



Banc Ceannais na hÉireann
Central Bank of Ireland

Eurosystem

Financial Stability

Review **2021:I**



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Notes

1. Unless otherwise stated, this document refers to data available on 31 May 2021.
2. Unless otherwise stated, the aggregate banking data refer to all credit institutions operating in the Republic of Ireland.
 - Irish retail banks refer to the five banks offering retail-banking services within the Irish State: Allied Irish Banks plc, The Governor and Company of the Bank of Ireland, Permanent TSB, KBC Bank Ireland plc and Ulster Bank Ireland Designated Activity Company.
3. The following symbols are used:

e	estimate	H	half-year
f	forecast	rhs	right-hand scale
Q	quarter	lhs	left-hand scale

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Preface

The Central Bank serves the public interest by safeguarding monetary and financial stability and by working to ensure that the financial system operates in the best interests of consumers and the wider economy.

The *Financial Stability Review* evaluates the main risks facing the financial system and assesses the resilience of the financial system to those risks. A resilient financial system is one that is able to provide services to Irish households and businesses, both in good times and in bad. The Central Bank's policy actions seek to ensure that the financial system is able to absorb, rather than amplify, adverse shocks.

The structure of this publication mirrors the overall approach the Central Bank takes in reaching a judgement around its macroprudential policy stance.

- The first section outlines the Central Bank's assessment of the main risks facing the Irish financial system over the short to medium term.
- The second section outlines the Central Bank's assessment of the resilience of the domestic financial system to adverse shocks and its ability to absorb, rather than amplify, shocks of this nature.
- The third section explains the Central Bank's policy actions to safeguard financial stability and ensure that the resilience of the financial system is proportionate to the risks it faces.

Ireland is host to a large and diverse financial sector. A growing part of that financial sector serves international clients, with limited direct implications for the domestic economy. This publication focuses on the segments of the financial sector that provide services to Irish households and businesses.

The *Financial Stability Review* reflects, and is informed by, the deliberations of the Central Bank's Financial Stability Committee and Macroprudential Measures Committee. The aim of the *Review* is not to provide an economic forecast, but instead focuses on the potential for negative outcomes to materialise. The Central Bank is committed to transparency over its judgements around financial stability and plans to use this publication as a key vehicle to explain the policy actions taken, within its mandate, to safeguard financial stability.

Réamhrá

Freastalaíonn an Banc Ceannais ar leas an phobail trí chobhsaíocht airgeadaíochta agus airgeadais a chosaint agus trína chinntiú go bhfuil an córas airgeadais ag feidhmiú ar mhaithe le leas na dtomhaltóirí agus leas an gheilleagair níos leithne.

San Athbhreithniú ar Chobhsaíocht Airgeadais, déanaimid measúnú ar na príomhrioscaí atá ann don chóras airgeadais agus ar athléimneacht an chórais airgeadais in aghaidh na rioscaí sin. Is córas airgeadais athléimneach é córas inar féidir seirbhísí a chur ar fáil do theaghlaigh agus do ghnólachtaí Éireannacha le linn tréimhsí maithe agus drochthréimhsí araon. Le gníomhaíochtaí beartais an Bhainc Ceannais, féachtar lena chinntiú go bhfuil an córas airgeadais in ann turraingí dochracha a iompar seachas iad a mhéadú.

Tá struchtúr an fhoilseacháin seo ag teacht leis an gcur chuige atá ag an mBanc Ceannais chun teacht ar thuairim faoina sheasamh beartais macrastuamachta.

- Sa chéad mhír, déantar cur síos ar mheasúnú an Bhainc Ceannais ar na príomhrioscaí atá ag bagairt ar chóras airgeadais na hÉireann sa ghearrthéarma agus sa mheántéarma.
- Sa dara mír, leagtar amach measúnú an Bhainc Ceannais ar athléimneacht an chórais airgeadais intíre in aghaidh turraingí dochracha agus ar a chumas chun rioscaí den sórt sin a iompar seachas iad a mhéadú.
- Sa tríú mír, déantar cur síos ar ghníomhaíochtaí beartais an Bhainc Ceannais chun cobhsaíocht airgeadais a chosaint agus chun a chinntiú go bhfuil athléimneacht an chórais airgeadais ar comhréir leis na rioscaí atá roimhe.

