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Contents

Notes	4
Comment	5
An Timpeallacht Gheilleagrach	9
The Irish Economy	13
Overview	13
Recent Developments	14
Box A: International Outlook	19
Box B: Spending, credit, and deposits: An update on Irish household and business activity	21
Demand and Output.....	28
Overview.....	28
Box C: Spillovers to Ireland from the America Rescue Plan.....	29
Domestic Demand.....	32
Box D: The unwinding of savings accumulated during the pandemic.....	35
Net Trade	39
Labour Market & Earnings.....	41
Labour Market.....	41
Box E: Distributional effects of Covid-19 – a focus on earnings and participation	45
Earnings and Incomes.....	50
Inflation	52
The Public Finances	55
Overview.....	55
Box F: Corporation Tax Risks to the Public Finances.....	56
Fiscal Outlook, 2021 to 2023.....	61
Funding and Other Developments.....	63
Signed Articles.....	64
New Insights from Irish Pension Fund Statistics	65
Abstract.....	65
1. Introduction.....	66

Box A: Statistical Reporting Requirements for Pension Funds.....	66
2. The Irish Pension System	68
Pillar 1: State Pensions	69
Pillar 2: Occupational Pensions	69
Box B: Implications of IORP II.....	70
Pillar 3: Personal Pension Products.....	71
3. Pension Fund Membership.....	71
Covid-19 and Changes in Pension Membership	73
4. Pension Fund Asset Allocation.....	75
Characteristics	77
Investment Funds & Unit-Linked Insurance Products.....	78
Debt Securities.....	80
Other Assets - Currency & deposits, equities, derivatives and non-financial	82
5. Pension Fund Liabilities.....	82
6. Conclusion.....	84
References	86

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 1 2246380.

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Comment

With the relaxation of COVID-19 restrictions, domestic economic activity is rebounding. While the possibility of a more protracted recovery cannot be fully discounted, the near-to-medium term prospects for the economy are more favourable than at the time of the last *Bulletin*. The progress of the vaccination programme, more positive consumer and business sentiment and supportive fiscal and monetary policy all bolster the outlook. Alongside a more positive external environment, this leads to expectations of relatively robust growth in headline measures of activity such as GDP, domestic demand and employment through to 2023.

The domestic economy, as measured by Modified Domestic Demand (MDD), contracted year-on-year by 5 per cent in Q1 2021, given the impact of extended public health restrictions on consumption and domestic investment. Notwithstanding the domestic outturn, preliminary Irish National Accounts for Q1 2021 show GDP grew strongly (11.8 per cent), driven by the net exports of foreign-owned MNE dominated sectors such as pharmaceuticals and ICT, especially by firms involved in contract manufacturing.

Both the severity and the diversity of the pandemic's economic impact is evident in the labour market. The numbers in receipt of the pandemic unemployment payment (PUP) and the employment wage subsidy scheme (EWSS) combined prior to the easing of public health restrictions in early May amounted to almost a third of the labour force. Consistent with the nature of the restrictions that have been in place, recipients of pandemic-related income supports have been predominantly in consumer-facing services sectors, with female, lower paid and younger workers particularly affected.

With the relaxation of public health restrictions, high frequency indicators suggest a strong rebound in activity. Accordingly, the number of people in receipt of PUP toward end-June had fallen to about 244,000, the lowest level so far in 2021. The forward-looking expectations of both consumers and businesses have also strengthened. The downside risk of a slower recovery if public health restrictions had to be tightened again remains, but is lower relative to the previous *Bulletin*. Overall, risks to the growth outlook appear to be relatively balanced.

Extensive fiscal and monetary policy action amongst Ireland's main trading partners and the progress in their respective recoveries provides a positive tailwind to the Irish economy. The fiscal stimulus in the United States is estimated to add just under 1 per cent to economic output here by 2022 (Box C). Overall, the outlook for GDP has improved given the strong net export and GDP performance in Q1 feeding into forecast growth of 8.3 per cent this year. The more positive external environment (Box A) leads to a further substantial net export contribution to overall GDP growth of 5.4 per cent in 2022 and 4.8 per cent in 2023.

Domestic factors also underpin the more positive outlook for the economy. Consistent with improved consumer and business sentiment, MDD is expected to grow at a more rapid pace in

2021 (3.4 per cent) and 2022 (5.6 per cent) compared to the forecasts contained in the previous *Bulletin*, with growth moderating slightly in 2023 (4.8 per cent). This implies that real domestic activity will rise above pre-pandemic levels during 2022. While policy has averted a more damaging long-run impact, there will likely be somewhat slower growth in the productive capacity of the economy after the pandemic, as the labour market and supply chains re-adjust.

Lower consumption and continued income growth across the economy during the pandemic has led to an increase in the savings rate, which is also reflected in the growth of deposits in the banking system (Box D). With the expected strong rebound in consumption over the forecast horizon, the savings rate is anticipated to move below pre-pandemic levels in 2023. Scenario analysis highlights the potential for an even higher use of accumulated savings to boost consumer spending (Box D). However, these higher savings could also be used for other purposes, such as investment in housing or financial assets.

With a strong rebound in overall demand following an easing of restrictions in many countries, supply shortages and bottlenecks arise in the short term, thus contributing to the forecast of higher inflation.

Emerging price pressures are reflected in the stronger outlook for HICP inflation over the forecast horizon, averaging 1.8 per cent this year and rising to 2 per cent in 2022. A significant portion of the expected inflation is due to base effects and the specific nature of the recovery. Higher HICP inflation over the medium term is not forecast to persist, easing back to 1.7 per cent in 2023. This path depends on the near-term transitory price pressures related to supply bottlenecks not becoming persistent and embedded in excessive price expectations.

While the public health restrictions have hampered building and construction activity, a rebound is expected to be led by growing housing investment. However, even with expected growth, the delivery of new housing will continue to be below estimates of long-run demand, and potentially add to affordability pressures across rents and prices. Other factors of relevance to the investment outlook are the extent to which accumulated savings are ultimately used for housing investment, and the expected growth in public investment over the forecast horizon. Growth in financial resources directed toward housing and wider building and construction investment is expected to be substantial over the forecast horizon. Any persistence in supply constraints for labour or raw materials could reduce the real benefit of the investment over the period.

Consistent with the more positive economic outlook, the COVID-adjusted unemployment rate is expected to fall from 21.9 per cent in May 2021 to below 11 per cent in early 2022. By mid-year, the phase-out of the PUP will enable a convergence with the official ILO-based measure of unemployment at about 7.8 per cent. Thereafter, the ILO unemployment rate is expected to continuously decline over the forecast horizon, averaging 6.6 per cent in 2023. Employment is projected to reach pre-pandemic levels in the second half of 2023, amidst strengthening demand for labour. The increase in labour demand, especially in certain sectors, is not expected to be met immediately by supply, which contributes to stronger earnings growth in 2022 and 2023.

The EWSS and PUP have prevented sharper declines in income amongst younger, lower-paid and female workers in the sectors that have been most negatively impacted by the pandemic (Box E). This has likely led to a narrowing of the income distribution at the same time as overall earnings growth has been relatively strong. However, the past year has also witnessed higher levels of inactivity, with the labour force participation rate falling as low as 56.9 per cent, having been 62.2 per cent in 2019. There is also uncertainty as to the future of migration flows post-pandemic. As the recovery continues to take hold, the extent of transitions into regular employment from both those who are unemployed or who have become detached from the labour force, as well as migration, will be important determinants of the shape and nature of economic growth over the medium-term.

The pandemic prompted an exceptional fiscal, monetary and macroprudential policy response domestically and internationally. Measures were rolled-out to minimise the shock to demand and to reduce scarring to the supply-side factors that underpin the long-term productive capacity of the economy. The domestic fiscal response has been proportionate and warranted. Direct fiscal support to households and firms through income measures, grants and waivers make up a larger share of the Government's response than indirect support through, for example, credit guarantee schemes. This implies a more substantial immediate impact on the sovereign deficit and debt, with the latter expected to be 108 per cent of GNI* this year before falling to 106 per cent in 2023. The fiscal response has been complemented by the monetary policy stance of the ECB, designed to preserve favourable financing conditions and to bring medium-term inflation back towards its aim of below, but close to, 2 per cent. Consequently, borrowing costs have been contained despite the additional pandemic-related debt.

The extension of the pandemic-related supports announced in the Government's Economic Recovery Plan in June should continue to limit the extent of the shock for workers and otherwise viable businesses in the most vulnerable sectors. However, different challenges emerge as the economy moves beyond what it is hoped is the last period of widespread COVID-19 related restrictions.

As trading conditions normalise, and government supports are removed, the viability of individual businesses and jobs will become clearer, especially in those sectors where more structural change is taking place. Such changes include different consumer and investor preferences and behaviour, alternative work, supply chain and migration patterns, increased digitalisation, and ongoing adjustment to the new trading arrangements between the EU and the UK. At the same time, significant tailwinds to demand are present as the re-opening of society and the economy proceeds. Infrastructure deficits in housing and in addressing the challenges of climate change also remain. The focus of policy should shift from limiting the effects of the near-term shock to minimising supply constraints arising from labour market mismatches over the medium term. This includes through targeted and effective labour market activation measures, facilitating moves out of longer-term unemployment and inactivity into employment in sectors with high labour demand. Such measures will promote a more balanced recovery, reduce the possibility of wage and price pressures becoming more persistent, and contribute to the economy's long-term productive capacity. They would also help achieve the expected and necessary increase in public and private infrastructure investment in areas such

as housing and climate change without adding to excessive inflationary pressures in the medium-to-longer term.

As the near-term impact of the pandemic eases, a credible plan is required to reduce the public debt ratio over time to a more sustainable level, ensuring long-term resilience and the capacity to respond to future shocks. The relatively favourable growth outlook should contribute to this. However, structural imbalances between revenue and expenditure may emerge. Prospective changes in global corporation tax arrangements through the OECD BEPS process could reduce Irish corporation tax revenues from 2022 (Box F), which are already heavily reliant on a relatively small number of large firms in certain sectors. There are known current expenditure pressures over the medium-to-longer term, including those related to an ageing population, which need to be funded. In these circumstances, with potentially strong demand on government resources, it is reasonable to consider the need for revenue-raising measures or reducing other areas of spending. Sustainable funding of current expenditure also creates space for public investment. If managed correctly, this can complement private investment in contributing to long-run balanced and sustainable growth, raising productivity and addressing known infrastructure deficits in housing and in achieving climate change targets.

An Timpeallacht Gheilleagrach

Le maolú shrianta COVID-19, tá borradh ag teacht athuair ar an ngníomhaíocht eacnamaíoch intíre. Cé nach féidir an fhéidearthacht go mbeidh téarnamh fadtréimhseach ann a chur as an áireamh go hiomlán, tá na hionchais don gheilleagar sa ghearrthéarma agus sa mheántéarma níos fabhraí ná mar a bhí tráth na *Faisnéise* deiridh. Tá an t-ionchas sin á neartú le dul chun cinn an chláir vacsaínithe, le seintimint dhearfach na dtomhaltóirí agus na ngnóthaí agus le beartas tacúil fíoscach agus airgeadaíochta. Chomh maith le timpeallacht sheachtrach níos dearfaí, ciallaíonn sé seo go bhfuiltear ag súil le fás sách láidir ar thomhais phríomha gníomhaíochta amhail OTI, an t-éileamh intíre agus fostaíocht anuas go dtí 2023.

Tháinig cúngú 5 faoin gcéad bliain ar bhliain ar an ngeilleagar intíre in R1, arna thomhas le hÉileamh Modhnaithe Intíre, i bhfianaise an tionchair a bhí ag srianta sláinte poiblí ar thomhaltas agus ar infheistíocht intíre. D’ainneoin an aschuir intíre, léiríonn réamh-Chuntais Náisiúnta na hÉireann do R1 2021 go raibh fás láidir ar OTI (11.8 faoin gcéad), rud a bhí á spreagadh ag glan-onnmhairí na n-earnálacha sin ina bhfuil fiontair ilnáisiúnta faoi úinéireacht eachtrach i réim, amhail cógaisíocht agus TFC, go háirithe ag gnólachtaí a mbíonn baint acu le monaraíocht ar conradh.

Tá géire agus éagsúlacht thionchar eacnamaíoch na paindéime le feiceáil sa mhargadh saothair. B’ionann agus beagnach aon trian den lucht saothair an líon daoine a raibh an íocaíocht dífhostaíochta phaindéime (PUP) agus an scéim fóirdheontais pá fostaíochta (SFPPF) á fáil acu sular maolaíodh na srianta sláinte poiblí go luath i mí Bealtaine. I gcomhréir leis na cineálacha srianta a bhí i bhfeidhm, is sna hearnálacha sin ina soláthraítear seirbhísí dírithe ar thomhaltóirí a bhí formhór na ndaoine a raibh tacaíochtaí ioncaim á bhfáil acu, agus oibrithe baineanna, oibrithe ar phá níos ísle agus oibrithe óga ba mhó a ndearnadh difear dóibh.

Leis an maolú ar na srianta sláinte poiblí, tugann táscairí ardmhínicíochta le tuiscint go mbeidh borradh láidir faoin ngníomhaíocht. Dá réir sin, thit líon na ndaoine a raibh PUP á fháil acu go dtí thart ar 244,000 i dtreo dheireadh mhí an Mheithimh, an leibhéal is ísle go dtí seo in 2021. Treisíodh freisin ionchais réamhbhreathnaitheacha tomhaltóirí agus gnóthaí. Tá riosca ar an taobh thíos ann i gcónaí maidir le téarnamh níos moille más gá srianta sláinte poiblí a dhéanamh a ghéarú arís, ach tá an riosca sin níos ísle i gcomparáid leis an bh*Faisnéis Ráithiúil* roimhe seo. Ar an iomlán, tá na rioscaí don ionchas fáis cothrom a bheag nó a mhór.

Tabharfar cóir na gaoithe do gheilleagar na hÉireann le gníomhaíocht beartais fhioscaigh agus airgeadaíochta i measc phríomhpháirtithe trádála na hÉireann agus leis an dul chun cinn atá déanta acu i dtreo an téarnaimh. Meastar go gcuirfidh an spreagadh fíoscach sna Stáit Aontaithe le haschur eacnamaíoch anseo faoi 1 faoin gcéad faoin 2022 (Bosca C). Tríd is tríd, tá feabhas tagtha ar OTI i bhfianaise fheidhmíocht láidir na nglan-onnmhairí agus OTI in R1 rud a

chuireann leis an réamhaisnéis don fhás arb ionann é agus 8.3 faoin gcéad i mbliana. I bhfianaise timpeallacht sheachtrach níos dearfaí (Bosca A), cuirfidh glan-onnmhairí go suntasach le fás foriomlán OTI arb ionann é agus 5.4 faoin gcéad in 2022 agus 4.8 faoin gcéad in 4.8 faoin gcéad in 2023.

Tá tosca intíre mar bhonn faoin ionchas níos dearfaí don gheilleagar freisin. I gcomhréir le seintimint fheabhsaithe tomhaltóirí agus gnóthaí, meastar go dtiocfaidh fás níos tapúla ar an Éileamh Modhnaithe Intíre in 2021 (3.4 faoin gcéad) agus in 2022 (5.6 faoin gcéad) i gcomparáid leis na réamhaisnéisí a bhí san *Fhaisnéis Ráithiúil* roimhe seo, agus go maolóidh an fás sin beagáinín in 2023 (4.8 faoin gcéad). Tugann sé seo le fios go dtiocfaidh méadú ar an bhfíorghníomhaíocht intíre in 2022 thar na leibhéil a bhí ann roimh an bpaindéim. Cé gur éirigh le beartas tionchar fadtéarmach níos díobhálaí a sheachaint, beidh fás beagáinín níos moille ar chumas táirgthe an gheilleagair i ndiaidh na paindéime de réir mar a rachaidh an margadh saothair agus slabhraí soláthair in oiriúint don timpeallacht sin.

Mar thoradh ar thomhaltas níos ísle agus ar fhás leanúnach ioncaim ar fud an gheilleagair le linn na paindéime, tá méadú tagtha ar an ráta coigiltis, rud a léirítear freisin san fhás ar thaiscí sa chóras baincéireachta (Bosca D). Leis an athbhorradh láidir atá á thuar ar thomhaltas thar thréimhse na réamhaisnéise, meastar go dtiocfaidh an ráta coigiltis in 2023 faoi bhun na leibhéil a bhí ann roimh an bpaindéim. Léirítear in anailís ar chásanna go bhfuil an fhéidearthacht ann go spreagfar caiteachas tomhaltóirí má bhaintear úsáid níos mó fós as coigilteas carntha (Bosca D). Ach tá seans ann go mbainfear úsáid as an gcoigilteas seo chun críocha eile amhail infheistíocht i dtithíocht nó i sócmhainní airgeadais.

Le hathbhorradh láidir ar an éileamh foriomlán tar éis srianta a mhaolú i mórán tíortha, tá ganntanas soláthair agus tá scoigeanna soláthair ann sa ghearrthéarma, rud a chuireann leis an réamhaisnéis maidir le boilsciú níos airde. Léirítear na brúnna ar phraghsanna atá ag teacht chun cinn in ionchas níos láidre do bhoilsciú TCPT thar thréimhse na réamhaisnéise atá comhionann le 1.8 faoin gcéad ar an meán i mbliana agus a ardóidh go dtí 2 faoin gcéad in 2022. Tá cuid shuntasach den bhoilsciú tuartha sin inchurtha do bhonnéifeachtaí agus do chineál sonrath an téarnaimh. Maidir le boilsciú TCPT thar an meántéarma, ní mheastar go leanfaidh sé sin. Tuartar go maolóidh sé go dtí 1.7 faoin gcéad in 2023. Beidh an chonair seo ann fad nach leanfaidh brúnna gearrthéarmacha sealadacha praghsanna a bhaineann le scoigeanna soláthair agus fad nach mbeidh na brúnna sin fite fuaite in ionchais praghsanna iomarcacha.

Cé go bhfuil na srianta sláinte poiblí ag cur bac ar ghníomhaíocht tógála agus foirgníochta, táthar ag súil go dtiocfaidh athbhorradh as infheistíocht tithíochta a bhfuil méadú ag teacht uirthi. Fiú leis an bhfás a bhfuiltear ag súil leis, beidh soláthar tithíochta nua faoi bhun na meastachán ar an éileamh fadtéarmach, agus seans go gcuirfidh sé sin leis na brúnna inacmhainneachta atá ann ar fud cíosanna agus praghsanna. I measc na dtosca eile a bhaineann leis an ionchas infheistíochta, tá an méid a bhainfear úsáid as coigilteas carntha le haghaidh infheistíocht tithíochta agus an fás ionchasach ar infheistíocht phoiblí thar thréimhse na réamhaisnéise. Meastar go mbeidh fás suntasach thar thréimhse na réamhaisnéise ar na hacmhainní airgeadais a dhíreofar ar thithíocht agus ar infheistíocht tógála agus foirgníochta níos leithne. Má leanann aon bhaic ar sholáthar maidir le saothar nó amhábhair, d'fhéadfaí go laghdófaí fíorthairbhe na hinfeistíochta thar an tréimhse.

I gcomhréir leis an ionchas eacnamaíoch níos dearfaí, táthar ag súil go laghdóidh an ráta dífhostaíochta ó 21.9 faoin gcéad i mí Bealtaine 2021 go dtí níos lú ná 11 faoin gcéad go luath in 2022.

Faoi lár na bliana, nuair a chuirfear deireadh le PUP de réir a chéile, feicfear cóineasú le tomhas oifigiúil EIS ar dhífhostaíocht arb ionann é agus thart ar 7.8 faoin gcéad. Ina dhiaidh sin, meastar go leanfaidh ráta dífhostaíochta EIS ag laghdú thar thréimhse na réamhaisnéise, go dtí 6.6 ar an meán in 2023. Tuairtar go mbainfear leibhéal fostaíochta réamh-phaindéime amach sa dara leath de 2023, i bhfianaise éilimh neartaithe ar shaothar. Meastar nach mbeidh an soláthar saothair ábalta freastal láithreach ar an méadú éilimh ar shaothar, go háirithe enable a convergencein earnálacha áirithe, rud a chuireann le fás láidir ar thuilleamh in 2022 agus 2023.

Le SFPF agus PUP, seachnaíodh laghduithe níos géire ar ioncam oibrítthe óga, oibrítthe ar phá níos ísle agus ar oibrítthe bainearna sna hearnálacha is mó atá thíos leis an bpaindéim (Bosca E). Is dócha gur tharla cúngú ar dháileadh an ioncaim dá bharr seo, an tráth céanna a bhí fás sách láidir ar fhás foriomlán ar thuilleamh. Mar sin féin, tá leibhéal neamhghníomhaíochta níos airde feicthe freisin le bliain anuas, agus thit an rannpháirtíochta sa lucht saothair go dtí 56.9 faoin gcéad, ó ráta 62.2 faoin gcéad in 2019. Tá éiginnteacht ann freisin maidir le sreafaí inimirce i ndiaidh na paindéime. De réir mar a thagann an téarnamh i dtreis, beidh tábhacht ag baint leis an méid a bheidh daoine atá dífhostaithe nó scaoilte ón lucht saothair, mar aon le himirce, ábalta aistriú chuig fostaíocht rialta, ó thaobh chruth agus chineál an fháis eacnamaíoch thar an meántearma a chinneadh.

Spreag an phaindéim freagairt eisceachtúil beartais fhioscaigh, airgeadaíochta agus macrastuamachta anseo in Éirinn agus go hidirnáisiúnta. Cuireadh bearta chun feidhme chun an turraing don éileamh a íoslaghdú agus chun go laghdófaí éifeachtaí díobhálacha ar thosca ó thaobh an tsoláthair de, ar tossca iad atá mar bhonn faoi chumas fadtéarmach táirgthe an gheilleagair. Bhí an freagra fioscach intíre comhréireach agus inchosanta. Tá tacaíocht fhioscach dhíreach do theaghlaigh agus do ghnóthaí trí bhíthin bearta ioncaim, deontas agus tarscaoiltí ina gcuid níos mó de fhreagra an Rialtais ná tacaíocht neamhdhíreach trí bhíthin scéimeanna ráthaíochta creidmheasa, mar shampla. Tugann sé seo le fios go raibh tionchar suntasach láithreach ar an easnamh agus ar an bhfiachas ceannasach, agus meastar go mbeidh an fiachas ceannasach comhionann le 108 faoin gcéad den OIN* i mbliana sula dtiocfaidh laghdú air go dtí 106 faoin gcéad in 2023. Comhlánaíodh an fhreagairt fhioscach le seasamh beartais airgeadaíochta BCE atá ceaptha dálaí fabhracha maoiniúcháin a choimeád ar bun agus an boilsciú meántéarmach a thabhairt ar ais i dtreo a sprice, is é sin gar do 2 faoin gcéad ach faoina bhun. Dá bhrí sin, coinníodh srian ar chostais iasachtaíochta d'ainneoin an fhiachais bhreise a bhaineann leis an bpaindéim.

Le leathnú na dtacaíochtaí a bhaineann leis an bpaindéim mar a fógraíodh i bPlean an Rialtais maidir le Téarnamh Eacnamaíoch i mí an Mheithim, ba cheart go dteorannófaí méid na turrainge d'oibrítthe agus do ghnóthaí atá inmharthana sna hearnálacha is leochailí. Mar sin féin, tiocfaidh dúshlán éagsúla chun cinn de réir mar a chuirfidh an geilleagar an tréimhse deiridh de shrianta forleathana COVID-19 taobh thiar dó.

De réir mar a thiocfaidh dálaí trádála chucu féin arís, agus de réir mar a bhainfear na tacaíochtaí rialtais, beidh soiléireacht níos fearr ann maidir le himharthanacht gnóthaí aonair agus post, go háirithe sna hearnálacha sin ina bhfuil athrú struchtúrach ar siúl. Ar na hathruithe sin, áirítear roghanna agus iompar tomhaltóirí agus infheisteoirí, obair mhalartach, slabhra soláthair agus pátriún imirce, digitiú méadaithe, agus oiriúnú leanúnach do na socruithe nua trádála idir AE agus RA. Ag an am céanna, tá gaoth chúil shuntasach ann don éileamh faoi láthair de réir mar a rachfar ar aghaidh le hathoscailt na sochaí agus an gheilleagair. Tá easnaimh sa bhonneagar ann i gcónaí maidir le tithíocht agus le dul i ngleic leis an athrú aeráide. Ba cheart go n-athrófaí an bhéim beartais ó shrian a choinneáil ar éifeachtaí na turrainge sa ghearrthearma go dtí srianta soláthair arna n-eascairt as neamhréireachtaí sa mhargadh saothair a íoslághdú. Déanfar é seo trí bhearta spriocdhírithé éifeachtacha chun an margadh saothair a ghníomhachtú, lena n-éascófar aistriú ó dhífhostaíocht fhadtéarmach go dtí fostaíocht in earnálacha ina bhfuil éileamh mór ar shaothar. Leis na bearta seo, cuirfear téarnamh cothrom chun cinn, laghdófar an fhéidearthacht go leanfaidh brúnna pá agus praghsanna, agus cuirfear le cumas táirgthe an gheilleagair san fhadtéarma. Chomh maith leis sin, chabhróidís leis an méadú ionchasach is gá ar an infheistíocht i mbonneagar poiblí agus i mbonneagar príobháideach a bhaint amach i réimsí amhail tithíocht agus an t-athrú aeráide gan cur le brúnna iomarcacha boilscithe sa mheántearma go fadtéarma.

De réir mar a mhaolóidh tionchar gearrthéarmach na paindéime, tá ga le plan inchreidte chun an cóimheas fiachais phoiblí a laghdú le himeacht ama go dtí leibhéal níos inbhuanaithe, rud a chinnteoidh athléimneacht fhadtéarmach agus cumas chun dul i ngleic le turraingí amach anseo. Ba cheart go gcuirfeadh an t-ionchas sách fabhrach fáis leis seo. Ar a shon sin, tá seans ann go dtiocfaidh míchothromaíocht chun cinn idir ioncam agus caiteachas. Le hathruithe ionchasacha ar shocruithe domhanda cánach corparáide trí phróiseas BEPS de chuid ECFE (Bosca F), d'fhéadfaí go laghdófaí an t-ioncam ó cháin chorparáide in Éirinn ó 2022 ar aghaidh, ioncam atá ag brath go mór cheana féin ar líon sách beag gnólachtaí móra in earnálacha áirithe. Tá brúnna reatha ar chaiteachas thar an meántearma go fadtéarma, lena n-áirítear na cinn sin a bhaineann le daonra atá ag dul in aois, agus is gá iad seo a mhaoiniú. Sna himthosca seo, agus ag féachaint don éileamh ionchasach mór ar acmhainní rialtais, tá sé réasúnach go gcuirfear san áireamh an gá atá le bearta tiomsaithe ioncaim nó le laghdú ar chaiteachas i réimsí eile. Cuidíonn maoiniú inbhuanaithe an chaiteachais reatha le hinfeistíocht phoiblí freisin. Má bhainistítear i gceart é, is féidir leis infheistíocht phríobháideach a chomhlánú chun cur le fás cothrom inbhuanaithe san fhadtéarma, chun táirgeacht a mhéadú agus chun dul i ngleic le heasnaimh aitheanta bhonneagair i dtithíocht agus chun spriocanna athraithe aeráide a bhaint amach.

The Irish Economy

Overview

COVID-19 and the public health measures to contain its spread have continued to have an adverse impact on the Irish economy. Significant restrictions remained in place from the beginning of the year until early May. However, the vaccination programme is proceeding at pace, and a faster recovery is now expected than at the time of the *April Bulletin*.

The economy is expected to recover strongly in the second half of the year supported by the release of pent-up demand. Improving consumer sentiment, as well as the reopening of previously closed sectors, is expected to support buoyant consumption growth this year and next. While uncertain, private consumption will also be boosted in 2023 as households spend a portion of the savings accumulated during the pandemic.

Exports will continue to grow strongly this year and next, before moderating in 2023. Exports of pharmaceutical and ICT products will drive growth. Exports from the sectors dominated by domestic firms are expected to recover at a slower pace. Trade with the UK as a third country will result in lower exports by certain sectors, in particular agri-food.

Modified domestic demand is forecast to grow by 3.4 per cent in 2021, 5.6 per cent in 2022 and 4.8 per cent in 2023. Total economic activity, as measured by GDP, is projected to grow by 8.3 per cent in 2021, 5.4 per cent in 2022 and 4.8 per cent in 2023.

The recovering economy will drive employment growth of 1.3 per cent and 2.8 per cent in 2022 and 2023. However, some sectors will take longer to return to their pre-Covid levels of employment. As such, the unemployment rate will remain elevated at 7.7 per cent in 2022 and 6.6 per cent in 2023. Labour force participation is also not expected to reach pre-pandemic levels over the forecast horizon. Strong demand and a slower labour supply response is expected to contribute to earnings growth in 2022 (4.9 per cent) and 2023 (2.7 per cent).

Inflation is forecast to strengthen in 2021 and 2022, boosted by energy prices, the recovery in domestic economic activity, and some transitory supply bottlenecks. HICP inflation projections of 1.8 per cent this year and 2 per cent in 2022 reflects relatively transient price pressures that are expected to ease, with HICP inflation of 1.7 per cent projected in 2023.

The necessary fiscal expansion has led to a deterioration in the public finances, with risks to the revenue base and higher core expenditure becoming more prominent. The deficit and debt ratios are expected to peak this year. By 2023 the deficit is expected to be 3.8 per cent of GNI*, and debt will still be in excess of 105 per cent of GNI*. Changes to global corporation tax arrangements pose challenges for the public finances.

The forecast is still subject to higher than normal levels of uncertainty, but risks to the growth outlook are broadly balanced over the medium term. While the epidemiological situation has improved, COVID-19 related risks remain in the near-term. However, the likelihood of a more protracted recovery has diminished.

Forecast Summary Table

	2019	2020e	2021f	2022f	2023f
Real Economic Activity					
Personal Consumer Expenditure	3.2	-9.1	4.1	7.6	5.3
Public Consumption	6.3	9.9	2.8	-1.2	1.5
Gross Fixed Capital Formation	74.8	-32.3	-15.7	6	5.7
Exports of Goods and Services	10.6	6.2	9	4.8	4.5
Imports of Goods and Services	32.4	-11.3	-1	4.7	4.4
Gross Domestic Product	5.6	3.4	8.3	5.4	4.8
Modified Final Domestic Demand	3.3	-5.4	3.4	5.6	4.8
Modified Gross Fixed Capital Formation	1.2	-8.6	2.5	6.8	6.6
External Trade and Payments					
Balance of Payments Current Account (EURm)	-40,406	16,926	45,977	48,829	51,694
Current Account (% of GDP)	-11.4	4.6	11.5	11.5	11.4
Prices, Costs and Competitiveness					
Harmonised Index of Consumer Prices (HICP)	0.9	-0.5	1.8	2	1.7
HICP of which: Goods	-0.8	-2.1	1.1	1.3	0.5
HICP of which: Services	2.4	0.9	2	2.6	3
HICP Excluding Energy	0.9	-0.1	1.3	2	1.8
Consumer Price Index (CPI)	0.9	-0.3	1.7	1.9	1.7
Compensation per Employee	3.4	3.1	1.5	4.9	2.7
Labour Market					
Total Employment (% change)	2.8	-2.8	0.3	1.3	2.8
Labour Force (% change)	2.1	-2	1.8	1.9	1.6
Unemployment Rate	5	5.9	7.2	7.7	6.6

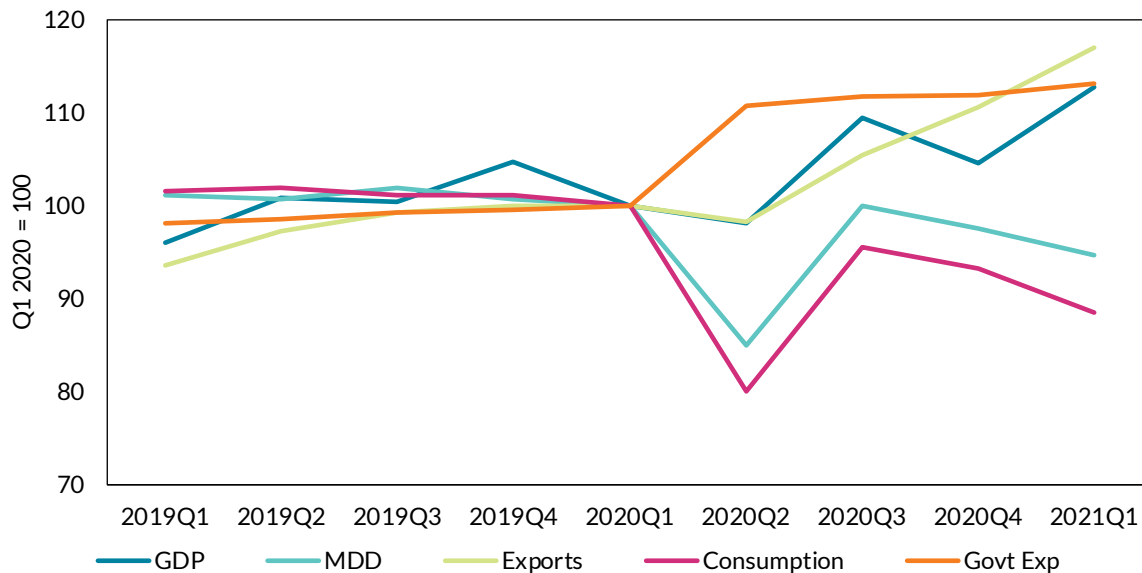
Recent Developments

The domestic economy contracted during the first quarter of 2021, as public health restrictions weighed heavily on economic activity. The contraction was broadly in line with that expected in the April *Bulletin*. Modified domestic demand, which measures domestic activity but excludes volatile investment activity by multinational firms, fell by 5 per cent compared with a year previously. Consumption fell by 11.9 per cent, with many consumer-facing services largely closed throughout the quarter.

