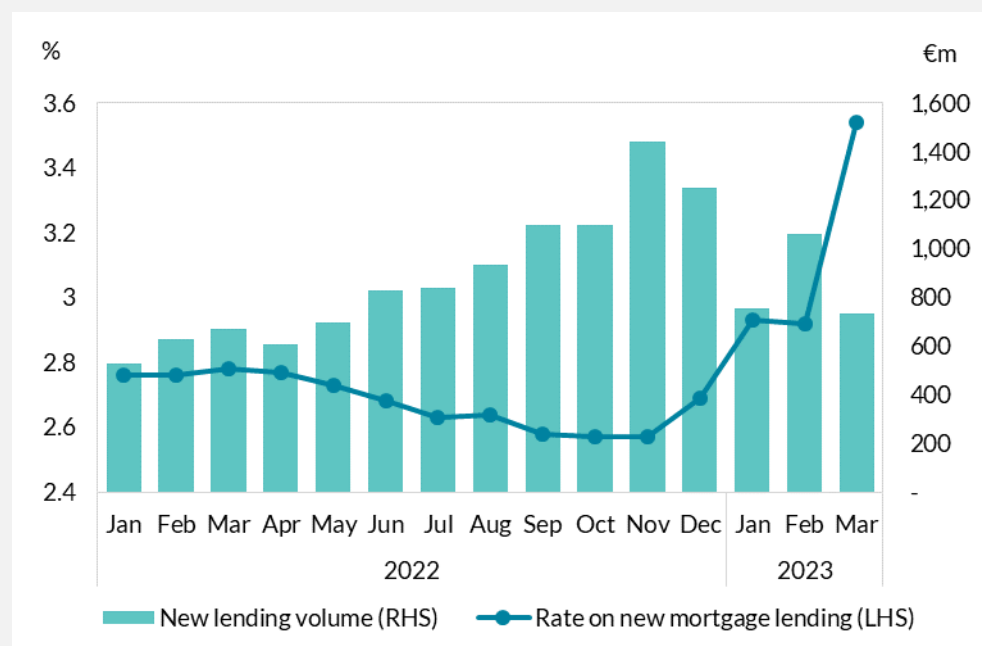
Source: Central Bank of Ireland

Note: Diamond represents equivalent interest in December 2022

Although the volume of new mortgage lending in Ireland has remained robust, there are indications of a slight cooling in growth as interest rates on new mortgages begin to rise. In Q1 2023, new lending for house purchases (excluding renegotiations) was €2.5 billion, 39.5 per cent higher than the level seen in Q1 2022. However, this was somewhat lower than the 46.7 per cent growth seen in Q4 2022.

Growth has slowed as interest rates on new lending have increased

Figure 5: New mortgage lending, volume and weighted average interest rate.



Source: Central Bank of Ireland

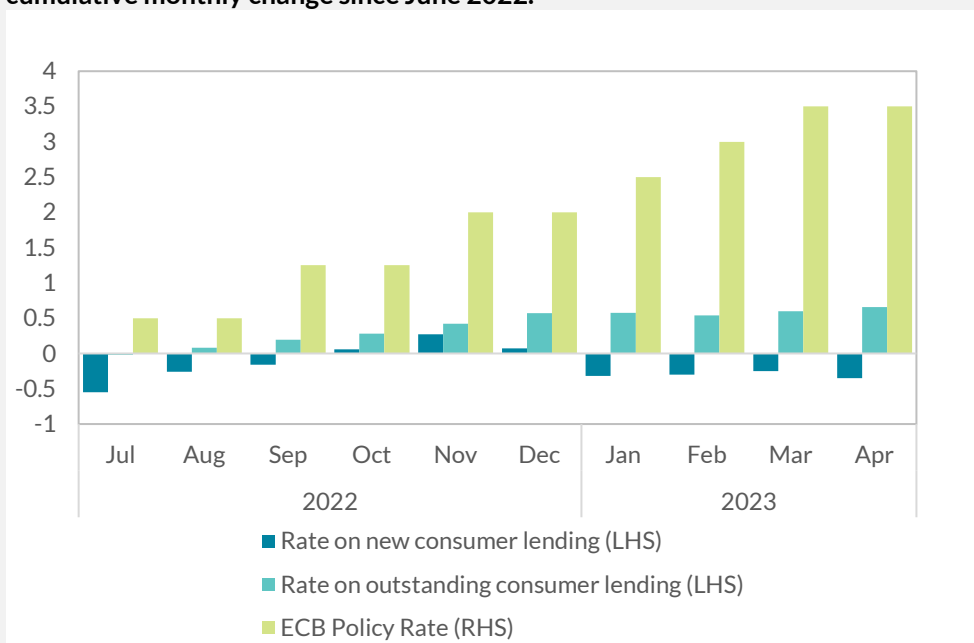
The relative slowdown in the growth of mortgage lending can also be seen from the Banking and Payments Federation of Ireland (BPMFI) data on drawdowns of new lending. In Q1 2023, drawdowns increased 14 per cent year-on-year in terms of the value, the lowest rate of growth since Q4 2021. Throughout 2022, new drawdowns were significantly boosted by re-mortgaging and switching activity, which has tempered somewhat in Q1 2023. Looking ahead at the pipeline of future mortgage lending, BPMFI data on the number of new mortgage approvals show an annual decrease of 4.1 per cent in the first quarter of the year.

Household Consumer Lending

The weighted average interest rate on new household lending for consumer purposes reached 7.37 per cent at the end of April 2023, a 20 basis point increase relative to July 2022. The weighted average rate on outstanding consumer lending rose 67 basis points over the same period to 6.97 per cent. Unlike mortgage lending or lending to businesses, interest rates on consumer lending have exhibited a more gradual series of increases.

Interest rates on consumer lending have not increased as fast as for other types of lending.

Figure 6: Interest rates on new and existing lending to households for consumer purposes: cumulative monthly change since June 2022.



Source: Central Bank of Ireland

Interest rates on new consumer lending are now lower than when the ECB began increasing rates in July, having increased only marginally over Q4 2022, and the volume of new consumer lending has not shown clear signs of decline. In April, new consumer lending was up 38 per cent year-on-year, totalling €253 million.

Spending

Credit and debit card spending has continued to grow in the early part of 2023. Total card spending, including ATM withdrawals, was €8.5 billion in March 2023, up 9 per cent on the same period last year, despite consumer sentiment being lower than last March. Much of this growth in spending is reflective of rising prices; annual consumer price inflation in March was 7.7 per cent, meaning real spending increases are less robust than implied by the strong growth in nominal spending.

While all areas of spending recorded year-on-year growth, the pace of increase has not been uniform across sectors. Spending on services such as transport, accommodation, and utilities is up 14.4 per cent, spending on social activities is up 7.6 per cent, while card spending on retail is up by just 4.8 per cent.

Saving

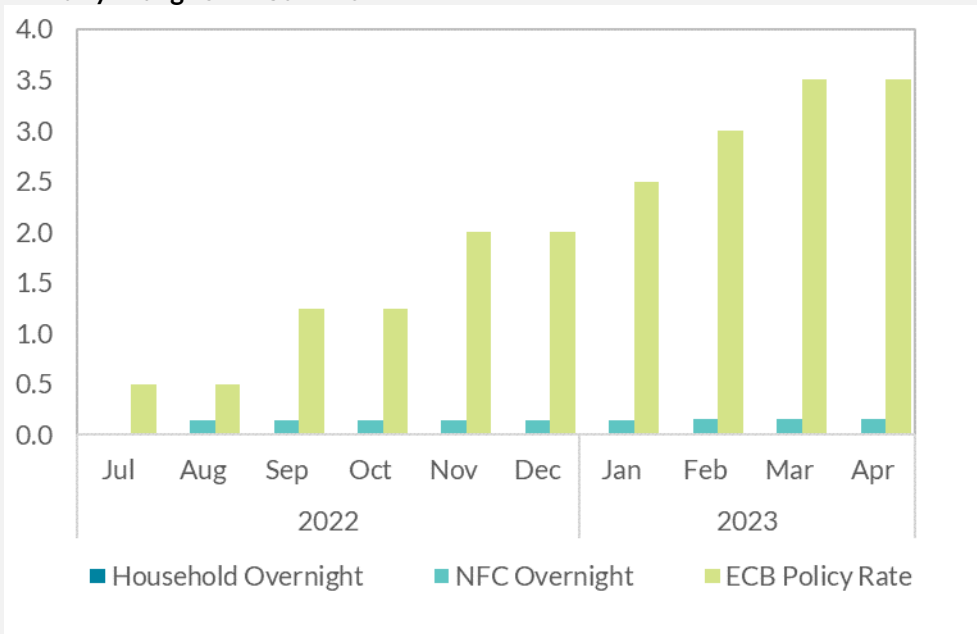
Household savings continued to grow during the early months of 2023, with annual growth reaching 5.5 per cent at end-April. While the pace of accumulation has moderated since the height of the pandemic, which saw growth rates peaking at 13.8 per cent in

February 2021, deposits are still being amassed at a rate exceeding pre-pandemic averages even as higher post-pandemic inflation reduces the real value of savings. The outstanding stock of household deposits stood at €151.7 billion at the end of April 2023.

Deposit interest rates have increased, albeit at a slower and more muted pace than for loans. The average outstanding interest rate on households’ overnight deposits, which make up 94 per cent of total household deposits, has risen by just 1 basis point since July 2022, up from 0.02 per cent to 0.03 per cent. The average interest rate on new household term deposits rose to 1.59 per cent in April 2023, up from 0.11 per cent in July. For businesses, the overnight rate increased from -0.09 per cent to 0.05 per cent over the same period (Figure 7).

Interest rates on overnight deposit savings remain low.

Figure 7: Interest rates on overnight deposits for households and NFCs, cumulative monthly change since June 2022.



Source: Central Bank of Ireland

Domestic Demand

Overview

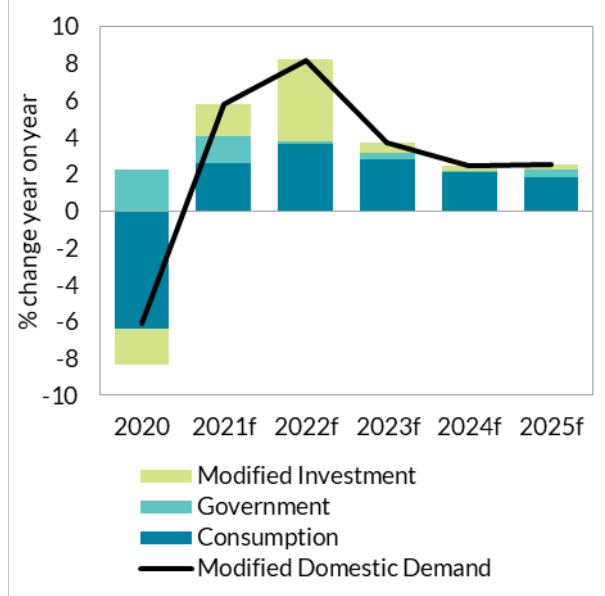
The outlook for domestic demand has improved somewhat, supported by stronger employment and income growth than projected in the last *Quarterly Bulletin*. As uncertainty diminishes, and inflation begins to ease, households have only begun to spend at pre-Covid levels since the fourth quarter of 2022. As a result, the recent strong spending growth represents a somewhat delayed catch-up compared with other European countries. The higher price level, elevated, albeit diminishing levels of uncertainty, as well as the tightening stance of monetary policy will continue to temper demand conditions, but to a lesser extent than forecast at the time of the last *Bulletin* (see Box C).

Consumption is expected to continue its pickup through 2023, while investment is likely to remain strong owing to the activities of the multinational sector of the economy. Modified Investment, which removes the distortionary effect of intellectual property as well as the purchase of aircraft by leasing firms, grew by 28 per cent in 2022, 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 investment is projected to moderate to more normal, albeit strong levels.

Modified domestic demand is forecast to grow by 3.7 per cent in 2023, slightly stronger than forecast in the March *Bulletin*, and subsequently by 2.5 per cent in 2024 and 2.5 per cent in 2025, respectively (Figure 11).

Consumption to drive MDD growth

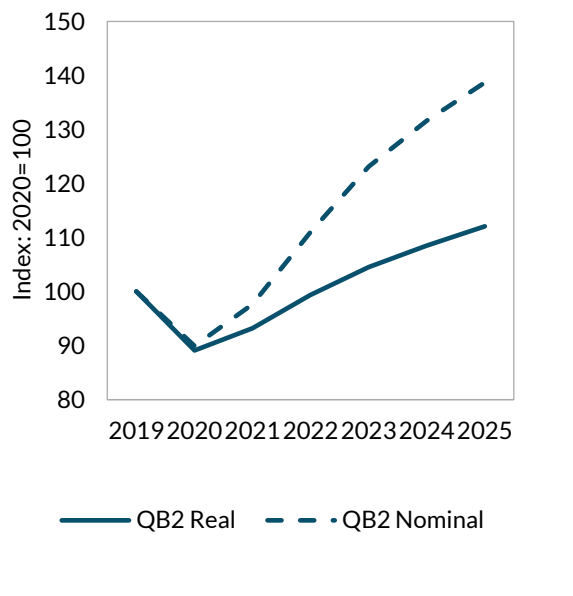
Figure 11: Contributions to Modified Domestic Demand Growth



Source: CSO and Central Bank of Ireland

Real private consumption will return to its pre-Covid level in 2023

Figure 12: Nominal and Real Consumption



Source: CSO and Central Bank of Ireland

Consumption

Consumption has exhibited unexpected resilience during the first quarter of 2023 and is forecast to maintain strong growth this year. Retail sales volumes picked up sharply in the first quarter (Figure 13), although growth in the value of card payments has been more meagre when adjusted for inflation (Figure 14). Despite the challenges posed by high inflation and relatively contained wage growth, consumption grew by 6.4 per cent in real terms in the first quarter. The combination of fiscal support measures, a sharp decline in household savings, an easing of inflationary pressures and higher wage rates are likely to continue to support buoyant consumption this year (Figure 12).

Strong consumption growth will continue to bring down the savings ratio (the proportion of gross disposable income that goes unspent), which had been at historical highs since the outbreak of the Covid pandemic. The savings ratio in 2022 stood at 18 per cent, compared with an average rate of approximately 12 per cent from 2015 to 2020. This compares with a more rapid return to pre-Covid savings ratios in other European countries (Figure 15).

As price pressures gradually moderate and incomes improve, consumption is expected to continue to grow strongly in 2023 and 2024. As real income growth turns positive in the second half of 2023, consumption growth is likely to pick up further. Consequently, consumption is forecast to expand by 5.2 per cent in 2023. As household incomes improve, uncertainty about price

pressures ease and savings rates moderate, consumption is forecast to grow by 3.8 percent in 2024 and 3.3 percent in 2025. These figures indicate a stronger pace of consumption growth compared to historical averages.

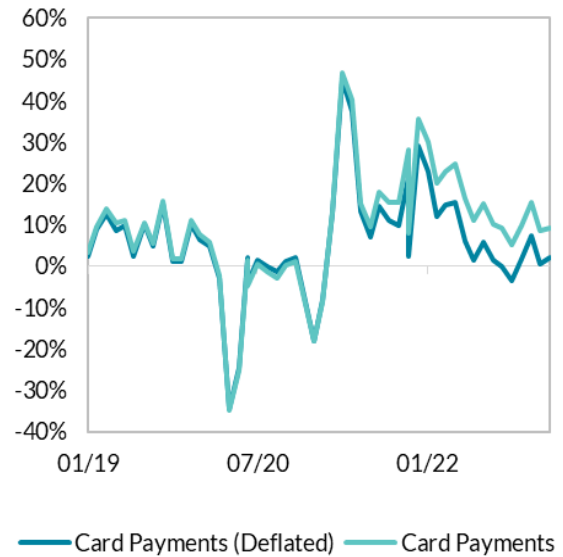
High frequency indicators point to a pickup in consumption in the first half of the year

Figure 13: Retail Sales



Source: CSO

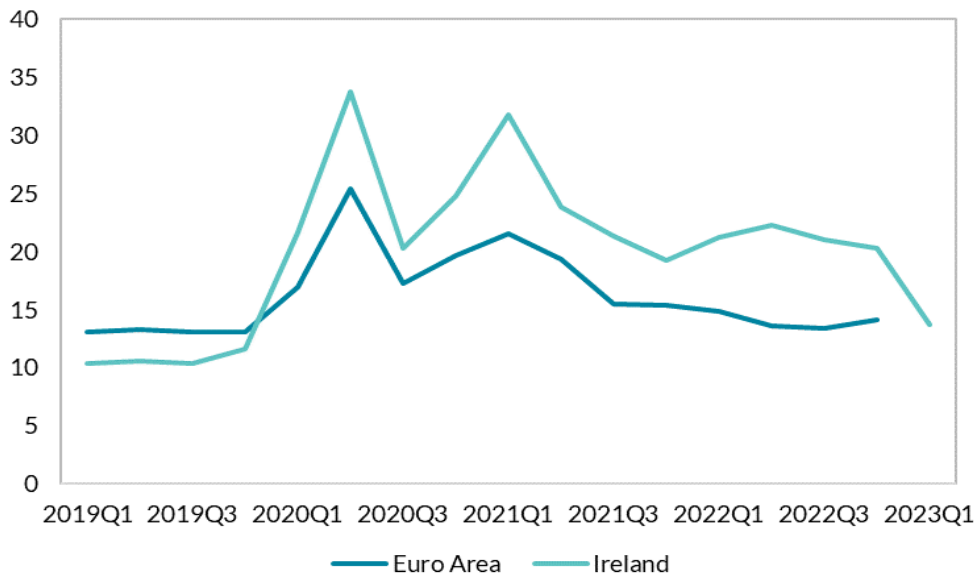
Figure 14: Year on year change in card payments data



Source: CSO

The savings ratio has fallen towards Euro Area Averages

Figure 15: Gross Household Savings Ratio (Seasonally Adjusted) (Ireland and Euro-area)



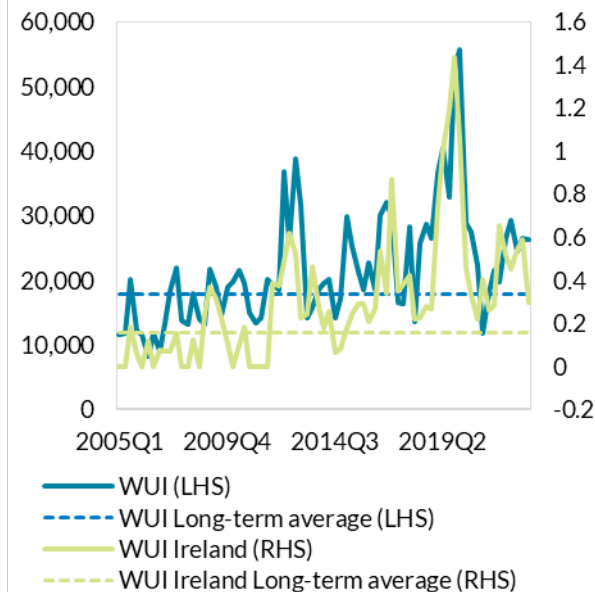
Source: Eurostat and CSO
 Note: Euro Area 19 (2022 composition).

Investment

The outlook for headline investment is lower than forecast compared to the last Bulletin. This is partly due to a lower forecast for intangible investment, which has a limited impact on the domestic economy.⁶ The outlook for modified investment is more positive, which continues its strong post-pandemic recovery. Whether this current momentum continues later into the forecast horizon is the subject of considerable uncertainty, with global and domestic measures of uncertainty remaining relatively high, as captured by the World Uncertainty Index (Figure 16) which remains above its long term historical average globally and at a national level.⁷ Market volatility, however, as measured by the VIX⁸(Figure 17) 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.

Uncertainty remains high

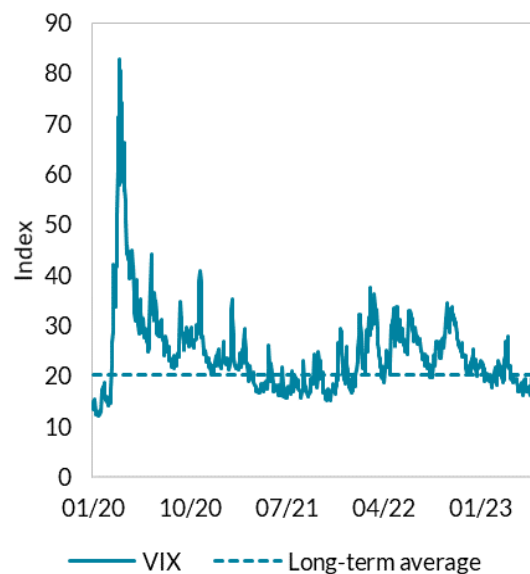
Figure 16: World Uncertainty Index



Source: IMF

But market volatility is declining

Figure 17: VIX Volatility Index Placeholder



Source: CBOE

⁶ Imports of research and development related intellectual property rights are often transfers within large multinationals and have limited domestic economic implications other than creating distortions in investment expenditure and import statistics. The net impact of these transfers on GDP when they take place is neutral. However they often provide a basis for future export growth.

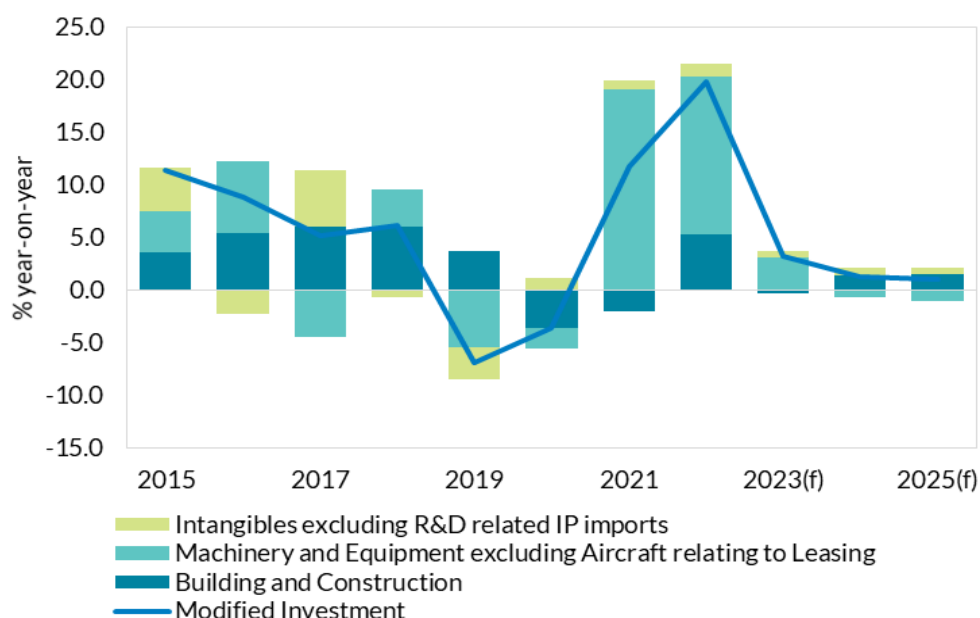
⁷ The WUI is computed by counting the percent of word “uncertain” (or its variant) in the Economist Intelligence Unit country reports. The WUI is then rescaled by multiplying by 1,000,000. A higher number means higher uncertainty and vice versa.

⁸ The VIX is a measure of volatility that captures the implied volatility of the S&P 500.

The exceptional performance of modified investment in 2022 and the first quarter of 2023 is likely related to large plant-specific investments in the MNE sector. The high concentration of large high-value added multinationals can result in large swings in Ireland’s investment data. The nature of these investments in machinery and equipment means that some volatility is now being imparted to the modified investment figures. Some momentum from last year is expected to continue into 2023 with modified investment forecast to grow by 2.3 per cent. The forecast for 2024 and 2025 is more uncertain but tighter financial conditions and a high cost base is expected to slow modified investment to 1.3 per cent in 2024, and 1 per cent in 2025.

Strong M&E is carrying investment

Figure 18: Gross Fixed Capital Formation



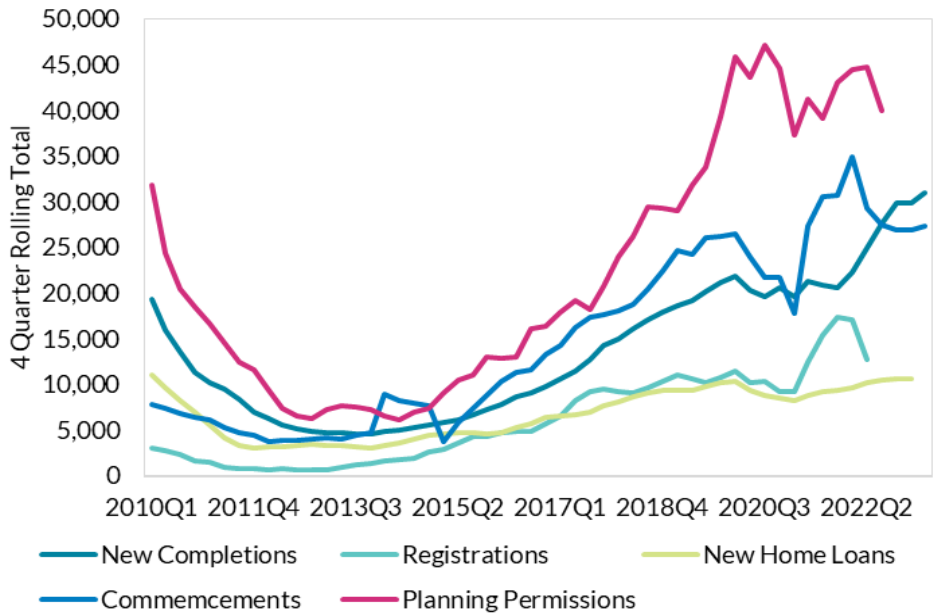
Source: CSO and Central Bank of Ireland

On the housing front, there was a stronger than anticipated outturn in 2022 with completions for the year totalling 29,000. This is still significantly below medium term requirements. Forward- looking indicators, survey data and industry representatives suggest that completions this year will be lower. New completions are forecast to be constrained by labour and material shortages, 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 figures throughout the course of 2022 and into the first quarter of 2023. Commencements were running at about 27,000 on an annual basis in the first quarter of 2023. House

completions are forecast to be approximately 27,500 this year, increasing to 29,000 and 30,000 in 2024 and 2025, respectively.

Planning permission and commencements weakness for 2023

Figure 19: Housing Supply Indicators

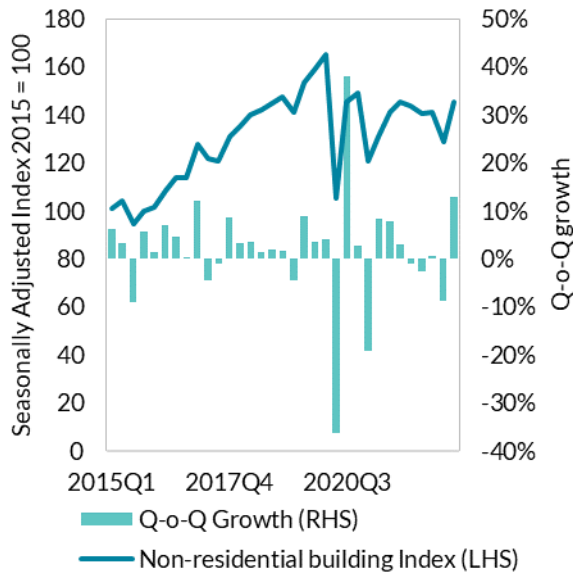


Source: CSO, DoHLGH, BPF, Central Bank of Ireland

On the non-residential side, activity has not returned to pre-pandemic levels (Figure 20). The latest National Accounts data (2023Q1) point to moderate growth of 3.7 per cent year-on-year in the opening quarter of the year. The soft data (Figure 21) point to some improvement in the commercial sector, but the civil engineering sector remains in contraction. The forecast for non-residential building and construction is for a 2 per cent expansion per annum over the forecast horizon. These projections are contingent on a pick-up in civil infrastructure and no further major negative shocks to the domestic or international economy.

Non-Res Building positive momentum

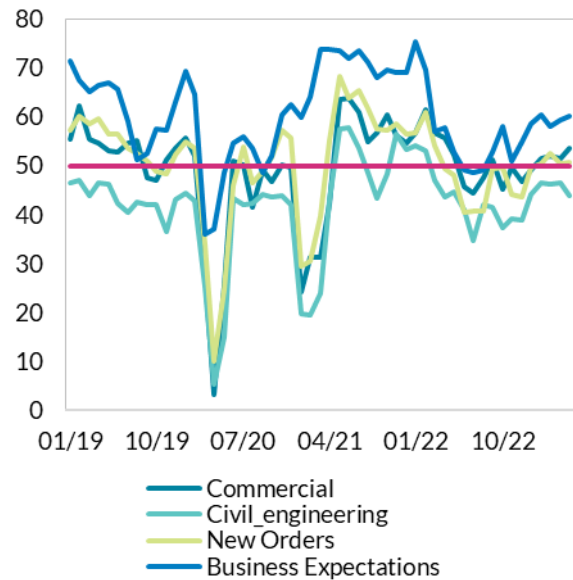
Figure 20: Non-residential building index



Source: CSO Building and Construction Index

Soft data still contracting but improving

Figure 21: PMI - Construction sector new orders

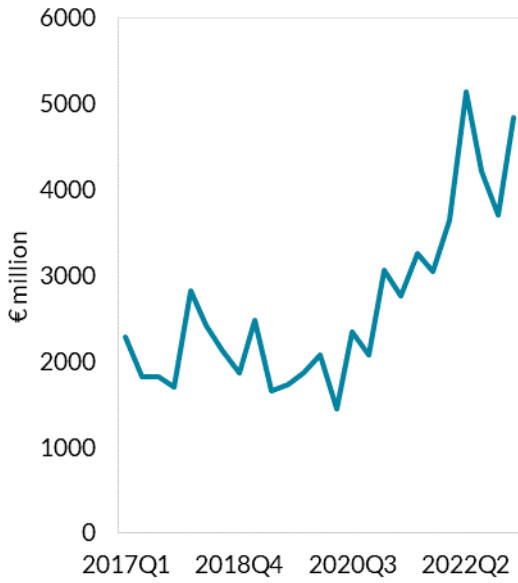


Source: IR BNP PARIBAS Purchasing Managers Index

The outlook for machinery and equipment (M&E) investment is more uncertain. The high levels of modified machinery and equipment investment in 2022 continued in the first quarter of 2023, with almost €5 billion of expenditure in volume terms. These high levels of equipment expenditures likely relate to the fit-out of large machinery-intensive MNE plants with specialised high-value machinery (Figure 23). These outlays are expected to continue to some extent throughout the course of this year. In addition to these large firm specific expenditures, investment in data centres, increased digitalisation and working-from-home investment, coupled with increased spending on decarbonisation mean that machinery and equipment investment could remain at current high levels. M&E investment (excluding other transport) is forecast to increase by 5 per cent in 2023, before contracting by 2 per cent in 2024 arising from a combination of base effects and tighter financing conditions, and by 3 per cent in 2025.

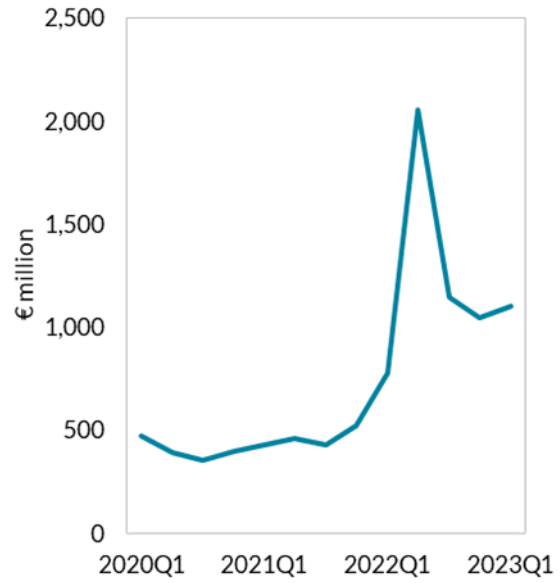
M&E investment is at a historical high due in part to specialised plant fit outs.

Figure 22: M&E Investment (excluding planes)



Source: CSO

Figure 23: Specialised Machinery Imports



Source: CSO

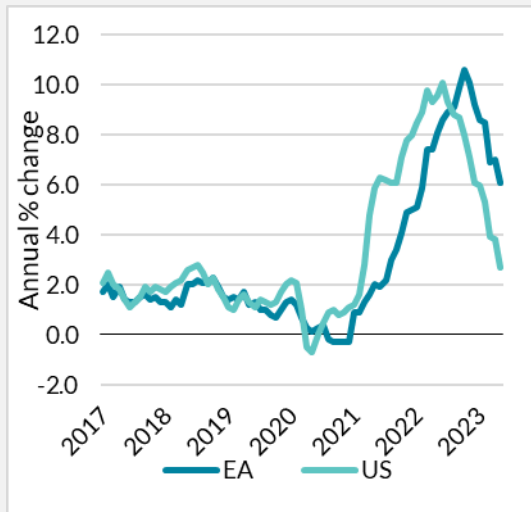
Box C: Modelling the macroeconomic impact of the ECB’s interest rate rises on the Irish economy

By Matija Lozej, Gerard O’Reilly, and Graeme Walsh

In response to higher inflation in the euro area, the ECB began to raise interest rates in July 2022, and since then has raised them by 400 basis points (Figures 1 and 2). The purpose of this tighter monetary policy is to help bring inflation in the euro area back down to the ECB’s target inflation rate of 2 per cent over the medium-term. Many other central banks have also tightened monetary policy. For example, the Federal Reserve began to raise rates in March 2022 and has increased the Federal Funds Rate by 475 basis points (Figure 2).