Tá earnáil mhór ilchineálach airgeadais in Éirinn. Tá fás ag teacht ar an gcuid sin den earnáil airgeadais a fhreastalaíonn ar chliant idirnáisiúnta, agus tá impleachtaí díreacha teoranta ann don gheilleagar intíre. Díritear san fhoilseachán seo ar na codanna sin den earnáil airgeadais a chuireann seirbhísí ar fáil do theaghlaigh agus do ghnóthaí Éireannacha.

San Athbhreithniú ar Chobhsaíocht Airgeadais, léirítear breithnithe ón gCoiste um Chobhsaíocht Airgeadais agus ón gCoiste um Bearta Macrastuamachta de chuid an Bhainc Ceannais agus tá na breithnithe sin mar bhonn eolais don athbhreithniú. Ní hé is aidhm don *Athbhreithniú* réamhaisnéis eacnamaíoch a chur ar fáil. Ina ionad sin, díritear ar an bhféidearthacht go dtiocfadh torthaí diúltacha chun cinn. Tá an Banc Ceannais tiomanta do thrédharcacht a chuid breithnithe maidir le cobhsaíocht airgeadais agus tá sé beartaithe aige an foilseachán seo a úsáid mar bhealach tábhachtach chun míniú a thabhairt ar na gníomhaíochtaí beartais a ghlactar laistigh dá shainordú chun cobhsaíocht airgeadais a chosaint.

Overview

After more than a year of COVID-19 restrictions, the expansion of vaccination programmes – globally and domestically – provides a clearer path to economic recovery. Nevertheless, the recovery is likely to be uneven across countries and sectors and could be susceptible to unexpected setbacks. Domestically, the policy response to the pandemic has cushioned the impact of the shock on households and businesses, with the full extent of borrower financial distress likely to become apparent only as government supports start to unwind. The Irish banking system has absorbed losses stemming from the pandemic and has the capacity to continue supporting households and businesses, even in economic outcomes considerably worse than currently expected. The Central Bank’s macroprudential policy stance enables the banking system to continue absorbing the shock and to support the recovery.

Risks to financial stability

The pandemic continues to pose challenges for the financial position of businesses and households. Relative to the last Review, the expansion of vaccination programmes has reduced uncertainty and downside risks to the macro-financial outlook. Nevertheless, the recovery is likely to be uneven, with implications for the financial position of some borrowers. The recovery could also be subject to unexpected setbacks, depending on the speed of deployment of vaccines and the extent of threats posed by new variants. While the impact of the shock on companies and households has been mitigated by government supports, the full extent of borrower distress will only become apparent as these supports start to unwind and creditor flexibility begins to normalise. An unexpected increase in borrower distress could also weigh on lenders’ risk appetite, with adverse implications for credit supply. It is in the collective interest of lenders to maintain the supply of lending to households and businesses in a sustainable manner, supporting the recovery.

Vulnerabilities in global financial markets have been building, amid higher levels of sovereign and corporate indebtedness. Accommodative global financial conditions – while necessary to cushion the economic impact of the pandemic shock – have been accompanied by increased risk-taking in financial markets. Amid a global search for yield, valuations in certain market segments appear stretched and could be vulnerable to changes in expectations around global growth or the path for interest rates. A tightening in global financial conditions could be amplified by financial vulnerabilities in parts of the non-bank financial sector and by higher levels of indebtedness of governments and companies globally, arising from the policy response to the pandemic.