GDP grew by 11.8 per cent in 2021Q1 compared with a year previously. The robust increase related to the contribution of net trade, as a 78 per cent year-on-year increase in contract manufacturing activity pushed up exports combined with a large decline in R&D services. In sectoral terms, this increase was due to growth in the Industry (excl. construction) and

Information and communication sectors, which grew by 19.9 per cent and 26.7 per cent respectively, compared with Q1 2020, and accounted for well over half of GDP in Q1 2021. Other sectors, which are more domestically focused, experienced significant declines, the most notable being Construction, which contracted by 25.9 per cent year-on-year.

Figure 1: National Accounts Aggregates



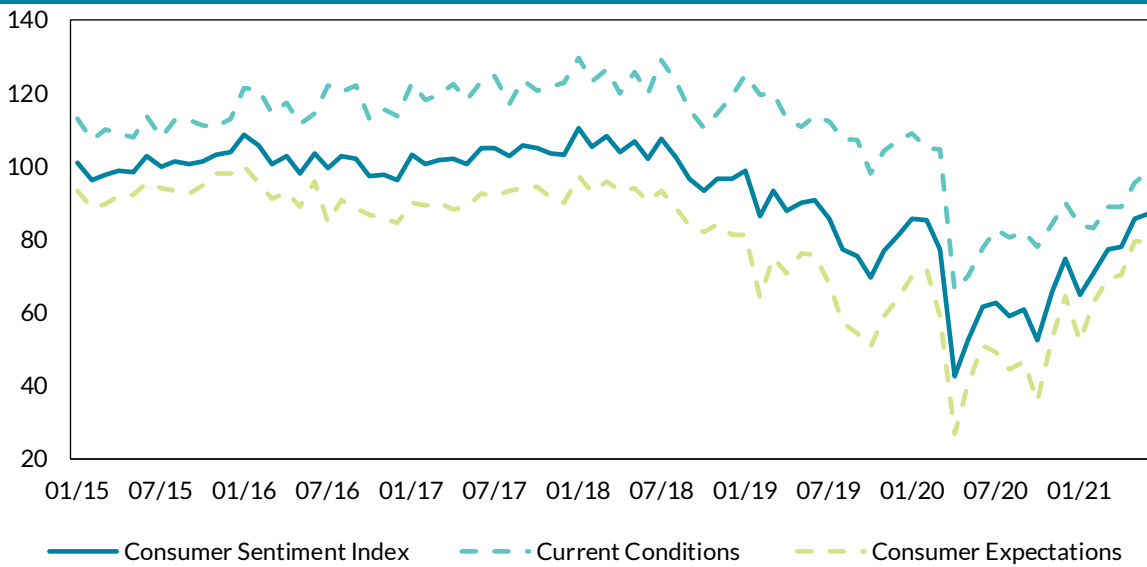
Source: CSO. Note: Index is based on seasonally-adjusted levels at constant prices

The epidemiological situation has improved substantially in the second quarter compared with the first quarter. The current, low level of daily new cases in Ireland has now been maintained for more than three months, with very low numbers currently hospitalised, while in the meantime the vaccination programme is proceeding according to the timetable set out by the public health authorities.

High frequency indicators suggest that the economy rebounded during the second quarter. Card payments and retail sales figures both point to a quarter-on-quarter recovery in domestic demand, and supply restrictions eased moderately in May before a more substantial easing in early June (See Box B). The reopening of outdoor dining, hotels and other recreational services boosted spending in those sectors, while survey evidence suggests that businesses have begun to resume investment as uncertainty diminishes.

Consumer sentiment rose in June to its highest levels since the onset of the pandemic (Figure 2). In particular, consumers' outlook on unemployment, the economy and their purchases have seen a marked improvement. Retail sales have also shown a rebound, with the volume of sales in April 7.1 per cent higher than its level in April 2019. Card payment data confirm that this improving trend in consumption has continued, with spending growing strongly week-on-week through the whole month of May and into June (see Box B). Mobility has been increasing steadily in recent weeks, reflecting a pick-up in economic activity (Figure 3).

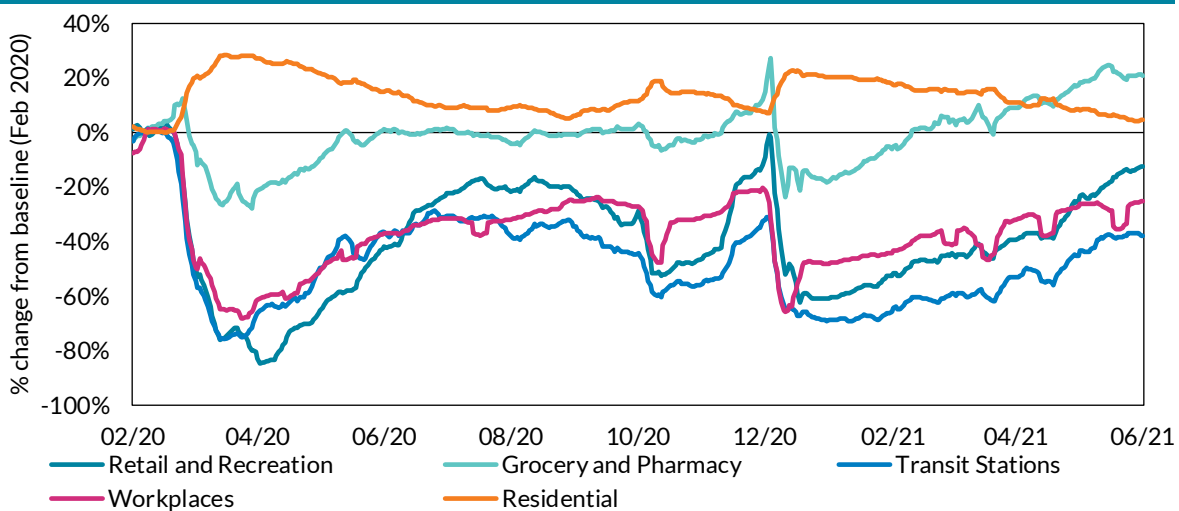
Figure 2: Consumer sentiment rebounded to pre-pandemic levels



Source: KBC Bank Ireland

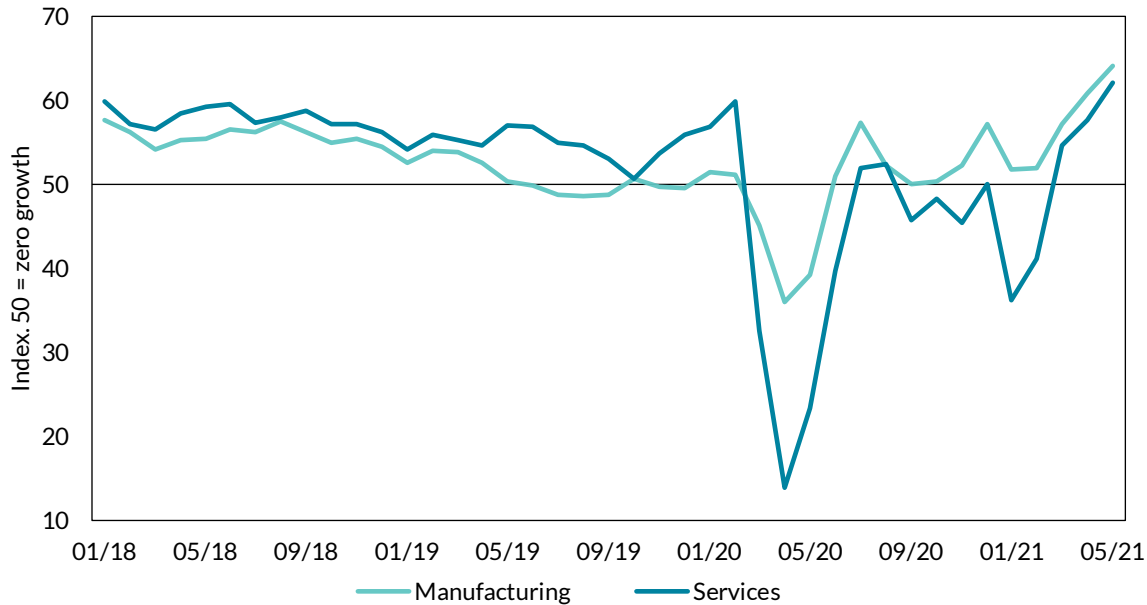
PMI indices indicate that output by Irish firms is growing at a strong rate as demand for goods and services increases sharply with the reopening of the economy. The manufacturing PMI index rose to 64.1 points in May, the highest level ever recorded in the index, with output, new orders, new exports and employment all growing very strongly. The services PMI also picked up strongly to 62.1 in May. With demand rising in Ireland and across the world, firms are faced with growing capacity constraints, increasing costs of raw materials, and global supply chains that are under significant pressure. This can be seen in the manufacturing PMI sub-indices of input and output prices, which are at close to record-high levels, while the second-lowest ever level in the index for suppliers’ delivery times registered in May indicates that delivery times are becoming slower. These indicate growing bottlenecks and inflationary pressures coming from supply chains.

Figure 3: Mobility has been increasing



Source: Google

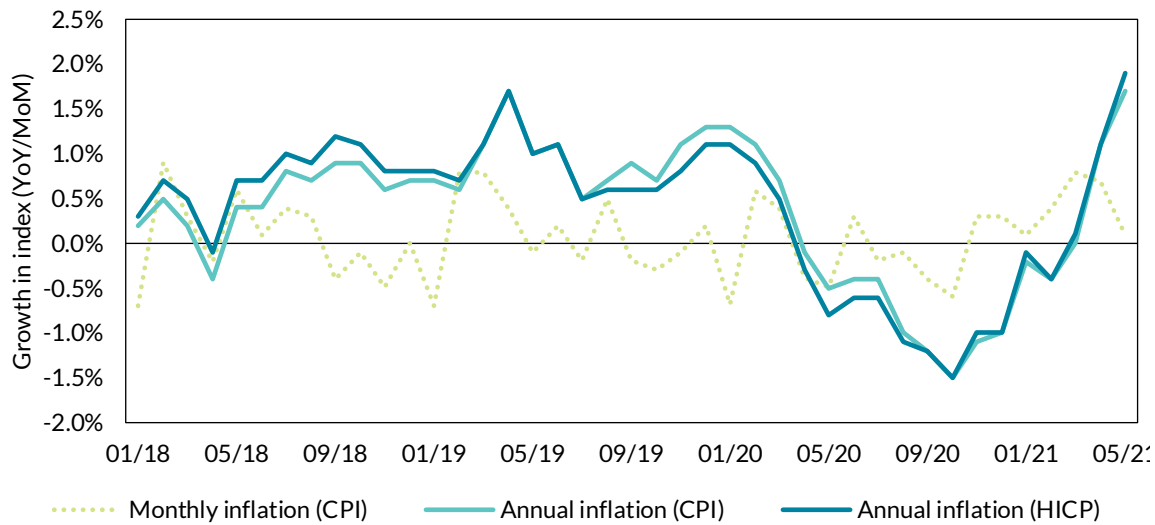
Figure 4: Manufacturing and Services PMIs indicate a pickup in output during the second quarter



Source: Allied Irish Banks

On the labour market, the introduction of stringent public health restrictions in the first quarter saw a rise in the number of PUP recipients to its highest level since the initial onset of the pandemic. During February, there were 480,000 people in receipt of the PUP, with workers in the accommodation, retail and construction sectors making up the largest share. In recent weeks, the gradual reopening of those sectors has allowed for a substantial reduction in claimants, with levels declining to 244,000 at end-June. The Government has announced that the PUP scheme will close to new entrants in July, but remain in place until February 2022 with phased reductions in payment levels in September and November 2021.

Rising demand due to reopening, combined with increasing pressure on global supply chains, have resulted in price increases in certain sectors. Commodity and raw material prices have been increasing at a fast pace in the past few months, and as a result, producer prices have been on the rise. Irish inflation, as measured by the Consumer Price Index (CPI) rose to 1.7 per cent in May (Figure 5), up from 1.1 per cent in April and a low of -1.5 per cent in October of last year, reflecting similar developments across the euro area, the United States and other economies.

Figure 5: Consumer prices have increased in April and May

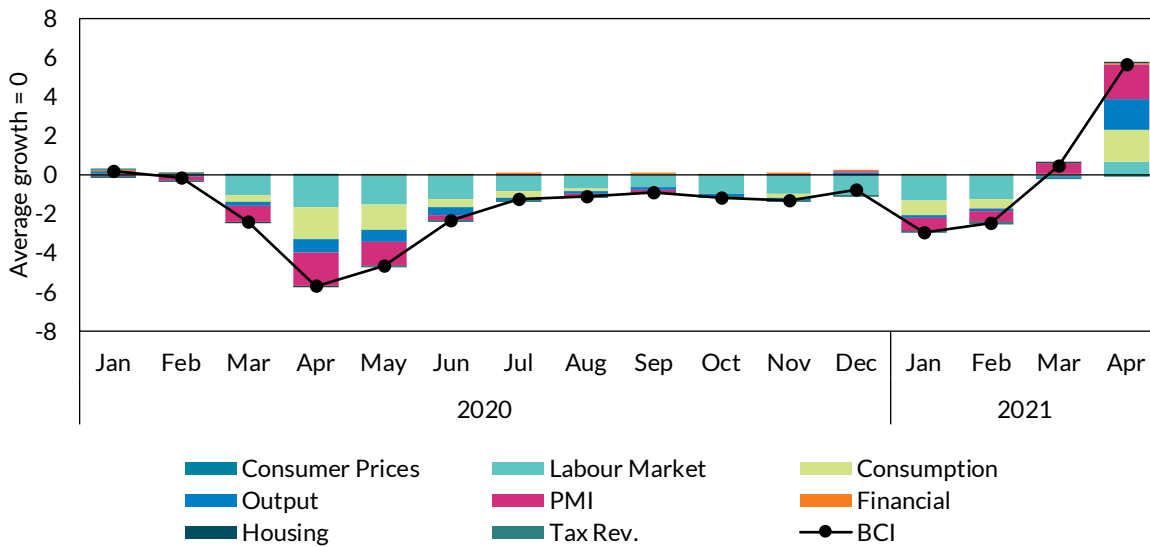
Source: CSO

The Central Bank’s Business Cycle Indicator (BCI) rebounded strongly in April consistent with a positive shift in momentum for economic activity. The BCI aggregates the main high-frequency indicators of economic activity (such as Exchequer returns, retail spending, and PMIs) into a single measure representing higher or lower than average economic growth, and provides an early-indicator for expected developments in MDD.¹ The BCI turned negative in February 2020 at the outset of the pandemic and remained negative for 13 consecutive months reflecting the effect of the pandemic and related public health restrictions on economic activity. It is notable that economic activity as measured by the BCI fell by significantly less in January and February 2021 than in March and April 2020 during the first wave of the pandemic. In March 2021, the BCI turned positive and increased further in April signifying a change in direction of economic activity (see Figure 6).

The main factors driving the improvement in April were the increase in core retail sales, improving labour market statistics and stronger survey data such as consumer sentiment and PMIs. The latest available industrial production data for April show that the domestic manufacturing sector also made a strong positive contribution to the BCI in that month. Despite the recent sharp increases in the BCI it should be noted that the sum of negative contributions since January 2020 to date remains in excess of the recent positive contributions, indicating that the recovery is in an early phase.

¹ See Conefrey and Walsh (2021). “A Year of the Pandemic – A view from the BCI.” Quarterly Bulletin 2 2021, Box B. Available at: <https://www.centralbank.ie/docs/default-source/publications/quarterly-bulletins/boxes/qb2-2021/box-b-a-year-of-the-pandemic-a-view-from-the-bci.pdf>

Figure 6: BCI January 2020 to April 2021



Source: CSO and Authors' calculations.

Updated: 28/06/2021

Box A: International Outlook

By Monetary Policy Division

The global economic outlook is expected to remain relatively positive as countries continue to recover from the COVID-19 pandemic. However, differences across countries in their ability to combat the virus and in the pace of vaccine rollout is likely to lead to varying speeds of recovery. In April, the IMF forecast global growth of 6.0 percent in 2021 and a moderation to 4.4 percent in 2022. The latest OECD projections, released in May, expect the global economy to expand by 5.8 percent in 2021 and by 4.4 percent in 2022. The OECD also note that the world economy has now returned to pre-pandemic activity levels but, by end-2022, will still remain short of what was expected prior to the crisis. Fiscal supports are aiding the recovery in the global economy, with stimulus helping to boost demand and reduce the risk of longer-term economic scarring in the wake of the pandemic. However, the slower vaccination deployment in many emerging-market economies, coupled with severe outbreaks of COVID-19 in some countries, could limit growth for some time.

Euro area seasonally-adjusted Gross Domestic Product (GDP) declined by 0.6 percent in the first quarter of 2021, when compared with the previous quarter. The decline follows a negative reading of -0.7 percent in the fourth quarter of 2020, after a strong rebound of 12.5 percent in the third quarter of 2020. Compared with the March 2021 ECB projections, the growth outlook has been revised up for 2021 and 2022 in the June Broad

Macroeconomic Projection Exercise. This reflects the assumption that the pandemic will have a smaller economic impact, given the progress on the vaccination campaign, substantial additional fiscal policy measures and an upgrade to the outlook for foreign demand supported by the recent fiscal policy packages in the United States. Euro area GDP is expected to increase by 4.6 percent in 2021 (up from the March forecast of 4.0 percent), 4.7 percent in 2022 (up from 4.1 percent), and 2.1 percent in 2023 (unchanged).

In April 2021, the euro area seasonally-adjusted unemployment rate was 8.0 percent, following successive declines since August 2020. However, it remains higher than the reading of 7.3 percent in April 2020. Current unemployment estimates should be read with caution, as they are based on the ILO standard definition of unemployment, which does not fully capture the unprecedented labour market situation triggered by the pandemic. Recent PMI readings for May, compiled by Markit, show the continued progress in business activity as economies in the euro area reopen as virus-related restrictions are eased. The strength of expansion in manufacturing was reportedly at a record high (63.1), with measures for services (55.2) and overall activity (57.1) at multi-year highs in May.

Euro area headline HICP inflation stood at 2.0 percent in May, up from 1.6 percent in April, according to a flash estimate. Looking at the main components of euro area inflation, energy had the highest annual rate in May (13.1 percent, compared with 10.4 percent in April), followed by services (1.1 percent, compared with 0.9 percent in April). ECB projections for the euro area inflation rate have been revised upward for this year and next, with annual HICP inflation of 1.9 percent in 2021 (up from the March forecast of 1.5 percent), 1.5 percent in 2022 (up from 1.2 percent), and 1.4 percent in 2023 (unchanged) now expected.

In June, the Governing Council (GC) of the ECB confirmed that it will continue to conduct net asset purchases under the pandemic emergency purchase programme (PEPP) with a total envelope of €1,850 billion until at least the end of March 2022 and, in any case, until it judges that the coronavirus crisis phase is over. Based on a joint assessment of financing conditions and the inflation outlook, the GC expects purchases under the PEPP to be conducted over the third quarter of 2021 at a significantly higher pace than during the first months of the year. The GC confirmed its commitments with respect to the key ECB interest rates, the asset purchase programme (APP), the expected PEPP reinvestment phase, and the third series of targeted longer-term refinancing operations (TLTRO III).

In the United States, real GDP increased by 1.6 percent quarter-on-quarter in the first quarter of 2021, after a 1.1 percent increase in the fourth quarter of 2020. The increase in first quarter GDP reflected the continued economic recovery, reopening of businesses, and ongoing government response related to the COVID-19 pandemic. In April, the unemployment rate was little changed from previous months, standing at 6.1 percent. While unemployment levels have declined notably over the past year, they remain well above the pre-pandemic level of 3.5 percent in February 2020. In April, the Federal Reserve's Federal Open Market Committee (FOMC) held interest rates in a range of 0 to

0.25 percent, in a unanimous decision. The FOMC committed to maintaining an accommodative stance, and reiterated that it would continue its asset purchase programme at a rate of \$120bn per month until “substantial further progress” was made towards its goals of maximum employment and inflation at a rate of 2 percent over the longer run. The FOMC expects higher inflation in the coming months, but largely due to transitory factors.

In the United Kingdom, GDP is estimated to have contracted by 1.5 percent in the first quarter of 2021. Compared with the same quarter a year ago, when the initial economic impacts of the coronavirus (COVID-19) pandemic began to show, the UK economy fell by 6.1 percent. At its May meeting, the Bank of England’s Monetary Policy Committee (MPC) voted unanimously to maintain the Bank Rate at 0.1 percent. The MPC also voted to maintain the target for the stock of UK government bond purchases at £875 billion and the total target stock of asset purchases at £895 billion.

Box B: Spending, credit, and deposits: An update on Irish household and business activity

By Statistics Division

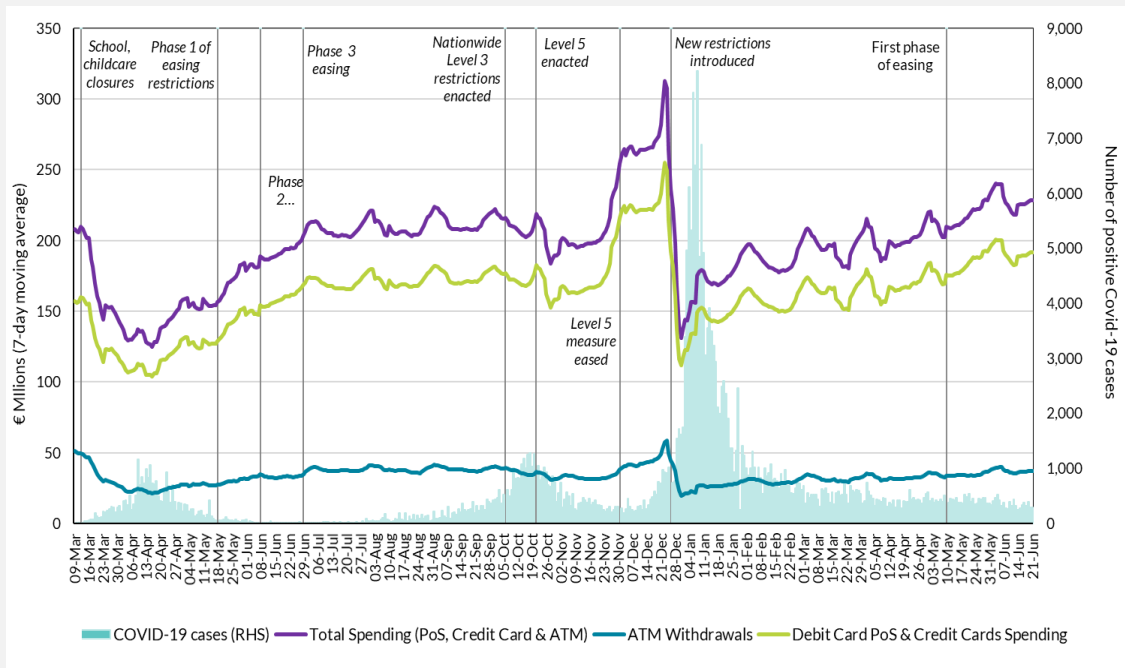
Household Spending

As Daily Credit & Debit Card Statistics² demonstrate, the Covid-19 pandemic has had a significant impact on Irish household aggregate spending, the reallocation of spending between sectors and the method by which spending occurs. Following the contraction in spending after the Christmas period, when card spending declined by 10 per cent in January in year-on-year terms, spending quickly rebounded and by late-February activity had recovered to 2020 levels and remained relatively stable throughout the opening months of 2021. From mid-April, spending began to increase again, reflecting both the improvement in consumer sentiment³ that has accompanied the acceleration of the national vaccination programme and the announced phased easing of public health restrictions.

² Further information on the Daily and Monthly Credit & Debit Card Statistics is available [here](#) and [here](#).

³ See the latest KBC Consumer Sentiment Index available [here](#).

Figure 1: Changes in daily card spending and cash withdrawals⁴

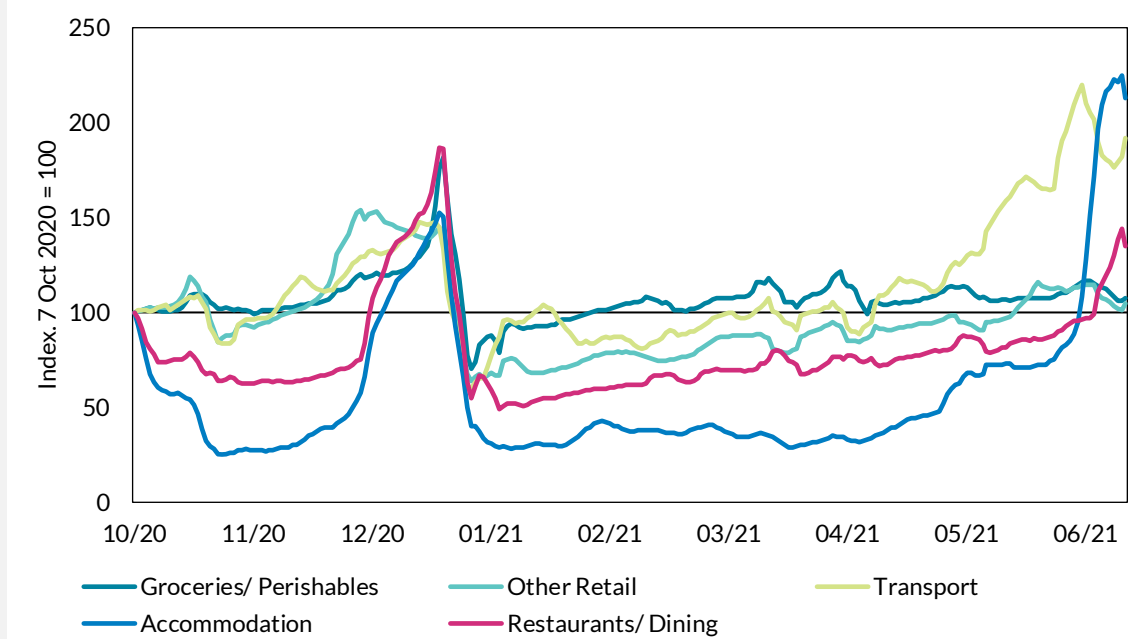


Source: Central Bank of Ireland

Analysis of the monthly Credit and Debit Card Statistics¹, which provides a less timely but more granular breakdown of the daily data, indicates that while aggregate card spending for February 2021 (the last month for a pre vs post pandemic comparison) was largely unchanged in year-on-year terms, however there was a substantial reallocation of spending since the beginning of the pandemic compared with previous long-established spending patterns. For example, the significant decline in spending in sectors such as restaurants, accommodation and transport was in part offset by increases in the retail sectors of groceries, electrical goods and hardware.

On a sectoral level, daily data indicates that spending remained relatively stable during the first few months of 2021, with the restaurant and accommodation sectors reverting to levels observed in late-October and November last year, when similar Level 5 public health restrictions were in place (Figure 2). Since late-April, spending in the two sectors most impacted by the public health restrictions, the accommodation and transport sectors, has increased markedly, coinciding with increased optimism due to the accelerating vaccine rollout and the government announcement outlining the proposed path for easing restrictions. While more recently, as restrictions in the hospitality sectors were eased in early-June, accommodation and restaurants spending rose sharply. Meanwhile, spending on groceries has proven largely resilient to the changes regarding public health measures as spending relocated from outside to inside the home, and remains significantly higher than pre-pandemic levels.

⁴ The sharp contraction in spending immediately after Christmas was driven by a number of factors in addition to the introduction of public health measures. These included seasonal factors, the impact of weekends and public holidays; all of which contribute to the significantly lower spending. Chart uses daily data from 7 March 2020 to 7 June 2021.

Figure 2: Changes in Daily Sectoral Card Spending

Source: Central Bank of Ireland

The proportion of card spending conducted online rose to 57 per cent in January, up from a monthly average of 39 per cent in 2019, as the public health restrictions limited opportunities for in-person spending. Despite restrictions remaining unchanged until early-May, the proportion of in-store spending rose steadily to nearly 49 per cent over the intervening period. A number of factors likely contributed to this increase; including seasonality, greater public mobility⁵ as the health environment improved, and the increasing adaptability of businesses. Once non-essential retail reopened in early-May, in-store spending rose sharply and once again became the primary venue for card spending.

Household Credit & Deposits

Household savings have continued to rise at pace since the beginning of the Covid-19 pandemic and the introduction of the associated public health measures. This continued growth likely reflects an increase in precautionary and forced savings due to the curtailed consumption opportunities⁶, while government income supports and other intervention measures have helped, to a certain extent, to mitigate household income shocks.

The latest Credit and Banking Statistics⁷, shows that household deposits continue to post new record highs and stood at €131.5 billion at end-May. Lodgements exceeded withdrawals by €14 billion in the twelve months to end-May, a growth rate of 11.9 per cent (Figure 3). However, comparing March, April and May 2020 at the beginning of the pandemic with the same months this year, lodgements exceeded withdrawals by a lesser

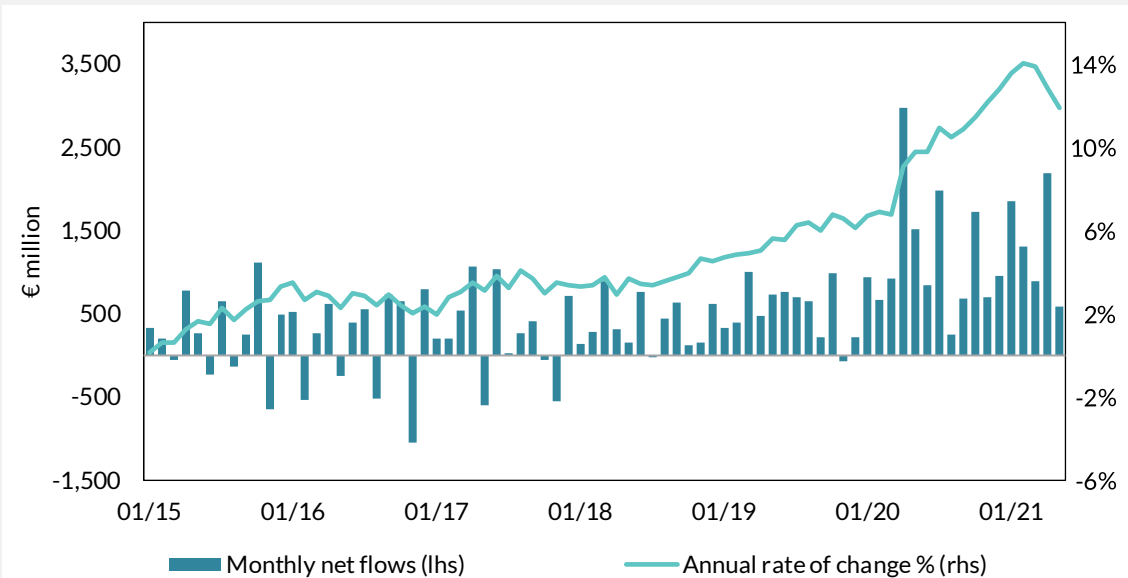
⁵ See latest google mobility report [here](#).