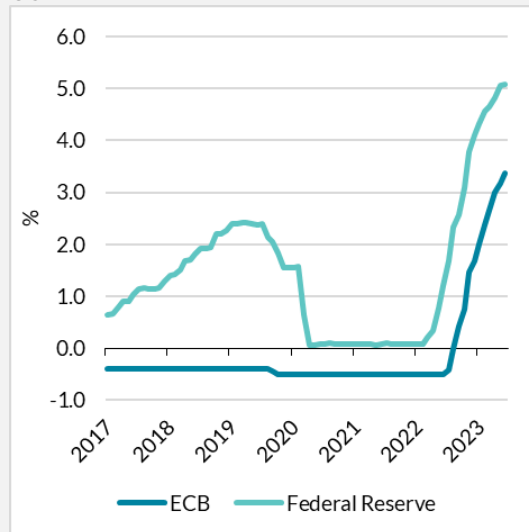
Interest rates have responded to a rise in inflation

Figure 1: Inflation in the euro area and US



Source: Eurostat, ECB, Fed.

Figure 2: Interest rates in the euro area and US



Source: Eurostat, ECB, Fed.

In this *Box*, we report the results of a simulation exercise to gauge the quantitative impact of an exogenous increase in interest rates in the euro area on economic activity and inflation in the Irish economy. We use a suite of macroeconomic models approach to quantify the impact of tighter monetary using both a DSGE model and a large-scale semi-structural model. Our methodology is similar to [Darracq-Parles et al. \(2023\)](#) and [Aurissergues \(2022\)](#).

Given monetary policy is set for the euro area as a whole and Ireland is a small open economy, our model simulations necessitate modelling the effects of any such policy change on the rest of the world and any feedback effects to the domestic economy. This requires that we use a global model as well as a model of the domestic economy. In terms of a semi-structural model, we use NIESR’s NIGEM model along with the Central Bank’s domestic model while the DSGE model is based on the EAGLE global model and an explicit modelling of the domestic economy.⁹

Simulation Exercise

For the simulation exercise, we implement an exogenous euro area monetary policy shock that raises the interest rate by around 360 basis points over four quarters and then follows the forward curve path, which has priced in interest rates falling back to 2.5 percentage points above baseline after 4 years (Figure 3). The future path of interest rates is uncertain and we use this particular path as it is consistent with the currently available market information. The interest rate path that we use in this

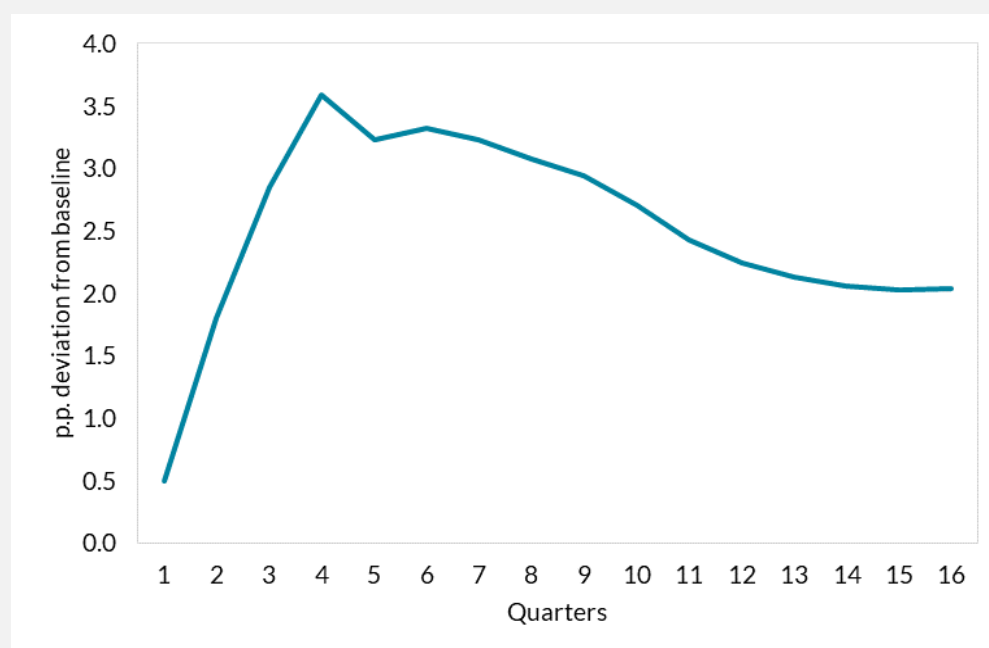
⁹ For the Ireland specific EAGLE model, see [Clancy, Jacquinet, and Lozej \(2016\)](#). For NiGEM, see <https://www.niesr.ac.uk/nigem-macroeconomic-model>.

exercise is not intended as a forecast, but as one possible scenario.¹⁰ We then compare the outcomes from this scenario with a baseline where no interest rate increase takes place.

To isolate the effects of higher interest rates in the euro area, the shock is implemented on a stand-alone basis with no exogenous increase occurring in interest rates outside the euro area. It is important to state up front that we are not modelling the path or source of the increase in inflation which central banks' are responding to. There is much debate in the literature as to its source and whether it is primarily driven by demand or supply side factors and to what extent the pace of reaction of monetary policy contributed to the persistent inflation that has occurred, see for example, [Bernanke and Blanchard \(2023\)](#), [Gagliardone & Gertler \(2023\)](#), [Koch and Noureldin \(2023\)](#) amongst others.

The simulation exercise considers a higher euro area interest rate path based on market information

Figure 3: Path of euro area policy interest rate in the scenario exercise



Source: authors' calculations and Bloomberg.

¹⁰ The path ahead for monetary policy is conditional on the economic outlook and we are likely to be closer to 'the top of the ladder' of the current interest rate cycle. See: <https://www.centralbank.ie/news/article/blog-inflation-and-monetary-policy-what-to-expect> and <https://www.centralbank.ie/news/article/speech-monetary-and-fiscal-policy-in-times-of-inflation---remarks-by-governor-gabriel-makhlouf-at-the-dubrovnik-economic-conference-27-may-2023>

Transmission Channels¹¹

Ireland is a small open economy in a monetary union so it is useful initially to discuss the transmission of tighter monetary policy in the euro area beginning with its impact on the international economic environment. The tradable sector is exposed to international developments making it a key channel through which external shocks propagate to the broader Irish economy. The tradable sector is directly affected by foreign demand and relative prices (or costs).

- a. *Foreign demand channel.* A higher interest rate in the euro area reduces economic activity in euro area countries, which leads to lower demand for intra-euro area trade, including Irish exports and tradable sector output.
- b. *Exchange rate (price competitiveness).* An increase in the euro area interest rate leads to an appreciation of the euro and a reduction in the demand for euro area exports and tradable sector output in Ireland. Conversely, a stronger euro leads euro area countries to increase their demand for imports from outside the euro area.
- c. *Exchange rate (imported inflation).* A euro appreciation makes imports from outside the euro area less expensive and reduces the import and consumption deflators. The strength of this channel on inflation depends on the degree of pass-through to consumer prices.

Tighter monetary policy in the euro area also has a direct impact on the non-tradable sector and domestic economy in Ireland. Higher interest rates affect financial markets and, subsequently, the real economy. There are a number of financial channels, including pass-through to market interest rates, and an impact on asset prices and expectations.

- a. *Market rates.* An increase in the policy interest rate passes through to market interest rates and raises the cost of borrowing for firms and households. The higher interest rate on loans to firms leads to an increase in the user cost of capital and lower investment. Similarly, loans to households become more expensive resulting in lower consumption. Households may also increase their savings, but the strength of this channel depends on the degree of pass-through to deposit rates and the expected duration of the shock. The combined impact of lower consumption and investment leads to a reduction in domestic demand and non-tradable sector activity.
- b. *Asset prices.* Higher interest rates on mortgage loans reduces the demand for housing. This leads to lower house prices and lower consumption through the housing wealth channel. Higher interest rates also reduce the value of financial

assets, such as equities and bonds, leading to lower consumption through the financial wealth channel.

- c. *Expectations.* Expectations of future inflation and policy actions can have an important bearing on the impact of tighter monetary policy. DSGE models contain forward-looking expectations while semi-structural models typically have backward-looking expectations. As a result, semi-structural models tend to be slower to react to shocks whereas DSGE models respond more quickly.

Simulation Results

Figures 4 and 5 show the impact of the monetary policy shock on inflation and output in Ireland, respectively. Due to estimation and model uncertainty, we present the average and range of the models' results. Figure 4 shows that the euro area monetary policy shock reduces inflation in Ireland by around 2 and 2.5 per cent relative to what would otherwise be the case without higher interest rates over the first two years, before returning to the baseline. In terms of the range shown in the chart, the semi-structural model suggests that inflation would be 1.5 percentage points lower compared to the baseline case in the absence of higher euro area interest rates while the DSGE model gives a larger estimate of around 3.5 percentage points.

Figure 5 shows the shock leads to a reduction in the level of output in Ireland by 2.5 and 4 per cent in the first two years and 3 per cent in year 3, relative to the case where interest rates remained unchanged. The semi-structural model suggests a gradual reduction of 3 per cent over the 3 year period while the DSGE model falls by 5 per cent before falling back to 3.5 per cent in year 3. The different dynamics shown in Figures 4 and 5 reflect the variable lags associated with the transmission of monetary policy as well as the different treatment of expectations in both models.

The relatively larger effect of the shock on inflation and output using the DSGE model reflects, in part, the role of forward-looking expectations, which bring the effects of the shock in the model forward, before returning back to the steady-state more quickly than the semi-structural model that has backward-looking expectations and slower dynamics.

In the DSGE model, forward-looking households anticipate a longer time period of tightened financing conditions, which is why they reduce their consumption by more and tend to do so earlier, as higher interest rates for a longer period of time make more saving earlier relatively more attractive. However, a stronger reduction in consumption and aggregate demand also imply a stronger reduction in household incomes, which

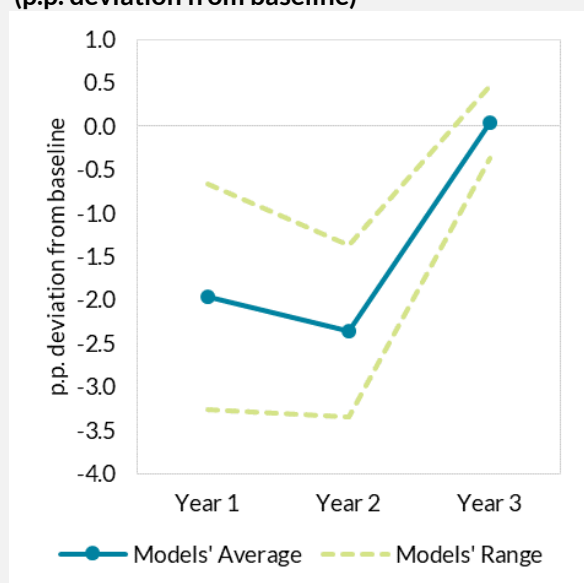
¹¹ The ECB describes the transmission mechanism of monetary policy here: <https://www.ecb.europa.eu/mopo/intro/transmission/html/index.en.html>. Also see: <https://www.centralbank.ie/news/article/blog-inflation-and-monetary-policy-what-to-expect>

magnifies the feedback effect on aggregate demand and leads to stronger amplification of the shock.

In terms of labour market effects, the shock gradually reduces the level of employment by around 3 per cent and raises the unemployment rate by 1.6 percentage point, relative to the baseline, using the semi-structural model. This is in line with the around 3 percent reduction in employment in the DSGE model.

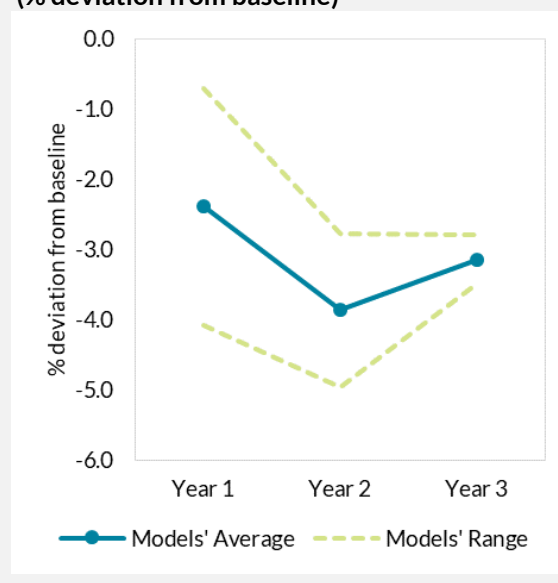
Interest rates have responded to a rise in inflation

Figure 4: Impact of shock on inflation
(p.p. deviation from baseline)



Source: authors' calculations.

Figure 5: Impact of shock on output
(% deviation from baseline)



Source: authors' calculations.

Some caveats

There are a number of caveats to our analysis that relate to what happens to exchange rates, policy responses abroad, source of the shock, and pass-through to market interest rates.

- i. Regarding exchange rates, our simulations take into account the policy actions of the ECB only and excludes interest rate hikes by other monetary authorities.

In a case in which other central banks concomitantly tighten monetary policy to fight inflation, the exchange rate appreciation of the euro previously witnessed would be more muted and dependent on the relative size of policy rates across countries through an uncovered interest parity condition. However, higher interest rates in our trading partners will reduce demand in these economies through lower consumption and investment and ultimately reduced demand for imports from the euro area. We find the overall response of the domestic

economy is quite similar whether or not one models a tightening by other countries.

- ii. The simulation considers a monetary policy shock on a stand-alone basis. In reality, the tightening of the interest rates currently observed is in part the result of an endogenous response to demand and supply shocks that have brought the economy to the current state with high inflation.
- iii. In the current tightening cycle, we have to date witnessed less pass through of the ECB policy rate to some retail rates such as standard variable mortgage rates and some deposit rates.¹² It is still early in the tightening to determine what the ultimate pass-through to retail rates will be. If the pass-through was to remain below that observed historically, then it would suggest our model results represent a somewhat upper bound of the effect of the tightening cycle.

Conclusion

The simulation results in this box show that the ECB's monetary policy tightening can be expected to continue to influence both economic activity and inflation in Ireland over the forecast horizon. The simulation exercise in this *Box* implies that in the absence of euro area monetary policy tightening, and assuming interest rate pass-through follows historical patterns, inflation would be in the region of 2 to 2.5 percentage points higher over the course of this year and next than what is currently expected. There is significant uncertainty around model-based estimates of the impact of monetary policy, as reflected in the quantitative differences shown by the semi-structural and DSGE models. As such, this type of model-based exercise provides a cross-check on the potential impact, and transmission, of euro area monetary policy on the Irish economy over time.

Exports, Imports and the Balance of Payments

Exports

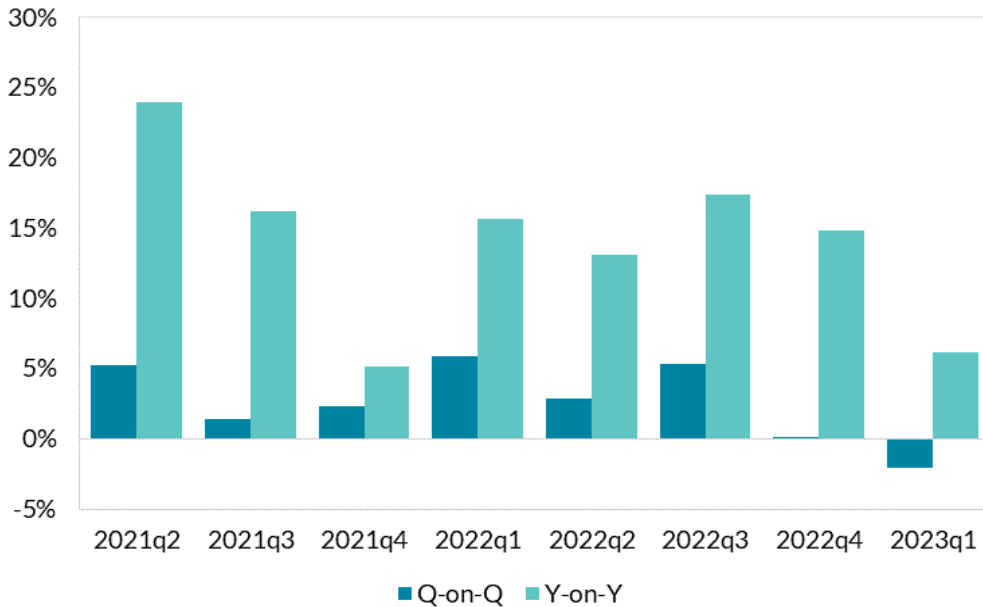
At the aggregate level, Irish export growth rates continued their decline in 2023q1, with quarterly growth turning negative. In contrast to the strong rates of growth observed in 2022, export growth rates declined in both year-

¹² See Byrne, McCann, and Gaffney (2023): https://www.centralbank.ie/docs/default-source/publications/financial-stability-notes/the-interest-rate-exposure-of-mortgaged-irish-households.pdf?sfvrsn=cab7991d_8

on-year and quarter-on-quarter terms in 2023q1. Reflective of the strength of Irish export performance over recent years, the decline of -2.1 per cent observed in gross exports was only the sixth time quarter-on-quarter export volume growth has been negative in the last decade.

Declining growth in gross exports

Figure 24: Year-on-Year and Quarter on Quarter growth rates, Aggregate Exports



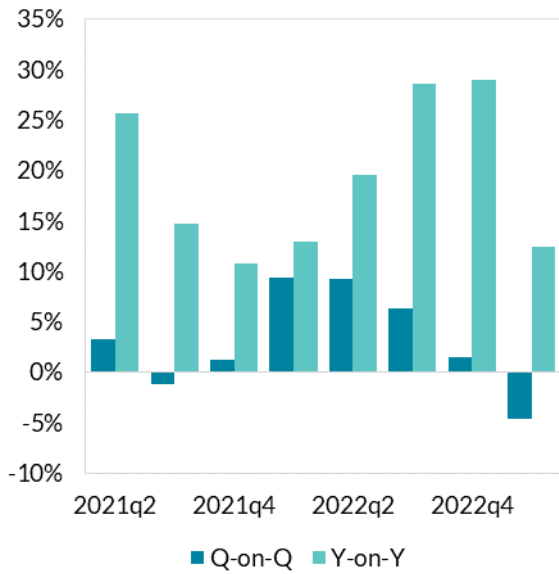
Source: CSO and Central Bank of Ireland

Growth in both goods and services exports have shown signs of a slowdown.

Trade in goods recorded a fourth consecutive quarter of declining quarterly growth rates (-4.6 per cent in 2023q1), with year-on-year growth rates also at their lowest levels (12.4 per cent) since 2021q4. A similar pattern is observed for services exports, where year-on-year growth declined to its lowest level (-0.4 per cent) since 2020q2.

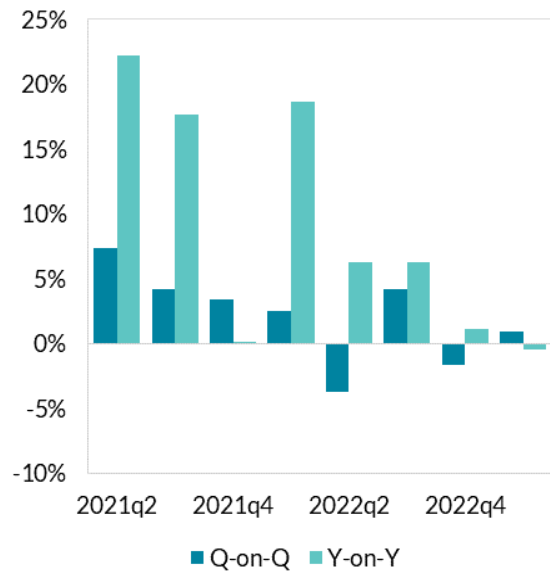
Goods and services export growth significantly less buoyant in recent quarters

Figure 25: Goods Export Growth, 2022q2-2023q1



Source: CSO and Central Bank of Ireland

Figure 26: Services Export Growth, 2022q2-2023q1

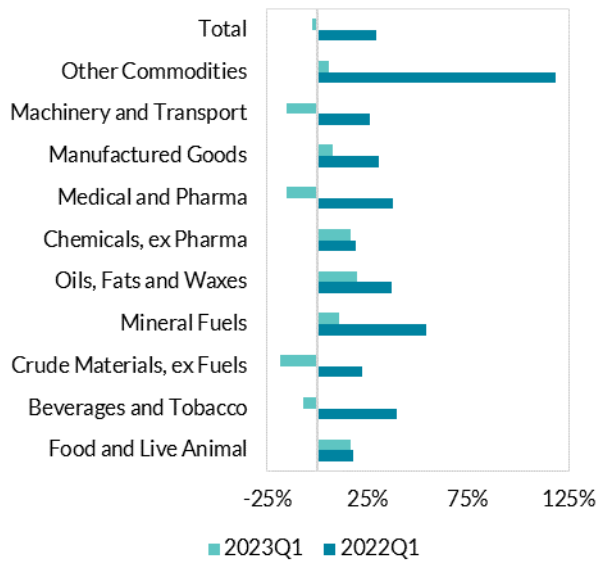


Source: CSO and Central Bank of Ireland

Reinforcing the degree to which domestic trade conditions have been affected by global factors, export growth declined across most key merchandise and services sectors, relative to the same period last year. The broad-based nature of the headwinds to trade (including commodity price volatility and tightened monetary conditions) is represented in Figure 27. Across all 10 merchandise sectors, and three of the six services sectors, 2023q1 year-on-year growth rates are below the corresponding Q1 values for 2022. Both medical and pharmaceutical products, and ICT services (two key drivers of Irish export growth since the Covid-19 pandemic) recorded substantially lower growth in 2023q1, with medical and pharmaceutical export growth turning negative.

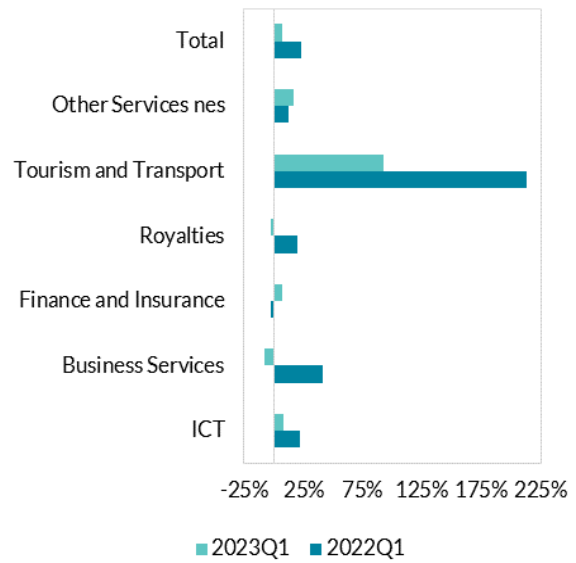
Diminished export growth observed across most key merchandise and service sectors

Figure 27: Merchandise export growth by sector



Source: CSO and Central Bank of Ireland

Figure 28: Services export growth by sector



Source: CSO and Central Bank of Ireland

Despite declining from historical peak values, contract manufacturing contributed strongly to aggregate exports in 2023q1. With further easing of supply chain bottlenecks over the last three months, the offshore activities of Irish-domiciled businesses continued to strengthen the unadjusted current account. Merchanting and contract manufacturing services together contributed to a higher current account surplus to the tune of €40.6 billion. While this represented a decline from the record value of €49.3 billion in 2022q4, it was a €13 billion increase over 2022q1 values. Over a window of the last four quarters, merchanting and contract manufacturing exports have seen annual increases of over 33 per cent.

Non-merchandise goods exports remain strong, despite quarterly declines

Figure 29: Non-merchandise real goods trade, 2020q1 – 2023q1

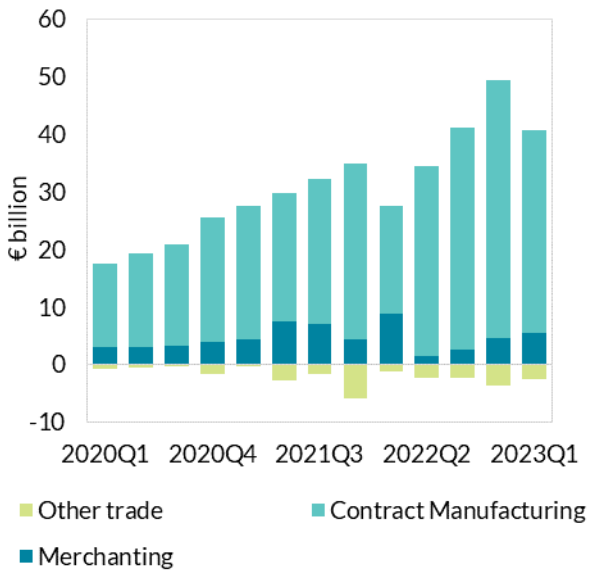
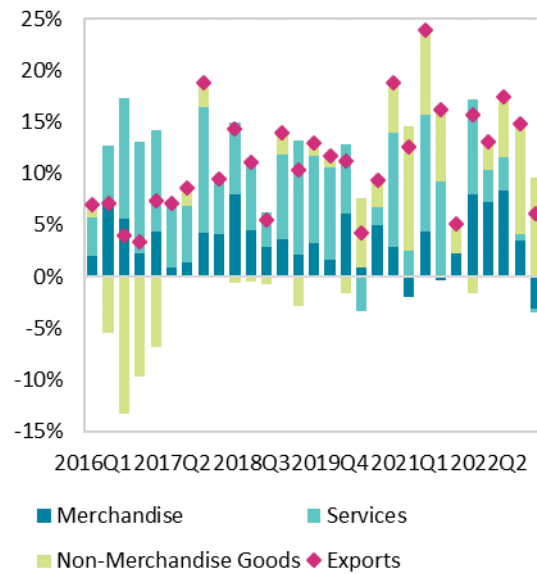


Figure 30: Contributions to gross real export growth rate, 2016q1-2023q1



Source: CSO and Central Bank of Ireland

Source: CSO and Central Bank of Ireland

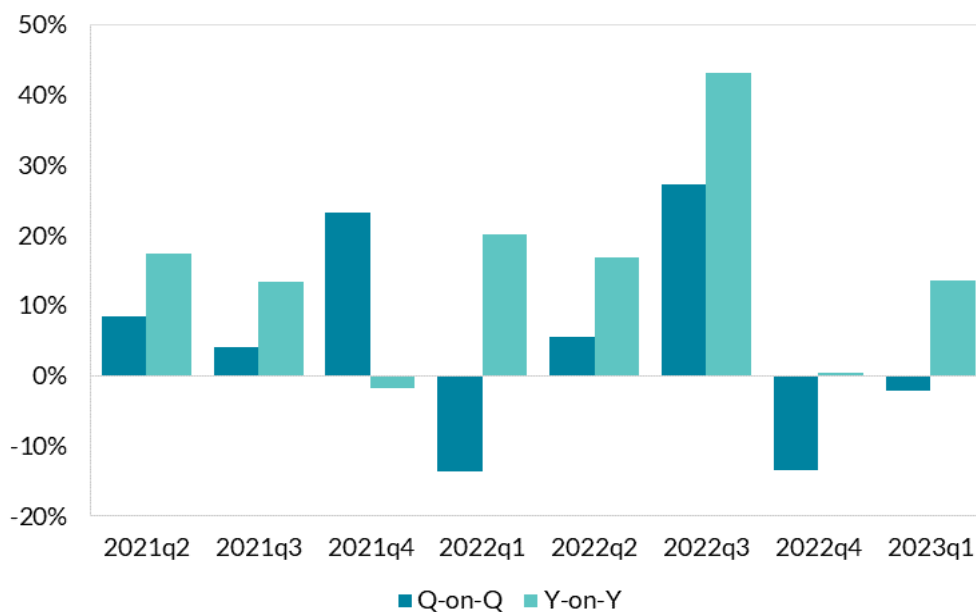
Export forecasts have been revised downward since the previous Bulletin, but should remain a core component of strong Irish output growth over the 2023-2025 period. Continued global demand for pharmaceutical goods and ICT services should maintain strong growth over the full forecast horizon. Continuing infrastructure investments in these sectors should protect, to some degree, against further supply chain disruption or reshoring risks in foreign markets. Export volumes are projected to grow by 6.3 per cent in 2023, 7.5 per cent in 2024, and 6.7 per cent in 2025.

Imports

Growth in total imports also declined in 2023q1, relative to both 2022q4 and 2022q1. With quarterly growth of -0.8 per cent, and year-on-year growth of 7 per cent, aggregate import growth in 2023q1 was lower than in any quarter of 2022. As with aggregate exports, these figures are again reflective of the prevailing headwinds to global trade, including an appreciation of the nominal effective exchange rate over the first three months of 2023.

Successive quarters of declining import growth suggests weakness in trade conditions

Figure 31: Year-on-Year and Quarter on Quarter growth rates, Aggregate Imports

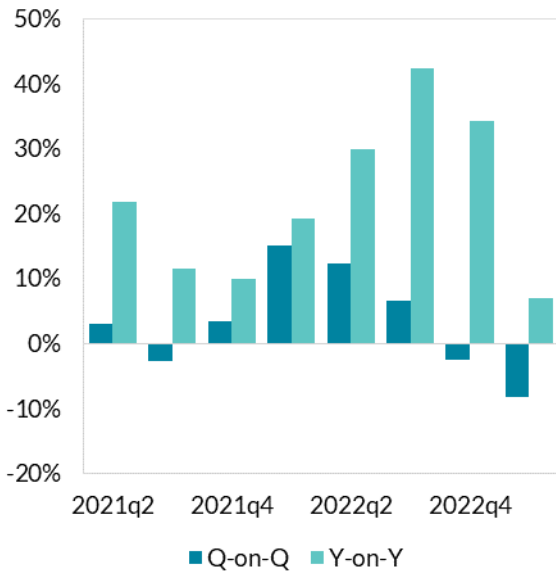


Source: CSO and Central Bank of Ireland

Both goods and services import growth was negative in quarter-on-quarter rates, despite positive year-on-year growth. Similar to goods exports, goods imports have now recorded four consecutive quarters of declining rates of growth. Goods import volumes fell by -8.3 per cent relative to the final quarter of 2022, but were 7 per cent higher than in 2022q1. Services import volumes also declined (-1.6 per cent) relative to the previous quarter, but were 17.5 per cent above Q1 values for 2022.

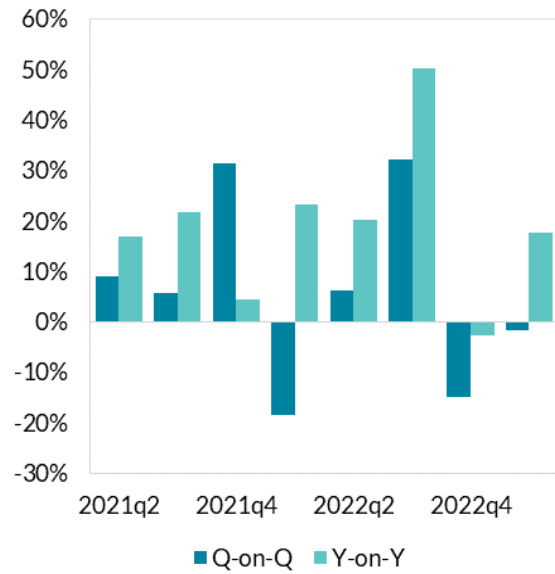
Services import growth more robust than goods imports growth in Q1

Figure 32: Goods Import Growth, 2022q2-2023q1



Source: CSO and Central Bank of Ireland

Figure 33: Services Import Growth, 2022q2-2023q1

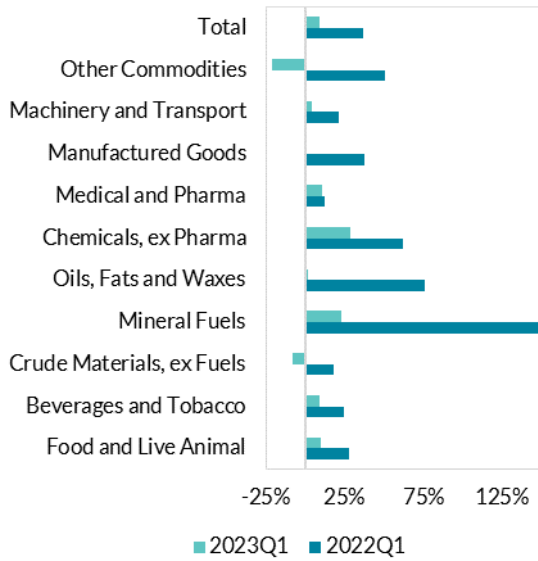


Source: CSO and Central Bank of Ireland

Import growth declined across most goods and services sectors, consistent with the view that global economic conditions and tighter monetary policy are dampening international trade. Across all NACE merchandise sectors, growth was lower in 2023q1 than in the same quarter of 2022. Crude materials, miscellaneous manufactured goods and other commodities all recorded negative growth rates (in year-on-year terms), while non-pharmaceutical chemicals registered the largest sectoral increase of €1.6 billion over 2022q1 values. On the services side, ICT was the only sector to experience negative import growth (-€265 million).

