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Central Bank of Ireland

Eurosystem



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Notes

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2. Unless otherwise stated, statistics refer to the State, i.e., Ireland exclusive of Northern Ireland.
3. In some cases, owing to the rounding of figures, components do not add to the totals shown.
4. The method of seasonal adjustment used in the Bank is that of the US Bureau of the Census X-11 variant.
5. Annual rates of change are annual extrapolations of specific period-to-period percentage changes.
6. The following symbols are used:

e	estimated
n.a.	not available
p	provisional
..	no figure to be expected
r	revised
-	nil or negligible
q	quarter
f	forecast
7. Data on euro exchange rates are available on our website at www.centralbank.ie and by telephone at 353 1 2246380.

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Comment

As the easing of public health restrictions continues, the rebound in the Irish economy in recent months is expected to be followed by a sustained period of robust growth. Against a broadly favourable international backdrop, domestic consumption, investment and employment are currently growing at a pace at or above what was expected at the time of the last *Bulletin*. This momentum contributes to an increasingly positive outlook for the economy out to 2023, with domestic activity back to pre-pandemic levels by end-2021, albeit that uncertainty remains high. The combination of a surge in demand, supply bottlenecks and some constraints in the labour market is leading to higher consumer and broader price pressures. While the main drivers of the higher inflation outlook are considered temporary, promoting sustainable growth in Irish living standards requires careful management of domestic economic policy as it moves away from a focus on pandemic-related measures.

Clear evidence of the improving economy can be seen in the labour market, with a continued reduction in the numbers of those in receipt of State income supports. However, the experience of the pandemic and the path ahead is not uniform across sectors. Those sectors less affected by the pandemic have seen consistent labour demand and wage growth. Some sectors have seen a rise in activity linked to changing preferences and behaviour since the pandemic began. In contrast, more contact-intensive services are witnessing surging demand as restrictions ease alongside, in some cases, limited ability to revert to pre-pandemic capacity. An increasingly common feature as vacancies rise is a relatively slower labour supply response, with employment growth reliant on rising participation rates to balance out the gradual return to pre-pandemic inward migration levels over the forecast horizon. The combination of these factors lead to

some sector-specific wage pressures at the same time as a significant number of firms continue to avail of the wage subsidy scheme. Both a return of higher inward migration and measures to facilitate a transition out of unemployment and inactivity to new employment in sectors with high labour demand will be necessary to contain cost pressures from wage growth (Box D).

Businesses and consumers are facing higher near-term costs as supply bottlenecks meets surging demand, higher shipping, energy and other input costs (Box E). The drivers of headline HICP inflation over the near-term lead to the stronger forecast in the current *Bulletin*, but are expected to ease through 2022. Should these factors persist over the forecast horizon, the potential for second-round effects would increase, with businesses less able to carry higher input costs without increasing their prices, and greater demand for increased wages from workers so as to maintain real living standards. While, on balance, there are some upside risks to the real growth outlook, the persistence of supply bottlenecks, higher input costs and insufficient labour supply could drive a wider gap between real and nominal growth over the forecast horizon, resulting in higher inflation than currently anticipated. This could be particularly relevant for the construction sector given the expected rise in public and private outlays on housing investment, both for the delivery of new housing units and in retrofitting the existing housing stock in-line with climate action targets.

The most recent Quarterly National Accounts (Q2 2021) published by the CSO confirmed the extent to which the economy bounced back in recent months. The pick-up in consumer spending and domestic investment has been in-line with, or slightly stronger than anticipated. However, the recent domestic demand performance was always going to be flattered in comparisons with periods during which stringent public health restrictions were in place. More surprising has been the net export performance that has persisted so far in 2021. This has been largely due to the activities of multinational enterprises (MNEs), in particular exports in the ICT and pharmaceuticals sectors. While firms in these sectors have a substantial and material presence in Ireland, growth in 2021 has been driven by exports produced outside the State. The modern realities of the globalised nature of production and corporate structures make it difficult for the current international standards of national accounts to fully capture national welfare and living standards, especially for Ireland. Some progress has been made in this regard, however the increasing gap between

headline measures such as GDP growth and domestic economic conditions calls for further effort to produce additional national accounts data that give a holistic perspective on national economic welfare (Box C).

The ECB monetary policy strategy review concluded in July, the results of which will inform the conduct of monetary policy in the years to come. In a Signed Article included in this *Bulletin*, the outcome of the strategy review is discussed, outlining the rationale of the symmetric 2 per cent inflation target and the operational framework in terms of instruments and forward guidance that is used to pursue it. The strategy review also includes a roadmap for further incorporating climate change into the ECB's monetary policy framework, so as to support the wider economic objectives of the EU in transitioning to net zero by 2050 without prejudice to the primary price stability mandate.

As monetary policy can contribute to achieving other policy goals primarily pursued by governments, so too can effective coordination between monetary and fiscal policy achieve price and wider macroeconomic stability. This has proven to be the case with the policy response during the pandemic, which has enabled governments to support demand without excessive debt servicing burdens arising (Box F). Within EMU, national fiscal and economic policy can be an important determinant of relative inflation dynamics at the Member State level. From a domestic perspective, as the necessary support measures arising from the pandemic are unwound, it remains important that domestic policy aims to promote sustainable increases in real living standards over the medium-term. While substantial investment is needed to address infrastructure deficits in housing and meeting the challenges of climate change, such investment needs to be carefully managed and accompanied where necessary by structural reforms to ensure excess demand does not lead to excessive inflationary pressures. Other factors also call for caution to avoid the risk of structural and pro-cyclical imbalances emerging between government spending and revenues. These include the long-term costs of an ageing population amidst other demands on government resources, which are rising given the increase in non-pandemic related expenditure outlined in the Summer Economic Statement. Ensuring sustainability of the public finances by achieving a lower debt ratio over the medium-term will contribute to avoiding excessive inflationary pressures domestically and build long-term resilience and ability to respond to future shocks.

An Timpeallacht Gheilleagrach

De réir mar a leanfar de na srianta sláinte poiblí a mhaolú, meastar go dtiocfaidh tréimhse leanúnach fáis láidir i ndiaidh an athbhorrtha atá feicthe ar gheilleagar na hÉireann le míonna beaga anuas. I bhfianaise comhthéacs idirnáisiúnta atá fabhrach tríd is tríd, tá tomhaltas intíre, infheistíocht agus fostaíocht ag fás ar luas a rabhthas ag súil leis nuair a foilsíodh an *Fhaisnéis Ráithiúil* deiridh nó níos tapúla ná sin fiú. Cuireann an fuinneamh sin le hionchas dearfach don gheilleagar suas go dtí 2023, agus faoi 2021, meastar go mbeidh leibhéal na gníomhaíochta intíre ar ais ag na leibhéil a bhí ann roimh an bpaindéim, ach go mbeidh éiginnteacht ard ann i gcónaí. Tá brúnna níos airde ó thomhaltóirí agus brúnna níos leithne ar phraghsanna ag eascairt as borradh ar éileamh, as baic ar sholáthar agus as roinnt srianta sa mhargadh saothair. Cé go meastar gur spreagthaí neamhbhuana iad príomhspreagthaí an ionchais don bhoilsciú níos airde, is gá bainistíocht chúramach a dhéanamh ar bheartas an gheilleagair intíre de réir mar a athraítear a bhéim ó bhearta a bhaineann leis an bpaindéim d'fhonn fás inmharthana ar chaighdeáin mhaireachtála na hÉireann a chur chun cinn.

Tá fianaise shoiléir den fheabhas seo ar an ngeilleagar le feiceáil sa mhargadh saothair sa mhéid go bhfuil laghdú leanúnach ar líon na ndaoine sin a bhfuil tacaíochtaí ioncain á bhfáil acu. É sin ráite, bhí tionchar na paindéime le brath ar bhealaí eagsúla ar fud na n-earnálacha éagsúla agus ní hionann an chonair atá rompu go léir. Chonacthas éileamh comhsheasmhach ar an éileamh ar shaothar mar aon le fás pá sna hearnálacha sin a raibh tionchar ní ba lú ag an bpaindéim orthu. In earnálacha áirithe, feictear go bhfuil méadú ar ghníomhaíocht nasctha le roghanna agus le hiompar atá athraithe ó

thús na paindéime. I gcodarsnacht leis sin, tá méadú as éidean ag teacht, de réir mar a mhaolaítear na srianta, ar an éileamh ar sheirbhísí sna hearnálacha sin ina mbíonn níos mó teagmhála le daoine agus áit a bhfuil cumas teoranta, i gcásanna áirithe, filleadh ar an acmhainn táirgthe a bhí ann roimh an bpaindéim. Is gné chomónta go minic í freagairt sách mall do sholáthar saothair de réir mar a thagann méadú ar fholúntais, agus tá fás fostaíochta ag brath ar ardú ar rátaí rannpháirtíochta chun go gcúiteofar an filleadh de réir a chéile ar leibhéal na hinimirce a bhí ann roimh an bpaindéim thar thréimhse na réamhaisnéise. Mar gheall ar na tosca éagsúla sin, tá brúnna pá ann in earnálacha ar leith tráth a bhfuil líon suntasach gnóthaí fós ag baint leas as an scéim fóirdheontais pá. D’fhonn brúnna costais ó fhás pá a shrianadh (Bosca D), beidh gá le hinimirce níos airde agus le bearta a chuideoidh leis an athrú ón dífhostaíocht agus ón díomhaointeas go fostaíocht a dhéanamh níos éasca sna hearnálacha sin ina bhfuil ardéileamh ar shaothar.

Tá costais níos airde ag bagairt ar ghnóthaí agus ar thomhaltóirí sa ghearrthéarma toisc go bhfuil baic ar sholáthar ag teacht chun cinn i gcomhthráth le borradh as éadan ar éileamh, agus le costais níos airde seachadta, fuinnimh agus ionchuir eile (Bosca E). Tá réamhfhaisnéis níos fearr san *Fhaisnéis Ráithiúil* seo mar gheall ar spreagthaí bhoilsciú príomha ICPT sa ghearrthéarma, ach meastar go maolódh na spreagthaí sin le linn 2022. Dá leanfadh na tosca sin thar thréimhse na réamhaisnéise, bheadh seans níos mó ann go dtiocfadh éifeachtaí iarmhartacha chun cinn agus laghdófaí cumas gnóthaí costais ionchuir níos airde a iompar gan a gcuid praghsanna a ardú agus bheadh éileamh méadaithe ag oibríthe ar mhéaduithe pá chun a gcaighdeáin mhaireachtála a choimeád ar bun. Tríd is tríd, cé go bhfuil roinnt rioscaí ar an taobh thuas ann maidir leis an ionchas don fhíorfhás, d’fhéadfadh dianseasmhacht na mbac ar sholáthar, costais ionchuir níos airde agus soláthar neamhleor saothair bearna níos airde a chruthú idir an fíorfhás agus an fás ainmniúil thar thréimhse na réamhaisnéise, rud a chruthódh boilsciú níos airde ná mar atáthar ag súil leis faoi láthair. Baineann tábhacht ar leith leis seo don earnáil foirgníochta mar gheall ar an méadú ionchasach ar eisíocaíochtaí poiblí agus príobháideacha le haghaidh infheistíocht i dtithíocht, chun aonaid tithíochta nua a sheachadadh agus chun an stoc tithíochta reatha a aísfheistiú i gcomhréir leis na spriocanna um ghníomhú ar son na haeráide.

Sna Cuntais Ráithiúla Náisiúnta is déanaí (R2 2021) a d'fhoilsigh an Phríomh-Oifig Staidrimh, dearbhaítear teacht aniar an gheilleagair le míonna beaga anuas. Bhí an méadú ar chaiteachas tomhaltóirí agus ar infheistíocht intíre i gcomhréir lena rabhtas ag súil leis ní níos láidre ná sin fiú. Ach tugann comparáidí le tréimhsí ina raibh diánsrianta sláinte poiblí i bhfeidhm le tuiscint go bhfuil feidhmíocht an éilimh intíre níos fearr ná mar atá i ndáiríre. Is é an rud is iontaí fós feidhmíocht na nglan-onnmhairí a mhaireann go dtí seo. Tá sé seo inchurtha go mór mór do ghníomhaíochtaí fiontar ilnáisiúnta, go háirithe onnmhairí in earnáil TFC agus in earnáil na cógaisíochta. Cé go bhfuil láithreach shuntasach ábhartha ag gnólachtaí sna hearnálacha sin, bhí an fás sa bhliain 2021 á spreagadh ag onnmhairí atá á dtáirgeadh lasmuigh den Stát. Is doiligh na caighdeáin leasa náisiúnta agus mhaireachtála a ghabháil i gcaighdeáin idirnáisiúnta reatha na gcuntas náisiúnta mar gheall ar fhirinní comhaimseartha chineál domhanda na struchtúr táirgthe agus na struchtúr corparáideach. Rinneadh dul chun cinn áirithe ina leith seo, ach mar gheall ar an mbearna atá ag méadú idir na tomhais phríomha ar nós fás OTI agus dálaí eacnamaíoch intíre is gá iarracht bhreise a dhéanamh chun sonraí breise cuntas náisiúnta a chur ar fáil a thabharfaidh dearcadh iomlán ar leas eacnamaíoch náisiúnta (Bosca C).

Rinneadh an t-athbhreithniú ar straitéis beartais airgeadaíochta an BCE a thabhairt chun críche i mí Iúil, agus bainfear úsáid as torthaí an athbhreithnithe sin mar bhonn eolais do riaradh beartais airgeadaíochta sna blianta atá le teacht. In Alt Sínithe san *Fhaisnéis Ráithiúil* seo, pléitear toradh an athbhreithnithe ar an straitéis, agus leagtar amach an bunús atá le sprioc 2 faoin gcéad don bhoilsciú mar aon leis an gcreat oibríochtúil i dtéarmaí na n-ionstraimí agus na réamh-threorach a úsáidtear chun í a bhaint amach. Chomh maith leis sin, áirítear treochlár san athbhreithniú ar an straitéis chun go gcuimseofar an t-athrú aeráide i gcreat beartais airgeadaíochta an BCE d'fhonn tacú le cuspóirí eacnamaíoch níos leithne an AE chun aistriú chuig glan-nialasach faoi 2050 gan dochar do shainordú príomhúil na cobhsaíochta praghsanna.

Faoi mar is féidir cuidiú le spriocanna beartais eile arna saothrú ag rialtais a bhaint amach trí bhíthin beartas airgeadaíochta, is féidir cobhsaíocht praghsanna agus cobhsaíocht mhaicreacnamaíoch níos leithne a bhaint amach trí bhíthin comhordú éifeachtach idir beartas

airgeadaíochta agus beartas fioscach. B'amhlaidh a bhí an cás leis an bhfreagairt beartais le linn na paidéime a chuir ar chumas rialtas tacú le héileamh in éagmais ualaigh seirbhísithe fiachais (Bosca F). Laistigh den AEA, is cinntitheach tábhachtach é an beartas náisiúnta fioscach agus eacnamaíoch maidir le dinimic choibhneasta an bhoilscithe ar leibhéal na mBallstát. Ó thaobh cúrsaí intíre de, tá sé tábhacht, de réir mar a scaoilfear na bearta tacaíochta a bhí ag teastáil de bharr na paidéime, go bhféachfaidh an beartas intíre le méaduithe inbhuanaithe ar chaighdeán mhaireachtála a chur chun cinn sa mheántearma. Cé go bhfuil infheistíocht shuntasach de dhíth chun dul i ngleic le heasnaimh i mbonneagar tithíochta agus chun freastal ar na dúshláin a bhaineann leis an athrú aeráide, is gá go ndéanfar an infheistíocht sin a bhainistiú go cúramach agus go mbeidh athchóirithe struchtúracha ag gabháil léi nuair is gá chun a chinntiú nach gcruthóidh an ró-éileamh brúnna boilscitheacha iomarcacha. Ní mór a bheith san airdeall ar chúiseanna eile chun go seachnófar an riosca go dtiocfaidh míchothromaíochtaí struchtúracha agus comhthimthriallacha chun cinn idir caiteachas agus ioncam an rialtais. Orthu sin, áirítear costais fhadtéarmacha a bhaineann le daonra atá ag dul in aois i measc éileamh eile ar acmhainní an rialtais, agus tá siad seo ag ardú i bhfianaise an mhéadaithe ar chaiteachas nach mbaineann leis an bpaidéim mar a leagadh amach i Ráiteas Geilleagair an tSamhraidh. Trí inbhuanaitheacht an airgeadais phoiblí a chinntiú trí chóimheas fiachais níos ísle a bhaint amach sa mheántearma, rannchuideofar le brúnna boilscitheacha iomarcacha intíre a sheachaint agus cuirfear le hathléimneacht san fhadtéarma agus leis an gcumas chun freagairt do thurraingí amach anseo.

The Irish Economy

Overview

The Irish economy is recovering swiftly, and domestic economic activity will reach its pre-pandemic level by the end of this year. Public health restrictions eased during the summer, leading to a strong rebound in domestic demand, particularly consumption, in the second quarter that has continued through the third quarter. While the strength of the recovery was expected, it has happened more quickly than forecast at the time of the last *Bulletin*.

All remaining public health restrictions are planned to be lifted by 22nd October. More than 90 per cent of the adult population have been vaccinated against Covid-19. While uncertainty remains high, our forecasts assume that the vaccination programme allows the pandemic to be managed without the need for significant public health restrictions of the type seen in spring 2020 and early 2021.

Domestic demand is forecast to grow by 5.5 per cent this year, and by 7.1 per cent next year.¹ In 2023, the growth rate is expected to decelerate slightly as economic conditions normalise, but it is still forecast to grow by 4.1 per cent. A recovery in consumption will play a substantial role, as household spending relative to incomes normalises. Consumption is forecast to grow by 6.2 per cent this year, and by 8.3 per cent and 5.1 per cent next year and in 2023, respectively (Figure 1).

The MNE sector is forecast to remain the main driver of export growth over the forecast horizon, but strengthening world demand is expected to also lift domestic firms' exports. Exports of MNE-dominated sectors, in particular pharmaceutical and ICT, should continue to grow at a very strong pace. This reflects not only the significant presence of their activities in Ireland, but also the growing share of their goods produced and exported abroad on behalf of Irish resident firms.² These accounted for roughly three quarters of the €26 billion rise in the value of exports³ over the year to Q2 2021. Exports of this type are forecast to continue to contribute to the growth in Irish exports and

¹ Modified Domestic Demand – excluding volatile components of investment such as aircraft relating to the leasing sector and intellectual property assets.

² These activities are referred to as contract manufacturing and merchanting in the Balance of Payments. A detailed description can be found in the [IMFs balance of payments manual](#).

³ This figure refers to the difference between Q2 2021 and Q2 2020 exports in seasonally adjusted current prices.

GDP (see Box C). While the prospective strength of expansion in Ireland's main trading partners is uncertain, economic growth in those markets is expected over the forecast horizon.

The recovering economy is forecast to generate around 160,000 jobs over the forecast period, reducing the unemployment rate to 5.9 per cent on average in 2023. Some sectors will take longer to recover to their pre-COVID levels of employment, leading to some persistence in the unemployment rate as workers either find work in other sectors or wait for their sector to regain full capacity. Migration is also forecast to take time to recover. These factors will contribute to earnings growth of 5.1 per cent this year, before decelerating to 4.8 per cent and 3.4 per cent in 2022 and 2023, respectively.

Surging demand in the presence of supply bottlenecks, along with a significant increase in energy prices this year, will also generate some price pressures in the economy, but these are forecast to ease towards the latter half of next year. HICP inflation is forecast to average 2.1 per cent in 2021, but when energy prices are excluded, inflation of 1.2 per cent is expected (Figure 2). While the upward pressure on prices from higher energy costs is forecast to ease next year (see Box E), there is a risk that product and labour supply constraints persist as demand remains relatively strong, leading firms to pass higher costs on to consumers. Similarly, if households begin to expect higher inflation, this could become self-fulfilling as firms and workers bid up prices and wages in anticipation, which could in turn lead to further inflation.

Pandemic related spending, as well as a planned fiscal expansion in other areas, will bring risks to the public finances. The deficit as a percentage of GNI* (the size of the economy) will peak this year. By 2023 the deficit is expected to be 2.8 per cent of GNI*, and debt is forecast to be 100 per cent of GNI*. Changes to global corporation tax arrangements pose near-term challenges for the public finances.

The outlook is still subject to higher than normal levels of uncertainty, but over the forecast horizon risks to the growth outlook are marginally to the upside, with upside risk to inflation more pronounced. While the epidemiological situation has improved, risks and uncertainty relating to the management of Covid-19 remain. A more extensive use of excess savings for consumption purposes than assumed in our forecasts could boost domestic demand further in 2022 and 2023. However, in the presence of more persistent supply bottlenecks, real growth could be more constrained and broader price pressures could become more prominent.

Table 1: Macroeconomic Projections for the Irish Economy

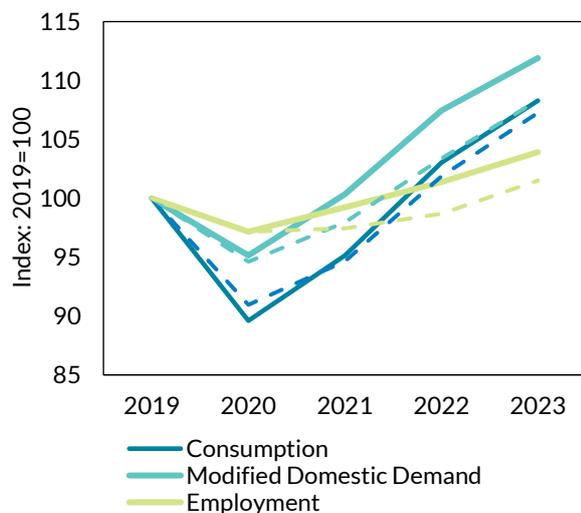
(annual percentage changes – constant prices)

	2020	2021f	2022f	2023f
Modified Domestic Demand	-4.9	5.5	7.1	4.1
GDP (see note 1)	5.9	15.3	7.2	5.3
Personal Consumer Expenditure	-10.4	6.2	8.3	5.1
Public Consumption	10.9	4	3.2	-1.0
Gross Fixed Capital Formation	-23	-38.8	6.5	5.7
Modified Gross Fixed Capital Formation	-3.6	5.1	8.0	6.7
Exports of Goods and Services	9.5	15.7	7.6	6.7
Imports of Goods and Services	-7.4	-8.2	7.5	6.9
Total Employment	-2.8	2.1	2.2	2.5
Unemployment Rate (% of Labour Force)	5.9	7.3	7.2	5.9
Harmonised Index of Consumer Prices (HICP)	-0.5	2.1	2.9	1.9
HICP Excluding Energy	-0.1	1.2	2.3	2.0
Compensation per Employee	3.9	5.1	4.8	3.4
General Government Balance (% of GNI*)	-9.0	-7.5	-4.2	-2.8
General Government Gross Debt (% of GNI*)	104.8	106.6	101.3	100.0

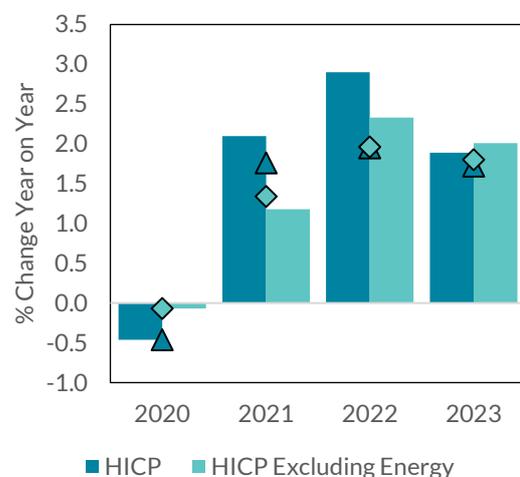
1. GDP is reported here as it is the standard measure used in international comparison and forms Ireland's contribution to the Eurosystem staff projections. Caution should be used in interpreting GDP developments for Ireland, as it is heavily influenced by globalisation and the activities of multinational enterprises.

2. A more detailed set of forecasts is available on our website.

The economy will recover its pre-pandemic level of domestic demand by end-2021, but the surge in demand will generate some transitory inflation.

Figure 1: Consumption, MDD and Employment

Source: CSO and Central Bank of Ireland
Note: Dashed lines indicate forecast from QB3 (July 2021)

Figure 2: HICP inflation

Source: Eurostat and Central Bank of Ireland
Note: Markers indicate forecast from previous *Bulletin*

Box A: The International Outlook

By Monetary Policy Division

Global economic prospects have diverged along vaccine access and policy support lines. While almost all advanced economies are anticipating a normalization of economic activity toward the end of this year, many emerging markets and developing economies continue to face resurgent infections and rising Covid death tolls. In July, the IMF forecast global growth of 6 per cent in 2021 and 4.9 per cent in 2022, with prospects for developing economies being marked down for 2021 and those for advanced economies being revised up. Beyond the impact of varying vaccine rollouts rates and policy support, a patchy recovery is expected to be further shaped by new variants, aftershocks and supply-demand mismatches. Despite this uncertainty, financial conditions remain supportive and market sentiment is positive, given the expected global recovery.

Euro area seasonally-adjusted Gross Domestic Product (GDP) grew by 2.2 percent in the second quarter of 2021, when compared with the previous quarter. This follows a decline of 0.3 percent in the first quarter. The euro area economy is expected to grow rapidly in the second half of 2021 and to then gradually normalise. This reflects the assumptions that containment measures will continue to ease at an increased rate, supply bottlenecks will be alleviated from the start of 2022, substantial policy support will be ongoing and a continued global recovery. ECB projections expect euro area real GDP to grow by 5 per cent in 2021, and by 4.6 per cent and 2.1 per cent in 2022 and 2023 respectively.

In July 2021, the euro area seasonally-adjusted unemployment rate was 7.6 per cent, down from 7.8 per cent in June 2021 and from 8.4 per cent in July 2020. While showing improvement, current unemployment estimates should continue to be read with caution, as they do not fully capture the unprecedented labour market situation triggered by the pandemic. Euro area Purchasing Managers Indices (PMIs), compiled by Markit, continue to show strong levels of relative expansion, albeit at a more moderate pace in the most recent months for both services and manufacturing. Manufacturing growth in the euro area slowed to a six-month low in August, with the final PMI at 61.4, down from 62.8 in July. Supply issues, stemming from input prices, a lack of components and shipping capacity, have been the primary cause of this shortfall in manufacturing production relative to orders.

Euro area headline inflation, as measured by the year-on-year increase in the Harmonised Index of Consumer Prices, stood at 3.0 per cent in August, up from 2.2

percent in July, according to Eurostat. Looking at the main components of euro area inflation, energy had the highest annual rate in August (15.4 per cent, compared with 14.3 per cent in July), followed by non-energy industrial goods (2.7 per cent, compared with 0.7 per cent in July). ECB projections for the euro area inflation have been revised upward for this year and next, and now expect HICP inflation to average 2.2 per cent in 2021 (up from the June forecast of 1.9 per cent), 1.7 per cent in 2022 (up from 1.5 per cent) and 1.5 per cent in 2023 (up from 1.4 per cent).

In July, the Governing Council of the ECB adjusted its forward guidance, in line with its new monetary policy strategy, which was approved and announced on 8 July.⁴ The key ECB interest rates are now expected to remain at their present, or lower, levels until the Governing Council sees inflation reaching 2 per cent well ahead of the end of its projection horizon and durably for the rest of the projection horizon, and it judges that realised progress in underlying inflation is sufficiently advanced to be consistent with inflation stabilising at 2 per cent over the medium term. This may imply a transitory period in which inflation is moderately above target. In September, the Governing Council confirmed the monetary policy package in place, including continuing 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. It decided, however, that favourable financing conditions can be maintained with a moderately lower pace of net asset purchases under the PEPP than in the previous two quarters.

In the United States, real GDP increased by 1.6 per cent quarter-on-quarter in the second quarter of 2021, after a 1.5 percent increase in the first quarter. The increase in second quarter GDP reflected the continued economic recovery, reopening of establishments, and continued government response related to the Covid-19 pandemic. In August, the unemployment rate declined to 5.2 per cent. While unemployment levels have declined notably over the past year, they remain well above the pre-pandemic level of 3.5 per cent in February 2020. In July, the Federal Reserve's Federal Open Market Committee (FOMC) held interest rates in a range of 0 to 0.25 per cent, 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 \$120 billion per month until "substantial further progress" was made towards its goals of maximum employment and inflation at a rate of 2 per cent 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 increased by 4.8 per cent in the second quarter of 2021. The level of GDP in the UK is now 4.4 per cent below where it

⁴ A Signed Article included in this *Bulletin* discusses the outcomes of the ECB monetary policy strategy review in more detail.

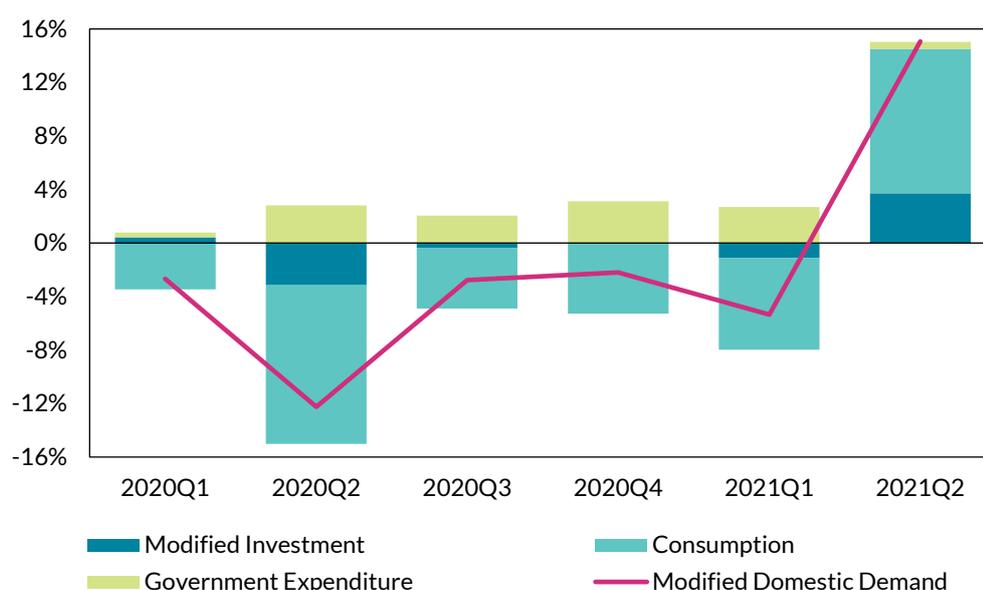
was prior to the coronavirus pandemic at the end of 2019. At its August meeting, the Bank of England's Monetary Policy Committee (MPC) voted unanimously to maintain the Bank Rate at 0.1 per cent. The MPC also voted to maintain the target for the stock of UK government bond purchases at £875 billion and so the total target stock of asset purchases at £895 billion.