⁶ For a detailed discussion of the impact of the pandemic on consumption and savings, see [Byrne, S., Hopkins, A., McIndoe-Calder, T., and Sherman, M. The Impact of COVID-19 on Consumer Spending. Central Bank of Ireland Economic Letters, Vol 2020, No 15.](#)

⁷ The latest Credit and Bank Statistics are available [here](#).

extent than in 2020 indicating that while there was a forced element to savings due to curtailed consumption opportunities, a certain proportion of savings may also be described as precautionary⁸. What happens with these accumulated savings will be an important factor in determining the path for the economy in the coming years, and this issue is discussed further in Box D.

Figure 3: Deposits from Households; developments in net flows, and annual rate of change



Source: Central Bank of Ireland

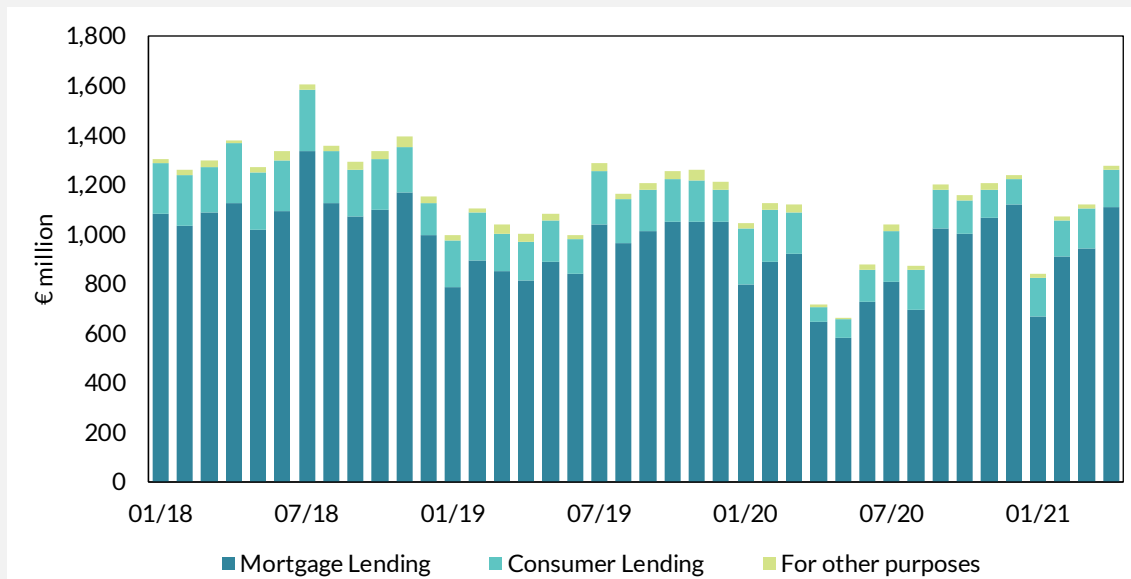
Analysing household credit by purpose of lending reveals differing trends in lending for house purchases, which accounts for the vast majority of household credit, and shorter-term lending for consumption and other purposes (Figure 4). In total, new lending to households contracted by 8 per cent in the first quarter compared to the corresponding quarter of 2020, while lending strengthened in April.

There was a significant decline in new mortgage lending (ex. renegotiations) at the beginning of the pandemic. Recent analysis has shown that the biggest factor shaping credit outcomes appeared to have been falling credit demand, while only some tightening was observed in credit supply conditions⁹. The beginning of 2021 got off to a subdued start, with new mortgage lending down almost 7 per cent year-on-year in January. Lending has since recovered, with the latest data indicating the volume of new mortgage lending was only slightly lower than in April 2019.

⁸ For a more detailed discussion on savings and the potential effect on future spending, see [Reamonn Lydon & Tara McIndoe-Calder. Saving during the pandemic: Waiting out the storm? Central Bank of Ireland Economic Letters. Vol 2021. No 4.](#)

⁹ Credit Conditions for Irish Households and SMEs, available [here](#).

Figure 4: New Lending to Households by Purpose



Source: Central Bank of Ireland

According to the latest Bank Lending Survey¹⁰, demand for house purchase loans was largely unchanged compared to the previous survey but demand for consumer credit and other lending declined. Increases in demand for the latter two categories of lending are expected during the second quarter, while the credit standards on household loans are also expected to be loosened.

The average interest rates on all new mortgage agreements have remained largely unchanged at around 2.79 per cent since January¹¹. The rate on fixed rate agreements, which account for nearly four in every five new mortgages agreements, continues to edge lower and currently stands at 2.63 per cent in April, its lowest level since the series began and down 16 bps since the beginning of 2020. Ireland currently has the second highest average rate in the euro area, however the composition of loan types and risk characteristics are different in each country, making like-for-like comparisons difficult¹².

New consumer lending remains subdued, contracting sharply during the first quarter. The latest data for April shows this subdued trend has continued, although it is significantly higher than the lows associated with the beginning of the pandemic. Looking to the months ahead, as consumer credit is largely driven by car purchases, holidays and credit cards, any increase in new lending for consumption purposes is unlikely until consumer confidence and activity returns¹³. The sharp increase in consumer lending seen in summer

¹⁰ Central Bank of Ireland's latest Bank Lending Survey, available [here](#).

¹¹ Central Bank of Ireland. [Retail Interest Rate Statistics April 2021](#).

¹² <https://www.centralbank.ie/news/article/blog-monetary-policy-and-interest-rates-in-ireland>

¹³ [Byrne, S., Hopkins, A., McIndoe-Calder, T., and Sherman, M. The Impact of COVID-19 on Consumer Spending. Central Bank of Ireland Economic Letters. Vol 2020. No 15.](#)

of 2020, highlights that the flow of consumer credit can pick up quickly and sharply to support the recovery when health restrictions ease.

Business Credit & Deposits

Data on lending to non-financial corporations (NFCs) shows that repayments exceeding drawdowns by €2.2 billion in the twelve months to end-May.

The trend of subdued new lending to NFCs continued in the first two months of this year before rising sharply in March, with loans over €1 million, which are mainly driven by large enterprises, contributing the majority of the increase. April's data shows slightly lower levels of new lending compared to March, but remains higher in year-on-year terms.

New lending advanced to Irish resident SMEs¹⁴ stood at just over €1 billion in the first quarter of 2021, a decline of 24 per cent compared to the final quarter of 2020. New lending varied considerably across sectors, with the property investment/development and primary industries recording the largest levels of new lending in the quarter, while hotel and restaurant sectors were significantly lower than pre-pandemic levels.

According to recent analysis on household and SME credit conditions¹⁵, the decline in of new lending to SME's does not appear to be driven by factors that relate to bank balance sheet constraints, such as capital, access to funding or liquidity. Looking at firms' demand for credit, the latest ECB SAFE survey¹⁶, covering the six months to March 2021, shows that the percentage of euro area SMEs applying for bank loans declined compared to the previous six months, with a significant proportion citing sufficient availability of internal funds. In Ireland, the extensive set of policies introduced, focusing on wage subsidisation, tax and payment deferrals, grants and direct cost supports as well as lending facilities has helped support firms' liquidity, with some sectors more heavily reliant on these supports than other sectors. The survey also highlights that the financial vulnerability of euro area SMEs remains high, with almost 10 per cent of SMEs encountering major difficulties in running their businesses and servicing debts.

Forward-looking risks to the supply of credit to businesses remain, including the possibility that supply will not meet firm demand for credit as the government liquidity supports are phased out as the economy reopens. While the possibility of an unexpected deterioration in credit quality also exists, which may lead to a tightening of risk appetite by lenders and individual lender decisions, leading to a collectively sub-optimal outcome¹⁰.

The non-bank sector provides a growing and important source of credit for Irish SMEs, recent analysis using the Central Bank's Central Credit Register¹⁷, shows that SMEs borrowed in excess of €1.6 billion from non-bank lenders in 2020. Overall, SMEs had outstanding debts of circa €4.3 billion owed to non-bank lenders at the end of 2020,

¹⁴ Data on lending to SMEs is available [here](#).

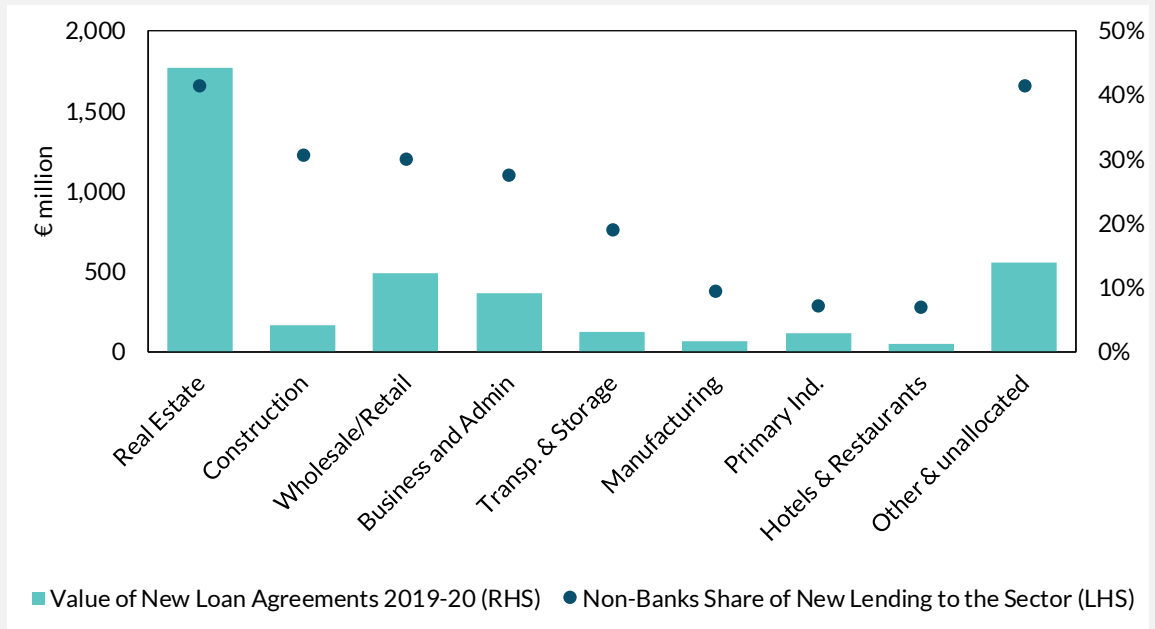
¹⁵ Credit Conditions for Irish Households and SMEs, available [here](#).

¹⁶ https://www.ecb.europa.eu/stats/ecb_surveys/safe/html/ecb.safe202106~3746205830.en.html#toc18

¹⁷ For more detail on latest Behind The Data, 'The role of non-bank lenders in financing Irish SMEs', see [Tiernan Heffernan, Barra McCarthy, Rory McElligott and Conall Scollard](#).

compared to €19.8 billion owed to banks. The real estate sector received the largest share, at 41 per cent, of their total borrowing from the non-bank sector, which amounted to €1.8 billion between 2019 and 2020 (Figure 5). Non-banks also account for a high share of funding in the wholesale and retail sector, which is heavily concentrated in stocking finance for car dealers, and was one of the few sectors to see a growth in lending in 2020.

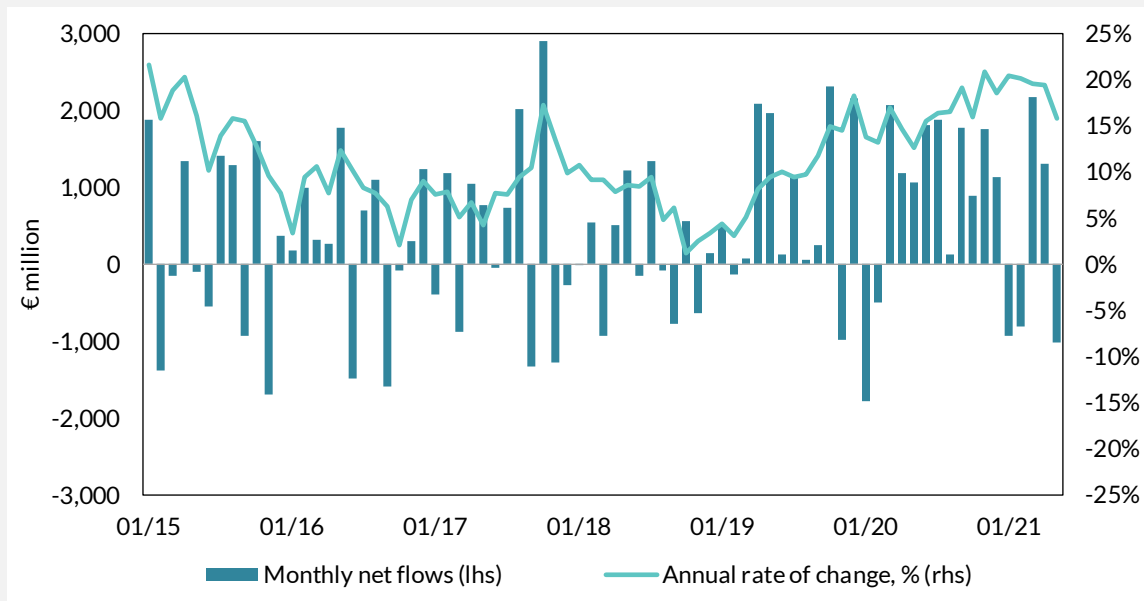
Figure 5: Sectoral use of non-bank lending



Source: Central Bank of Ireland Statistics, Central Credit Register, CRO, RIAD and Central Bank of Ireland calculation

Similarly to households, NFCs have significantly increased their aggregate holdings of deposits. The most recent data, to end-May, shows that the annual increase in NFC deposits has risen by an average of 19 per cent each month since the beginning of the year (Figure 6). Since the beginning of the Covid-19 pandemic in March last year, NFCs deposit lodgements has exceeded withdrawals by €14.4 billion, the vast majority of which are overnight deposits.

Figure 6: Deposits from NFCs; developments in net flows, and annual rate of change



Source: Central Bank of Ireland

Demand and Output

Overview

Strict public health restrictions, in place from January until early-May, dampened economic activity in the first quarter of the year, but a strong rebound of the Irish economy is emerging. The near-term outlook for activity depends primarily on the pandemic, in particular the speed and efficacy of the vaccination programme. Restrictions on economic activity are assumed in the central forecast to be less stringent in the second half of the year than assumed in the April *Bulletin*. A sufficient proportion of the population are assumed to be vaccinated to allow for an almost complete relaxation of containment measures by the end of the year.

Higher public expenditure outlined in the Stability Programme Update and Economic Recovery Plan, as well as a further recovery in the international economy supported by large-scale fiscal stimulus in the US, should support strong growth in 2022 and 2023. The pickup in consumption will result in a significant decline in the savings ratio, beginning in the second half of 2021. Investment is forecast to recover strongly, as uncertainty declines and businesses balance sheets recover, and will be supported over the short-run by the various pandemic-related supports.

Box C: Spillovers to Ireland from the America Rescue Plan

By Thomas Conefrey, Niall McInerney and Graeme Walsh

On 27 February 2021, the US House of Representatives passed President Biden's America Rescue Plan. The associated fiscal package is very large, amounting to \$1.9 trillion (8.5 per cent of 2020 GDP). This Box provides an assessment of the possible economic implications of the Biden package for the US economy as well as spillovers to the rest of the world and Ireland. Our estimates suggest that the Biden stimulus would add just under 1 per cent to economic output in Ireland by 2022. The results show that the US stimulus measures are likely to contribute to a favourable external demand environment for the Irish economy in the coming years, complementing the projected recovery in domestic demand. The benefits to the Irish economy would be reduced if US monetary policy was tightened in response to a sustained increase in inflation.

Background and Context

The aim of the America Rescue Plan is to provide direct relief to Americans in response to the adverse economic effects of the COVID-19 pandemic. In 2020, US GDP fell by 3.5 per cent and employment by just under 6 per cent. The plan includes a broad range of relief measures including \$1,400 per-person cheques to households, increases in tax credits such as the Child Tax Credit and Earned-Income Tax Credit, an extension of unemployment benefits, and support to small businesses through emergency grants.¹⁸ Although the plan includes fiscal changes over a 10-year horizon, the direct fiscal stimulus is front loaded and concentrated over the next three years (2021-2023). For example, the Congressional Budget Office (CBO) has estimated that \$1.1 trillion (60 per cent of the total) is expected to take place in 2021 while a further \$0.5 trillion (26 per cent of the total) is allocated in 2022 and \$0.1 trillion (6 per cent of the total) is allocated to 2023.¹⁹

In this Box, we focus on estimating the impact of the US fiscal stimulus on economic activity over the projection horizon.²⁰ These estimates are incorporated into the forecasts for the economy presented in this Bulletin.

Modelling the America Rescue Plan

To assess the America Rescue Plan, we estimate not only its potential impact on the US economy but also its spillover effects to the global and Irish economies using both the NiGEM and COSMO macroeconomic models.²¹ In line with ECB (2021, Box 4), we assume

¹⁸ See: <https://www.whitehouse.gov/american-rescue-plan/>.

¹⁹ See: https://www.cbo.gov/system/files/2021-03/Estimated_Budgetary_Effects_of_HR_1319_as_passed_0.pdf

²⁰ The results are presented in the Box as deviations from a model baseline that excludes the impact of the US fiscal stimulus in the America Rescue Plan.

²¹ NiGEM is a model of the global economy maintained by the National Institute for Economic and Social Research (NIESR) in the UK. We use NiGEM in combination with the Central Bank's model of the Irish economy (COSMO) to estimate the effect of external economic developments on Ireland.

that the \$1.9 trillion plan is comprised of temporary shocks to (i) transfers to targeted households, (ii) general transfers to households, and (iii) government consumption.²² Transfers account for the majority of the stimulus (see Figure 1). It is assumed that households save a proportion of the transfers they receive. However, for the targeted transfers, we assume that these go to income constrained households and thus the full amount is consumed.²³

In terms of monetary policy, we assume that the Federal Reserve fully accommodates the fiscal expansion by holding interest rates unchanged for the duration of the shocks.²⁴ Some commentators have raised concerns about the potential for the US stimulus package to overheat the US economy and cause more persistent and problematic inflationary pressures.²⁵ If this materialised, the Fed may need to raise interest rates, which would ameliorate some of the inflationary pressures and reduce the impact of the stimulus on output. NIESR (2021) shows that pursuit of an active monetary policy reaction would modestly reduce the positive effect on US GDP of the extremely large fiscal package.

Figure 1: Fiscal stimulus assumptions

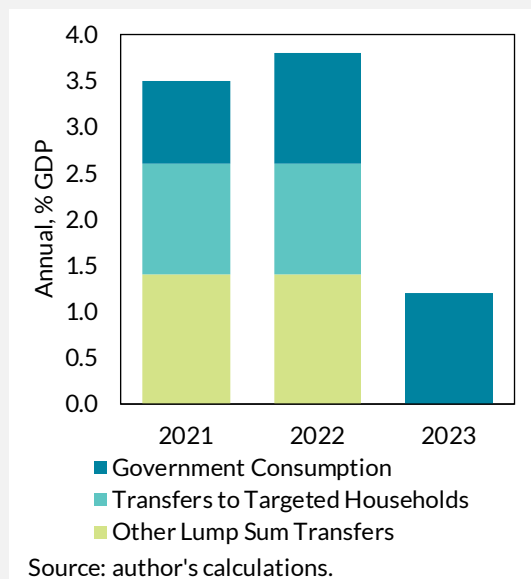
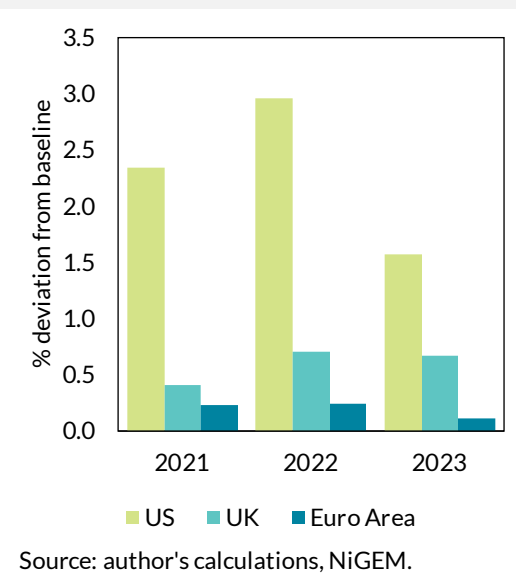


Figure 2: Impact of US Stimulus on GDP in US, UK, and EA



²² ECB (2021, Box 4) "Risks to the US and euro area outlook related to the American Rescue Plan. Available at:

https://www.ecb.europa.eu/pub/projections/html/ecb.projections202103_ecbstaff~3f6efd7e8f.en.html#toc9

²³ If a smaller amount of targeted transfers were assumed to flow into consumption then the magnitude of stimulus and spillovers to Ireland would be somewhat lower.

²⁴ If interest rates increase in response to more persistent inflationary pressures then the benefits to Ireland would be reduced.

²⁵ See Financial Times (12 April 2021) "Larry Summers: 'I'm concerned that what is being done is substantially excessive'". Available at: <https://www.ft.com/content/380ea811-e927-4fe1-aa5b-d213816e9073>

Impact on US Economy and Key Trading Partners

The impact of the stimulus on the US economy and Ireland's other key trading partners is shown in Figure 2. The plan is estimated to boost US GDP by 2.3 and 3 per cent in 2021 and 2022, respectively. Due to the temporary nature of the stimulus, the effect carries through to 2023 and beyond at a diminished rate. The US stimulus provides positive spillovers to the rest of the world mainly through the trade channel (i.e. US import demand increases). The size of the spillovers to each individual country depends on the country's share of trade with the US as well as the degree of openness of each economy. Overall, the effects of the stimulus are estimated to increase UK and euro area GDP by 0.7 and just over 0.2 per cent, respectively, by 2022. These estimates are consistent with those reported by ECB (2021) and NIESR (2021).²⁶

Impact on Ireland

The stimulus to the US economy and subsequent spillovers to Ireland's other main trading partners has a positive impact on the Irish economy. The transmission of the shock to the economy occurs largely through the increase in foreign demand. This directly boosts output and employment in the traded sector, reducing the unemployment rate. In the model, the increase in employment and incomes stimulates consumption and non-traded sector output. Figure 3 shows that Irish output is estimated to be 0.8 per cent higher by 2022 than in the absence of the US stimulus. The increase in overall output is driven by the traded sector where output rises by 1.2 per cent. Improvements to the labour market would result in an estimated 0.4 per cent increase in employment and about a 0.2 percentage point reduction in the unemployment rate (see Figure 4).

Figure 3: Impact of plan on Irish output by sector

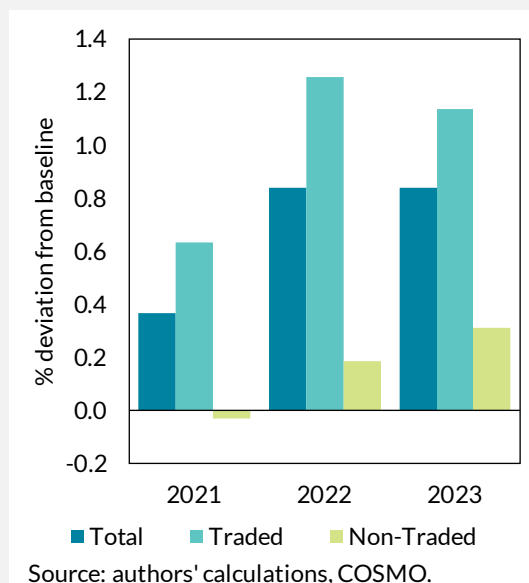
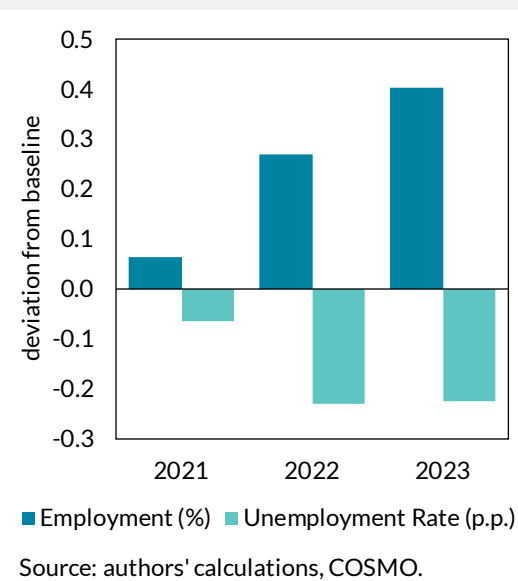


Figure 4: Impact of plan on Irish labour market

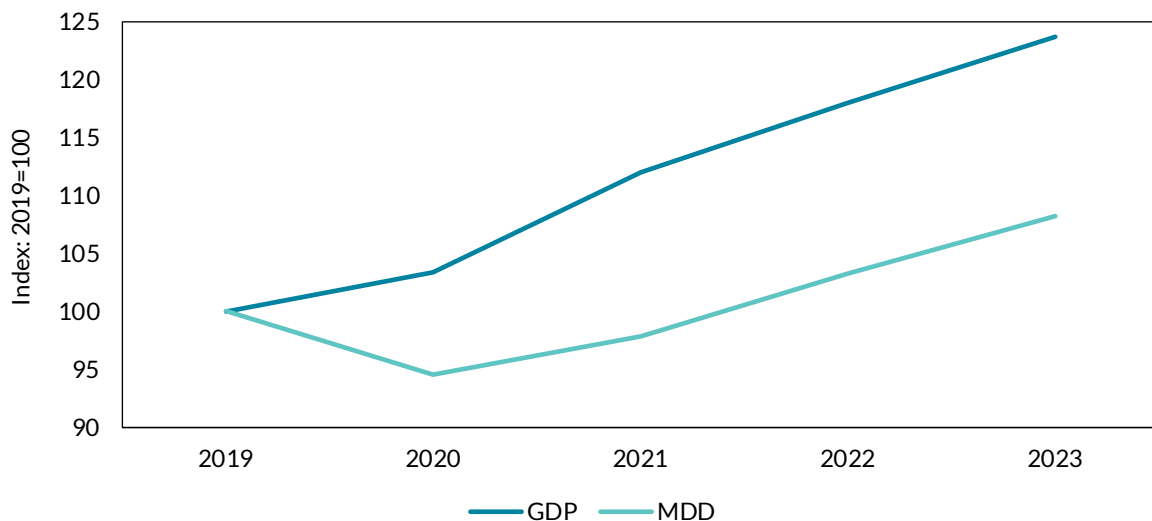


²⁶ NIESR (2021) "NiGEM Topical Feature 1: Modelling the impact of the American Rescue Plan in NiGEM" in National Institute Global Economic Outlook: Our Vaccine Debt. Spring 2021. Series B. No.2. Available at: <https://www.niesr.ac.uk/latest-quarterly-global-economic-outlook>

Domestic Demand

Consumption is forecast to grow by 4.1 per cent this year, with the majority of the expansion occurring in the second half of the year. Previously postponed purchases are expected to support a surge in demand in some sectors, such as retail, motor trades and restaurants/hotels. The ability of firms to meet this demand may be limited by capacity constraints, both in the form of some residual public health restrictions and by the supply of inputs, space and labour in these sectors being relatively fixed in the short-term. Precautionary behaviour with regard to contact-intensive activities could also dampen growth, particularly during the 3rd quarter before younger cohorts are vaccinated. Continued fiscal support, and the robust growth in employment and incomes underpin expected consumption growth of 7.6 per cent in 2022 and 5.3 per cent in 2023.

Figure 7: Domestic economic activity is forecast to return to its pre-Covid level in 2022

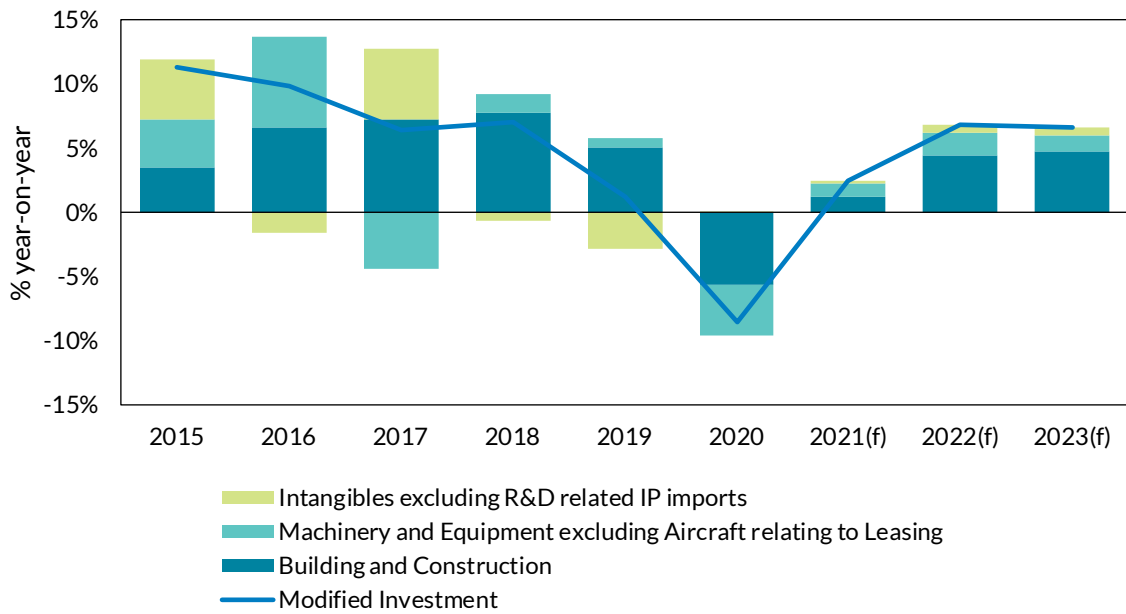


Source: CSO and Central Bank Calculations

Notes: GDP and MDD in constant prices. MDD represents modified final domestic demand, which includes Private and Public consumption and Investment (excluding intangibles and aircraft relating to leasing)

The outlook for domestic investment this year is more favourable than that contained in the previous *Bulletin*, as pandemic-related public health containment measures are forecast to ease sooner than anticipated (Figure 7). Domestic and global pandemic-related uncertainties have declined as vaccine rollouts have progressed providing increased clarity for business investment decisions. Modified investment is forecast to grow by 2.5 per cent this year, accelerating to 6.8 per cent in 2022 (Figure 8).

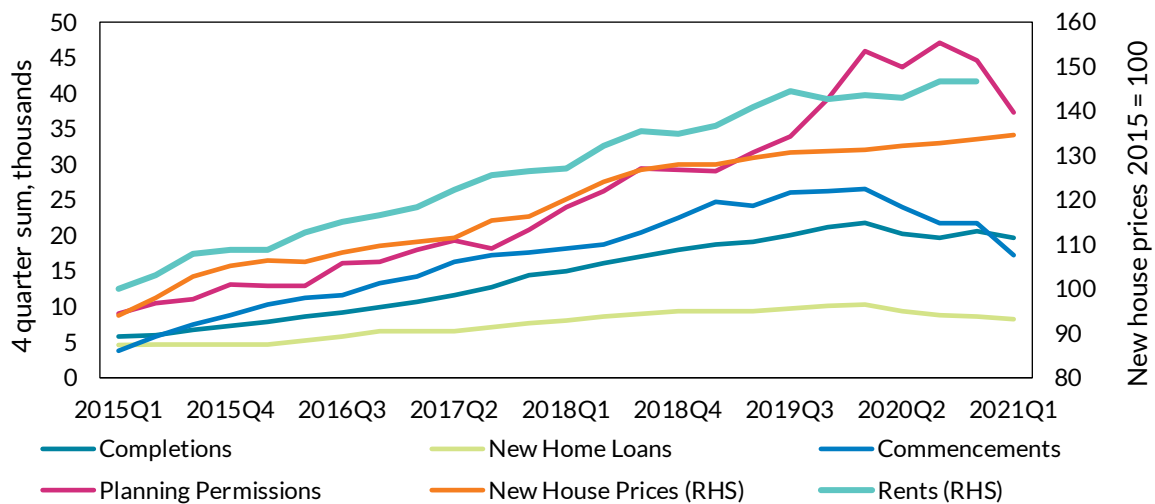
Figure 8: Modified Investment Growth Contributions



Source: CSO and Central Bank of Ireland

Housing investment was hampered by the closure of many building sites until April, but activity is forecast to rebound over the remainder of the year. Completions fell in year-on-year terms by 20 per cent in Q1 2021, while commencements rebounded strongly in April. Housing completions are forecast to remain below estimates of long-run demand, increasing by approximately 20,000 units in 2021, 23,000 in 2022 and 26,500 in 2023. Some 25,000 fewer completions are expected over the 2020-2023 period relative to pre-pandemic projections. Persistent imbalances between housing supply and demand mean that affordability pressures across rents and house prices continue to rise. Price rises may also result given increased input costs of housing delivery, which have been particularly acute for raw materials recently.