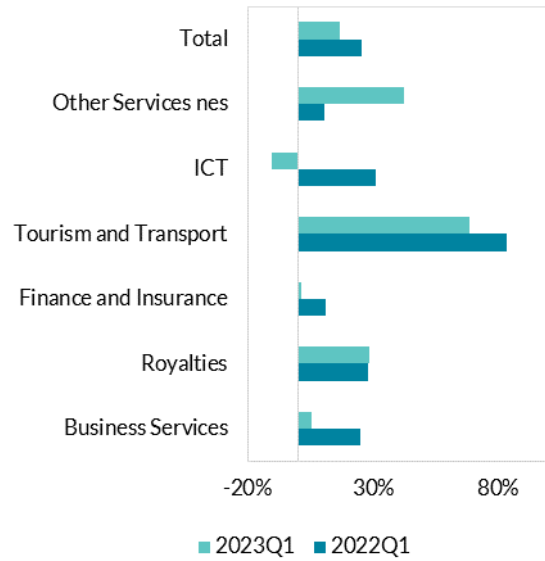
Sectoral growth declines across almost all goods and services import categories

Figure 34: Merchandise import growth by sector



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

Figure 35: Services import growth by sector

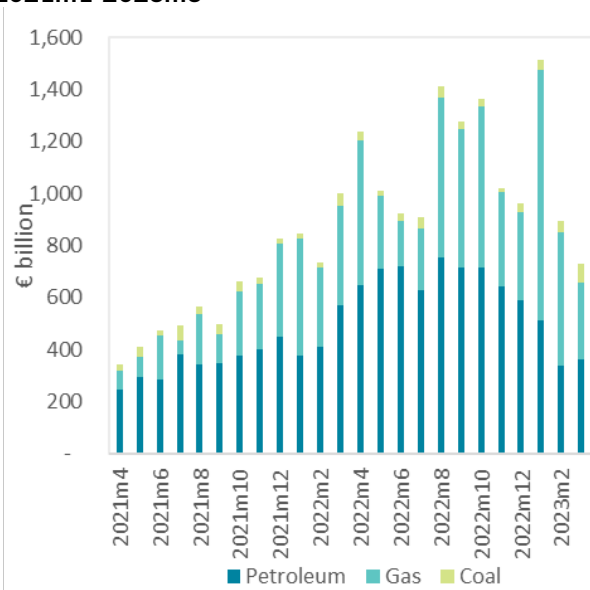


Source: Author's calculations using CSO External Trade Data.

With global energy prices falling from their 2022 peaks, Irish energy import costs have declined steadily over the same period. With the exception of January, energy import expenditures have declined (in month-on-month terms) every month since August 2022. Data from March of this year shows that Irish imports of oil and gas were 12.3 and 13 per cent higher in volume terms than in the previous year, yet expenditure on oil and gas imports was 36.5 and 21.8 per cent below the March 2022 values. Some further declines in energy import expenditure should be expected over the remainder of 2023 as gas supplies stabilize and the reduction in market prices transmits through to import prices.

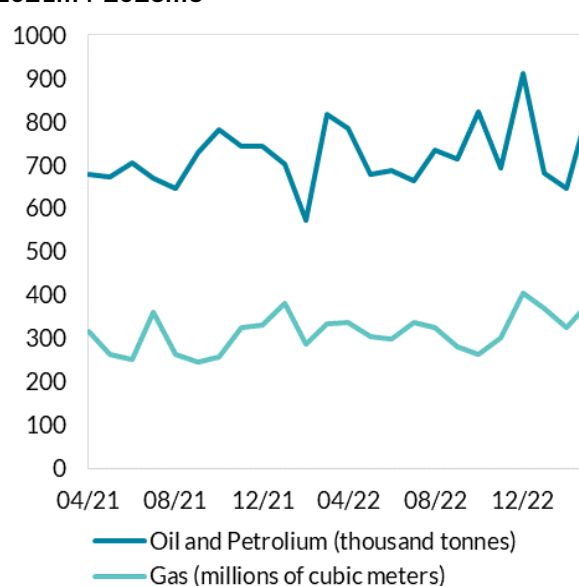
Energy import expenditures have declined in recent months, despite increased gas and oil import volumes

Figure 36: Energy Import Expenditures, 2021m1-2023m3



Source: CSO and Central Bank of Ireland

Figure 37: Energy Import Volumes, 2021m4-2023m3



Source: Eurostat and Central Bank of Ireland

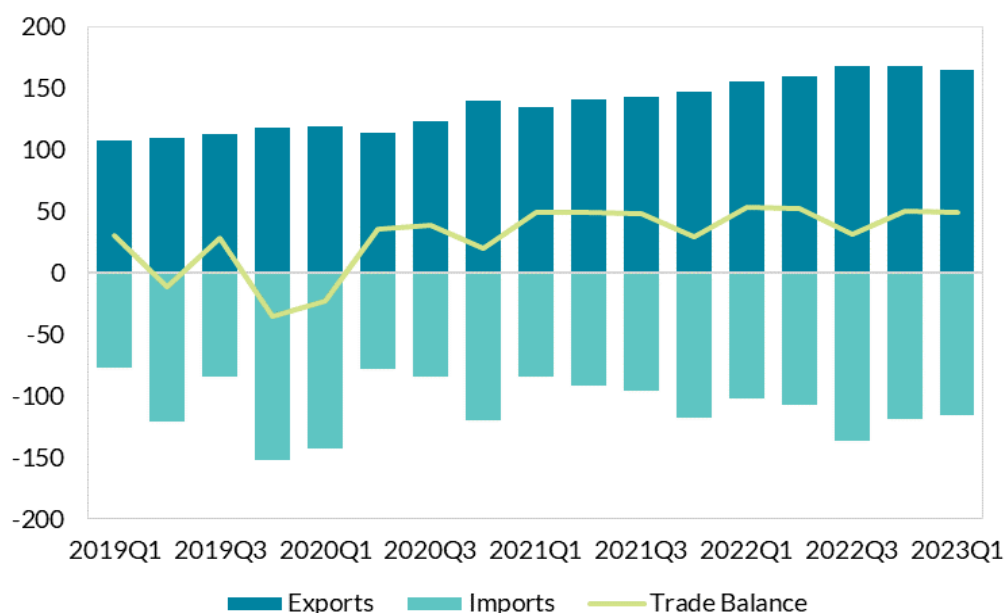
Forecasts for import growth have weakened since the end of 2022, but remain positive. Given the reduced likelihood of significant IP import transfers on the scale observed in 2022, the combined headwinds of elevated interest rates and depreciating trade-weighted exchange rates, plus the projected decline in world trade, import forecasts have been revised downwards, to 4.9 per cent in 2023. Beyond this, improved global output and demand factors are projected to increase import volume growth to 7.4 per cent in 2024 and 7.5 per cent in 2025, although inflation resurgence, unanticipated monetary tightening spillovers and rising geopolitical tensions have the potential to weaken these estimates.

Net Trade and the Balance of Payments

Import and export components of the national accounts both recorded quarterly real declines in Q1 of 2023, likely due to the dual effects of tightening monetary policy and dampened global trade conditions. Combined, the trade balance declined in real terms, with -1.9 per cent (-8.1 per cent) growth in quarter-on-quarter (year-on-year) trade volumes. Despite this negative growth, the net position of 49.3 billion remains historically strong and substantially above values recorded at any point prior to 2021.

Trade balance broadly stable, despite import and export contractions

Figure 38: Exports, Imports and Net Trade, Seasonally Adjusted, 2019q3-2023q1

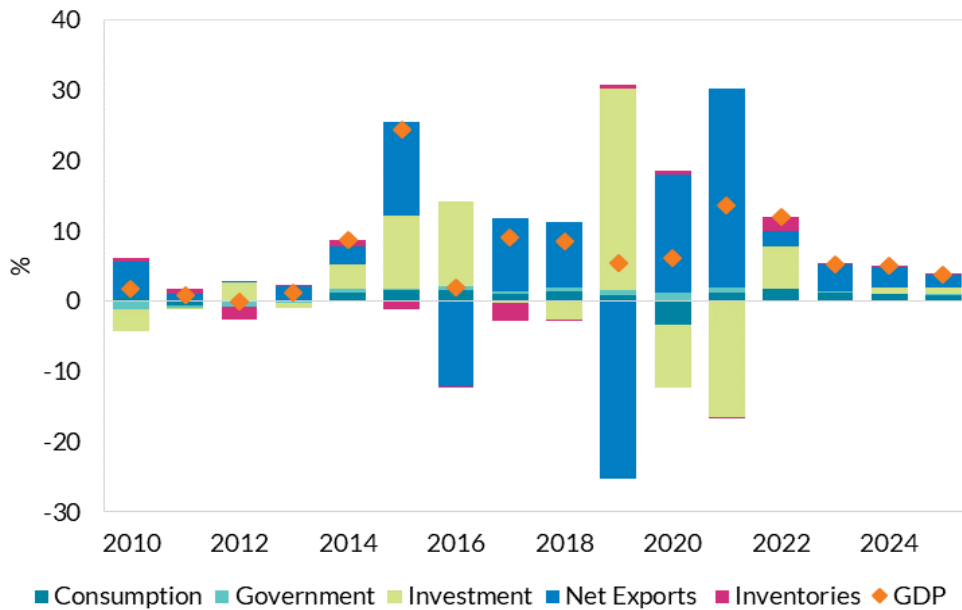


Source: CSO and Central Bank of Ireland

With continued multi-national activity and IP transfers affecting national accounts statistics, the contribution of net exports to output growth remains volatile. The combination of increased exported-orientated MNE production and IP-related R&D imports since 2014 have the potential to cause large, distortionary movements in both the net exports and investment components of the National Accounts in any given year. As can be seen in Figure 39 below, 2022 was the first year since 2014 that the contribution of net exports to output growth was below 9.5 percentage points (in absolute terms). Furthermore, the average year-to-year change in the contribution of net exports to output growth over the same period was 18.5 percentage points. This volatility introduces a substantial degree of complexity to forecasting trade developments.

Net export contribution to output growth remains volatile

Figure 39: Output Contribution by National Accounts Component, 2010-2025f

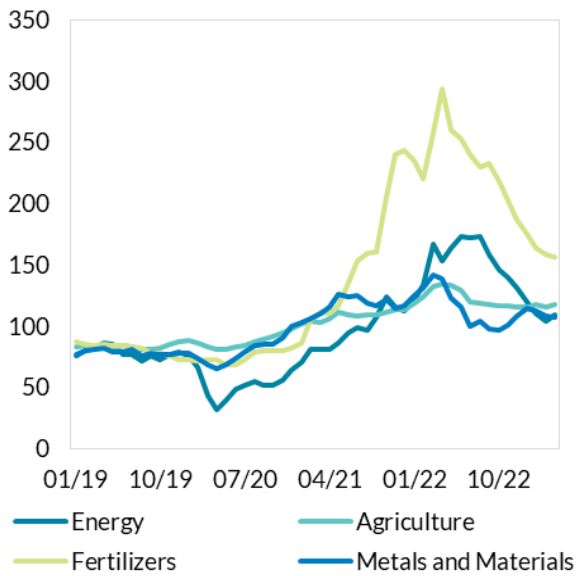


Source: CSO and Central Bank of Ireland

With some constraints easing, global trade is expected to remain subdued, but upward revisions to 2023 growth have been incorporated into international estimates. Two of the main factors that contributed to trade uncertainty in the early part of 2022 were the large, concurrent upswings in several commodity price series, and the persistent issues in global supply chains from Covid-19 restrictions and shipping bottlenecks. While these conditions moderated in the second half of 2022, they remained elevated relative to levels prior to the Russia-Ukraine conflict. As of April 2023, all four WTO commodities indices were below their January 2022 values, with agricultural prices the only series that has not shown persistent declines in the January-April period of 2023. Similarly, supplier delivery times in most advanced economies (including Ireland) have now fallen to post-GFC values.

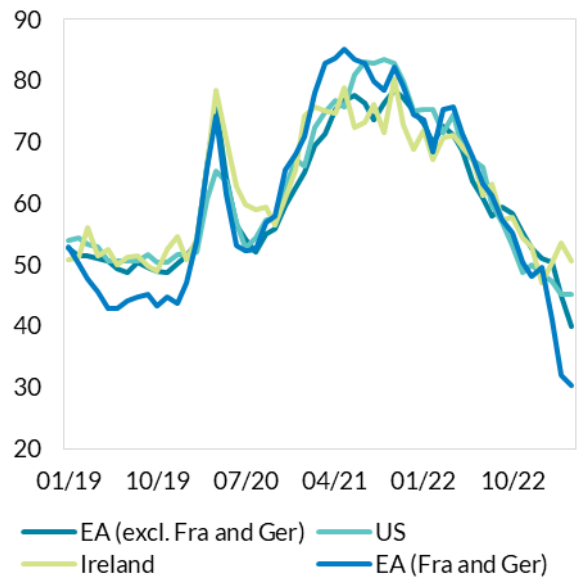
Global Conditions remain negative, but directional trends are encouraging

Figure 40: WTO Commodity Price Indices 2019-2023



Source: World Trade Organisation

Figure 41: S&P Supplier Delivery Times, 2019-2023



Source: Refinitiv Eikon and S&P data

The unadjusted Current Account of the Balance of Payments remained in surplus in 2023q1, but declined relative to both 2022q1 and 2022q4 values. With €221 billion of inflows and €207 billion of outflows, the Irish current account recorded a surplus of €13.84 billion in 2023q1. While this figure was €1.99 billion below values for the previous quarter, it remains strongly above pre-2021 values for quarterly current account positions. Net merchandise trade (€56.1 billion) and net primary income flows (-€39.6 billion) form the largest credit and debit positions of the current account balance

Merchandise the primary driver of CA surpluses, despite increased income debits

Figure 42: Current Account Components and Balance, 2020q2 – 2023q1



Source: CSO and Central Bank of Ireland

Estimates of the Modified Current Account (CA*) still point to strong, positive balances in 2022 and over the forecast horizon. With data on the 2022 value of CA* due out in the next few months, a surplus of approximately €30 billion, equivalent to 11 per cent of GNI*, seems likely to have occurred last year. Over the 2023-2025 forecast horizon, the balance is expected to remain in surplus, expanding to €33.4 billion in 2023, €36.7 billion in 2024 and reach €40 billion by 2025. Conditional on forecasts of GNI*, these estimates represent CA* / GNI* ratios of 11.2 per cent, 11.6 per cent and 11.9 per cent over the 2023-2025 period.

CA* balance and ratio should remain in surplus position over the medium term horizon.

Figure 43: CA* and CA*/GNI* 1995-2025 (estimates from 2022)



Source: CSO and Central Bank of Ireland

Prices and Costs

Consumer Prices

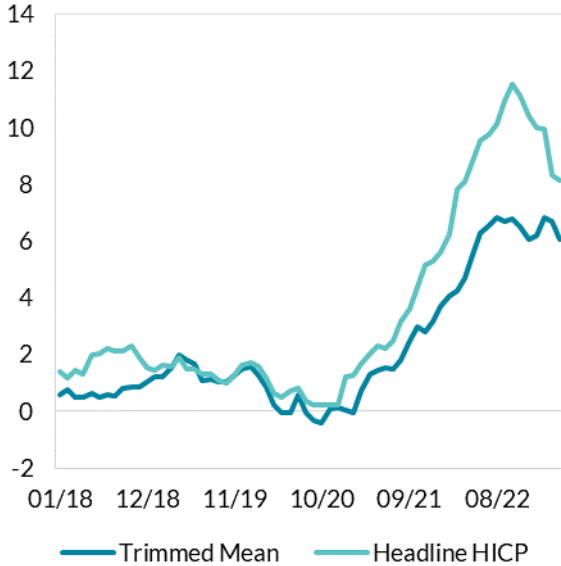
Consumer price inflation remains high. While headline HICP inflation is slowing in year-on-year terms, Core HICP, which excludes energy and food, remains persistently high. Annual headline inflation has fallen from a high of 9.6 cent in July 2022 to 5.4 per cent in May 2023. Part of the decline in the headline rate of inflation is attributable to the mechanical results of higher rates of inflation in the early months of last year dropping out of the base.¹³ HICP excluding energy, however, is now outpacing headline inflation, increasing by 5.7 per cent year-on-year in May. First-round energy price developments are no longer the main driver of inflation. Indirect and second round effects of the energy shock and the strength of the economy post COVID are now dominating price developments. Higher costs for a broad range of goods and services, coupled with continuing strong domestic demand conditions have resulted in persistence occurring in underlying inflation. Measures of underlying inflation point to the breadth and persistence of price increases. The trimmed mean and common inflation component measured 4.3

¹³ See Box E in QB1 2023 for an explanation of base effects.

per cent in May 2023. The proportion of goods and services experiencing a high rate of increase is historically high at 63 per cent (Figure 45).

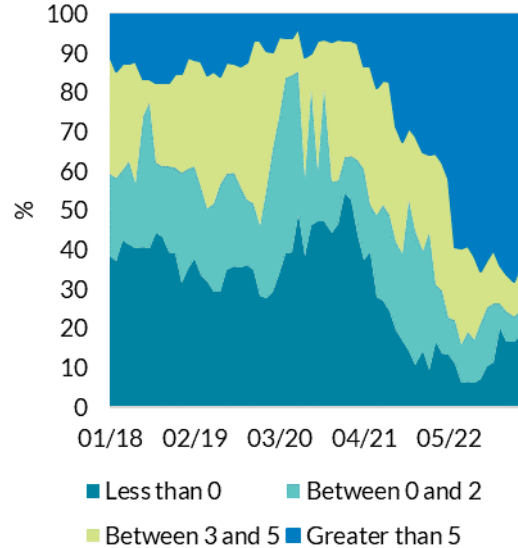
Price increases are broad-based but showing signs of a turnaround

Figure 44: Trimmed mean



Source: Author's calculations.

Figure 45: Weighted share of prices



Source: Author's calculations

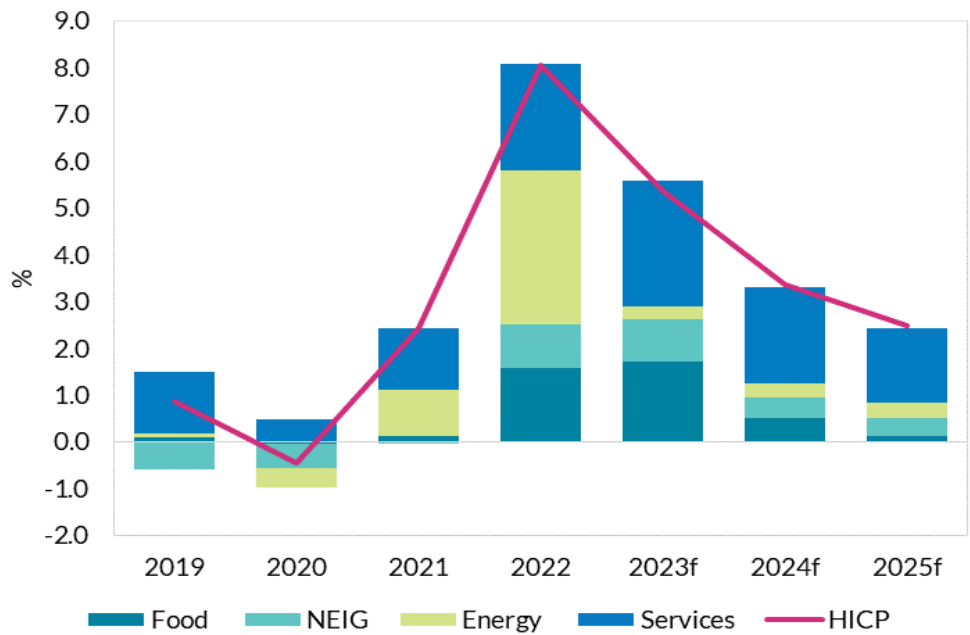
Conditional on current macro assumptions and no further energy shocks, inflation is expected to average 5.3 per cent in 2023. Consumer energy prices are likely to remain elevated in 2023 as the effects of wholesale energy prices developments pass-through to consumer prices with a lag. In addition, energy is a vital component in the production of all goods and services and the indirect pass-through from higher energy prices into other goods and services is still continuing, and is clearly evident in the broad-based nature of price increases. These price pressures are likely to continue for much of the year and into next year. Tighter labour market conditions can amplify second round effects, as excess demand in an economy that is running at capacity, also add to price pressures.

Energy prices are likely to stay high over the forecast horizon. While wholesale energy prices have fallen, the outlook for consumer energy prices is the subject of considerable uncertainty. Energy providers use of forward markets and hedging strategies mean that consumers were shielded from the full effects of past increases. The cost of this insurance appears to be higher energy prices now than prior to 2021. Gas and electricity prices are still twice the historical average for the 2010-2020 period. Based on current future oil, gas and electricity futures, in addition to estimated lags in the pass-through to consumer prices and expected increases in taxes on energy, moderate

increases of approximately 3 per cent in consumer energy prices over the forecast horizon are envisaged. HICP inflation is forecast to moderate to 3.4 and 2.5 per cent in 2024 and 2025, respectively, as energy and food prices rise at a lower rate and drop out of year-on-year comparisons, while more domestically determined prices become more prominent in overall inflation (Figure 46). Core inflation, however, is expected to exceed headline inflation in 2025 at 2.7 per cent as inflation from domestically generated services inflation has a higher weight in the core measure.

Food and services driving inflation

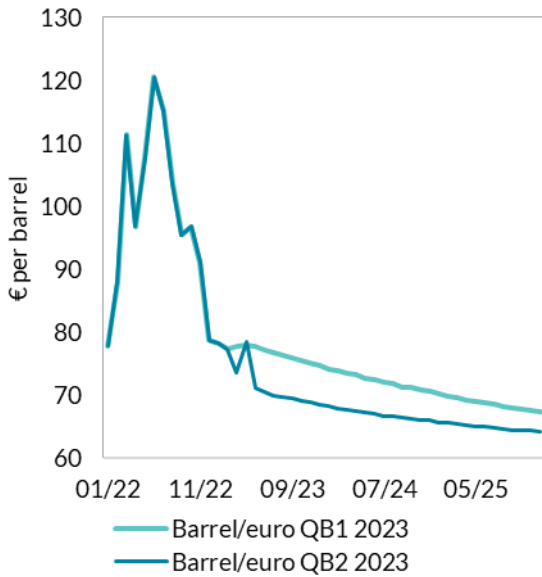
Figure 46: HICP Forecast



Source: CSO and Central Bank of Ireland

Oil futures are lower

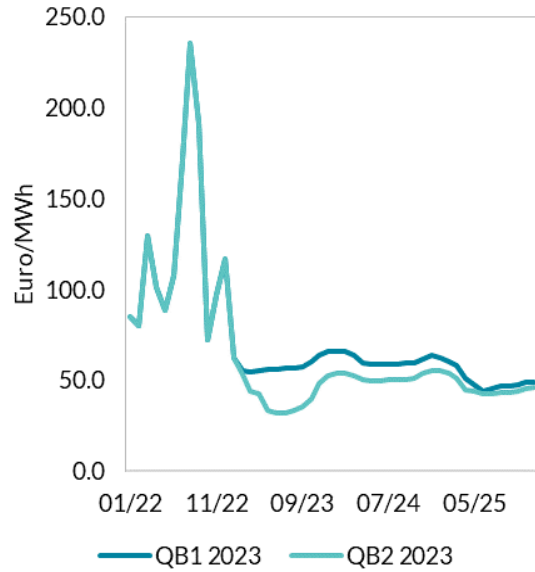
Figure 47: Brent Crude Futures



Source: Refinitiv Eikon

Gas futures have also declined

Figure 48: TTR Gas Futures

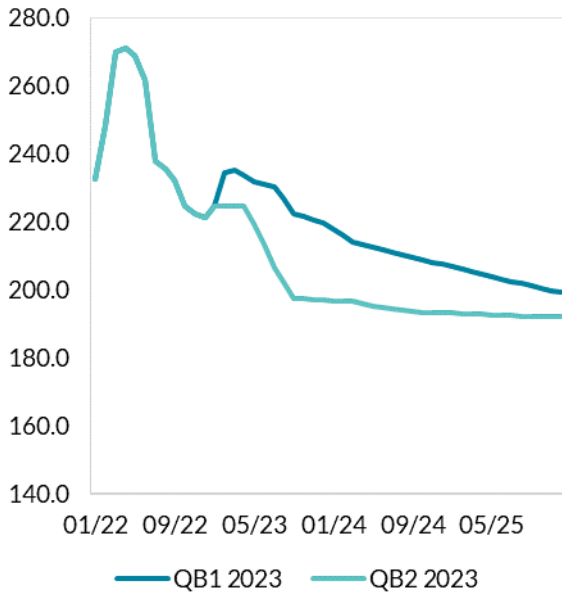


Source: Refinitiv Eikon

Other international commodity prices have also moderated. Food commodity futures have moderated, driven by improved prospects including the Black Sea grain deal and the resumption of exports from Russia and the Black Sea ports in Ukraine and the fall in fertiliser prices related to the decline in gas prices. Having risen strongly in recent months, with annual inflation rates reaching 12 per cent, the pace of consumer food price inflation is expected to ease, but still forecast to contribute significantly to overall inflation this year and next. Consumer food prices are expected to increase by 7.9 and 3.1 per cent this year and next as past commodity market increases pass-through to prices. Food prices are forecast to grow only modestly in 2025.

Food commodities futures prices lower

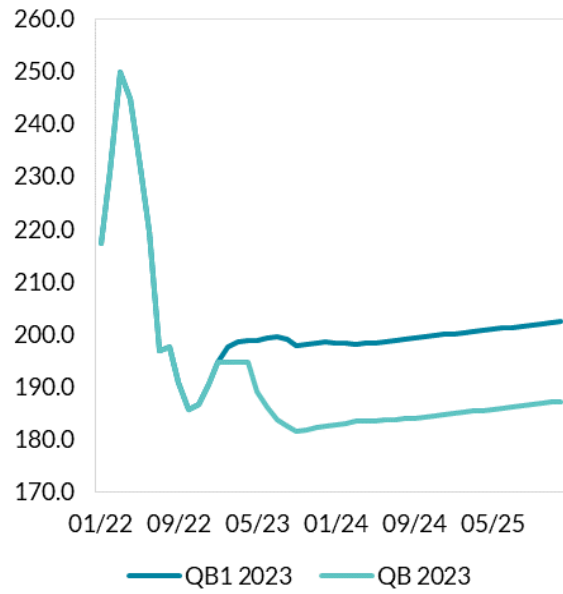
Figure 49: Aggregate Food Futures



Source: ECB internal calculations

Industrial goods futures prices also down

Figure 50: Aggregate Industrial Futures

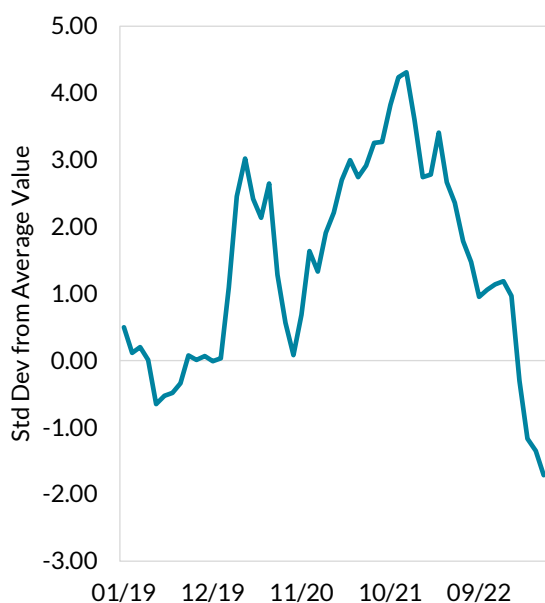


Source: ECB internal calculations

Supply chain pressures have improved considerably, which supports the slower pace of increase expected in non-energy industrial goods prices. The Global Supply Chain Pressure Index (Figure 51), which combines data on global transportation costs with delivery times, backlogs and purchased stock data in global PMIs, suggest that the easing in supply chain pressures continued in May with the index now below it’s historical average. There were significant improvements in euro area delivery times. This is corroborated by an improvement in manufacturing delivery times (Figure 52). The outlook for industrial goods prices, which are largely imported and conditional on commodity and energy futures and exchange rates, is for inflation of 4 per cent in 2023 to moderate to 1.9 and 1.6 per cent in 2024 and 2025.

Supply chains better than 2020

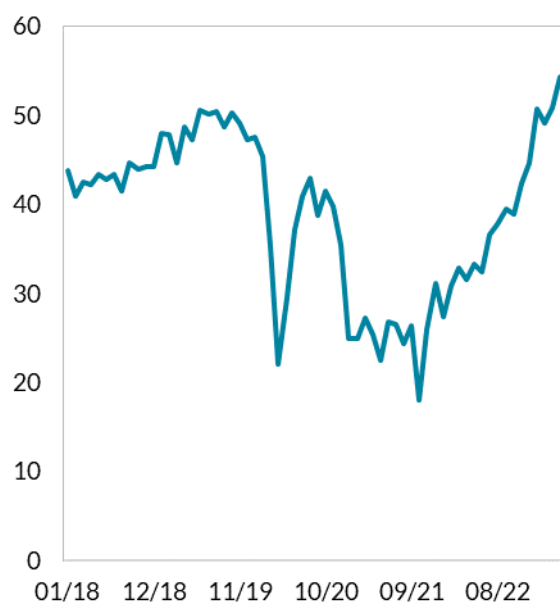
Figure 51: Global Supply Chain Pressure Index



Source: Federal Reserve Bank of New York

Delivery times improving

Figure 52: Manufacturing Delivery Times



Source: IR AIB PMI Manufacturing

The forecasts in this Bulletin are subject to both upside and downside risks.

European energy markets look to have stabilised following the initial impact of the Russian invasion of Ukraine. How quickly the decline in wholesale commodity prices pass-through to consumer products the subject of considerable uncertainty (Box D). 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 notably the possibility of environmental disasters or an escalation of geo-political tensions leading to a more fundamental fragmentation in supply chains. The precise timing of the interaction between domestic demand conditions and the transmission of tighter monetary policy is also subject to some uncertainty. Some internalising of fossil fuel externalities is likely to result in upward pressures on global energy prices in the years ahead. The substantial investments necessary for the transition to a green economy coupled with the necessary decline in fossil fuel subsidies could result in considerable volatility in energy prices in the years ahead.

Broader Costs in the Economy

Domestically, PMI survey data (Figure 54) point to a downward trend in input and output prices in the manufacturing, services and construction sectors.

This may, however, only point to a deceleration of price increases and not a decline in price levels. This is an indication that pipeline pressures (see Box D) may be easing.

Inflation is also evident in other non-consumer price measures, including domestic wholesale prices (Figure 53). The decline in wholesale energy prices is evident, albeit volatile, down from triple digit highs in 2022 to a decline of 38 per cent year-on-year in April 2023. The pace of increase in domestic manufacturing costs has not fallen to the same extent yet, moderating only slightly in year-on-year terms to 8 per cent in April 2023. Domestic building and construction wholesale costs also registered year-on-year increases of 8 per cent in April 2023.

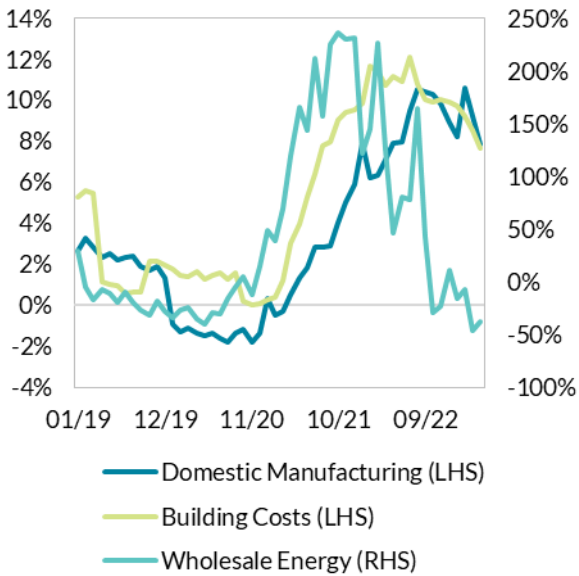
Table 2: Inflation Projections

	2022	2023	2024	2025
HICP	8.1	5.3	3.4	2.5
Goods	11.4	5.3	2.6	1.8
Energy	41.2	3.4	3.5	3.6
Food	7.3	8.0	3.1	0.8
Non-Energy Industrial Goods	4.2	4.0	1.9	1.6
Services	4.7	5.4	4.1	3.2
HICP ex Energy	5.0	5.5	3.3	2.3
HICP ex Food & Energy (Core)	4.6	4.9	3.4	2.7
Modified Domestic Demand Deflator	7.0	5.0	3.1	2.6
Private Consumption Deflator	6.6	5.5	3.0	2.0
Modified Investment Deflator	8.2	5.5	3.7	3.9

Source: CSO, Central Bank of Ireland

Wholesale prices declining led by energy

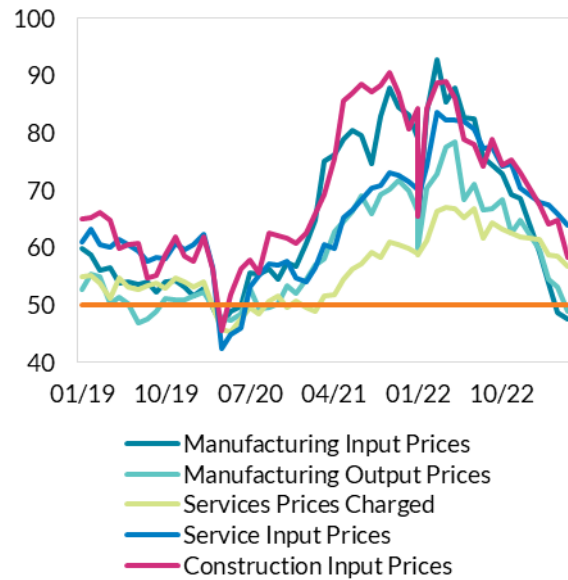
Figure 53: Wholesale Price Index



Source: CSO.