Recent Developments

After a first quarter weighed down by pandemic-related restrictions, the domestic economy rebounded strongly in the second quarter, as restrictions were gradually eased. Modified domestic demand rebounded by 15.1 per cent year on year, and by 8.4 per cent on a quarterly basis in Q2, driven by a resurgence in consumption (Figure 3). Personal consumption expenditure contracted heavily in the second quarter of 2020 as the pandemic hit, as well as in the first quarter of 2021 in light of renewed restrictions. Reflecting a gradual reopening of the economy, consumption, grew by 12.6 per cent quarterly (19.4 per cent year on year) in 2021 Q2, reaching levels comparable to the 2020 Q1. It represented the main driver of growth in the domestic economy, just as it had contributed most to the contraction in domestic demand in 2020 Q2. Modified investment contributed further to growth while government consumption was mostly flat.

Domestic demand recovered strongly during the second quarter

Figure 3: Contributions to year-on-year growth in Modified Domestic Demand

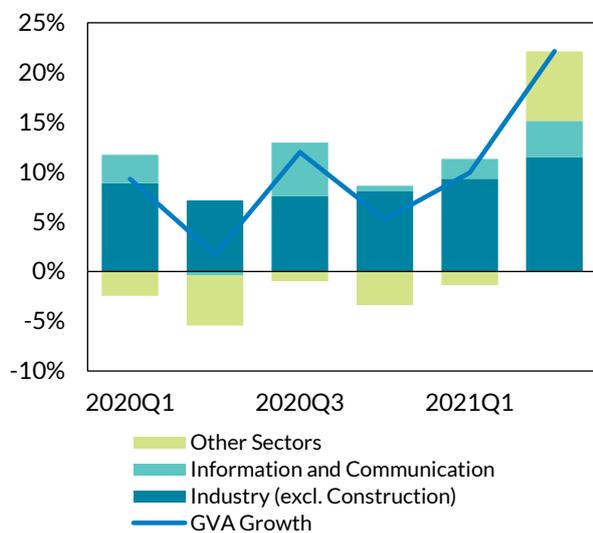


Source: CSO and Central Bank of Ireland

All sectors of the economy except for agriculture expanded relative to Q2 2020. The sectors most affected by the public health restrictions saw the largest growth rates (distribution, transport, hotels and restaurants +39.4 per cent). However, information and communication, and industry excluding construction, which are dominated by non-Irish owned corporations and represent over half of GDP combined, were not only largely unaffected by the restrictions but grew more strongly than the overall economy in the second quarter (Figure 4 and Figure 5).

Output growth has been dominated by ICT and Industry (of which the pharma sector is the largest share)

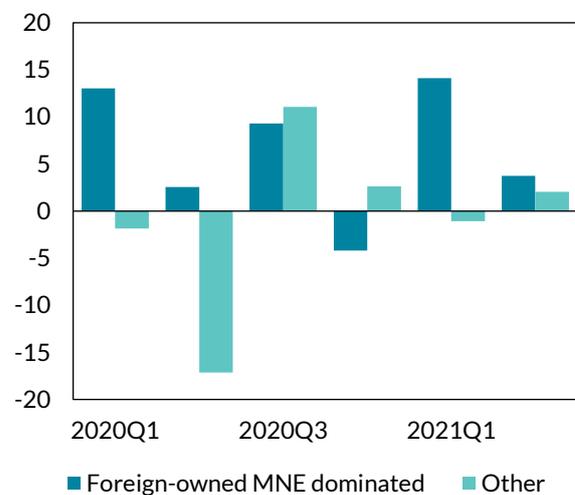
Figure 4: GVA Growth by Sector



Source: CSO

The foreign dominated sectors of the economy have grown steadily through the pandemic

Figure 5: GVA Growth (Foreign vs Domestic NACE Sectors)



Source: CSO

A large proportion of the population is now fully vaccinated, but epidemiological risks remain. About 90 per cent of the adult population is now fully vaccinated, greatly reducing the number of severe cases and hospitalisations, and a plan for the removal of most of the remaining public health restrictions has been set out by the Government. As a result, overall mobility is now above levels seen in February 2020, signalling a return to pre-pandemic levels of activity, although it remains somewhat subdued in transit stations and workplaces.⁵ However, daily case numbers have remained at an elevated level throughout the summer due to the spread of the more transmissible Delta variant. Maintaining a vaccination

⁵ See data on mobility trends collected by [Apple](#) and [Google](#).

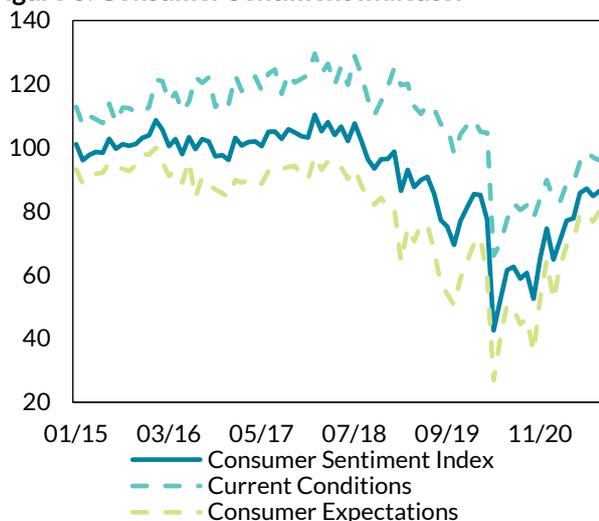
programme that effectively mitigates the need for more stringent public health restrictions remains a key input to economic conditions.

Consumers remain relatively cautious even as retail sales grow strongly.

The KBC consumer sentiment index registered a level of 86.5 in August, slightly higher than the previous month but showing little variation since May. This level is comparable to the months preceding the pandemic (Figure 6). Retail sales have been recovering at a strong pace. The volumes of retail sales have exceeded pre-pandemic levels since May and have been strong throughout the summer; compared to the same month of 2019, retail sales in July 2021 were 14 per cent higher. Daily card payment data corroborates this picture, with spending on credit and debit card rising steadily since the beginning of the year to reach levels well above those seen just before the pandemic, at an average of about €250m a day as of the start of September.

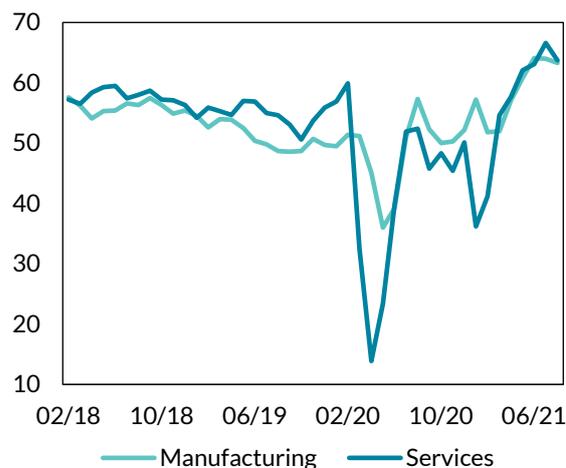
Businesses see continuing rapid expansion, while consumers' confidence remains but does not surpass pre-pandemic levels

Figure 6: Consumer Sentiment Indicator



Source: KBC Bank Ireland

Figure 7: Purchasing Managers' Indices (Ireland)



Source: Allied Irish Banks

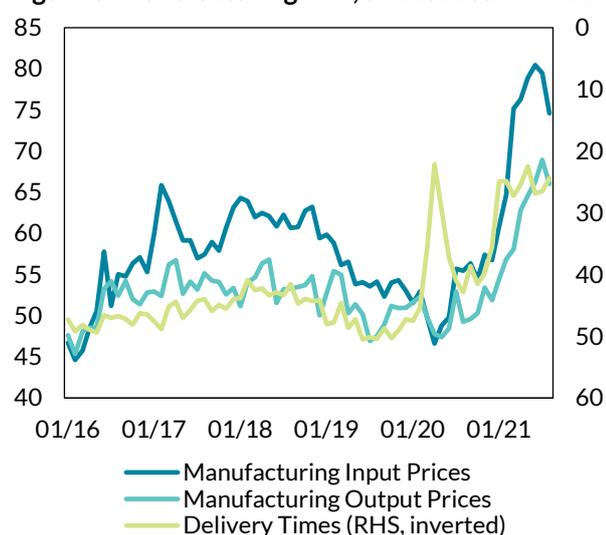
Purchasing Managers' Indices, while at lower levels than the record readings over the summer months, show continued strong growth in activity in both manufacturing and services. The manufacturing PMI, at 62.8 in August, indicates that the strong rebound in manufacturing continues, although at a reduced pace from 63.3 in July. The same holds for the index for services, which stood at 63.6 in August against 66.6 a month earlier (Figure 7). The sub-indices show that output, employment and new orders are all growing throughout the economy (Figure 8). Firms, however,

are faced with continuing pressures from their supply chains, especially in manufacturing, and price pressures remain high.

Rapidly rising demand along with supply bottlenecks in key sectors has contributed to an increase in inflation in recent months, which reached 3.7 per cent⁶ (HICP) in September. Energy prices and shortages in a number of commodities have been the main drivers. An increase in inflation has nevertheless been registered across most sectors of the economy. The rise in inflation is expected to be temporary, unwinding as supply chain issues dissipate, growth in demand stabilises and energy prices ease (Figure 9).

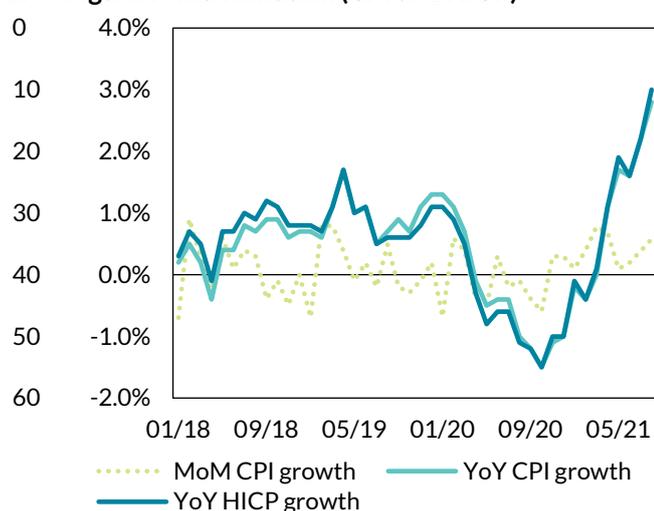
Supply chain bottlenecks and an increase in input prices is contributing to consumer price inflation in the short term

Figure 8: Manufacturing PMI, selected sub-indices



Source: AIB, Refinitiv

Figure 9: Irish inflation (CPI and HICP)



Source: CSO

With the economy gradually reopening across all sectors and the scheme being closed to new entrants since July, the number of Pandemic Unemployment Payment (PUP) recipients continues to decline steadily. In mid-September, approximately 110,000 people were in receipt of the payment following a tapering of rates and the transition of full-time students off the scheme. Most of the persons coming out of the PUP in recent months were in the sectors most affected by the public health restrictions. Latest figures for the EWSS scheme showed there to be 320,000 people registered in August. The seasonally adjusted monthly

⁶ Eurostat flash estimate.

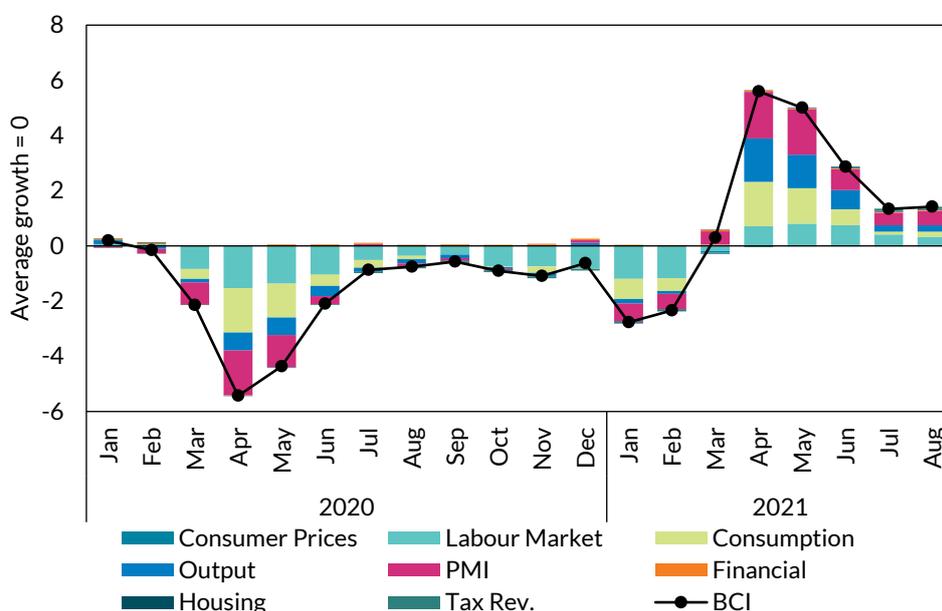
unemployment rate measured 6.4 per cent in August 2021 down marginally from the July figure of 6.5 per cent.

Exchequer returns so far in the year have been strong and well ahead of expectations. Total Exchequer returns in the year to August were 15 per cent above 2020 levels and 5.4 per cent ahead of profile. The economic recovery is particularly apparent in VAT receipts, which are up 25.9 per cent versus the same period last year, and are 6.2 per cent ahead of profile. Corporation tax is up 8.1 per cent over the year to August, and is 14 per cent ahead of profile.⁷

The Central Bank’s Business Cycle Indicator shows that the economy remains in a state of strong positive momentum. The improvement in the BCI since April has been broad-based with positive contributions from consumer spending, the labour market and industrial production in the indigenous sector. The pace of expansion has moderated in recent months but activity continues to grow at a rate above its long-run average (Figure 10).

The economy remains in a phase of rapid expansion, although at a slower pace compared to recent months

Figure 10: Monthly Business Cycle Indicator, and components



Source: Authors’ calculations. Updated 28/09/2021

Note: August estimate is provisional due to unavailability of industrial production data for that month at time of publication. August estimate assumes no change to the July output contribution.

⁷ Department of Finance, Fiscal Monitor August 2021, pg. 16

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

By Statistics Division

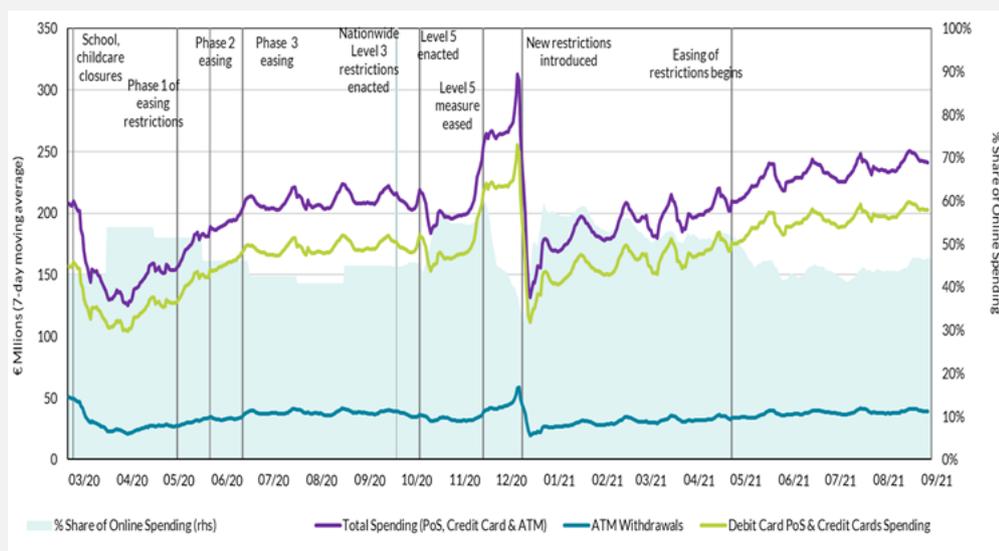
This Box provides an update on Irish households’ and firms’ financing activities, focusing on recent data developments. Consumer card spending shows a strong increase in activity in sectors where public health restrictions have eased. Deposits remain near record highs, with the annual rate of growth moderating from the rapid accumulation during the earlier phases of the pandemic. Meanwhile, lending activity has shown tentative signs of recovery for both the household and business sectors.

Household Spending

High frequency data show that card spending began to rise more sharply from mid-April 2021, as consumer sentiment improved along with the acceleration of the national vaccination programme and the phased easing of public health restrictions (Figure 1). Overall, card spending during the summer months of June, July and August was higher than the corresponding months in 2019 and 2020, supported by increased spending in the services and social sectors. The latest data shows that spending continued to increase in late August and early September, although the pace of growth has moderated.

Rate of growth of card spending has moderated

Figure 1: Daily card spending and cash withdrawals



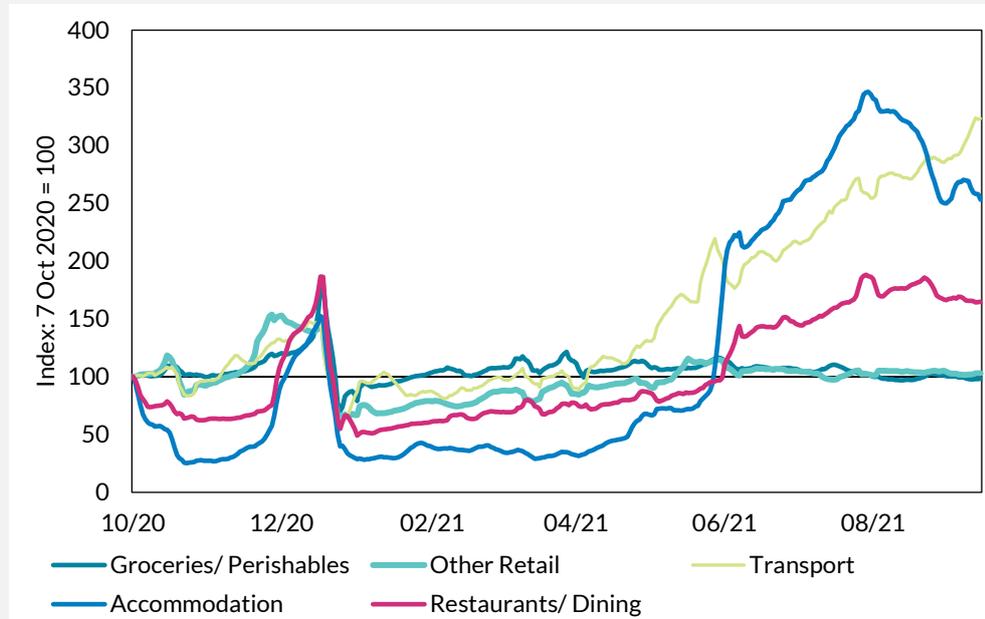
Source: CSO and Central Bank of Ireland

Following a prolonged period where online payment was the primary method of spending, in-store spending gradually increased from April. This reflects a greater level of consumer mobility and a shift in the spending behaviours as the opportunity returned

for in-person consumption when non-essential retail and other sectors reopened. By late July, in-person payments accounted for almost 60 per cent of spending, up from 49 per cent in April, although this has edged back more recently.

Spending on transport and hospitality increased as restrictions were eased

Figure 2: Daily sectoral card spending by spending type



Source: Central Bank of Ireland

Restrictions on the hospitality sectors eased in early-June, and high-frequency data illustrate the immediate and sustained rise in accommodation and restaurants spending (Figure 2), with accommodation spending recording a new monthly series high in July. The increased prevalence of holidaying at home is likely to have contributed to higher spending in the summer months. Spending in the accommodation sector peaked in early-August before moderating towards the end of the summer and the start of the new academic year. Meanwhile, transport spending has continued to increase over the recent months and into September, while spending on groceries has edged back slightly from very high levels as public health measures have been eased. Nonetheless, grocery spending remains significantly higher than pre-pandemic levels.

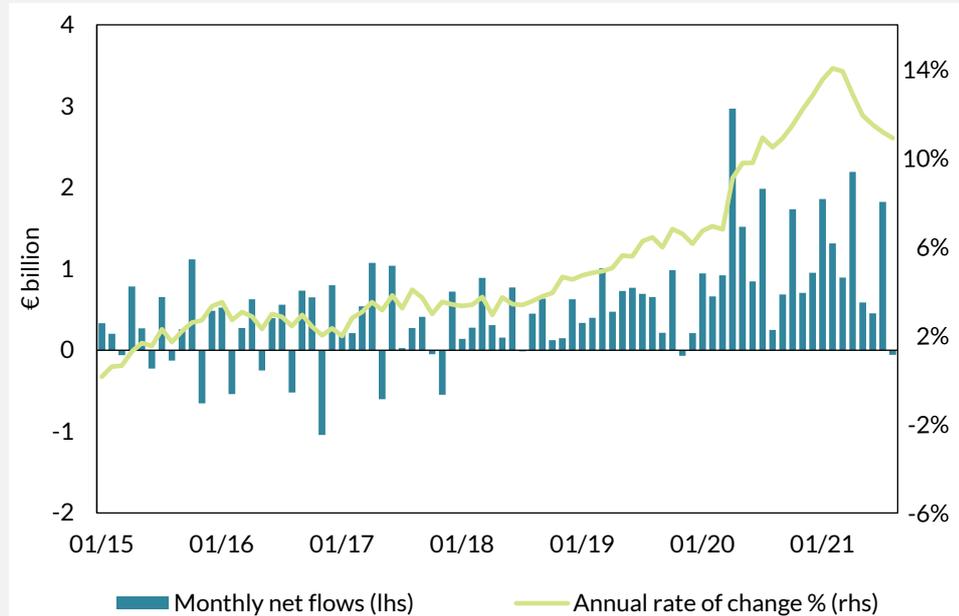
Household deposits and lending

Aggregated household savings have risen sharply since the beginning of the COVID-19 pandemic and the introduction of the associated public health measures. The latest Credit and Banking Statistics indicate that aggregated household deposits stood at €134 billion at end-August, slightly lower than the July's record high, as withdrawals exceeded lodgements for the first time since late 2019. As such, the annual rate of growth has moderated further, slowing from its recent highs to 10.9 per cent at end-

August (Figure 3). Since the beginning of the pandemic in March 2020, net household deposits increased by €21.6 billion.

Annual rate of deposit growth has moderated, but remains high

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



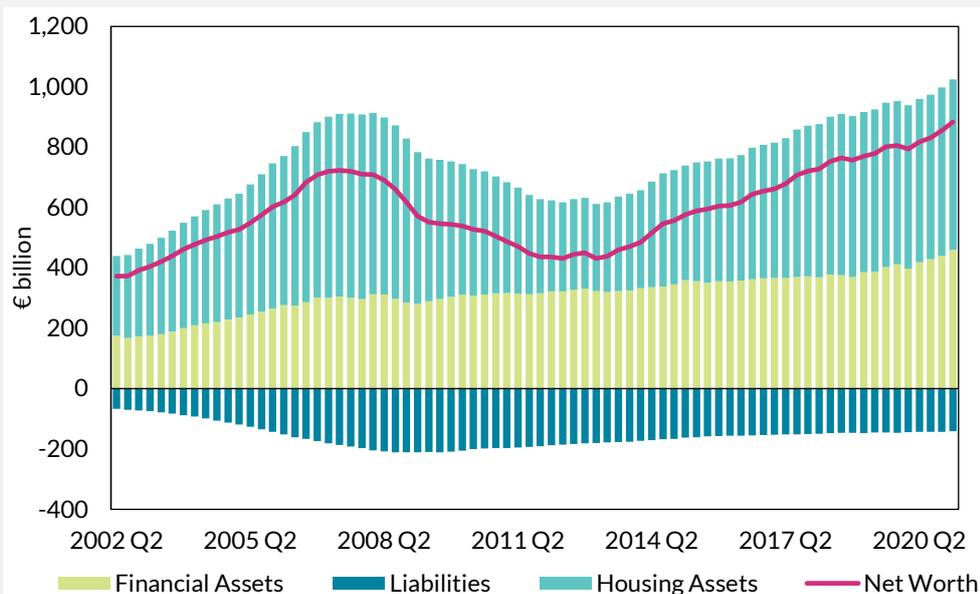
Source: CSO and Central Bank of Ireland

This marked rise in household deposits has translated into higher household financial assets, which was the primary driver, along with rising housing assets and a slight reduction in household liabilities, of an increase in overall household net worth. The latest data from the Quarterly Financial Accounts for Q1 2021 show household net worth at a new series high of €883 billion (Figure 4), or 10 per cent higher than prior to the beginning of the pandemic (end-2019).

Following a contraction of circa 8 per cent in total household lending in the first quarter of 2021 compared with the corresponding quarter of last year (Figure 5), lending increased sharply in the second quarter, up 42 per cent in year-on-year terms. The latest data show lending strengthening further in July, increasing by 24 per cent compared to the previous month, to €1.25 billion. Mortgage lending was the primary driver of the headline monthly increase, along with a smaller contribution from consumer lending.

Household net worth has risen to a new high

Figure 4: Household Net Worth



Source: Central Bank of Ireland

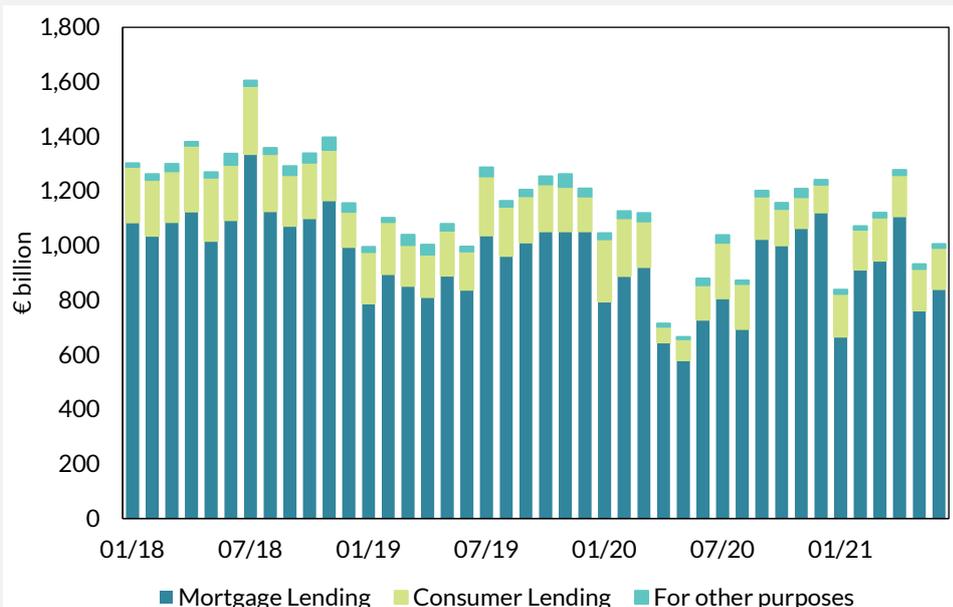
Analysis of credit enquiries using Central Credit Register (CCR) data shows that the pipeline of new mortgage applications has remained strong in recent months. New mortgage lending data show that the pick-up observed at the beginning of the second quarter has continued with the latest data to July.⁸ Mortgage lending increased by 29 per cent compared to July last year. Despite this increase, the decline in the number of properties available for purchase, and hence new sale completions, is likely constraining the volume of new mortgage lending. According to the latest Bank Lending Survey published in July, it is expected that demand for house purchase loans will remain unchanged during the third quarter, which is in line with the latest new lending data, but a small fall in demand for loans for consumer credit and other lending is expected.

New consumer lending remained relatively subdued through the opening half of 2021. However, similarly to July last year when consumer lending picked up sharply, the latest data for July 2021 shows consumer lending rose by 29 per cent compared to June, likely driven by car purchases, holidays and increased credit card usage. Like last year, these increases shows that the flow of consumer credit can pick up quickly and sharply to support consumption when health restrictions ease and consumer confidence increases.

⁸ This refers to new business excluding renegotiations, which gives a better indication of gross new loans arising in the credit market. Further information is available in the Retail Interest Rate explanatory notes, available [here](#).

New lending is recovering from early-pandemic lows

Figure 5: New Lending to Households by Purpose



Source: CSO and Central Bank of Ireland

Business Credit and Deposits

Net lending to businesses so far this year has been positive, if somewhat subdued (Figure 6). This contrasts with 2020, when repayments significantly outpaced drawdowns of credit. In the first eight months of 2021, drawdowns exceeded repayments by €126 million, compared to net repayments of €299 million in the same period of 2020.

Turning to gross new lending to small and medium sized enterprises (SMEs), the latest data for the second quarter shows signs of recovery. Overall, gross new lending to SMEs equated to €1.06 billion during the second quarter. However, despite increasing by 49 per cent compared to the corresponding quarter in 2020, the overall level of new lending to SMEs remains somewhat muted compared to pre-pandemic quarters.

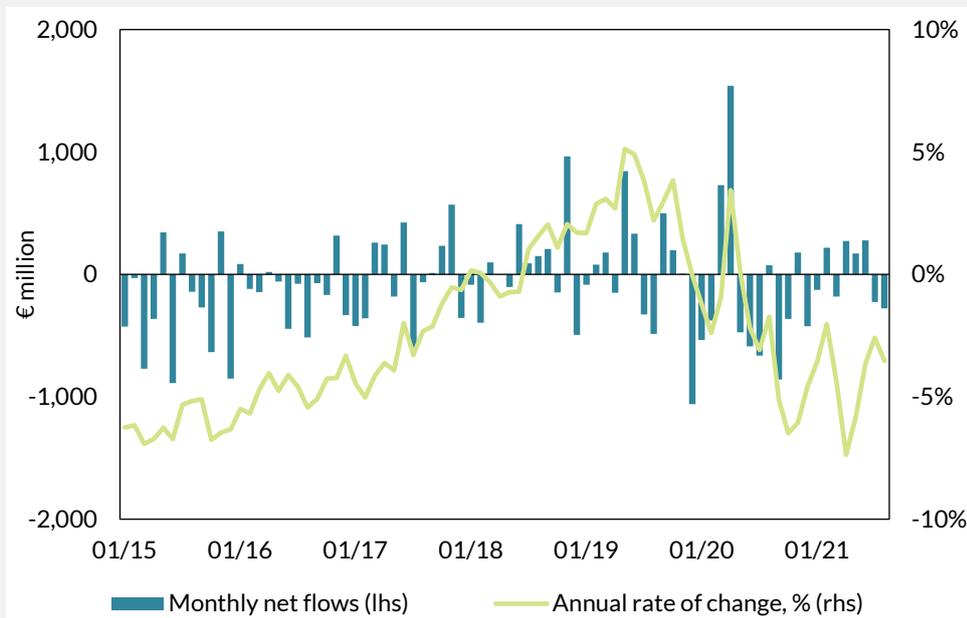
The recent recovery in lending has been uneven across sectors of the economy, and often aligned with the extent to which restrictions were eased. For example, the data show that construction and real estate lending has increased 128 per cent per annum, while lending to wholesale, retail, hotels and restaurant SMEs rose by a more modest 18 per cent.