Figure 9: Housing Supply Indicators

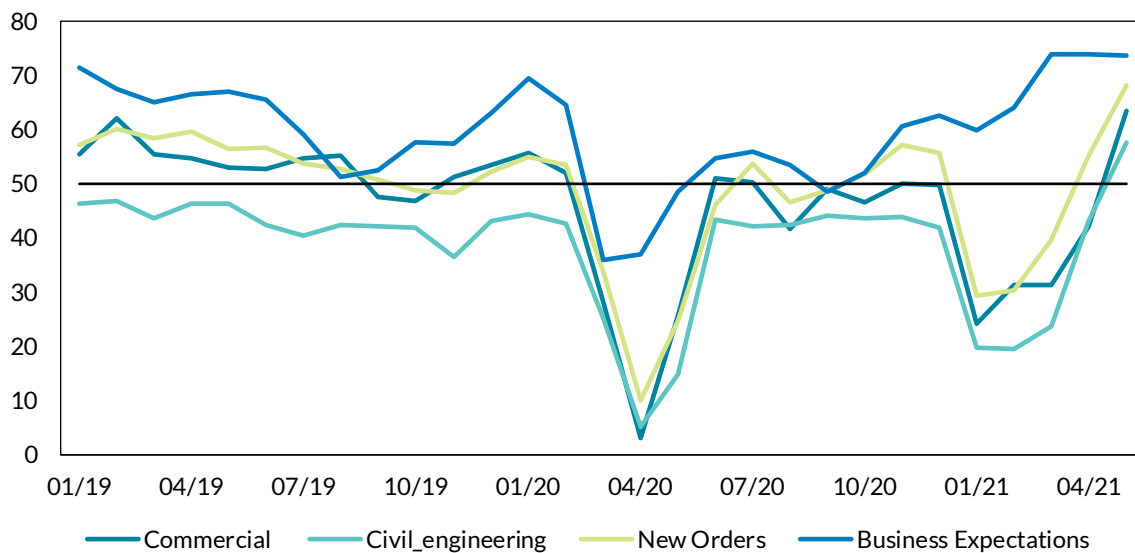


Source: CSO, DoHLGH, BPII, Central Bank of Ireland

Considerable uncertainty surrounds the outlook for non-residential investment, the level of which was at a historical high in 2019. The pandemic may induce longer-term structural changes in firms' demand for office and retail space depending on the reliance of the work-from-home model and the longer-term effects of the pandemic on business restarts and changes in consumption patterns.²⁷ Strong growth in government investment (Figure 11) may compensate for any weakness in private sector investment in 2021 in particular. The Ulster Bank Construction PMI business expectations index (Figure 10) for May 2021, however, points to optimism within the industry that activity will rebound as the year progresses. Following a decline of 9.5 per cent in 2020, forecast growth in non-residential investment of 3 per cent this year is expected to accelerate to 5 per cent in 2022.

Machinery and equipment investment excluding leasing and aircraft investment declined by 15.5 per cent in 2020. Investment in aircraft and leasing is not expected to return to pre-pandemic levels over the forecast horizon. Overall, modified investment is forecast to increase by 2.5 per cent in 2021 and grow by almost 7 per cent in both 2022 and 2023.

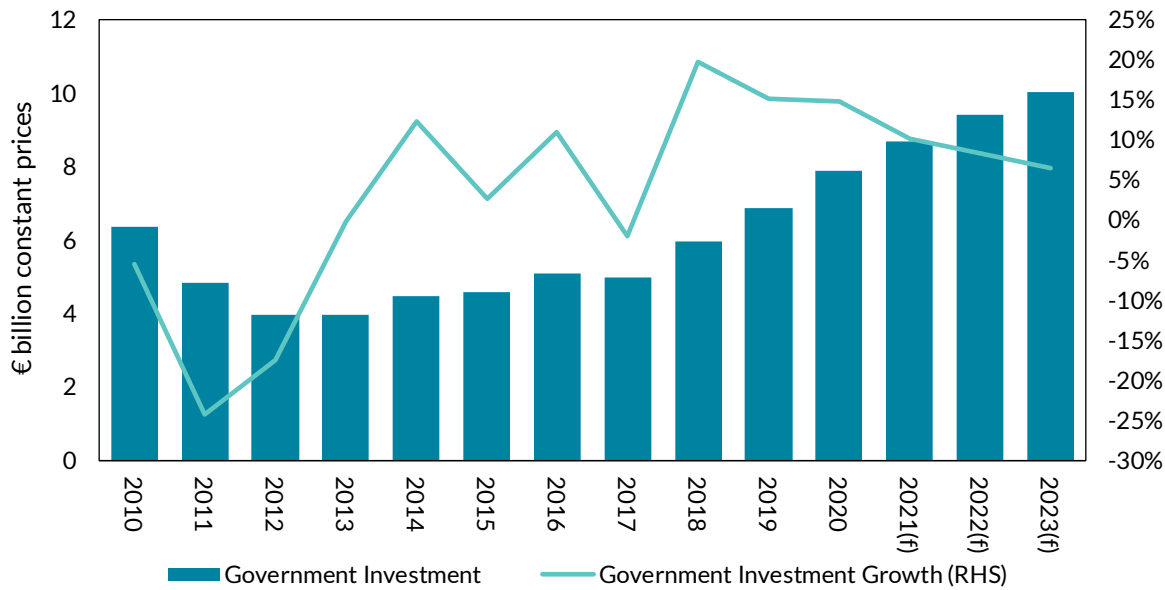
Figure 10: Construction PMIs



Source: Ulster Bank Purchasing Managers Index

²⁷ Kennedy, G., Killeen, N., Skouralis, A., Velasco, S. and Wosser, M. "COVID-19 and the commercial real estate market in Ireland" Central Bank Financial Stability Notes 2021.4

Figure 11: Government Investment



Source: Central Bank of Ireland, Department of Finance

Box D: The unwinding of savings accumulated during the pandemic

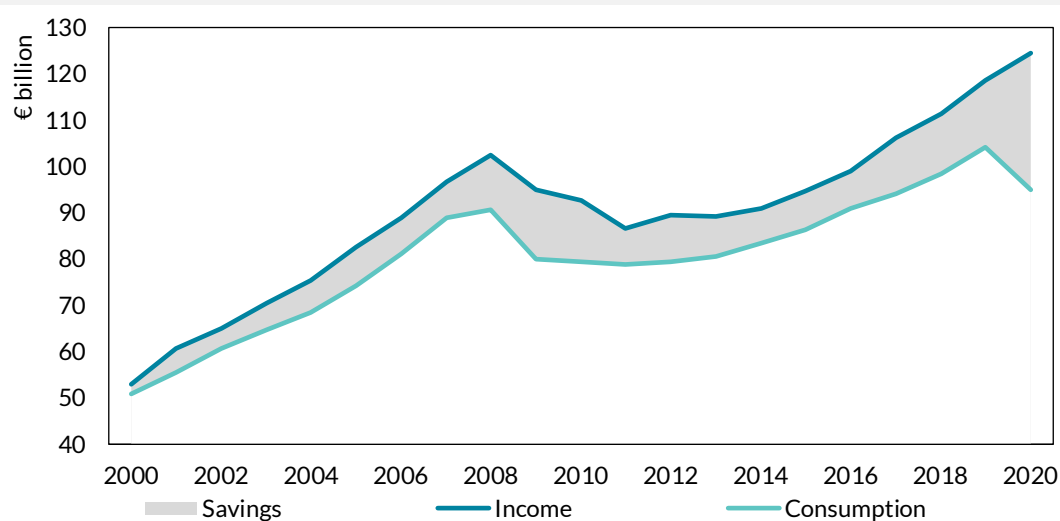
By Stephen Byrne and Simone Cima²⁸

The COVID 19 pandemic, and the measures to contain its spread, led to a 9.1 per cent decline in consumption between the start of 2020 and the first quarter of 2021 (Figure 1). Much of this decline was forced, as pandemic-related retail closures restricted opportunities to spend while the spread of COVID-19 reduced the willingness to engage in contact intensive activities. At the same time, significant government interventions in the labour market supported incomes and meant that the gross disposable income of households grew by 5.3 per cent in 2020 (Figure 2).

Significant savings

The savings ratio, which is equal to disposable income minus consumption as a fraction of disposable income, rose to 23.7 per cent on average during 2020, well above its long-term average of just under ten per cent. The baseline forecast contained in this Bulletin assumes that the savings ratio returns to its pre-pandemic level by 2023, following the lifting of uncertainty relating to the pandemic and the full relaxation of restrictions on consumption.

²⁸ Irish Economic Analysis Division

Figure 1: Savings grew from the unspent portion of gross disposable income

Source: CSO and authors' calculations

This assumption is subject to considerable uncertainty. The level of savings accumulated during 2020 has been unprecedented, and the extent and speed at which savings are unwound will have significant implications for the economy in the coming years.

Several factors will determine this. First, the extent to which the accumulated savings were “forced”, i.e. because of reduced opportunities to consume, or “precautionary”, resulting from uncertainty about the economic outlook. The ECB has estimated that approximately 90 per cent of the savings accumulated during the second quarter of 2020 were forced, while Central Bank research has indicated similar numbers for Ireland. However, the savings accumulated during that period have been held on household’s balance sheets for more than a year and, over time, some may continue to be held for precautionary motives. This would then limit the extent to which they are spent.

Second, the marginal propensity to consume (MPC) out of financial wealth is lower than the marginal propensity to consume out of income. Previous Central Bank research found that the median Irish household would spend approximately 50 per cent of a lottery win equal to a month’s salary.²⁹ However, if over time households have begun to treat the savings accumulated during the pandemic as akin to financial wealth rather than additional “windfall” income, then the increase in spending for each additional euro (i.e., the MPC) could be significantly lower than such a lottery win. Another factor influencing the MPC is the age and income profile of those who have accumulated the savings. Lydon and McIndoe Calder (2020) show that the accumulated savings have, on average, accrued to older and higher income households. These cohorts have, on

²⁹ Lydon, R. and McIndoe Calder, T. “Saving during the pandemic: Waiting out the storm?” Central Bank Economic Letters 2021.4

average, a lower MPC out of both income and wealth – but conversely spend more of their income on those sectors that have been closed during the pandemic.

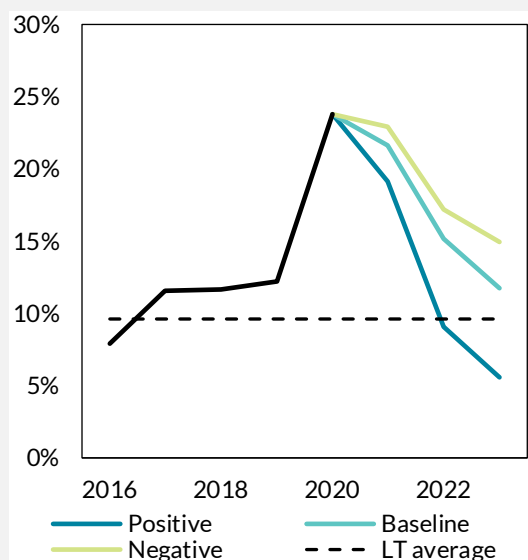
Scenarios

To address this uncertainty, we conduct two counterfactual scenarios to the baseline for the evolution of the savings rate, while keeping our assumptions on disposable income unchanged. The first, positive scenario assumes that households quickly unwind a significant portion of the savings accumulated during the initial quarters of the pandemic, treating a large part of those savings as lagged income (as in Lydon and McIndoe-Calder). Under this scenario, the savings ratio falls below its pre-pandemic level in 2022 and 2023, and does not revert to its long-run average before the end of the projection horizon.

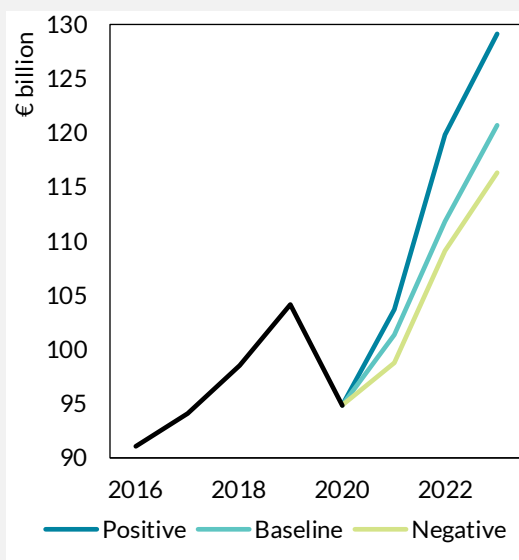
When seen under a quarterly profile, the savings rate in the baseline scenario similarly goes below long-term average levels by the end of 2023, although it does so much more slowly than in the positive scenario, and in 2023 as a whole on an annual basis it remains above its long-term average but slightly below 2019 levels. As the economy returned to growth following the global financial crisis, savings rates remained lower than average for a few years, while they had been high during the crisis. In the positive scenario, the cumulative level of nominal consumption across the forecast horizon would be about 5.6 per cent higher than in the baseline, with consumption by 2023 being 36.1 per cent above 2020 levels compared with 27.2 per cent in the baseline scenario.

Figure 2: Higher levels of consumption accompany the reduction in the savings rate

a. Savings rate



b. Consumption (nominal)



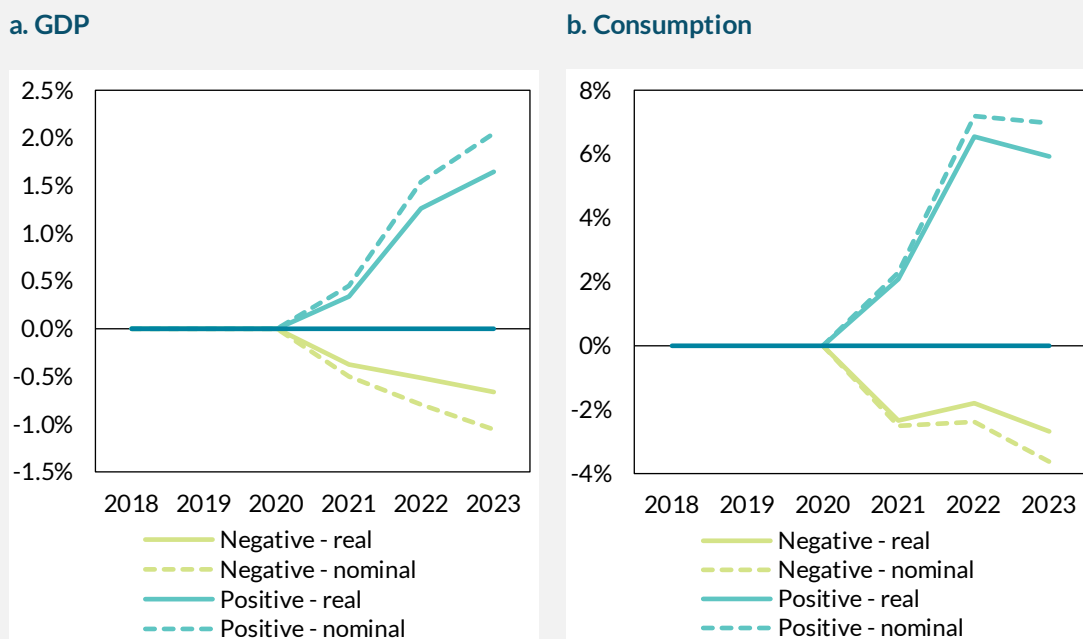
Source: CSO and authors' calculations

In a second, more adverse scenario we assume that precautionary motives prevail and households maintain a higher savings ratio compared to baseline throughout the forecast horizon. Specifically, the savings ratio remains elevated reaching 14.9 per cent by the end of the forecast horizon. Under this scenario, cumulative nominal consumption between 2021 and 2023 would be 2.9 per cent lower than in the baseline scenario, and consumption by 2023 would be 22.6 per cent above the 2020 level. Figure 2 illustrates the projected paths of the savings rate and the resulting paths of real consumption expenditure across the baseline, positive and negative scenarios described above.

It should be noted that these estimates do not assume any second order impacts of a substantial unwinding of savings on employment, trade or inflation. Depending on the capacity of the economy to absorb the extra levels of consumption generated by the unwinding of savings in a short time frame, more expenditure could generate additional employment and thus extra income, which is kept fixed in this analysis through the three scenarios. However, if the economy is facing capacity constraints, extra spending would either come from increasing imports of goods and services and/or put upward pressure on prices.

To address the impact that these scenarios would have on the GDP forecast, we use estimates from the Bank’s Core Structural Model (COSMO) of the Irish Economy to derive the impact on real and nominal GDP. Figure 3 shows that the positive savings rate scenario would result in approximately 1.3-1.6 percentage point higher GDP growth in 2022 and 2023 than in the baseline projection. Reflecting the pass-through to prices of such a consumption boost, nominal GDP would rise by closer to 2 per cent more than under the baseline scenario.

Figure 3: Deviation of GDP and consumption from baseline projections (real and nominal) under the two alternative scenarios for the savings rate



Source: CSO and authors’ calculations

Conclusion

As the domestic economic recovery from the Covid-19 pandemic is set to be consumption-led, the dynamics of consumer spending in the next few years will be crucial for the economy. The pace and extent of the unwinding of the exceptional levels of “forced” savings accumulated during the pandemic will be an important determinant of economic outcomes in the next few years. This Box highlights how the evolution of the savings ratio can greatly influence the path of consumption, by illustrating three possible scenarios. A quicker than expected unwinding of savings, while bringing consumption closer to its pre-pandemic trend, could generate pressures on the economy in the form of a higher import content of consumption and rising prices, both of which have a negative impact on real output. Further work is required to evaluate the extent of these pressures.

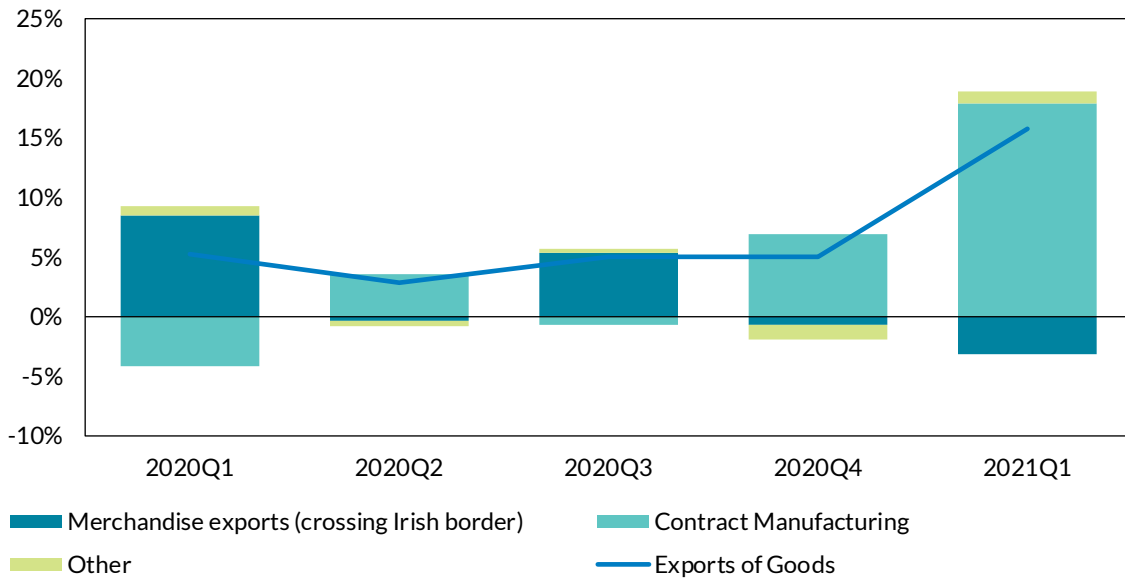
Net Trade

A robust pickup in goods exports, coupled with a sharp decline in IP imports, will contribute to substantial growth in net trade in 2021. Exports grew by 17.9 per cent year-on-year in the first quarter of 2021. The increase primarily related to a significant rise in contract manufacturing exports (See Figure 12). These exports relate to Irish headquartered firms “contracting” a firm in another country to manufacture goods and export them to a third country. As such, the goods never cross the Irish border and do not show up in the external trade statistics. Exports of services also grew by 7.8 per cent, with most of the growth accounted for by computer services. Taken together, contract manufacturing, computer services exports, and exports of chemicals and pharmaceutical products accounted for just under 69 per cent of total nominal exports in the first quarter. At the same time, imports fell by 25 per cent in the first quarter compared to a year previously.

In the more domestically dominated sectors, export growth was more muted in year-on-year terms. On the goods side, exports of food and live animals and miscellaneous manufactured articles declined moderately compared with a year previously, while services exports in sectors such as tourism and travel and transport services were affected strongly by the pandemic restrictions.

Imports declined by 25.3 per cent in the first quarter. This related mainly to a base effect, specifically a 55 per cent decline in business service imports, most likely relating to lower intellectual property imports by multinational firms compared with a year ago. On the goods side, import growth was broadly flat, but declines in imports of items like food and live animals and miscellaneous manufactured articles reflected the general decline in consumption compared with the first quarter of 2020, prior to the onset of the pandemic.

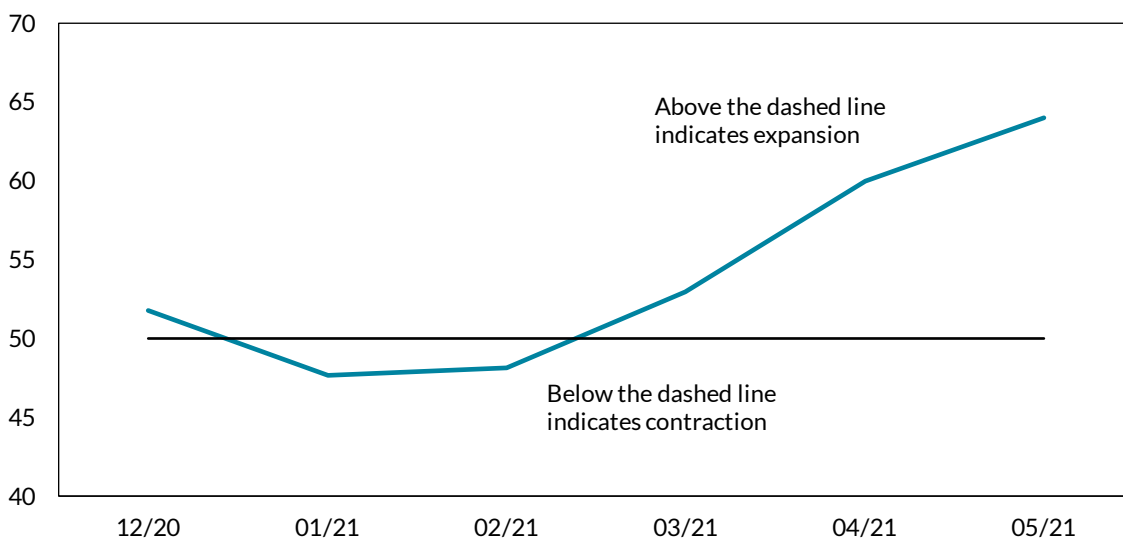
Figure 12: Contract manufacturing drove a strong increase in overall goods exports in the first quarter of this year



Source: CSO

Looking ahead, these factors are expected to continue and, combined, lead to a strong positive contribution of net trade to GDP during 2021. Purchasing Managers' indicated that the volume of new export orders expanded at a strong pace during the period March-May, after a moderate slowdown in the first two months of the year. Exports are forecast to grow by 9 per cent in 2021, while imports are forecast to fall by 1 per cent. Combined, net trade will contribute 12 percentage points to GDP growth in the year.

Figure 13: Ireland's manufacturing PMIs signalled a strong pickup in new export orders during March-May



Source: Bloomberg/Markit Economics

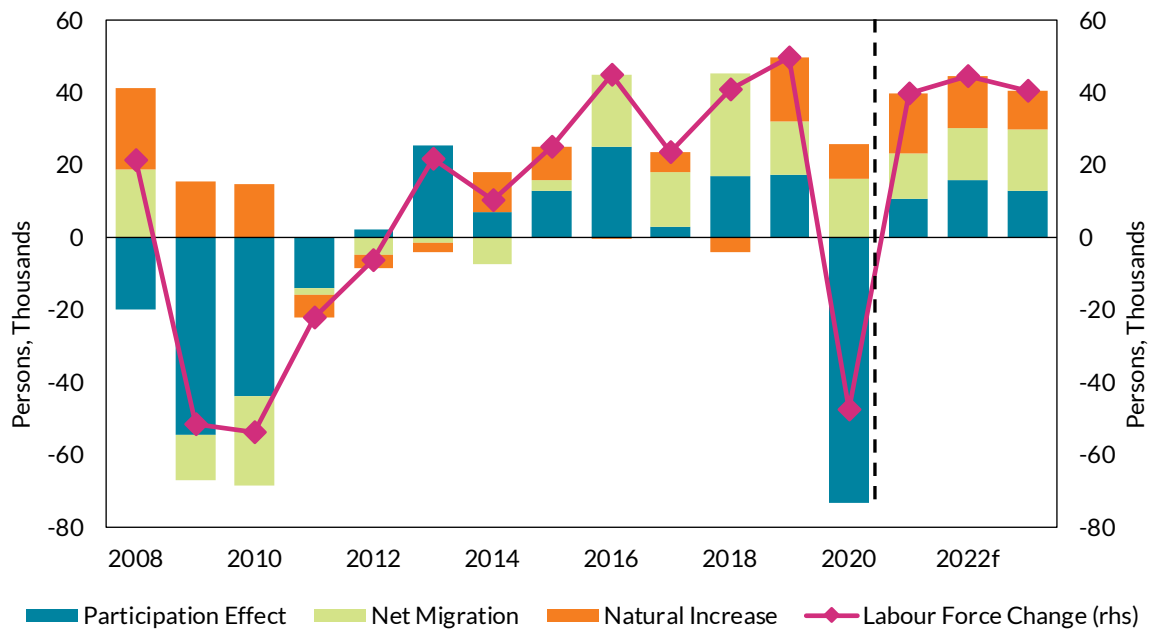
Over the medium term, the forecast is for trade growth to moderate towards growth rates more in line with import demand from Ireland's trading partners. Exports are forecast to grow by 4.8 per cent and 4.5 per cent in 2022 and 2023, respectively. This growth reflects gains in market share made by multinational firms domiciled in Ireland, in sectors that are growing worldwide. The recovery in the world economy, boosted by substantial fiscal stimulus in the US and Europe, as well as a recovery in global trade as short-run supply bottlenecks recede, will support growth over the later part of the projection horizon. Imports are forecast to grow by 4.7 per cent and 4.4 per cent in 2022 and 2023 respectively, as the import content of final demand is expected to remain higher than pre-pandemic levels, and the strong boost to consumption accordingly generates stronger imports.

Labour Market & Earnings

Labour Market

Medium-term developments in the labour force are expected to be influenced by the partial reversal of large flows to inactivity seen in 2020 and net inward migration remaining below pre-pandemic levels. Following a contraction in 2020, the labour force is expected to increase by 1.8 per cent in 2021, followed by a rise of 1.9 per cent in 2022. Official estimates for net migration are not yet available for the period since the pandemic began. However, with an expected easing of international travel conditions, net inward migration levels are expected to gradually rise, but remain significantly below pre-pandemic norms with projected estimates of 16,000 in 2021, increasing to 18,000 the following year. In the absence of higher net inward migration, growth in the labour force relies on higher levels of participation among current Irish residents. However, the labour force participation rate is only expected to return to 61.4 per cent by 2023, still below the pre-pandemic level of 62.2 per cent. This arises as the impact of events since March 2020 have been more pronounced on particular cohorts of the population that typically display a lower tendency to labour force attachment (Box E).

Figure 14: Decomposition of Labour Force Change



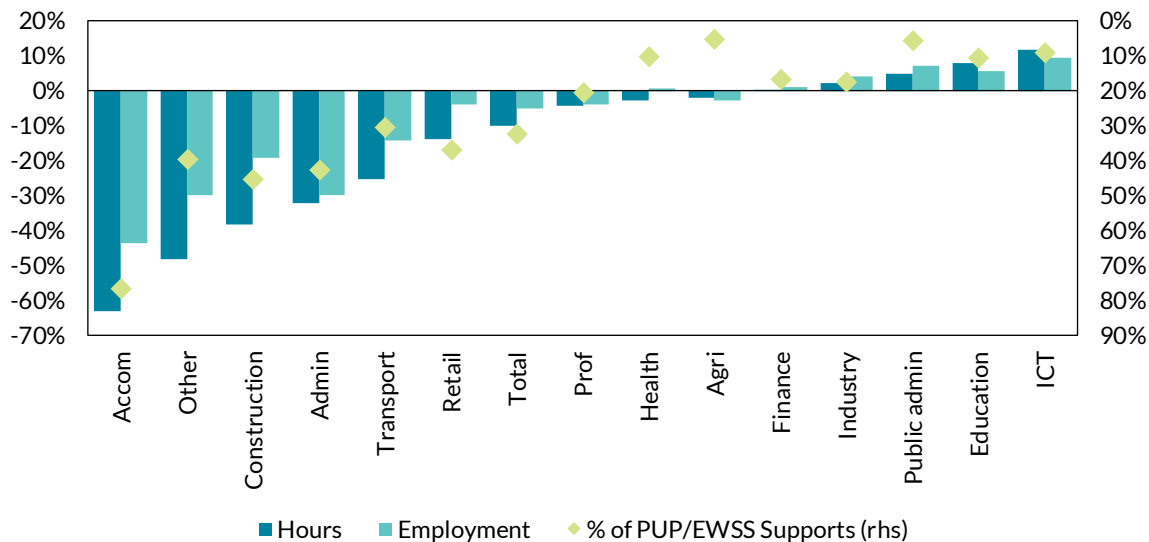
Source: CSO

Employment levels declined by 5 per cent on an annual basis in Q1 to 2,230,600 persons, with job losses evident across many sectors and a large share of workers leaving the labour force in light of the impact of the public health restrictions.³⁰ Standard headline measures of labour market activity do not fully capture the impact of the pandemic and the related income supports. A less distorted measure of labour market activity, total actual hours worked declined annually by 9.9 per cent. Employment loss was greater for males in the year to Q1 2021, falling by 5.3 per cent compared to a 4.6 per cent decline for females. Full-time employment levels declined by 3.8 per cent relative to a 9.5 per cent decline for part-time workers. On a sectoral basis, lower employment levels were recorded in eight of the fourteen sectors with the biggest declines seen in the accommodation and food services (-43.6 per cent) and other services sectors (-29.8 per cent), while increases were observed in the ICT (9.6 per cent) and public administrative sectors (7.3 per cent). A similar trend is evident for total actual hours worked, highlighting the impact of health restrictions on contact-intensive sectors (See Figure 14). Prior to the pandemic, the sectors that exhibited relatively high shares of migrant workers were accommodation and food services and ICT with particular relevance for new hires as employment trends reflected labour demand across a range of skillsets and occupations.³¹ As the labour market recovers, inward migration will continue to play an important role to fill vacancies in many sectors.

³⁰ Recent methodological changes to the Labour Force Survey (LFS) have resulted in a downward revision to 2020 employment levels and numbers in the labour force, particularly for the treatment of persons classed as 'Away from Work'. See CSO (2021) "[Implications of the IESS Framework Regulation on Labour Market Statistics in Ireland in 2021](#)". See Byrne and Keenan (2020) for further information on the effect of 'Away from Work' respondents on the ILO employment levels and the official unemployment rate.

³¹ See Staunton and Smyth (2019) "[Inward migration and the Irish labour market](#)"

Figure 15: Annual change in employment by NACE sector, total hours worked and % of employment on PUP/WSS Schemes



Source: CSO

Note: Data for PUP/EWSS supports relates to March 07 2021. Numbers on schemes are represented as a share of pre-pandemic employment levels in Q4 2019

The rebound in activity will see employment rising through H2 2021, with year-end employment numbers being higher than at end-2020. Employment growth of 1.3 per cent is projected in 2022. This reflects a small decline in measured employment early in the year as the remaining PUP recipients (some of which are currently counted as employed) move to traditional unemployment supports or leave the labour force. For the remainder of 2022 and into 2023, a continuous rise in employment is expected across a number of sectors supported by domestic demand-led growth in consumption. The Covid-adjusted employment series troughed at 1.5 million persons in April 2020 during the height of the health restrictions and recently measured 1.7 million for May 2021.³² As restrictions are eased, levels are expected to rise to converge toward official ILO levels of 2.2 million in early 2022 as the PUP scheme is phased out. Employment levels are expected to recover to pre-pandemic levels during H2 2023, however if not for the pandemic, strong employment growth would have been expected over the projection horizon with employment levels in the region of 200,000 higher in 2023 if job growth had continued at the pre-pandemic average rate. The loss of these jobs affects the productive capacity of the economy and welfare of those who would have flowed into employment.