Input and output prices improving

Figure 54: PMI Input and Output Prices



Source: Refinitiv Eikon

Box D: Impact of Pipeline Pressures on the Inflation Forecasts

By Stephen Byrne, Darragh McLaughlin and John Scally¹⁴

The surge in input costs over the past two years has led to a marked increase in the prices faced by producers and wholesalers in Ireland. In turn, these input price increases have been passed on to consumers, as reflected in the historically high rates of consumer price inflation seen over the past number of quarters ([Byrne, McLaughlin, & O'Brien 2022](#)). Of these input costs, the price of energy and food have seen the largest increases. [Koester et al \(2021\)](#) show that these input cost shocks generated “pipeline” pressures in the early stages of the production process, which are passed through to consumer prices.

However, food and energy commodity prices have begun to fall sharply during the first half of 2023 (Figures 1 & 2), but consumer prices for food and energy have fallen more slowly. How much these commodity price decreases pass through to consumer prices depends on many factors, in particular the extent to which firms pass them on or use them to maintain or increase profit margins (see Box E).

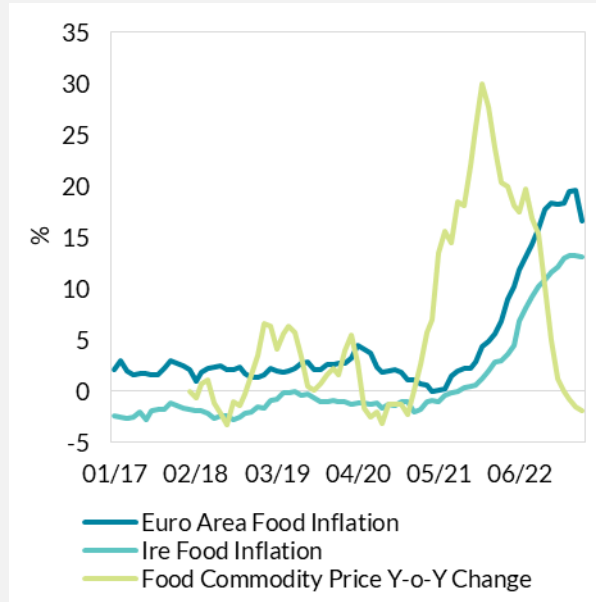
The spike in oil and gas prices during 2022 precipitated a historical increase in the HICP energy price index (Figure 2). For retailers of electricity, home heating oil, and other fuel products, the increase in wholesale energy prices represented a large shock across the entirety of their production chain. Accordingly, the pass-through to consumer prices of

¹⁴ Irish Economic Analysis Division

this shock was sizeable and quick. However, these commodity prices have fallen sharply since the third quarter of 2022, yet retail energy prices for gas and electricity have not declined for Ireland during 2023 (Figure 3).¹⁵

Historic Food and Energy Price inflation begin to ease

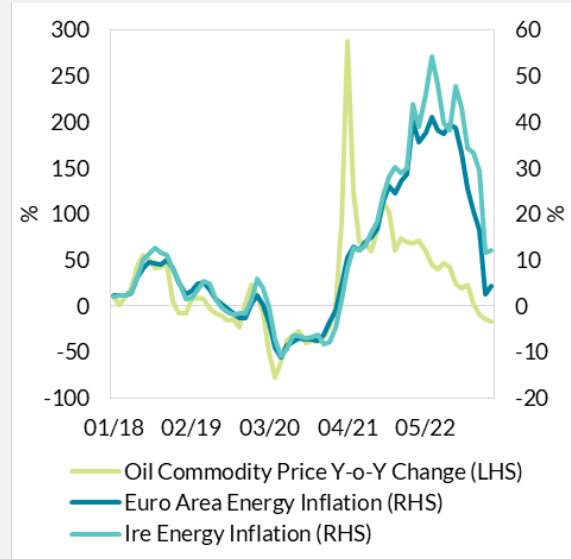
Figure 1: HICP food price inflation & food commodity price year-on-year % change



Source: Eurostat, ECB

Note: Food price commodity index contains an aggregation of agricultural commodity prices relevant to food price inflation (e.g. wheat, soy, cereals, meat)

Figure 2: HICP energy price inflation & oil commodity price year-on-year % change

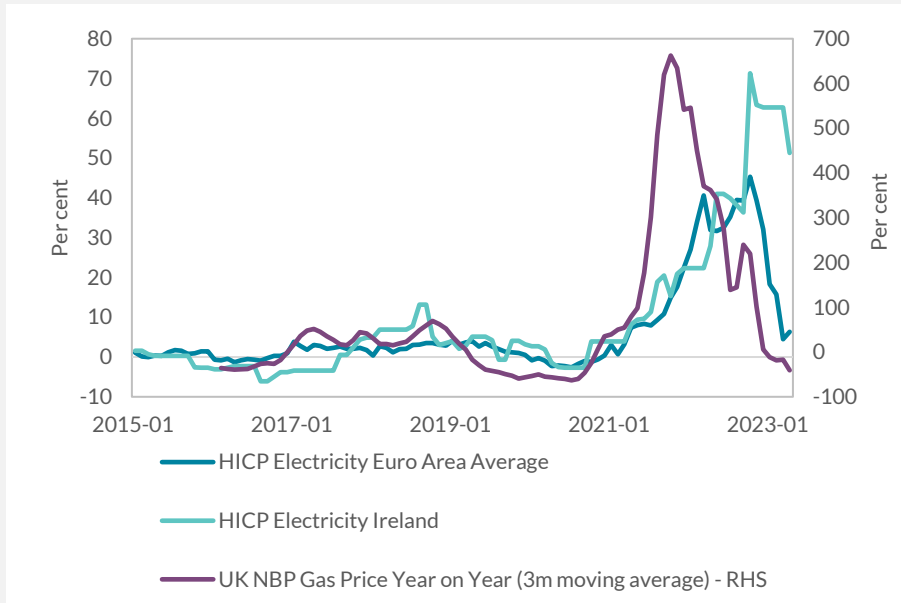


Source: Eurostat, ECB

¹⁵ The slight decline in the consumer price energy index relates to the quicker pass-through of recent oil price declines to petrol, diesel and home heating oil.

Electricity prices have not fallen in Ireland at the same speed as the euro area

Figure 3: HICP Electricity and gas prices.



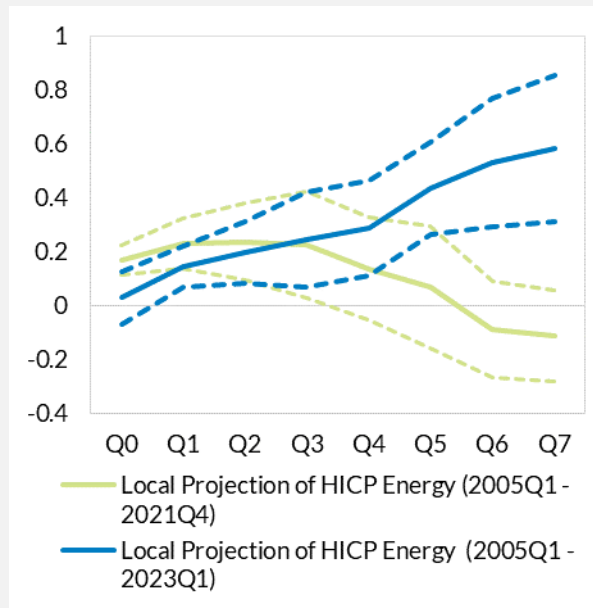
Source: CSO [Quarterly National Accounts](#), CSO [Productivity in Ireland 2021](#) and Central Bank staff estimates.

Note: The ULC contribution is the sum of the contributions of labour compensation and labour Productivity. GVA inflation is then the combination of the ULC and unit profits contribution.

Historically, changes in the wholesale price of energy and food were not as large and not as persistent. Figure 4 & 5 illustrate the effects on consumer prices from a change in producer prices. Before Russia’s invasion of Ukraine, shocks in energy tended to phase out after 3 quarters. Shocks now are more persistent and can have larger impacts up to 7 quarters into the forecast horizon. This signifies that, in particular for energy, the increase in wholesale prices were passed on to consumers more forcefully and over a longer time period than had been the experience before the Russian invasion of Ukraine. Conversely, wholesale price decreases should result in decreases in consumer prices into the forecast horizon.

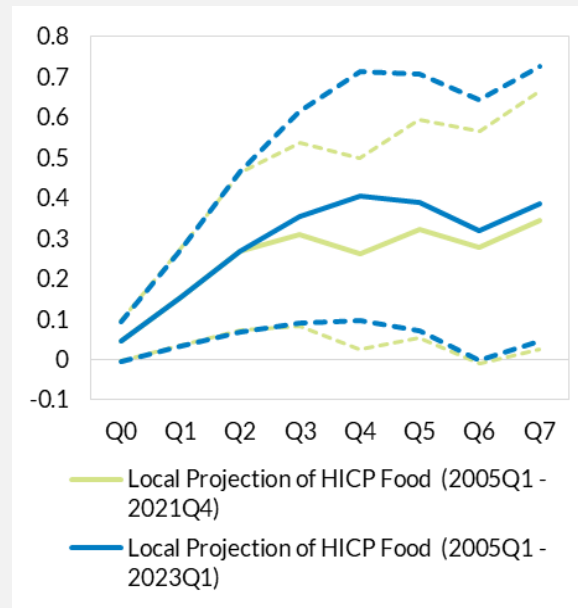
Commodity price shocks are larger and more persistent

Figure 4: Cumulative impulse response ¹⁶ of HICP energy to a 1% change in the wholesale price of energy



Source: Authors' calculations

Figure 5: Cumulative impulse response of HICP food to a 1% change in the wholesale price of food



Source: Authors' calculations

A number of factors complicates the pass-through of input costs to consumer prices in the energy sector. In particular, energy retailers use financial markets to “hedge” the future price of oil and gas. This means that firms may have contracts to purchase oil and gas and other energy products today at prices significantly different than those commodities are currently trading on spot markets. To the extent that these hedging strategies are consistent over time, our model should still capture the relationship between input costs and their eventual pass-through to consumer prices. However, it is possible that some firms altered their hedging strategies in the face of the oil and gas price shocks of in early2022. As a result, the pass-through of energy price falls may be slower than that of energy price increases.¹⁷

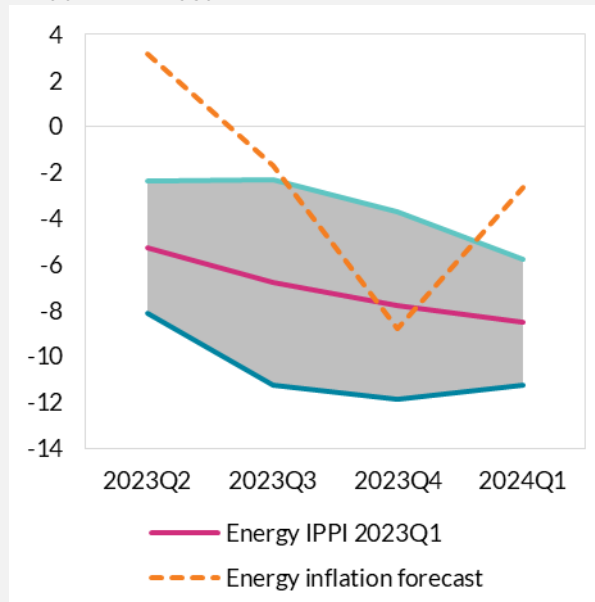
¹⁶ The dotted lines indicate 95% confidence bands. The horizontal axis shows quarters after the impact. The reduced form equation is estimated using the local projections method following Jordà, Ò., “Estimation and Inference of Impulse Responses by Local Projections”, American Economic Review, Vol. 95, No 1, 2005, pp. 161-182. The green lines estimate an impulse response with data running up until Q4 2021, while the blue lines represent an impulse response estimated until Q1 2023. The regression equation includes the logs of the HICP index and the Producer Price Index and up to 7 lags for both energy and food.

¹⁷ In addition, pass-through to consumer energy prices could depend on the number of customers on fixed price contracts. Also, in practice, energy suppliers don't change prices on a monthly basis based on their exposure to future contracts. They generally wait for these pressures to build which results in prices changes greater in magnitude but less frequent. These factors can affect the pass-through of input prices to actual measured consumer prices.

Here, we derive indicators for producer price pressures for both energy and food price indices based on the methodology outlined by [Koester et al \(2021\)](#). Their model uses local projections to assess the cumulative change in energy and food prices from changes in their respective wholesale input price series. The aggregate changes are then used to create a pipeline pressure series.¹⁸ The implied price declines from the decrease in these “pipeline” pressures for energy prices are shown in Figure 6 alongside the expected changes in actual energy prices. Pipeline pressures in energy are to subdue in the next few quarters. The extent to which this is passed on to consumer prices depends on past “hedging” strategies of firms, as well as the multitude of factors outlined above. Overall, the drag being exerted by lower pipeline pressures is underpinning the expected path of consumer energy prices.

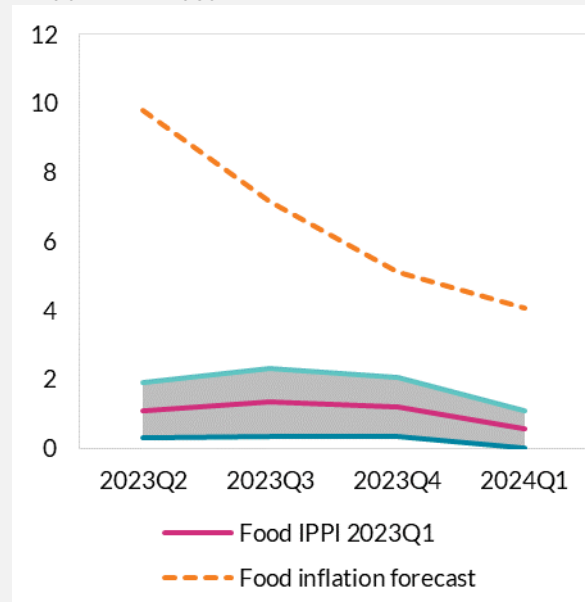
Pipeline pressures for food and energy to ease

Figure 6: Energy Pipeline pressures and inflation forecast



Source: Author’s calculations

Figure 7: Food Pipeline pressures and inflation forecast



Source: Author’s calculations

Food prices increased sharply during 2022, reflecting the large increases in commodity prices for crucial inputs like wheat, grain and the effect of energy price increases on production and transport costs. These “pipeline” pressures have led to increases in consumer prices for food during the first half of 2023 (Figure 1). In recent months

¹⁸ The shaded area indicates the 95% confidence bands. The horizontal axis shows quarters after the impact. The reduced form equation is estimated using the local projections method following Jordà, Ò., “Estimation and Inference of Impulse Responses by Local Projections”, American Economic Review, Vol. 95, No 1, 2005, pp. 161-182. This method allows a time profile to be obtained for the impact of the variable of interest. The regression equation takes results from figures 5 & 6 and the estimation sample runs from 2005Q1 to 2023Q1. A cumulative impulse response is obtained and it, combined with its error bands is in turn used to create a pipeline pressures index for both energy and food prices.

however, the price of these inputs has also flat lined but food inflation remained elevated and above that implied by the decrease in input price growth. In Figure 7, we show that this decrease in food “pipeline” pressures, i.e. the decrease in producer prices for food, imply a deceleration in food price inflation in the second half of 2023 into early 2024.

To conclude, sharp increases in commodity prices for energy and food in 2022 led to an increase in producer prices, which in turn passed through to historically-high increases in consumer prices for food and energy. In recent quarters, decreases in oil and gas prices on wholesale markets have translated into a decline in producer prices, but this has not passed-through fully in the deceleration of consumer prices yet. However, easing pipeline pressures are beginning to have an effect, which is expected to become more prominent.

Box E: Wages, profits and productivity in an inflationary environment

By *Martin O’Brien*¹⁹

The high rate of inflation in Ireland since mid-2021 has been largely driven by external factors, such as the global supply chain disruption arising from the COVID-19 pandemic and the surge in the prices of globally traded commodities following the Russian invasion of Ukraine in February 2022. However, the extent to which high inflation persists following such external shocks is in part determined by their spill-over to the price of domestically provided goods and services. It has been evident for some time that prices have been rising in a much larger share of the consumer basket than just in its food and energy components, with core inflation (which excludes food and energy) being higher than headline inflation in May 2023.

This *Box* focuses on how domestic factors have influenced inflation developments in recent years using National Accounts data for the Gross Value Added (GVA) of the domestically oriented sectors of the economy.²⁰ By considering developments in unit labour costs (ULC) and unit profits in the output prices of these sectors, it is possible to consider their roles in inflationary developments in recent years, and what we might

¹⁹ Irish Economic Analysis Division

²⁰ The “domestic” sectors exclude those whose output is dominated by foreign-owned MNEs. Specifically the “domestic” sectors exclude Reproduction of Recorded Media (NACE 18.2), Chemicals and Chemical Products (NACE 20), Basic Pharmaceutical Products & Preparations (NACE 21), Computer, Electronic & Optical Products (NACE 26), Manufacture of Electrical Equipment (NACE 27), Manufacture of Medical and Dental Instruments and Supplies (NACE 32.5), and Information & Communications (NACE 58-63). Domestic sectors accounted for 44 per cent of total GVA in 2022. GVA is GDP less net product taxes, and can be derived by adding capital compensation (Gross Operating Surplus and Gross Mixed Income) and compensation of employees (wages, salaries and employer social security contributions).

expect to see happening labour costs and profits during the process of disinflation now expected to take place.²¹ The analysis decomposes changes in the GVA deflator of these sectors into the relative contribution of ULC and unit profits accompanying those changes.²²

ULC is the amount of the selling price of a firm's unit of output that is used to compensate the labour input used in producing that good or service. Changes in ULC can be further disaggregated into changes in labour compensation per hour worked and labour productivity per hour worked. Labour compensation includes wages and salaries as well as employer social insurance or pension contributions. If labour compensation rises faster than productivity, then ULC increases, and its contribution to domestic inflation may also increase.

Unit profit is the proportion of the selling price of a unit of a firm's output that is used to compensate the owners of the business for providing capital.²³ It is roughly equivalent to an EBITDA margin (earnings before interest, tax, depreciation and amortisation) in a company's financial accounts. It is important to note that unit profit can change for a number of reasons, which can either add to each other or offset each other. These can include the business maintaining or increasing the cash returns to its owners or an increase in the cost of the firm's debt that is not offset by a reduction in another driver of unit profit. Unit profits may also rise for precautionary purposes to offset future increases in wage or tax costs, or in response to a higher risk premium on a business as a result of past losses, or indeed to fund future investment.²⁴ As with ULC, higher unit profits can be associated with a higher inflation rate in the economy.

Since the onset of the pandemic in 2020, the contribution of ULC to domestic price rises has remained relatively static, declining marginally from 1.3 percentage points in 2020 to an estimated 0.8 percentage points in 2022 (Figure 1). Underlying this, however, have been some differing developments in hourly labour compensation and productivity (Figure 2). In 2020, there was a starker reduction in hours worked than in output, related to the effects of pandemic-related restrictions, which in turn led to higher productivity

²¹ See [Byrne, McLoughlin and O'Brien \(2022\)](#) for a discussion on the GVA deflator of the domestic sectors as a means of evaluating domestic price pressures.

²² GVA at basic prices, which does not include taxes or subsidies on products, is used in this Box as such taxes and subsidies are not sectorised in the National Accounts and cannot be attributed to just the domestic sectors. As a consequence, and unlike similar analyses such as [Arce, Hahn and Koester \(2023\)](#), [European Commission \(2023\)](#) and [Mojon, Nodarou and Siviero \(2023\)](#), the contribution of unit taxes to GVA inflation is not considered here. If one were to add total economy taxes and subsidies on products to the GVA at basic prices of the domestic sectors, the results for the contribution of ULC and unit profit to GVA inflation would change marginally.

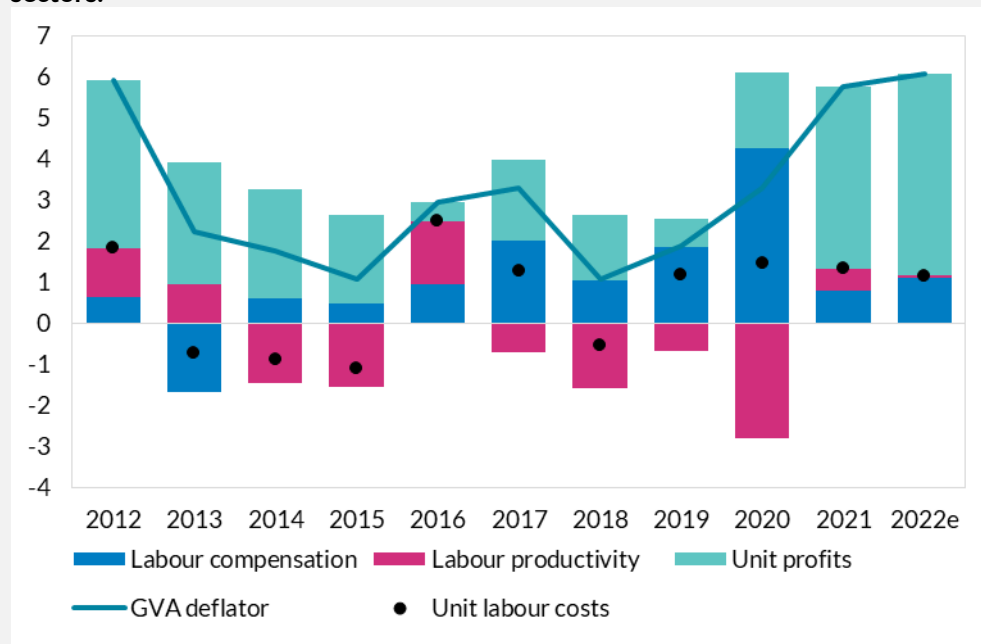
²³ ULC in this Box includes the proportion of Gross Mixed Income that accrues to labour, which reflects the labour earnings of self-employed persons. Unit profit includes the proportion of Gross Mixed Income that accrues to the owners of capital, such as dividend payments.

²⁴ Maintaining profit margins with an increase in non-labour input costs does not necessarily mean businesses need an active re-pricing strategy ([Colonna, Torrini and Viviano, 2022](#)).

growth and compensation growth. At the same time, a greater proportion of the loss in hours worked was in lower-paid employment, which had the effect of pushing up growth in compensation per hour in that year. During 2021 and 2022, productivity growth has been flat or slightly negative, whereas hourly compensation has increased slightly in both years.

Unit profits contributed more to domestic inflation than unit labour costs in recent years

Figure 1: Decomposition of changes in the GVA deflator for domestic sectors.



Source: CSO [Quarterly National Accounts](#), CSO [Productivity in Ireland 2021](#) and Central Bank staff estimates.

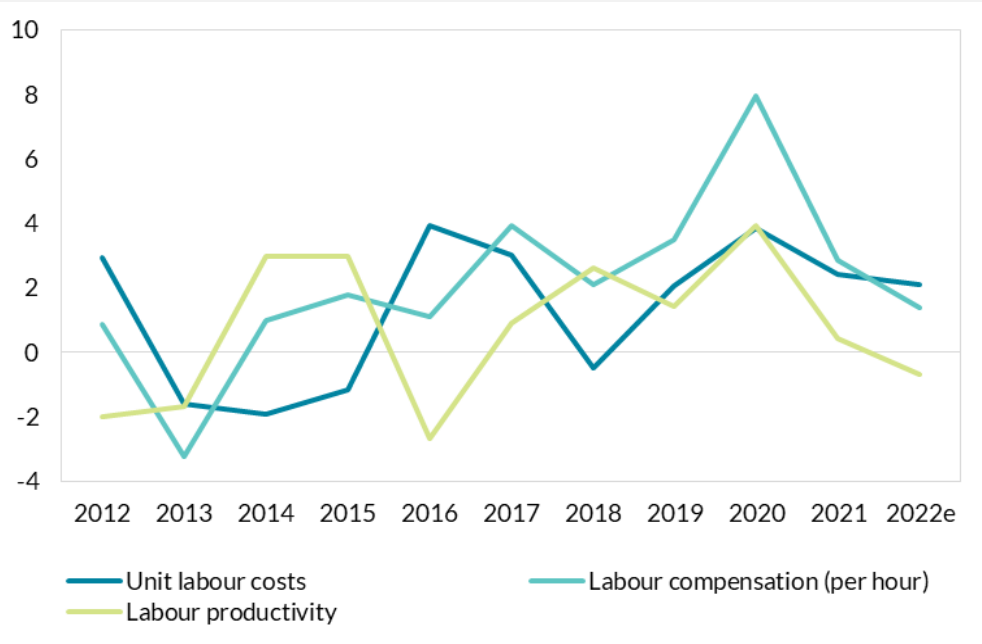
Note: The ULC contribution is the sum of the contributions of labour compensation and labour Productivity. GVA inflation is then the combination of the ULC and unit profits contribution.

However, unit profit has contributed more to GVA inflation than ULC in both 2021 and 2022, at circa 5 percentage points each year (Figure 1). Unit profits increased by about 10.5 per cent in 2021, and by just below 9 per cent in 2022.²⁵ Combined with strong growth in the domestic economy, overall capital compensation has risen in the domestic sectors by in excess of 15 per cent in both years, following a fall of 3.5 per cent in 2020 (Figure 3).

²⁵ For example, if profit per unit of output was 20 per cent in a given year, a 10 per cent increase would imply a profit per unit of output of 22 per cent in the following year.

Increase in unit labour costs since 2020 as rise in hourly compensation is higher than productivity growth

Figure 2: Annual rate of change in unit labour costs, labour compensation per hour worked and labour productivity in domestic sectors.

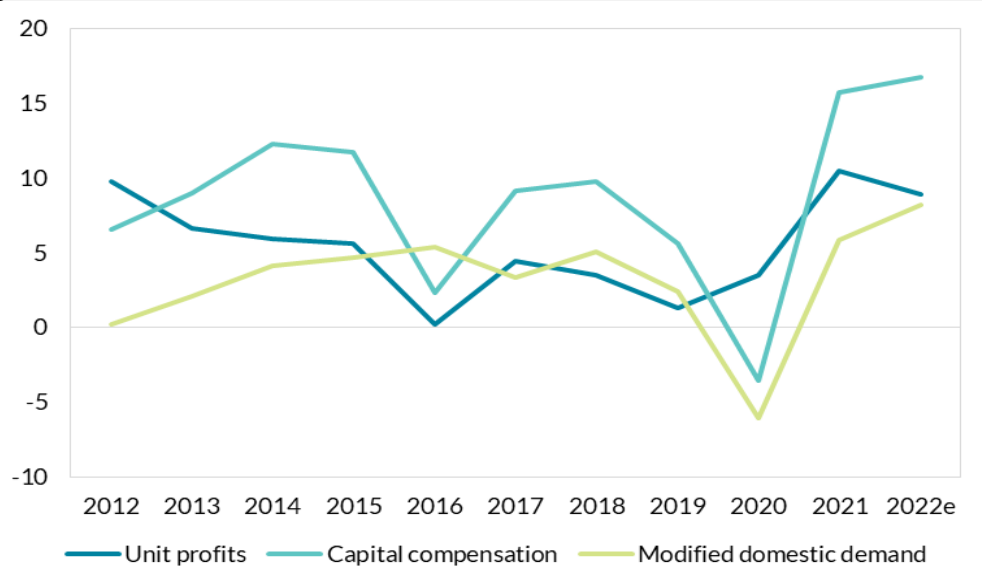


Source: CSO [Quarterly National Accounts](#), CSO [Productivity in Ireland 2021](#) and Central Bank staff estimates.

Note: The percentage change in ULC is roughly equal to the percentage change in labour compensation minus the percentage change in labour productivity.

Increase in unit profits and domestic demand driving overall growth in profits in 2021 and 2022

Figure 3: Unit profits and Capital compensation growth, domestic dominated sector: growth in MDD



Source: CSO [Quarterly National Accounts](#), CSO [Productivity in Ireland 2021](#) and Central Bank staff estimates.

The extent of overall profit growth since the start of the pandemic has been evident in corporates across various sectors (Figure 4). In aggregate, Irish-owned corporates are estimated to have experienced similar growth in profits since 2020 to foreign-owned corporates. Irish-owned corporates in most of the sectors for which the CSO publishes data have seen annual average increases in profits in excess of 20 per cent in the years since 2019. Administrative services, agriculture, industry and construction are estimated to have seen lower annual average growth in corporate profits over the period. In addition to the evidence for corporates more widely, survey evidence specifically for SME’s points to the capacity of most SME’s in recent years to maintain or increase their gross profit margins ([Adhikari and McGeever, 2023](#)).

Profit growth has been strong across corporates in many different sectors

Figure 4: Growth in gross corporate profits for Irish and Foreign-owned enterprises and total net corporate profit, annual average 2020-2022



Source: CSO [Frontier Series - Corporate Profits](#).
 Note: Net profit is gross profit less the consumption of fixed capital (depreciation).

A period of disinflation is expected in the Irish economy in the coming years, with price increases easing substantially. Accompanying this disinflation will be some combination of changes in wage rates, productivity and unit profits in the domestically dominated sectors of the economy. For domestically determined inflation to ease as envisaged in this *Bulletin* alongside the expected growth in hourly labour compensation (an average of 5.7% per annum), unit profits would have to remain static at their 2022 levels if productivity growth continued to stagnate over the next three years. However, if unit profits were to rise by their long-term average rate of 4.2 per cent per annum over the

period, productivity growth would have to average 2.4 per cent per year for underlying inflation to come down and wage rates to increase as forecast in this *Bulletin*.²⁶

The strength of demand conditions in the economy alongside higher inflation has presented a favourable environment for rising profits in 2021 and 2022. The surge in demand as various pandemic restrictions were eased, and the shifts in demand from services to goods and back again, provided scope for unit profits to rise in a period of constrained supply across many sectors. The unit profit contribution to GVA inflation averaged 1.7 percentage points per annum from 2001 to 2020, much lower than the circa 5 percentage points in both 2021 and 2022. These increased overall profits and profit per unit of output may provide some buffer for future further increases in wages, such as those envisaged in this *Bulletin*, without the need to increase output prices. Similarly, additional productivity growth to match or exceed growth in hourly labour compensation would continue to limit the contribution of ULC to domestic price pressures.

Labour Market

Labour market conditions remain strong growth with the number of people in employment above 2.6 million for the first time. Employment levels increased by 4.1 per cent (102,700 persons) over the year to Q1 2023, with employment growth for the year as a whole forecast to average 2.5 per cent, as the pace of growth is expected to slow in the second half of the year with the economy at full employment. An average growth rate of 1.5 per cent is projected over 2024 and 2025 with the economy becoming increasingly reliant on net inward migration for further employment growth. Measures of available domestic labour supply are expected to continue to fall.

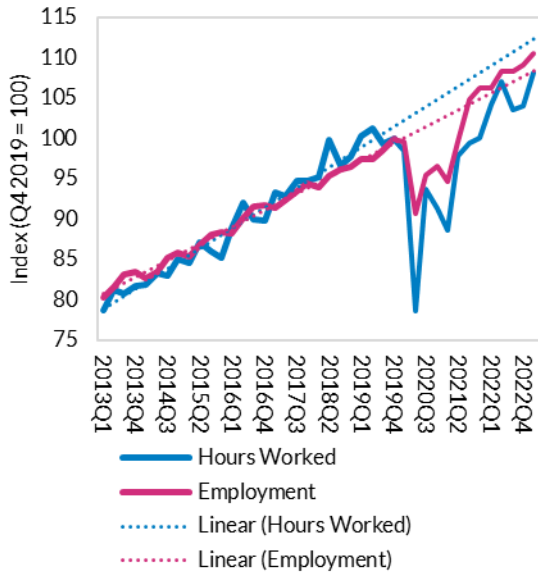
While employment has expanded by 10.7 per cent above its pre-pandemic level, growth in total actual hours worked has not yet resumed its long-term trend. Annual growth of 3.8 per cent in total actual hours worked over the year to Q1 2023 has resulted in average hours per worker being 2.2 per cent below pre-pandemic levels (Figure 55). The most notable declines in average hours worked are in the Admin, Accommodation and Retail sectors due to the greater relative contribution of part-time employment to growth in these sectors. The highest annual employment increases were recorded in the Admin (10.5 per cent) and Retail (9.7 per cent) with decreases in four economic sectors, the

²⁶ Productivity growth in the domestic sectors averaged 1.6 per cent per annum from 2001 to 2022.

largest of which is Agriculture (-4.3 per cent) (Figure 56). Employment in the ICT sector increased by 3.1 per cent despite job loss announcements across a number of firms in recent months, reflecting continued strong labour demand in parts of the sector.