The upturn in bank lending to businesses coincides with an increase in the demand for credit, particularly from SMEs, as reported in the Bank Lending Survey. In addition to the rising demand for loans, lenders also reported a significant increase in the share of lending applications that were rejected. At the same time, credit standards remained

unchanged following their general loosening last year. Combined, this suggests an increased incidence of reduced creditworthiness amongst loan applicants.

The net flow of credit to businesses has been subdued

Figure 6: Monthly net flows of NFC loans



Source: Central Bank of Ireland

Following a similar trend as seen with households, the rate of deposit accumulation by businesses has slowed in recent months relative to the rapid pace of saving observed at the height of the pandemic. The annual rate of increase fell to 12.1 per cent in July, the lowest rate of increase since September 2019, before picking up slightly to 13.1 per cent in August. Cumulative net inflows of deposits in the period since January amounted to €3.3 billion, compared to €5.9 billion for the same period in 2020.

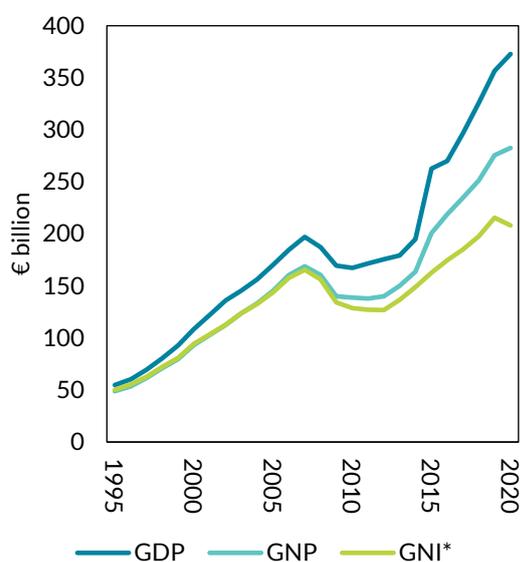
Box C: The Disconnection of GDP from Economic Activity Carried out in Ireland

By Stephen Byrne, Thomas Conefrey and Michael O’Grady⁹

The unsuitability of GDP as a measure of both the size of the Irish economy and its rate of growth has been well documented for over 20 years. The problems with using GDP in an Irish context were brought into sharp focus in 2016, when CSO National Accounts data recorded an increase in GDP for 2015 of just under 26 per cent, a year in which employment grew by 3.4 per cent. Since 2015, there is evidence of a widening gap between measured GDP, in the official National Accounts published by the CSO, and what could be considered as underlying domestic economic activity – i.e. economic activity conducted in Ireland that affects the employment and incomes of Irish residents. In 2021, GDP is likely to overstate the underlying rate of growth in the Irish economy by around threefold. This Box outlines some of the reasons for the growing disconnection between GDP and other measures that more closely align with economic activity that takes place in Ireland.

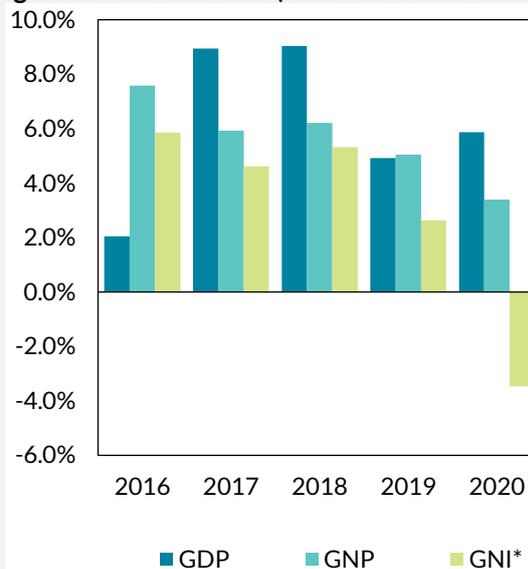
Widening Gap between GDP and Modified National Income of Irish Residents (GNI*)

Figure 1: GDP, GNP and GNI*, Current Prices



Source: CSO

Figure 2: GDP and GNI* (Constant Price Growth)



Source: CSO

Figure 1 shows three headline National Accounts indicators for Ireland published by the CSO: GDP, GNP and GNI*. The net profit outflows of Multinational Enterprises (MNEs) is deducted from GDP to arrive at GNP. GNI* is an adjusted indicator of the level of national income. It removes from GNP the profits of redomiciled PLCs and other flows

⁹ Irish Economic Analysis Division

linked to MNE activities that do not affect economic conditions in Ireland.¹⁰ Of the latter, the largest item is the deduction for the depreciation on foreign-owned IP assets in Ireland. Table 1 shows the walk from GDP to GNI* for 2020.

Table 1: GDP to GNI* in 2020

	2020 € Million
GDP	372,869
Net factor income	-90,235
GNP	282,633
EU subsidies less taxes	1,102
GNI	283,735
Income of redomiciled PLCs	-4,506
Depreciation on R&D and IP	-61,252
Depreciation on aircraft leasing	-9,799
GNI*	208,178

Source: CSO

In 2014 the gap between GDP and GNI* amounted to €46.1 billion. In 2020 this had widened to €164.7 billion, meaning that GDP was 79 per cent higher than GNI*. In 2021, nominal GDP is likely to surpass €400 billion, while GNI* is expected to measure in the region of €220 billion. The magnitude of the widening gap between GDP and GNI* provides an overall picture of the extent to which GDP overstates the level of economic activity in Ireland.

The CSO produces National Accounts and Balance of Payments Statistics, in accordance with the standards set by the UN and the IMF, which are required under EU legislation.¹¹ To keep pace with changes in the nature of economic activity over time, these international standards are revised periodically. In 2014, the new European System of National and Regional Accounts (ESA 2010) framework was introduced to replace the previous rules dating back to 1995 (ESA 95). The revised standards had implications for the measurement of economic activity in Ireland.¹²

¹⁰ See Lane, Philip R., 2017, "[The Treatment of Global Firms in the National Accounts](#)," Central Bank of Ireland Economic Letter, Vol. 2017, no. 1.

¹¹ The manual for implementing ESA 2010 is available [here](#), while the BOP / IIP 6th Edition manual can be found [here](#).

¹² To take account of the on-going globalisation of production processes and the increasing role of intangible assets, such as intellectual property (IP) and research and development (R&D), the measurement of investment (Gross Fixed Capital Formation) was broadened to include IP and R&D, adding to both GDP levels and the total stock of fixed assets measured in the economy. Second, ESA 2010 changed the nature of how trade (exports and imports) is recorded. In particular, changes in economic ownership between residents underpins the measurement of trade, rather than the physical movement of goods across borders.

Since 2014, large inflows of intellectual property assets have been recorded in the Irish National Accounts. The depreciation associated with this rise in the foreign-owned domestic capital stock has the effect of increasing GDP, GNP and unadjusted GNI. In addition, with the increased globalisation of production processes, the output and employment generated by higher intangibles investment often takes place outside of Ireland. The majority of this external activity takes the form of merchanting and contract manufacturing, both of which are recorded in the Irish statistics.¹³ The consequence of these combined changes is that headline measures of domestic demand, exports and imports – and hence GDP – are not meaningful for Ireland.

To address the problem with measuring domestic demand, the CSO introduced Modified Domestic Demand (MDD), which excludes intellectual property from investment. The CSO also developed GNI* in order to provide a modified indicator of the overall level of national income. Both of these supplementary indicators have proven helpful. While GNI* is useful as a standalone level indicator, a drawback with this measure is that it is calculated in a top-down manner – i.e. by subtracting a number of items from headline GDP, rather than by modifying the components of GDP and then adding these up, to arrive at an adjusted estimate of economic activity. This top-down calculation means that it is not possible to identify the contribution of specific sectors of the Irish economy to overall GNI* growth. On the expenditure side of the National Accounts, while a modified estimate of domestic demand now exists, a significant ongoing problem relates to understanding developments in the trade side of the Irish economy (exports and imports), where no such modified series are available. As a small open economy, understanding the performance of the traded sector is key to assessing the composition of the economy's overall growth and the true underlying pace of activity.

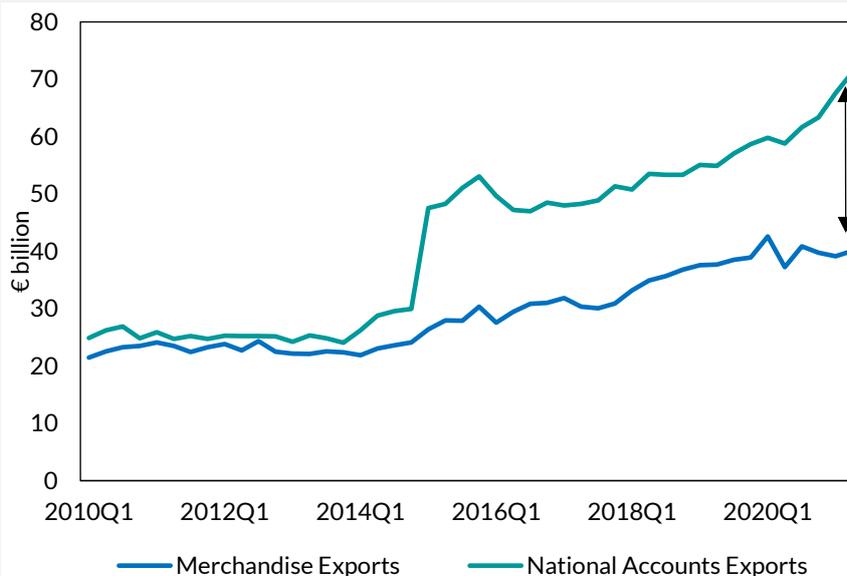
To illustrate the current difficulties, Figure 3 shows CSO data on goods exports measured on a cross-border basis – these are goods physically produced in Ireland – along with the estimate of goods exports from the National Accounts. Up to 2014, the value of goods exports from these two sources was similar, but a large difference has opened up between the series since 2015. In Q2 2021, physical cross-border exports in the CSO's External Trade Statistics were reported at €40.1 billion. These are goods produced in Ireland using Irish labour, capital and other inputs. In the National Accounts, goods exports were reported at €71.3 billion, a gap of €31.2 billion. This

¹³ Contract manufacturing occurs when Irish merchants sell goods or services under their own name, but the physical manufacturing process is carried out by non-Irish entities, through specific contractual arrangements. The inputs used in this production process remain the property of the Irish merchant, so that no change occurs in the ownership of the goods being produced. Merchanting occurs when goods are purchased and subsequently sold without transformation by Irish merchants without the goods entering or leaving Ireland.

difference is explained by goods produced abroad on behalf of Irish resident firms using contract manufacturing and merchanting arrangements. The latter activity has no effect on the employment or incomes of Irish residents but as Figure 3 shows, the extent of the activity has been increasing in 2020 and 2021 and has been the main factor driving annual Irish GDP growth to 16.4 per cent in the first half of 2021. Taking account of the surge in offshore exports in the National Accounts in the first half of 2021, GDP growth in this *Bulletin* is now projected to measure around 15 per cent for the year as a whole. Excluding the effects of the distortionary elements inflating GDP, underlying economic activity as proxied by GNI* is projected to increase by 5.6 per cent in 2021, 10 percentage points lower than the GDP figure. Further increases in exports due to contract manufacturing and merchanting will continue to distort Ireland's trade performance and inflate GDP in the National Accounts.

Value of Goods Exports Manufactured in Ireland Significantly Lower than Value of Exports Reported in the National Accounts

Figure 3: Goods Exports in the CSO National Accounts and Merchandise Trade Statistics



Source: CSO

A key benefit of the National Accounts is that they provide a comprehensive statistical framework, designed to facilitate analysis to inform economic policy decisions. The National Accounts can supply valuable data to analysts, policy makers and the public on the overall size of the economy, its rate of growth and the composition of growth. Unfortunately, the current distortions affecting the National Accounts, in an Irish context, severely limit their usefulness to provide this information. Honohan (2016) outlined an approach for the production of “trimmed” National Accounts that could be implemented by isolating the majority of the distortions in an “offshore” sector and then allowing analysis of the remainder of the on-shore productive sectors, trimmed of these

distortionary activities.¹⁴ FitzGerald (2016, 2020) has put forward a methodology for estimating an additional measure, Net National Product (NNP), using detailed industrial sector and ownership data.¹⁵ Both of these approaches would provide analysts with a much improved understanding of the drivers of growth in the Irish economy. Further work on the development of Ireland's National Accounts statistics would be welcome, so that the data can be better used for economic analysis and to inform policymaking. In particular, consideration should be given to the publication of supplemental National Accounts, which exclude the MNE activities that do not add to the employment or welfare of Irish residents.

Domestic Demand

Overview

Domestic demand is recovering strongly as measures to contain the coronavirus pandemic succeed. During the first three months of the year, consumption and investment fell sharply as many sectors of the economy were effectively closed. However, as public health restrictions eased, economic activity recovered more quickly during the second quarter than had been expected at the time of the last *Bulletin*. In particular, consumption grew by 19 per cent in the second quarter compared with a year earlier. It is now just over 3 percentage points below its pre-Covid level.

The forecasts in this *Bulletin* assume all remaining public health restrictions will be lifted by 22nd October.¹⁶ The further reopening, coupled with continuing Government supports and accommodative monetary policy, will support very strong consumption and investment growth next year and will bring the economy back to its pre-crisis level of activity by end-2021 – slightly earlier than expected at the time of the last *Bulletin*.

¹⁴ Honohan, Patrick, 2016, "[Towards a Trimmed-GDP Concept](#)", mimeo.

¹⁵ FitzGerald, John, 2016, "[Problems with the Irish National Accounts and Possible Solutions](#)", mimeo.

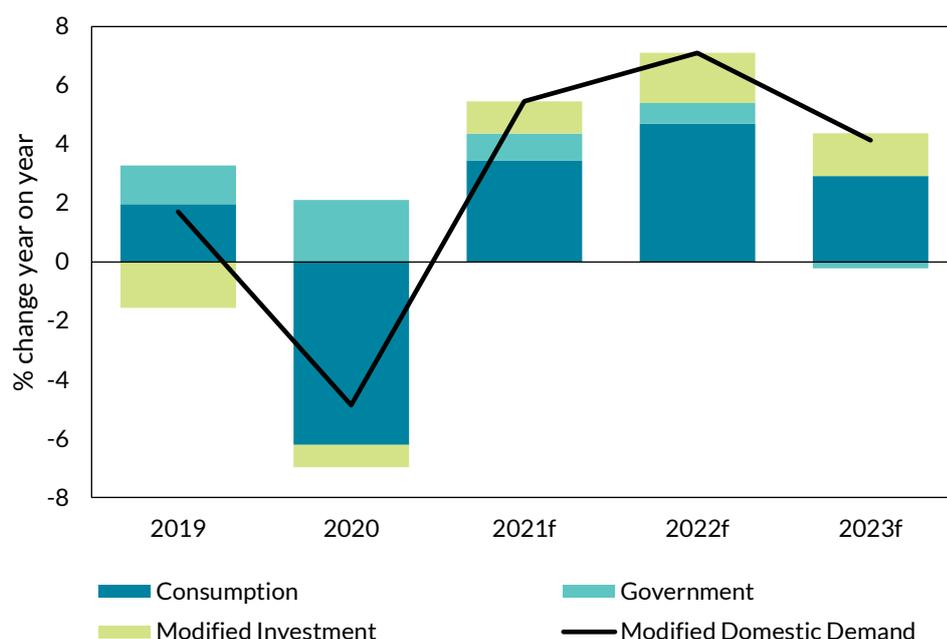
FitzGerald, John, 2020, "[Understanding Recent Trends in the Irish Economy](#)", ESRI Special Article. In July 2021, the CSO published a new indicator, Net National Income (NNI) at constant prices, that is a useful step in this direction and is internationally comparable. See <https://www.cso.ie/en/releasesandpublications/ep/p-nie/nie2020/mainaggregates/>

¹⁶ See the Government document entitled "[Reframing the challenge, continuing our recovery and reconnecting](#)"

The outlook for domestic demand is favourable. The swift recovery in the second half of this year is expected to maintain its pace well into 2022, before gradually slowing down in the latter half of next year and into 2023. Modified domestic demand is forecast to grow by 5.5 per cent this year, and by 7.1 per cent and 4.1 per cent in 2022 and 2023, respectively (Figure 11).

Consumption will be the primary driver of the recovery in domestic demand

Figure 11: Contributions to modified domestic demand



Source: CSO and Central Bank of Ireland

Notes: Modified Domestic demand excludes investment in intellectual property and aircraft related to the leasing industry.

Consumption

The outlook for the Irish economy in 2022 and 2023 is favourable, and the recovery in consumption will play a strong role. The swift recovery from the pandemic is forecast to continue with a strong upswing expected in 2022. Pent-up demand alongside buoyant consumer sentiment will bring consumption back to pre-pandemic levels by mid-2022. Following the decline of 10.4 per cent in 2020, consumption is forecast to grow by 6.2 per cent this year and by 8.3 per cent in 2022 and by 5.1 per cent in 2023. This growth will gradually bring the savings ratio back to pre-COVID levels, and marginally below toward the end of 2023 as households use a

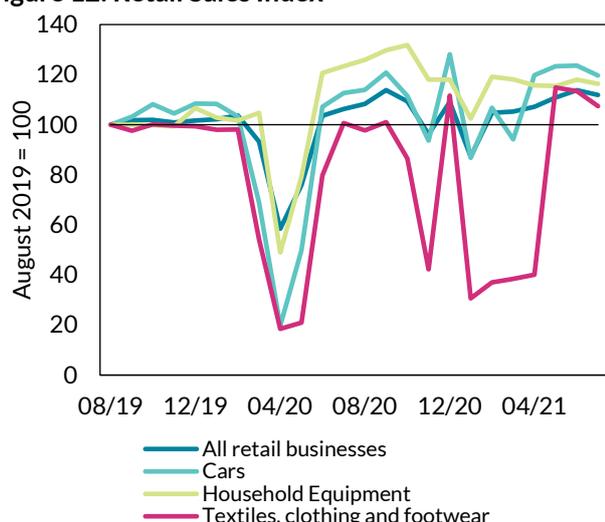
portion of the savings accumulated during the pandemic for consumption purposes (Figure 15).

The speed of the consumption recovery will be uneven, and sectors like hospitality and tourism will take longer to recover lost output.

Retail sales data from July and August suggest that most sectors are currently seeing pent-up demand being released, with sales in categories like clothing and cars are well above their pre-COVID levels (Figure 12). Services have performed similarly (Figure 13). The CSO’s monthly non-financial services index showing sales above 2019 levels. However, as this pent-up demand abates, contact-intensive sectors are likely to recover their 2019 levels of demand slightly more slowly than non-contact intensive sectors.

Some retail sectors are seeing pent-up demand after reopening

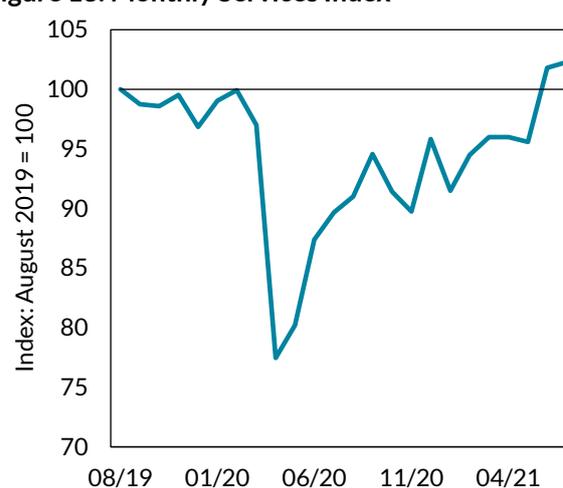
Figure 12: Retail Sales Index



Source: CSO and Central Bank of Ireland
Notes: Series rebased to August 2019

Services have been slower to recover, but have surpassed pre-crisis levels in Q3

Figure 13: Monthly Services Index



Source: CSO

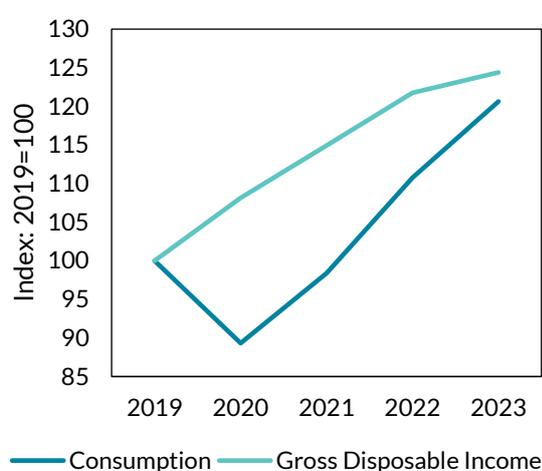
Households are expected to gradually reduce the amount of income they save each quarter towards pre-pandemic levels. While

consumption fell sharply during lockdowns, incomes did not. As a result, households saved a much higher proportion of their income, on average, than in normal times (Figure 15). As consumption levels recover between now and 2023, the savings ratio (the proportion of unspent income), will gradually reduce. Some preliminary evidence from surveys suggests that many households intend to hold on to

these savings in the near-term.¹⁷ Some of this saving may be precautionary; consumer sentiment surveys show that while households are confident about the outlook for the economy, they are less confident about their own financial circumstances in twelve months' time. In 2023 however, our forecast assumes that households will spend a small proportion of the savings accumulated during the pandemic. The possibility of this happening sooner, or at a bigger scale, represents an upside risk to the current forecast.

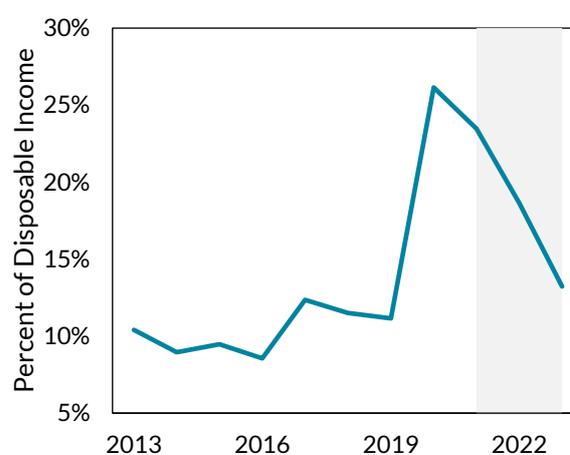
The consumption recovery will bring the savings ratio back towards pre-Covid levels

Figure 14: Consumption and Income Levels
(Current prices)



Source: CSO and Central Bank of Ireland

Figure 15: Savings Ratio



Source: CSO and Central Bank of Ireland

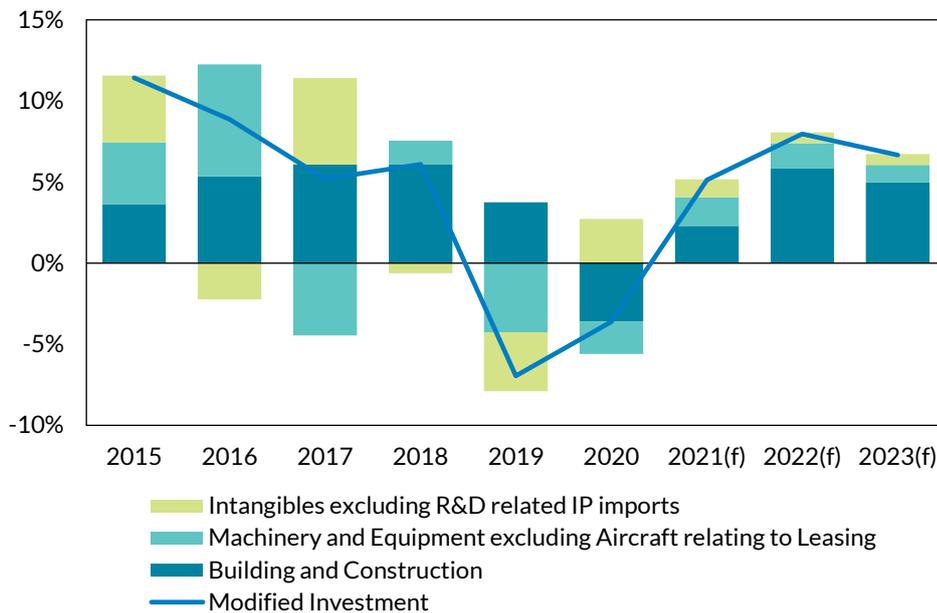
Investment

The outlook for modified investment continues to improve with a more favourable forecast than in the previous *Bulletin*. Domestic and global pandemic-related uncertainties have declined as vaccine rollouts have progressed providing increased clarity for making business investment decisions. Headline investment is dominated by the activities of multinational enterprises and the dynamics of imports of intellectual property assets. Modified investment, which excludes these and other more volatile components with limited spill-over to the broader economy, is forecast to grow by 5.1 per cent this year, accelerating to 8 per cent and 6.7 in 2022 and 2023, respectively (Figure 16).

¹⁷ See, for example, [CSO Social Impact of Covid-19 Survey](#)

Building and construction will be the main driver of domestic investment growth in 2022 and 2023

Figure 16: Contributions to Modified Investment Growth



Source: CSO and Central Bank of Ireland

Housing investment recovered well from site closures during the health crisis, and is forecast to return to 2019 levels or greater this year. House completions for the first half of 2021 are similar to those of 2019. A sharp rise in new commencements indicates that completions should pick up next year (Figure 17). The Government has also recently launched its new housing strategy, *Housing for all*, which outlines significant increases in public investment.¹⁸ However, housing supply is forecast to remain below estimates of long-run demand over the forecast horizon, with housing completions increasing to approximately 21,700 units in 2021 and 27,000 and 31,000 in 2022 and 2023. Persistent imbalances between housing supply and demand mean that house prices continue to rise.

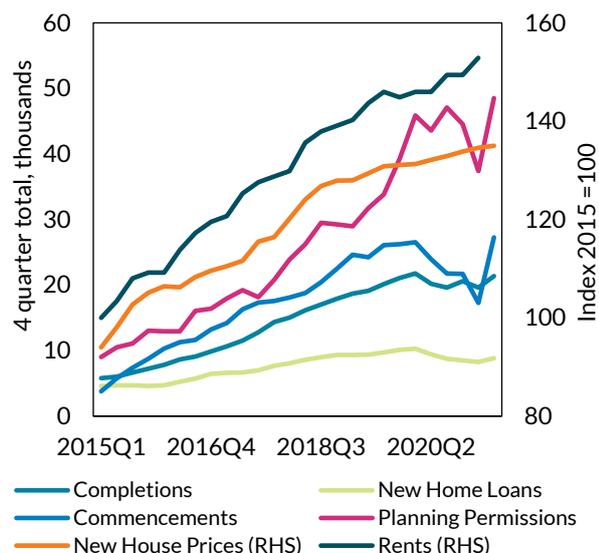
With substantial increases in both public and private outlays on housing expected in the years ahead, capacity constraints and other factors could limit the extent to which that increased expenditure translates into more housing units. Alongside supporting the demand for new housing units, it is reasonable to expect a portion of the savings that households have accumulated since the start of the pandemic to be used for property investment purposes. This would include higher demand for renovations

¹⁸ See [Housing for All: A new housing plan for Ireland](#).

and retro-fitting of existing properties, which will be necessary to achieve climate action targets.¹⁹ Improvements are forecast to grow by 19 per cent over the forecast horizon. A rise in labour resources and an easing of supply chain pressures and input costs will have to emerge to ensure that real growth is achieved.

Housing supply indicators suggest supply recovering to pre-pandemic levels

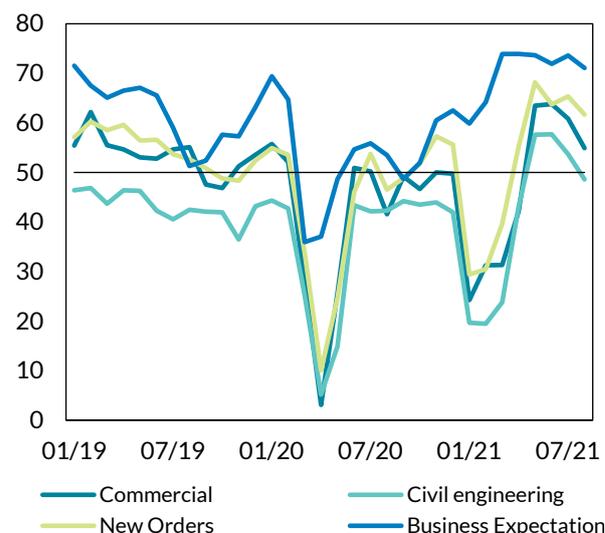
Figure 17: Housing Supply Indicators



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

Non-residential construction growing but moderating

Figure 18: Purchasing Managers Index (Construction)



Source: Ulster Bank Purchasing Managers Index

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. Strong growth in government investment (Figure 18) may compensate for any weakness in private sector investment in 2021 in particular. The Construction PMI for the non-residential sector (Figure 18) for August 2021, however, points towards expansion within the construction industry. Growth of 3 per cent is forecast for non-residential investment this year, accelerating to 5 per cent in 2022.

¹⁹ The 2019 Climate Action Plan has set a target of 50,000 energy efficiency retrofits per annum out to 2030.