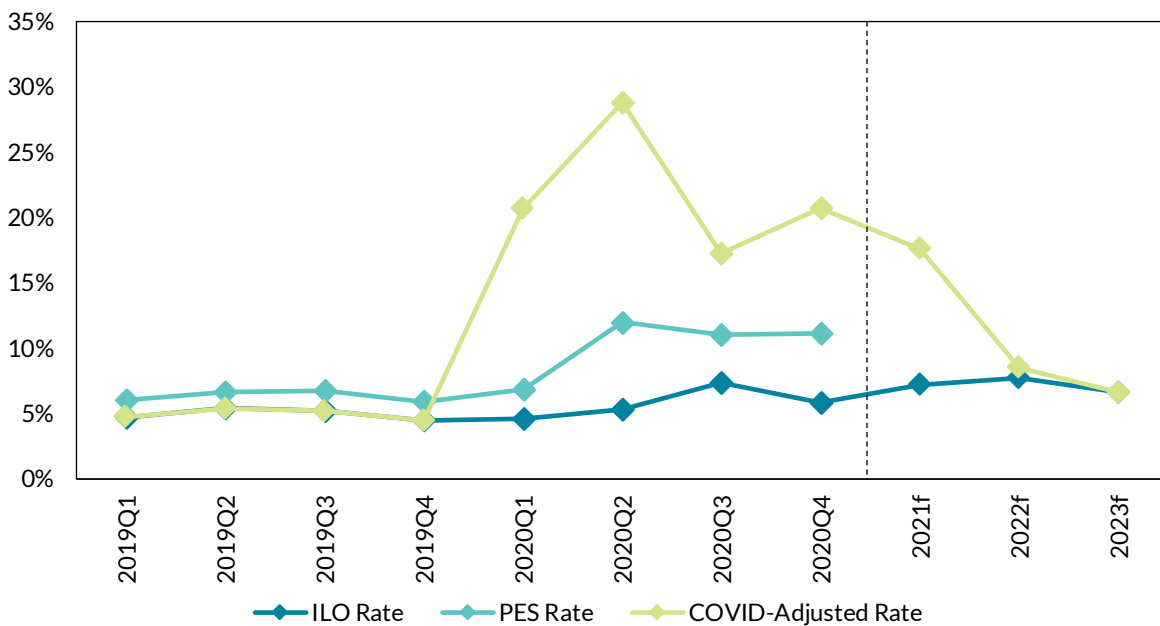
The ILO unemployment rate increased to 7.1 per cent in Q1 2021 relative to 5.9 per cent in Q4 2020 coinciding with a rise in PUP levels during the quarter due to the re-introduction of Level 5 health restrictions. The latest seasonally-adjusted ILO monthly unemployment rate for May measured 7.8 per cent with the Covid-adjusted rate at 21.9 per cent. While official

³² The CSO COVID-adjusted employment series is calculated by adding all persons in receipt of the PUP who are not already included on the Live Register to the non-seasonally adjusted volume of unemployed persons and subtracting this measure from the total in the labour force. This measure should be considered as the lower bound for employment. Further details are available [here](#).

measures have been distorted by classification issues throughout 2020 and 2021, an alternative measure of unemployment using the principal economic status (PES) from the LFS, which is based on the respondent’s self-reported economic status, suggests that unemployment averaged just above 10 per cent in 2020 (See Figure 16).³³

The extension to and gradual phasing out of the EWSS and PUP supports out to December 2021 and February 2022 respectively, should help to avoid a significant cliff-edge unemployment event. However, as the recovery takes hold in the second half of 2021 and into 2022, there is likely to be a slower rate of job matching once persons begin to seek employment and income supports are phased out. This is in part due to potential difficulties in finding work for those who have had prolonged periods of inactivity. As a result, the ILO unemployment rate is projected to increase to 7.2 per cent for 2021 as a whole, before rising to 7.7 per cent for 2022 following convergence with the Covid-adjusted unemployment rate early next year. By the time the PUP is phased out, the number of people unemployed is expected to be 100,000 higher than prior to the onset of the pandemic. After Q1 2022, the ILO unemployment rate is expected to decline consistently, reaching 7 per cent by end-2022 and 6.4 per cent at end-2023 (averaging 6.6 per cent for 2023 as a whole).

Figure 16: Actual and Forecasted Unemployment Rates



Source: CSO

Note: As the PUP scheme is announced to close in February 2022, the Covid-adjusted rate will then merge with the traditional ILO in Q2 2022 resulting in a slightly higher figure for 2022 annual average unemployment.

³³ See [Department of Finance “Economic Insights” \(2021\)](#) for further information on alternative unemployment measures

Box E: Distributional effects of Covid-19 – a focus on earnings and participation

By Enda Keenan and Tara McIndoe-Calder

The impact of the public health restrictions and the pandemic-related policy supports on the labour market has seen varying degrees of income and employment loss across different groups including along age, gender, sector and regional dimensions.³⁴ Large negative employment shocks can also result in reduced labour market attachment for some groups, as in the financial crisis.³⁵ In addition to supporting incomes, the wage subsidy supports were intended to assist firms in retaining workers and reduce the potential for higher unemployment and lower labour force participation on a long-term basis. This box examines the income, participation and employment dynamics of different groups during 2020 in the context of pre-pandemic starting points. We explore the implications for earnings dispersion and the future path for the employment recovery including persistent and/or permanent effects of the pandemic on labour supply. As the economy re-opens, an increased emphasis on policies to promote transitions into employment will be necessary, and an important determinant of the shape of the wider recovery and how it is experienced across the population.

Income dispersion during the pandemic

CSO EHECS data from firms on employment and administrative earnings data (EAADS³⁶) indicate how the patterns of reduced employment, hours worked and rates of pay in 2020 differed across the pre-pandemic earnings distribution. Table 1 shows firms reporting reduced employment during the pandemic are concentrated in the bottom half of the pre-pandemic earnings distribution. These include accommodation and food services (with an employment fall of 26 per cent on average between Q2 and Q4 2020); arts and entertainment (20 per cent) and administrative and support services (22 per cent). In the sectors experiencing employment *expansion* during the pandemic, hours reductions were often observed, for example in industry and information and communications. Earnings data for employments active before and during the pandemic (column 5, Table 1) show earnings growth for the employment expanding sectors (earnings growth in information and communications was 18.3 per cent) is above the average across all sectors (6.5 per cent).³⁷ In summary, labour market adjustments through the pandemic have predominantly come through employment for those at the lower ends of the income distribution, whereas hours and earnings adjustments have played a larger role for those at the higher end.

³⁴ See various publications addressing the [employment loss](#) effect, [regional](#) effect, and [income loss](#) effect.

³⁵ See [Conefrey et al \(2015\)](#)

³⁶ [Earnings Analysis using Administrative Data Sources](#) (EAADS), CSO.

³⁷ CSO [Impact of COVID-19 Income Supports on Employees, Q4 2020](#)

Table 1: Employment, hours, earnings adjustments differ across sectors, 2020Q2-Q4

	Median weekly pay 2018 (€)	Employment change (%)	Hours change (%)	Earnings change ¹ (%)
All	593	-3	-0.5	6.5
Accommodation	314	-26	-8.6	-2.1
Arts	364	-20	-0.2	4.3
Retail	441	1	0.4	4.8
Admin	486	-22	-5.1	1.7
Construction	626	-8	1.4	2.2
Transport	628	-5	1.9	-3.0
Health	644	-2	-0.1	3.4
Professional	692	4	-0.3	8.2
Industry	707	3	-2.1	8.9
Education	744	5	2.1	4.7
Financial	818	9	-0.3	9.8
Public admin	842	5	0.1	5.3
ICT	991	7	-1.6	18.3

Source: EHECS, CSO; Live Register, CSO; EAADS, CSO and authors' calculations.

Note: ¹ Earnings change Q12020 to Q12021 for employments active in both quarters, [Labour Market Insight Bulletin](#), CSO.

Earnings growth in 2018, prior to the pandemic, was similar across the distribution of earnings for individuals (Table 2, column 1). The pandemic however has seen substantial variation in the earnings growth of different groups. Using recent CSO data, Table 2 shows the average change in median earnings for recipients of pandemic-related income supports and non-recipients between Q2 and Q4 2020.³⁸ Non-recipients saw their employee earnings grow by 5.6 percent between the affected quarters. The variation in earnings growth for non-recipients comes primarily from those in the lower parts of the earnings distribution, including the young. Earnings growth of recipients is more varied and is negatively correlated with pre-pandemic earnings. This suggests that whilst earnings growth for non-recipients, in the top 4 quintiles at least, is likely to have limited effects on the overall distribution of earnings, the earnings distribution of recipients is likely to have been compressed due to the progressive way pandemic income supports interacted with employment earnings. The strong earnings growth of both recipients and non-recipients in the first earnings quintile is expected to have compressed the earnings distribution of all employees by raising the earnings of this group compared to higher earning cohorts. The recent announcement to reduce PUP payments in a phased manner out to February 2022 is likely to see the reversal of this compression in income distribution, particularly if recipients in the lowest quintile transition back to similar jobs in lower earnings sectors, part-time working arrangements or seasonal work.

³⁸ It is important to note that earnings data relates to employment earnings and specific pandemic income supports, namely PUP and T/EWSS. These are gross, employee earnings and do not capture the redistributive effect of taxes and other benefits. [Doorley et al](#) (2021) find an important role for taxes and other benefits in redistributing income across genders, including during the pandemic.

Table 2: Employee earnings distribution and growth before and during the pandemic

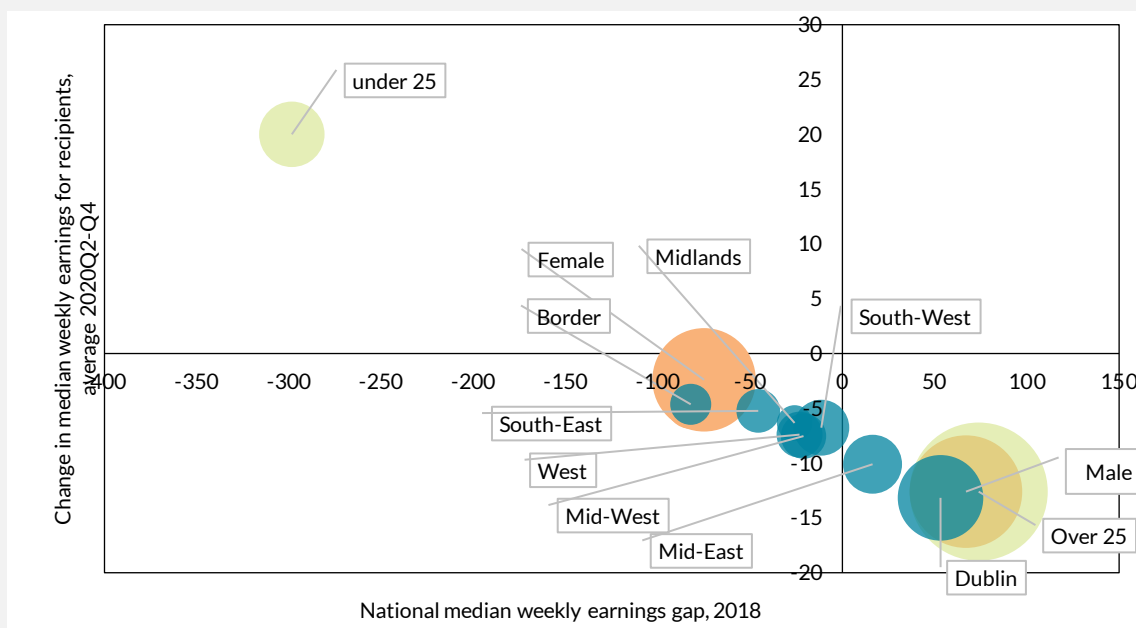
	Median earnings growth (%)	Median earnings gap (€)	Average change in median earnings for those on supports ¹ (%)		Share of recipients in 2019 employment (%)
	2017-2018	2018	Recipients	Non-recipients	Employment share
All employees	2.9	0	-9.3	5.6	30.7
1st Quintile	3.1	-333	44.8	20.3	6.1
2nd Quintile	3.4	-137	-6.6	8.5	13.2
3rd Quintile	3.1	53	-12.8	5.4	7.7
4th Quintile	3.0	340	-15.4	4.5	2.8
5th Quintile	3.8	781	-22.9	2.9	0.9

Source: EAADS, CSO; LFS, CSO; Insights from Real Time Administrative Data Sources, CSO; Cahill and Lydon (2021), Central Bank of Ireland and authors' calculations.

Notes: ¹ Average annual change in median earnings for those on supports over Q2, Q3 and Q4 2020.

Figure 1 plots the average annual change in median earnings (employee income and pandemic income supports) by the median earnings gap in 2018 for groups of employees in receipt of pandemic income supports during 2020. The size of the bubbles represents the relative size of the recipient groups in total pre-pandemic employment. The negative association between earnings growth during the pandemic and pre-pandemic earnings is clear across groups of employees by gender, age, geography and income.

Figure 1: Income dispersion effect of pandemic income supports, recipients only



Source: EAADS, CSO; LFS, CSO; Insights from Real Time Administrative Data Sources, CSO and authors' calculations.

Note: Green circles denote age cohort, orange circles denote gender and blue circles denote region

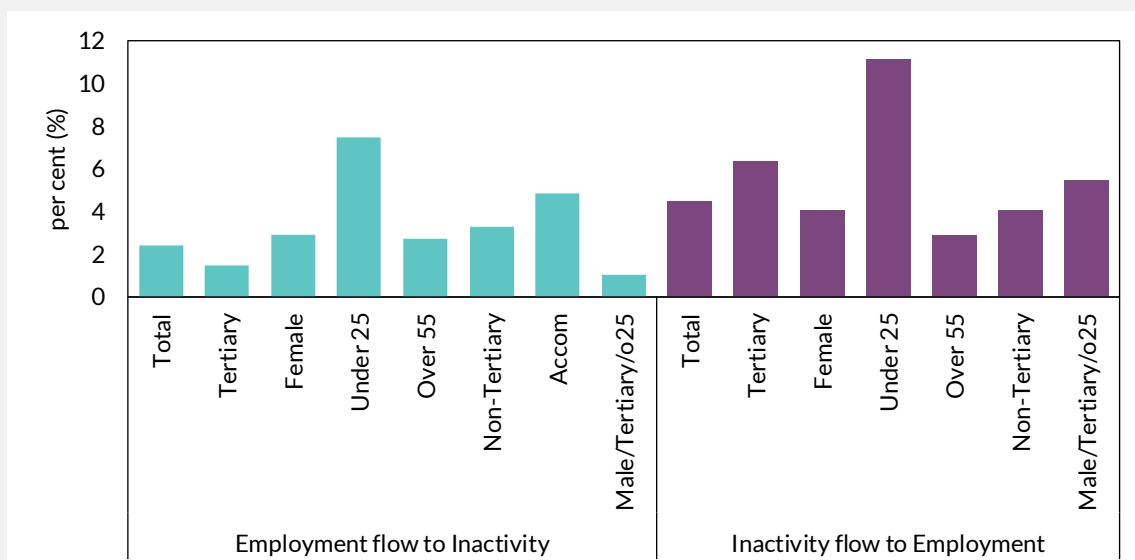
Labour force attachment

Outside of the pandemic, the probability of long-term unemployment in the event of employment loss is typically higher for males (particularly those over 55 years of age) and persons with lower than tertiary education. Looking through the developments during the pandemic, unemployment has risen especially for females, younger workers and lower than tertiary-educated workers. These groups have exhibited a higher propensity to receive pandemic-related income supports, suggestive of a higher potential flow into post-pandemic unemployment or inactivity when the supports are phased out. Long-term unemployment itself is an important determinant of future attachment to the labour force. However in the case of younger workers, and particularly in the case of women, transitions out of the labour force relatively quickly after employment loss are a feature.

Other factors that may be affecting labour supply are likely to be temporary, including continued health fears, childcare concerns, and reluctance to switch jobs whilst wage subsidy supports are in place and the economy is still partially closed. Continued vaccine rollout accompanied by opening of previously closed activities and the gradual phasing out of income supports are together likely to alleviate these issues.

Labour Force Survey analysis demonstrates that, prior to the pandemic, in the event of employment loss, women were more likely to transition outside of the labour force than men, with the same trend evident for those aged under 25 years and with lower than tertiary-level education (See Figure 2).³⁹ By comparison, the transition rate for a reference group of male, over 25 years of age, tertiary educated respondents, prior to the pandemic, is the lowest shown (Figure 2).

Figure 2: Average labour market transition rates (2015-2019)



Source: Labour Force Survey, CSO and authors' calculations.

While younger workers historically exhibit a relatively high transition rate from inactivity to employment, for example as new tertiary graduates enter the labour force, workers aged over 55 years displayed a steadily low transition rate in the post-financial crisis recovery period. Transition rates to employment for this older cohort rose as

unemployment declined below 6 per cent from 2018. As the economy recovers after the pandemic, older workers, who account for 14 per cent of income support recipients, may be at risk of remaining outside of the labour force for longer periods, especially if re-skilling toward other sectors is required and/or if it takes time for labour market tightness to reach pre-pandemic levels.⁴⁰ Current trends in PUP data present a reassuring development early in the re-opening phase as older workers appear quicker to withdraw from the scheme back into employment with younger and female workers remaining in receipt for longer periods.⁴¹ This trend may also highlight the impact of the health restrictions as not all of the sectors in which younger workers are typically employed are fully re-opened. A clearer picture is expected nearer to February 2022 as it remains to be seen how many workers will flow back to non-supported employment or will require continued support once the schemes are gradually closed.

The labour force participation rate declined to 56.9 per cent in Q2 2020 relative to the pre-pandemic average of 62.3 per cent. While employment and participation levels are maintained by the role of the support schemes, the flow to inactivity coupled with difficulties in job matching due to skills mismatch, human capital loss and other hysteresis effects may lead to negative implications for the labour force participation rate throughout the recovery period for some groups. Additionally, historical analysis of the characteristics of those moving to inactivity and unemployment before and during 2020 suggest that women and older workers (over 55 years of age) may face challenges in returning to non-supported employment.

Implications for employment recovery

At present, labour supply appears to be an issue of concern for economies further ahead in the re-opening process relative to Ireland, including given limitations to international travel and migration.⁴² As employment growth in recent years has been assisted by net inward migration levels, employment recovery to pre-pandemic levels may rely on continued positive migration levels across a range of sectors if there are domestic skills shortages⁴³. Other factors that may affect labour supply are likely to be temporary, including continued health fears, childcare concerns, and reluctance to switch jobs whilst wage subsidy supports are in place and the economy is still partially closed. Continued vaccine rollout accompanied by opening of previously closed activities and the gradual phasing out of income supports are together likely to alleviate these issues.

Prolonged periods of non-employment are harmful to human capital, reduce the potential to reintegrate into the labour market, and could also restrict broader sustainable growth

³⁹ On a sectoral basis, the largest transition rates to inactivity are observed in accommodation and food services and other services.

⁴⁰ Persons aged 55 years and over accounted for approximately 18 per cent of the labour force in 2019 with the percentage share of unemployment levels rising from 5 per cent in 2007 to 11 per cent of pre-pandemic data in 2019.

⁴¹ [COVID-19 Income Supports – An analysis of recipients March 2020 to May 2021](#), CSO.

⁴² For example the [Financial Times](#) and [Economist](#) have noted recent labour supply constraints facing parts of the US, UK, European and Australian economies as they reopen.

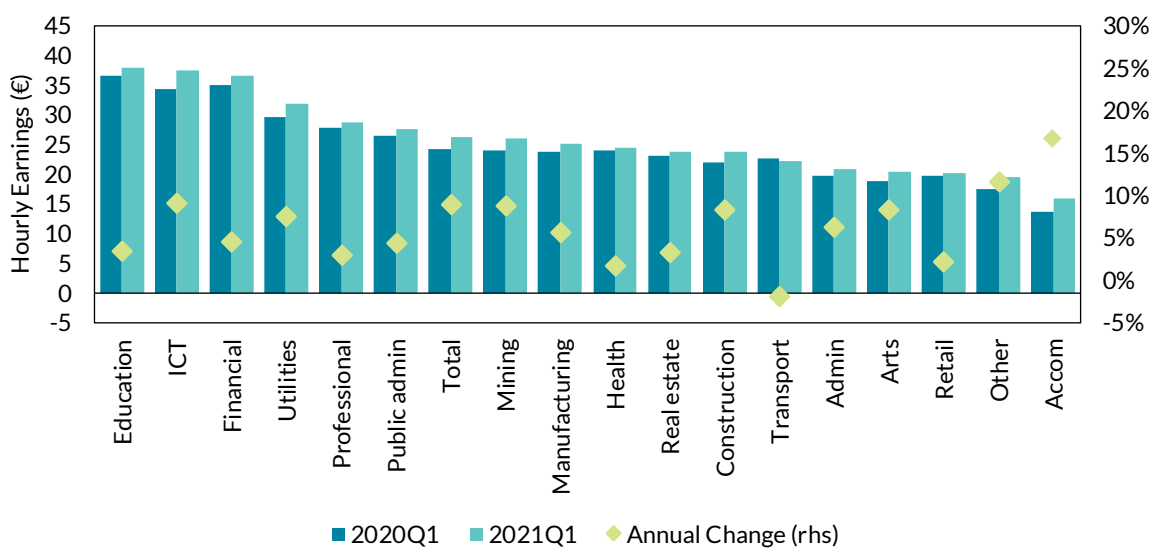
⁴³ Prior to the pandemic employment contributions from immigrants comprised 10 per cent of gross new jobs ([Byrne and McIndoe-Calder, 2019](#)).

in the economy.⁴⁴ The nature of the pandemic employment and income losses have been unequal across sectors, skill levels and age. The labour force attachment patterns of some of the affected groups illustrated above highlight that some groups of workers adversely affected by the pandemic may take longer to return to employment. This is especially the case where the pandemic has brought about or brought forward structural change in the demand for certain goods and services. The pandemic income supports have shielded many workers from otherwise substantial income losses especially in the lower parts of the income distribution. Pandemic income supports may also have reduced earnings dispersion during 2020. Moving back to employment will be important for these workers once income supports are phased out. Effective activation measures, aligning incentives and reducing frictions in the labour market, will be a key policy determinant of the near-to-medium term nature of the economic recovery and the long-term implications for both certain cohorts of the population and the growth prospects of the economy as a whole.

Earnings and Incomes

Average hourly earnings continued to display strong growth in Q1 2021 increasing on a year-to-year basis by 8.6 per cent. There is a compositional effect distorting EHECS data as the contact-intensive sectors that experienced larger employment losses during the pandemic display higher earnings growth due to the relatively higher earnings levels of those that remained in employment (Figure 17).⁴⁵ As employment levels increase in these severely affected consumer-facing sectors in the coming quarters along with a recovery in part-time employment levels, average hourly earnings can be expected to rise at a more moderate rate.

Figure 17: Annual Change in Average Hourly Earnings by NACE Sector



Source: CSO; EHECS

⁴⁴ Phelps, E. S. (1972). "Inflation policy and unemployment theory" Blanchard, O. and L. Summers (1986). Hysteresis and the European Unemployment Problem. NBER Macroeconomics Annual 1, 15-78.

⁴⁵ EHECS data is reflective of gross earnings from employers and worker income via the EWSS scheme. The data does not include the PUP scheme as this payment is administered by the Department of Social Protection.

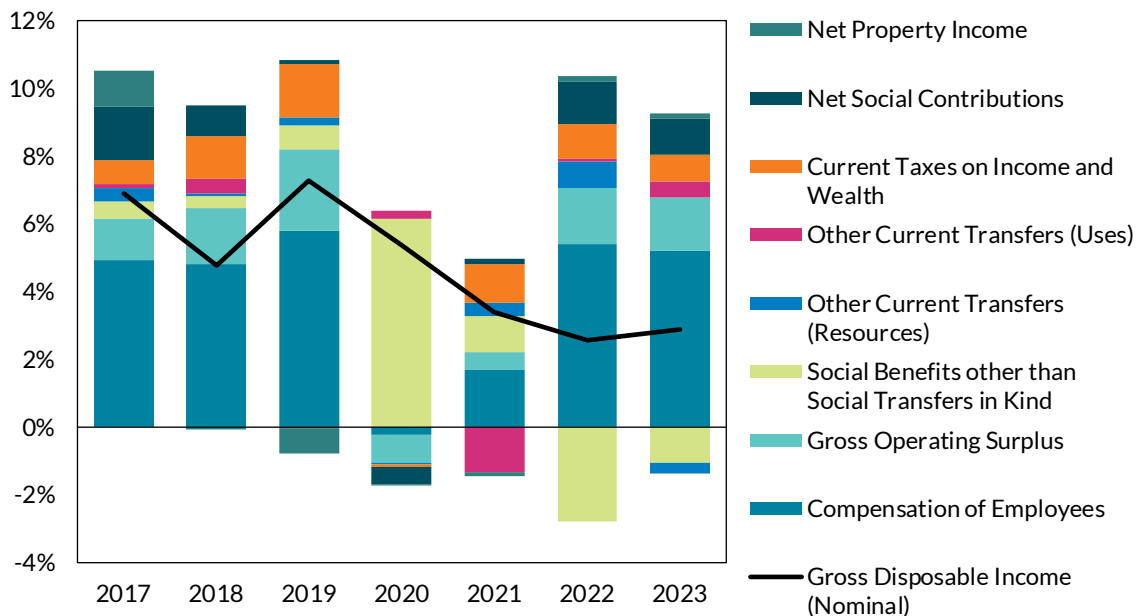
Labour demand has shown signs of strong recovery. The level of job postings from the recruitment firm Indeed at mid-June measured 6.4 per cent above pre-pandemic levels in February 2020.⁴⁶ The easing of restrictions has supported growth in job postings in recent weeks, with high demand in sectors such as beauty and wellness, hospitality and tourism, and food services. The trend is lower in Dublin, which mirrors many other European capital cities. This may reflect worker relocation during the pandemic or decreased footfall levels in urban office and retail areas. The EHECS job vacancy rate is moving slightly upwards, measuring 1.0 per cent in Q1 2021 compared to 0.9 per cent at the end of Q4 2020.

High and growing demand for labour in certain sectors and a somewhat slower labour supply response is expected to lead to strong earnings growth over the forecast horizon.

Compensation per employee (CPE) is expected to rise by over 1.5 per cent this year, and 4.9 per cent in 2022. As the labour supply response picks up, CPE growth is forecast to ease back to 2.7 per cent in 2023.

The increase in compensation, coupled with continued fiscal support, will support growth in overall household disposable incomes (Figure 18). During 2020, fiscal supports in the labour market resulted in a strong increase in social transfers to households, which offset the neutral contribution of compensation to growth in household incomes. Looking ahead, the resumption of compensation growth will support growth in disposable incomes over the forecast horizon.

Figure 18: Social transfers replaced compensation as the main driver of income growth during 2020



Source: CSO and Central Bank of Ireland

⁴⁶ Indeed (2021) "Irish Job Postings Through 18 June: Continued Growth"

Table 2: Labour Market Projections

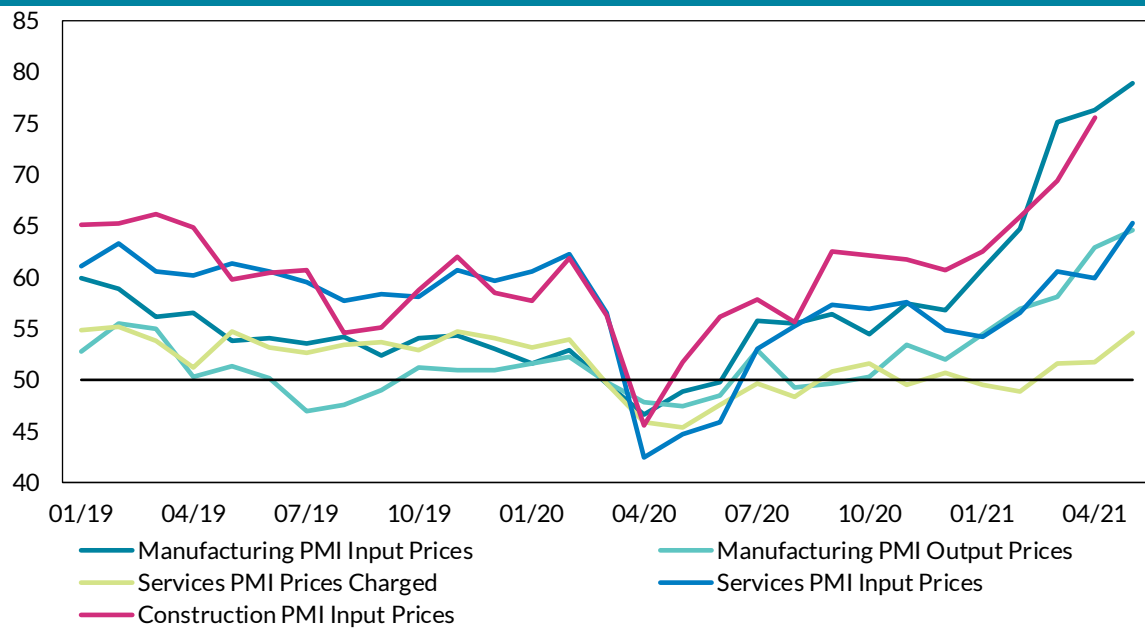
	2019	2020f	2021f	2022f	2023f
Employment (000s)	2,319	2,253	2,260	2,289	2,354
% Change	2.9%	-2.8%	0.3%	1.3%	2.8%
Labour Force (000s)	2,440	2,392	2,435	2,481	2,521
% Change	2.0%	-2.0%	1.8%	1.9%	1.6%
Participation Rate (%)	62.2%	60.2%	60.6%	61.1%	61.4%
Unemployment (000s)	121	139	175	192	168
Unemployment Rate (%)	4.9%	5.8%	7.2%	7.7%	6.6%
Covid-Adjusted Unemployment Rate (%)	4.9%	21.9%	17.6%	8.5%	-

Inflation

Consumer prices are forecast to strengthen in 2021 and 2022, boosted by strong energy prices, the recovery in domestic economic activity, and some transitory supply bottlenecks. There are numerous factors driving the upward revision to the inflation outlook but, at present, they are expected to be temporary and not reflective of a persistent shift in inflation dynamics. The increase in consumer prices reflects both a demand shock - as the economy recovers and public health restrictions are lifted - and a supply shock as shortages in the availability of certain inputs in some sectors push prices up. International evidence suggests that this is likely to continue throughout the remainder of the year until pent-up demand wanes and supply adjusts.

Increases in oil and international commodity prices will contribute strongly to inflation this year. Oil prices increased from \$40 per barrel in June 2020 to approximately \$70 per barrel in June 2021, amid supply decreases and a recovery in global demand. International commodity prices such as food and metals also increased substantially as global demand recovered faster than anticipated and supply chains experienced some disruptions in restarting production. Commodity futures suggest this increase in prices will continue throughout this year and next. Moreover, Asia-Europe shipping prices have increased sharply this year and will affect producer prices for some sectors, with some pass through to consumer prices. The input cost and price subcomponents of the manufacturing, services and construction PMIs (Figure 19) all point to increase price pressures in the months ahead.