Hours worked growth remains below trend

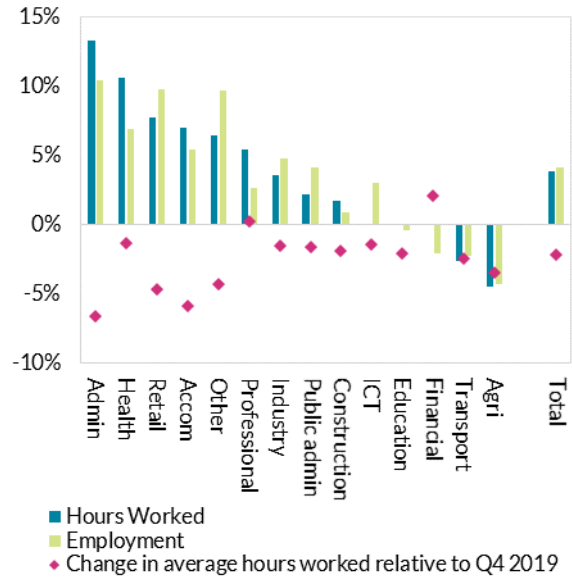
Figure 55: Indexation of Employment and Total Actual Hours Worked



Source: CSO

Consumer-facing sectors among highest employment growth rates

Figure 56: Annual growth in hours worked and employment by sector (Q1 2023)



Source: CSO

The labour force increased by 3.3 per cent in Q1 2023, facilitated largely by high levels of net inward migration. Almost 80 per cent of the 86,600 increase in the labour force was due to non-Irish workers, predominantly from countries outside the EU (Figure 57). Almost all of this group has entered into employment, mainly in the Retail and Health sectors. This is consistent with the initial summary results from Census 2022 which show that growth in net migration was a greater contributor to population growth than the natural increase in the period 2016 to 2022.²⁷ The labour force participation rate (LFPR) in Q1 2023 measured 64.9 per cent, marginally higher than the previous year. Figure 58 shows counterfactual LFPR estimates compared to the observed LFPR.²⁸ This analysis shows that the actual Q1 2023 overall participation rate would have been 0.4 percentage points lower if not for increased activity rates amongst workers over 60 years. The increases in

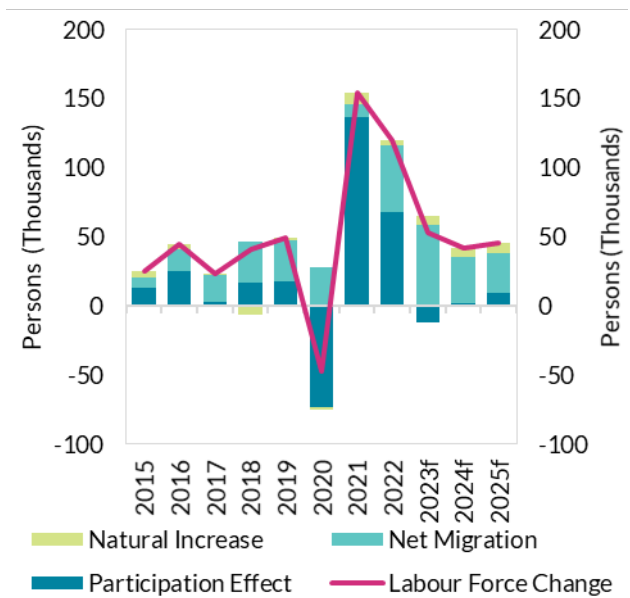
²⁷ See [Census 2022 Summary Results](#)

²⁸ The counterfactual rates are created by holding participation rates constant at their Q1 2022 levels for each age cohort and then applying these unchanged participation rates to the observed working age population for each age cohort up to Q1 2023.

participation rates for these older age cohorts have helped to offset declines recorded elsewhere. The number of employment permits issued on a monthly basis remains twice pre-pandemic levels suggesting that inward migration will continue as labour demand amongst firms remains elevated. Infrastructural limitations in relation to housing and transport may pose ongoing difficulties over the medium-term horizon. The labour force is projected to increase by 2.1 per cent this year and 1.6 per cent in 2024.

Labour force growth would have been relatively flat in the absence of recent net inward migration levels

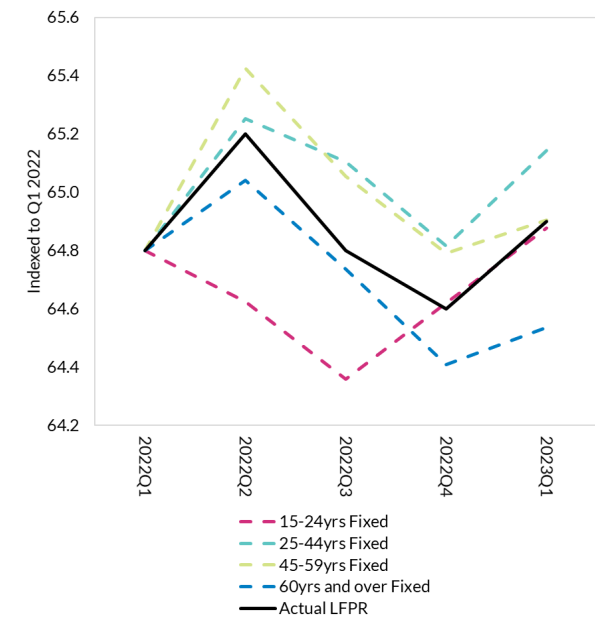
Figure 57: Components of labour force growth



Source: CSO

Increased activity in older age groups offsets declines in younger groups

Figure 58: Actual LFPR and counterfactual LFPR by age category



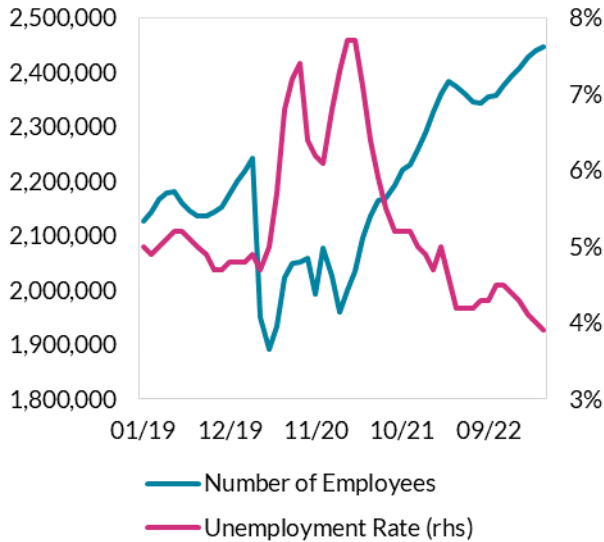
Source: CSO

The latest quarterly unemployment rate has declined to its lowest level in over 20 years, contributing to downward revisions to unemployment projections over the forecast horizon. The ILO unemployment rate in Q1 2023 was 4.1 per cent, while the seasonally-adjusted monthly rate for May of 3.8 per cent was the lowest on record (Figure 59). Unemployment at 110,000 is back to Q4 2019 levels reflecting the success of pandemic support-schemes in preventing scarring effects for workers. The effects of monetary policy tightening are yet to be seen in the labour market with continued employment growth and elevated labour demand evident. PMI indices point to continued growth in employment levels across the major economic sectors, with a noticeable increase in services arising in recent months (Figure 60). If firms continue to face increased costs, a possible outcome for firms in less profitable sectors may be reductions in hours worked rather than headcount given

recruitment difficulties and costs. This prospect, coupled with a slowdown in job vacancies, contributes to an unemployment rate projection of 4 per cent for this year, rising slightly to 4.1 per cent next year as economic growth eases.

Monthly unemployment rate reaches new record low

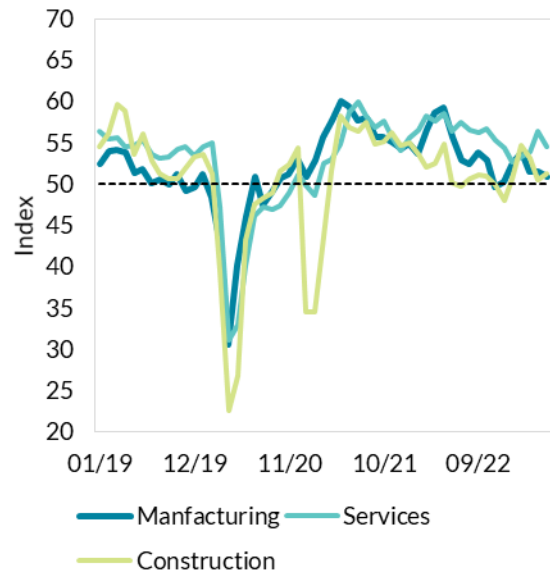
Figure 59: Monthly estimate of employees and monthly unemployment rate



Source: CSO

Services sector shows strong signs of employment expansion in recent months

Figure 60: PMI Employment Indices by sector



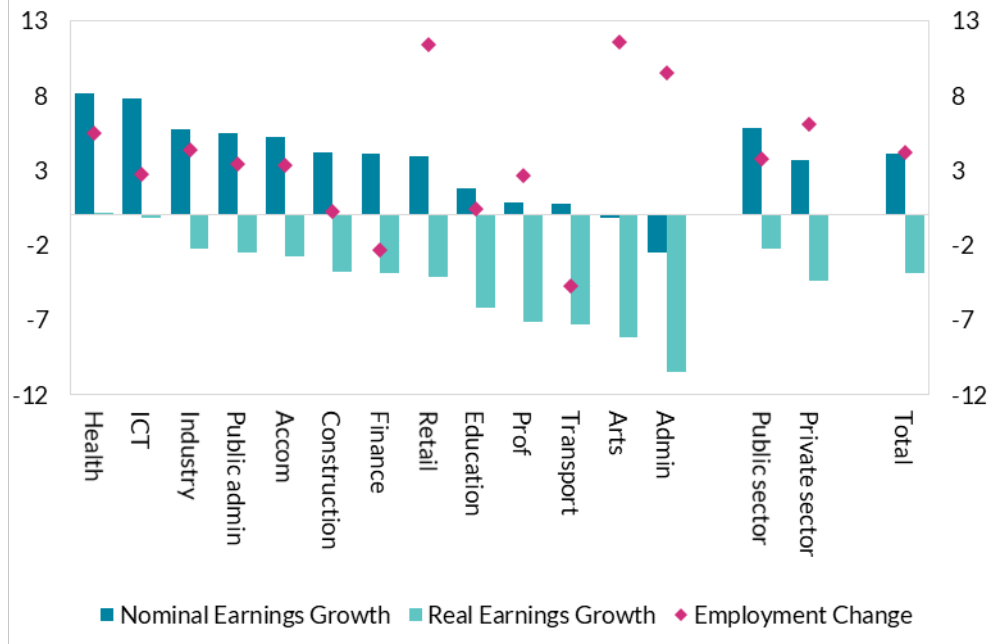
Source: AIB and BNP Paribas
 Note: Above 50 signifies employment expansion, below 50 signifies contraction.
 Latest observation: May 2023

Earnings and Income

Average hourly earnings increased by 4.2 per cent annually in Q1 2023, down from 6 per cent in the previous quarter based on CSO EHECS data. The latest rise incorporates phased increases as part of the public sector pay agreement and a €0.80c increase in the hourly minimum wage, which have played a role in observed growth in sectors such as Health (8.2 per cent) and Accommodation (5.2 per cent) on the first quarter of the year (Figure 61). Public sector earnings have increased by 5.8 per cent annually compared to 3.7 per cent in the private sector. While there has been a sustained reduction in unemployment levels to record lows, real growth in average hourly earnings for the total economy has been negative for the sixth consecutive quarter. As inflation subsides, positive real earnings growth at the aggregate level is expected in the second half of this year.

Positive real earnings growth observed only in Health sector

Figure 61: Annual growth in nominal and real hourly earnings and employment by sector (Q1 2023)



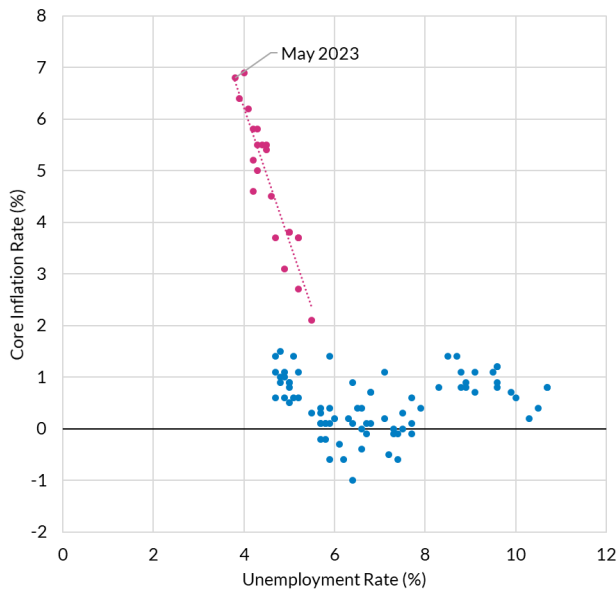
Source: CSO; EHECS

The increase in the steepness of the Phillips curve suggests there is likely to be a pickup in wage growth over the forecast horizon (Figure 62). Posted wage growth for new jobs from Indeed data has been relatively steady for Ireland in recent months following an uptick in 2022.²⁹ Latest data for May point to a 4.9 per cent increase on the previous year. While growth has stabilised, there remains scope for posted wages to increase further to track core inflation developments as vacancy levels continue to be elevated relative to historical values (Figure 63).

²⁹ Indeed “Global Wage Growth: Up in the UK, Steady in the Euro Area, Slowing in the US”

As unemployment declines the sensitivity of core inflation to a tight labour market increases

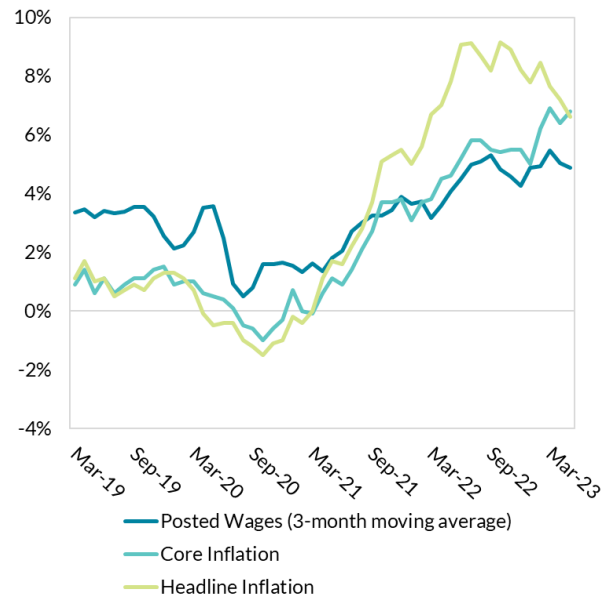
Figure 62: Phillips Curve - Core Inflation and Unemployment relationship



Source: CSO and Central Bank of Ireland staff calculations.
 Note: Data refer to Core CPI inflation. Blue dots denote period Jan-2015 to Jul-2021. Pink dots denote period Aug-2021 to May-2023

Recent increase in posted wages as core inflation continues to rise

Figure 63: Indeed Posted Wages and Inflation Trends

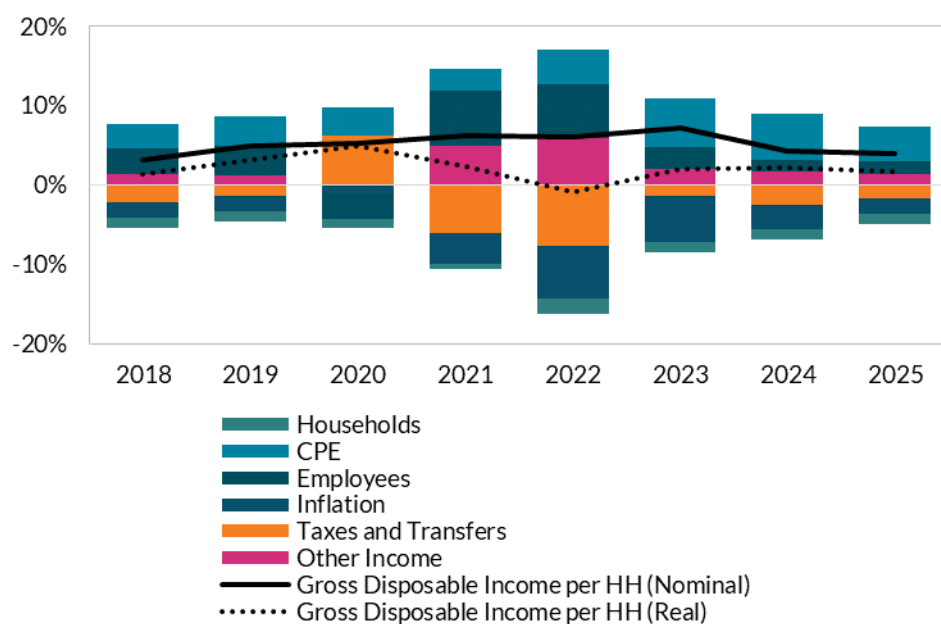


Source: CSO and Indeed
 Note: Data refer to CPI inflation. Last observation: May 2023

Nominal wage growth of 6.2 per cent and 5.9 per cent is expected this year and next on a compensation per employee basis (See Figure 64). Given the inflation outlook, this would result in real wage growth of 0.7 per cent in 2023 and 2.4 per cent in 2024. Real wages are expected to surpass 2021 levels by the end of 2024. Results from the Central Bank Expectations Survey (CBIES) suggest that, on average, workers have a more pessimistic outlook than the central forecast, as they expect earnings developments to lag inflation over the next 12 months, while over a three-year period, the majority expect earnings will grow to support their standard of living (See Box F)

Household Gross Disposable Income to increase in real terms

Figure 64: Decomposition of Gross Disposable Income



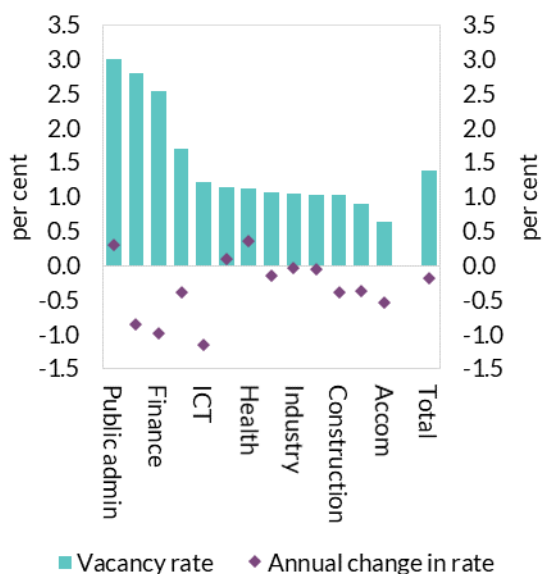
Source: CSO; National Accounts

There has been little change in the job vacancy rate since end-2022 as the rise in labour demand appears to have eased relative to its post-pandemic peak. The quarterly rate increased marginally to 1.4 per cent in Q1 2023, which is down on the peak value of 1.6 per cent recorded in Q1 2022. The vacancy rate declined across the majority of sectors with the most marked decrease occurring in the ICT sector, which remains below the economy average at 1.2 per cent (Figure 65). The vacancy-unemployment ratio remains close to historic lows with approximately 3.7 persons available for every vacant job (Figure 66). The latest data from Indeed show that job posting levels for April continue to remain at 56 per cent above pre-pandemic levels, which is relatively unchanged from February 2022.³⁰ An occupational breakdown shows a decline in postings related to the ICT sector such as software development and IT operations. Overall, a gradual slowdown in job vacancies and employment growth, moderate improvements in productivity alongside a lower inflation rate, are expected to curb the potential for wage-price pressures with unemployment remaining low.

³⁰ Indeed [“Irish Job Postings Remain Elevated, Especially Outside Dublin”](#)

Falls in the job vacancy rate across many sectors

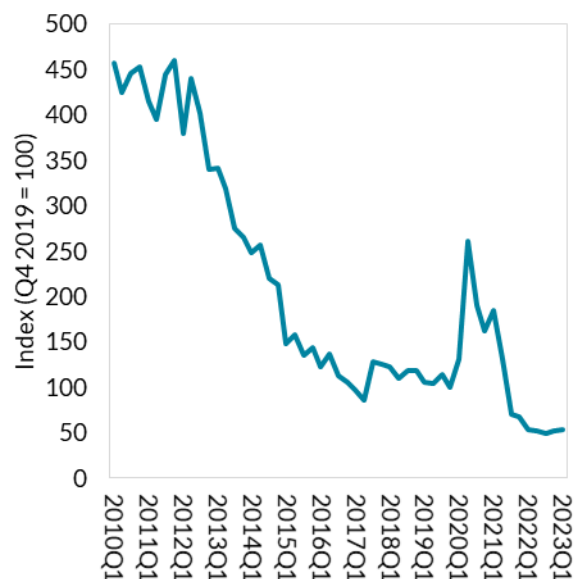
Figure 65: Vacancy rate by sector (Q1 2023)



Source: CSO; EHECS

Labour market remains tight despite moderation in job vacancies

Figure 66: Labour slack to job vacancy ratio



Source: CSO; EHECS

Table 3: Labour Market Projections

	2021	2022	2023f	2024f	2025f
Employment (000s)	2389	2547	2612	2650	2692
% change	6.1%	6.6%	2.5%	1.5%	1.6%
Labour Force (000s)	2547	2667	2722	2764	2810
% change	6.5%	4.7%	2.1%	1.6%	1.7%
Participation Rate (% of Working Age Population)	63.3%	64.8%	64.6%	64.6%	64.9%
Unemployment (000s)	158	119	110	114	118
Unemployment Rate (% of Labour Force)	6.3%	4.5%	4.0%	4.1%	4.2%

Box F: Inflation and earnings expectations: Survey evidence from Ireland

By *Enda Keenan*³¹ and *Zivile Zekaite*³²

The headline rate of inflation in Ireland moderated to 6.3 per cent for April 2023, while core or underlying inflation that is exclusive of volatile energy and food components stood at 4.3 per cent. It is important to monitor the dynamics of underlying inflation as it provides signals about the persistence of inflation over the medium term. Inflation expectations play an important role in potential feedback loops between rising wages, prices and firm profits that may lead to the persistence of higher inflation over the medium-term.³³ This *Box* summarises the inflation and earnings expectations of Irish consumers using data from the Central Bank of Ireland Expectations Survey (CBIES), collected over two waves in February and May 2023.³⁴ This survey is also an update to [survey analysis](#) conducted in 2022.

The CBIES gauges expectations of labour market conditions, earnings, inflation, and respondents' financial situation for a representative sample of the population. The total number of survey respondents was 1,629 in February and 1,508 in May. Figure 1 shows the distribution of responses when asked the expected rate of inflation over the next 12 months. The average response in May was 6.1 per cent, down slightly from 7.2 per cent in February. In general, research in other countries has found that although households' quantitative inflation expectations (and perceptions) are shown to be biased upwards, over time the expectations co-move closely with actual inflation ([Chen, Gornicka, and Zdarek, 2022](#); [Weber et al, 2022](#)).³⁵ This bias tends to vary in magnitude. For example, based on [ECB CES data](#), households' expected inflation exceeded actual inflation until late 2021 and since then has been mostly below it. Comparing expectations with actual outcome one year later, households over predicted inflation as it was accelerating but more recently have under predicted it slightly. Higher anticipated average rates of inflation were recorded amongst females, persons aged 25-34 years and respondents earnings less than €30,000 per year. [CSO analysis](#) of estimated inflation by household characteristic find higher rates for those at the lower end of the income distribution. The moderating expectations profile is also in line with central forecast projections for this year, albeit at a higher level.

³¹ Irish Economic Analysis Division.

³² Monetary Policy Division

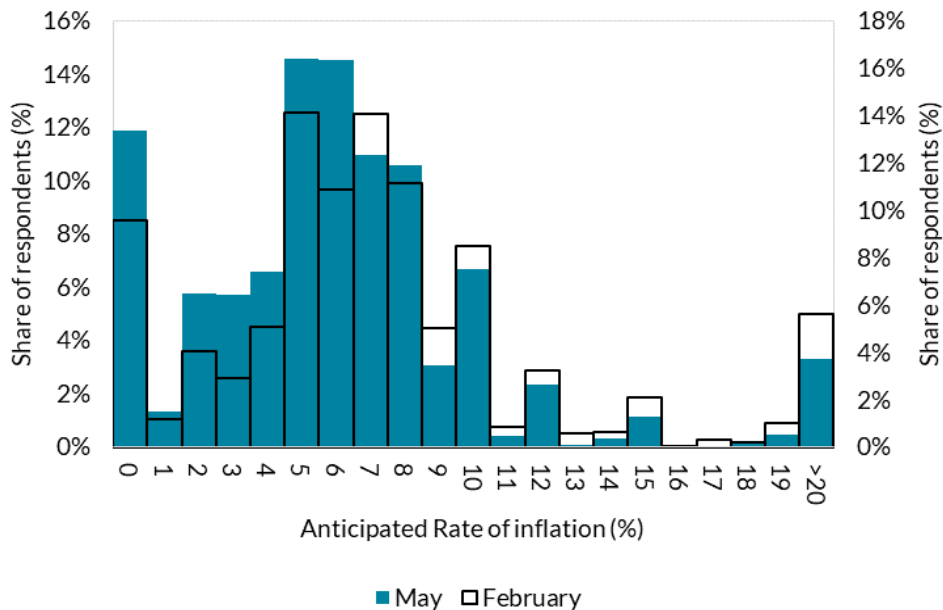
³³ Lane (2022) "[Inflation Diagnostics](#)" ECB Blog Post 25 November 2022

³⁴ The survey is undertaken on behalf of the Central Bank by Ireland Thinks.

³⁵ For potential factors behind this bias, see Meyler and Reiche (2021) "[Making sense of consumer's inflation perceptions and expectations – the role of \(un\)certainly](#)" Economic Bulletin Issue 2, 2021 and references therein.

Inflation expectations in May have eased relative to February

Figure 1: Inflation expectations (1-year ahead)



Source: CBIEES

Note: To limit the effects of outliers, data are winsorized at the 2nd and 98th percentile.

Weights are used to ensure the representativeness of the sample.

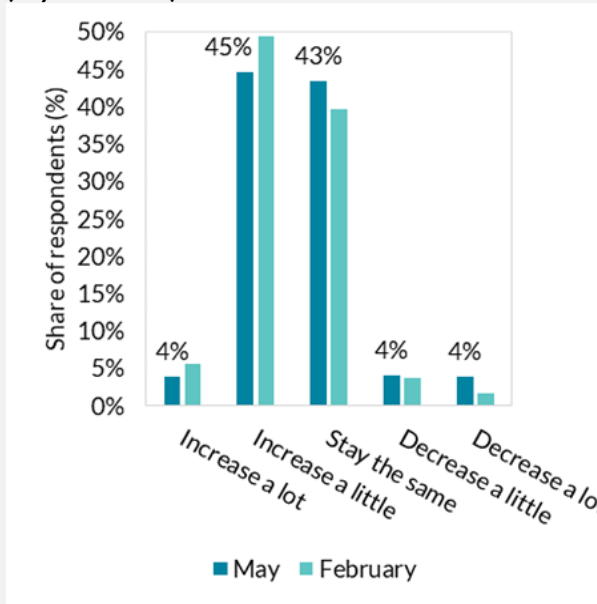
To gain some insight into expected household purchasing power, it is important to assess inflation expectations in relation to expected earnings developments. When asked about future earnings expectations over the next year, 45 per cent stated they expected earnings to ‘increase a little’, with a further 43 per cent anticipating ‘no change’ (Figure 2).³⁶ To assess the change in qualitative answers, we find that the net percentage between positive and negative earnings expectations has decreased between the February and May surveys from +50 to +40. On a quantitative basis, the average expected rate of nominal earnings change has also moderated from 2.2 per cent to 1.6 per cent. As in the case of inflation expectations, quantitative earnings expectations are likely to be biased but it is not very clear in which direction.³⁷

³⁶ Note that only working respondents received questions about earnings.

³⁷ The existing literature on earnings expectations bias is limited. [Jain, Kostyshyna and Zhang \(2022\)](#) analyse Canadian households earnings expectations and show that at least before the pandemic, they were broadly in line with actual data even if more stable. The Federal Reserve Bank of New York collects data [on consumer earnings expectations](#) since 2013 with the median expected growth rate broadly in line with actual earnings growth prior to the pandemic (see FRED data [here](#)).

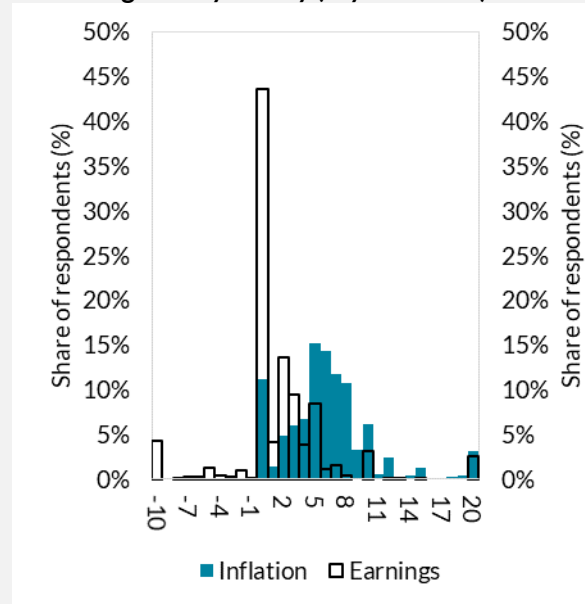
Expected real earnings are anticipated to lag inflation

Figure 2: Expected change in earnings (1-year ahead)



Source: CBIEES
 Note: Weights are used to ensure the representativeness of the sample.

Figure 3: Real expected quantitative change in earnings – May survey (1-year ahead)



Source: CBIEES
 Note: To limit the effects of outliers, data are winsorized and 98th percentile. Weights are used to ensure the representativeness of the sample.

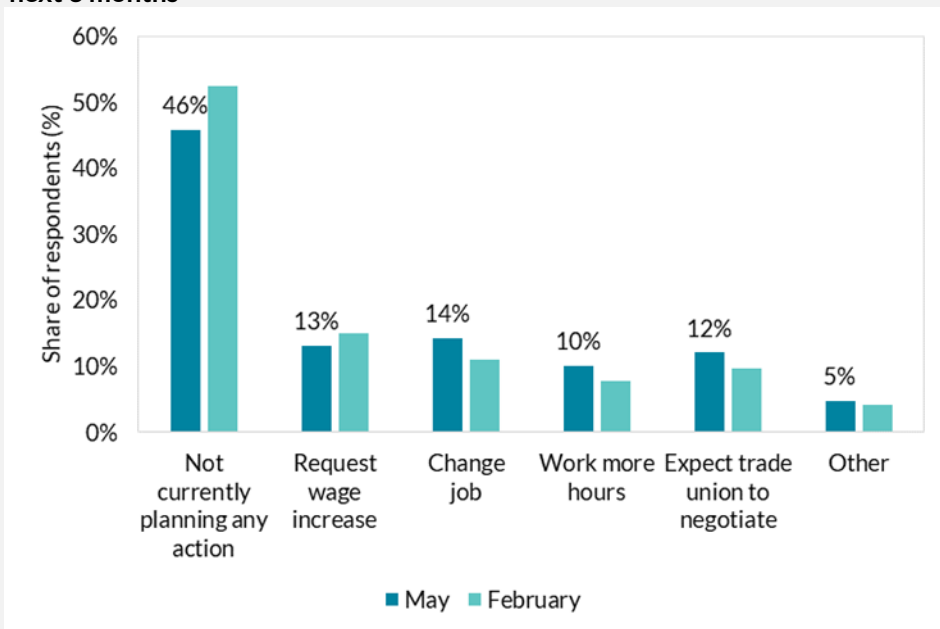
We combine these forward-looking inflation and earnings expectations to generate expected real-earnings growth for respondents who answered both questions. Figure 3 shows that inflation expectations appear greater than those for nominal earnings growth, suggesting respondents expect a real earnings decline over the next 12 months. The average expected change in real earnings across all respondents was a 4.6 per cent decrease, which marks a slight improvement on the 4.9 per cent decline recorded in February. Conditional on respondents anticipating only positive wage growth, this figure moderates to a 1.2 per cent real decline in expected earnings in May, up from a 2.3 per cent expected decline in February. We see greater declines in real earnings expectations amongst lower earners, people living in more rural counties and those with lower levels of educational attainment. The smallest negative real earnings expectations were recorded for males and persons earning in excess of €80,000 per year. Respondents in higher income brackets are more likely to be in high-skill jobs, which may have better pay prospects, leading to higher expectations.

As wages are fixed in the short-term, with changes typically occurring once per year or over an extended period of time, we ask respondents whether they expect earnings in three years' time to be sufficient enough to afford their current living standards. The most common response was "just about sufficient" at 38 per cent with a further 21 per cent stating they expect future earnings to be "more than sufficient" suggesting that the

majority of Irish people expect earnings to catch up with the increased cost of living over the medium-term. Finally, respondents are asked whether they plan to take any actions to seek increased wages in the coming months in response to elevated inflation levels. 46 per cent stated that they are “not currently planning any action” which marks a slight reduction from February (Figure 4). A combined 27 per cent responded that they would seek higher wages either through a request from their employer or change jobs, a relatively unchanged figure from February, with another 12 per cent expecting trade union to negotiate on their behalf.

Over a quarter of workers expect to take active steps to increase earnings

Figure 4: Expected actions to be taken to seek higher wages over the next 3 months



Source: CBIEES
 Note: Weights are used to ensure the representativeness of the sample.

While survey data should be interpreted with caution, it provides valuable complementary information to policymakers. Timely data on people’s inflation and earnings expectations is especially relevant in the current high-inflation environment. These survey results will need to be monitored alongside official statistics on earnings which show considerable heterogeneity in real earnings trends amongst various economic sectors and demographic cohorts. Overall, survey evidence shows that inflation expectations among Irish people have declined recently but remain very high. As there can be upward bias in consumer expectations relative to the outturn, the direction of change is important to note with workers expecting real earnings to catch up with inflation over the medium-term. Central forecasts point to a 0.7 per cent increase in real compensation per employee this year rising then by 2.4 per cent in 2024. As earnings

expectations are low, many workers plan to take some action to compensate for changes in cost of living. If underlying inflationary pressures do not subside, it is possible that wage demands may strengthen further, increasing risks of a feedback loop between wage and prices.