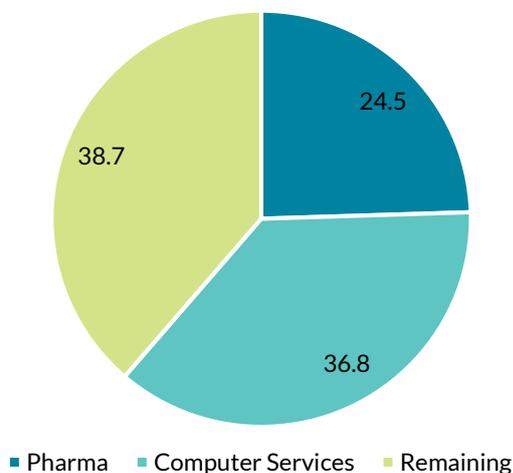
Machinery and equipment investment excluding leasing and aircraft has been buoyant so far in 2021. Machinery and equipment is forecast to increase by 8 per cent and 7 per cent in 2021 and 2022, respectively, consistent with the outlook for improved business conditions. Overall, modified investment is forecast to increase by 5.1 per cent in 2021 and grow by 8 per cent and 6.7 percent in 2022 and 2023.

Exports, Imports and Balance of Payments

Irish export data have been dominated by the activities of multinational enterprises in the first half of the year, but exports of more domestically dominated sectors have also recovered. Two sectors are now responsible for more than 50 per cent of Irish exports in value terms, namely the pharmaceutical and ICT sectors (Figure 19). A third factor, namely the production of goods abroad on behalf of Irish resident firms, was the main factor behind export growth in the second quarter of 27 per cent compared with a year earlier (Figure 20). In the National Accounts, these activities are treated as Irish exports, even though the physical goods themselves never cross the Irish border and thus have no meaningful impact on employment or incomes in Ireland (See Box C). Moreover, almost all of this activity relates to foreign owned multinational enterprises, so the profits arising from these exports eventually flow out of Ireland to foreign investors. Exports of some more domestically dominated sectors, such as *beverages and tobacco* and *manufactured items*, began to see a recovery from the pandemic in the second quarter. Other services exports, such as tourism and transport, remain below their pre-COVID levels and are forecast to take longer to recover.

Exports from Ireland are dominated by pharmaceuticals and computer services

Figure 19: Contribution to Exports (H1 2021)



Source: CSO, Balance of Payments and External Trade Data
 Note: All values are in current prices

On top of this, exports abroad on behalf of Irish firms are counted in Irish exports

Figure 20: Exports by location of production



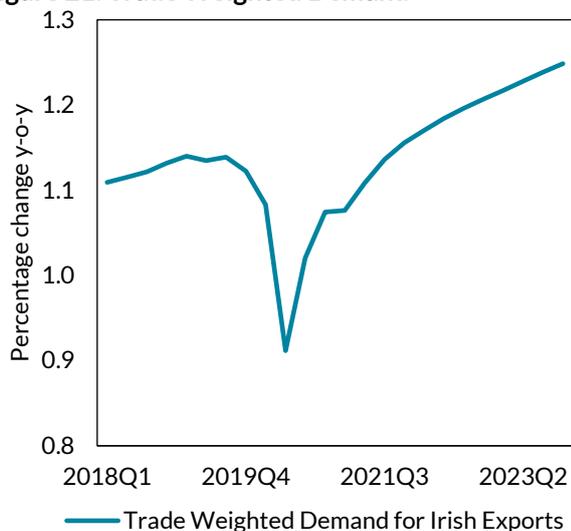
Source: CSO Balance of Payments
 Notes: Light green bars represent the sum of “goods for processing” and “merchandising” in the Balance of Payments

Demand in Ireland’s major trading partners is set to continue to grow, which will support exports from all sectors. The latest forecast of import demand (weighted by Irish exports to those destinations last year), shows growth of 5.1 per cent in 2022 and 3.7 per cent in 2023, slightly stronger than expected at the time of the last *Bulletin*. This is consistent with recent upward revisions by the IMF and OECD to the growth outlook in advanced economies (see Box A). However, uncertainty remains as to the extent to which growth in major markets will materialise over the forecast horizon, as more persistent supply constraints globally may slow the pace of expansion.

The outlook for Irish exports is favourable, both in headline terms and for indigenous exporters. Exports are forecast to grow by 15.7 per cent in 2021, and by 7.6 per cent and 6.7 per cent in 2022 and 2023, respectively. The forces that have driven Irish exports to grow strongly over the past 24-36 months are expected to continue over the projection horizon. In particular, production in the pharmaceutical sector is likely to continue to grow as new production capacity comes on-stream in Ireland. Moreover, intellectual property assets held by IT firms, which were imported in recent years, are forecast to continue to yield growth in computer services exports.

World Demand will recover its pre-pandemic level this year

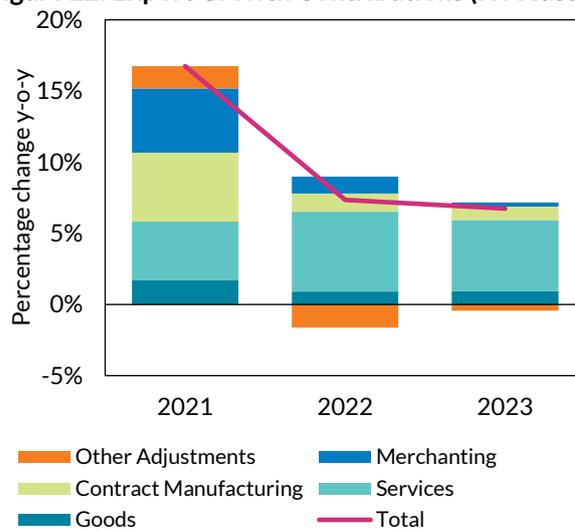
Figure 21: Trade Weighted Demand



Source: ESCB

Services will continue to be the primary driver of overall export growth

Figure 22: Export Growth Contributions (forecast)



Source: CSO, Central Bank of Ireland.

While the outlook is strong, Brexit poses a risk to the export outlook for some indigenous sectors. The UK has yet to impose checks on imports coming from the EU, and as such, the full impact of Brexit on Irish exports to the UK and through it (to continental Europe) has yet to be felt. While the timeframe has allowed some firms to prepare, it is likely to reduce Irish-UK exports in the Agri-food sector in particular, once fully implemented. Imports from the UK have declined by 20 per cent in the first seven months of 2021, while overall exports have grown strongly, suggesting that Irish firms and consumers have sourced products from alternative destinations.

Imports (excluding intellectual property) will grow strongly this year in line with the recovery in consumption and investment. The recovering economy will bring import growth, and it is expected that some of the pandemic-induced move towards online shopping will increase the import content of consumption, at least in the short-term. However, a decline in the imports of intellectual property by multinational firms will mean that imports are forecast to decline by 8.2 per cent this year. Next year, imports are forecast to grow by 7.5 per cent and by 6.7 per cent in 2023.

Together, the modified current account is expected to remain in surplus over the forecast horizon. Having recorded a surplus of 11.5 per cent of GNI* in 2020, the continued strength of the trade balance is forecast to keep the modified current account in surplus over the forecast horizon.

Labour Market

Employment projections have been revised upwards from the previous *Bulletin* reflecting the strong pick-up in economic activity as the economy has reopened. A new statistical standard for the Labour Force Survey has come into effect in recent quarters.²⁰ This calls for some caution in interpreting changes in key labour market aggregates in individual quarters until the effects of the statistical changes become fully established over time. Employment increased annually in Q2 2021 by 9.9 per cent to 2.3 million persons. Levels are now marginally below the pre-pandemic peak with an elevated number of persons outside but close to the labour force due to, among other reasons, the ongoing health restrictions across several sectors. The recent implementation of IESS regulations has also altered the treatment of worker's attachment status to employment with further changes brought about by the impact of COVID-19 and health restrictions. Reflecting these developments, labour market data are likely to be somewhat volatile through to the final quarter of the year.

The sectoral outlook for employment remains varied depending on the effect of restrictions on activity and the unwinding of income supports. Some sectors adversely affected by health restrictions have resumed at lower operating capacities. This may limit labour demand and potentially lead to unemployment and scarring effects for those away from work for extended periods. Less adversely affected sectors are likely to reach capacity constraints and generate a risk of sector-specific wage pressures, added to by lower levels of inward migration as labour shortages emerge (see Box D). There are approximately 320,000 persons in employment currently supported by the EWSS, with supports mainly concentrated in the accommodation and food services sector (40 per cent). There is uncertainty as to how firms and workers will adjust to the ending of the EWSS. Firms may respond either through pay, hours or numbers in employment and this will significantly influence labour market developments over the coming quarters. As restrictions ease in the final quarter of the year and income supports are gradually phased out, employment levels are projected to increase out to the end of the forecast horizon. Average growth of 2.1 per cent is forecasted for 2021, increasing

²⁰ See [CSO Technical Note](#) on IESS Framework Regulations for further information

to 2.2 per cent in 2022 with employment levels anticipated to surpass previous peaks in late-2022.

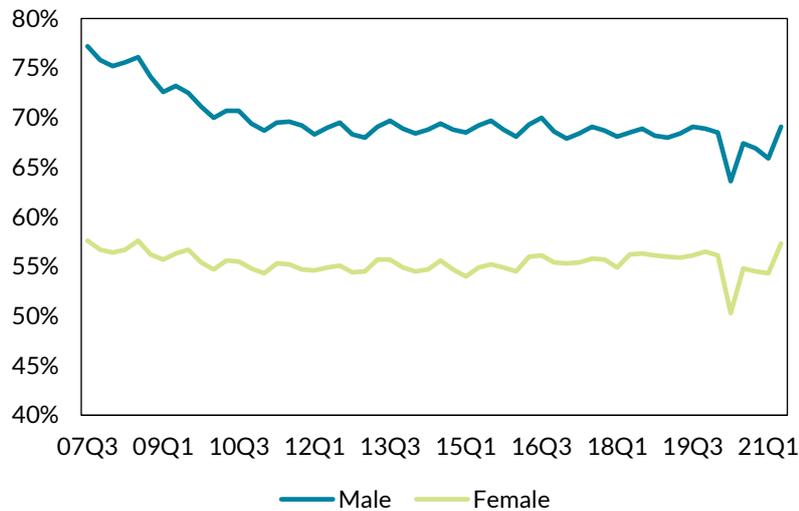
Strong economic activity has led to a wide-ranging recovery in employment levels in the most recent data for Q2 2021. Overall, annual employment growth to Q2 2021 was broad-based across all NACE sectors. Sectors less adversely affected by restrictions (industry, information and communication) have surpassed pre-pandemic employment peaks. Employment in other sectors such as hospitality and construction remain below pre-pandemic levels, suggesting some degree of labour market reallocation may be occurring. Female employment levels increased annually by 12.8 per cent in Q2 2021, relative to 7.5 per cent for males, driven by an expansion in employment in the social services sectors of Education and Health. Total actual hours worked remains 2.1 per cent below pre-pandemic levels with evidence of similar differences between COVID-affected sectors and the rest of the economy. The employment increase in Q2 2021 was exceptionally large. Analysis and further data will be required over the coming quarters to confirm the underlying trends in employment from the volatile changes observed over recent quarters.

The labour force experienced a large increase of 12.1 per cent in the year to Q2 2021 to record a new peak level of 2.5 million persons. As distortionary pandemic effects lessen, increased transitions to employment from those outside the labour force are likely to drive an upward trend in the participation rate over the projection horizon. The participation rate increased to 63.1 per cent in Q2 2021, compared to the pre-pandemic level of 62.6 per cent. The participation rate increased sharply for both males and females in the Q2 data but the rise was particularly large for the latter. The female labour force participation rate increased to 57.3 per cent in Q2, reflecting both an increase in labour demand during the pandemic in sectors such as healthcare and social services and a greater relative increase in unemployment levels. Prior to the pandemic, structural and cyclical factors driving female labour force participation were viewed as unlikely to generate further substantial growth in the short term.²¹ Further data will be required to assess whether the higher levels of participation in Q2, particularly for females is sustained over the coming quarters.

²¹ Byrne and McIndoe-Calder (2019) "[Employment Growth: Where Do we Go From Here?](#)" Central Bank of Ireland Quarterly Bulletin Signed Article. QB3 2019

Female labour force participation increased strongly during the second quarter

Figure 23: Male and Female Labour Force Participation Rates



Source: CSO

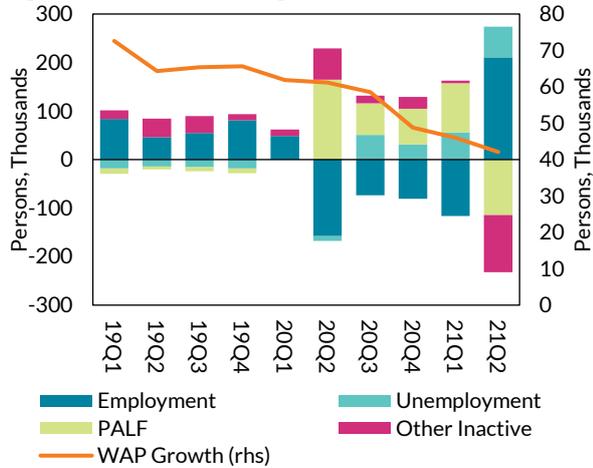
Note: Last Observation 2021Q2

Much of the recent increase in the labour force was driven by the transition of individuals from inactivity to the labour force (See Figure 24).²² In particular, there has been increased flows of workers back into the labour force from those classified as inactive but who had maintained a close attachment to the labour market during the pandemic. As restrictions ease in the coming months to allow for increased employment opportunities, the participation rate is projected to average 61.7 per cent this year and trend slowly upwards to reach 62.3 per cent in 2023. The labour force is projected to increase by 3.8 per cent this year before moderating to 2 per cent next year.

²² The Potential Additional Labour Force (PALF) consists of two groups classified as outside of the labour force: 'Available for work but not seeking' and 'Seeking but not immediately available'. These groups have a historically higher transition rate to employment compared to other cohorts outside of the labour force. The disruptive nature of health restrictions to employment and job searching led to large annual increases in PALF levels.

Large employment inflow to inactive groups with greater labour force attachment

Figure 24: Annual changes in economic status

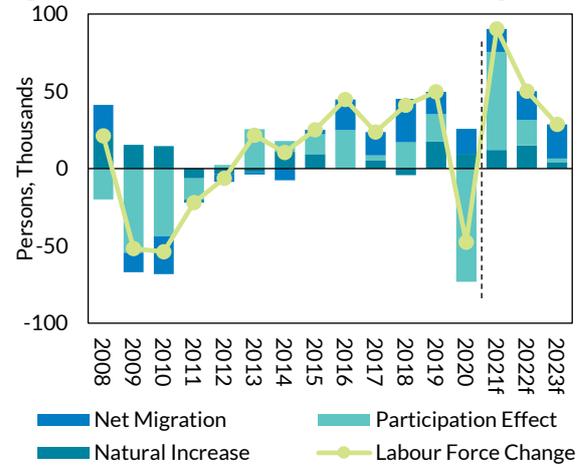


Source: CSO

Note: WAP refers to Working Age Population. The sum of all persons aged 15 and over in the population

Balance between participation and migration driving labour force growth

Figure 25: Decomposition of labour force growth



Source CSO

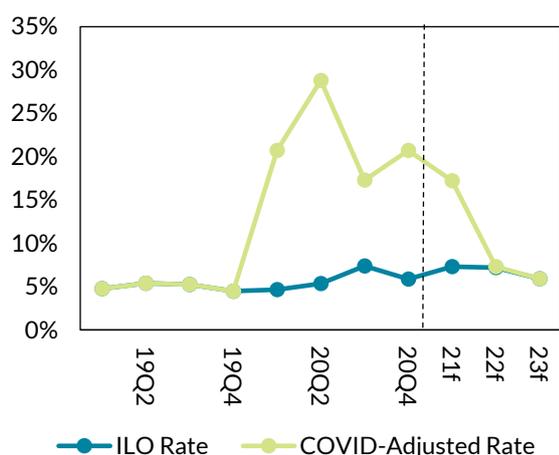
Migration flows, which have been disrupted by the pandemic, will be a critical determinant of how labour supply will evolve relative to demand over the forecast horizon. While net migration remained positive in the year to April 2021 at 11,200, it was at its lowest level since 2015. Lower inward migration levels, especially of non-European nationals, has been the main driver of reduced net migration. Net migration is expected to gradually recover toward pre-pandemic levels over the forecast horizon with potential positive spillovers from changing migration patterns in the aftermath of Brexit; however, the pace of return may be affected by the progression of vaccine programs in non-European countries such as India and Brazil that have exhibited sizeable inflows to Ireland in recent years. As the economy recovers to pre-pandemic levels, there will likely be increased reliance on net inward migration for labour supply and to address shortages across a number of sectors.

The ILO and COVID-adjusted measures of unemployment continue to converge as numbers on the PUP scheme decline in line with the easing of restrictions. Recent changes to the PUP scheme have resulted in a decline in recipients as students returning to full-time education transitioned off the scheme and remaining recipients moved to a lower payment rate (See Figure 27). The scheme is being phased out by end-February 2022, at which point the current forecast foresees 207,000 people being formally unemployed, some 97,000 more than pre-pandemic

levels. Unemployment levels are projected to remain higher than the pre-pandemic period through to the end of the forecast horizon. This is due to a diverse outlook limiting labour demand in particular sectors, structural business changes and scarring effects among those away from work for long periods. Annual projected rates for unemployment are 7.3 per cent in 2021, 7.2 per cent in 2022 and 5.9 per cent in 2023.

Unemployment rates will converge as income-supports are phased out

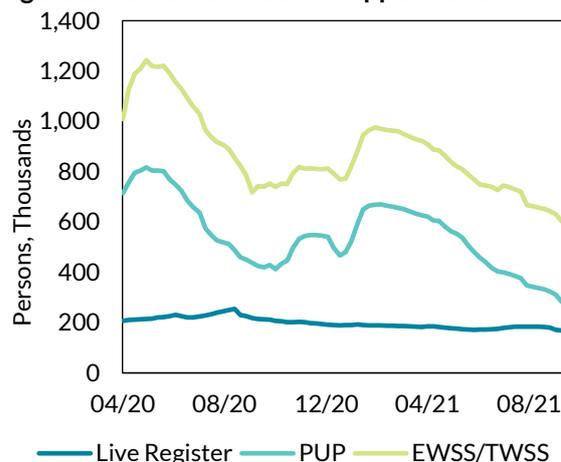
Figure 26: Unemployment rate projections



Source: CSO

PUP levels decline in line with re-opening of economy

Figure 27: Levels on income-support schemes



Source CSO

Earnings

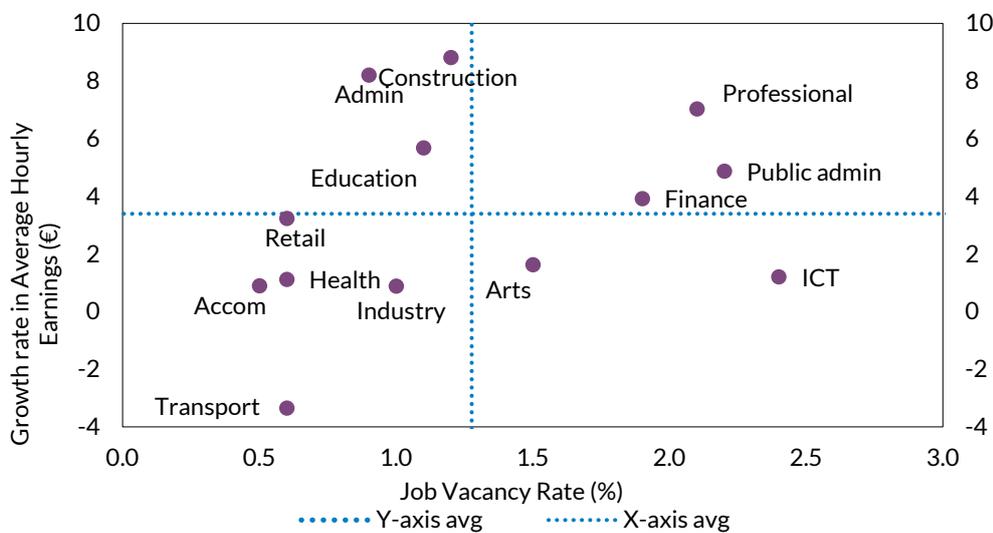
The growth rate in average hourly earnings has slowed relative to recent quarters with CSO data showing a 2.9 per cent annual increase for Q2 2021, down from an 8.8 per cent increase in the previous quarter. The aggregate data masks divergent sectoral trends. The largest increases were observed in *construction* (8.8 per cent) and *administration services* (8.2 per cent), while declines were seen in the *other services* (-6.5 per cent) and *transport* (-3.3 per cent) sectors. As employment in the administration sector remains below pre-pandemic levels, the rise in hourly earnings may reflect greater numbers of high earners pushing up the sectoral average. Similarly, the reopening of the *other sectors* category in Q2 2021 meant that many workers on lower wages resumed activity. This reduces the average wage, but is largely a composition effects resulting from the pandemic.

Labour shortages in the less-restricted construction sector may suggest wage pressures in a sector with noted pre-pandemic labour supply issues, possibly exacerbated by migration disruptions (See Box D). Figure 28

shows a linear trend of average hourly earnings and vacancy rates in which a number of higher-earning sectors exhibit the highest vacancy rates. These sectors have a higher prevalence of remote or hybrid working, were less adversely impacted by health restrictions and displayed a relatively lower share of workers availing of income-support to distort employment or earning levels. The relatively high vacancy rates may be indicative of firms’ success in reorganising business operations throughout the pandemic to return to pre-pandemic levels and increase labour demand.

Higher growth in average earnings for sectors less adversely affected by the health restrictions

Figure 28: Annual Average Hourly Earnings Growth and Sectoral Vacancy Rates, Q2 2021



Source: CSO

The job vacancy rate has trended upwards in recent quarters corresponding to an increased level of labour demand in the economy as sectors begin to re-open and firms compete for available staff. The overall rate currently measured 1.1 per cent in Q2 2021 up from 0.7 per cent a year previous with the highest vacancy rates evident in ICT (2.4 per cent) and public administration (2.2 per cent). Data from the employment website Indeed show that job postings in August were 21.6 per cent above the pre-pandemic levels. Strong improvements in labour demand were recorded for certain cleaning, food preparation and retail occupations occurring in anticipation of easing restrictions. A survey by Indeed in July highlighted that despite strong rebounds in labour demand, few respondents, including PUP recipients, in Ireland were urgently looking for

work.²³ Caring responsibilities and expectations of returning to their job were listed as the main factors influencing job search processes. Labour shortages and wage increases may be limited to specific sectors or specialised occupations as supply bottlenecks emerge and levels of job switching increase. The average growth rate in earnings in contact-intensive sectors may moderate over the coming quarters, particularly as greater numbers re-enter the labour force, particularly with increased part-time employment levels.

Table 2: Labour Market Projections

	2019	2020	2021f	2022f	2023f
Employment (000s)	2,319	2,253	2,301	2,351	2,410
% Change	2.9	-2.8	2.1	2.2	2.5
Labour Force (000s)	2,440	2,392	2,483	2,533	2,562
% Change	2.0	-2.0	3.8	2.0	1.1
Participation Rate (% of Working age Population)	62.2	60.2	61.7	62.2	62.3
Unemployment (000s)	121	139	181	182	152
Unemployment Rate (% of Labour Force)	4.9	5.9	7.3	7.2	5.9
COVID-Adjusted Unemployment Rate (% of Labour Force)	4.9	21.1	16.9	7.3	5.9

Source: CSO and Central Bank of Ireland

Box D: Job Openings Rebound in 2021

By Reamonn Lydon²⁴

By August, job postings on Indeed were over a quarter above pre-pandemic levels. Demand for workers in food services, hospitality and tourism, retail, construction, cleaning and sanitation and transport is growing. In some sectors, labour supply has not kept pace, putting upward pressure on wages.

²³ Indeed (2021) [Ireland Job Search Survey July 2021](#)

²⁴ This work draws on research with Dr. Pawel Adrjan, Head of EMEA research at Indeed, including a recent working paper on "[Job Creation During the Pandemic: Restrictions and Frictions](#)".

Labour market developments are central to understanding the economic fallout of the pandemic. Using Indeed data, this box highlights trends in labour demand, job search and wages in online job ads.

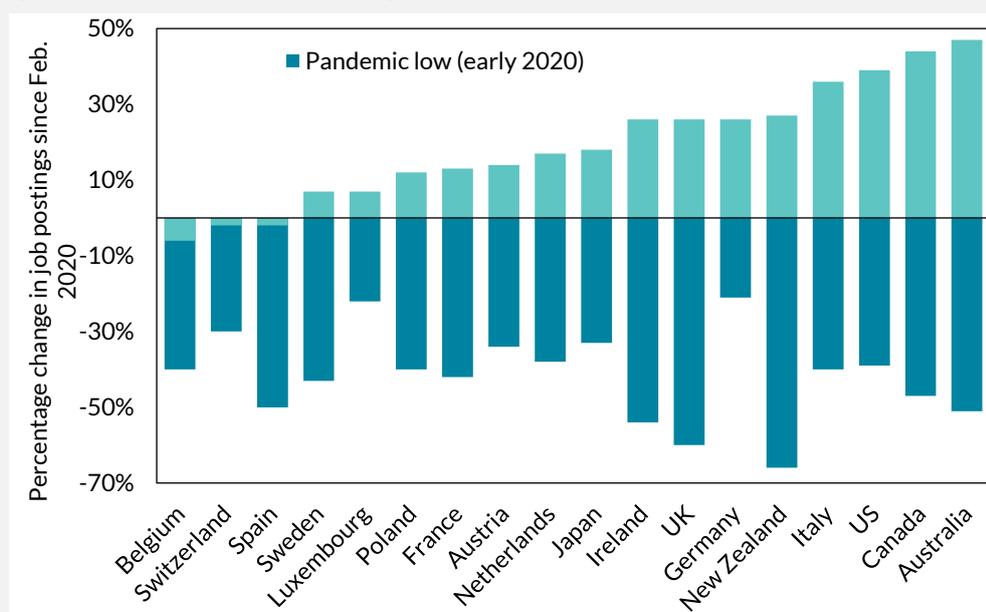
Uneven recovery: resilient sectors, pandemic sectors and rebounding sectors

Irish job postings on Indeed fell by over a half at the onset of the pandemic (Figure 1).²⁵ Half of the decline recovered relatively quickly, before restrictions were eased in the second quarter of 2021. This reflected two developments. First, reduced uncertainty about the impact of the pandemic on businesses not directly exposed to shutdowns. This includes jobs in sectors such as *Software/Development, Production and Manufacturing, Sciences and Mathematics/Data Science*, which recovered to be 8 per cent (43 per cent) above pre-pandemic levels by March (August) 2021. Second, increased demand for workers in some sectors *because of the pandemic*. Healthcare is one example: up 37 per cent (52 per cent) by March (August) 2021. Jobs in *Transport and Distribution and Cleaning and Sanitation* also increased because of the pandemic, up 0.2 per cent (109 per cent) by March (August) 2021.

Job postings growth accelerated when sectors reopened, and were 26 per cent above pre-pandemic levels by August 2021. This was driven by re-opening sectors, and a rebound in postings in *Retail, Food Preparation and Service, Sales, Customer Service, Hospitality and Tourism and Construction* (Figure 2), as well as continued growth in *Transport and Distribution and Cleaning and Sanitation* jobs.

Rebound in labour demand as restrictions ease across countries

Figure 1: International job posting trends

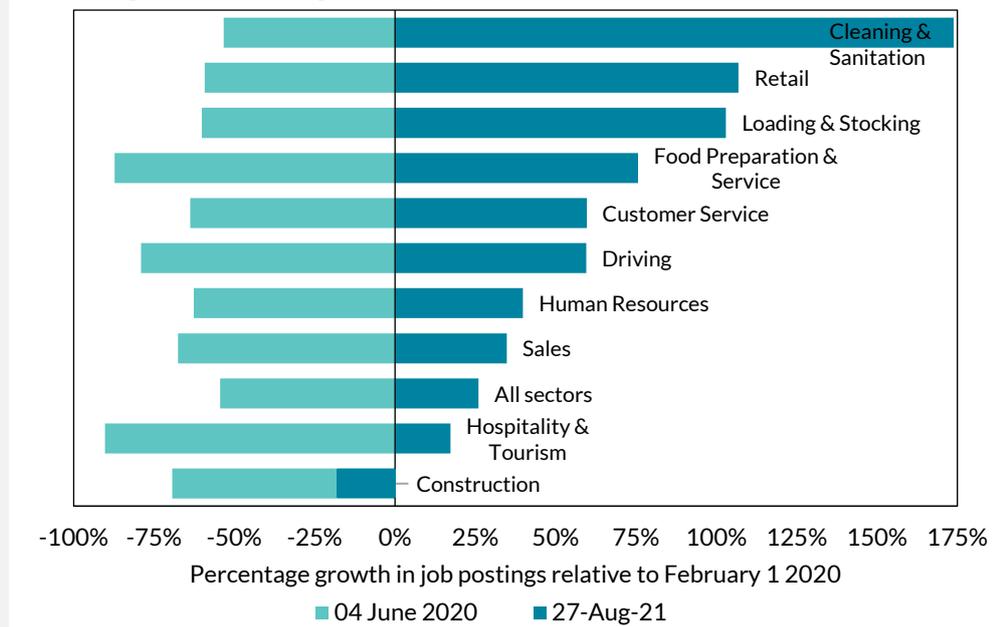


Source: CSO and Central Bank of Ireland

²⁵ Figures quoted here are seasonally adjusted, and relative to the pre-pandemic level, i.e. 1 February, 2020.

Uneven recovery: resilient sectors, pandemic sectors and rebounding sectors

Figure 2: Irish job postings growth relative to 1 February 2020 in the 10 sectors with the fastest growth (Feb-August 2021)



Source: CSO and Central Bank of Ireland

Emerging labour supply bottlenecks in some sectors are putting upward pressure on posted wages. Employers in sectors like transport and food and hospitality are reporting labour shortages. This could reflect short-term frictions as a result of many employers looking to rehire at once. Alternatively, it could persist if the labour force in some sectors is smaller because of the pandemic, for example because participation has fallen – e.g. due to health concerns, or changes in preferences for work – or if the working age population has fallen because workers have left the country during the pandemic and/or due to lower net migration.