Figure 19: PMI Input and Output Price Increases



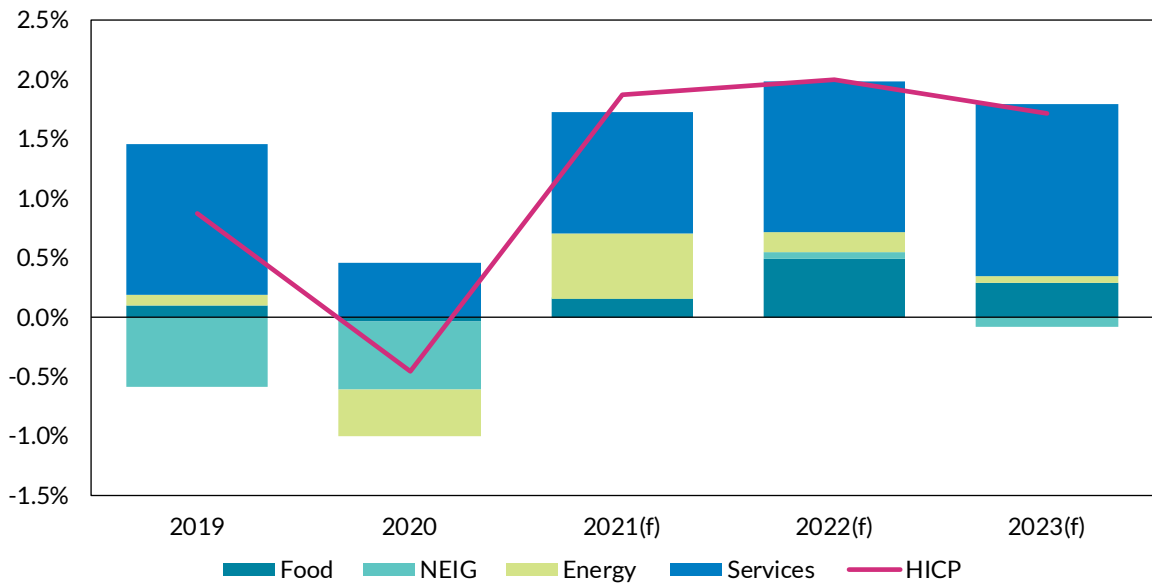
Source: Bloomberg

There are also technical factors driving the upward revisions. The base effect of low inflation in 2020 and recovery in 2021 mechanically results in an increase in the year-on-year rate of inflation. A change in the seasonal pattern of demand for some goods like clothing and footwear also had an impact on the year-on-year rates of change. Imputation of some items in the basket of goods and services, where measurement was not possible due to the containment measures, may also be adding an upward bias to measured inflation. In addition, the change in consumption weights used to calculate the HICP basket resulted in an upward bias to inflation in 2021.

Headline HICP inflation is expected to average 1.8 per cent this year, increasing to 2 per cent in 2022 before easing to 1.7 per cent in 2023 (Figure 20). Core inflation, excluding food and energy prices, is forecast to increase by 1.6 per cent and 1.9 per cent in 2022 and 2023, respectively.

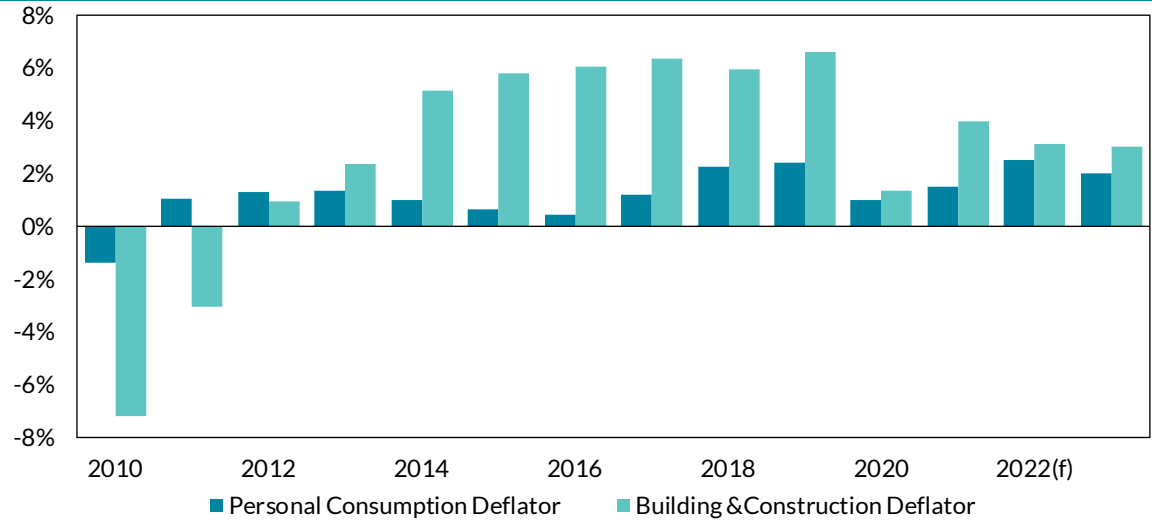
Inflation is also evident in other price measures, covering both personal consumption and domestic investment. Consistent with the rising input prices due to supply constraints, inflation as measured by the Personal Consumption deflator and the Building and Construction deflator is also expected to rise over the forecast horizon (Figure 21). The rise in these measures reflects the broad-based nature of price increases across the economy expected in the medium term.

Figure 20: Headline Inflation and Components



Source: CSO and Central Bank of Ireland

Figure 21: Other measures of price developments



Source: CSO and Central Bank of Ireland

The Public Finances

Overview

The Covid-19 health crisis – and the necessary policy response by government – has had a very significant impact on Ireland’s public finances. Having run a surplus of €1.8bn (0.8 per cent of GNI*) in 2019, the General Government balance deteriorated sharply last year, to a deficit of €18.4bn (-8.5 per cent of GNI*). This primarily reflected the introduction of large income supports, the provision of additional resources to the health sector and the negative impact of lockdown on tax receipts. The deficit is forecast to increase further this year – to -9.6 per cent of GNI* – as the positive impact of economic recovery on revenue growth is offset by further increases in expenditure. The latter reflects not only continued support to those most affected by the pandemic, but also the large ‘core’ expenditure increases announced in October’s Budget. Under the assumption that the fiscal measures introduced in response to the crisis are temporary in nature, and with the economic recovery strengthening, 2021 should see the deficit ratio reach its largest value of recent years before declining. The General Government balance is projected to improve considerably to -5.0 per cent of GNI* next year, with the deficit declining further to -3.8 per cent of GNI* in 2023. Even with temporary support measures dropping out of the expenditure base, government spending would remain well above its pre-pandemic level at the end of the projection horizon.

Reflecting the re-emergence of a primary deficit, the General Government debt ratio is estimated to have increased by 5.5 percentage points to 101 per cent of GNI* last year (59.5 per cent of GDP). Following a further increase to 108 per cent this year – driven again by the large primary deficit – the ratio is expected to reduce gradually over the medium term, while remaining at an elevated level. It is projected to still be above 106 per cent of GNI* in 2023. Despite the adverse economic impact of the pandemic, Irish sovereign borrowing rates remain at very low levels – supported by the ECB’s pandemic emergency purchase programme – while the medium term maturity profile is favourable, with no bonds maturing in 2021. The National Treasury Management Agency (NTMA) continues to hold large cash balances, increasing sovereign funding flexibility.

As noted in previous *Bulletins*, there is a much higher level of uncertainty surrounding the fiscal outlook than would normally be the case. This reflects uncertainties directly linked to the pandemic, such as how quickly the macro economy will recover and what the final cost of support measures will be. It also reflects non-pandemic related issues such as broader government spending pressures and the potential impact of international tax reforms on corporation tax receipts (Box F).

Box F: Corporation Tax Risks to the Public Finances

By Thomas Conefrey, Rónán Hickey and Graeme Walsh

Between 2014 and 2020, corporation tax (CT) revenue increased by 156 per cent, from just over €4.6 billion to €11.8 billion in 2020. This growth rate far outstripped that of other tax headings with the result that the proportion of overall revenue accounted for by CT has risen sharply: in 2020 CT contributed one euro in every five of all Exchequer tax revenue, up from around one in ten in 2014. The public finances have benefitted from the receipt of these record inflows of CT, but there have been long-standing concerns over the reliability and sustainability of revenue from this tax heading.⁴⁷

Recent Corporation Tax Developments

The exceptional growth in CT revenue since 2015 has been well in excess of the rate of growth in underlying economic activity in Ireland as measured by various indicators. From 2015-2019, modified gross national income (GNI*) in nominal terms is estimated to have grown at an average annual rate of 7½ per cent.⁴⁸ In contrast corporation tax revenue increased by an average of around 20 per cent per year over the same period. Accordingly it is worth examining what the increase in CT would have been had revenue grown broadly in line with underlying national income (GNI*).⁴⁹ The difference between this and the actual corporation tax outturn can be considered an approximate measure of windfall revenues.

Figure 1 compares 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.⁵⁰ The results suggest that, given the historical relationship between CT and GNI*, overall CT revenue was €5¼ billion higher at the end of 2020 than would have been expected given the realised growth in modified national income. This figure is close to IFAC's "central" estimate of excess CT revenue in 2020 of €4.8 billion.⁵¹

⁴⁷ See Central Bank of Ireland (2020) <https://www.centralbank.ie/docs/default-source/publications/quarterly-bulletins/boxes/qb1-2020/box-d-developments-in-corporation-tax---an-update.pdf> and IFAC (2016) <https://www.fiscalcouncil.ie/wp-content/uploads/2015/03/AN-10-Challenges-Forecasting-Irish-Corporation-Tax-Final-Web.pdf>

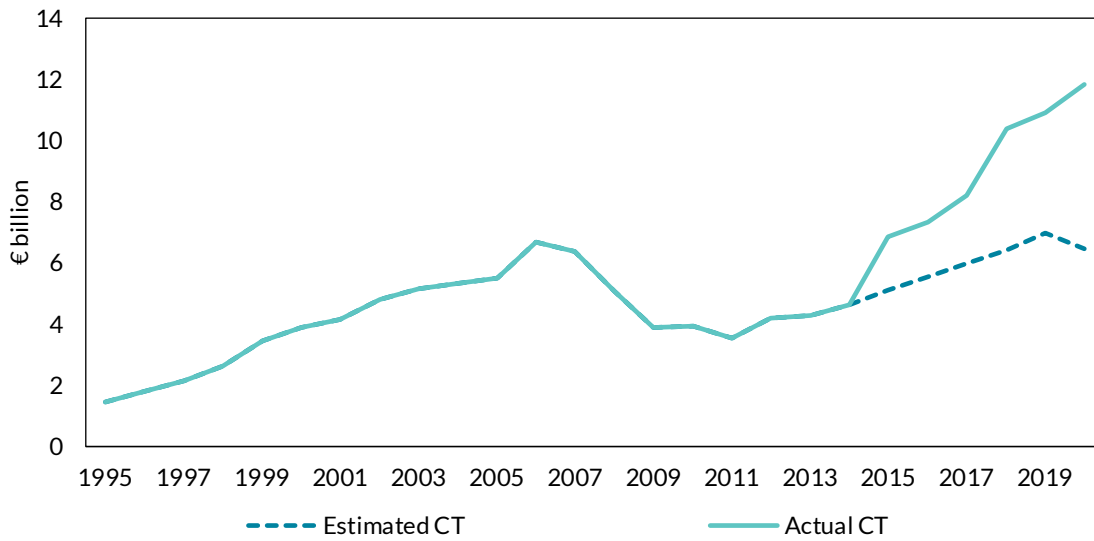
⁴⁸ Modified Gross National Income (GNI*) is an adjusted measure of national income that strips out the effects of certain multinational activity that does not impact the incomes or employment of Irish residents.

⁴⁹ This differs from a forecasting exercise where the objective is to estimate a model which can predict as closely as possible the actual level of corporation tax.

⁵⁰ Equation: $d\log(\text{CT}) = c(1) + c(2) * d\log(\text{GNI}^*)$. Sample: 1995-2014.

⁵¹ See <https://www.fiscalcouncil.ie/wp-content/uploads/2021/05/FAR-May-2021-S10-Corporation-tax-analysis.pdf>

Figure 1: Actual and Estimated Corporation Tax Revenue, € billion

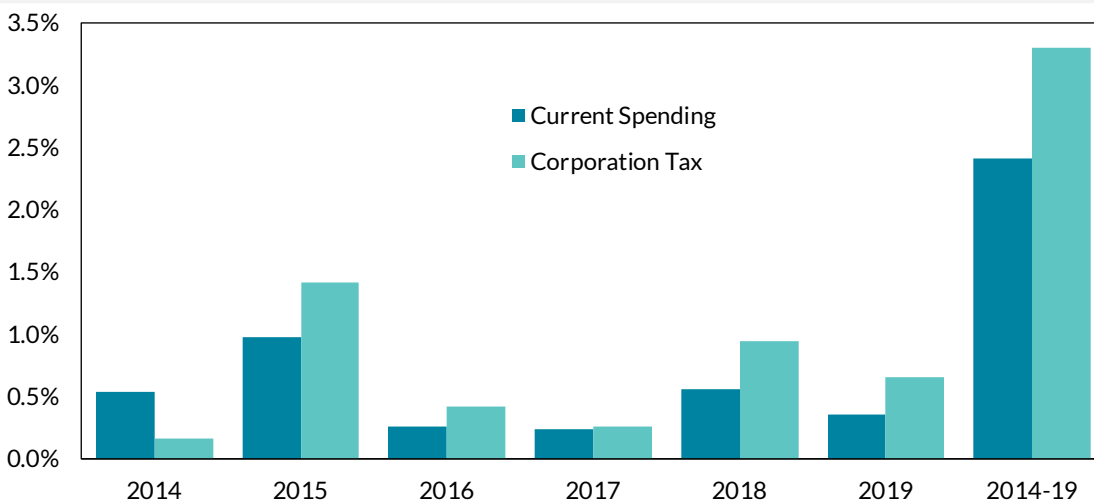


Source: CSO, Department of Finance and own calculations.

Note: Estimated is from an equation that uses changes in nominal GNI* to explain changes in CT revenue.

The annual corporation tax take has consistently outperformed the Department of Finance’s Budget day forecasts. Between 2014 and 2020, actual revenue has exceeded the forecast by an average of €1.2 billion per annum. At the same time, government current spending in the years up to 2019 also exceeded budget targets on a consistent basis (Figure 2). With some unexpected CT revenue used to fund day-to-day spending increases, the risk to the public finances from a loss of CT is greater than if a larger proportion of the unexpected CT revenues of recent years had been saved by reducing debt or enhanced contributions to a rainy day fund.

Figure 2: Corporation Tax and Gross Voted Current Spending v Profile (% GNI*)



Source: Department of Finance.

Note: Chart compares the budget day forecast for Exchequer current spending and corporation tax revenue to the actual outturn for each year, expressed as a proportion of nominal GNI*.

Risks to Ireland from Proposals on International Tax Reform

As part of the OECD's Base Erosion and Profit Shifting (BEPS) process, negotiations have been ongoing for several years aimed at reforming the rules on the taxation of multinational companies and improving the transparency and coherence of the international tax environment. The first round of the BEPS process culminated in the publication of 15 actions for tax authorities and governments. The aim of the actions agreed from the first round was to ensure that profits are taxed where the economic activity generating the profits takes place and where added value is produced.⁵² The first measures were implemented in 2016 and resulted in some multi-national enterprises (MNEs) shifting Intellectual Property (IP) assets from no-tax countries to low-tax jurisdictions where substantial business activity was taking place. Ireland benefitted from these actions as MNEs moved their IP assets to Ireland and additional taxes were collected. Data published by the Revenue Commissioners show that corporation tax payments by companies claiming intangible capital allowances amounted to €5.6 billion in 2020, just under half of all CT payments and 50 per cent higher than the equivalent amount collected in 2019.⁵³

The second round of the BEPS (BEPS 2.0) process is focussed on two pillars:

1. **Pillar one** aims to change profit allocation rules so that more of the profits of multinational firms would be allocated to locations where sales or users are located rather than where the goods or services are produced. The allocation of the tax base to market jurisdictions would be based on a formula agreed at the BEPS talks.
2. **Pillar two** envisages the introduction of a global minimum effective tax rate. The introduction of a minimum tax rate on a country-by-country basis would represent a significant change to the international tax system. It would give governments the right to tax profits currently being taxed below the minimum rate.

Negotiations on both pillars of BEPS 2.0 were delayed in 2020 due to the Covid-19 pandemic but the talks have recently gathered considerable momentum, reflecting a number of international developments. Under the new Biden administration, US engagement with the BEPS process has intensified.

Negotiations were given further impetus following agreement reached at a meeting of G7 countries in London on 5 June. At the meeting, the G7 agreed to support the reforms proposed under both pillars of the BEPS process. In particular, the G7 committed to a reallocation of taxing rights to market countries (Pillar 1). Given the small size of Ireland's domestic market, if this proposal is implemented it would reduce the amount of profits taxable in Ireland at 12.5 per cent and, therefore, would lead to lower corporation tax revenues. Notably, it appears that the G7 agreement calls for the reallocation of taxing rights to market countries to apply to a set of all large companies and not to digital companies only, as had been initially proposed by the OECD.⁵⁴ This could further increase the loss of revenue from this change. As noted by Coffey (2021), Ireland was the third

largest recipient worldwide of corporation tax revenue from US MNEs in 2018. These firms accounted for around 60 per cent of overall CT receipts.⁵⁵ A change in the tax system whereby more tax is applied based on the location of the firms' sales and not on its physical location as at present poses clear risks to Ireland's CT receipts.

Moreover, the G7 recently committed to the introduction of a global minimum tax rate of at least 15 per cent on a country-by-country basis. If implemented, this would reduce the attractiveness of Ireland's 12.5 per cent corporation tax regime. In calculating their tax liabilities, MNEs would no longer be able to blend taxes paid in high-tax jurisdictions with taxes paid in low-tax countries. Under the prevailing Irish CT rate, MNEs would be required to top up their tax payments on profits in Ireland to meet the minimum 15 per cent rate, possibly to the jurisdiction of the ultimate parent company although this is currently uncertain. This would reduce the relative attractiveness of the Irish system.

Current Department of Finance projections allow for a €2 billion loss of CT revenue by 2024, although there is a very high level of uncertainty surrounding this assumption. In considering the potential impact on the economy, it is useful to distinguish between two possible channels. The reforms could reduce the amount of global profits allocated to Ireland by MNEs with a knock-on reduction in corporation tax revenues but with little effect on multinational activity in Ireland. This scenario would involve an unwinding of some of the exceptional/excess corporation tax receipts collected since 2015, and the challenges this would pose to the tax base necessary to support sustainable expenditure over the longer-term. A second more negative outcome is possible whereby the changes result in a loss of CT revenue along with reduced FDI and related multinational activity and employment in Ireland. This second scenario would have more serious implications for the public finances since it would not only reduce corporation tax revenue but also potentially lead to lower revenue from other sources such as VAT and income tax.⁵⁶ The details of the changes under both pillars of the BEPS process have yet to be finalised and approved by all OECD members. If a final agreement is reached, further analysis will be required to assess the implications for the Irish economy and public finances.

⁵² See <https://www.oecd.org/tax/beps/about/>

⁵³ See <https://www.revenue.ie/en/corporate/documents/research/ct-analysis-2021.pdf>

⁵⁴ See <https://www.g7uk.org/g7-finance-ministers-and-central-bank-governors-communicue/>

⁵⁵ See <http://economic-incentives.blogspot.com/2021/04/the-extra-ordinary-tax-payments-of-us.html>

⁵⁶ Data from the Revenue Commissioners show that employees of MNEs accounted for around half of the income tax and USC paid by all companies in 2019. Around 40 per cent of VAT paid by all companies was paid by MNEs. See: <https://revenue.ie/en/corporate/documents/research/ct-analysis-2021.pdf>

2020 Outturn

Against the backdrop of the public health crisis, the general government ran a budget deficit of €18.4bn (estimated 8.5 per cent of GNI*) last year. While this outturn was better than generally expected⁵⁷, it nevertheless represented a significant worsening from 2019's small surplus and was the fourth largest deterioration in the euro area⁵⁸. General Government revenue contracted by €3.5bn or 3.9 per cent (compared to average growth of 6 per cent in the preceding three years). Direct taxes and social contributions proved to be relatively resilient to the pandemic, with corporation tax receipts continuing their recent trend of outperforming Department of Finance projections. The other main revenue components recorded large declines, however, with indirect taxes particularly affected by the impact of lockdowns on consumer spending. General government expenditure increased by €16.7bn or 19.1 per cent (compared to average growth of 4.5 per cent in the preceding three years), driven by the introduction of large pandemic-related fiscal measures. These are now estimated to have directly increased spending by €14.9bn last year⁵⁹, with income supports accounting for around two-thirds of this. As a result social benefits increased by 23.3 per cent, while subsidy expenditure more than tripled. Other pandemic related measures included increasing resources for the health sector and a range of supports for businesses. This counter cyclical policy response was necessary and helped to mitigate the negative impact of the pandemic on Irish households, firms and the broader economy. Gross general government debt increased by €14bn last year, while the debt ratio increased by 5.5 percentage points to 101 per cent of GNI*. This relatively modest increase in the ratio – relative to the change in the budget balance and developments in other euro area economies – reflects the favourable impact of positive economic growth and the utilisation of existing resources to finance some of the budget deficit.

Table 3: Fiscal outlook under a baseline scenario (per cent of GNI* unless otherwise stated)

	2019	2020e	2021f	2022f	2023f
GG Balance (€bn)	1.8	-18.4	-21.5	-11.7	-9.5
GG Balance (% GNI*)	0.8	-8.5	-9.6	-5.0	-3.8
GG Balance (% GDP)	0.5	-5.0	-5.4	-2.8	-2.1
GG Debt (€bn)	204.2	218.2	242.5	250.2	261.5
GG Debt (% GNI*)	95.6	101.1	108.3	106.8	106.1
GG Debt (% GDP)	57.4	59.5	60.8	58.8	57.8

Source: CSO and Central Bank of Ireland Projections. The 2020 deficit ratio is an estimate as final GNI* figures for the year have yet to be reported.

⁵⁷ Quarterly Bulletin 2 estimated a 2020 general government deficit of €19.6bn. The difference between this and the actual outturn reflects developments on the expenditure side, as it appears existing resources were used to finance some of the pandemic related costs.

⁵⁸ The 9.3 per cent deterioration in the Irish budget balance ratio was only surpassed by developments in Greece, Malta and Austria. The euro area as a whole recorded a 6.6 per cent deterioration in the general government balance.

⁵⁹ The recent Stability Programme Update outlined €14.9bn of Covid-19 related expenditure last year. The CSO, by comparison, classified €13.1bn of expenditure as being pandemic related in its Annual GFS release. The figure is therefore subject to revision. The government also introduced €6bn of indirect supports in the form of loans and guarantees. While these do not currently affect the budget balance, they could do so in the future if, for example, guarantees were called.

Fiscal Outlook, 2021 to 2023

Reflecting the latest information available, the general government deficit is expected to increase this year to €21.5bn or 9.6 per cent of GNI* (see Table 3).⁶⁰ Supported by the recovery in domestic demand and the labour market, revenue is projected to record a broadly based increase of 5.8 per cent⁶¹. Exchequer tax receipts grew by 9.1 per cent in the year to May, with a particularly strong recovery in indirect taxes evident (combined VAT and excise were 4 per cent ahead of profile). Social contributions recorded a more modest expansion while a decline in other revenues appears to partly reflect timing factors. Receipts from the Brexit Adjustment Fund and the Recovery and Resilience Facility should also boost revenue this year⁶². Government expenditure is projected to increase by 7.7 per cent, with all of the major components contributing to this growth rate. Following the extension of income and business support measures in the Economic Recovery Plan, it is now estimated that pandemic related spending will record a small increase to €15.8bn this year. Spending growth is, accordingly, primarily driven by the large increase in permanent or ‘core’ expenditure announced as part of Budget 2021 – €5.4bn in Exchequer terms and possibly as high as €8.5bn in general government terms⁶³ - that will need to be financed over the medium to longer term. Gross voted spending by the Exchequer was 4.6 per cent higher in the year to May, led by developments in Social Protection.

A significant improvement in the deficit to -5.0 per cent of GNI* is projected in 2022, driven by strong economic recovery and a sharp decline in pandemic-related expenditure. The economy is expected to enter 2022 with more momentum, supporting revenue growth of 6 per cent. With private consumption, employment and compensation growth all accelerating, the recovery in tax receipts should be relatively broad based, with a particularly strong increase in VAT envisaged.⁶⁴ Partly offsetting this, it is assumed that international tax reforms have a negative impact on corporation tax receipts⁶⁵. Underpinned by an assumption that it is temporary in nature, meanwhile, pandemic spending is expected to decline to €2.5bn next year. This is in line with the ‘indicative amount’ included in April’s Stability Programme Update (SPU). As a result, total expenditure is projected to contract by 3.9 per cent, led by falls in social benefits and subsidies. One component of expenditure that is expected to continue to grow

⁶⁰ This nominal deficit is broadly in line with that projected in QB2 as the favourable base effect from the better than expected 2020 outturn and stronger revenue growth has been offset by the higher cost of pandemic support measures.

⁶¹ We follow the assumption made in SPU 2021 that 25 per cent of the overall ‘warehoused’ tax revenue is not repaid in 2021.

⁶² Our projection assumes Ireland receives €1bn from the Recovery and Resilience Fund (RRF) and €1.1bn from the Brexit Adjustment Reserve (BAR) over the period 2021 to 2023. These resources are offset by similar levels of expenditure and, accordingly, have a neutral effect on the budget balance. Consistent with the SPU the RRF spending occurs over the period 2022 to 2026 (€200m per annum) while the BAR spending occurs in 2022.

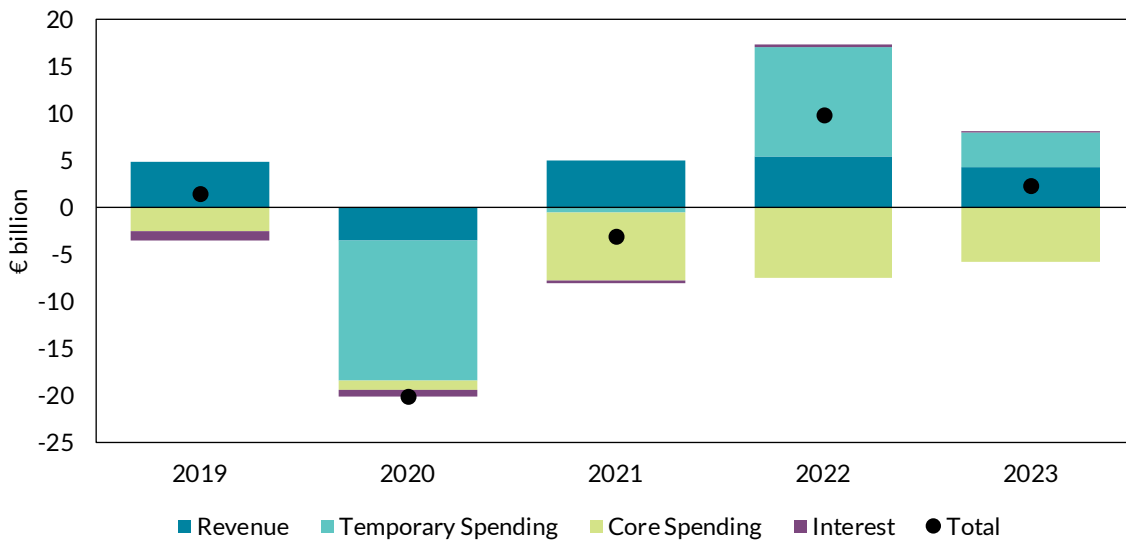
⁶³ See ‘Fiscal Assessment Report’, Irish Fiscal Advisory Council, December 2020.

⁶⁴ The revenue growth rate is only marginally stronger in 2022 at 6 per cent despite more favourable developments in the underlying economy. This is because the 2021 growth rate was boosted by Next Generation EU grants.

⁶⁵ We follow the Department of Finance’s methodology in assuming that corporation tax receipts gradually decline by €1bn over the period 2022-23. As highlighted by the Irish Fiscal Advisory Council, however, there are risks that a bigger, less gradual decline could take place in the coming years.

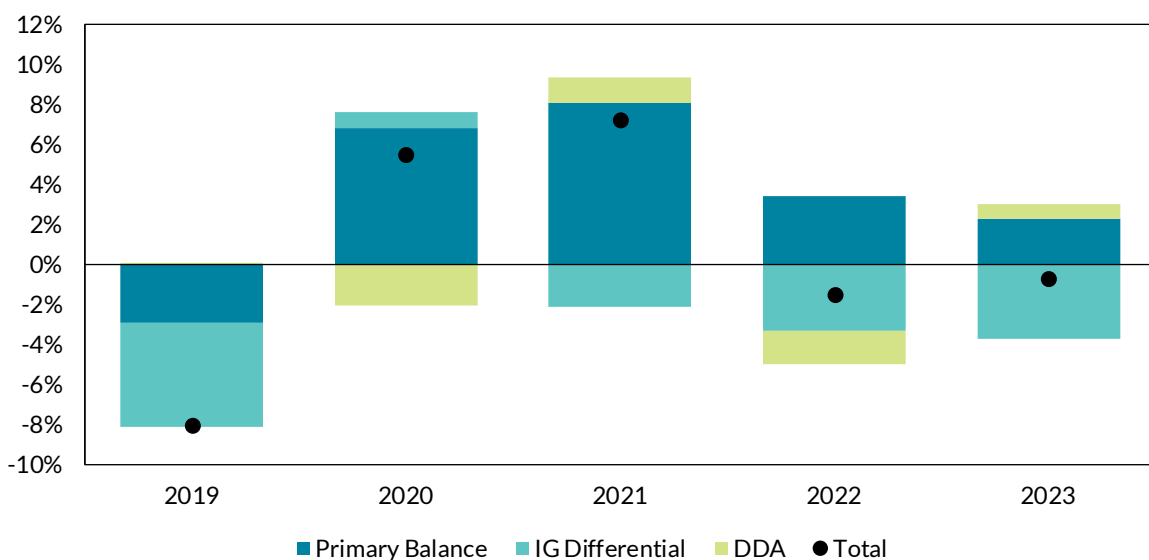
strongly is government investment, supported by the National Development Plan and Next Generation EU (NGEU) funding.

Figure 22: Factors behind change in government budget balance



These trends broadly continue in 2023 resulting in a further improvement in the deficit to -3.8 per cent of GNI*. Revenue growth moderates to a still robust 4.5 per cent, while the withdrawal of the remaining pandemic supports and elements of NGEU funded investment result in modest spending growth of 1.9 per cent. Despite the latter, government expenditure growth remains well above its pre-pandemic level at the end of the projection horizon.

Figure 23: Factors behind change in government debt ratio



In terms of General Government debt, the ratio is expected to record a further increase to around 108 per cent of GNI* this year, driven by the large primary deficit (see Figure 23).

Over the medium-term, positive debt dynamics should re-emerge and result in a gradual decline in the ratio. The combination of low interest rates and a strong recovery in economic growth are expected to result in a very favourable interest-growth differential in the coming years. Coupled with the improving budget balance and a supportive deficit-debt adjustment this results in the debt ratio falling to 106 per cent of GNI* by 2023. This would still represent a very elevated level of debt. The large cash balances held by the National Treasury Management Agency - €28bn entering June – and potential divestment of government held bank shares represent some upside risk to this outlook.

Funding and Other Developments

The NTMA raised €6.25bn of funding in the second quarter of the year. Yields were marginally higher when compared to those recorded in the first quarter of 2021, but the cost of Irish sovereign borrowing remains very low, supported by the ECB's pandemic emergency purchase program⁶⁶. Issuance in the first half of the year represents three-quarters of the planned total bond issuance of €18bn for the year. The NTMA took advantage of favourable market conditions in recent years to improve Ireland's maturity profile by extending out borrowing and replacing expensive loans with cheaper ones. This activity, coupled with the high level of cash reserves on hand and strong issuance in the first half increases the Agency's flexibility in meeting borrowing requirements. Notably there are no long-term government bonds set to mature before March 2022.⁶⁷

⁶⁶ In May 2021 the NTMA issued Treasury bonds maturing in 2031, 2033 and 2050 at yields of 0.3, 0.4 and 1.0 per cent respectively. In March 2021, by comparison, bonds maturing in 2031 and 2050 were issued at yields of 0.0 and 0.7 per cent respectively.

⁶⁷ Around €500m of UK bilateral loans are due to be repaid in 2021 following a payment of €2bn this year.

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.

New Insights from Irish Pension Fund Statistics

Kenneth Devine, Ciarán Nevin, David Mulleady & Niall Daly⁶⁸

Abstract

This article provides a detailed overview of the new statistical dataset on occupational pension funds collected by the Central Bank of Ireland. It highlights the growing importance of the sector with new insights on the structure of assets, liabilities, and changes in pension fund membership. In contrast to the Euro area, a small number of large pension funds account for most direct investment, with the significant number of remaining small funds relying heavily on unit linked insurance products and investment funds to diversify their holdings. Membership of defined benefit schemes is declining while it is increasing for defined contribution schemes, resulting in a shift in risk from the corporate sector to households. The sector has grown by 6.2 per cent since 2019, with total assets amounting to €127.5 billion at end-March 2021, equivalent to 60 per cent of GNI*.⁶⁹ However, the €8.6 billion deficit between Irish occupational pension funds' assets and liabilities warrants further analysis.