Fiscal Outlook

Overview

The headline general government balance (GGB) returned to surplus last year and is expected to continue to strengthen over the medium term, although if excess corporation tax receipts were excluded then the GGB would have remained in deficit.³⁸ The GGB is estimated to have improved from - 2.9 per cent of GNI* in 2021 to 3.0 per cent last year (or from -€6.8bn to €8.0bn in nominal terms), the largest surplus the economy has recorded since 2006. As was the case in the mid-2000s, the improvement has been driven by exceptionally strong growth in tax revenue. Tax receipts increased by 22 per cent on an annual basis last year and, while income taxes and VAT recorded notable growth, half of the total increase was driven by developments in corporation taxes (CT). CT has doubled in just two years and is now responsible for one-quarter of all tax receipts. With economic growth and employment forecast to moderate this year, and the unwinding of non-core spending set to slow, the GGB is expected to improve to 3.3 per cent of GNI* (€9.8bn). A more significant improvement is anticipated over the medium term as the remaining non-core spending related to pandemic and cost-of-living supports is withdrawn, resulting in large headline surpluses of 4.9 per cent of GNI* in 2024 and 2025 (€15.4bn and €16.2bn respectively). This outlook is broadly unchanged from the last *Quarterly Bulletin*.³⁹

The general government debt (GGD) ratio recorded a very large decline last year but remains at an elevated level. The debt ratio is estimated to have decreased by 18 percentage points to 83 per cent of GNI* in 2022, with two-thirds of this decline driven by a very favourable interest-growth differential.

³⁸ See Signed Article “Managing the Public Finances in a Full-Employment Economy” for more detail on the challenges facing the public finances in the current environment.

³⁹ Reflecting a change in the statistical treatment of the Government’s two building defect schemes, the GGB outturn last year and outlook for this year is now more positive. Given their temporary nature these changes have no medium term effect, however, and subsequent GGB projections are broadly unchanged.

Further improvements are projected over the medium term, but the ratio is expected to remain well above its pre financial crisis level in 2025 (68 per cent of GNI* compared to 29 per cent in 2007). Despite the increase in sovereign borrowing rates over the past year, debt dynamics are expected to remain favourable reflecting robust nominal growth, a low effective interest rate on the debt stock and the emergence 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 some flexibility going forward.

The ‘underlying’ GGB presents a less favourable outlook and a number of challenges and risks to the public finances persist. The continued strength of CT revenue growth, and the very high proportion of these receipts paid by just 10 large companies, highlights the fiscal positions continued reliance on an extremely narrow tax base.⁴⁰ Excluding estimates of excess CT - which may be vulnerable to a sudden reversal - reveals a much less favourable outlook for the ‘underlying’ GGB.⁴¹ It would remain in deficit this year with projected surpluses in 2024 and 2025 being much lower than the headline budget surplus. 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. Other risks to the public finances also exist. In terms of spending, there remains uncertainties over the cost of non-core spending measures from 2024 onwards. More generally, the current high inflationary environment raises risks to core government spending - as delivering a set level of real expenditure to either maintain existing public services or planned public capital projects will require a higher nominal outlay.

⁴⁰ There is further concentration within the top 10 firms. [Cronin \(2023\)](#) estimates that just three corporate groups account for a third of corporation tax receipts in Ireland.

⁴¹ See Signed Article “Managing the Public Finances in a Full-Employment Economy” for more detail on how ‘excess CT’ is estimated.

Table 4: Fiscal Outlook

	2021	2022e	2023f	2024f	2025f
GG Balance (€bn)	-6.8	8.0	9.8	15.4	16.2
GG Balance (% GNI*)	-2.9	3.0	3.3	4.9	4.9
GG Balance (% GDP)	-1.6	1.6	1.8	2.6	2.6
GG Debt (€bn)	236.1	224.8	223.9	225.7	223.3
GG Debt (% GNI*)	101.0	83.1	76.5	72.4	67.8
GG Debt (% GDP)	55.4	44.7	41.0	38.6	35.8
Excessive CT (€bn)	5.8	11.2	11.9	12.2	12.1
Adjusted GGB (€bn)	-12.6	-3.2	-2.1	3.2	4.1
Adjusted GGB (% GNI*)	-5.4	-1.2	-0.7	1.0	1.3

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

Fiscal Outlook, 2023 to 2025

Compared to previous years the GGB is expected to record a more modest improvement in 2023. The general government surplus is projected to increase to 3.3 per cent of GNI* (€9.8bn in nominal terms), with the more gradual improvement reflecting a moderation in revenue growth from recent exceptional rates, and an acceleration in core spending. Despite slower growth in domestic activity and employment, consistent with the economy facing more binding capacity constraints, revenue is still projected to increase by a robust 7.8 per cent, well above the average increase experienced in the five years prior to the pandemic. Tax receipts recorded broad-based annual growth of 10.2 per cent in the first five months of the year, although this pace of increase is projected to decline in the coming months. Income tax and VAT performed strongly, while following rapid growth in recent years CT flows were 20.7 per cent higher on an annual basis. Government expenditure is projected to increase by 6.8 per cent, reflecting a slower (relative to 2022) unwinding of non-core measures coupled with continued strong growth in core spending. Following a sharp decline in pandemic-related spending in 2022, non-core spending remains elevated this year, partly reflecting cost of living supports and the provision of humanitarian assistance for people displaced by the Russian war in Ukraine (see Table 5). It is also assumed that the €1.2bn of unallocated spending outlined in the Government's projections is fully utilised. As noted in the Stability Programme Update, the majority of this relates to reserve funding for non-core measures. Core spending remains strong, underpinned by the 6.2 per cent increase in permanent current spending

outlined in Budget 2023 and the impact of National Development Plan on capital spending. Exchequer data revealed gross voted expenditure was 6.3 per cent higher in the year to May, with strong increases on both the current and capital side.

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

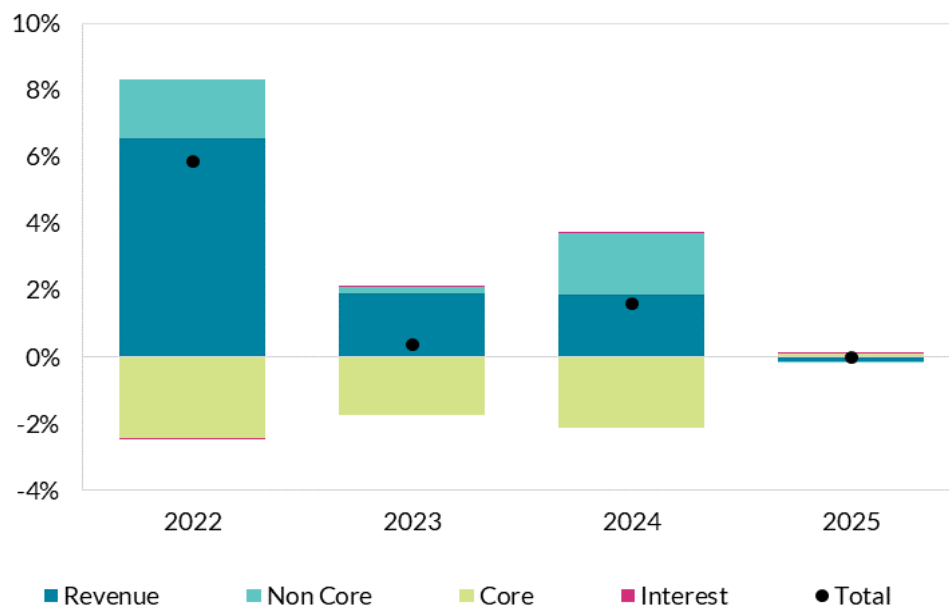
	2020	2021	2022e	2023f	2024f	2025f
Covid-19	7.4	5.3	1.4	0.5	0.2	0.1
Cost of Living Measures	-	-	1.1	0.8	-	-
Humanitarian Support	-	-	0.4	0.7	-	-
Unallocated	-	-	-	0.2	-	-
Other	-	-	0.1	0.2	0.1	-
Total	7.4	5.3	3.0	2.5	0.2	0.1

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

A more significant improvement in the GGB is anticipated in 2024, conditional on most of the remaining non-core spending being withdrawn. As outlined in the Stability Programme Update, almost all of the remaining non-core spending - which has played a key role in driving the evolution of the public finances in recent years - is due to expire at the end of this year (see Table 5). This represents an element of downside risk to the projections, with no contingency in place should additional resources be required. The extent of the unwinding is sufficiently large that it almost fully offsets the anticipated increase in core spending, with total government expenditure projected to increase by just 0.8 per cent in 2024 (see Figure 67). Under the Government's Medium Term Expenditure Framework core Exchequer spending can increase by 5 per cent per annum net of discretionary tax changes, although expenditure growth surpassed this in 2022 and is expected to be above 5 per cent once again this year in official Government forecasts. Revenue growth is projected to moderate further, falling to 5.3 per cent. This reflects projected weaker nominal consumer spending and income growth as inflationary pressures start to dissipate, a slowdown in employment growth and the negative impact of international tax reform on CT receipts. Combined, these revenue and expenditure developments result in a strong improvement in the headline GG surplus, which is projected to increase to 4.9 per cent of GNI* (€15.4bn in nominal terms). With little non-core spending remaining in the expenditure base and core spending broadly offsetting revenue growth, the GGB ratio is expected to stabilise at this level in 2025.

Deficit improves over medium term as temporary spending declines

Figure 67: Factors driving change in general government deficit ratio (% of GNI*)



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

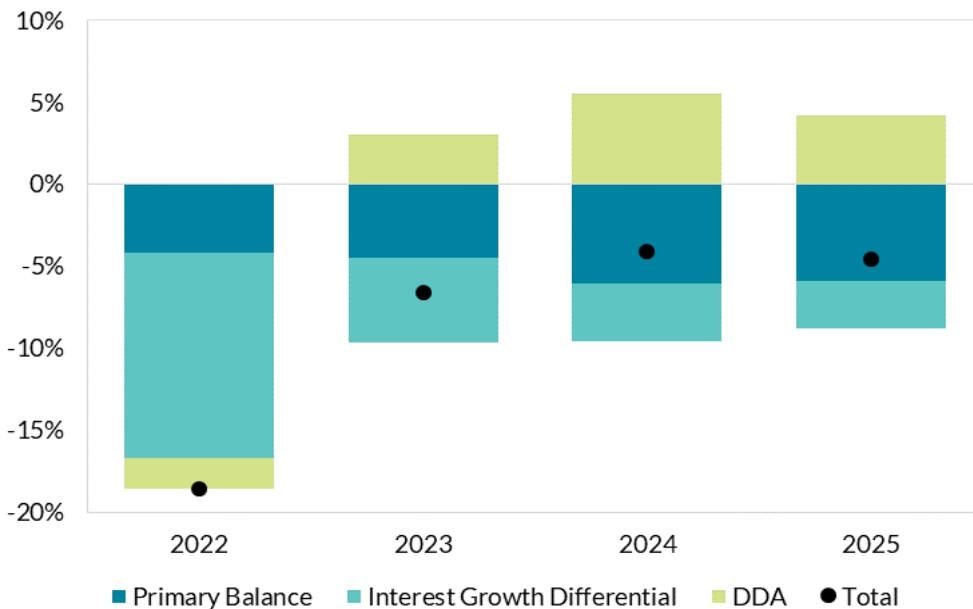
While the headline budget balance is set to record large surpluses over the medium term focusing on the ‘underlying’ balance – which excludes estimates of excessive CT - presents a less favourable outlook. Much of the recent improvement in the budgetary position has been driven by developments in CT, which is now the State’s second largest tax head. CT receipts have grown rapidly since 2015, and a large part of this increase cannot be explained by underlying developments in the Irish 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 the projected surpluses in 2024 and 2025 would be significantly weaker (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 general government debt (GGD) ratio is projected to continue to decline in the coming years but will remain at a high level. The debt ratio recorded a very strong decline last year, falling by 18 percentage points to 83.1 per cent of

GNI*. This was primarily driven by an extremely favourable interest rate - growth rate differential, as the effective interest rate (the average rate paid across the entire stock of debt) declined to a record low of 1.4 per cent and the nominal growth rate remained elevated. With debt dynamics expected to remain favourable a further 15 percentage point decline in the ratio is anticipated over the projection horizon. Although sovereign bond yields remain elevated across the euro area, the effective interest rate is projected to remain close to historical lows, considerably below expected nominal GNI* growth. This reflects the impact of the low interest rate environment up to mid 2022 which facilitated the NTMA in replacing more expensive debt with longer-termed less expensive borrowing. While the interest growth differential will, accordingly, have a favourable impact on the debt ratio, the large primary budgetary surpluses discussed above are expected to become the biggest factor driving the improvement (see Figure 69). Partly offsetting these factors the Government plans to build up cash reserves from their already high levels in the coming years. By 2025 the public debt ratio is projected to have fallen to 68 per cent of GNI*, still well above its level prior to the financial crisis.

Debt to GNI* ratio declines over medium term but remains at elevated level

Figure 68: Factors driving change in general government debt ratio (% of GNI*)



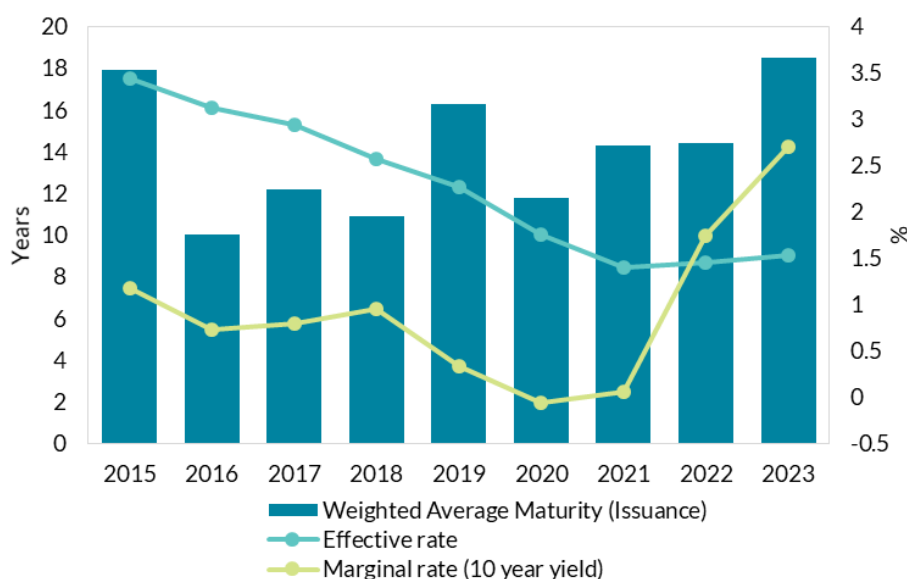
Source: CSO, Department of Finance, Central Bank of Ireland Projections

Irish sovereign borrowing rates have increased significantly over the last 18 months (Figure 69). While the Irish 10 year yield was negative as recently as

mid-2021, it has now risen to 2.7 per cent, its highest level since 2014. Three factors partly mitigate the risk associated with elevated marginal borrowing rates – a relatively low number of bonds maturing over the coming years, projected budgetary surpluses, and the presence of large cash balances. Two government bonds will mature over of the projection horizon, an €8bn bond maturing in 2024 paying 3.4 per cent, and an €11.5bn bond maturing in 2025 paying 5.4 per cent. Even at current interest rates, refinancing this debt at market rates would lead to a reduction in the effective interest rate paid by Government. As of end-May 2023, the National Treasury Management Agency (NTMA) holds substantial cash balances of €23.5bn (8.6 per cent of GNI*). The NTMA plans to issue between €7bn and €11bn for the year as a whole, of which €4.75bn is completed by end May. The average maturity of bonds issued this year is 18.6 years, reflecting the €3.5bn raised in January through the sale of a 20-year bond. This continued lengthening of the maturity profile will provide increased funding flexibility over the medium term.

Marginal borrowing rates have increased but the effective rate remains lower than in recent years

Figure 69: Borrowing rates



Source: NTMA, Refinitiv. Department of Finance

Note: Weighted average maturity across entire stock of debt is 9.1 years as of 2023 Q1 (ESDM)

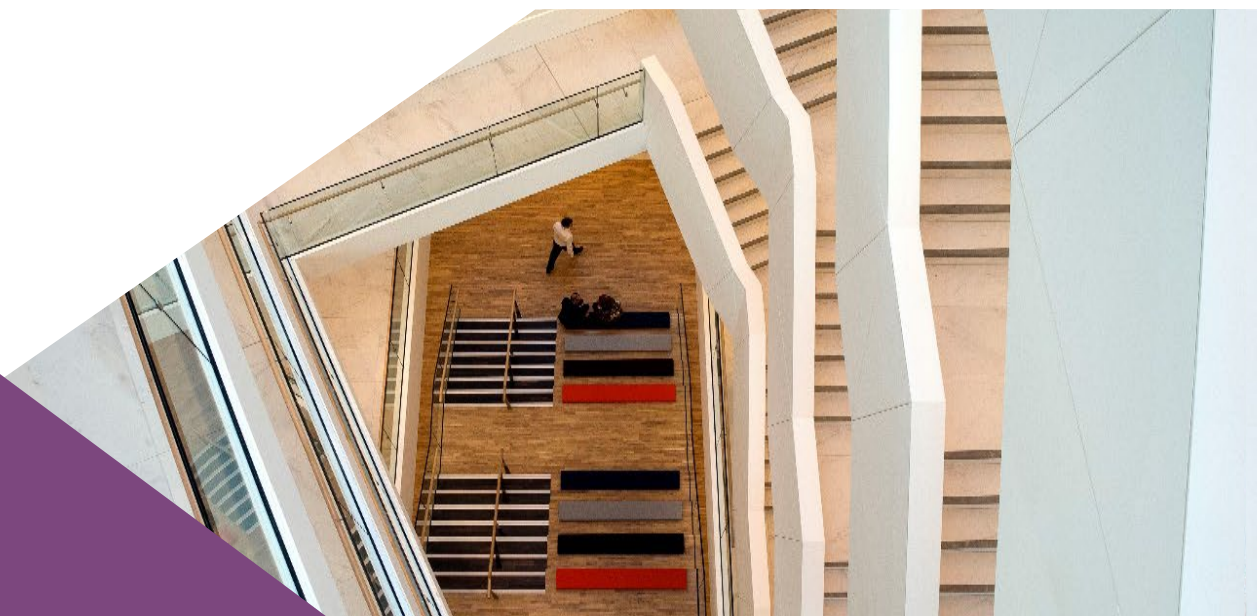
The National Reserve Fund (NRF) currently has a balance of €6bn. This is after a €2bn transfer in November 2022 was added to by a further €4bn transfer in February of this year. This resource will be important in providing resilience against future shocks, including unanticipated spending needs, and the already foreseen spending needed in areas such as ageing and the climate

transition. The NRF has an asset ceiling of €8bn.⁴² Given that the Department of Finance’s estimate of excess corporation tax stands at €12bn, this provides scope for reflecting on the use of these additional revenues in a refreshed approach to the NRF. The proposal to establish a fund to in part address the additional costs related to the ageing of the population using the excess corporation tax is a welcome development.

⁴² National Surplus (Reserve Fund for Exceptional Contingencies) Act 2019

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.



Managing the Public Finances in a Full-Employment Economy

Thomas Conefrey, Rónán Hickey, Matija Lozej, David Staunton and Graeme Walsh⁴³

Abstract

The Government's fiscal response to COVID-19, cost of living pressures and humanitarian support for Ukraine resulted in an increase in government spending of €35 billion between 2020 and 2022. Despite this exceptional rise in expenditure, the headline budget balance returned to surplus in 2022, driven by windfall corporation tax revenue. If this excess corporation tax is excluded, the budget remained in deficit last year. The current macroeconomic environment – characterised by an economy at full employment and with high inflation – presents fresh challenges for fiscal policy. The analysis indicates that discretionary government spending increases or tax cuts above current plans would add to demand and inflation when the economy is already at full capacity. Moreover, the public finances face looming constraints over the medium term due to the need to increase public spending to address the long-term costs of ageing and climate change. Saving windfall taxes today would reduce – albeit not eliminate – the extent of future tax increases needed to fund these new demands on the public finances. Introducing measures to broaden the tax base could help to ease inflationary pressures while public capital spending is being ramped up and at the same time enhance the resilience of the public finances in the face of known future challenges.

⁴³Irish Economic Analysis Division. We would like to thank David Cronin, Robert Kelly, Vasileios Madouros, Martin O'Brien, Gerard O'Reilly (Central Bank), colleagues at a CBI seminar and David Purdue (NTMA) for comments. The views expressed in this Article are those of the authors and do not necessarily reflect those of the Central Bank of Ireland or the European System of Central Banks.

1. Introduction

The scale of fiscal supports introduced by the government since 2019 in response to successive negative events has been enormous. The cost of expenditure measures implemented during the Covid-19 pandemic is estimated at €32.4 billion between 2020 and 2023, or 12 per cent of modified national income (GNI*). Expenditure to help households and businesses address cost of living pressures along with the humanitarian response by the Irish government to the Russian war in Ukraine is expected to amount to a further €8.3 billion (3.1 per cent of GNI*) in 2022 and 2023. In addition to such exceptional outlays that are intended to be one-off in nature, regular, recurring core Exchequer spending has increased at an annual average rate of 6.4 per cent in the five years to 2022 (or by €21.4 billion).⁴⁴

The large counter-cyclical fiscal response to the pandemic was warranted and appropriate. It helped to mitigate the extent of any permanent economic damage from the crisis and laid the foundations for the economy's rapid recovery once the health crisis abated. The temporary measures to address cost of living pressures – in particular those that have been targeted – have reduced the hardship faced by the most vulnerable households and businesses as a result of rising prices. Despite the extensive scale of this additional expenditure since 2020, the overall public finances improved significantly in 2022, driven by the phasing out of the temporary pandemic expenditure along with exceptionally strong growth in tax revenue, in particular corporation tax. These developments saw the headline budget balance improve from a deficit of 2.9 per cent of GNI* in 2021 to a surplus of 3 per cent in 2022, despite the introduction of the new temporary cost of living measures for 2022 and 2023.

With the welcome improvement in the overall budgetary position following the exceptional fiscal interventions of recent years, the public finances and the economy now face new challenges. Evidence across a range of measures – most clearly the unemployment rate which stands at a 20-year low – signals that the economy is likely to be operating at capacity currently and close to a

⁴⁴ The Central Fund, or Exchequer, is the main treasury account held by the Irish Government at the Central Bank of Ireland. All government receipts and expenditures, unless otherwise determined by law, are recorded in the Central Fund on a cash basis. The difference between receipts and expenditures is called the Exchequer balance. The General Government balance (sometimes referred to as the government deficit) is a broader accrual based measure of the fiscal position on an accruals basis, for the whole of government, than the cash based Exchequer balance. It takes account of other agencies and bodies that sit outside the Exchequer giving a more complete picture of a government's fiscal performance. It is the main internationally recognised government accounting aggregate.

position where overheating dynamics could emerge. As outlined elsewhere in this *Bulletin*, the inflation rate is high at present with non-energy price pressures expected to remain elevated out to 2025. In response to high inflation in the euro area, the ECB Governing Council has been raising the key policy interest rates to ensure a timely return of inflation back to its 2 per cent medium-term target. As a small open economy in a monetary union, domestic fiscal policy has a key role to play in managing demand and inflation in the Irish economy.⁴⁵

Against this backdrop, our scenario analysis shows that increases in overall public spending and/or discretionary tax reductions beyond existing plans would add to inflationary pressures, risk triggering potentially damaging overheating dynamics and lead to a less favourable budgetary position in the coming years. By increasing demand and inflation in a full-employment economy, additional fiscal expansion would work at cross-purposes to the current stance of monetary policy which is aiming to reduce demand in order to lower inflation. The current fiscal projections in SPU 2023 envisage Exchequer spending growing in line with the Government's 5 per cent net spending rule from 2024 to 2026. The risk of potential overheating in the economy underlines the importance of adhering to these plans. If evidence of more pronounced overheating pressures emerges, the Government should stand ready to adopt a tighter fiscal stance than currently planned, implying that net spending would grow at a rate below the maximum 5 per cent allowed under the rule. This outcome could be achieved by considering measures to increase government revenue as a share of national income by the middle of the decade.

Such an orientation would also begin the process of building resilience into the public finances. This is needed so that the fiscal costs of known future pressures from an ageing population as well as the costs of the green transition can be sustainably met. Saving excess corporation tax into a long-term savings fund over the coming years – as proposed by the Department of Finance – would leave the public finances in a stronger position to meet these fiscal challenges in the future.⁴⁶ The resources accumulated by saving windfall tax revenues today would reduce the extent of future increases in taxation that will be needed to meet the additional expenditure associated with an ageing population.

⁴⁵ See FitzGerald, J, 2001, "[Fiscal Policy in a Monetary Union: the Case of Ireland](#)" special article in Quarterly Economic Commentary. Dublin: The ESRI.

⁴⁶ See <https://www.gov.ie/en/publication/8a0a8-future-proofing-the-public-finances-the-next-steps/>

Public capital spending has a key role to play in helping to alleviate supply-side pressures in the economy and labour market, as well as enhancing the economy's capacity to adjust to future shocks. While downward revisions to nominal General Government investment along with high inflation will reduce the level of real investment that will be delivered over the coming years compared to projections in 2021, public investment is still forecast to grow strongly over the medium term. Delivering these increases in capital expenditure in the context of an economy at full employment will require careful management. Financing additional spending or tax cuts through extra borrowing or by using excess corporation tax would result in a net injection of funds into the economy, further stimulating demand. Our analysis shows that higher public capital spending financed instead by discretionary increases in tax revenue can deliver similar benefits in terms of long-term growth, while at the same time minimising the impact of the additional spending on demand and inflation. Discretionary increases in tax revenue could be achieved either through changes in existing taxes and/or by broadening the tax base.

The rest of this article is organised as follows. Section 2 provides an overview of the overall cyclical position of the economy drawing on a range of indicators. Section 3 examines key changes in government revenue and expenditure in recent years, focussing on the impact of high inflation and corporation tax on overall revenue growth. Section 4 presents a model-based analysis of the impact of a permanent increase in government expenditure or a reduction in tax above existing plans, taking into account the current full-employment position of the economy. Section 5 discusses some of the structural changes, including population ageing and the climate transition, that will place additional demands on the public finances over the coming years. Lastly, this section assesses options for financing increases in public capital spending that would reduce demand pressures in the economy while at the same time protecting the public finances.

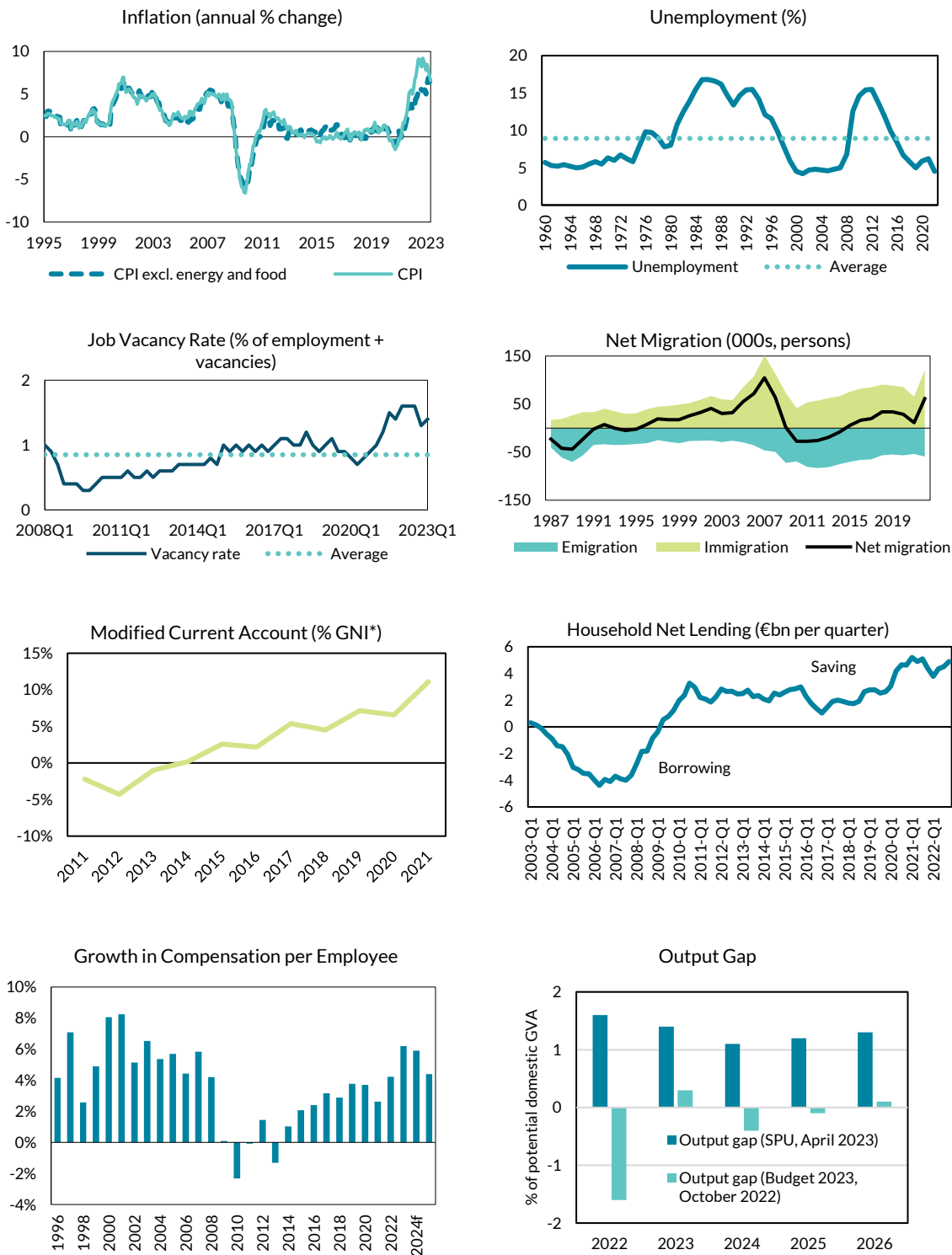
2. Macroeconomic Background

The economy has recovered rapidly from the pandemic, with modified domestic demand (MDD) growing by 8.2 per cent in 2022 and value added in the domestically-oriented sectors of the economy expanding by 7.2 per cent. Although growth is expected to moderate this year, MDD is projected to increase by 2.9 per cent per annum on average between 2023 and 2025, close to its long-run average rate. These projections imply a continuation of strong demand conditions in the economy out to the middle of the decade.

The implication of the recent observed growth in economic activity – as well as the projected growth envisaged in the central outlook – is that, across a range of measures, there is evidence that the economy is operating at its sustainable capacity in 2023. Figure 1 presents a range of indicators of the cyclical position of the economy based on the latest available data. Given the difficulties in interpreting measures of output produced in the Ireland, the labour market provides the best indication of the degree of spare capacity in the economy. The unemployment rate in May 2023 stood at 3.8 per cent, the lowest rate on record in the period since the early 1960s. At the same time as the unemployment rate has been falling, there has been a pick-up in net inward migration which is estimated to have measured 2.3 per cent of the labour force in 2022. The employment rate – the fraction of the working age population in work – increased to an all-time high of 73.6 per cent in Q1 2023 and the job vacancy rate remains well above its long-term average.

Headline inflation in 2022 was the highest recorded since 1984. Although the pace of price increases has begun to moderate, price pressures remain pronounced and increasingly driven by domestic factors, as discussed in the main chapter of this *Bulletin*. Across the range of other indicators in Figure 1, a more mixed picture emerges as to the extent of current overheating pressures. To date, the tightening of the labour market has not been accompanied by significant evidence of strong overall wage pressures. Growth in nominal compensation per employee measured 4.3 per cent in 2022. More detailed quarterly data point to some acceleration remuneration in sectors such as financial services, but overall wage pressures remain broadly contained based on the latest data. The latest Institutional Sector Accounts show that the household sector remained a net lender in 2022. In terms of indicators of external imbalance, the adjusted current account of the balance of payments recorded a surplus of 11.1 per cent of GNI* in 2021 and this is expected to have increased further in 2022.

Figure 1: Indicators of the Position of the Economy in the Economic Cycle



Source: CSO, European Commission, Department of Finance, Central Bank of Ireland

Lastly, the output gap is defined as the difference between an economy’s actual level of output in a given year and what it could feasibly produce if all factors of production (land, labour and capital) were fully utilised. A positive output gap is a signal of potential overheating because excess demand in the economy could

result in unsustainable increases in prices and wages. Estimates of the output gap published by the Department of Finance (2023a) suggest that the economy is operating at or slightly above capacity in 2022 and that this position is expected to persist over the forecast horizon.

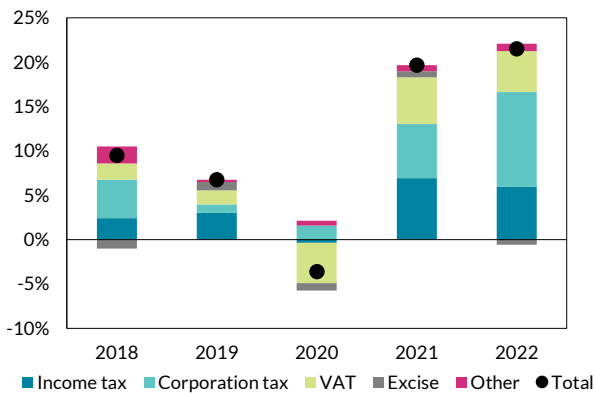
Taken together, while the evidence from some indicators presents a somewhat mixed picture, conditions in the labour market are consistent with an economy operating at full capacity in 2023. With the unemployment rate below 4 per cent, strong net inward migration and the employment rate at a record high, increases in demand could further add to existing price and wage pressures in the economy and trigger the emergence of potentially damaging imbalances.