Historically, the number of people clicking on a particular online job posting is a very good indicator of how many people apply for that job. Analysing wages in 8.5 million job ads in Ireland, France and the UK between 2019 and 2021, we find that posted wages in job ads tend to rise as clicks per posting fall.²⁶ Tracking clicks-per-posting, we find conditions have tightened in some sectors in Ireland in 2021: including *Construction, Software Development, Driving, Loading and Stocking, Food Preparation and Services and Cleaning and Sanitation*.

Posted wages tend to rise faster in sectors where employers are finding it harder to hire workers (Figure 3), with sharp rises for many of these sectors in the first half of 2021.²⁷ We control for the changing composition of job ads within sectors using granular job titles. We do not, however, account for potential changes in the composition of new hires. For example, some employers may respond to hiring difficulties by recruiting

workers with less experience, as recent [reports](#) suggest. Institutional factors also matter wage dynamics. For example, two-thirds of *Cleaning and Sanitation* job postings are at the standard hourly pay rate of €11.20, set in December 2020 by a new [Employment Regulation Order](#) (up from €10.80). This largely explains the relatively static wage growth in 2021.

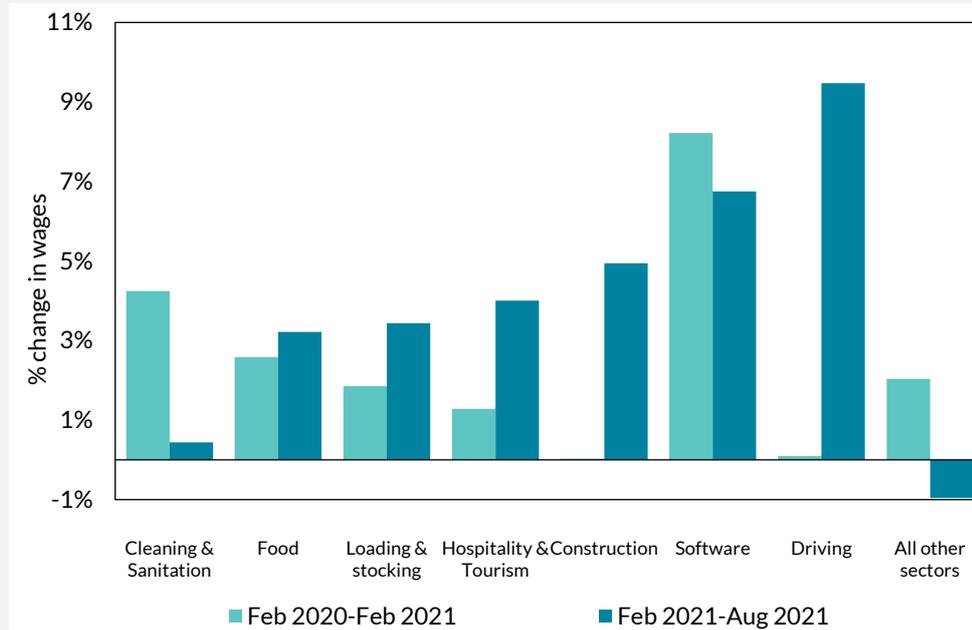
Labour supply shortages likely to persist in some sectors, and could ease in others. In some sectors such as skilled/experienced IT, construction and driving – supply shortages pre-date the pandemic. Historically, migration – [significantly reduced by the pandemic](#) – was also a source of labour supply. Finally, as [Adrjan & Lydon \(2021\)](#) show, there is currently strong demand for workers in these sectors across the UK and EU – especially in driving and construction – making for a more competitive international labour market. All of these factors suggest employers will continue to find it hard to find workers to fill roles in these sectors in the medium-term. For ‘pandemic jobs’, demand may ease as the pandemic wanes. However, ongoing labour supply constraints for the same reasons cited above means bottlenecks could persist. For rebounding sectors such as food and hospitality jobs, the 23,000 PUP recipients who formerly worked in these sectors (13 per cent of pre-pandemic employment as at end-August) could boost supply as the scheme unwinds. Against this, some of these may be full-time students with limited potential hours of labour supply.

²⁶ See [Adrjan & Lydon \(2021\)](#). In wage bargaining frameworks, wages increase with tightness because bargaining power shifts from employers to employees (the so-called ‘wage curve’). See [Cahuc et al \(2014, Chapter 9\)](#) or [Hornstein et al \(2005\)](#). Our analysis is consistent with [Lozej & Lydon \(2018\)](#), who show the wages of new hires rise as unemployment falls.

²⁷ One potential issue here is that we analyse posted as opposed to negotiated wages, and the relationship between the two might differ in systematically depending on labour market tightness. However, [Adrjan & Lydon \(2019 and 2021\)](#) show that the distribution of posted wages in job ads on Indeed in Ireland, the UK and France across several years are very similar to wages of new hires as reported in official surveys.

Emerging labour supply bottlenecks in some sectors are putting upward pressure on posted wages

Figure 3: Growth in posted wages in job ads



Source: Indeed. Composition of jobs within sector controlled for using granular job titles (see Mari & Wolthoff (2020)). Adrjan & Lydon (2021) lists the job titles. The 'All other sectors' group account 75 per cent of job ads on Indeed Ireland in July 2021.

Whether wage pressures lead to higher consumer prices depends on how widespread bottlenecks are and how long they persist. The analysis here focuses on new hires, and the tight sectors highlighted account for just one-in-four job ads. Wage growth in 'All other sectors' in Figure 3 is also relatively weak by comparison. Thus, the wage pressures we highlight in the first half of 2021 are not *that* widespread yet. However, persistent increases in new hire wages will eventually impact incumbent pay via demonstration effects or increasing [job churn](#). There is also the potential to impact other sectors, as higher labour costs are passed on, especially in sectors with already lower profit margins where there might be less scope to absorb higher input prices.²⁸

Prices and Costs

Consumer Prices

Consumer prices are forecast to strengthen further into the later stages of 2021 and into 2022, with strong energy prices being the main factor this year. The HICP increased by 1.4 per cent in the first nine months of the

²⁸ [Eser et al. \(2021\)](#) argue that higher wage growth in the euro area before the pandemic was not passed on to higher prices in part because of the ability of some firms to absorb input cost increases through lower margins.

year. When energy prices are excluded however, prices increased by only 0.8 per cent. The increase in energy prices is, in turn, the result of surging prices for oil and liquid natural gas on global commodity markets in recent months. These commodity prices have been passed on to consumers' electricity, heating and transport bills. Market expectations, measured by the price of futures contracts for oil and other energy commodities, are for these price increases to decline in coming months.

Supply bottlenecks, both domestically and internationally, have driven up input prices in certain sectors, and these prices will feed through to consumer prices this year and next. The prices of timber, steel and cement, key inputs in the construction sector, have increased substantially in recent months as global demand surged. The price of microchips has also increased substantially, because of a shortage of components. This has impeded the production of new cars, which in turn has resulted in an increase in the price of used cars. The price of containerised shipping has also increased (Figure 30). While these factors are expected to be temporary, in that they do not alter perspectives on trend inflation, they are not forecast to dissipate until mid-2022.

The pace of inflation is expected to slow in 2023. The surge in demand in the second half of this year and into next year will continue to put upward pressure on prices this year and in the first half of next year. However, as economic conditions normalise, HICP inflation is forecast to decelerate in the second half of 2022. Headline HICP inflation is expected to average 2.1 per cent this year, increasing to 2.9 per cent in 2022 before easing to 1.9 per cent in 2023. Core inflation, excluding food and energy prices, is forecast to increase by 1.3 per cent in 2021 and 2.2 per cent and 2.1 per cent in 2022 and 2023, respectively.

Risks to the inflation forecasts are tilted to the upside. If the supply bottlenecks persist longer than anticipated and demand continues to grow, then prices could rise by more and for longer than expected. With both monetary and fiscal policies remaining accommodative, and with many sectors increasingly operating with relatively little slack, demand could result in stronger nominal growth. While increases in wages are not currently broad-based, relating to labour shortages in some sectors rather than cost of living increases, the dynamics between wages and prices will be an important determinant of future inflation developments.

Table 3: HICP Inflation Projections

	2021	2022	2023
HICP	2.1	2.9	1.9
HICP ex Energy	1.2	2.3	2.0
HICP ex Food & Energy (Core)	1.3	2.2	2.1
Energy	11.7	8.6	0.1
Food	0.5	2.8	1.7
Non-Energy Industrial Goods	-0.7	0	-0.3
Goods	1.6	2.6	0.6
Services	2.1	3.1	3.3

Source: Central Bank of Ireland

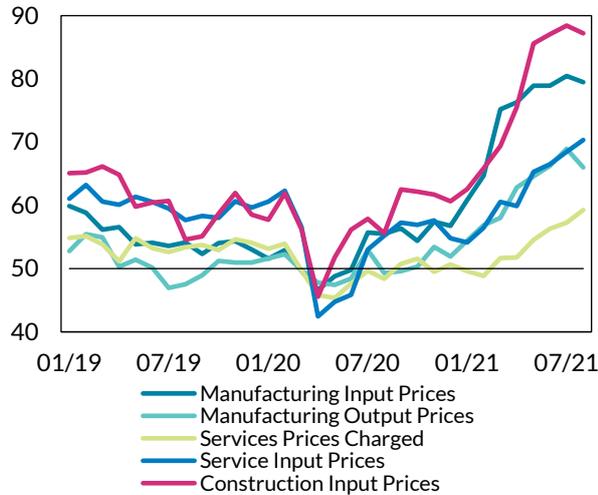
Broader Costs in the Economy

Input and output prices in the manufacturing, services and construction sectors all point towards supply constraints and rising price pressures in the months ahead. The PMIs in August 2021 pointed towards strong output growth but a rise in the backlog of work, attributed to demand pressures, supply chain disruptions and labour shortages, leading to sustained upward pressure on input and output prices (Figure 29).

Cost pressures are particularly severe for indigenous firms at present, which may have less scope than foreign-dominated sectors to absorb rising costs through margins than passing on in higher prices for their customers. Data from the National Accounts suggests output prices for domestically focussed sectors dominated by Irish firms is rising significantly (Figure 31). Inflation is also evident in other price measures, including agricultural prices, wholesale prices, property prices and asset prices. The rise in these measures reflects the broad-based nature of price increases across the economy expected in the medium term.

Survey data points to cost and price increases across a range of sectors

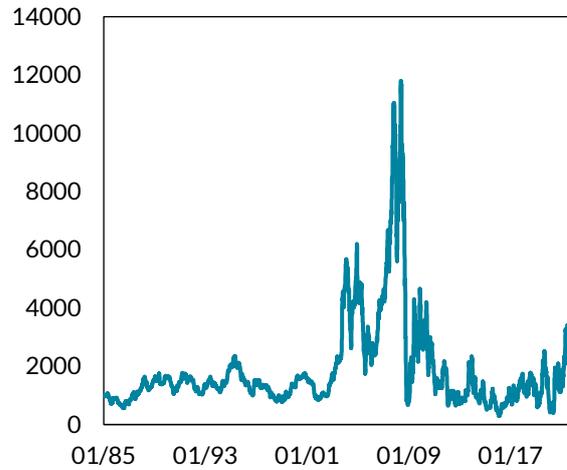
Figure 29: PMI Data



Source: Refinitiv, AIB

Shipping costs have increased steadily since the onset of the pandemic

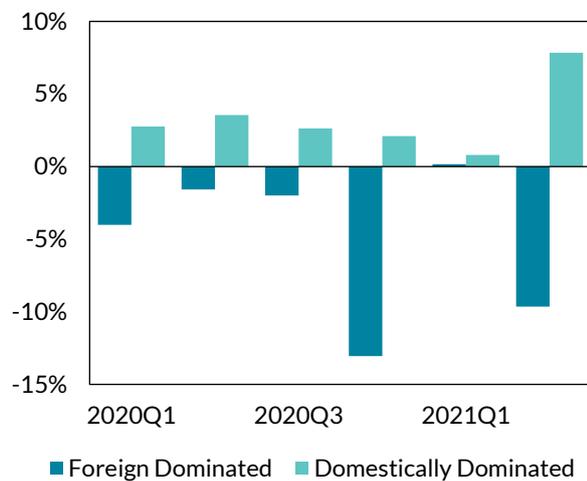
Figure 30: Baltic Dry Index



Source: Bloomberg

The domestically dominated sectors have seen strong price rises, compared with the MNE dominated sectors

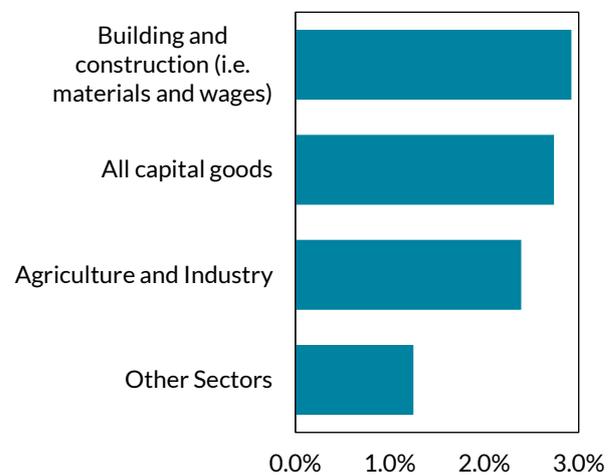
Figure 31: GVA Deflators



Source: CSO

Producer prices have also increased, particularly for building and construction

Figure 32: Producers Price Index



Source: CSO

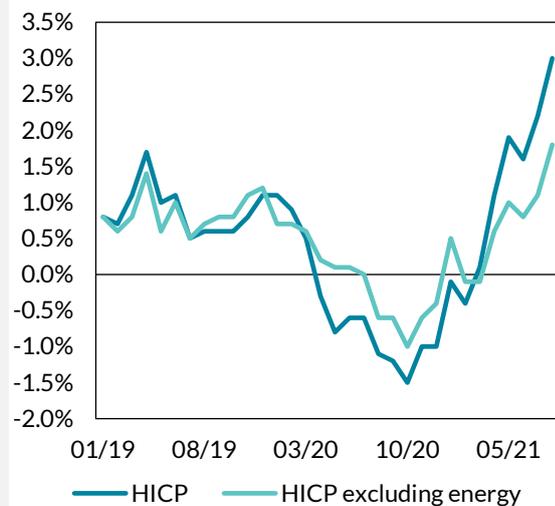
Box E: Drivers of Recent Inflation

By Stephen Byrne, John Scally and Zivile Zekaite²⁹

The pace of annual consumer price inflation has increased substantially in recent months, both in Ireland and across the euro area, US and UK. There are three distinct, but related, factors driving recent price increases. Firstly, wholesale prices for energy commodities have increased sharply in recent months. In particular, the prices of oil and liquid natural gas have more than doubled over the past six months. Second, there are presently shortages of several important inputs to the manufacturing and delivery processes of many consumer goods. Lastly, there has been a surge in demand domestically for goods and services, which had been unavailable or closed during the pandemic. These developments all reflect the more sluggish response of supply to rapid changes in demand. These factors are temporary, but may take time to dissipate.

Consumer price inflation has ticked up in recent months as the economy recovers

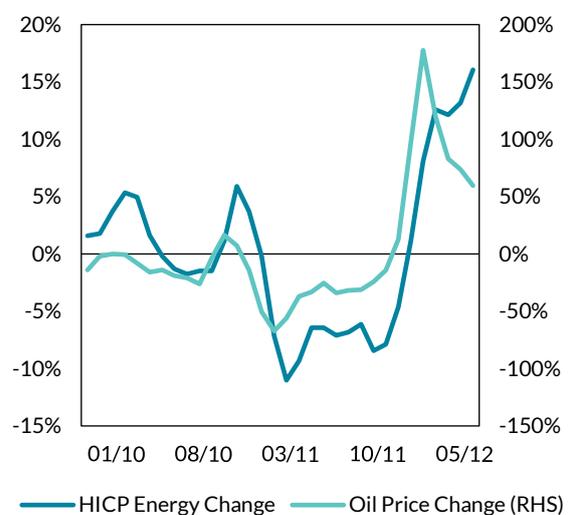
Figure 1: Harmonised Index of Consumer Prices



Source: Eurostat

Energy prices have been a major factor, global oil prices are a leading indicator

Figure 2: HICP Energy and Oil Price



Source: Eurostat

Visualising the sources of aggregate price increases

Using two analytical tools helps to give a broad picture as to what is happening with consumer price movements over time. The heat map in Figure 3 presents a useful visual analysis of the components of HICP. The areas in red represent strong relative price pressures in the annual rate of change, while blue areas point to lower relative price

²⁹ Irish Economic Analysis and Monetary Policy Divisions

pressures. In recent months, it is apparent that housing, water, electricity, gas and other fuel prices are running hot and other areas such as health, transport and hotels and restaurants are heating up. It is clear also that not all categories are experiencing relatively high rates of inflation more recently.

Hot or Cold? – The heatmap shows that energy (electricity, gas and transport) are seeing the strongest price increases in recent months

Figure 3: HICP Heatmap

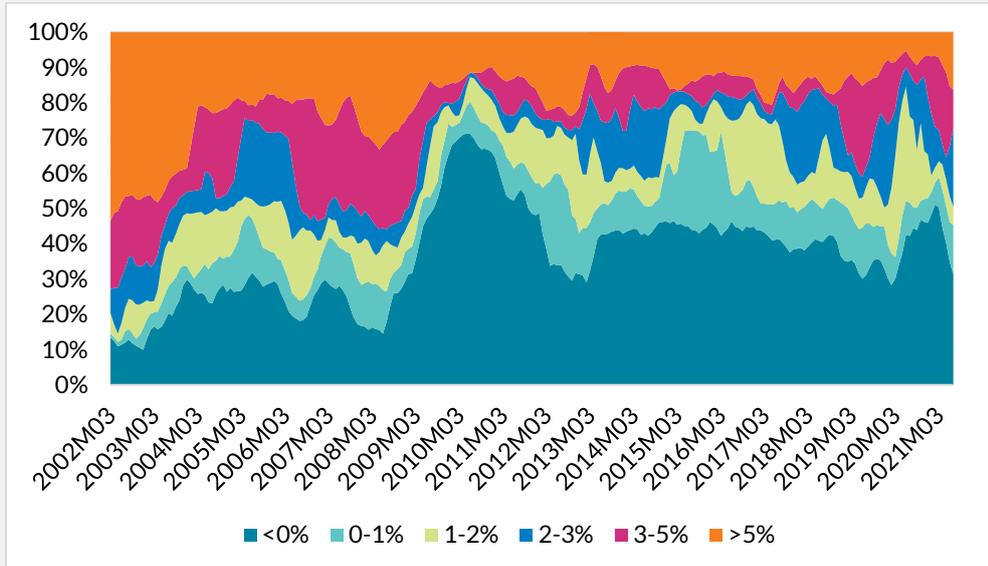


Source: CSO and Central Bank of Ireland

Figure 2 presents a weighted distribution of price changes across sub-indices of the HICP at a more disaggregated level over time. Each area in the figure denotes a percentage share of the consumer basket with year-over-year inflation rates falling in the specified intervals. Prior to 2009, the share of sub-aggregates with inflation rates above 2 per cent is on average 59 per cent. During the financial crisis, low inflation rates clearly dominated. The share of low inflation rates declined afterwards but on average remained higher than before the crisis, at 68 per cent. In the latest months, however, we can see a shift towards the higher rates of inflation, with rates over 2 per cent representing 50 per cent of the consumer basket on average. Nevertheless, the share of sub-aggregates with very large price increases, i.e. above 5 per cent, is 18 per cent, lower than the average of 29 per cent prior to the global financial crisis.

The proportion of the overall consumption basket seeing price rises greater than 2 per cent has increased to 50 per cent in recent months

Figure 4: Proportion of the HICP basket by inflation pace

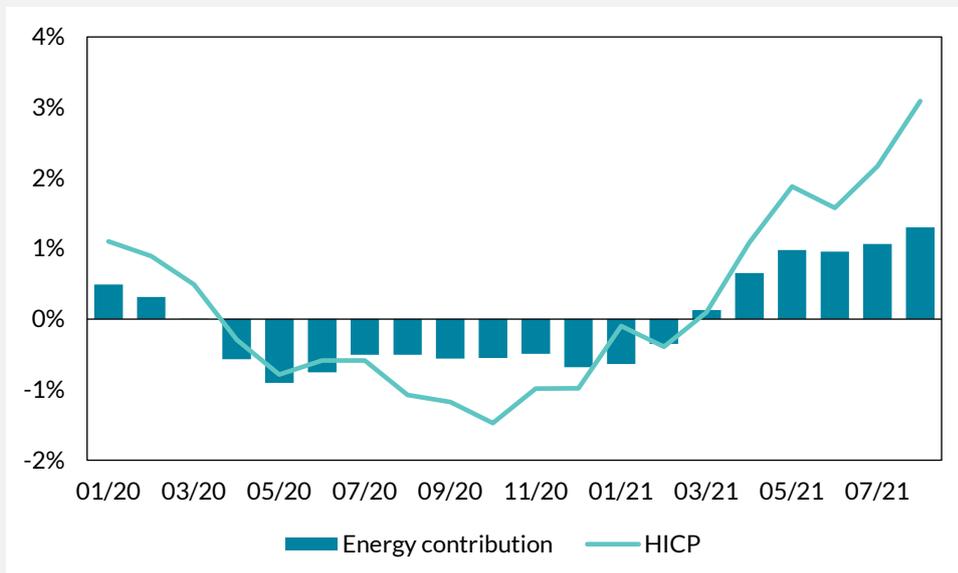


Source: CSO and Central Bank of Ireland calculations

Note: Last observation August 2021

Energy prices have contributed strongly to HICP inflation this year

Figure 5: Energy Contribution to overall HICP



Source: CSO and Central Bank of Ireland

Last Observation: August 2021

Impact of Energy Prices on HICP

Recent increases in wholesale energy costs have resulted in substantial increases in the prices consumers pay for electricity and home heating. Figure 4 show the increasing

contribution of energy prices to HICP inflation; energy prices accounted for 1.3 percentage points of the 3 per cent increase in the HICP in August 2021. As a country largely dependent on imported energy, international oil and gas prices are an important determinant of energy prices in Ireland and Figure 5 shows the high correlation between energy prices and oil prices³⁰.

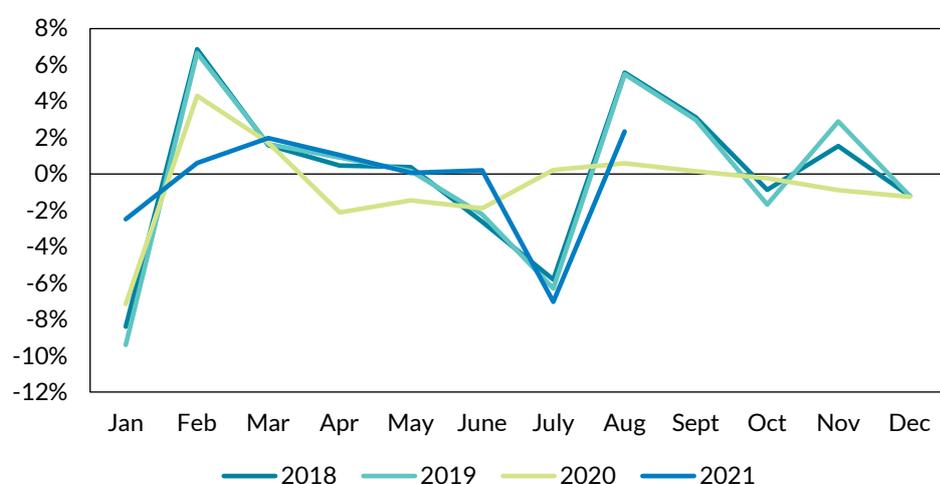
Seasonal and Base Effects

One of the factors affecting the inflation figures in 2021 is the base effect. This refers to the fact that the difference between the annual rates of inflation in two subsequent months is approximately the same as the difference between the monthly rate in the current month and the monthly rate one year earlier. Consequently, a temporary downturn in prices, as in the case of the onset of Covid-19, can result in large annual inflation rates in the following year that are unrelated to current price pressures. This effect has added approximately half a percentage point to the increase in the HICP since the beginning of 2021.

Another base effect arose this summer from the unusual seasonal pattern of sales during summer 2020. This relates to the reopening of the economy during summer 2020. Figure 3 shows the month-on-month changes in the price of clothing and footwear. The normal seasonal sales in January and July are apparent in all years except 2020. When the shops reopened, the seasonal sales pattern returned with sales in July 2021. When calculating the year-on-year change in July 2021, i.e. since July 2020, the prices are compared to higher prices without sales leading to a much smaller annual rate of inflation.

The atypical sales/discounting pattern in 2020 is generating base effects in the annual inflation rates of clothing and footwear

Figure 6: Monthly inflation rate in clothing and footwear over the last four years



Source: CSO and Central Bank of Ireland

³⁰ Generally gas prices closely follow developments in oil prices.

Shortages of Key Inputs

Shortages of key inputs in the production process of certain sectors have driven up input prices. Unusual movements in shipping containers led to substantial delays and increases in transportation costs. A global shortage in semiconductor microchips as demand for electronic devices surged during the pandemic was coupled with natural disasters, fires and adverse weather conditions in three major suppliers. Early indications from PMI's suggest that the problem is not likely to dissipate until mid-2022, with both input, output and delivery times increasing and lengthening. According to a European Commission survey, almost 40 per cent of euro area firms faced material and/or equipment shortages in July 2021.

Looking at a more granular level, HICP sub-indices that currently see annual price increases above 5 per cent are mostly reflecting the sectors that are either energy related or currently experiencing supply shortages. In the majority of these cases, monthly inflation rates have recently been falling or stabilising although still at high levels.

These factors are expected to be temporary, but may take time to dissipate

While these factors are expected to be temporary, there is a risk that second round effects may result in a more generalised increase in prices that would be more persistent. One of the channels through which could occur is the role of inflation expectations. In theory, inflation expectations can play a role in determining future inflation as higher prices are embedded as workers demand higher wages to compensate for the increased cost of living.

Energy price increases, while excluded from core inflation measure, can affect core inflation in the future. There are direct effects on producers in the form of higher production costs for firms that use energy inputs. Some studies have shown that the most important transmission mechanism of energy price changes is through a disruption to consumer spending due to lower levels of current and future income.³¹ These demand side responses to an energy price shock can lower inflationary pressures and counteract the positive inflationary impulse on the supply side from higher production costs. Therefore, while increases in energy prices negatively affect consumer income particularly at lower levels, international evidence suggest that energy prices changes can have a relatively limited pass-through to core inflation.^{32 33}

³¹ Kilian, L. (2008). The economic effects of energy price shocks. *Journal of Economic Literature*, 46(4), 871–909.

³² There is no consensus in the literature on the aggregate effect on inflation of energy price shocks, although there seems agreement that the impact of energy price shocks on inflation has declined over time.

The Public Finances

The Covid-19 health crisis has had a very significant impact on Ireland's public finances. Following consistent improvements over the preceding decade - culminating in a surplus of 0.5 per cent of GNI* in 2019 - the general government balance weakened sharply last year, recording a deficit of 9.0 per cent of GNI*. This deterioration was driven by the necessary policy response by Government to the pandemic, most notably the introduction of large income support schemes, which were the main contributor to a rise of 18.6 per cent in government spending. The negative impact of lockdown on indirect tax receipts also played a role. The deficit is forecast to improve this year - to -7.5 per cent of GNI* - as the positive impact of economic recovery on revenue growth offsets further increases in expenditure. The latter reflects not only continuing support to those most affected by the pandemic, but also the large 'core' expenditure increases announced in last 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, the deficit should decline more substantially. The general government balance is projected to improve considerably to -4.2 per cent of GNI* next year, with the deficit declining further to -2.8 per cent of GNI* in 2023.

Reflecting the re-emergence of a primary deficit, the general government debt ratio is estimated to have increased by 10 percentage points to 105 per cent of GNI* last year. Following a further small increase to 107 per cent this year - driven mainly by the large primary deficit - the ratio is expected to gradually improve over the medium term, while remaining at an elevated level. Notably it is projected to still be 100 per cent of GNI* in 2023. Despite the adverse economic impact of the pandemic, Irish sovereign borrowing rates remain at very low levels, while the maturity profile has been extended in recent years. Financing conditions in the euro area generally have been supported by the ECB's pandemic emergency purchase programme. The National Treasury Management Agency (NTMA) continues to hold large cash balances, increasing sovereign funding flexibility.

There is a much higher level of uncertainty surrounding the fiscal outlook than would normally be the case. This reflects uncertainties directly

³³ Castro, C., Jiménez-Rodríguez, R., Poncela, P. *et al.* A new look at oil price pass-through into inflation: evidence from disaggregated European data. *Econ Polit* 34, 55–82 (2017).

linked to the pandemic, such as the final cost of support measures. 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.

Fiscal Outlook, 2021 to 2023

Reflecting the latest information available, the general government deficit ratio is now expected to improve this year to around €16.8bn or 7.5 per cent of GNI* (see Table x). Supported by a recovery in domestic demand and robust compensation growth, revenue is projected to record a broad based increase of 9.5 per cent. This represents an upward revision from *Quarterly Bulletin 3*, underpinned by a stronger macroeconomic outlook and favourable monthly Exchequer data, which reveal better than expected receipts in the first eight months of the year. Exchequer tax revenue was 5.4 per cent (€2bn) above profile in the year to August, led by developments in VAT and corporation tax (6 and 14 per cent ahead of expectations respectively). Social contributions also appear to have rebounded, more than offsetting a decline in other revenues. Government expenditure is projected to increase by close to 6 per cent, with all of the major components contributing to this growth rate. Following the Government's decision to extend the key income support schemes, the Summer Economic Statement estimated that pandemic related spending would cost €14.8bn this year, down from the €16.6bn allocated in 2020 (8 and 6.5 per cent of GNI* respectively). Spending growth is, therefore, driven by the large increase in permanent or 'core' expenditure announced as part of Budget 2021. This will need to be financed in a sustainable manner over the medium to longer term. While gross voted Exchequer spending increased by 2.6 per cent (€1.4bn) in the year to August, this increase was lower than planned reflecting developments on both the current and capital sides.