⁶⁸ Statistics Division. The authors would like to thank Jenny Osborne-Kinch, Maria Woods, Rory McElligott, Martin O'Brien, Mark Cassidy and Caroline Mehigan for their comments. The views expressed here are those of the authors and do not necessarily reflect those of the Central Bank of Ireland or the European System of Central Banks.

⁶⁹ Modified Gross National Income for end-2019.

1. Introduction

Pension funds perform a duet of roles, helping individuals save for old age and contributing towards the allocation of long-term capital across different economic sectors. They represent an important household financial decision, and are only comparable to mortgages in terms of financial commitment and long-term time-horizon. Globally, pension systems currently face challenges with older demographics, the low interest rate environment and sectoral reforms. In Ireland, the population is ageing and projections estimate life expectancy growth of over 5 years to almost 87 for males and over 90 for females by 2070 (Finance, 2021). This will result in an increased dependency on pensions to meet the retirement income needs of individuals for extended periods. Such demographic changes are a motivation for pension reform, including proposed increases in statutory retirement ages and the introduction of auto-enrolment to improve levels of pension savings and coverage.

Due to comparable issues across Euro area countries, and the limited information available to analyse pension funds, it became clear there was a need for higher quality, more granular and comparable data on the sector. To facilitate this, the European Central Bank (ECB) published a Regulation in the first quarter of 2018 on mandatory harmonised statistical reporting requirements of pension fund data by Eurosystem member states (See Box A).⁷⁰

Box A: Statistical Reporting Requirements for Pension Funds

Under the Regulation, reporting requirements are mandatory for all pension funds defined under the European System of Accounts resident in Ireland.⁷¹ In the Irish context, a pension fund is an autonomous occupational pension scheme established under trust. Government pay as you go schemes are not included in the data. The new dataset features standardised concepts that comply with international statistical standards and covers assets and liabilities of pension funds broken down between defined benefit and defined contribution schemes. The new statistics provide a detailed set of consistent data, to improve the understanding of sectoral interconnectedness and risks associated with pensions from the view of financial stability.⁷² The Regulation facilitated an approach to data collection that would cater for Ireland's unique sector structure, and reduce the reporting burden on the smallest pension funds by setting reporting requirements based on pension fund asset size. The first cohort, composed of the largest funds, report detailed data on a quarterly and annual basis, and the second, capturing smaller pension funds, reporting reduced data on an annual basis.⁷³ Aggregated figures are incorporated for the residual population who do not report, with a grossing methodology implemented to reach full sectoral coverage. As at Q1 2021, the collection

⁷⁰ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32018R0231&qid=1620225386606>

⁷¹ <https://ec.europa.eu/eurostat/web/esa-2010>

⁷² These data are not used for prudential purposes. The regulatory body for pension funds in Ireland is the Pensions Authority.

⁷³ Detailed population covers, at minimum, 75 per cent of assets in sector, rising to 80 per cent in 2022. Reduced population covers, at minimum, 95 per cent of assets in the sector.

reflected a reporting population of 395 pension funds covering 930,000 members for detailed data and 12,000 funds covering 300,000 members for reduced data.

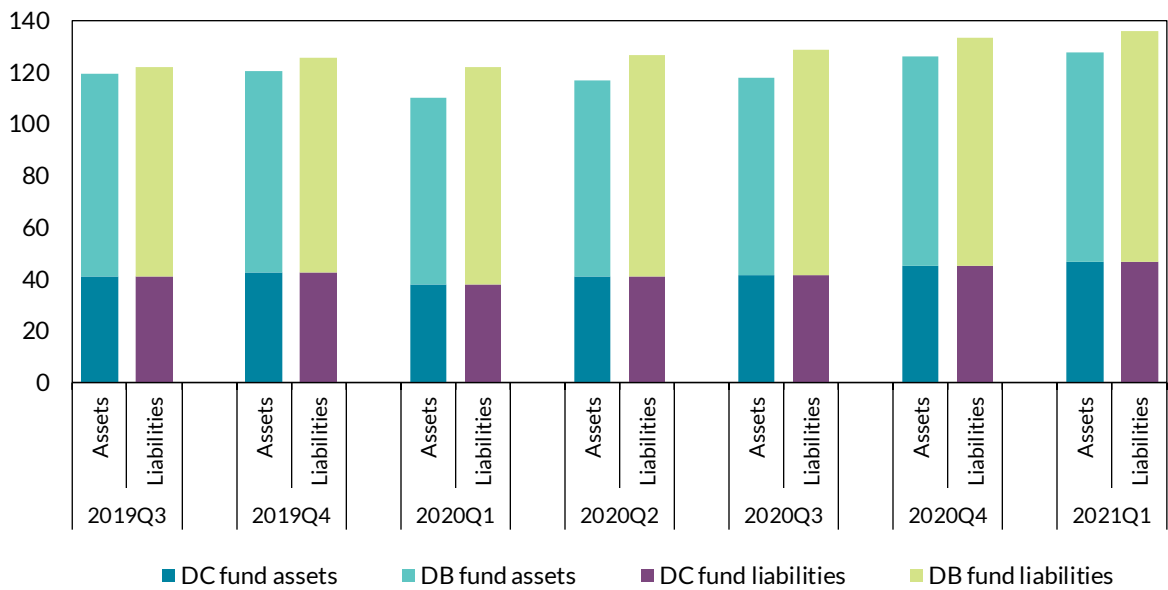
In October 2020, the new statistical series on pension funds was released by the Central Bank of Ireland.⁷⁴ The Central Bank of Ireland have also published a Behind the Data on initial insights from the dataset.⁷⁵ This article reports key findings from the data and highlights issues that warrant further analysis.

- In Q1 2021, Euro area pension funds' assets amounted to €3.1 trillion, more than doubling in size since 2010.
- The latest figures show the total asset value of the Irish pension fund sector was €127.5 billion, equivalent to 60 per cent of Irish GNI*, at end-March 2021. Despite the initial impact of Covid-19, this marks growth of €7.4 billion since the data was first collected for September 2019.
- Pension fund assets are predominantly held in the insurance corporation and investment fund sectors.
- The pension fund sector is heavily concentrated, with the top 10 pension funds covering 414,981 members and accounting for approximately 30 per cent of assets.
- The assets were €46.6 billion and €80.9 billion for defined contribution (DC) schemes and defined benefit (DB) schemes, respectively (Figure 1).
- The structural change away from DB to DC pension funds over the past decade means a transition of risk to the household sector, with individual's retirement income more susceptible to asset price movements.
- Despite this recent asset growth, the overall net worth of the sector has remained in deficit over the course of the collection, with the total value of liabilities exceeding that of assets for defined benefit pension funds.
- At the height of the pandemic in Q1 2020, the deficit was at a peak of €12.2 billion but has since reduced to a shortfall of €8.6 billion in Q1 2021. This has the potential to influence financial stability as a result of suboptimal pension benefits impacting household retirement income and the funding burden on corporations to address deficits.

⁷⁴ <https://www.centralbank.ie/statistics/data-and-analysis/pension-fund-statistics>

⁷⁵ <https://www.centralbank.ie/statistics/statistical-publications/behind-the-data/occupational-pension-funds-in-ireland-what-do-we-know>

Figure 1: Total assets and liabilities, by pension fund type (€bn)



Source: Central Bank of Ireland Data

The remainder of this article is structured as follows: section 2 provides an explanation of the three-pillar pension system in Ireland. Section 3 provides an overview of membership information. The asset holdings of Irish pension funds are dissected in section 4, and liabilities data in section 5. Section 6 concludes.

2. The Irish Pension System

The Irish pension system can be categorised into three pillars. Pillar 1 is the state pension, whose primary aim is to provide a basic level of income to all members of society. Pillar 2 consists of occupational pensions. This is made up of pension funds and public service pay-as-you-go schemes. Pillar 3 is made up of personal pension products. The combination of income from these three pillars represents the primary means through which households finance themselves in retirement. The size, and role, of pension pillars varies across Euro area countries (Curos et al., 2020).

Figure 2: Pension System Pillars

Pillar 1 State pension	Pillar 2 Occupational pensions	Pillar 3 Personal pensions
<ul style="list-style-type: none"> • Pay-as-you-go • Contributory/non-contributory • Everyone covered • Poverty prevention 	<ul style="list-style-type: none"> • Employer sponsored • Funded or pay-as-you-go basis • Defined benefit, defined contribution or hybrid 	<ul style="list-style-type: none"> • Personal Retirement Savings Accounts • Retirement Annuity Contracts • Approved Retirement Funds • Personal Retirement Bonds

Pillar 1: State Pensions

In Ireland, the Pillar 1 public pension is a basic scheme paying a flat rate to all who meet contribution conditions. There is also a means-tested non-contributory pension to provide a safety net for the low-income elderly who do not have sufficient pay related social insurance contributions to qualify. The qualifying age for both state pensions is currently 66 and a Pensions Commission has been established to consider the change to the State pension age, among other issues.⁷⁶ The primary aim of both of these pensions is poverty prevention by providing a basic level of income in retirement to all members of society. The liabilities of the State for the contributory scheme was valued at €359.2 billion at end-2018.⁷⁷

Pillar 2: Occupational Pensions

Pillar 2 captures occupational pensions, which operate on a funded basis for private sector schemes and either a funded or a pay-as-you-go basis for the public sector. For public sector workers, there are two main groups of pension schemes: those paid directly by the Exchequer or local government and commercial semi-state bodies who have their own specific pension funds. The schemes in the first cohort are pay as you go, while the second cohort are funded schemes (OECD, 2014). In 2018, the public sector pay-as-you-go schemes accounted for a State pension liability of €149.6 billion.

Data collected by the Central Bank of Ireland covers all funded occupational schemes in the private and public sector. These funds are incorporated under trust. A trust is a legal arrangement under which trustees hold the assets of the pension scheme in a trust fund for the benefit of the members of the scheme to provide income in retirement.

Occupational pension funds can be divided into two primary categories depending on the type of benefits they provide. These are DC and DB. DB pension funds provide pension at retirement determined by length of service and earnings. The investment and longevity risks are borne by the scheme and funded primarily by the employer contributions. In DC pensions, the level of pension provided will be the future value of assets purchased by contributions paid by employees and employer. The value of the benefits from the scheme depends on the amount of contributions paid and the investment return achieved minus fees. The investment and longevity risks are borne by the member. DC pension funds include single member schemes (typically set up for company owners/directors) and schemes hosted by life assurance companies. The latter provide investment through a unit linked policy, where the scheme assets are unit-linked policies issued by the company. Single member schemes are often self-administered and invest directly in assets, offering members more flexibility and control over investment decisions.

Pillar 2 consists of 74,866 DC and 597 DB active pension funds (Pensions Authority, 2020), representing over 90 per cent of total euro area pension funds by number. Unlike many other parts of the Irish financial service sector with large international services businesses, the Irish pension fund sector is predominantly comprised of Irish employee pensions. The large number

⁷⁶ https://www.pensionsauthority.ie/en/lifecycle/state_pensions/state_pension_age/

⁷⁷ <https://www.cso.ie/en/releasesandpublications/ep/p-eipl/estimatesofirishpensionliabilities2018/>

of small funds is unique to Ireland. They are primarily made up of small self-administered single member DC schemes. However, the prevalence of such schemes may be impacted by the recent implementation of IORP II (see Box B). While DC pension funds account for the greater share of members, sector assets are concentrated in the larger DB pension funds. This reflects the changing landscape of the pension fund sector with many DB funds now closed to new members with a fall of 50 per cent in the number of active schemes since end-2009 (Pensions Authority, 2009). The switch has been motivated by employers facing higher costs and underfunding challenges, compounded by a low interest rate environment. This structural change away from DB to DC pension funds means a growing number of pension holders are now bearing the investment and longevity risk that the final asset values of their fund will fall below the expected levels of retirement income. This income is increasingly exposed to market fluctuations, as any fall in return will directly reduce the value of their pensions and retirement annuity prices. While DC pension funds might be more advantageous from a sponsor perspective, it may result in suboptimal pension investment decisions. As highlighted by Lusardi & Mitchell (2011), even in countries with very developed financial markets, many households have limited understanding of risk diversification. Households may opt for either a high risk or conservative approach, and not generate sufficient expected returns to ensure adequate retirement income. This may impact long-term consumption patterns for households as they operate with lower levels of income (Serrano & Peltonen, 2020).

Box B: Implications of IORP II

The Institutions for Occupational Retirement Provision (IORP) II Directive was signed into Irish Law on 22 April 2021 via a series of regulations.⁷⁸ These supervisory regulations introduce new requirements on occupational pension schemes and their trustees across areas of governance, risk management and investment. Its purpose is to set common standards across Europe by ensuring the soundness of occupational pensions and better protecting pension scheme members through enhanced transparency and procedures.

One key change is that single member arrangements, who were previously exempt from investment restrictions must now comply with requirements relating to borrowing and activity in regulated markets. This applies to new one-member arrangements immediately, while there will be an open-ended derogation from the investment rules and borrowing restrictions for activities entered into by pre-existing schemes before the new regulations. A five year transitory period for pre-existing single member schemes applies for the other new requirements around risk management and governance.

Given increased restrictions will reduce investment flexibility and increase governance and risk management costs on single member schemes, these entities may become less prevalent in the Irish market. As these schemes account for the majority of entities in the

⁷⁸https://www.pensionsauthority.ie/en/trustees_registered_administrators/iorp_ii_directive/

sector, a consolidation into larger defined contribution schemes, master trusts or alternative Pillar 3 pension products may occur.

Pillar 3: Personal Pension Products

Pillar 3 covers personal pension products. Primary products in the Irish market include Personal Retirement Savings Accounts (PRSAs), Retirement Annuity Contracts (RACs), Approved Retirement Funds (ARFs) and Personal Retirement Bonds (PRBs). A PRSA is a personal pension savings plan acting as an investment account to save for retirement. Every employer who does not offer an employer pension scheme to all its employees must offer the opportunity to contribute to a standard PRSA contract. The Pensions Authority provide quarterly data on this product.⁷⁹ The total assets of PRSAs in Q1 2021 amounted to €8.7 billion, covering 317,000 contracts.

A RAC is a type of insurance contract that provides a tax-free lump sum and benefits at retirement. RACs can be used by the self-employed to accumulate a retirement fund and by employees in non-pensionable employment to build personal and employer contributions. A PRB is a type of personal pension contract. At retirement, consumers can take a tax-free lump sum and use the remaining funds to fund an annuity or an ARF. An ARF is a post-retirement investment fund for the proceeds of a DC scheme, PRB, PRSA or RAC. The individual can decide how to invest the funds, which accumulates tax-free. A minimum percentage withdrawal is required in any given year.

3. Pension Fund Membership

While providing monetary values on pension fund assets and liabilities, the dataset also includes novel information on the total membership numbers for Irish occupational pension funds. These are collected on an annual basis and are broken down across active, deferred and retired members.⁸⁰ At end-2020, the total membership of Irish pension funds stood at 1.37 million, registering a small increase on the 2019 figure.⁸¹ This increase was driven by a rise in the number of deferred and retired members of 3,228 (0.47 per cent) and 773 (0.77 per cent), respectively. However, these were slightly offset by the fall in number of active members of 100 (0.02 per cent) throughout 2020.

Figure 3 provides a breakdown of DB and DC pension funds for each member category as of year-end 2020. The total number of members under DB and DC pension funds are split at 46 per cent (625,000) and 54 per cent (745,000), respectively. This split is replicated in many

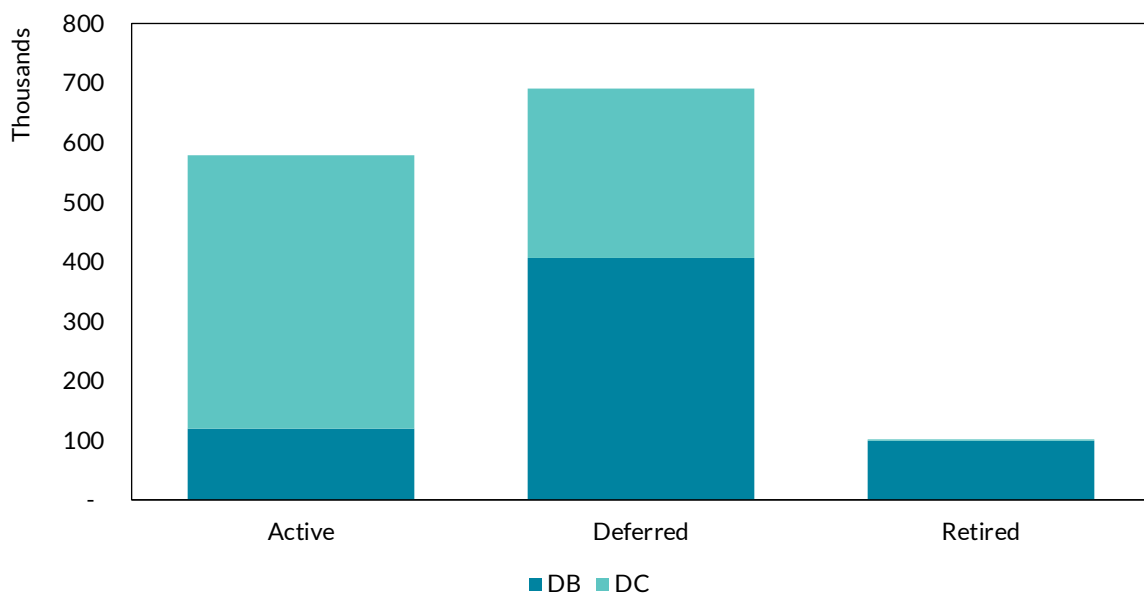
⁷⁹ https://www.pensionsauthority.ie/en/i_want_to_start_a_pension_prsa/prsas/

⁸⁰ An active member is a pension scheme member who is making contributions and is accumulating assets or has accrued assets in the past and is not yet retired. A deferred member is a pension scheme member who no longer contributes to or accrues benefits from the scheme but has not yet begun to receive retirement benefits from that scheme. A retired member is a pension scheme member who no longer contributes to or accrues benefits from the scheme and has begun to receive retirement benefits from that scheme.

⁸¹ While individuals are usually only active in one pension fund, they may also hold deferred membership of other pension funds linked with previous employment. Therefore, each membership does not necessarily represent a distinct individual.

pension markets around the world with the momentum behind DC pension funds showing little signs of abating. There is a large disparity between DB and DC pension funds across member categories. The number of active members in DC pension funds is far higher than DB, reflecting the aforementioned structural changes. This may also explain the high number of deferred members in DB pension funds. As people move jobs, they are more likely to move to an organisation offering a DC pension fund. As a result, their old DB pension fund will appear as deferred and their new DC pension as active. Once you retire from a DC pension fund you are no longer considered a member, resulting in a minimal number of retired members for DC pension funds.⁸² This data is an important tool to monitor the transition away from DB to DC pension funds and changes in the active workers to retirees ratio.

Figure 3: Membership breakdown by Pension Fund Type - 2020



Source: Central Bank of Ireland Data

To gain insights into the economic sectors represented by this collection, a Nomenclature of Economic Activities (NACE) code is assigned to each detailed pension fund based on the primary activities of the underlying sponsor.⁸³ At end Q1 2021, the economic sectors most represented, in terms of asset size of pension fund can be seen in Figure 4.⁸⁴ Those in Financial and Insurance activities accounted for the greatest proportion with €33.1 billion in total assets across 74 PFs. The sectors with the largest average asset holdings per PF at end-Q1 2021 were Electricity, Gas, Steam and Air Conditioning supply (€781 million) and Transportation and Storage (€523 million). The majority of pension funds represented private employer firms (361), holding €79.5 billion in total assets. Semi-state sponsored pension funds were, on

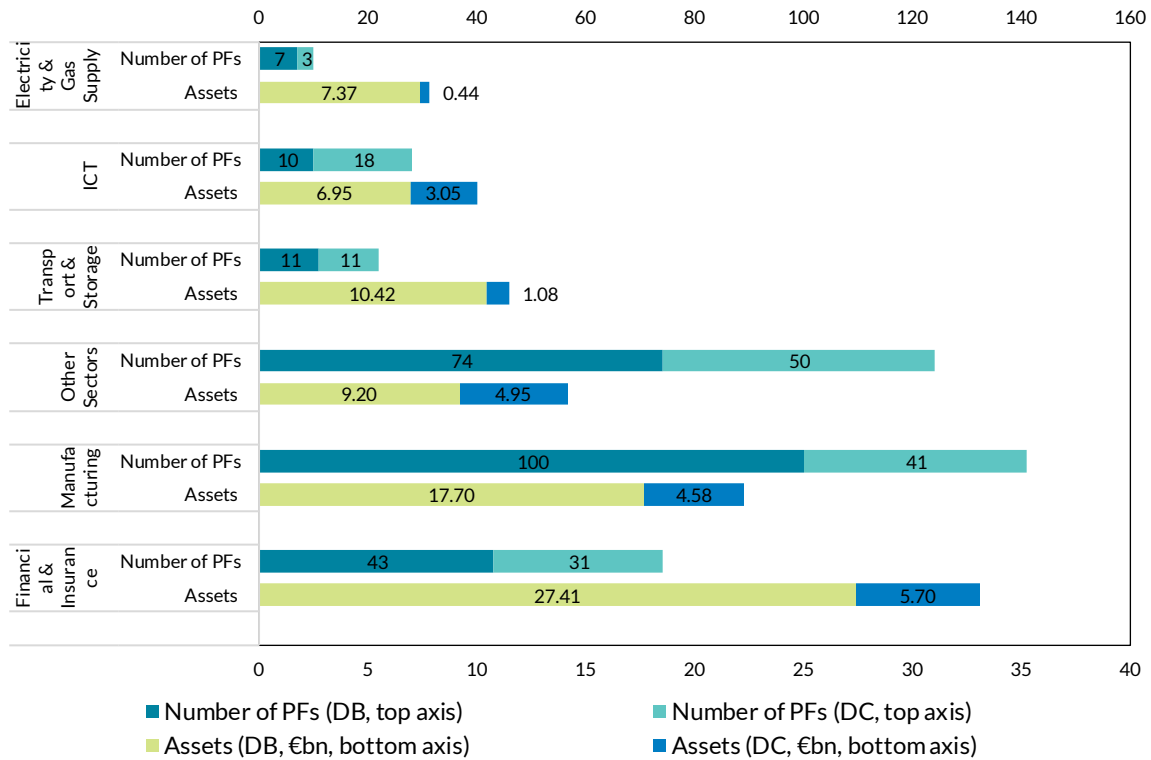
⁸² The retired member will be captured under Pillar 3 once their DC retirement benefits have been transferred to a personal pension product.

⁸³ NACE Codes are a pan-European classification system that groups entities according to their business activities. A sponsor is any undertaking or other body which acts as an employer or in a self-employed capacity and which offers a pension scheme or pays contributions.

⁸⁴ These figures relate to the detailed reporting population who are the largest pension funds and submit data on a quarterly basis. At Q1 2021, they accounted for 395 PFs holding €98.8 billion in total assets.

average, over double the size (€570 million) of PFs that were sponsored by private sector firms. Sponsors with Irish ultimate parents represented by 45 per cent of pension funds, holding 61 per cent of assets.

Figure 4: Underlying Economic Sectors of Pension Fund Sponsors



Source: Central Bank of Ireland Data

Notes: Data relates to only detailed reporting population. Other Sectors includes Agriculture, Construction, Wholesale & Retail Trade, Accommodation and Food services, Public Administration, Education, Health, Arts, and other service activities.

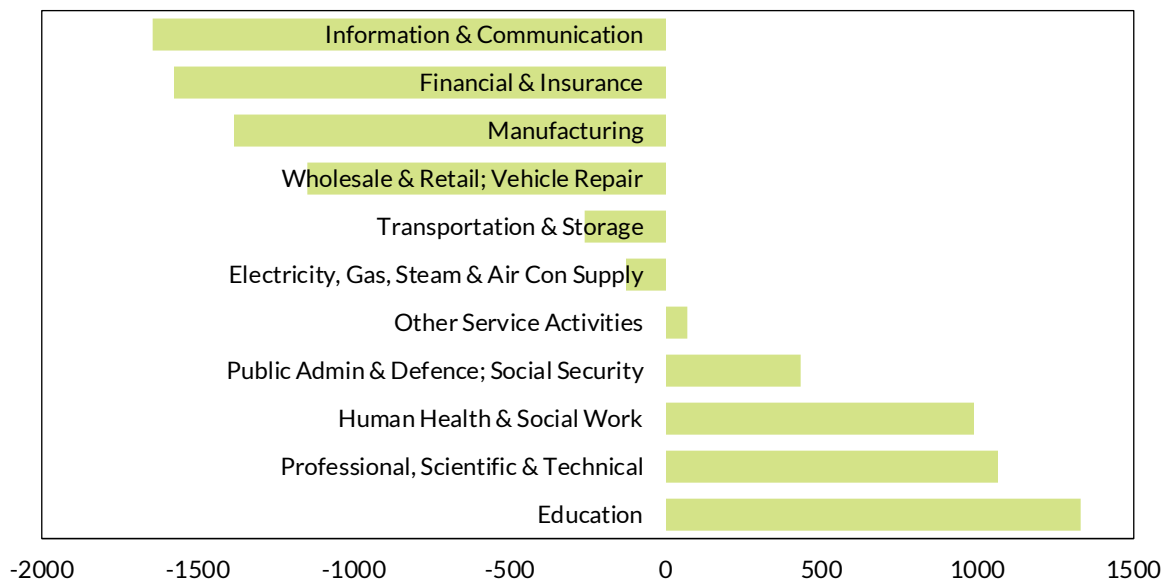
Covid-19 and Changes in Pension Membership

Previous work by Byrne, Coates, Keenan & McIndoe-Calder (2020) highlighted the initial impact of Covid-19 on job losses up to April 2020. Based on unemployment claims, they found significant concentration of displacement in the accommodation, food services, retail trade and construction sectors. While employment in these sectors may not all include membership of an occupational pension fund, we can compare their findings with the changes in active pension fund membership by economic sector.

Figure 4 identifies the changes in active members from 2019 to 2020. While some sectors impacted by Covid-19 experienced falls, wider market conditions can also be seen to influence other sectors. The information & communication, financial & insurance and manufacturing sectors showed the largest decreases in active members while the education, professional and health & social work sectors showed the strongest increases. The reduction in active members for the information and communication sector reflects redundancies in, and acquisitions of, specific technology companies. While the drop in the financial & insurance sector can be linked to job cuts at commercial banks. In terms of growth, the increase in active members for the

education sector can primarily be associated with additional voluntary contribution schemes for teachers. Building on the work of Heffernan, Saupe & Woods (2020) and Lydon & McIndoe-Calder (2021), who highlighted the increases in households deposits during the pandemic, membership in these voluntary schemes by those in secure employment may represent an example of transfers from record high deposits to retirement savings. As the level of occupational pension coverage varies significantly by sector, membership in certain professions will be more impacted than others during periods of economic fluctuation.⁸⁵ This new dataset will provide opportunities for further work in this area.

Figure 5: Annual Change in Active Members by NACE sector 2019-2020



Source: Central Bank of Ireland Data

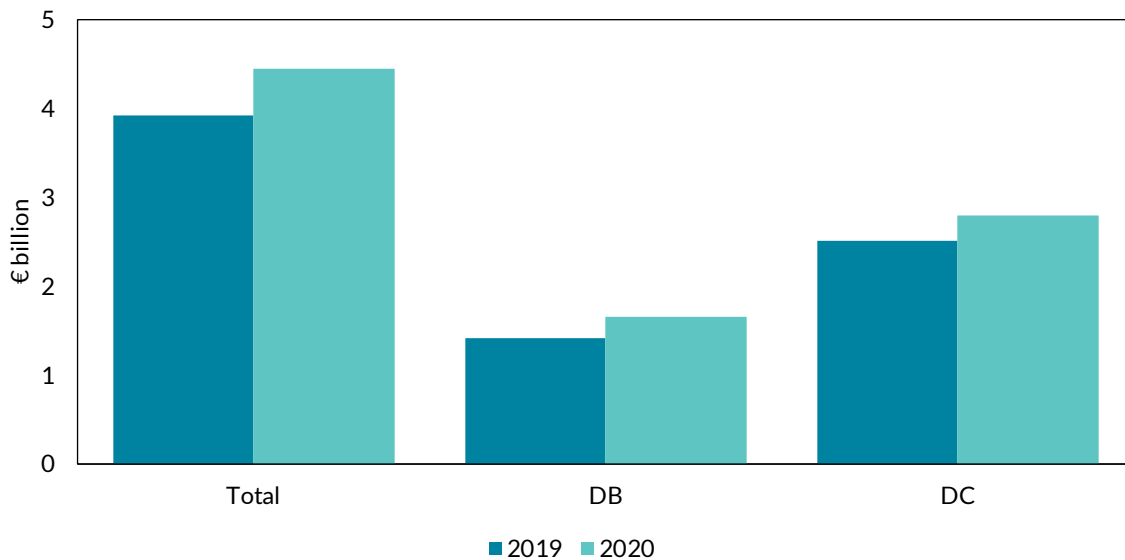
Notes: Data related to only detailed reporting population and sectors with > 1000 active members.

Despite the decline in the number of active members, pension contributions grew by 13 per cent to reach a level of €4.4 billion in 2020. This figure includes contributions by members and sponsors, with both registering increases for 2020. The split in total contributions between DB and DC pension funds was 37 per cent and 63 per cent respectively. At a per active member level, contributions grew by 13 per cent, from an average of €7,774 to €8,819 between 2019 and 2020.

The new dataset outlines the changing structure across types of pension fund, with high levels of DC active membership and DB deferred membership highlighting the transition from DB to DC. By breaking down changes in membership by NACE sector, it identifies a fall in active membership linked to negative economic conditions. In spite of this decrease, contributions to pension funds grew over the same period. Again, additional contributions may represent an example of transfers from increased levels of household deposits to retirement savings.

⁸⁵ The Central Statistics Office provide occupational pension coverage by NACE sector.

<https://www.cso.ie/en/releasesandpublications/ep/p-pens/pensioncoverage2020/overallpensioncoverage/>

Figure 6: Contributions by Year and Fund Type

Source: Central Bank of Ireland Data

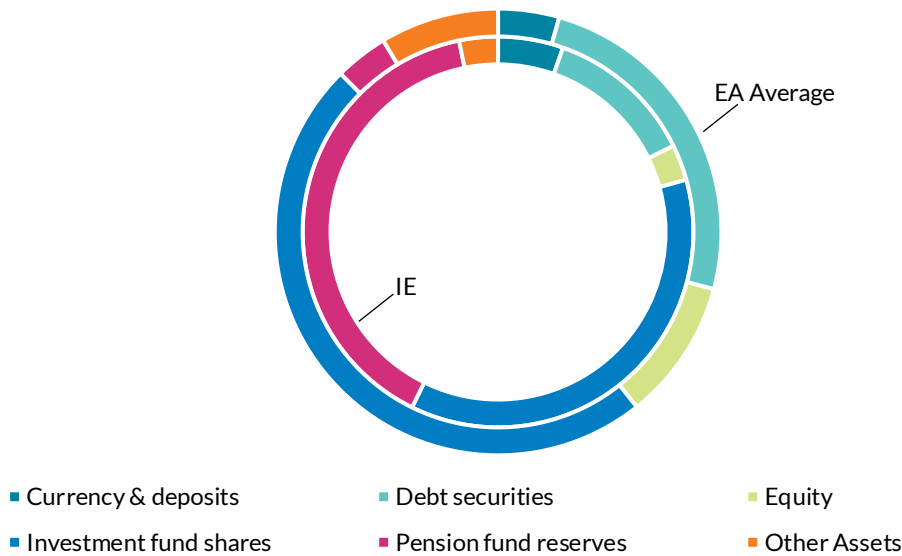
4. Pension Fund Asset Allocation

The new dataset facilitates insights into the investment assets of pension funds. The predominant investment assets are unit-linked insurance products (ULIPs) (€50.4 billion) and investment fund shares (€46.6 billion).⁸⁶ Direct investments in debt securities stood at €15.7 billion. The remaining assets are composed of currency & deposits, equity, financial derivatives and non-financial assets such as property. This concentration in asset holdings highlights exposure to the insurance corporation and investment fund sectors.