3. Developments in General Government Revenue, Expenditure and Overall Budget Balance

3.1 Government Revenue

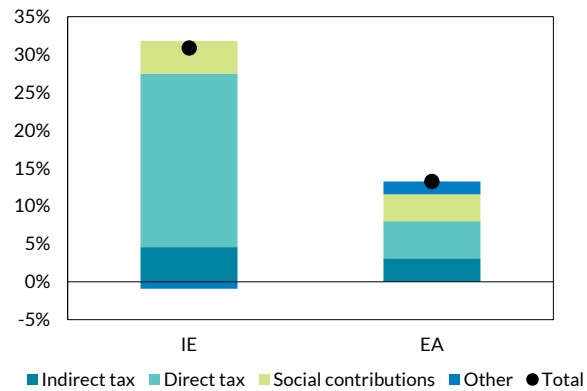
Irish government revenue has grown at an exceptional pace in recent years, led by developments in taxation receipts. Following the pandemic-led contraction in 2020, Exchequer tax receipts recorded their highest annual growth rates in nearly four decades in 2021 and 2022, at 19.7 and 21.5 per cent respectively. The previous largest increase was 16 per cent in 2006 at the height of the housing boom. The three largest tax heads - income tax, corporation tax (CT) and VAT - all made significant contributions to these growth rates, with the importance of CT strengthening once again last year when it was responsible for half of the total increase in tax revenue (Figure 2). Focusing on the broader measure of General Government (GG) revenue, which also includes social contributions and other non-tax revenues, receipts were almost one-third stronger in 2022 when compared to the pre-pandemic year of 2019. This was more than double the growth rate for the euro area as a whole over the same period (Figure 3). The divergence mainly reflects developments in direct tax receipts - primarily, income and corporation tax - which have increased by 55 per cent in Ireland since 2019, compared to growth of 18 per cent in the euro area.

Figure 2: Contributions to growth in Exchequer tax receipts



Source: Department of Finance

Figure 3: Contributions to growth in General Government revenue, 2019 - 2022



Source: Eurostat

3.2 Corporation Tax

CT receipts have continued to grow at a rapid pace, surpassing expectations, over recent years (Figure 4). In 2014 CT was Ireland’s fourth largest individual tax revenue source at €4.6bn and accounted for roughly 10 per cent of all tax receipts. Since then it has grown by almost 400 per cent (€18bn in nominal terms – with more than half of this occurring in the last three years), and has surpassed excise and VAT to become the State’s second largest tax head. It now accounts for one-quarter of all tax receipts. What’s more, one-third of receipts over this period were ‘above profile’ or higher than had been forecast by the Department of Finance in the previous year. Further strong growth has occurred in the first five months of this year, with CT revenue up by 21 per cent in the year to May 2023 compared to the previous year.

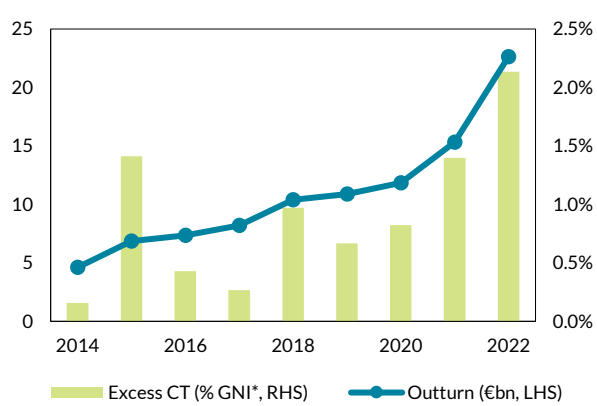
There are two significant concerns over the increasing importance of CT to overall revenue growth in the State. The first of these reflects the narrowness of the tax base. Data from the Revenue Commissioners (2023) show that 57 per cent of net corporation tax receipts – or 16 per cent of all tax receipts – were paid by just 10 large companies last year.⁴⁷ Cronin (2023) estimates that three company groups accounted for one-third of corporation tax revenue from 2017 to 2021.⁴⁸ This represents a significant concentration risk, leaving Ireland’s revenue base – and ability to finance public expenditure without borrowing – highly exposed to the decisions and profitability of a very small number of companies.

⁴⁷ See <https://revenue.ie/en/corporate/documents/research/ct-analysis-2023.pdf>

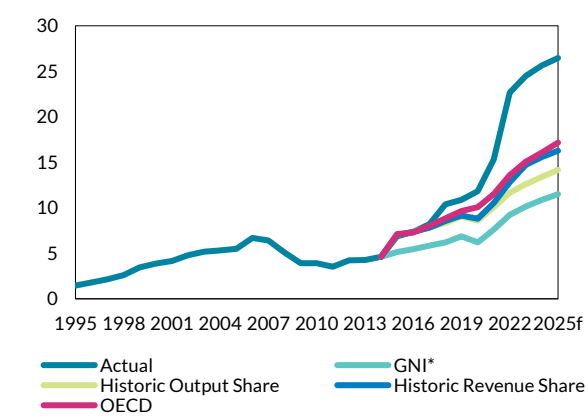
⁴⁸ See <https://www.fiscalcouncil.ie/understanding-irelands-top-corporation-taxpayers/>

The second concern is that a very high proportion of CT receipts over the past decade are disconnected from actual economic activity taking place in Ireland. These receipts, which could therefore be vulnerable to reversal, are often referred to as ‘windfall’ or ‘excess’ revenues. As outlined by the Department of Finance (2022)⁴⁹ and IFAC (2022)⁵⁰ estimating the size of excess CT is subject to significant uncertainty and a number of different methodologies can be used. Reflecting this, we use four approaches to estimate a possible range for CT receipts that might be considered unsustainable over the medium to longer term.

Figure 4: Corporation tax outturn and overperformance (€bn) **Figure 5: Actual and estimated corporation tax**



Source: Department of Finance



Source: Central Bank calculations

The first approach is to examine the increase in CT we would expect to have observed had revenue grown broadly in line with underlying economic activity. We use GNI* as the base to determine the deviation from the expected level as, prior to 2015, GNI* performs reasonably well as a predictor of CT receipts. Furthermore, given GNI* has been specifically designed to exclude globalisation effects unrelated to developments in the Irish economy, it is a suitable indicator for this exercise. This approach provides us with an upper-bound estimate of excess CT, with a gap of €15bn between actual and estimated CT emerging by 2025 (Figure 5).⁵¹

A second approach is to assume that CT should grow in line with its historical share of total tax revenue. In 2022 CT was 27 per cent of total tax receipts, compared to a long run average of 15.4 per cent. Were it to revert to the latter,

⁴⁹ See <https://www.gov.ie/en/publication/b838d-de-risking-the-public-finances-assessing-corporation-tax-receipts/>

⁵⁰ See <https://www.fiscalcouncil.ie/fiscal-assessment-report-may-2022/>

⁵¹ We use a model-based approach to compare actual CT receipts since 2015 to an estimate of CT revenue from a simple equation that relates changes in GNI* to changes in CT revenue. The equation we use is: $d\log(CT) = c(1) + c(2) * d\log(GNI^*)$. The sample is 1995 to 2014.

CT would be €10.2bn lower than the baseline projection by 2025. A third, related, approach is to assume that CT remains consistent with its historical share of economic output. For the reasons outlined above we use GNI* as the most appropriate measure of activity. In 2022, CT receipts were 8.4 per cent of GNI*, close to double the long run average of 4.3 per cent. If CT was to return to this long run average, it would imply a divergence of €12.3bn between actual and estimated receipts by 2025. Finally, we can compare CT growth in Ireland to the experience of other developed economies over the past decade. Corporation tax receipts averaged 2.7 per cent of GDP in the OECD between 2011 and 2020 (the latest data available) compared to 4.5 per cent in Ireland. Returning to this international standard would see CT decline by €9.3bn in 2025 relative to the baseline projection, providing us with a lower bound estimate of excess CT in that year.

Table 1 - Estimate of 'excess' corporation tax receipts

	2021	2022	2023	2024	2025
Central Bank of Ireland	5.8	11.2	11.9	12.2	12.1
Department of Finance	5.0	10.8	11.8	11.8	11.4

Source: Budget 2023, Stability Programme Update 2023, Central Bank calculations.

Note: CBI projection represents midpoint of Figure 5 estimates.

These results highlight the uncertainty in estimating excess CT receipts, but also show that – using a number of different methods - a significant share of CT receipts cannot be explained by developments in the underlying economy or are out of line with historical and international norms. As Table 1 shows, the mid-point of our estimates is broadly in line with the estimates produced by the Department of Finance in Stability Programme Update 2023 (SPU).⁵²

3.3 Inflation and revenue growth

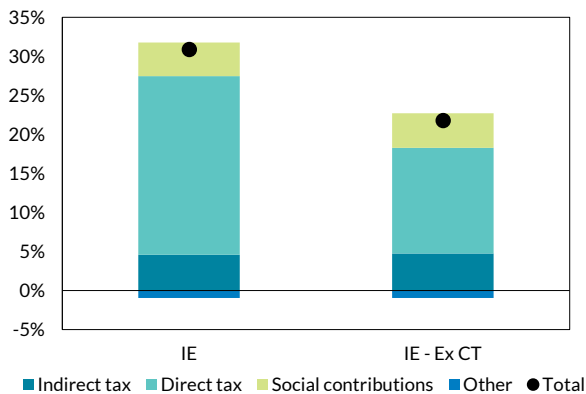
Even excluding excess CT receipts, the growth of government revenue in Ireland has been strong in recent years. As Figure 6 shows, revenue excluding our estimate of excess CT grew by 22 per cent between 2019 and 2022, still well above the increase recorded in the euro area. The ongoing period of high inflation is likely to have boosted tax receipts in recent years. In the short term, high inflation is expected to support VAT and income tax.⁵³ In the case of VAT, a given level of real expenditure now costs more, and this higher nominal spending directly leads to higher indirect taxation receipts. In progressive income tax systems, meanwhile, increases in income in line with inflation push

⁵² See <https://www.gov.ie/en/publication/e4f3a-stability-programme-update-2023/>

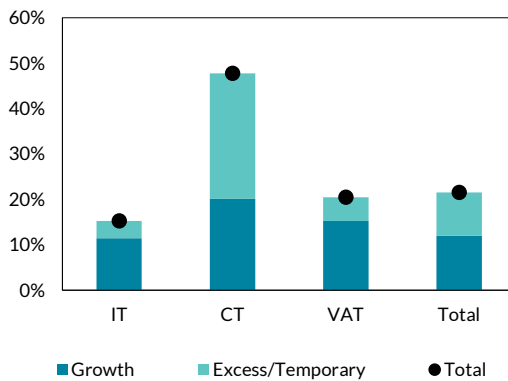
⁵³ Any positive impacts of inflation on excise revenues are very minor, as most components of excise are calculated on a volume basis.

more workers into higher tax brackets, strengthening direct tax receipts in a process known as ‘fiscal drag’. As noted by Bankowski et al. (2023), the persistence of the positive effect of inflation on revenue depends on the nature and length of the inflation shock.⁵⁴ An inflationary domestic demand or supply shock can lead to higher output, prices and tax revenues for longer. An external supply side inflationary shock, on the other hand - such as an increase in imported energy prices - can reduce household real income over time, moderating consumer spending and overall activity and eventually reducing tax revenues.

Figure 6: Growth in General Government revenue excluding excess CT (2019 -2022) **Figure 7: Growth in Exchequer tax revenue (2019 - 2022)**



Source: Eurostat, Central Bank calculations



Source: Central Bank calculations

We can estimate the impact that higher-than-expected prices have had on VAT receipts by decomposing the change that occurred in 2022 into real and price effects. We use the Personal Consumption Expenditure (PCE) deflator to deflate nominal VAT and estimate a measure of ‘real VAT’. The ECB’s target of ‘an inflation rate of 2 per cent over the medium term’ is then used to determine the expected price increase, implying that 4.6 of the 6.6 per cent change in the PCE deflator was unexpected. Decomposing the VAT change in this way suggests that around €800m of the €3.2bn increase in 2022 or one-quarter of the total change, was due to higher than expected prices (Figure 7).

Similarly we can use changes in the effective income tax rate to estimate the role that inflationary pressures have played in supporting income tax growth through fiscal drag. The effective income tax rate is generated by dividing total income tax receipts by whole economy compensation of employees, with the rate increasing from 24 per cent in 2021 to 24.8 per cent last year. Given actual

⁵⁴ “Fiscal Policy and High Inflation”, ECB Economic Bulletin, Issue 2/2023

tax rates did not change, this increase must reflect a greater proportion of compensation being taxed at the higher rate. Were the effective rate to have remained unchanged, the income tax increase would have been approximately €1bn lower. While other factors could be at play, such as compositional changes in employment growth and stronger earnings growth in high wage sectors, this provides an estimate that up to one-quarter of the €4.1bn income tax increase last year was due to fiscal drag.

While these are relatively crude measures, they nevertheless illustrate that a sizeable proportion of last year's Exchequer tax increase was driven by the very high inflation rate in 2022, which has begun to decline in 2023. When our estimate of excess CT is also considered, it suggests that almost half of the increase in total Exchequer tax revenue in 2022 reflected potentially temporary or unsustainable factors (Figure 7).

3.4 Developments in General Government Expenditure

Since the pandemic, developments in Government expenditure are characterised by contrasting trends in core and non-core (or temporary) spending (Figure 8). While total non-core spending (e.g. on Covid and cost of living supports) has fallen each year since 2020, this has been offset by growth in core expenditure. The result is that total government expenditure is now projected to be 30 per cent higher in 2023 than it was in 2019. Given long-run expenditure demands from ageing and climate change, and risks to key revenue sources, it is important to keep core expenditure growth at a sustainable level over the medium term.

Non-core spending developments

A key driver of the evolution of expenditure growth over recent years has been developments in non-core or temporary spending. Initially this reflected measures introduced in response to the emergence of Covid-19. These measures – which helped to mitigate the negative impact of the pandemic on Irish households, firms and the broader economy – are estimated to have cost €31bn (11.5 per cent of GNI*) in General Government terms between the years 2020 and 2022 (Table 2). Around two-thirds of this reflected the large income support programmes – Pandemic Unemployment Payment (PUP) and Employment Wage Subsidy Scheme (EWSS) – with a further 20 per cent financing additional resources for the health sector.

Table 2 – Non Core Spending (€mn), 2020 – 2025⁵⁵

	2020	2021	2022	2023	2024	2025	Total 2020 - 2025
Covid-19	14700	12500	3700	1500	500	200	33,000
Cost of Living			3000	2300			5,300
Ukraine			1000	2000			3,000
Other			300	700	200	200	1,400
Unallocated				700			700
TOTAL	14700	12500	8000	7200	700	400	43,500

Source: Central Statistics Office, Department of Finance, Central Bank of Ireland calculations. See footnote 13 for details on sources.

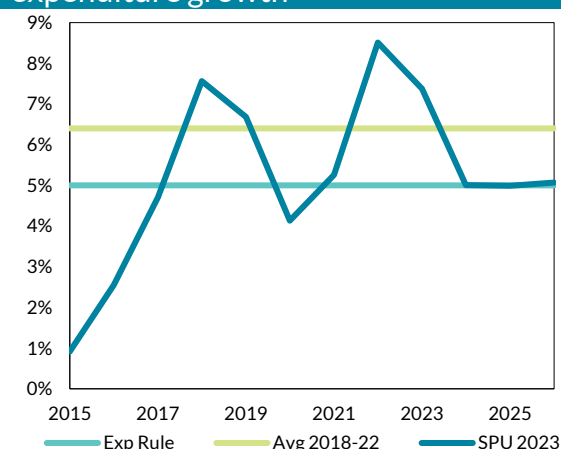
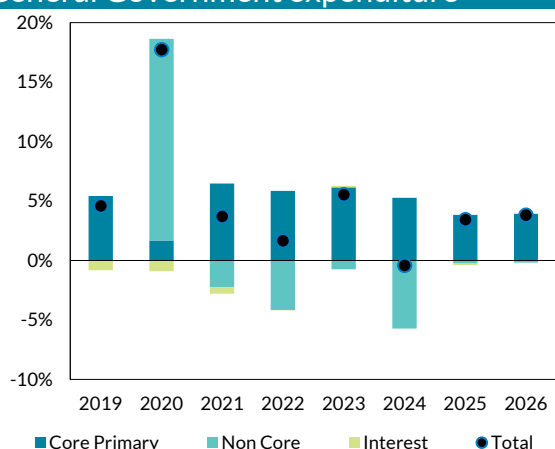
As pandemic-related spending has started to dissipate, a range of new non-core spending measures have been introduced to provide cost of living and humanitarian supports. With regard to the former, expenditure measures amounting to €5.3bn have been implemented for 2022 and 2023 in response to heightened inflationary pressures.⁵⁶ These have included household energy credits, increased welfare payments and the Temporary Business Energy Support Scheme, and around one-third of the measures appear to be fully targeted to those most affected by the shock. In terms of the latter, expenditure linked to the humanitarian response to the invasion of Ukraine is expected to total €3.0bn by the end of the year - €500m of which is an unallocated contingency. The latest Government expenditure projections include a further €700m of unallocated expenditure and note that ‘the majority of which relates to reserve funding for additional non-core measures should they arise’. Assuming this is fully utilised, by end-2025 the accumulated cost of

⁵⁵ The figures in this table are based, where possible, on General Government data and do not include revenue measures. Covid-19 expenditure outturns for the years 2020 to 2022 are sourced from CSO Government Finance Statistics [releases](#), with expenditure projections for subsequent years taken from [Table 9](#) of “Budget 2023 – Economic and Fiscal Outlook”. Cost of Living expenditure uses data taken from the Department of Finance’s document “[The Fiscal Response to the Cost of Living Challenge](#)”. Reflecting information from the [CSO](#), however, we assume that €800m of the expenditure on Electricity Credits (paid in January/ February and March / April of this year) occurs in 2023 rather than 2022. Costs of humanitarian support related to the Russian invasion of Ukraine are taken from [Table A9](#) of “Stability Programme Update 2023”. Here we assume that the unallocated resources earmarked for humanitarian support are fully utilised. The remaining unallocated expenditure for 2023 is also included in non-core spending as it is noted in the SPU that ‘the majority of the remaining unallocated is provision relates to reserve funding for non-core measures, which will be allocated over the course of the year, if required’. Other spending includes expenditure linked to the Resilience and Recovery Fund and is a residual to ensure that total non-core spending for 2022 to 2025 is consistent with the totals presented in [Table 11](#) of the SPU when the above adjustments are accounted for.

⁵⁶ When revenue measures are also included, it is estimated that cost of living supports will total €7.2bn over the period 2022-23.

all temporary measures announced since 2020 is projected to be €43.5bn or 16 per cent of GNI*.

Figure 8: Factors driving change in General Government expenditure **Figure 9: Core Exchequer expenditure growth**



Source: Department of Finance, Central Bank calculator Source: CSO, Department of Finance

The primary risk related to temporary expenditure measures is that they do not unwind as planned. Estimates using the Bank’s structural macroeconomic model indicate that the cost-of-living measures in 2022 and 2023 will increase domestic demand by just under 1 per cent in 2023 and add around 0.3 percentage points to inflation. Assuming the measures are temporary as planned, these effects do not persist beyond 2023. The Department of Finance’s latest projections (SPU 2023) which include no funding for either cost of living measures or humanitarian support in 2024 and 2025.⁵⁷ Section 4 considers a scenario to illustrate the impact on growth and inflation where expenditure is increased permanently from 2024. This could arise, among other reasons, from the materialisation of the risk that expenditure currently intended to be temporary does not unwind.

Core expenditure developments

While expenditure on temporary measures has decreased each year since 2020, core expenditure continues to grow strongly (Figure 9). Recent Budgets have introduced significant increases in permanent Exchequer expenditure; between 2021 and 2023 this has amounted to just under €15bn (5 per cent of GNI*), with 30 per cent of this going to the Health vote group.⁵⁸ The latest Government forecasts anticipate that core Exchequer spending growth will fall

⁵⁷ If not fully spent in 2023, the unallocated resources could be used in 2024. Assuming this expenditure was used to finance temporary measures this would not have a permanent impact on the expenditure base.

⁵⁸ Budgets 2021, 2022 and 2023 introduced additional core spending of €5.4bn, €4.2bn and €5.1bn respectively.

back to 5 per cent from 2024 onwards (Figure 6). While this is in line with the growth rate permitted under the Exchequer net spending rule (discussed in more detail below), it would represent a notable deceleration from the expected growth rate this year (7.4 per cent) and would also fall below the medium term (five year) average growth rate of 6.4 per cent.

Reflecting the change in the global interest rate environment over the past 18-months, sovereign borrowing costs have increased with the Irish 10-year bond yield increasing from 0.3 per cent at the beginning of 2022 to 2.7 per cent at the end of May 2023. Despite this, projections for expenditure on debt interest over the medium term remain relatively contained. This is because there is a modest level of redemptions in the coming years and debt that is maturing over the next two years was issued over the period 2009-2014 at rates above the current yield on Irish debt. As a result, the average or effective interest rate on the entire debt stock is expected to remain close to record low levels in the coming years.

Until the general escape clause is deactivated at the end of 2023, and reform of economic governance is completed at EU level, expenditure growth in Ireland is anchored by the Government's domestic expenditure rule, set out in the 2021 Summer Economic Statement.^{59,60} SPU 2023 clarified that the expenditure rule is set in net terms, i.e. net of discretionary tax changes.

The rule states that annual growth in Exchequer expenditure is fixed at 5 per cent per year in net terms, in line with the estimated sustainable nominal growth rate of the economy. The primary weaknesses in this rule is that it relates only to Exchequer spending, even though about one fifth of Government expenditure takes place outside of the Exchequer.⁶¹ As a result, growth in non-Exchequer spending could push overall government expenditure to excessive levels without breaking the rule.

3.5 Overall General Government Balance

Driven by the rapid growth in revenue outlined above, the General Government balance (GGB) is estimated to have improved from a deficit of 2.9 per cent of GNI* in 2021 to a surplus of 3 per cent last year (Figure 10). In comparison, the Euro area as a whole ran a deficit of 3.6 per cent. There is a

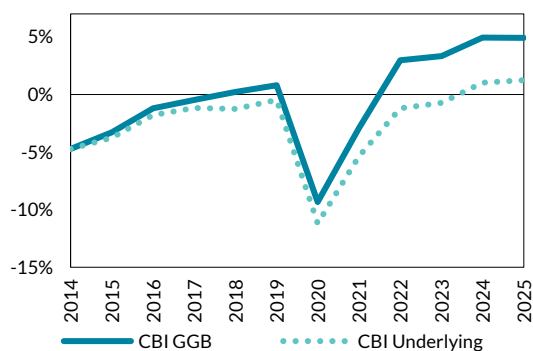
⁵⁹ The general escape clause suspended certain EU fiscal rules in response to the Covid-19 Pandemic. See [here](#) for the European Commission's explanation of how fiscal rules will be reintroduced while negotiations on the new framework are ongoing.

⁶⁰ [Summer Economic Statement, April 2021](#)

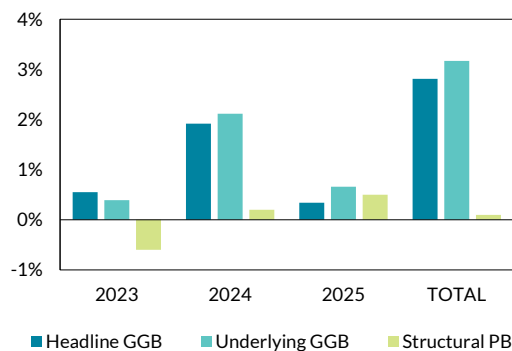
⁶¹ See Box A in [Managing the Public Finances in Uncertain Times](#), Central Bank Quarterly Bulletin Article, 2022

broad consensus amongst recent forecast exercises that budget surpluses in Ireland will strengthen further over the medium term as the large temporary spending measures outlined in Section 3.4 unwind (Figure 8).⁶²

Figure 10: Headline and Underlying GGB, % of GNI* **Figure 11: Change in Budget Balances (% of GNI*) in SPU 2023**



Source: Central Bank of Ireland QB2-2023



Source: Stability Programme Update 2023

As noted in Section 3.2, however, much of the recent improvement in the budgetary position has been driven by growth in CT, a large part of which cannot be explained by underlying developments in the Irish economy. Given the risk that these excess CT receipts could be subject to sharp reversals, it is prudent to adjust the headline budget balance (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. As Figure 10 shows, the GGB would remain in deficit this year, and the projected surpluses in 2024 and 2025 would be significantly lower. Accordingly, starting from this less favourable position, fiscal buffers to deal with any future negative economic shocks, or to finance the large known medium to longer term expenditure pressures (discussed in more detail in Section 4), would be substantially smaller.

Strong economic growth is expected to play a key role in driving the improvement in both the headline and underlying GGBs over the coming years. This is evident from the Government’s latest fiscal projections. While the Government anticipates large positive changes in the headline and underlying GGB between 2022 and 2025, the structural primary balance is broadly stable over this period (Figure 11). The structural primary balance - which excludes temporary measures (in this case also excess CT receipts), interest spending and adjusts for changes in the economic cycle – is considered a good proxy for

⁶² See for example Central Bank of Ireland (2023), [European Commission](#) (2023) and [Department of Finance](#) (2023).

the Government's overall fiscal stance as it removes factors not directly under its control. A deterioration in the structural balance indicates fiscal policy is stimulating the economy while an improvement in the balance points to a restrictive stance. While the structural primary balance is forecast to record a surplus of 2.7 per cent in 2025, its relatively stable position for the period 2022 to 2025 as a whole points to a broadly neutral fiscal policy stance in the coming years. Accordingly, any additional government spending or tax cuts – above those that underpin the Government's current fiscal forecasts – could result in an expansionary fiscal stance at a time when the economy is already growing at full capacity.

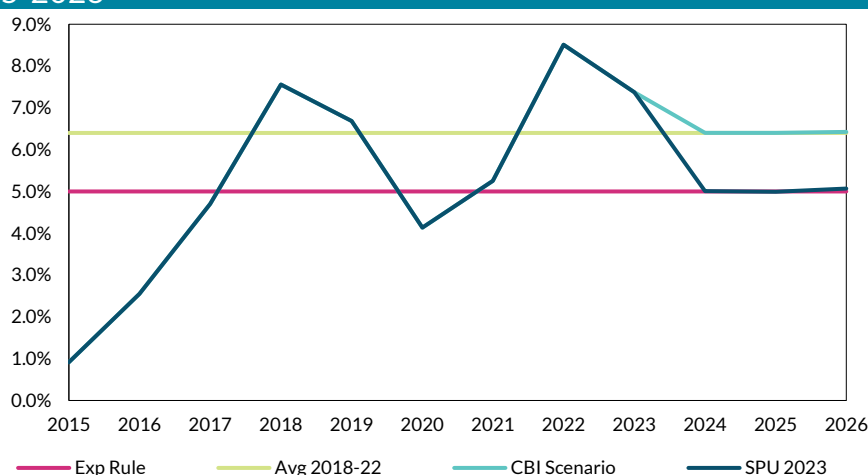
4. Modelling Risks to the Public Finances

Given the macro-fiscal context outlined above, we use the Central Bank's semi-structural macroeconomic model to illustrate the potential impact of two scenarios on the economy and the public finances: (1) higher than expected core government expenditure and (2) lower government revenue from a reduction in the effective income tax rate. The latter could come about either as a result of changes in the statutory tax rate or through decisions on indexation.

4.1 A permanent increase in government expenditure

The first scenario illustrates the effect of a permanent increase in core government expenditure. To calibrate the size of the shock, we assume that core expenditure grows in line with recent historical trends in Exchequer spending. Over the period 2018-2022, core Exchequer expenditure grew by 6.4 per cent on an annual average basis, so our scenario assumes that spending continues to grow at this rate over the 2024-2026 period (Figure 12). Under this assumption, public expenditure would exceed the Government's 5 per cent net spending rule. The expenditure path in our scenario is not intended as a forecast but serves to illustrate the implications of higher than budgeted for government expenditure. The spending shock in the scenario amounts to €1.2bn in 2024, €2.5bn in 2025, and €4.0bn in 2026.

Figure 12: Historical and projected (assumed) annual exchequer spending growth, 2015-2026



Source: authors' calculations.

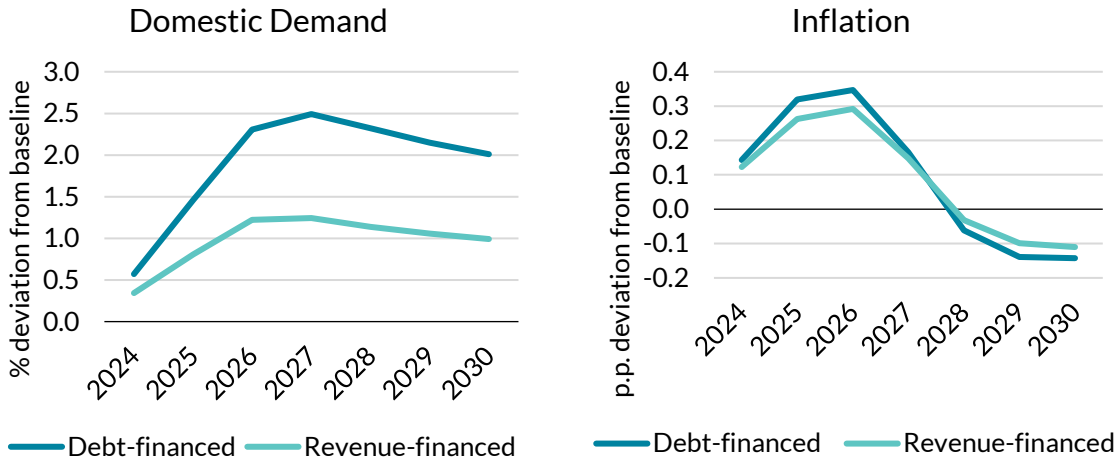
We assume that the additional spending is split equally between government consumption and transfers, and consider what happens when the spending is funded by borrowing and by raising taxes.⁶³ If instead, the additional expenditure was financed using windfall corporation tax, the effect on the economy would be similar to the case where the spending is funded by borrowing. This is because in both instances – funded by borrowing and funded by windfall tax revenue – there is an injection of money into the economy without any offsetting withdrawals elsewhere in the budget.

Figure 13 shows that in the case of a permanent increase in expenditure funded by debt, domestic demand would be over 2.5 per cent higher than the baseline projection by 2026. These macroeconomic effects would be the same if the expenditure was financed by windfall corporation tax. A further output stimulus such as this in an already fast-growing economy would add to capacity constraints and lead to a larger positive output gap than already projected. Moreover, the simulation results point to the emergence of potential imbalances in the economy, including some crowding out of the traded sector over the medium-term as domestic demand accelerates putting upward pressure on prices and wages. With the economy already at full employment, there is some uncertainty over the precise response of wages and prices to an

⁶³ To capture the current cyclical position in the scenario analysis, we follow Faubert (2021) in allowing for a state dependent effect of the output gap on inflation. The scenario assumes that the additional expenditure is split equally between government consumption and transfers. The macroeconomic impact of a given expenditure increase would differ depending on the precise composition of the spending increase. Model simulations indicate that increases in government consumption typically have a larger macroeconomic impact than higher expenditure on transfers.

additional demand stimulus and the ultimate effects could be larger than estimated here.

Figure 13: Macroeconomic impact of higher than planned government expenditure, deviations from baseline



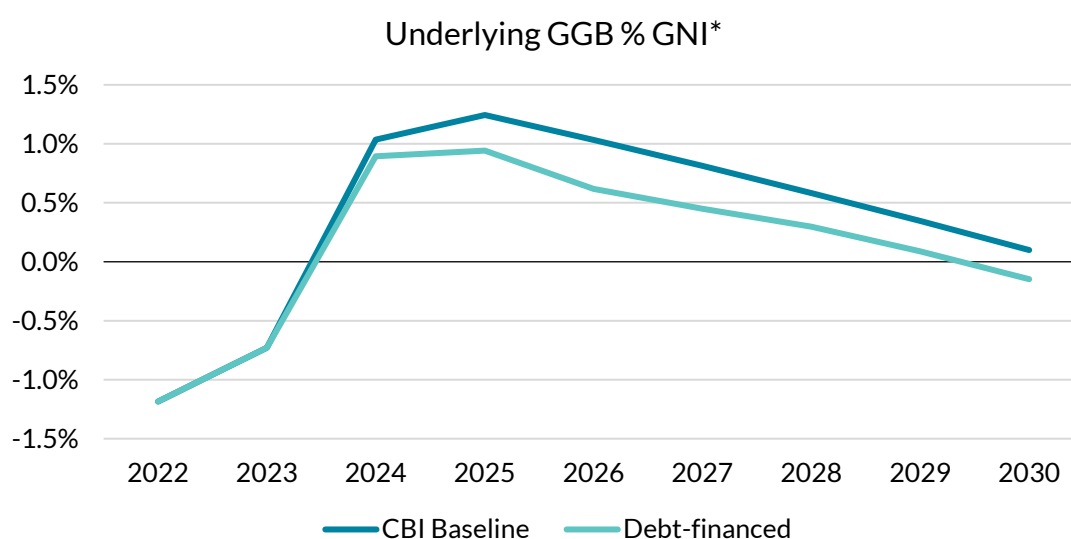
Source: authors' calculations.

Source: authors' calculations.

The simulation is repeated for the case where the additional spending is financed by raising government revenue rather than by debt. For the purpose of the model analysis, we make a technical assumption that the additional revenue is raised via an increase in the effective income tax rate but in reality a range of revenue-raising measures could be considered. In this scenario, the increase in both output and inflation would be lower than shown in the debt-funded case (Figure 13). The extent of this offsetting effect on output would be influenced by the revenue-raising measure, or mix of measures, that is used.