Table 4: Fiscal outlook (per cent of GNI* unless otherwise stated)

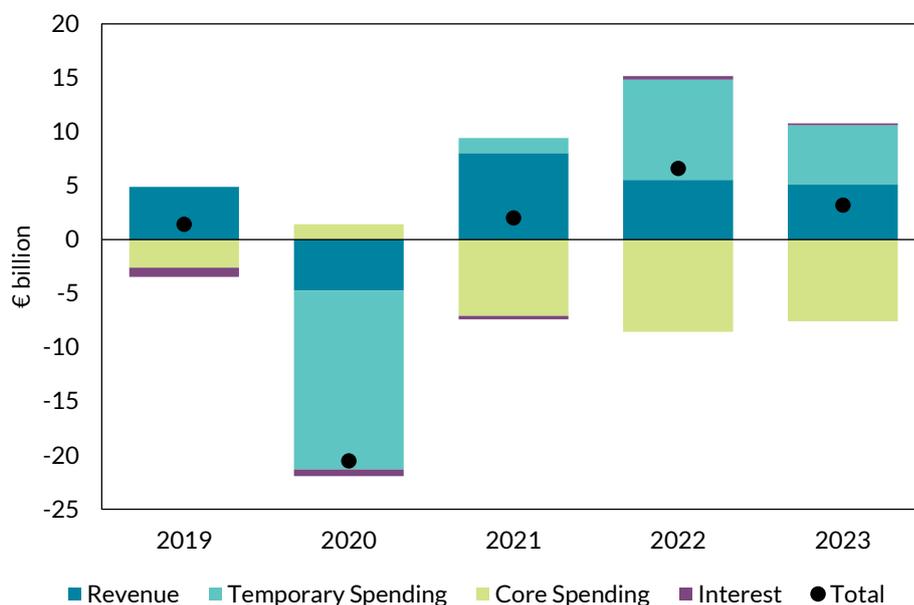
	2019	2020	2021f	2022f	2023f
GG Balance (€bn)	1.1	-18.8	-16.8	-10.2	-7.0
GG Balance (% GNI*)	0.5	-9.0	-7.5	-4.2	-2.8
GG Balance (% GDP)	0.3	-5.0	-3.8	-2.1	-1.4
GG Debt (€bn)	204.2	218.2	237.8	244.1	252.9
GG Debt (% GNI*)	94.7	104.8	106.6	101.3	100
GG Debt (% GDP)	57.3	58.5	54.5	51.4	49.8

A significant improvement in the deficit to €10.2bn (-4.2 per cent of GNI*) is projected in 2022, driven by continued economic recovery and a sharp decline in pandemic related expenditure. Revenue is expected to record a broad based increase of 6.0 per cent, close to its average growth rate in the three years prior to the pandemic. The tax outlook is underpinned by strong growth in consumer spending and a recovering labour market. On the expenditure side, pandemic related spending is expected to decline to €5.3bn next year (this figure includes a €2.8bn contingency reserve that was introduced in the SES and which we assume is fully utilised). As a result, total expenditure is projected to contract by 1.0 per cent, led by falls in social benefits and subsidies. One component of expenditure that is expected to continue to grow strongly is government investment, supported by the National Development Plan and Next Generation EU (NGEU) funding. The deficit is now expected to be lower in 2022 than in *Quarterly Bulletin 3* as upward revisions to the macro and the favourable base effect from this year offsets the additional Covid-19 related spending. The deficit ratio also benefits from a favourable denominator effect due to the upward revision to forecasts for GNI*.

These trends broadly continue in 2023 resulting in a further improvement in the deficit to €7bn (-2.8 per cent of GNI*). Revenue growth moderates to 5.2 per cent, with the anticipated negative impact of international tax reforms on corporation tax receipts weighing on total receipts. On the expenditure side, despite the withdrawal of the remaining pandemic supports, continued strong growth in 'core' spending contributes to a 1.8 per cent overall increase. As noted in the SES, the Government's new Medium Term Expenditure Strategy incorporates permanent increases in Exchequer spending of 5 per cent per annum.

Deficit improves over medium term as pandemic related spending declines

Figure 33: Components of Government Expenditure



Source: CSO (2019 and 2020) and Central Bank of Ireland (2021 to 2023)

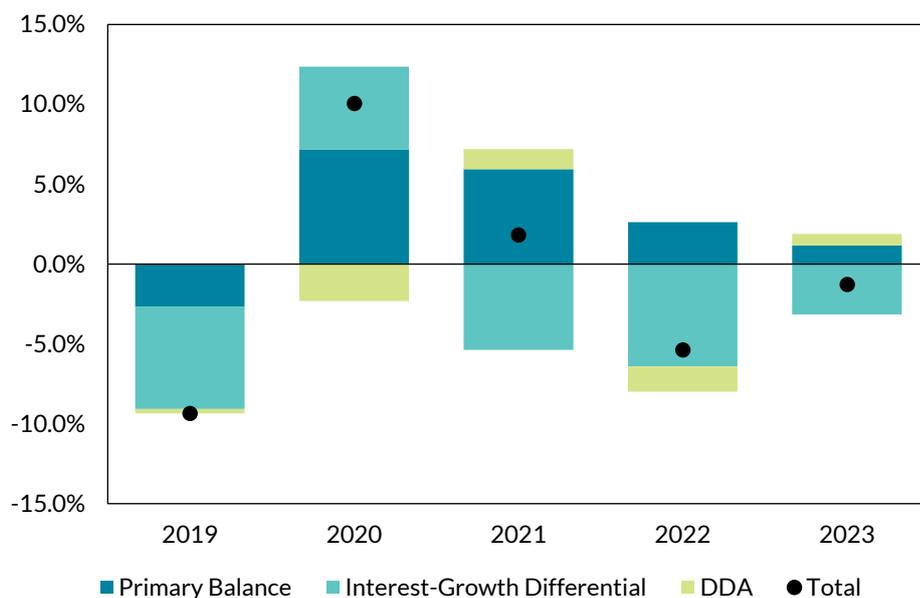
In terms of general government debt, we estimate that the ratio will record a further increase to 107 per cent of GNI* this year. The relatively modest rise – despite a large primary deficit – reflects the favourable impact of the interest-growth differential, with GNI* growing at a strong pace and the effective interest rate remaining very low (see Figure 33). Over the medium term positive debt dynamics should re-emerge and result in a gradual decline in the ratio, as the negative interest-growth differential becomes the dominant effect. Coupled with the improving budget balance, strong economic activity and low interest rates result in the debt ratio falling to 100 per cent of GNI* by 2023. This would, of course, still represent a very elevated ratio, with the stock of gross debt close to €50bn higher at the end of the projection horizon than prior to the pandemic. The large cash balances held by the National Treasury Management Agency - €28bn entering September – represent some upside risk to this outlook.

Funding and Other Developments

Following very strong activity in the first half of the year, the NTMA raised an additional €2.75bn of funding in the third quarter. As a result, €16bn of benchmark bonds have so far been issued in 2021, 90 per cent of the planned issuance for the year as a whole. Yields were marginally higher when compared to those recorded at the end of 2020, but the cost of Irish sovereign borrowing remains very low, supported by the ECB’s pandemic emergency purchase programme (PEPP). As discussed in more detail in Box F, the NTMA has taken 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 year to date increases the Agency’s flexibility in meeting borrowing requirements. Notably, there are no long term government bonds now set to mature until March 2022.

Debt ratio declines over medium term but remains at elevated level

Figure 34: Decomposition of change in debt (2019-2023)



Source: CSO (2019 and 2020) and Central Bank of Ireland (2021 to 2023)

Box F: The Maturity Profile and Servicing Costs of Irish Government Debt

By David Staunton³⁴

While the public finances are forecast to improve in the coming years as the economy recovers and temporary pandemic related spending dissipates, Department of Finance projections indicate that the public finances will remain in deficit out to 2025. These deficits will need to be funded through the issuance of new debt, and maturing debt will need to be rolled over. Against this backdrop, this Box looks at the current maturity profile and interest expenditure of Irish Government debt.

Developments in maturity and interest expenditure

According to National Treasury Management Agency (NTMA) data, the outstanding stock of medium and long term debt stands at €198.4bn. Of this, just €59bn (30 per cent) is maturing over the next five years (Figure 1).³⁵ From 2015 to 2020, the NTMA replaced high interest rate debt with newly issued, lower interest rate debt and extended the maturity profile to one of the longest in Europe. When combined with the increased cash balances built up over recent years, this provides the Government with strong funding flexibility in the years ahead. There are no bonds maturing until March 2022. In addition, €2.5bn in EU SURE (the European instrument for temporary Support to mitigate Unemployment Risks in an Emergency)³⁶ funding was received in Q1 of this year, further reducing near term borrowing requirements.³⁷

³⁴ Irish Economic Analysis Division

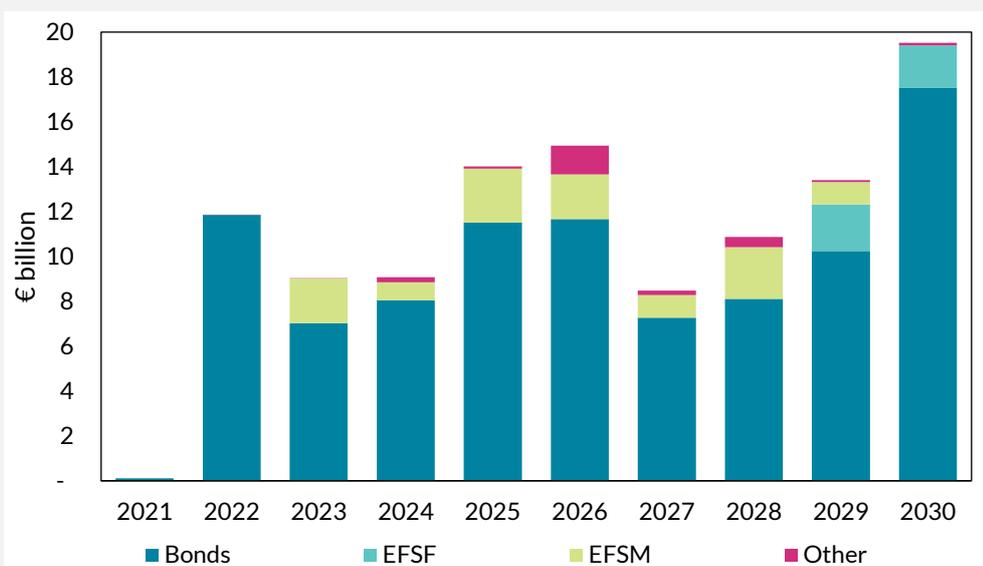
³⁵ There is an extra €5.2bn of EFSM loans which fall due in the 2021-25 period. However, the EFSM loans are subject to possible extension which may mean they do not mature by 2025. Including the loans would mean €43bn (22%) is maturing by end 2025.

³⁶ This Facility was established by the European Union in May 2020 as part of its response to the pandemic. It provides loans on favourable terms to assist Member States address sudden increases in public expenditure to preserve employment.

³⁷ [NTMA Presentation](#)

Maturity profile of Irish Government debt has been extended

Figure 1: Maturity profile until 2030 as at July 2021

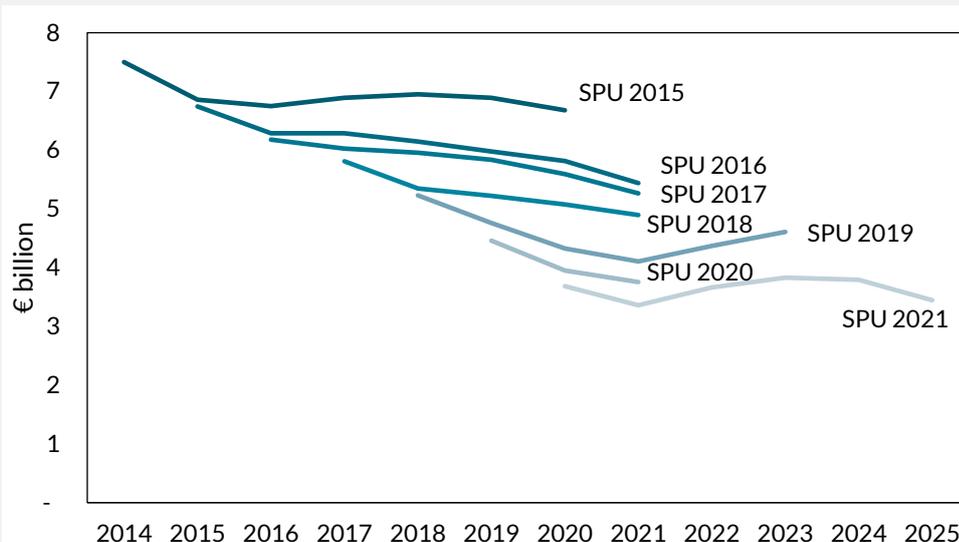


Source: NTMA

Despite the deterioration caused by the Covid-19 pandemic, the public finances have benefited from historically low interest rates. Year-to-date, the average yield on benchmark bond issuance is 0.14 per cent compared with a 2.8 per cent average issuance yield in 2014. Given this reduction in the marginal cost of debt, the average cost of debt has been steadily declining and will be close to 1.5 per cent in 2021. This has led to Government interest expenditure declining over the last five years. It has continued to decline despite the Covid shock necessitating gross public debt increasing markedly since March 2020. Figure 2 shows how in recent years, the annual Department of Finance Stability Programme Updates have consistently revised down forecasted general government interest expenditure reflecting the ongoing, low interest rate environment.

Expected debt servicing costs have persistently declined

Figure 2: Government interest expenditure forecast



Source: DoF SPUs 2015 to 2021

While the public finances of all euro-area countries have benefited from the low interest rate environment of the last 10 years, Ireland has recorded one of the largest reductions in average borrowing costs, at close to 3 percentage points.³⁸ A continuation of the current accommodative financing conditions would help to reduce the cost of funding further. However, future decreases in the interest bill are likely to be of a smaller magnitude than previous years as the average interest rate is already low by historical standards.

Support of ECB Asset Purchase Programmes

The ECB's asset purchase programmes have played an important role in supporting favourable finance conditions in the euro area, also reflected in the low interest rates on Irish Government debt.³⁹ Eurosystem cumulative net purchases of Irish government bonds under the ECB's Pandemic Emergency Purchase Programme (PEPP) and Public Sector Purchase Programme (PSPP) amounted to around €59bn (book value) at the end of July 2021.⁴⁰

Figure 3 shows the extent of net purchases under these two programmes. Holdings under the PSPP began to level off in 2018 and 2019 following the end of the net asset purchase phase of PSPP in December 2018. However, they began to rise gradually again

³⁸ European Commission

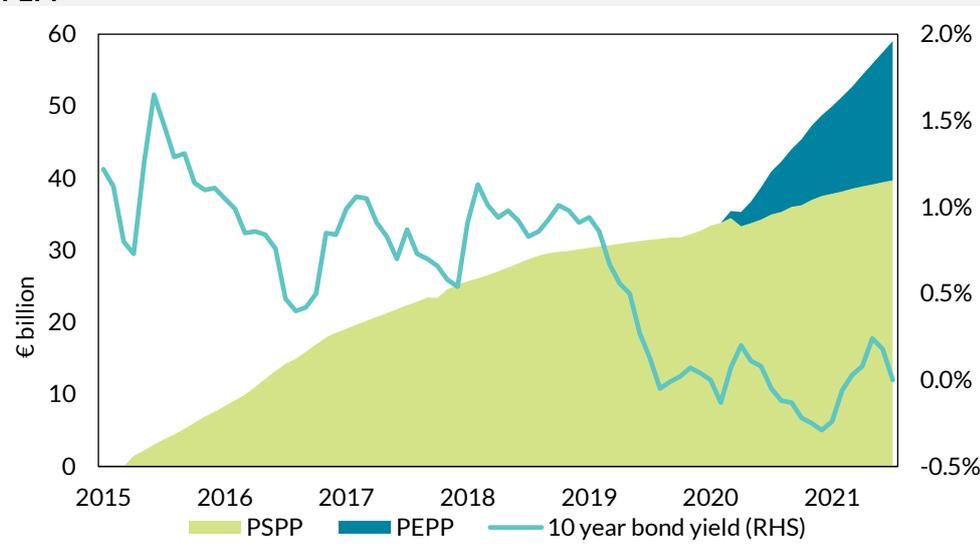
³⁹ See [Confrey et al. \(2021\)](#), [Rostagno et al. \(2019\)](#), and [Chadha and Hantzsche \(2018\)](#)

⁴⁰ [Central Bank of Ireland annual report](#)

following the recommencement of PSPP net asset purchases in November 2019 and the extraordinary market events of March 2020 led to sharply increased net purchases, primarily under the newly introduced PEPP. These large and sustained purchase programmes ensured euro area sovereign bond yields remained at low levels even as fiscal positions deteriorated. The favourable financing conditions have allowed the NTMA to further reduce the cost of the Irish national debt while continuing to lengthen its weighted average maturity.

Eurosystem purchases of Irish Government debt have increased since the onset of the pandemic

Figure 3: Eurosystem net cumulative purchases of Irish Govt. debt under PSPP and PEPP



Source: ECB, FRED

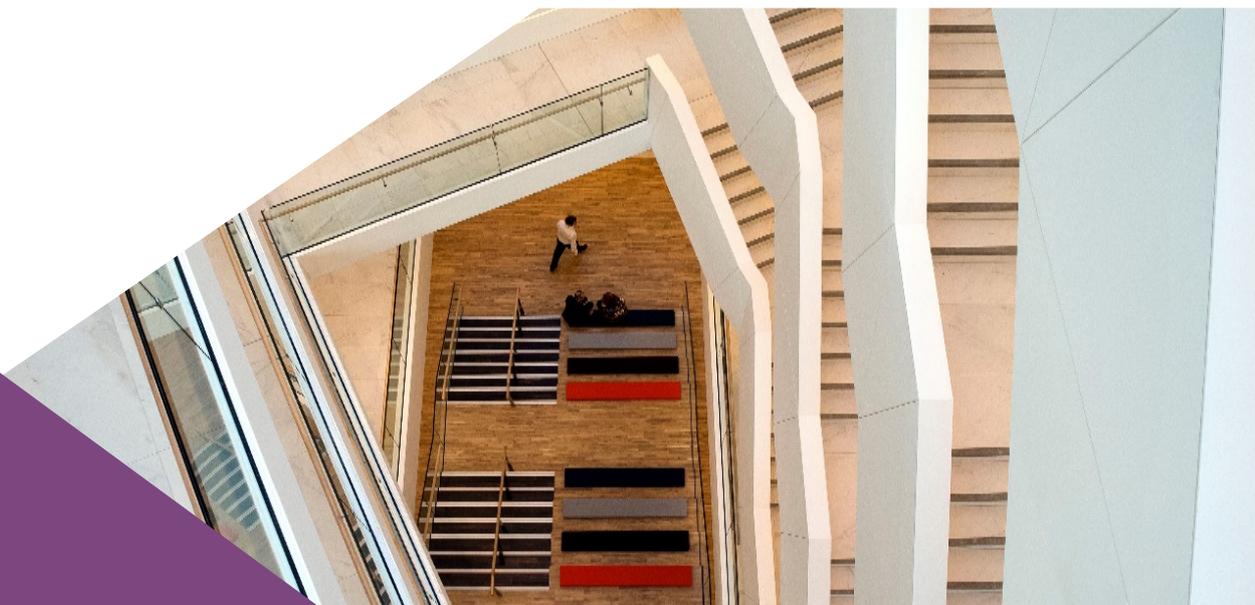
Risks remain

While the average interest rate has fallen considerably over the last five years, as the IMF has noted⁴¹ the marginal interest rate (i.e. the rate on newly issued debt) is more relevant from a risk perspective. The average interest rate changes gradually as new debt is issued but the marginal rate, as was seen during the sovereign debt crisis in 2010, can exhibit far greater volatility. The IMF have indicated that marginal borrowing costs, prone to rising suddenly during periods of financial stress, have a larger effect than average borrowing costs on the probability of default.⁴¹ While the General Government balance is projected to improve over the forecast period, nominal debt is still expected to be above €250bn in 2023 (23 per cent higher than its pre-Covid level). This outstanding debt stock as well as future deficits will need to be funded by future borrowing, and conditions may not be as benign when the time comes to re-finance this debt as they are currently.

⁴¹ [IMF research](#)

Signed Articles

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The ECB's Review of its Monetary Policy Strategy

Giuseppe Corbisiero and Neil Lawton⁴²

Abstract

On 8 July 2021, the ECB's Governing Council concluded the review of its monetary policy strategy. The ECB's monetary policy strategy outlines how the central bank operates in order to meet its primary mandate of price stability. A monetary policy strategy imposes a clear structure and framework on the policy-making process itself, ensuring that policy makers have all the necessary information and analyses required to take decisions. It is also a vehicle for explaining monetary policy decisions to foster accountability and transparency. The main outcomes from the review include: an updated symmetric inflation target of two percent in the pursuit of price stability; a new integrated analytical framework to aid monetary policy decision making; a recommendation to include the cost of owner-occupied housing into the measure of consumer prices, namely the Harmonised Index of Consumer Prices; a plan to incorporate climate change into the ECB's monetary policy framework; plans to improve communication with the public; and a commitment to more regular reviews of the monetary policy strategy. The outcomes of the review will guide monetary policy decision-making in the euro area going forward.

⁴² Monetary Policy Division. We would like to thank Sharon Donnery, Gillian Phelan, Sarah Holton, Martin O'Brien, Mary Everett, Zivile Zekaite and Paul Reddan for their useful comments.

1. Introduction

The ECB's monetary policy strategy outlines how the central bank operates in order to meet its primary mandate of price stability.⁴³ The role of the ECB and the 19 National Central Banks (NCBs) that form the Eurosystem is to maintain price stability, and this is implemented through a single monetary policy for all euro area countries. Stable price growth is essential in supporting economic growth and job creation. While the EU Treaty, underpinning the euro and the Eurosystem, establishes the maintenance of price stability as the primary objective of the ECB, it does not give a precise definition of price stability or guidelines as to how the ECB should go about achieving it. It is up to the ECB to design its own monetary policy strategy to achieve its mandate.

A monetary policy strategy fulfils important tasks. It imposes a clear structure and framework on the policy-making process itself, ensuring that policy makers have all the necessary information and analyses required to take decisions. It is also a vehicle for explaining monetary policy decisions to foster accountability and transparency. The previous monetary policy strategy review undertaken by the ECB's Governing Council was in 2003.

Since the previous review, a number of important developments have occurred which added impetus to the need for a review of the ECB's monetary policy strategy. An important catalyst was the financial crisis and subsequent years of low inflation, as well as the policy responses that have pushed the limits of traditional monetary policy. Declining trend economic growth, on the back of slowing productivity, changing market dynamics and an ageing population have changed the structure of the economy in the euro area. The threat to environmental sustainability, rapid digitalisation, globalisation and evolving financial structures have further transformed the environment in which monetary policy operates. These developments are discussed in more detail in Section 2. Section 3 briefly outlines the processes behind the recent strategy review while Section 4 discusses the outcomes. Section 5 outlines

⁴³ The primary mandate is laid down in the Treaty on the Functioning of the European Union, Article 127. The article provides a high-level overview of the main reasons for the ECB monetary policy strategy review, and outcomes stemming from its conclusion. For a broader discussion, please see the [ECB's webpage](#) for the strategy review.

how the strategy review will impact ECB monetary policy conduct looking ahead, and includes a box on the policy response to COVID-19 and the interaction between monetary and fiscal policy in the euro area. Finally, Section 6 concludes.

2. Why did the ECB need a review of its monetary policy strategy?

There are three leading issues that prompted the launch of the recent review⁴⁴, namely: historically low interest rates, monetary policy's ability to stabilise the economy in such an environment and broader structural trends (e.g. climate change, ongoing globalisation, rapid digitalisation and changing financial structures). Many other central banks also face similar issues. We provide an overview of each of these issues in this Section.

2.1 Historically Low Interest Rates

Central Bank policy interest rates are at historically low levels globally, with most major central banks setting rates at close to, or below, 0 per cent for the majority of time since the Global Financial Crisis (GFC) (see Chart 1). The crisis required a forceful monetary policy response. Despite the forceful response, the euro area, similar to other economies, entered into a lengthy period of low inflation, with average inflation since the crisis falling far below the ECB's inflation aim.

The concept of the 'natural rate' of interest can help us to understand these trends. The natural rate is the rate of interest that balances the economy where output is at potential and inflation is at its target (Holston, Laubach, and Williams, 2017). Put simply, it is the rate consistent with full employment and keeps inflation stable. It therefore provides a benchmark for central banks when setting monetary policy interest rates.

In Chart 2, we can see that there has been a protracted global decline in estimates of the nominal natural rate of interest. Overall, while estimates of the natural rate of interest remain uncertain, there is consensus in the literature that it has declined in recent decades (see Holston, Laubach, and Williams, 2017, Brand, Bielecki and Penalver,

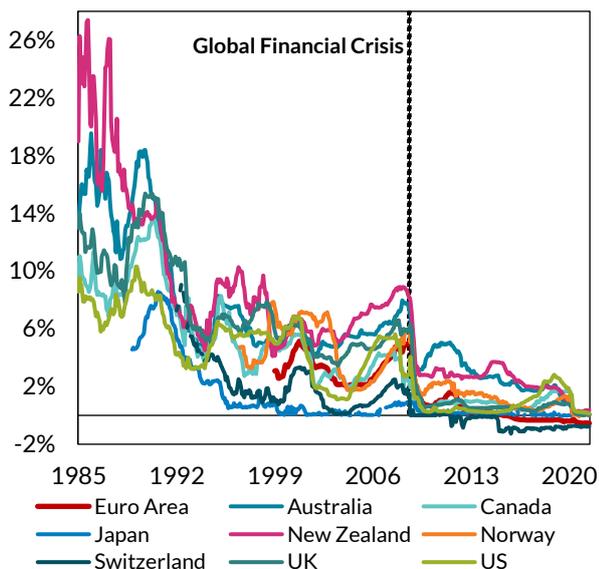
⁴⁴ See Section 3 for more details on the process that was undertaken in carrying out the monetary policy strategy review

2018, Hong and Shell, 2019). There are many factors driving this decline.

Central bank interest rates have declined to historic lows globally, driven by low inflation, ongoing structural economic trends and significant shocks to economies

The natural rate of interest is much lower since the GFC, reducing the scope for traditional interest rate policy transmission by central banks

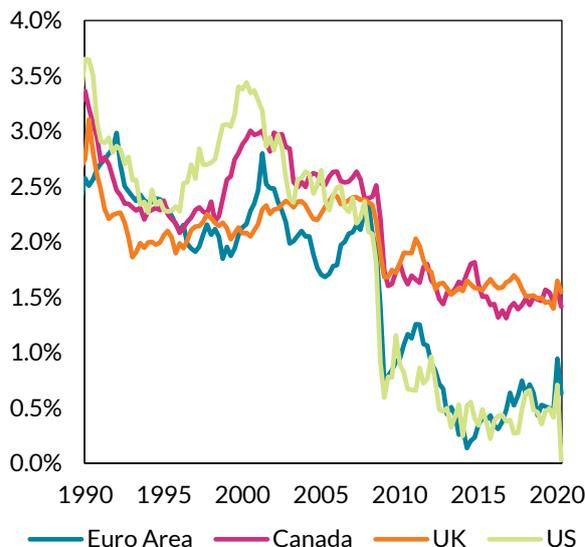
Chart 1: Selected Advanced Economies Short-Term Interest Rates



Source: Haver Analytics

Notes: Data shown is the 3-month unsecured money market rate (or nearest equivalent) for each country. Nearest equivalent is the yield for a 3-month sovereign bill.

Chart 2: Natural Rate of Interest across the euro area, Canada, UK and US



Source: New York Federal Reserve, applying the model of Holston, Laubach, and Williams (2017)

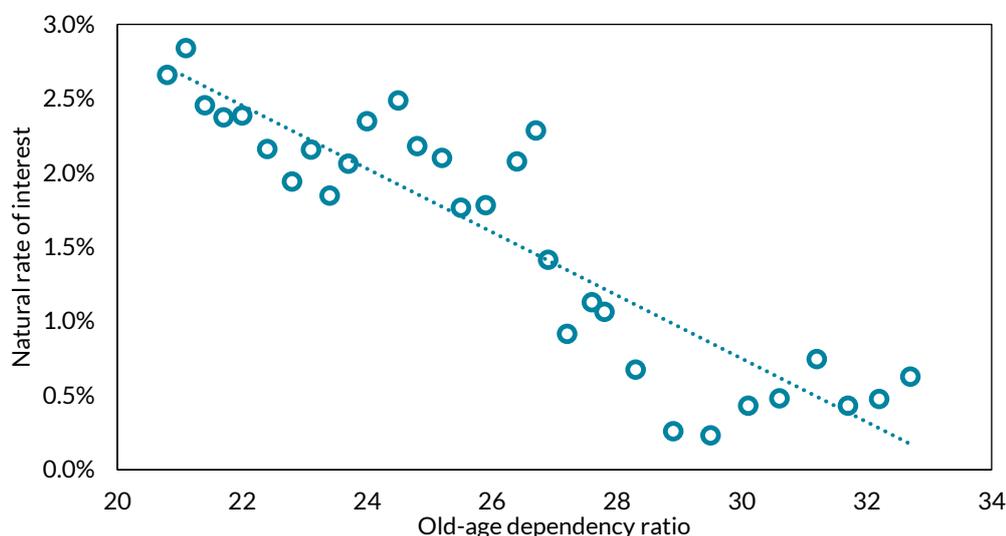
Demographics have been changing over time due to lower birth rates, higher life expectancy and inflows from migration. Overall, there has been an increase in the proportion of the older population within economies, relative to the working population. This shift is captured through the increase in the old-age dependency ratio in the euro area⁴⁵, which has risen from 24 per cent in 2000 to almost 33 percent in 2020. Chart 3 shows how the increase in the old-age dependency ratio has coincided with a decline in the natural rate of interest. This trend is expected to continue into the future, and will limit potential economic growth as the relative active working population decreases. Savings are also expected to increase to

⁴⁵ This indicator is the ratio between the number of persons aged 65 and over (age when they are generally economically inactive) and the number of persons aged between 15 and 64. The value expressed per 100 persons of working age (15-64).

facilitate longer periods of retirement, while investment may also decline as the working age population declines.

An aging population in the euro area has coincided with a reduction in the natural rate of interest, limiting the potential growth of the economy

Chart 3: Old-age dependency and the natural rate of interest in the euro area



Source: Eurostat, New York Federal Reserve

Notes: The natural rate of interest for the euro is calculated using the methodology of Holston, Laubach, and Williams (2017).