The composition of Irish pension funds' assets differs compared to the broader Euro area aggregates. The prominence of unit linked insurance products (40 per cent compared to 4 per cent) as an investment vehicle in the Irish market is the primary difference. Use of this product is minimal elsewhere in the Euro area. Pension funds across the Euro area also hold a higher proportion of assets in investment fund shares (48 per cent to 37 per cent), debt securities (25 per cent to 12 per cent) and equities (10 per cent to 3 per cent). Differences in the two latter products reflects a greater preference for direct investment holdings.

⁸⁶Under ESA 2010 statistical classifications, ULIPs are captured under the term *Pension fund reserves*. In Ireland, *Pension fund reserves* are primarily composed of ULIPs.

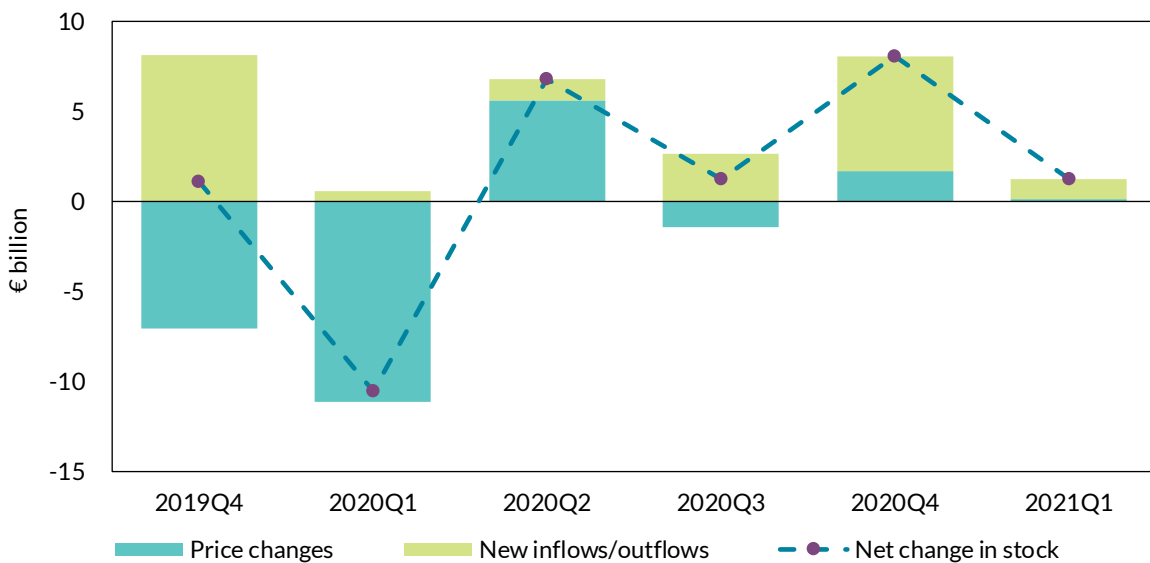
Figure 7: Total assets instrument breakdown Ireland vs. Euro area - Q1 2021



Source: Central Bank of Ireland Data & European Central Bank Statistical Data Warehouse Data
 Notes: Other assets includes loans, non-financial assets, remaining assets and financial derivatives

The initial impact of the Covid-19 pandemic can be seen within the series through asset fluctuations, which fell by 9.7 per cent (€12.1 billion) over Q1 2020. Through the new data, we can now see that this was driven predominantly by reductions in asset prices of €11 billion, offset slightly by new inflows. Asset prices continued in their recovery over the remainder of 2020 in line with broader financial market trends, to stand at €127.5 billion by end-Q1 2021. This marks the second quarter in which asset values exceeded pre-pandemic levels (Figure 8). This aligns with findings by the OECD (2021), who showed that despite the market turmoil due to Covid-19, pension fund assets grew by nearly 9 per cent in OECD countries across 2020.

Figure 8: Changes in assets of Irish PFs (€bn)



Source: Central Bank of Ireland Data

Characteristics

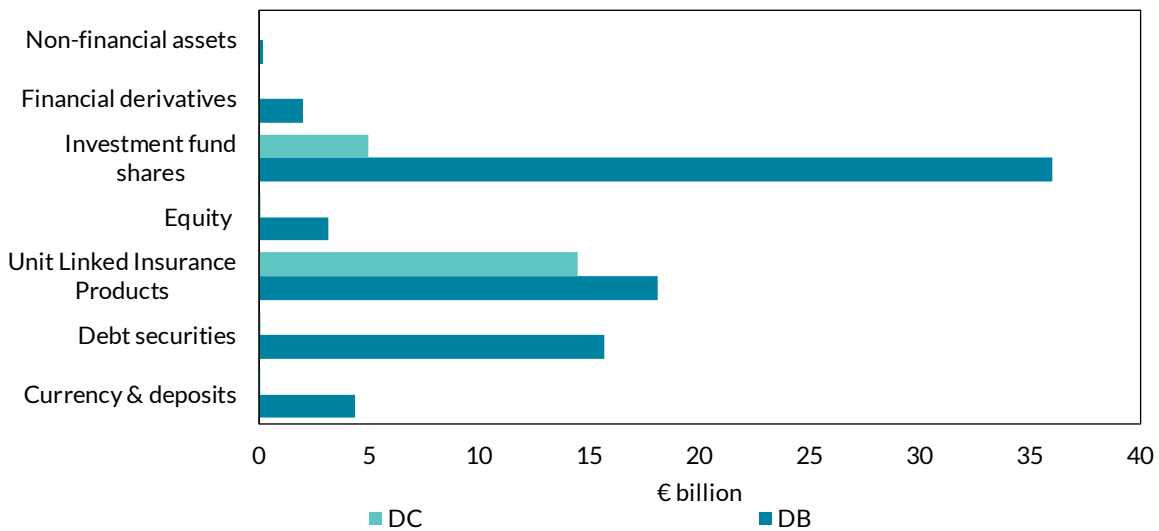
Just as Irish pension funds vary in terms of age, size, and type, so do their investment strategies. Pension funds must balance the need for a return on their investment with the need to manage risk over the long run. Investment decisions are guided by a range of factors from membership demographics to general economic conditions.

The size and type of pension fund are key factors when identifying investment strategies. Some pension funds opt to make day-to-day investment decisions, buying and selling assets directly to meet the pension fund's liabilities. Such pension funds tend to have a large number of distinct assets on the balance sheet, with one pension fund having over 3,000 distinct assets. However, these are not in the majority. Of the 400 largest pension funds in Ireland, just 70 funds hold 30 or more distinct assets, with most pension funds choosing to invest indirectly through investment funds or ULIPs issued by insurance corporations. These instruments pool investors' capital so that it can be invested collectively in a range of financial instruments such as stocks and bonds. Ireland's unique pension landscape, with a large number of small pension funds, means that many pension funds may not have the scale to make direct investment in a diverse range of assets cost effective. The purchase of units in investment funds and ULIPs is a convenient way for trustees to diversify their investments while maintaining liquidity and sharing the costs of professional investment management with other investors.⁸⁷

While a pension fund's size is an important factor in determining its investment strategy, so too is its type. DB and DC pension funds have structural differences in terms of both the type of financial assets held and the number of distinct, direct investments. While DB pension funds can be seen to directly invest in hundreds of diverse assets including equities (€3.1 billion) and debt securities (€15.7 billion), DC pension funds tend to predominantly hold a limited number of investments in IFs (€5 billion) and ULIPs (€14.4 billion). This investment approach chosen helps to explain why investment funds and ULIPs account for three quarters of the sector's balance sheet. These instrument types, along with the third largest holding – debt securities – are discussed at an aggregated level in detail below. The remaining assets, which account for just 11 per cent of the balance sheet of Irish pension funds are briefly summarised at the end of this section.

⁸⁷ https://www.esma.europa.eu/sites/default/files/library/2015/11/10_1321.pdf

Figure 9: Asset Allocation breakdown by DC/DB pension funds – Q1 2021



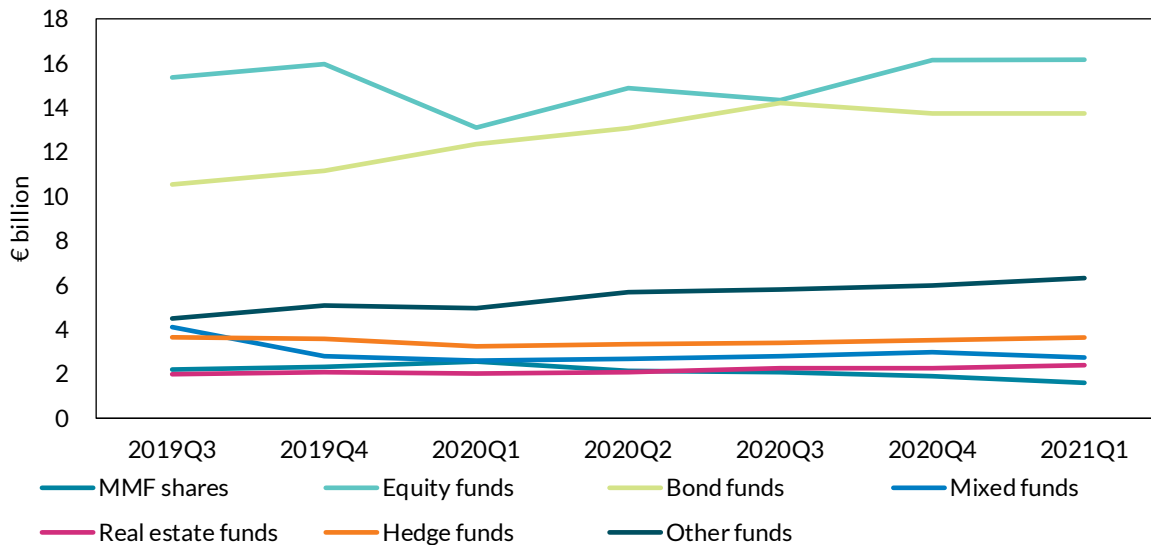
Source: Central Bank of Ireland Data
 Notes: Data relates to detailed reporting population.

Investment Funds & Unit-Linked Insurance Products

Investment Funds

The Central Bank collects information on the type of investment funds used by pension funds. The investment fund type relate to the underlying investments of the funds as outlined in their respective prospectuses. The vast majority of investment funds held by Irish pension funds were issued in Ireland. Two thirds of the investment fund holdings of Irish pension funds are in equity and bond funds. Use of real estate or hedge funds is very limited. This concentration of investment fund holdings reflects the Euro area aggregates, where equity and bond funds are also the predominant types (Curos et al., 2020).

Figure 10: Investment Fund Movements by Type – Q1 2021



Source: Central Bank of Ireland Data

Holdings in equity funds amounted to €16.2 billion in Q1 2021 and, despite falling sharply in Q1 2020, now sit above pre-pandemic levels. The total value of bond funds held by Irish pension funds in Q1 2021 amounted to €13.8 billion. The risks and rewards of bond funds can vary greatly depending on the quality of underlying securities. However, where the underlying securities are highly rated, such as certain government bonds, the increase in holdings could be attributed to pension funds searching out safer investments due to the uncertainty associated with Brexit and subsequently Covid-19.

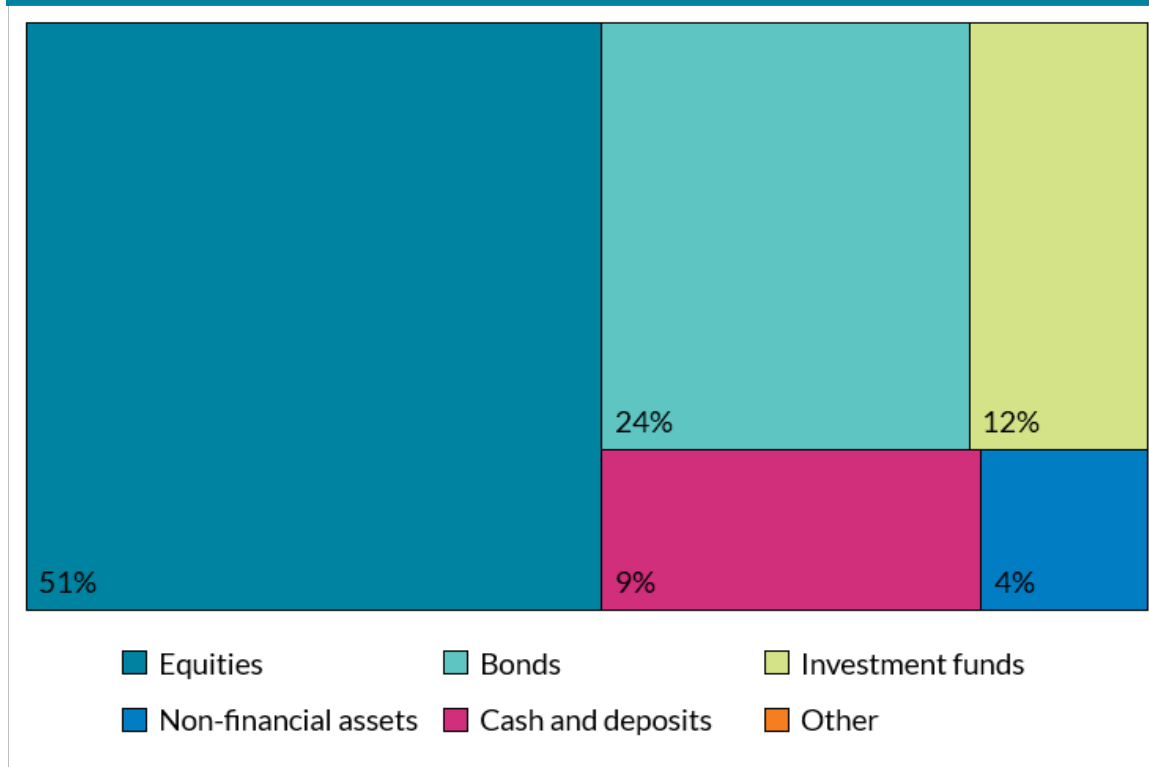
Investment funds also offer investors a way to invest in underlying assets that are not easily divisible, such as real estate. Recent work by the Central Bank of Ireland (Daly, Moloney & Myers, 2021), explored investors in Irish real estate funds by sector and found pension funds to be considerable players. Our data confirm this, showing holdings of real-estate funds to have increased over the past five quarters, to stand at €2.4 billion in Q1 2021. The dataset will provide future opportunities for research in this area.

Unit linked insurance products

At a glance, unit-linked insurance products are similar to investment funds in terms of what they offer investors, but there are some important differences. A unit-linked insurance product offered by insurance corporations can be bundled together with life insurance cover under a single integrated plan. Investors, such as pension funds, purchase units in these funds in a very similar way as they would in a standard investment fund. Insurance corporations invest in a range of assets in a similar manner to investment funds. The unit price will increase or decrease depending on the performance of the underlying assets with the policyholder (the pension fund) bearing the investment risk and returns. These assets are either held directly by the insurance corporation, in what is known as an internal unit-linked insurance fund, or are held by a separate legal entity that is wholly owned by the insurance corporation, known as an external unit-linked insurance fund.

Unit-linked insurance plans are the main products offered by life ICs in Ireland, representing 78 per cent of the assets on the life ICs balance sheet. This is in contrast with many other EU member states, with life ICs unit-linked assets comprising of less than 20 per cent of gross technical provisions in countries such as France, Germany, and Spain (Kelly & Osborne-Kinch, 2018).

Irish pension funds held €50.4 billion of unit-linked insurance products in Q1 2021, making them the largest single instrument type on the aggregated balance sheet of the sector.

Figure 11: Underlying Assets of Unit Linked Insurance Products

Source: Authors' calculations.

The underlying assets of unit-linked insurance funds display similar patterns to both investment funds. Equities or bonds accounted for 75 per cent of the total assets of a sample of unit-linked insurance funds held by Irish pension funds (Figure 11).⁸⁸ The geographical split, based on the same sample, shows that assets issued in Ireland account for 15 per cent of the total, with the US accounting for the largest share of any country (28 per cent).

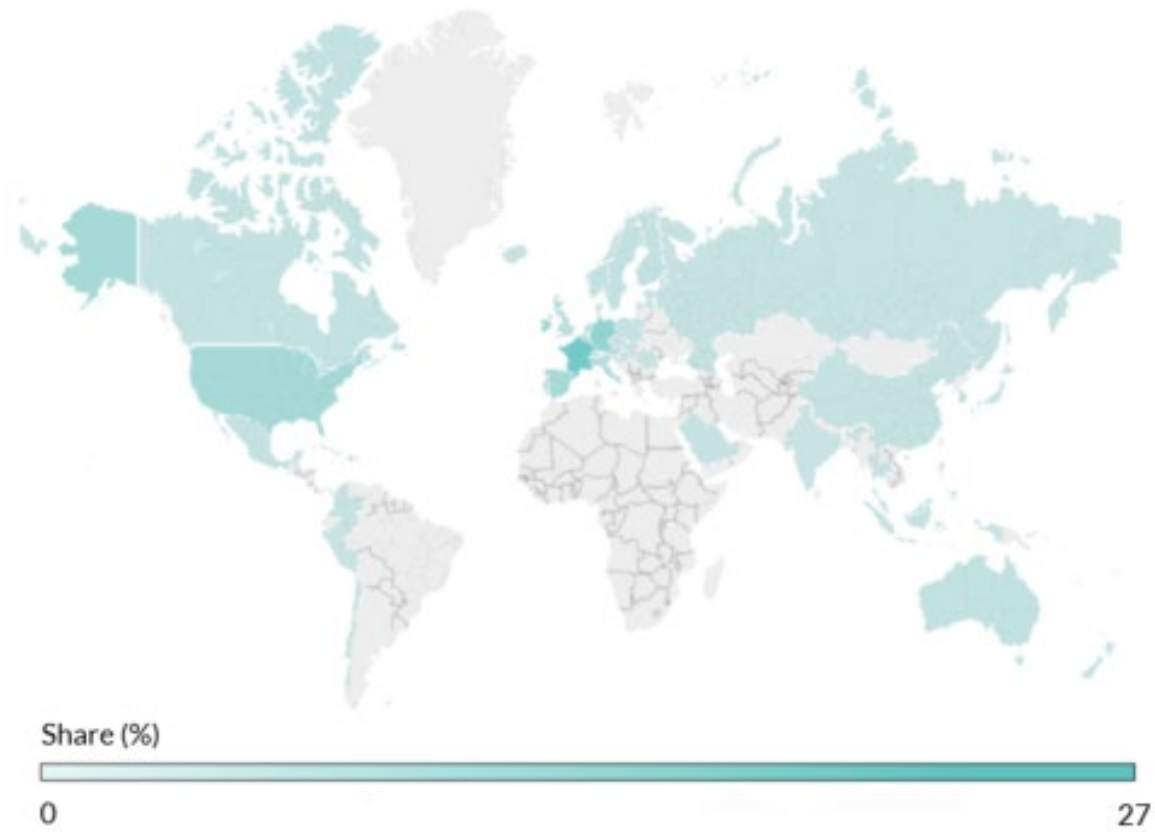
Debt Securities

By value, close to 78 per cent of debt securities held by Irish pension funds are in the form of government bonds. Corporate bonds account for a further 18 per cent, with the remaining four per cent consisting of structured notes and collateralised securities. These debt securities were issued by institutions across the world but the majority (almost 75 per cent) of those held by Irish pension funds were issued by France (27 per cent), Germany (16 per cent), Ireland (13 per cent), the US (9 per cent), and Spain (9 per cent) (Figure 12).

The majority of debt securities held by Irish pension funds are long-term bonds. Almost three quarters of the total debt securities holdings have a residual maturity of more than 10 years (Figure 13). While these bonds may not all be held to maturity, this aligns with the long-term liability profile of pension funds.

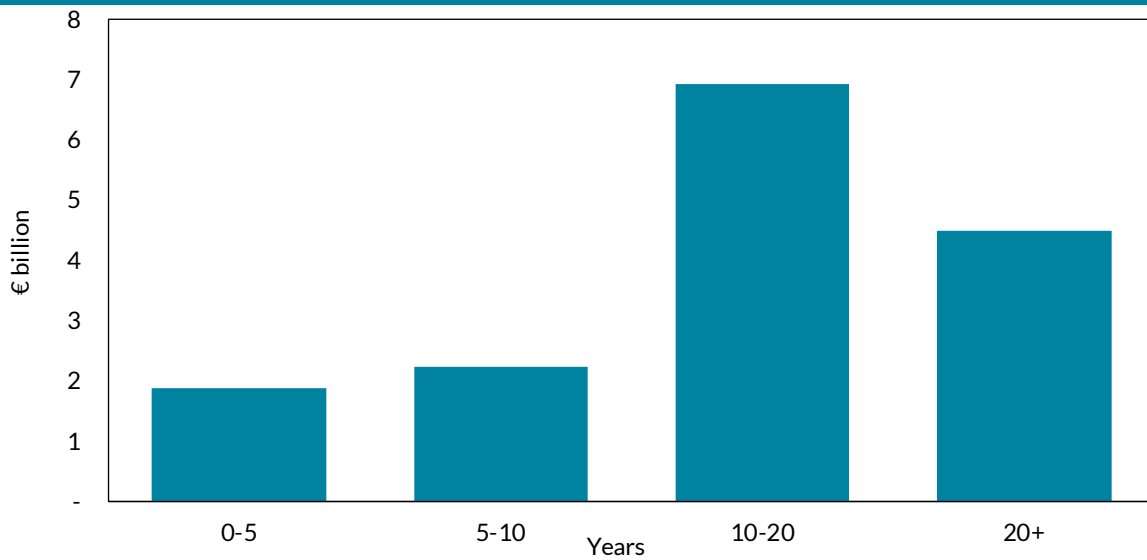
⁸⁸ The Central Bank of Ireland does not collect granular data on the underlying assets of unit-linked insurance funds. The breakdown is based on a survey of a sample of unit-linked insurance fund providers, representing 80 per cent of the total value of unit-linked insurance funds held by Irish pension funds.

Figure 12: Issuer Country Debt Securities – Q1 2021



Source: Central Bank of Ireland Data

Figure 13: Maturity Profile Debt Securities – Q1 2021



Source: Central Bank of Ireland Data

Debt securities serve two main purposes for a pension fund: (i) high rated bonds issued by the governments of countries with strong economies provide relatively safe assets, and (ii) lower rated bonds produce income for the pension fund through higher returns but this comes with greater risk. Over 90 per cent of all bonds held by Irish pension funds are of investment grade (Baa3/BBB- or above) with AAA (25 per cent) and Aa3/AA- to Aa1/AA+ (31 per cent) the predominant holdings.⁸⁹

Other Assets - Currency & deposits, equities, derivatives and non-financial

The remaining 11 per cent of the assets of the Irish pension fund sector consists of currency and deposits, equities, derivatives and non-financial assets. Pension funds in Ireland do not hold loans as assets as they are not authorised to do so, unlike in some other European jurisdictions.

Currency and deposits may be held for investment purposes such as foreign exchange trading. Irish pension funds hold currency and deposits denominated in 27 different currencies. Pension funds also hold currency and deposits to meet outgoings, such as pension benefits, fees and expenses.

Direct holdings of equities represent a small share (3 per cent) of the balance sheets of Irish pension funds, with most pension funds choosing to invest in equities via equity-focused investment funds. Despite this, the €3.8 billion of equity holdings is invested in c. 2,300 distinct entities across a diverse range of countries with the United States accounting for almost half of holdings (47.7 per cent).

Irish pension funds are not permitted to hold financial derivatives for investment purposes but they are used by a small number of pension funds to hedge risks including foreign exchange risk. Non-financial assets, such as property (directly held by pension funds) represent less than 1 per cent of the total assets of the sector - a relatively small share when compared with the holdings of real-estate funds.

The asset allocation of Irish pension funds varies significantly by size, and type of benefit, with larger DB funds accounting for the majority of direct investment in debt securities and equity. We find concentrated links with investment funds and unit linked insurance products to provide diversification within both fund types.

5. Pension Fund Liabilities

Pension funds are established to provide an income to individuals upon retirement. For this reason, the primary liability of any pension fund is typically to households in the form of pension entitlements.⁹⁰ While pension entitlements dominate the liabilities side of both DC and DB pension funds, other liabilities may exist. Where a pension fund holds derivatives for hedging purposes and the net position is negative at a point in time, it represents a liability for the pension fund. Also included in other liabilities are credit or unpaid bills. The way in which

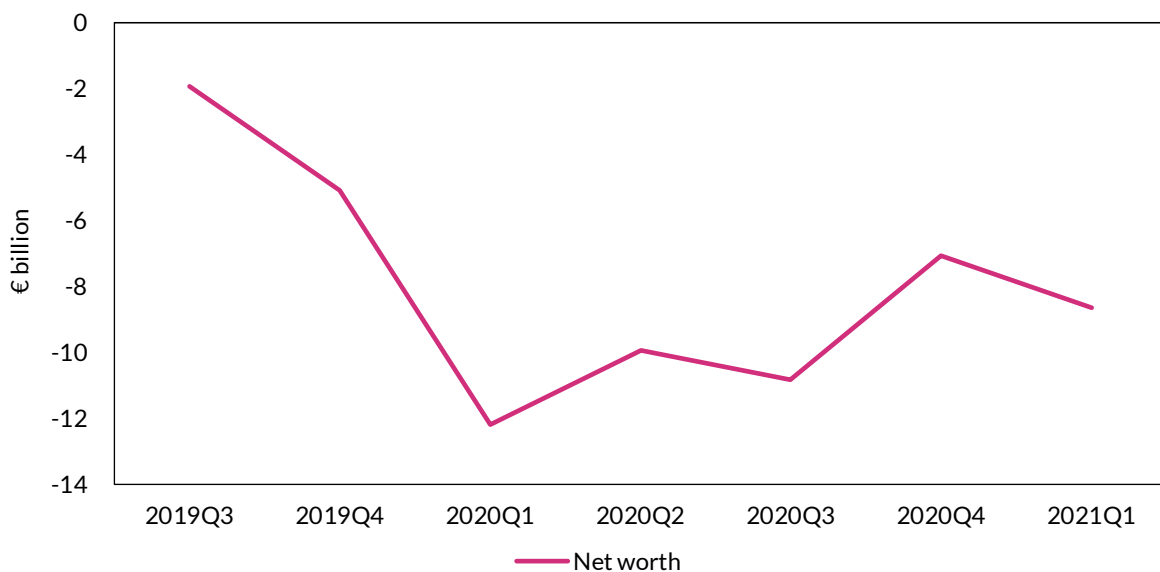
⁸⁹ Bond ratings are reviewed regularly and can be upgraded or downgraded depending on perceived credit risk.

⁹⁰ All liability figures are reported on an annual basis with quarterly figures estimated by the Central Bank of Ireland as per the ECB Regulation. The figures are submitted on an accounting basis, using either the International Financial Reporting Standards ("IFRS") or local generally accepted accounting principles ("Local GAAP").

pension entitlements are treated by DC and DB pension funds is the primary distinguishing feature between pension fund types. As the benefits paid are dependent on the performance of the assets acquired by the pension fund, the liability of a DC scheme is therefore equal to the current market value of the fund's assets. DC pension entitlements stood at €45.3 billion at end Q1 2021.

In contrast, for a defined benefit pension fund the level of pension benefits promised to participating employees is determined by a formula agreed in advance. For example, a final salary DB pension fund might provide a pension of 1/60th of final earnings for each year an employee was an active member of the pension fund.⁹¹ As a result, the liability of a defined benefit pension fund is equal to the present value of the promised benefits. At end Q1 2021, DB pension entitlements stood at €85.2 billion. The fact that DB pension entitlements are equal to the present value of the promised benefits means that their estimation depends on beliefs about the future. Actuarial assumptions such as the discount rate, life expectancy, the rate of increase in salary, the rate of increase in pension entitlements, and the rate of inflation are used to calculate these benefits.⁹² As such, the assumptions are impacted by economic conditions and the interest rate environment so can vary from year to year, leading to swings in liabilities.

Figure 14: Changes in total net worth of Irish Defined Benefit Pension Funds



Source: Authors' Calculation based on annual Central Bank of Ireland data.

The liabilities of pension funds can vary substantially over time. Typically, any change in stock can be the result of (i) a change in value or price, or (ii) inflows/outflows, and these effects may work in opposite directions. In the case of a pension fund's liabilities, the dynamics will depend on whether the fund is DC or DB. For a DC pension fund, changes in price/value of benefits is directly related to a change in the price or value of the associated assets. Any other change in

⁹¹https://www.pensionsauthority.ie/en/lifecycle/private_pensions/final_salary_defined_benefit_schemes/

⁹²<https://www.iaasa.ie/getmedia/9a9ba527-e83a-429c-9a60-db0463cd4404/Survey-of-issuers-defined-benefit-pensions-assumptions-final.pdf?ext=.pdf>

the stock of liabilities is the result of an inflow or outflow, such as contributions received or benefits paid. The price/value effect in the context of DB pension funds is more complicated and includes a change to the discount rate or underlying assumptions. Inflows/outflows in the DB context include contributions and the accrual of obligations since the previous period.

As the pension entitlements of a DC pension fund are equal to the value of the assets, and these values are directly linked, it cannot be over or under funded – the net worth is always zero.⁹³ In the case of a DB pension fund, there is no direct link between the value of the assets held by the pension fund, which is determined by the market, and the value of its liabilities, which is determined by a range of factors including promised benefits, discount factor, inflation, etc. This means that the net worth of a DB pension fund can be positive or negative and can vary substantially over time, due to changes on either side of the balance sheet.

At end Q1 2021, 55 per cent of Irish DB pension funds had negative net worth – liabilities greater than assets. The deficit peaked at €12.2 billion in Q1 2020 but has since reduced to a shortfall of €8.6 billion in Q1 2021. Ireland is one of eight Euro area countries in which DB pension funds compose the majority of pension entitlements, making it more open to larger funding fluctuations, with six countries having no defined benefit pension elements (Curos et al., 2020). Since Q3 2019, there has been considerable fluctuations in the level of net worth across a number of countries. Over this period, four countries have experienced negative net worth – Netherlands, Ireland, Cyprus and Slovenia and at end Q1 2021, only the Netherlands had returned to a funding surplus. Given it has the largest pension fund sector in the Eurosystem, movements in its net worth drive the Euro area aggregates.⁹⁴

A potential risk associated with such a deficit is that DB scheme benefits are not guaranteed. If the scheme's assets are not sufficient to pay the benefits, and the employer is not in a position to meet the shortfall, promised benefits may have to be reduced. Sponsors can be called upon to reduce the funding gap between the promised benefits and scheme assets. However, this can weaken their financial position and possibly compromise business viability (Financial Stability Board, 2017). These factors, paired with our preliminary findings, highlight a need for further research on the potential impact of funding deficits on both households and sponsors.

6. Conclusion

This article provides an overview of the pension fund statistical collection undertaken by the Central Bank of Ireland. The growing importance of the sector is clear due to the impact it may have on the macro economy and financial stability as a result of suboptimal pension benefits impacting household consumption and the increased funding burden on corporations to address deficits.

At Q1 2021, the total assets of Irish pension funds were €127.5 billion, the equivalent of 60 per cent of GNI*. Pension fund assets are concentrated in the insurance corporation and

⁹³ A pension fund's net worth is the difference between total assets and total liabilities. A positive (negative) net worth means that assets are greater than (less than) liabilities and that the pension fund is over- (under-) funded.

⁹⁴ <https://www.centralbank.ie/statistics/statistical-publications/behind-the-data/occupational-pension-funds-in-ireland-what-do-we-know>

investment fund sectors, with unit-linked insurance products and equity & bond investment fund shares the predominant holdings. Direct holding of equity and debt security instruments is only completed by a subset of larger pension funds.

The membership structure of pension funds is changing as the transition from DB to DC continues, with the majority of active members now in DC funds. Over the course of 2020, there was a small fall in active members of pension funds. Despite this, levels of contributions rose at an aggregated level.

In line with the purpose of pension funds, pension entitlements to households represent the largest instrument on the liabilities side of the balance sheet. The liabilities of DB pension funds currently outweigh the value of the assets, with a current deficit of €8.6 billion spread across over 295 schemes.

The introduction of this new pension fund statistical collection provides important data on pension fund activities in their role as the primary provider of household retirement income and as an allocator of long-term capital across economic sectors. It assists in the understanding of the composition, concentration and exposures of pension fund assets and liabilities, and how these change over time. Information on membership allows us to track the impact of evolving economic conditions and sector structure on pension fund participation.

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