In terms of the public finances, the underlying General Government balance would deteriorate by about 0.3 percentage points by 2025. The Central Bank's fiscal forecasts envisage a surplus of 1.2 per cent of GNI* in 2025, so this scenario implies that the surplus would fall to 0.9 per cent (Figure 14). In the revenue-funded case, we assume that there is an increase in the income tax rate to offset the increase in government spending. As a result, the General Government balance in this case is unchanged.

Figure 14: Fiscal impact of higher than planned government expenditure



Source: authors' calculations.

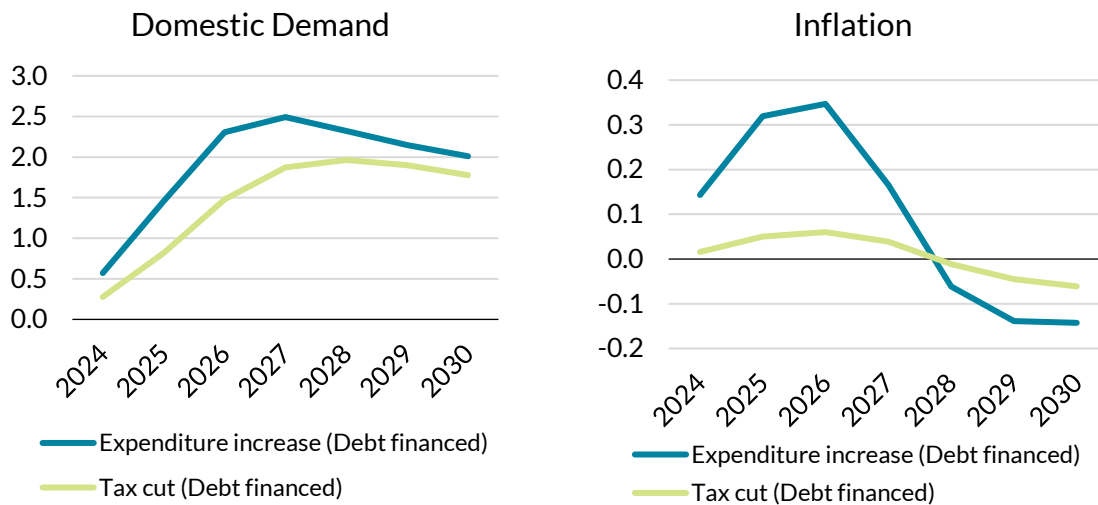
4.2 A permanent reduction in the effective income tax rate

The second scenario illustrates the effect of a permanent reduction to the effective income tax rate. As noted, a lower effective rate could arise as a result of a cut in the statutory tax rate or through changes in indexation. The shock is calibrated such that the reduction in tax revenue from income taxes matches the size of the government expenditure shock from the previous section, i.e. the effective income tax rate declines such that income tax revenues fall by €1.2bn in 2024, €2.5bn in 2025, and €4.0bn in 2026.

The macroeconomic impact of the debt-financed tax cut is shown in Figure 15 along with the results from the debt-financed spending increase in the previous section. In the debt-financed tax cut scenario, the model results suggest that domestic demand would increase by over 1.5 per cent by 2026 which could add to capacity constraints given the current cyclical position of the economy as outlined in Section 2. The stimulus provided by the tax cut would increase inflation, albeit by a smaller amount when compared to the debt-financed expenditure shock. There is some uncertainty around the precise scale of inflationary impact of the tax cut as it would be influenced by the response of the overall wage bargaining process.⁶⁴

⁶⁴ In the model, workers are assumed to bargain in terms of real after-tax wages. Under this assumption, the introduction of tax changes could affect workers' wage bargaining as they trade off the income gain (loss) from lower (higher) tax against demands for wage increases. This in turn would affect the response of inflation to the tax change. The extent to which this

Figure 15: Macroeconomic impact of income tax cut, deviations from baseline



Source: authors' calculations.

Source: authors' calculations.

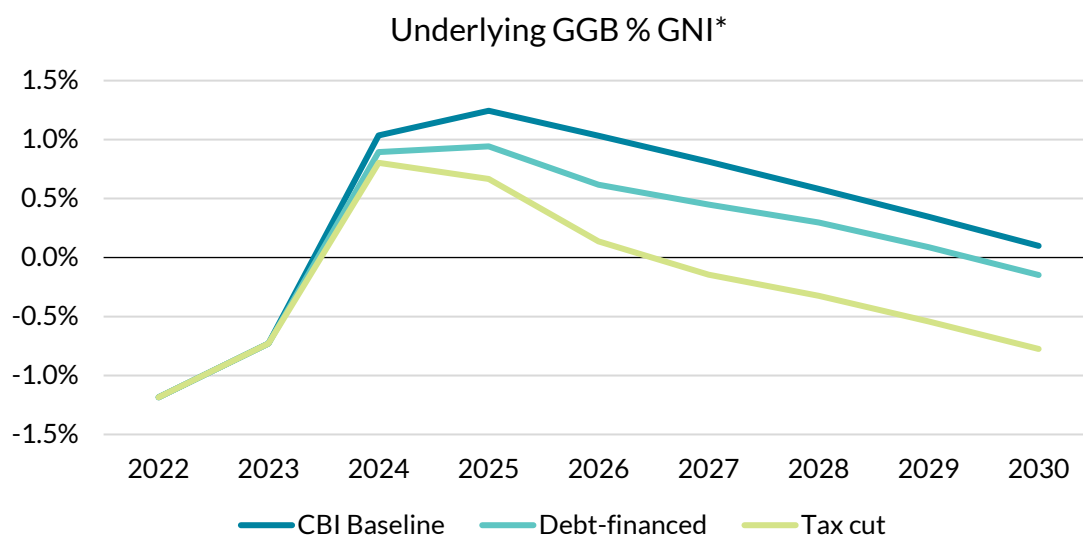
In the scenario with a reduction in income tax, the underlying General Government balance would deteriorate by about 0.6 percentage points by 2025, which compares to 0.3 percentage points in the debt-financed expenditure increase scenario. Applying these results to the Central Bank’s fiscal forecasts would imply an underlying surplus of 0.7 per cent in 2025 with a deficit emerging further out the horizon in 2027 (Figure 16). The model simulation shows that the General Government debt-to-output ratio would increase by over 1 percentage point by 2026 with a growing fiscal cost further out the horizon. The income tax cut bears a higher fiscal cost compared to the expenditure shock due to the relatively weaker macroeconomic stimulus provided by the tax cut.

Current government fiscal projections show expenditure growing in line with the Government’s 5 per cent net spending rule from 2024 to 2026. Overall, the scenarios in this section illustrate that additional expenditure or tax reductions above existing plans would aggravate overheating pressures and result in a less favourable budgetary position than currently projected by the middle of the decade. Indeed, even under current plans where (net) spending is forecast to grow at 5 per cent, there is a risk of overheating pressures emerging given, in particular, the conditions in the labour market. If evidence of more pronounced inflationary pressures were to emerge than are envisaged in current central forecasts, then a tighter fiscal stance than currently planned could be required.

mechanism is present in reality would depend on a range of factors including the prevailing conditions in the labour market and the institutional wage setting arrangements in place at the time.

This would involve reducing the growth in net spending to below the maximum 5 per cent allowed under the Government’s rule. This outcome could be achieved by considering measures to increase government revenue as a share of national income by the middle of the decade.

Figure 16: Fiscal impact of income tax cut



Source: authors’ calculations.

5. Longer-Term Constraints on the Public Finances

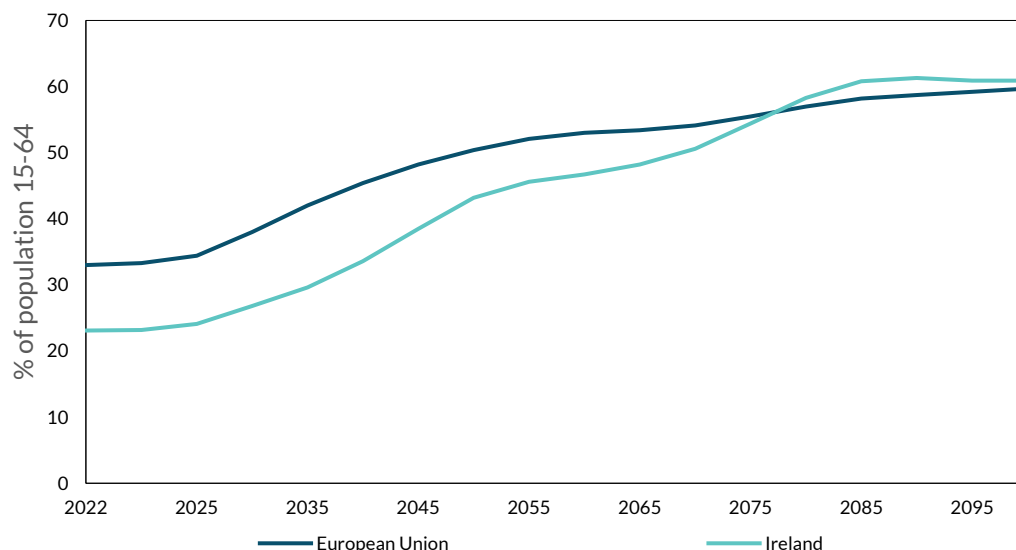
Beyond the immediate near-term challenge of managing the public finances sustainably in an economy at full-employment, other pressures will increasingly impinge on the State’s budgetary position out to the end of this decade and beyond. This section discusses some of the underlying structural changes that will constrain the public finances in the coming years. In some cases, the likely fiscal costs of these structural changes are well understood and quantified (for example, ageing) while for others such as the fiscal impact of the green transition or digitalisation, the precise fiscal impact is more uncertain.

5.1 Age-related costs

While Ireland’s demographic profile is currently favourable in a European context, the position will change rapidly in the coming years with a large increase in the old age dependency ratio – i.e. the population aged 65 and over as a proportion of the working-age population. Projections from Eurostat estimate that the old age dependency ratio is expected to increase from around 23 per cent in 2022 to 27 per cent in 2030 and to 47 per cent by 2060 (Figure 17). The old age dependency ratio in Ireland is projected to exceed the

EU average in the mid-2070s. This implies that the number of persons of working age for each person aged 65 and over in Ireland will drop from around four currently to just over two by 2060.

Figure 17: Projected Old Age Dependency Ratio, EU and Ireland



Source: Eurostat Population Projections 2023 (europop2023).

This transition to an older population structure will have significant fiscal implications for both tax revenue and government expenditure. On the taxation side, an ageing population will reduce the growth in labour supply, limiting the pace of economic growth and hence government revenue. At the same time, an older population will require increases in public expenditure to meet higher costs in the areas of healthcare, long-term care and pensions. To deliver existing levels of public services to an older population, the Department of Finance estimates that by 2030 additional expenditure of €7 billion to €8 billion will be required relative to the outlay in 2019. The fiscal costs of ageing will continue to increase thereafter with overall age-related government spending expected to rise to just under 30 per cent of GNI* in 2050, up from 21.4 per cent in 2019.⁶⁵ As a result of the Government’s decision not to increase the State pension age in line with the recommendations of the Pension Commission, the Department of Social Protection has indicated that future pension costs will instead be met by increasing PRSI.⁶⁶ The increase in taxation is likely to have a negative impact on the labour market and economic activity relative to a scenario where the rise in taxes was minimised. The higher

⁶⁵ See: <https://www.gov.ie/en/publication/6ba73-population-ageing-and-the-public-finances-in-ireland/>

⁶⁶ See: <https://www.gov.ie/en/press-release/6b939-minister-humphreys-announces-landmark-reform-of-state-pension-system-in-ireland/>

tax burden would present an additional drag on economic growth which will already be slowing as a consequence of population ageing.

5.2 Other structural transitions – climate and digitalisation

There are other structural changes currently underway that are likely to result in additional fiscal outlays but whose precise costs are less well understood and quantified relative to the costs of ageing or a loss of corporation tax. Under its legally binding Climate Action and Low Carbon Development (Amendment) Act 2021, the government committed to achieving a 51 per cent reduction in emissions by 2030 (relative to 2018 levels) and net-zero emissions no later than 2050.⁶⁷

The overall fiscal costs of the transition to a low carbon economy are uncertain and not fully quantified. The Climate Action Plan 2021 estimates that additional investment of €125 billion could be required between 2021 and 2030 to achieve the 2030 climate targets.⁶⁸ However, this figure refers to total investment – the estimated additional Exchequer capital contribution that will be required is not specified. The 2021 Plan states that around 40 per cent of the €125 billion in additional expenditure may not generate a positive investment return. IFAC has estimated that if the Exchequer was required to make up the full amount of this 40 per cent of investment whose return is uncertain, this would average about €5½ billion annually or 2% of GNI* at the time of the plan.⁶⁹ Based on a different methodology which calculates investment needs at a sectoral level, FitzGerald (2021) estimates that additional annual government expenditure of 1.7-2.3 per cent of GNI* would be required per annum to meet 2030 targets.⁷⁰

The digital transition could also place additional demands on the public finances over the next decade. These costs would arise if additional government expenditure is needed to fund the adaptation by workers and firms to new digital technologies. To date, the potential fiscal costs of this have not been quantified but it represents another possible demand on public resources in future, as recognised by the Department of Finance.⁷¹

⁶⁷ See <https://www.irishstatutebook.ie/eli/2021/act/32/enacted/en/print>

⁶⁸ See <https://assets.gov.ie/203558/f06a924b-4773-4829-ba59-b0feec978e40.pdf>

⁶⁹ See (page 80) <https://www.fiscalcouncil.ie/wp-content/uploads/2023/06/Fiscal-Assessment-Report-June-2023.pdf>

⁷⁰ See

https://www.climatecouncil.ie/media/climatechangeadvisorycouncil/contentassets/documents/cbcbackgroundpapers/MacroEconomicImplications_JF_210914.pdf

⁷¹ See <https://www.gov.ie/en/press-release/6406e-minister-for-finance-publishes-department-paper-entitled-future-proofing-the-public-finances-the-next-steps/>

5.3 Possible Reduction in Corporation Tax

These known future expenditure pressures are emerging in a context where there is a material risk to the State's second largest revenue source. The nature of the rapid increase in corporation tax revenue in Ireland since 2015 as well as the underlying characteristics of the corporation tax base mean that there are risks that revenue from this source could decline in future. A number of developments could trigger this risk. Changes in international tax arrangements could prompt firms to re-evaluate the amount of their global profits currently booked in Ireland, leading to a reversal of the enormous inward profit flows which have been behind the surge in corporation tax revenue since 2015. Corporation tax revenues are highly concentrated in a small number of sectors (manufacturing, financial services, ICT). A sector-specific negative shock which reduced the profitability of one sector – for instance, a more severe and prolonged downturn in the ICT sector – would reduce corporation tax revenue by a material amount. In the case of this latter shock, there would also be reductions in revenue from other tax headings such as income tax and VAT, given the high proportion of these taxes accounted for by MNEs and their employees.

The scale and timing of a possible loss of corporation tax is uncertain. For illustrative purposes, if half of the current CT receipts that are deemed windfall or excess were to be lost gradually between 2024 and 2026, the current headline GG surplus projected for 2026 would decline from €15.6 billion to €9.7 billion (4.6 per cent of GNI* to 2.8 per cent). This would leave the public finances in a significantly less favourable position at a time when fiscal pressures related to ageing and climate change will be increasing. The uncertainty over the sustainability of CT receipts means that they cannot be used to fund permanent spending. Any windfall receipts collected in the coming years should be saved, given the possibility that the exceptional increases in recent years are unlikely to continue indefinitely.

5.4 Implications for the public finances

The existence of the known future fiscal costs such as from ageing as well as the material risk of a loss of corporation tax has implications for fiscal policy decisions taken today. To ensure the public finances remain sustainable in future in the face of these additional new pressures, fiscal buffers should be increased when economic growth is strong and tax revenue is being boosted by corporation tax windfalls. This can be achieved by running budgetary surpluses or by saving a portion of government revenue into a savings fund. In this context, the Department of Finance's proposal to establish a new longer-term savings fund is welcome. This is a model which has been used successfully in

other countries whose public finances have benefitted from revenue windfalls, for example Norway.

Providing the instalments to the fund would take place as planned and it is appropriately managed, saving excess corporation tax revenues would create resources that could be used to help offset some of the additional fiscal costs that will arise over the coming years, and especially from 2030 when ageing costs will increase substantially. This would reduce the extent of the tax increases or reductions in expenditure that would otherwise be required to meet these costs in the absence of the fund, but additional revenue raising measures are still likely to be needed.

Focussing only on ageing costs, the Department of Finance has produced a number of stylised scenarios to illustrate the extent to which the resources accumulated in a national savings fund could be used to fund additional age-related expenditure after 2030. The analysis shows that in a scenario where €70 billion of tax revenue is transferred to the fund between 2024 and 2030 and the fund earns an annual rate of return of 5 per cent, drawdown from the fund after 2030 would be sufficient to meet around 78 per cent of the increase in age-related expenditure from that date. If a lower 3 per cent rate of return is assumed, drawdowns would cover 43 per cent of the estimated increase in spending. Similarly, IFAC (2023) considers a scenario whereby €30.5 of windfall corporation tax receipts are transferred to a savings fund between 2023 and 2025 and assess the implications for required changes in employer and employee PRSI. In this case, the analysis indicates that the combined employee and employer (higher) rate of PRSI would need to be raised by over 2 percentage points from the end of this decade, compared to an estimated increase of just under 3.5 percentage points in the baseline in the absence of any accumulated CT windfall savings.

Taken together, this work indicates that even in a favourable scenario where substantial amounts of windfall corporation tax is saved over the coming years, this would not be sufficient to cover the full estimated cost of additional age-related expenditure after 2030. Since age-related spending represents only one of a number of additional demands that will be placed on the public finances in the coming years, this points to the importance of ensuring at a minimum that windfall corporation tax receipts are saved over the coming years. At the same time, it would be prudent to consider options for broadening the tax base that would result in an increase in government revenue as a share of national income, in line with the recommendations of the Commission on

Taxation.⁷² This is because additional tax revenue, along with resources from the reserve fund, are likely to be required to meet the full fiscal costs of ageing, climate change and digitalisation.

5.5 The role of public capital investment

Public capital investment has an important role to play in helping to alleviate current supply-side bottlenecks in the economy, in particular in housing and other infrastructure. As noted above, increases in public (and private) investment will also be needed to ensure Ireland meets its climate change targets and to assist firms and households with the transition to a low-carbon economy. Targeted and productive government investment differs from government consumption as it contributes to the stock of public capital, which can have a longer lasting impact on the economy. While estimates of the effect of public capital on growth vary – and depend on factors such as the composition and efficiency of spending – the literature typically finds a positive relationship between the two.⁷³

The National Development Plan (NDP) published in October 2021 set out total nominal capital expenditure of €165bn from 2021 to 2030. Since the publication of this plan, real capital spending forecasts have changed considerably.⁷⁴ In addition to the impact of inflation (Figure 18), revisions to nominal General Government investment spending have affected the level of real government investment projected to be undertaken over the coming years. This effect primarily stems from developments in 2021 (Table 3) when pandemic-related issues contributed to much weaker actual investment growth (0.8 per cent) than had been anticipated in the SPU that year (forecast of 13.4 per cent growth). This lower than expected investment level has carried through the rest of the forecast years, despite the growth rates in later years actually being revised up since 2021.

⁷² See <https://www.gov.ie/en/publication/7fbef-report-of-the-commission/#:~:text=agus%20Liosta%20Molta%C3%AD-Foundations%20for%20the%20Future%3A%20Report%20of%20the%20Commission%20on%20Taxation.in%20the%20Programme%20for%20Government.>

⁷³ [Ivory et al. \(2019\)](#) surveys the literature on estimating the impact of different forms of public spending and provides estimates for Ireland. See also [Broner et al. \(2019\)](#) and [Hickey et al. \(2018\)](#).

⁷⁴ [National Development Plan, 2021 – 2030](#), Table 4.1

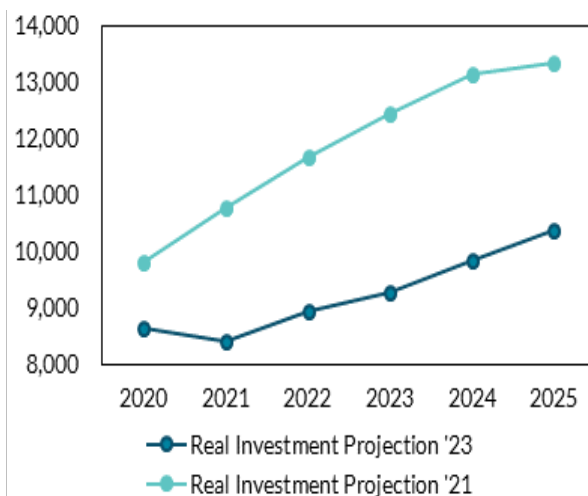
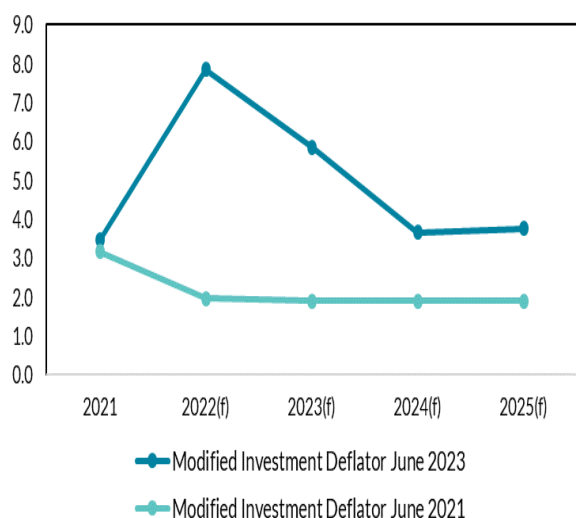
Table 3: General Government investment spending projections (nominal), 2021 - 2023

		2020	2021	2022	2023	2024	2025
Levels	SPU 2021	9,795	11,105	12,295	13,355	14,350	14,840
	SPU 2023	8,638	8,709	9,980	10,965	12,050	13,200
Growth Rates	SPU 2021		13.4%	10.7%	8.6%	7.5%	3.4%
	SPU 2023		0.8%	14.6%	9.9%	9.9%	9.5%

Source: Stability Programme Updates

Combining the effect of the downward revisions to nominal General Government capital expenditure along with the impact of higher than expected inflation, the level of real public investment from 2022-2025 is now projected to be €3 billion lower per annum on average than had been expected in 2021 (Figure 19). Nominal public capital spending is also projected to be smaller as a share of national income out to 2025. Under the original NDP, published in 2018, public capital spending was expected to increase to just above 5 per cent of GNI* by 2025 but this has been revised down to 4.2 per cent in the most recent SPU 2023 forecasts. With a reduced level of real expenditure now expected out to 2025, the actual delivery of specific projects will be lower than originally planned under the NDP. This points to the need for careful planning and management of capital spending over the coming years to identify priority projects.

Figure 18: Revision to modified Investment deflator since 2021 | **Figure 19: Revision to real public investment since 2021 (€m)**



Source: Department of Finance, Central Bank calculations
 Note: Figures taken from internal projection exercises (BMPE)

Source: Department of Finance SPUs, CSO, Central Bank calculations

Despite the recent downward revisions, public capital spending is still projected to grow strongly in the coming years with nominal spending forecast to increase by just under 10 per cent on average between 2023 and 2025 (Table 3). These planned increases in public capital spending need to be considered in the wider context of conditions in the economy. In particular, with inflation still high and the labour market at full employment, how public investment is financed takes on added significance.

To illustrate the importance of financing decisions we use the Central Bank’s Dynamic General Equilibrium model to analyse the effects of an increase in government investment on economic output, inflation and the public finances in Ireland. This exercise draws on previous analysis by Hickey et al. (2018).⁷⁵ The central scenario in the model assumes that government investment spending increases in line with the SPU 2023 projections out to 2026, after which the growth in public investment returns to close to its long-run average rate. Whilst the model necessarily simplifies some real world behaviour, it provides useful insights into the channels through which public investment spending affects the wider economy.

⁷⁵ See [https://www.centralbank.ie/docs/default-source/publications/quarterly-bulletins/quarterly-bulletin-signed-articles/irish-government-investment-financing-and-the-public-capital-stock-\(hickey-lozej-and-smyth\).pdf?sfvrsn=2](https://www.centralbank.ie/docs/default-source/publications/quarterly-bulletins/quarterly-bulletin-signed-articles/irish-government-investment-financing-and-the-public-capital-stock-(hickey-lozej-and-smyth).pdf?sfvrsn=2)

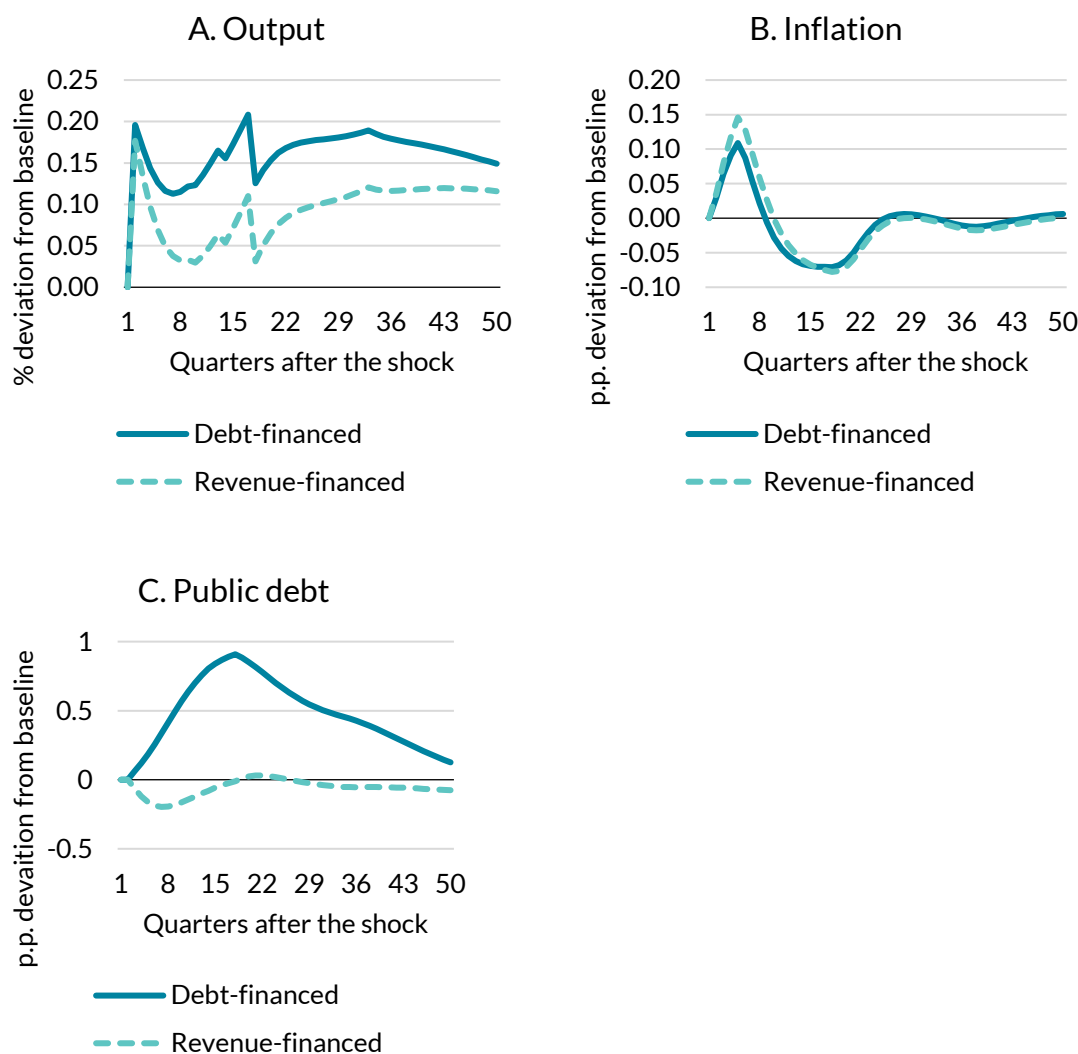
Two scenarios are considered for the increase in public investment: (i) where expenditure is financed fully by issuing debt and (ii) where the increase in government spending is offset by a discretionary increase in tax revenue, so that the spending is ex-ante budget neutral (dashed line).⁷⁶ As noted in Section 4, if the additional capital spending was funded by windfall corporation tax, the effect on the economy would be the same as in the case where the spending is debt financed.

The impact of the increase in public investment is shown in Figure 20. The rise in public investment boosts the stock of public capital which increases by around 5 per cent at peak. This investment leads to higher levels of output in the medium and long-term in both scenarios (panel (A)), consistent with the positive relationship between public capital and growth discussed above. Finally, in the case of debt-financed investment, the level of public debt increases before gradually returning to its long-run level (panel (C)).

Crucially however, the magnitude of output increases in the near term in the debt-financed case are significantly larger than in the case of a budget-neutral approach. In the medium run, this causes higher inflation, and for a longer period of time, than in the tax-financed case. If windfall corporation tax was used to fund the additional spending rather than borrowing, the same macroeconomic effects would hold relative to the budget-neutral case. This is because in the budget-neutral scenario higher taxes restrain the growth in domestic demand (consumption and (private) investment) thereby partly offsetting higher government expenditure. In both scenarios the increase in public investment leads to higher employment in the short run. The strong increase in employment with debt financing would contribute to wage and price pressure in the economy and potentially erode its competitiveness. While these are stylised examples, they are important in that they highlight potential risks of overheating dynamics emerging, particularly for an economy already at full employment.

⁷⁶ As for the analysis in Section 4, the choice of income tax is a purely technical assumption and in reality, a range of revenue-raising measures could be considered including changes to broaden the tax base.

Figure 20: Effect of an increase in public investment financed by debt and budget-neutral (revenue) financing



Source: authors' calculations.

6. Conclusions

The headline budget balance moved into surplus last year, despite the introduction of new temporary expenditure measures to address cost of living pressures. The latter occurred just as previous pandemic-related spending was being reduced. The improvement in the headline budget balance – making Ireland one of only five euro area countries to record a surplus last year – was driven by a number of temporary exceptional factors, in particular further growth in windfall corporation tax. Stripping this out, the budget remained in deficit last year. While the headline budget balance is expected to move further into surplus over the coming years, much of the improvement is expected to be driven by economic activity. The underlying structural balance – a measure of the budgetary position excluding the effect of the economic

cycle and windfall CT – is projected by the Department of Finance to remain broadly unchanged between 2023 and 2025, consistent with a neutral fiscal stance over this period.

Accordingly, any additional government spending or tax cuts – above those that underpin the Government’s current fiscal forecasts – could result in a stimulatory fiscal stance at a time when the economy is already growing at or above full capacity. Model-based analysis presented in this *Article* shows that permanent increases in current spending or tax cuts over and above existing plans would slow down the improvement in the public finances. Moreover, the analysis indicates that the additional demand stimulated by this higher spending or tax reductions would add to inflationary pressures in an economy already at full employment. These risks would be heightened if expenditure was increased in the absence of offsetting revenue-raising measures. This points to the need to ensure that any additional current expenditure above existing plans, such as to address ongoing cost of living pressures, do not result in a more accommodative fiscal stance overall. Indeed, even under existing plans there is a risk of overheating pressures emerging given, in particular, conditions in the labour market. If evidence of more pronounced overheating pressures emerges, it may be necessary to consider reducing net spending growth to below the 5 per cent currently planned from 2024 to 2026. This could be achieved by introducing measures to raise government revenue as a share of national income.

In the coming years, a number of underlying structural changes will place increasing demands on the public finances. The most readily quantifiable of these is the fiscal impact of ageing which is projected to result in an increase in public spending of almost 10 per cent of national income by 2030 compared to 2019. Other changes include the fiscal impact of the transition to a low carbon economy and digitalisation, both of which are likely to require increases in public expenditure in the coming years. Meanwhile, there is a significant structural risk to government revenue arising from the uncertainty over the sustainability of current windfall corporation tax. If half of the estimated windfall CT receipts over the period 2023-25 were to be lost, the headline budget surplus projected for 2025 would drop from over €16 billion to below €10 billion.

These known future fiscal demands mean that there is a necessity to save any unexpected revenue windfalls over the coming years. By saving rather than spending unexpected revenues, this reduces the risk of fiscal policy adding to overheating pressures given the current macroeconomic environment. Such an

outcome would ensure that the stance of both monetary and fiscal policy work in tandem to reduce inflationary pressures. Moreover, it ensures that resources are accumulated in the coming years when revenue growth is expected to be strong that can then be used to part finance the additional government spending on ageing and climate that will be required in the coming years. In this context, the Department of Finance's proposals for the establishment of a long-term savings fund are welcome. Provided the instalments to the fund would take place as planned and it is appropriately managed, the resources available would reduce the extent of future tax increases needed to address the structural challenges ahead.

Even under the assumption that significant amounts of excess corporation tax are saved in a long-term fund in the coming years, the fund is unlikely on its own to be sufficient to meet the full extent of the new fiscal demands that will emerge after 2030, particularly from ageing. In this context, it may be prudent to consider introducing measures that would contribute to increasing government revenue as a share of national income and broadening the tax base, in line with the recommendations of the Commission on Taxation. In the short run, this could help to ease inflationary pressures while public capital spending is being ramped up while at the same time helping to create a more sustainable tax revenue base and more resilient public finances with which future fiscal challenges can be addressed.

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T: +353 (0)1 224 5800
E: enquiries@centralbank.ie
www.centralbank.ie



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