Recent research shows that trends in income inequality and financial liberalisation are pushing down natural interest rates (Mian, Straub and Sufi, 2020). While savings are a main driver of the natural rate of interest, Mian, Straub and Sufi (2021) also explore the relative importance of demographic shifts against the role of rising income inequality. They show that, for the US, saving rates are significantly higher for high income households within a given birth cohort relative to middle and low income households in the same birth cohort. Overall, there has been a large rise in income shares and savings for high income households since the 1980s and this has coincided with declines in the estimated natural rate of interest.

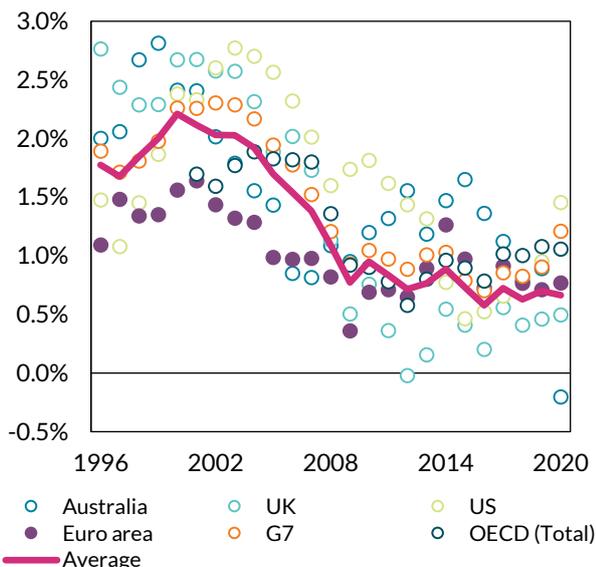
An aging population is likely to negatively impact productivity growth in the euro area, thus reducing potential output. Coupled with shifts in demographics, the decline in productivity growth has been driven by weakening total factor productivity (TFP)⁴⁶ growth (see Chart 5). A slowdown in the pace of globalisation has also

⁴⁶ Total-factor productivity (TFP) is usually measured as the ratio of aggregate output (e.g. GDP) to aggregate inputs. See Sickles and Zelenyuk (2019) for an overview.

contributed to the moderation in productivity growth. Resource allocation is also an issue, with some evidence that business dynamism (which includes business churning but also the prevalence rate of high-growth young firms) is declining over time in the euro area (Calvino et al, 2015).⁴⁷

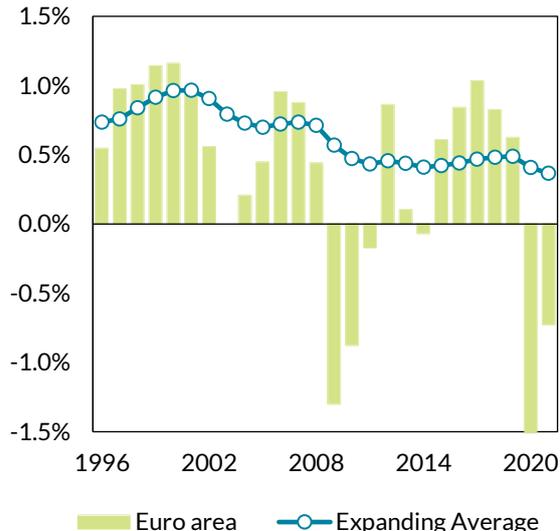
Declining productivity growth is common across major economies, and this has contributed to the decline in the natural rate of interest

Chart 4: Labour productivity growth trends in selected countries



Source: OECD (Dataset: Growth in GDP per capita, productivity and ULC)
 Notes: GDP per hour worked, constant prices. Series displayed as the 5-year rolling average of annual percentage growth. Average refers to average growth across the shown countries at each time horizon.

Chart 5: Total Factor Productivity (TFP) in the euro area



Source: AMECO
 Notes: TFP is measured as annual percentage change. The expanding average calculates the average annual euro area TFP from 1996 to the date indicated on the horizontal axis. All previous observations are retained in the calculation at each time period.

Lasting economic scars from the GFC have also contributed to the recent decline in the natural rate of interest. As found by Brand, Bielecki and Penalver, (2018), lower growth and productivity in the wake of the crisis and additional financial factors (such as persistent deleveraging) have contributed to the decline in the natural rate of interest. Similarly, Holm-Hadulla et al (2021) find that weak capital deepening⁴⁸ after the GFC also contributed to lower productivity. Risk aversion and flight to safety after the crisis are also likely to have been important factors.

⁴⁷ See Holm-Hadulla et al (2021) for a broader discussion on the reasons slowing productivity growth.

⁴⁸ Capital deepening refers to the growth of capital intensity which is measured by capital per hour worked.

Ultimately, there are many factors that have in tandem resulted in a sharp decline in the natural rate of interest within the euro area in recent years. Monetary policy cannot control all these factors, but it must respond to them. Typically, when the short-term real interest is below the natural rate of interest, the monetary policy stance of central banks is expansionary (stimulates output and prices), and conversely it is contractionary if the short-term rate is above the estimated natural rate of interest. With low natural rates and adverse shocks hitting the economy, in particular since the GFC, central banks faced challenges in stabilising the economy using traditional interest rate policies, and have been forced to introduce non-traditional monetary policy tools in efforts to stabilise economies over the past decade.

2.2 Monetary policy in a low interest rate environment

With the onset of the GFC and in the context of the low natural rate of interest, central banks, including the ECB, have been forced to cut interest rates to historically low and even negative levels (see Chart 1). As central banks have moved to reduce interest rates, issues arise with regards to the implementation of monetary policy, due to the effective lower bound (ELB) on interest rates. The ELB is generally understood as a threshold that is binding and beyond which interest rates cannot be lowered further.⁴⁹ Brunnermeier and Koby (2018) define a ‘reversal interest rate’ as the rate at which accommodative monetary policy reverses its intended effect and becomes contractionary for lending. It is the rate where holding cash, net of storage and security costs, would become more attractive for firms and households than holding bank deposits. Thus, the implementation of interest rates below the ‘reversal rate’ could harm the economy, as the transmission mechanism through the banking system can be impaired. Darracq Pariès, Kok and Rottner (2020) estimate that the reversal rate in the euro area stands in negative territory of around –1 per cent. However, measures of the reversal

⁴⁹ In the past, it was assumed that the ELB was zero, as market participants would rather hoard paper currency than accept a negative rate (see Keynes, 1936 and Eggertsson and Woodford, 2003). However, in reality, preferences for safety and convenience mean that there is a cost to holding paper currency, which means that zero is not necessarily the ELB (Rogoff, 2017 and Altavilla et al., 2021) and accordingly a number of central banks have set policy rates below zero.

rate are uncertain.⁵⁰ Despite some room for a further easing of interest rates by the ECB, it is clear that constrained central banks need to look towards other tools to ease monetary policy.

To provide monetary policy stimulus when rates are close to the effective lower bound, central banks have utilised unconventional or non-standard instruments to boost inflation. For example, since 2008, quantitative easing (QE)⁵¹ has been employed by most major central banks, including the US Federal Reserve, the ECB⁵², the Bank of England, and the Bank of Japan. These instruments were expanded and adapted to deal with the COVID-19 crisis, where central banks acted quickly to reduce volatility in financial markets and protect the economy from lasting scars from the pandemic.

Similarly, changes to standard refinancing operations⁵³ have meant a significant increase in banking system liquidity. For example, the introduction of fixed-rate, full allotment in the euro area during the financial crisis led to a significant increase in borrowing by banks through standard refinancing operations. Additionally, the ECB has moved to provide longer-term lending to the banking system in efforts to provide needed monetary stimulus. The most notable operation is the Targeted Long-Term Refinancing Operations (TLTROs) which provide incentives to banks to boost lending to the economy in order to obtain preferential interest rates on the operations.

The increased liquidity provided through refinancing operations and asset purchases resulted in significantly larger central bank balance sheets over the past decade (see Chart 6). The ECB's balance sheet has now grown to more 60 percent of euro area GDP. However, over

⁵⁰ See Schnabel (2020) for a discussion of the reversal rate and of the ECB's experience with negative interest rates more broadly.

⁵¹ Quantitative easing (QE) is a non-standard monetary policy tool whereby a central bank purchases sovereign or private-sector bonds (or other financial assets) in order to inject money into the economy to boost economic activity.

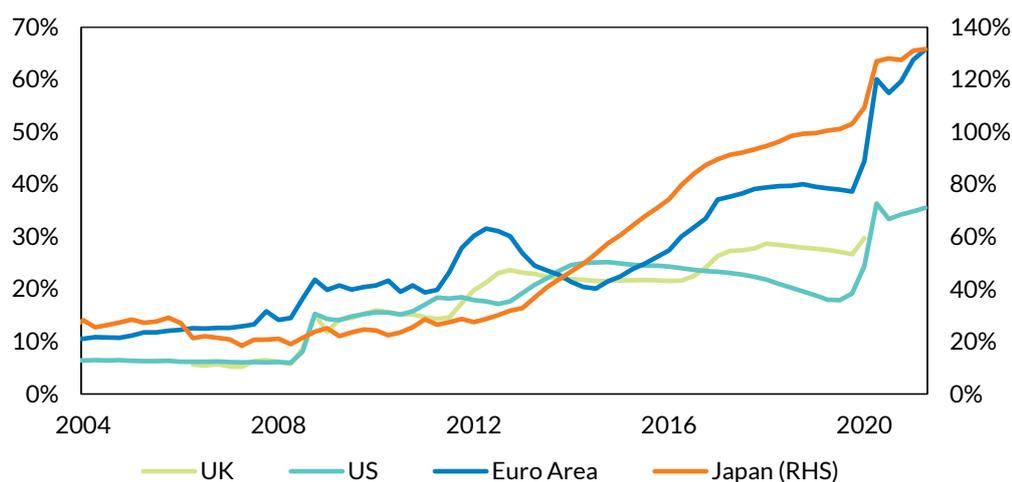
⁵² In the euro area, assets are purchased in a decentralised manner, with each Eurosystem national central bank purchasing bonds for their own monetary policy portfolios. For example, the Central Bank of Ireland (CBI) will purchase Irish sovereign bonds from its monetary policy counterparties. These purchases increase the balance sheet size of the CBI, and the risk associated with such purchases lies the CBI balance sheet. The ECB also participates in purchases.

⁵³ Open market operations play an important role in steering interest rates, managing the liquidity situation in the market and signalling the monetary policy stance. The most important instrument in the Eurosystem is reverse transactions, which are applicable on the basis of repurchase agreements. See [the Central Bank of Ireland website](#) for a full overview.

the longer term, the size of the ECB's balance sheet should stabilise and then gradually decline once inflation has consistently returned close to target.

Central bank balance sheets have grown notably since the GFC, in line with the expanded use of non-traditional monetary policy instruments to help to stabilise economies

Chart 6: Global central bank balance sheet size as a percentage of the respective country's GDP



Source: Haver Analytics

Given the increased likelihood of operating at close to the effective lower bound in the future, it is important that policymakers are open to utilising a range of monetary policy instruments, as appropriate to meet their respective mandates. In fact, one of the outcomes in the new ECB strategy statement, is that while the Governing Council states that it recognises that policy interest rates remain the primary tool for economic adjustment, the ECB will continue using all tools and develop new ones as necessary, to ensure it meets its price stability mandate.

2.3 Structural trends in the economy

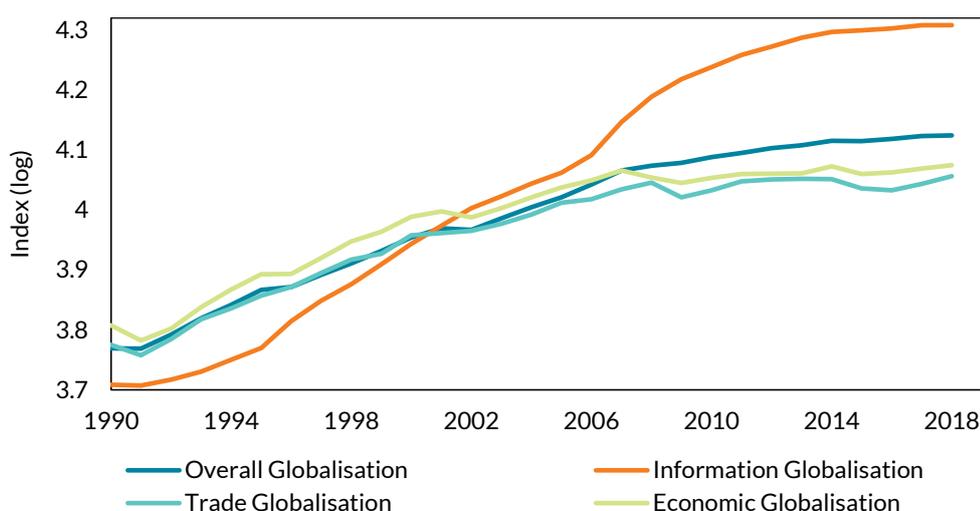
Since 2003, the euro area and world economy have been undergoing profound structural changes. The threat to environmental sustainability, rapid digitalisation, globalisation and evolving financial structures have further transformed the environment in which monetary policy operates.

The world economy is significantly more global than it was in 2003. Economies, trade and in particular information have become more globalised (see Chart 7). However, the pace of overall globalisation

has declined in recent years, which can be seen in the flattening of the trend (in teal) in Chart 7. In particular, the pace of trade and economic globalisation have notably decreased since the GFC. Nonetheless, the rise in overall globalisation since the turn of the century remains significant and is an important structural development for the conduct of monetary policy and the economy.

The world has become much more global over the past three decades, however the pace of overall globalisation has slowed since the GFC

Chart 7: Globalisation Indices



Source: Savina et al. (2019), KOF Swiss Economic Institute

Globalisation means that demand and supply for goods and services from the rest of the world becomes more important for the euro area. Globalisation may have contributed to the low inflation trends, for instance, through higher competition and higher labour supply (Lodge et al., 2021). Furthermore, there is evidence of domestic financial cycles in the euro area being driven, at least in part, by a “global financial cycle”, characterised by large common movements in asset prices, gross capital flows and leverage. The dominant role of the US dollar in the global financial system means that the US Federal Reserve and the US economy play a critical role in driving the global financial cycle (see Holm-Hadulla et al., 2021). Overall, the global economy has become more integrated, and this will require the ECB to look beyond only the domestic economy when implementing monetary policy.

Similarly, both the world and euro area economies have changed due to digitalisation. Inflation can be impacted by digitisation through

indirect channels such as firms' pricing behaviour, market power and concentration. Empirical evidence suggests that increased e-commerce may have a small, albeit insignificant, downward effect on inflation (Holm-Hadulla et al., 2021). Overall, the impact on the natural rate of interest from digitalisation is uncertain. Should digitalisation promote stronger productivity growth, then this may increase the natural rate of interest over time, however, on the other side, rising inequality associated with digitalisation, coupled with higher savings may mean the natural rate of interest remains more subdued.

Globalisation and digitalisation, along with other structural trends influence the structure of goods, services and labour markets and have a direct effect on prices that – when interacting with other factors, including constraints on monetary policy – may affect inflation beyond the short term. Evolving financial structures, such as the rise in financial intermediation via the non-bank sector, have also altered the transmission of monetary policy.⁵⁴

Overall, there has been significant changes across the euro area economy since the previous strategy review in 2003. In light of all these global trends, many central banks around the world have conducted reviews. Additionally, in recognising the profound implications of climate change, the ECB has explicitly addressed its considerations in the outcome of the review and these are outlined in Section 4.

3. How the most recent review was carried out and the Central Bank of Ireland's contribution

To input into the review, a number of work streams were established (See Table 1), and staff from across the Eurosystem participated. Given the length of time since the previous monetary policy strategy review in 2003, the work streams were required to analyse a broad range issues that have come to the fore over this period.

⁵⁴ See "[An overview of the ECB's monetary policy strategy](#)".

Table 1: Work streams of the ECB Strategy Review

Climate Change*	Digitalisation	Employment**
Examines the risks posed by climate change and how these risks feed into the monetary policy framework.	Studies the implications of digitalisation for the functioning of the economy and for the conduct of monetary policy.	Studies how (un)employment affects the conduct and success of monetary policy.
Eurosystem modelling	Fiscal and monetary policy in a monetary union	Globalisation*
Assesses knowledge gaps in the main models used for monetary policy decision-making.	Takes stock of the fiscal policy landscape in the euro area and assesses implications for monetary policy.	Assesses the impact of globalisation on the transmission of monetary policy decisions to the economy and to inflation.
Inflation expectations	Inflation measurement*	Macroprudential policy, monetary policy and financial stability*
Analyses how inflation expectations are formed and deepens the understanding of their main drivers.	Analyses the most accurate method of measuring inflation, and assesses potential measurement issues.	Contributes to the assessment of the interaction between macroprudential policies, financial stability and monetary policy.
Monetary policy communication**	Non-bank financial intermediation*	Price stability objective*
Assesses the ECB's communication strategy in relation to monetary policy decisions and to the general public's understanding of the ECB.	Examines how the changing structure of the financial sector, in particular the growing role of non-banks, affects the conduct of monetary policy.	Provides analysis on the ECB's numerical formulation of price stability and alternative approaches to achieving price stability.
Productivity, innovation and technological progress		
Assesses developments in productivity and technology, and analyses the implications of these developments for monetary policy.		

Source: ECB

Notes: *CBI staff participated on work stream, **CBI staff co-chaired work stream

The Governing Council also considered information gathered during listening events across the euro area⁵⁵ and via the ECB Listens portal when making decisions on the outcomes from the review. As announced by the Governing Council at the outset of the review, it was “based on thorough analysis and open minds, engaging with all stakeholders.”⁵⁶ The outcomes of the ECB strategy review were announced by the Governing Council on 8 July.

⁵⁵ See Section 4.5 for an overview of the Listens events.

⁵⁶ See [“ECB launches review of its monetary policy strategy”](#)

Central Bank of Ireland (CBI) staff were heavily involved in the work streams of the strategy review, and their work contributed to the [ECB Occasional Papers published in September 2021](#). Staff from the CBI participated on 8 from the work streams, and co-chaired 2 of those work streams. The work streams fed into seminars that were crucial in helping the Governing Council form decisions on the outcomes from the review.

Contributions from CBI staff were broad and covered a vast range of topics. A non-exhaustive list of the subjects covered includes: the credibility and potential side effects of monetary policy; the role of non-bank financial intermediaries; the implications of globalisation for monetary policy; transition risks associated with climate change and the challenges for central banks' existing macroeconomic modelling framework; and the role of owner-occupied housing costs in predicting consumer inflation perceptions. Outside of the work streams, CBI staff were involved as members of Eurosystem committees. Such committees also contributed to the outputs of the review, providing guidance to work streams and informing the discussion of the Governing Council.

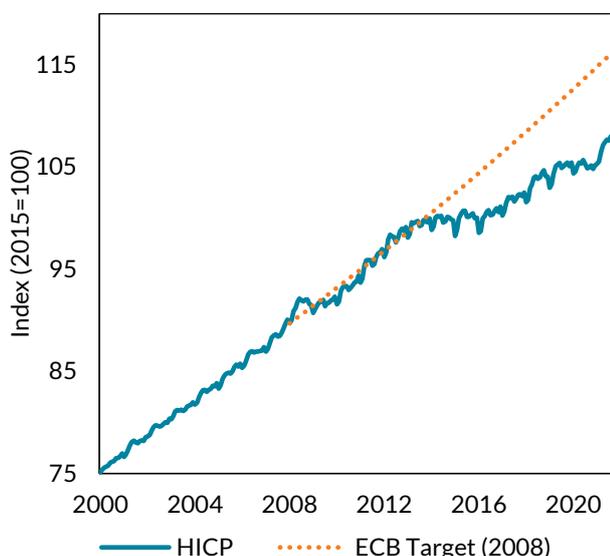
4. Outcomes from the strategy review

4.1 Updating the inflation target to achieve symmetry

After the monetary policy review in 2003, the Governing Council conducted its monetary policy with an inflation aim of “below, but close to, two per cent” over the medium-term. While this inflation aim was deemed appropriate in 2003, when shocks to the economy tended to be inflationary, it worked less well when shocks became deflationary (Rostagno et al. 2019). The formulation of the aim was viewed as both asymmetric and ambiguous. Asymmetric due to the wording of “below” two per cent, leading to the belief that the Governing Council would react more strongly to deviations above this level than below, and ambiguous as “close” to two per cent is imprecise. This may have contributed to a weaker anchoring of inflation expectations in the euro area in recent years, particularly in the proximity of the ELB, further entrenching the low inflation environment (see Charts 8 and 9).

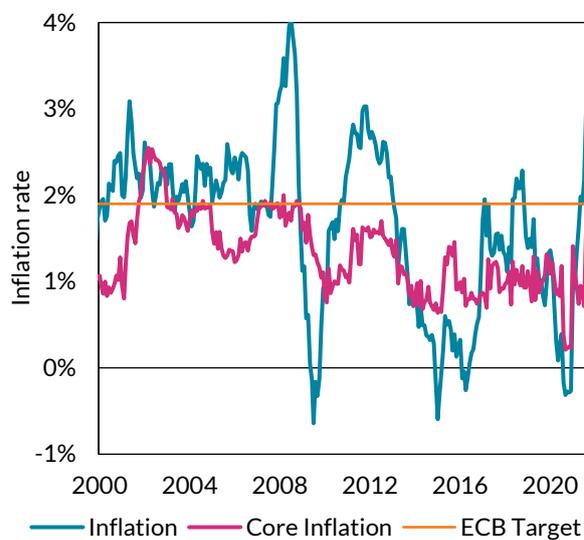
The low inflation environment in the euro area in recent years has led to both headline and underlying measures of inflation falling below the ECB’s inflation target

Chart 8: Actual HICP versus the implicit 1.9 per cent target



Source: ECB Statistical Data Warehouse
 Notes: ECB Target refers to the trend in HICP from the respective dates outlined, providing an annual inflation rate of 1.9 per cent. Thus, we assume 1.9 per cent to be the implicit target of the ECB Governing Council. The difference between HICP and the ‘ECB Target’ line shows the undershoot of the inflation target since 2008.

Chart 9: Headline and core inflation in the euro area



Source: ECB Statistical Data Warehouse
 Notes: Core inflation refers to HICP excluding food and energy. ECB Target is assumed to be 1.9 per cent.

As part of the strategy review conclusions, the Governing Council decided that maintaining price stability can best be achieved by aiming for a specific quantitative target of “two per cent inflation target over the medium term”. The new target is simple, clear and easy to communicate, and is thus expected to contribute to a more solid anchoring of longer-term inflation expectations.

The review clarified that symmetry in the inflation target means that the Governing Council will consider negative and positive deviations of inflation from the target to be equally undesirable. Temporary and moderate fluctuations of actual inflation both above and below the medium-term target of two per cent are unavoidable; however, it is important for monetary policy to respond forcefully to large, sustained deviations of inflation from the target in either direction. Anchoring the commitment to symmetry explicitly in the new strategic framework removes ambiguity in the Governing Council’s aspirations. In particular, two per cent should not be interpreted as a ceiling.

An inflation target of two per cent balances a range of considerations. Analysis carried out as part of the strategy review shows that an inflation target of two per cent has good properties in terms of stabilising the average level of inflation over the long run, keeping the variance of inflation contained and limiting the frequency of hitting the lower bound.⁵⁷ An inflation target of two percent underlines the ECB's commitment to providing an adequate safety margin to guard against the risk of deflation. At the same time, a two per cent target seeks to mitigate the welfare costs of higher inflation, which increase non-linearly with the level of the target.

When the economy is close to the ELB, in recognition of the challenges it poses and to maintain symmetry of the inflation aim,⁵⁸ the Governing Council expressed the need for forceful or persistent monetary policies. The monetary policy instruments deployed by the ECB since the financial crisis are considered to be effective in countering disinflationary pressures and will remain an integral part of the ECB's toolkit in situations close to the ELB. The Governing Council has also recognised the need to limit possible side effects of the new policy instruments and therefore expressed commitment to continuing to perform careful proportionality assessments and adapting the design of measures to minimise side effects, without compromising price stability.

The re-confirmation of the medium-term orientation has a number of advantages for the implementation of monetary policy. It accounts for the uncertainties in the inflation process and the transmission mechanism, and provides flexibility to the Governing Council in assessing the origin of shocks and to look through temporary shocks.

The Governing Council expects the medium-term orientation to also allow monetary policy decisions to cater for other considerations relevant to the pursuit of price stability - for example, to take account of employment or financial stability concerns in response to

⁵⁷ See [Work stream of price stability objective \(2021\)](#)

⁵⁸ By reducing the scope to support the economy by cutting interest rates during severe downturns, the ELB can generate persistent downward deviations of inflation from target. This can possibly result in a downward de-anchoring of inflation expectations that risks creating a self-fulfilling mechanism resulting in inflation that is persistently too low.

economic shocks, where temporary trade-offs exist, once they do not impact the medium-term price stability objective.⁵⁹

4.2 Including owner-occupied housing into the HICP

Given the mandate of the ECB is to achieve price stability, it is crucial that the choice of the price index used to measure inflation is adequate and appropriate. The Governing Council announced its decision that the headline Harmonised Index of Consumer Prices (HICP) remains the appropriate index for monetary policy decision making purposes. The HICP is measured using a basket containing 295 goods and services from the 19 euro area countries, and is designed to represent what people would typically purchase.⁶⁰ Similar to the previous strategy review in 2003, the index was assessed across four different criteria: timeliness; reliability (e.g. infrequent revisions); comparability (over time and across countries); and credibility⁶¹. The HICP has evolved since 2003 with improvements including the introduction of annual updates of expenditure weights, better representation of seasonal items and the provision of more timely information for all Member States.

To further enhance the representativeness of the HICP and its cross-country comparability, the Governing Council has decided to recommend a roadmap to include owner-occupied housing (OOH) in the HICP. Although costs related to shelter account for a large part of household expenditure, the HICP currently only partially includes the housing service costs of homeowners associated with owning, maintaining and living in their own home. In addition to practical measurement issues, it is also challenging to fully align these costs with the conceptual basis of the HICP. The HICP only captures changes in the prices of goods and services which, when purchased, generate monetary transactions for consumption purposes.

⁵⁹ See section 4.3 below for a broader discussion of the other considerations to be taken account of in the Governing Council's decision making process.

⁶⁰ More granularly, on average, the prices of around 700 products are collected every month in different outlets and in approximately 1,600 different towns and cities across the euro area. As a result, around 1.8 million price observations go into the euro area HICP every month. See ["Measuring inflation – the Harmonised Index of Consumer Prices \(HICP\)"](#) for an overview of the HICP.

⁶¹ Credibility refers here to the perception by the general public that the choice of the measure is suited to providing full and effective protection against losses in the purchasing power of money. See [Work stream on inflation measurement \(2021\)](#).

The ECB considers the net acquisition approach to be the preferred method for including OOH. The net acquisition approach treats a dwelling as a durable good that is part asset (land) and part consumable (structure). The costs are measured using a market price at the point of a purchase. Only dwellings that are new to the household sector are covered, including self-built housing. This means that transactions between households are excluded and the focus is on new dwellings. In addition, the costs associated with the acquisition/construction and maintenance are also covered: transaction fees and taxes, dwelling insurance, major renovations and repairs.

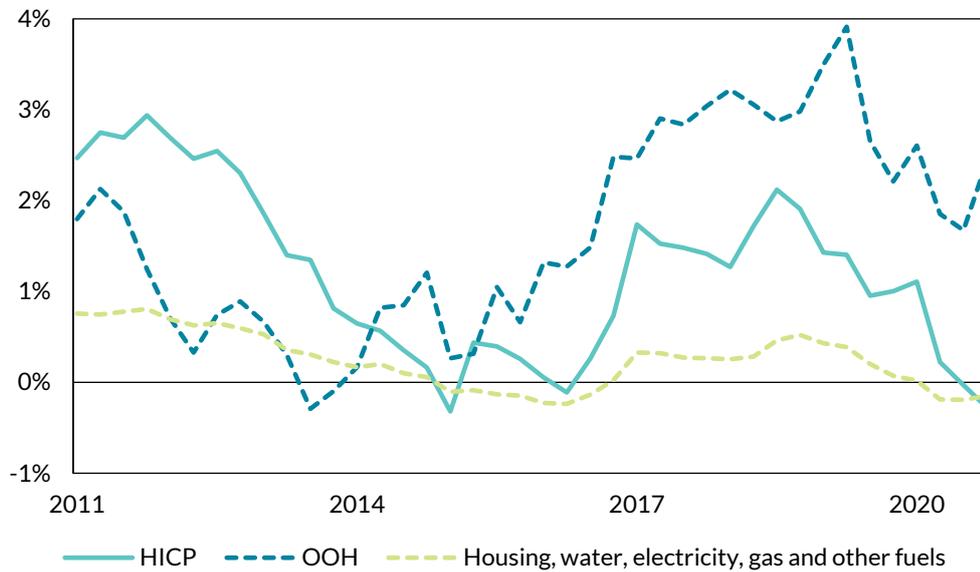
This approach was considered to be largely consistent with the current HICP framework and conceptually straight forward. The HICP tracks pure price changes (adjusted for quality) of goods and services over time. Importantly, only actual monetary transactions with the purpose of consumption are considered. Hence, the net acquisition approach has an advantage of being based on actual (observed) prices. The key disadvantage of the net acquisition approach relates to the asset component, which is typically assumed to be the land on which a dwelling is built. It is difficult to precisely identify whether a dwelling is purchased for consumption or investment purposes. Therefore, measurement methods are required to better isolate the consumption component from the investment component, with the former being the relevant one for monetary policy.

Eurostat currently produces a separate index for the cost of OOH for individual euro area countries⁶², however, work will be required to integrate OOH correctly into the HICP, including the appropriate weighting. See Chart 10 for a comparison between the current HICP and Eurostat's OOH.

⁶² See "[Owner occupied housing price index](#)" for full details.

Costs of owner-occupied housing have risen at a quicker pace than the overall HICP in recent years, highlighting the importance of considering these costs

Chart 10: HICP, housing costs component of HICP and the OOH Index for the euro area



Source: Eurostat

Notes: The OOH Index is aggregated and weighted by the individual country weights for HICP. This calculation is performed by the authors and is not provided by Eurostat. Housing, water, electricity, gas and other fuels represents the contribution of housing costs to the overall HICP based on the component weights in a given year.

The Governing Council has outlined a workplan for generating a HICP including OOH costs as the main index for monetary policy purposes. There are four stages to the plan. The first stage envisages the construction of an analytical index for internal purposes, which includes OOH with approximated weights. In parallel, the necessary legal work will be started and Eurostat intends to carry out further work on the statistical compilation of OOH weights, with a view to publishing in a second stage – likely in 2023 – an experimental quarterly HICP including OOH costs. In a third stage, likely to be completed by 2026, an official quarterly index will become available. In the fourth stage the aim would be to include OOH costs in the HICP at a monthly frequency and in a timely manner, which could pave the way for moving to a HICP including OOH costs as the main index for monetary policy purposes. At this point in time, it is too early to provide a precise timetable for the fourth stage.

During the transition period the main reference index for monetary policy will remain the current HICP. This transition period will last until the OOH index has reached the timeliness and quality

standards necessary for full integration into the monthly HICP index. Nevertheless, during the transition period the quarterly standalone OOH index will play an important supplementary role in assessing the impact of housing costs on inflation and will thus inform the Governing Council's monetary policy assessments.

4.3 Changes to the analytical framework

The structure of euro area economy and financial system have changed since 2003 and this has affected the transmission of monetary policy and macroeconomic outcomes. The Governing Council has gradually integrated such changes into its regular monetary policy decision-making process and the new strategy formally reflects such changes in the ECB's analytical framework.

The revised analytical framework that brings together two analyses: the economic analysis and the monetary and financial analysis. The integrated framework takes account of the inherent links between the underlying structures, shocks and adjustment processes covered by the respective analyses. Both analyses provide valuable information and together they contribute to a comprehensive and robust assessment of the outlook for and the risks to price stability over different time horizons. The new framework replaces the previous two-pillar framework and discontinues the cross-checking of the information derived from the monetary analysis with the information from the economic analysis. To underpin the integrated analysis, further investment in developing analytical tools will be required to model and understand the macro-financial linkages and the interactions between monetary policy measures, their transmission to the economy and their effects on the stability of the financial system.

The economic analysis focuses on real and nominal economic developments. It is built around the analysis of short-term developments in economic growth, employment and inflation, the assessment of the drivers of shocks that hit the euro area economy, the Eurosystem and ECB staff projections of key macroeconomic variables over a medium-term horizon, and a broad-ranging evaluation of the risks to economic growth and price stability. Changes to the economic analysis reflect the availability of new data and information sources, as well as modelling and computational

developments, and also the more systematic analysis of (changes to) structural trends.

The monetary and financial analysis assigns an important role to examining monetary and financial indicators, with a focus on the operation of the monetary policy transmission mechanism, in particular via the credit, bank lending, risk-taking and asset pricing channels. The monetary and financial analysis also provides for a more systematic evaluation of the longer-term build-up of financial vulnerabilities and imbalances and their possible implications for the tail risks to economic output and inflation. Moreover, it assesses the extent to which macroprudential measures mitigate possible financial stability risks that are relevant from a monetary policy perspective. The monetary and financial analysis thus recognises that financial stability is a precondition for price stability.

4.4 Accounting for climate change in the ECB's monetary policy framework

Climate change is one of the most fundamental challenges facing the world over the coming decades, and will require a strong response from all policymakers. In March 2021, the ECB's Executive Board Member Isabel Schnabel stated that, "Climate change is one of the biggest challenges that humankind is facing... The urgency of this topic, mainly due to the partial irreversibility of climate change and the significant costs of delaying action, requires all policymakers to explore their roles in tackling this challenge. This has been fully recognised by European policymakers."⁶³

While monetary policy can play a role, it is crucial to remember that fiscal policy remains the most important driver of implementing strategies for the transition to a more carbon-neutral economy. Fiscal policy tools, for example carbon taxes, are much better equipped than monetary policy instruments to directly contribute to the transition to a more climate neutral economy. Additionally, it can be argued that the allocation of public resources to implement climate change policies is better served through democratically elected policy makers, rather than independent central banks. The onus must therefore fall mainly to fiscal authorities. The role of

⁶³ See Schnabel (2021)

independent central banks is to support the climate change policies implemented by governments.

The Eurosystem's monetary policy implementation can take into account other objectives, but this must be done "without prejudice to the objective of price stability." The Eurosystem shall also "support the general economic policies in the Union with a view to contributing to the achievement of the objectives of the Union."⁶⁴ Importantly, EU leaders endorsed the objective of achieving a climate-neutral EU by 2050. This means that between now and 2050, the EU will drastically reduce its greenhouse gas emissions and find ways of compensating for the remaining and unavoidable emissions. Reaching a net-zero emissions balance will benefit people and the environment and will limit global warming. Following the recently agreed EU long-term budget for 2021-2027 and Next Generation EU, at least 30% of the total expenditure should be targeted towards climate-related projects.⁶⁵

Given the importance of climate change goals for the EU, and in line with its commitment to supporting EU policies, the Governing Council stated that it is committed – within the ECB's mandate – to ensuring that the Eurosystem fully takes into account the implications of climate change and the carbon transition for monetary policy and central banking. While governments have the primary responsibility and tools for addressing climate change, the ECB's mandate requires that it assesses the impact of climate change and further incorporates climate considerations into its policy framework, since physical and transition risks related to climate change have implications for both price and financial stability, and affect the value and the risk profile of the assets held on the Eurosystem's balance sheet.

The Governing Council has outlined an ambitious climate-related action plan to further include climate change considerations in its monetary policy framework.⁶⁶ The Governing Council's action plan comprises measures that strengthen and broaden ongoing initiatives by the Eurosystem to better account for climate change considerations with the aim of preparing the ground for changes to

⁶⁴ See "[Objective of monetary policy](#)"

⁶⁵ See "[Climate change: what the EU is doing](#)"

⁶⁶ See "[ECB presents action plan to include climate change considerations in its monetary policy strategy](#)"

the monetary policy implementation framework. The design of these measures will be consistent with the price stability objective and should take into account the implications of climate change for an efficient allocation of resources. Below, we outline a number of the actions the Governing Council has outlined as part of its climate change action plan.

- **Macroeconomic modelling and assessment of implications for monetary policy transmission.** The ECB will accelerate the development of new models and will conduct theoretical and empirical analyses to monitor the implications of climate change and related policies for the economy, the financial system and the transmission of monetary policy through financial markets and the banking system to households and firms.
- **Statistical data for climate change risk analyses.**⁶⁷ The ECB will develop new experimental indicators, covering relevant green financial instruments and the carbon footprint of financial institutions, as well as their exposures to climate-related physical risks. This will be followed by step-by-step enhancements of such indicators, starting in 2022, also in line with progress on the EU policies and initiatives in the field of environmental sustainability disclosure and reporting.
- **Disclosures as a requirement for eligibility as collateral and asset purchases.** The ECB will introduce disclosure requirements for private sector assets as a new eligibility criterion or as a basis for a differentiated treatment for collateral and asset purchases. Such requirements will take into account EU policies and initiatives in the field of environmental sustainability disclosure and reporting and will promote more consistent disclosure practices in the market, while maintaining proportionality through adjusted requirements for small and medium-sized enterprises. The ECB will announce a detailed plan in 2022.
- **Enhancement of risk assessment capabilities.** The ECB will start conducting climate stress tests of the Eurosystem

⁶⁷ See S. O’Connell (2021) for an overview of trends in the European green bond market and the holders of green bonds in Ireland.

balance sheet in 2022 to assess the Eurosystem's risk exposure to climate change, leveraging on the methodology of the ECB's economy-wide climate stress test. Furthermore, the ECB will assess whether the credit rating agencies accepted by the Eurosystem Credit Assessment Framework have disclosed the necessary information to understand how they incorporate climate change risks into their credit ratings. In addition, the ECB will consider developing minimum standards for the incorporation of climate change risks into its internal ratings.

- Collateral framework. The ECB will consider relevant climate change risks when reviewing the valuation and risk control frameworks for assets mobilised as collateral by counterparties for Eurosystem credit operations. This will ensure that they reflect all relevant risks, including those arising from climate change.
- Corporate sector asset purchases. The ECB has already started to take relevant climate change risks into account in its due diligence procedures for its corporate sector asset purchases in its monetary policy portfolios. Looking ahead, the ECB will adjust the framework guiding the allocation of corporate bond purchases to incorporate climate change criteria, in line with its mandate. These will include the alignment of issuers with, at a minimum, EU legislation implementing the Paris agreement through climate change-related metrics or commitments of the issuers to such goals. Furthermore, the ECB will start disclosing climate-related information of the corporate sector purchase programme (CSPP) by the first quarter of 2023.

The implementation of the action plan will be in line with progress on the EU policies and initiatives in the field of environmental sustainability disclosure and reporting, including the Corporate Sustainability Reporting Directive, the Taxonomy Regulation and the Regulation on sustainability-related disclosures in the financial services sector.

This decision taken in the review is complemented by previous decisions, particularly the Eurosystem agreement of a common

stance in for climate change-related sustainable investments in non-monetary policy portfolios.⁶⁸

4.5 Communicating with the public

The importance of monetary policy communication has increased significantly over time, and in particular, since the introduction of forward guidance into the ECB monetary policy toolkit.⁶⁹ The better monetary policy is understood, not only by financial markets but also by the general public, the more effective it can be in steering expectations, behaviour and economic outcomes. Consistent, clear and effective communication with different audiences is therefore considered to be essential, and the Governing Council is committed to explaining its monetary policy strategy and decisions as clearly as possible to all audiences.

The Governing Council undertook a thorough review of the communication of its monetary policy decisions, with a view to enhancing the information provided and its accessibility for various audiences. With this in mind, communication of monetary policy decisions will continue to build on four well-established products: the [press release](#), the introductory statement, which has been renamed the “[monetary policy statement](#)”, the [Economic Bulletin](#) and the [monetary policy account](#). The monetary policy statement has been streamlined and its clarity improved by focusing on an integrated narrative. The monetary policy accounts, which were introduced in 2015, will continue to provide information on the full range of arguments considered during the Governing Council’s monetary policy deliberations. The Economic Bulletin will continue to provide an overview of the economic situation and analysis of topical issues relevant to monetary policy. These products will be complemented by a layered and more visual version of policy communication geared towards the wider public.

A crucial contribution to the ECB’s strategy review was provided by the Eurosystem’s “listening” activities. During the review period, the Eurosystem held numerous events with the academic community, civil society organisations and the public at large, and it also held exchanges with national parliaments and the European Parliament.

⁶⁸ See the [Central Bank of Ireland's website](#) for further detail.

⁶⁹ See “[What is forward guidance?](#)” on the ECB website for more details.

In addition, the ECB received approximately 4,000 responses to a set of questions via its “ECB Listens Portal”.

As part of this outreach, the Central Bank of Ireland hosted three external “listening” events, with participants from academia, civil society and the business community. A number of key issues were highlighted in the course of these events. This included, among many other issues, the role of housing costs in people’s daily lives, the importance of fiscal and monetary policy interactions and the impact of inequality for the economy. Full details of these events, including videos are available on the Bank’s website.⁷⁰

The Governing Council communicated its intention to make outreach events a structural feature of the Eurosystem’s interaction with the public. These future events will have both a “listening” and an “explaining” dimension, to enable the public to understand the ECB’s monetary policy strategy and its implications.

Box A: The policy response to COVID-19 and the interaction between monetary and fiscal policy in the euro area

COVID-19 imposed an unprecedented economic shock on the euro area and the world economy, and occurred just as the ECB’s strategy review was beginning. With rapidly increasing sovereign debt, the interaction between monetary and fiscal policy came into sharp focus, so a new work stream on monetary-fiscal interaction was added to the strategy review agenda. This work stream was tasked with reviewing the history of fiscal policies and the functioning of the fiscal governance framework over the Economic and Monetary Union (EMU) period to draw lessons from a monetary policy perspective; and analysing the fiscal policy challenges that are likely to arise in the aftermath of the COVID-19 pandemic, including for the review of the fiscal governance framework.

The ECB response to the COVID-19 shock was timely and its size unprecedented, with the launch in March 2020 of the €750 billion – later expanded to €1,850 billion – Pandemic Emergency Purchases Programme (PEPP).⁷¹ The PEPP was instrumental in complementing the

⁷⁰ [Central Bank of Ireland webpage for the ECB strategy review.](#)

⁷¹ Press release 18 March 2020, [The ECB announces €750 billion Pandemic Emergency Purchase Programme \(PEPP\).](#)

other monetary policy tools in place, due not only to its size but also to its flexibility of purchases over time, across asset classes and among jurisdictions, so as to keep favourable financing conditions for euro area sovereigns, households and firms.⁷²

Euro area fiscal authorities also provided a substantial response to the negative shock, implementing a broad range of measures. Fiscal emergency packages were launched, mostly aimed at limiting the economic fallout from containment measures through direct measures to protect firms and workers in the affected industries. Simultaneously, extensive liquidity support measures in the form of tax deferrals and sovereign guarantees were introduced to help firms to avoid liquidity shortages.⁷³ The overall policy response resulted in a harmonious combination of fiscal and monetary support: fiscal policy provided targeted stimulus to the economy, while monetary policy ensured that financing conditions, including those of sovereigns, remained favourable.

For the fiscal policy response to be adequate to the magnitude of the shock, however, it took the suspension of the Stability and Growth Pact. This is because the EMU fiscal framework, as designed by the Maastricht Treaty, did not see the need for active coordination between monetary and fiscal policy. Since then, however, the academic consensus with respect to such an interaction has shifted.⁷⁴ In the last decade, with interest rates nearing the ELB, the conduct of monetary policy has faced constraints. As a result, the opportunity for fiscal policy to play a larger stabilisation role than that envisaged in the treaty has increased, raising questions as to whether institutional changes may be needed to enable such coordination (see e.g. Bartsch et al., 2020, and Thygesen et al., 2020).

While the conduct of fiscal policy and potential reforms of the EMU fiscal framework are clearly beyond the ECB remit, the interaction between monetary and fiscal policy was discussed as part of the ECB strategy review. The review acknowledged the importance of coordination between monetary and fiscal policy in tackling downturns, particularly

⁷² See e.g. Lane, 2020.

⁷³ For the fiscal policy response to the pandemic in the euro area and its impact on the private sector economy see Haroutunian et al., 2021, and Girón et al., 2021.

⁷⁴ See e.g. Bassetto and Sargent, 2020, for a survey of the literature on monetary-fiscal interactions. Corsetti et al., 2019, review models of business cycle stabilisation and argue that, after a large recessionary shock, a joint effort of monetary and fiscal policy may be necessary to stabilize economic activity and inflation.

when the economy is hit by severe negative shocks – as clearly shown by the pandemic experience.

The pandemic may have important implications for the interaction between the euro area monetary and fiscal policy looking forward, as suggested by some economists (see Reichlin et al., 2021). The substantial fiscal efforts of euro area governments in response to the COVID-19 shock will leave behind a legacy of high public debt for a number of years. At the same time, the heterogeneity in debt levels is considerable across countries, and therefore the fiscal capacity to complement monetary policy in the case of future shocks will also be heterogeneous. These differences, as well as differences in debt maturity profiles, implies that changes in the monetary policy stance, whether in government bond purchases or the in interest rate policy, may result in very different fiscal footprints across different countries.

5. Operationalising the outcomes of the strategy review in the conduct of monetary policy

The July 2021 Governing Council meeting was the first opportunity for the ECB to demonstrate how the outcome of the strategy review will shape monetary policy decision making. At the meeting, the Governing Council decided to update its forward guidance on the key ECB interest rates.⁷⁵ The decision to intervene specifically on the rate forward guidance reflects the belief that, particularly at the ELB, the central bank's guidance on the future path of interest rates is crucial in steering market expectations. Furthermore, forward guidance, particularly in its *state-contingent* version, provides a powerful stabilisation mechanism whereby the expected time to interest rate lift-off automatically adjusts according to changes in the outlook for inflation.⁷⁶

The ECB also sought to demonstrate a forceful or persistent use of its monetary policy instruments at the effective lower bound. If effective and internalised in the private sector expectations, such

⁷⁵ See the Governing Council meeting of 22 July 2021 [press conference](#).

⁷⁶ For the effectiveness of forward guidance in the euro area, see e.g. Andrade and Ferroni, 2021. For the literature analysing the power, as well as the limits, of forward guidance, see e.g. Del Negro et al., 2012, Carlstrom et al., 2015, and McKay et al., 2016.

conduct could also avoid negative deviations from the inflation target becoming entrenched, thereby supporting the anchoring of longer-term inflation expectations and helping to maintain price stability over the medium term.

To reflect the change in the strategy – to a symmetric inflation target of 2% and to use forceful or persistent monetary policy action when the economy is close to the effective lower bound – the Governing Council updated its rate forward guidance in July as follows:

“In support of its symmetric two per cent inflation target and in line with its monetary policy strategy, the Governing Council expects the key ECB interest rates to remain at their present or lower levels until it sees inflation reaching two per cent well ahead of the end of its projection horizon and durably for the rest of the projection horizon, and it judges that realised progress in underlying inflation is sufficiently advanced to be consistent with inflation stabilising at two per cent over the medium term. This may also imply a transitory period in which inflation is moderately above target.”⁷⁷

The choice of the Governing Council was in favour of the use of state-contingent forward guidance, where the rate lift off depends on the realisation of all three of the following conditions: (i) inflation reaching two per cent well ahead of the end of the projection horizon, (ii) durably for the rest of the projection horizon, and (iii) with progress in underlying inflation sufficiently advanced for inflation to stabilise at two per cent over the medium term.

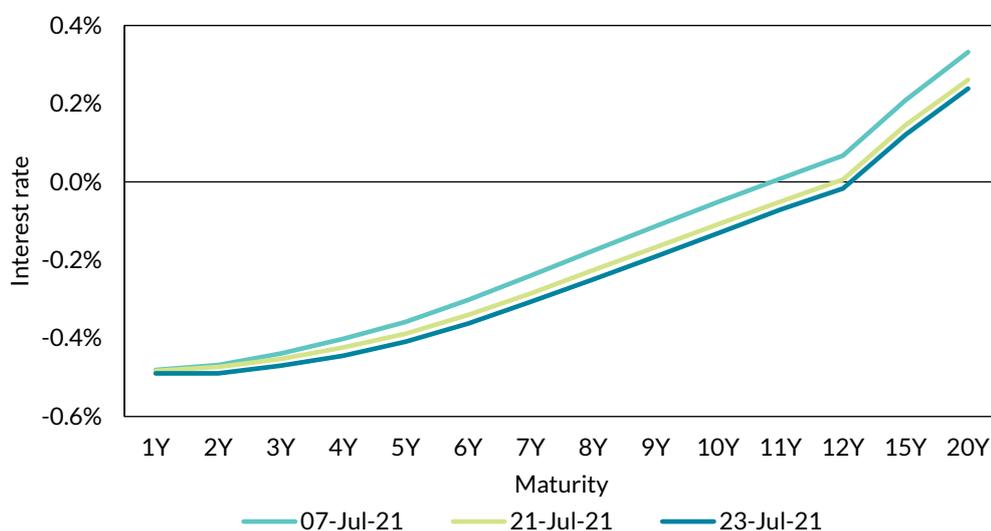
The state-contingent legs of the Governing Council’s rate forward guidance provides reassurance that interest rates will remain at current or lower levels until there is sufficiently robust and mature evidence, as well as a high degree of confidence, that the inflation rate will reach two per cent on a sustained and durable manner, avoiding the risk of reacting to forecast errors or to short-lived forces generating inflation only on a temporary basis. In this respect, it is interesting to consider such a commitment against the policy choices made the first half of 2011, when the ECB increased its policy rate twice after a period of headline inflation above target, pushed by a temporary increase in energy prices, while underlying inflation was

⁷⁷ Second paragraph of the [press release of 22 July 2021 Governing Council meeting](#)

below target and the economy was still coping with the consequences of the global financial crisis.

The update of the ECB's inflation aim and forward guidance helped to push out expectations for the ECB's interest rates

Chart 11: Euro area OIS forward curve



Source: Bloomberg

Chart 10 illustrates changes in the Overnight index swaps (OIS) curve from the 7 July (the day before the approval of the new monetary policy strategy) to the 21 July (the day before the ECB Governing Council meeting); and from the 21 July to the 23 July (the day after the meeting). In both cases the curve shifted to the right, which corresponds to the expectation of a longer time to the lift-off in interest rates. This signals that financial markets responded to the strategy review announcement and its subsequent implementation in the ECB rate forward guidance, and are starting to internalise the Governing Council commitment to a more forceful or persistent use of its monetary policy instruments given the macroeconomic circumstances.

The above-quoted paragraph from the monetary policy statement of 22 July concludes by acknowledging that the forceful or persistent policies required to address the implications of the persistence at the ELB may imply a transitory phase in which inflation is moderately above target, without this warranting an offsetting response. The provision for such a transitional phase is balanced by the commitment to lift rates once inflation reaches two per cent on a durable basis (Lane, 2021a and Lane 2021b).

6. Concluding remarks: The next review

The most recent ECB strategy review took place 18 years after the previous one. Together with announcing its outcome, the Governing Council clarified its intention to avoid similarly long time intervals between reviews, and that such exercises would be conducted regularly, with the next assessment expected to take place in 2025. A more frequent review cycle reflects the need to ensure that the strategy remains fit for purpose against a continually evolving economic environment.

For instance, it will be useful to assess the effects of strategy changes made by other central banks and compare them to the choices made by the ECB.⁷⁸ Moreover, the transmission channels, potential state-dependency and side effects of monetary policy instruments need continued monitoring and investigation, alongside a better understanding of the determinants of inflation dynamics in the euro area (Angeloni and Gros, 2021).

Other areas that could conceivably affect the monetary transmission mechanism include the challenges and opportunities that further digitalisation presents, with the ECB preparing for the possibility of creating a digital euro; improvements in the EMU architecture, with ongoing discussion regarding in particular the possibility of reforming the EMU fiscal framework (Thygesen et al., 2020); significant changes shaping the euro area financial system, where the increasing role of non-bank financial intermediation calls for filling the gaps in the macro-prudential approach and for developing new tools to deal with market dysfunction more broadly (Hauser, 2021). Moreover, further major economic or financial shocks to the euro area and the global economy can also occur, as well as other structural changes affecting the inflation process, the equilibrium real interest rate or the economic growth potential. It is likely that these or other challenges will warrant adjustments to the ECB monetary policy strategy and will be dealt with in future reviews.

⁷⁸ Specifically, a policy that aims to offset, at least in part, past misses of inflation from its objective, such as the new average inflation targeting of the US Federal Reserve, could prove effective in stabilising the macroeconomic cycle and keeping inflation close to target. For this and other suggestions for reform to be included in the next strategy review, see Reichlin et al., 2021.

References

Altavilla, C., L. Burlon, M. Giannetti and S. Holton, 2021, [Is there a zero lower bound? The effects of negative policy rates on banks and firms](#), Journal of Financial Economics, ISSN 0304-405X.

Andrade, P., and F. Ferroni, 2021, "[Delphic and Odyssean monetary policy shocks: Evidence from the euro area](#)", Journal of Monetary Economics, 117: 816-832.

Angeloni, I., and D. Gros, 2021, "[The ECB's new monetary policy strategy: Unresolved issues rather than clarification](#)", VoxEu.

Bartsch, E., A. Bénassy-Quéré, G. Corsetti, and X. Debrun, 2020, [It's all in the mix: How can monetary and fiscal policies work or fail together?](#), Geneva Report on the World Economy No 23, ICMB and CEPR.

Bassetto, M., and T. Sargent, 2020, "[Shotgun wedding: fiscal and monetary policy](#)", NBER Working Paper No. 27004.

Brand, C., Bielecki, M. and Penalver, A., 2018. [The natural rate of interest: estimates, drivers, and challenges to monetary policy](#). ECB Occasional Paper, (217).

Brunnermeier, M.K. and Koby, Y., 2018. [The reversal interest rate](#). National Bureau of Economic Research.

Calvino, F., Criscuolo, C. and Menon, C., 2015. [Cross-country evidence on start-up dynamics](#). OECD Science, Technology and Industry Working Papers, 2015/06, OECD Publishing, Paris

Carlstrom, C., Fuerst, T., and Paustian, M., 2015, "[Inflation and Output in New Keynesian Model with a Transient Interest Rate Peg](#)," Journal of Monetary Economics, 76: 230-243;

Corsetti, G., L. Dedola, M. Jarociński, B. Maćkowiak, and S. Schmidt, 2019, "[Macroeconomic stabilization, monetary-fiscal interactions, and Europe's monetary union](#)," European Journal of Political Economy, 57: 22-33.

Del Negro, M., Giannoni, M., and Patterson, C., 2012, "[The Forward Guidance Puzzle](#)," Federal Reserve Bank of New York Staff Reports, no. 574, October 2012, revised December 2015;

Girón, C., and M. Rodríguez-Vives, 2021, "[The role of government for the non-financial corporate sector during the COVID-19 crisis](#)", ECB Economic Bulletin, Issue 5/2021.

Haroutunian, S., S. Osterloh and K. Sławińska, 2021, "[The initial fiscal policy responses of euro area countries to the COVID-19 crisis](#)", ECB Economic Bulletin, Issue 1/2021.

Hauser, A., 2021, "[From Lender of Last Resort to Market Maker of Last Resort via the dash for cash: why central banks need new tools for dealing with market dysfunction](#)", Speech, Reuters, London, 7 January 2021.

Holston, K., Laubach, T. and Williams, J.C., 2017. [Measuring the natural rate of interest: International trends and determinants](#). Journal of International Economics, 108:59-75.

Holm-Hadulla, F., Musso, A., Vlassopoulos, T. and Rodriguez-Palenzuela, D., 2021. [Evolution of the ECB's Analytical Framework](#). ECB Occasional Paper, 2021/277.

Hong, S. and Shell, H., 2019. [The Global Decline of the Natural Rate of Interest and Implications for Monetary Policy](#). Economic Synopses, (4).

Keynes, J. M., 1936. The General Theory of Employment, Interest, and Money. Macmillan, New York City, NY.

Lane, P., 2021, "[The new monetary policy strategy: implications for rate forward guidance](#)", ECB blog, 19 August 2021.

Lodge, D., Pérez, J., Albrizio, S., Everett, M., De Bandt, O., Georgiadis, G., Ca' Zorzi, M., Lastauskas, P., Carluccio, J., Parrága, S. and Carvalho, 2021. "[The implications of globalisation for the ECB monetary policy strategy](#)," Occasional Paper Series 263, European Central Bank.

McKay, A., Nakamura, E., and Steinsson, J., 2016, "[The Power of Forward Guidance Revisited](#)," American Economic Review, 106(10): 3133-58.

Mian, A.R., Straub, L. and Sufi, A., 2020. [Indebted demand](#). National Bureau of Economic Research.

Mian, A.R., Straub, L. and Sufi, A., 2021. [What Explains the Decline in \$r^*\$? Rising Income Inequality Versus Demographic Shifts](#). University of Chicago, Becker Friedman Institute for Economics Working Paper, (2021-104).

O’Connell, S., 2021. [Green Bonds: A Snapshot of Global Issuance and Irish Securities Holdings](#) Behind the Data, Central Bank of Ireland.

Pariès, M.D., Kok, C. and Rottner, M., 2020. [In Support of Monetary Policy: Using the Countercyclical Capital Buffer to Avoid a Reversal Interest Rate](#).

Reichlin, L., K. Adam, W. McKibbin, M. McMahon, R. Reis, G. Ricco, and B. Weder di Mauro, 2021, [The ECB strategy: The 2021 review and its future](#), CEPR Press.

Rogoff, K. 2017. [Dealing with monetary paralysis at the zero bound](#). Journal of Economic Perspectives 31, 47–66.

Rostagno, M., C. Altavilla, G. Carboni, W. Lemke, R. Motto, A. Saint Guilhem and J. Yiangou, 2019, [A tale of two decades: the ECB’s monetary policy at 20](#), Working Paper Series 2346, European Central Bank.

Schnabel, I, 2020, “[Going negative: the ECB’s experience](#)”. Speech, Congress of the European Economic Association, Frankfurt, 26 August 2020.

Schnabel, I, 2021, “[From green neglect to green dominance?](#)” Speech, Cleveland Fed Conversations on Central Banking, Frankfurt, 3 March 2021.

Sickles, R.C. and Zelenyuk, V., 2019. [Measurement of productivity and efficiency](#). Cambridge University Press.

Thygesen, N., R. Beetsma, M. Bordinon, X. Debrun, M. Szczurek, M. Larch, M. Busse, M. Gabrijelcic, E. Orseau, S. Santacroce, 2020, “[Reforming the EU fiscal framework: Now is the time](#)”, VoxEu.

Work stream on climate change (2021), “[Climate change and monetary policy in the euro area](#)”, ECB Occasional Paper No. 271.

Work stream on digitalisation (2021), “[Digitalisation: channels, impacts and implications for monetary policy in the euro area](#)”, ECB Occasional Paper No. 266.

Work stream on employment (2021), "[Employment and the conduct of monetary policy in the euro area](#)", ECB Occasional Paper No. 275.

Work stream on Eurosystem modelling (2021), "[Review of macroeconomic modelling in the Eurosystem: current practices and scope for improvement](#)", ECB Occasional Paper No. 267.

Work stream on globalisation (2021), "[The implications of globalisation for the ECB monetary policy strategy](#)", ECB Occasional Paper No. 263.

Work stream on inflation expectations (2021), "[Inflation expectations and their role in Eurosystem forecasting](#)", ECB Occasional Paper No. 264.

Work stream on inflation measurement (2021), "[Inflation measurement and its assessment in the ECB's monetary policy strategy review](#)", ECB Occasional Paper No. 265.

Work stream on macroprudential policy, monetary policy and financial stability (2021), "[The role of financial stability considerations in monetary policy and the interaction with macroprudential policy in the euro area](#)", ECB Occasional Paper No. 272.

Work stream on monetary-fiscal policy interactions (2021), "[Monetary-fiscal policy interactions in the euro area](#)", ECB Occasional Paper No. 273.

Work stream on monetary policy communications (2021), "[Clear, consistent and engaging: ECB monetary policy communication in a changing world](#)", ECB Occasional Paper No. 274.

Work stream on non-bank financial intermediation (2021), "[Non-bank financial intermediation in the euro area: implications for monetary policy transmission and key vulnerabilities](#)", ECB Occasional Paper No. 270.

Work stream on price stability objective (2021), "[The ECB's price stability framework: past experience, and current and future challenges](#)", ECB Occasional Paper No. 269.

Work stream on productivity, innovation and technological progress (2021), "[Key factors behind productivity trends in EU countries](#)", ECB Occasional Paper No. 268.

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