Looking beyond the pandemic, structural risks arise, including those stemming from international tax changes, changes in the structure of the banking sector, and climate change. Shifts in international tax arrangements could have adverse implications for public finances in Ireland, and could be amplified and more widespread if the changes affect the future location decisions of multinational companies. The planned exit of two retail banks from the Irish banking sector will likely increase structural vulnerabilities, due to increased concentration in the provision of banking services and an increased reliance on domestic sources of capital. Climate change is a source of risk to the financial system, both due to its physical manifestations and the potential implications of the transition to a low-carbon economy. Significant effort is required by the financial system to make meaningful progress in identifying, assessing and managing climate-related risks.

Resilience of borrowers and lenders

The companies and households most affected by public health restrictions continue to rely on policy supports, with financial distress likely to increase as these supports taper. The pandemic has led to a sharp decline in SME turnover and profitability, with many businesses' survival currently reliant on financial support from the government and forbearance from creditors. An uneven recovery across sectors, the gradual tapering of government supports, and the normalisation of creditor flexibility will test the viability of the most distressed businesses, likely requiring some restructuring of liabilities to avoid inefficient liquidation of those with long-term viability. While household job loss reached record highs during the pandemic, government supports have played a pivotal role in absorbing the shock to incomes, especially for lower income households. A larger set of pre-pandemic vulnerabilities remain, stemming from mortgage borrowers either in arrears or having had loans restructured since the global financial crisis, who remain at high risk to shocks.

The pandemic resulted in banking system losses in 2020, but previously accumulated resilience – together with policy actions taken during the pandemic – facilitated the banking sector to absorb those losses, rather than amplify the shock. The scale of the shock resulted in an increase in credit risk on banks' loan portfolios and a substantial rise in provisions. Lower credit demand, a surge in deposits and the low interest rate environment also put downward pressure on interest margins, while costs remain high in a European context. Together, these factors resulted in the first loss-making year for the banking system since the financial crisis. With a CET1 capital ratio of 18.2 per cent at end-2020, the Irish retail banking system continues to have a substantial buffer over minimum requirements. The last *Review* included a forward-looking assessment of the financial position of the banking system under different scenarios. Since then, the macro-economic environment has evolved broadly in line with, or more favourably than, the baseline scenario. The Central Bank continues to judge that the banking system as a whole has the capacity to support households and businesses, even in economic outcomes worse than currently expected.

Macroprudential policy

The Central Bank's macroprudential policy stance is currently set to enable the banking sector to absorb losses from the pandemic and support the economic recovery. The Central Bank judges that a Countercyclical Capital Buffer rate of 0 per cent remains appropriate for the current environment and for the macro-financial conditions expected during 2021. Similarly, the Central Bank does not intend to begin any phase-in of the Systemic Risk Buffer in 2021 and re-iterates that buffers for systemically important institutions are fully usable to absorb losses and enable banks to continue to support the real economy during the current period.

The COVID-19 shock provides the first material test of the macroprudential framework and lessons learned from this episode will be incorporated into the Central Bank's broader review of the macroprudential framework. The build-up of capital buffers and prudent underwriting standards in the mortgage market in the run-up to the pandemic have put the financial system in a better position to absorb, rather than amplify, this shock. The Central Bank is conducting a multi-year review of the macroprudential framework, covering three pillars: the macroprudential framework for bank capital, the mortgage measures and market-based finance. This recognises that the operating environment for our macroprudential regime is constantly evolving, and at certain junctures, a deeper review of our frameworks is necessary.

Forbhreathnú

Tar éis breis agus bliain de shrianta COVID-19, tá conair níos soiléire i dtreo téarnamh eacnamaíoch le feiceáil romhainn anois de thoradh leathnú na gclár vacsaínithe - ar fud an domhain agus anseo in Éirinn. Mar sin féin, is dócha go mbeidh téarnamh éagothrom ann ar fud na dtíortha éagsúla agus na n-earnálacha éagsúla agus d'fhéadfaí go gcuirfí an téarnamh sin ar gcúl. Leis an bhfreagairt beartais anseo in Éirinn, maolaíodh tionchar na turrainge ar theaghlaigh agus ar ghnóthaí, agus is dócha nach mbeidh méid iomlán chruachás airgeadais na n-iasachtaithe le feiceáil go dtí go dtosófar ar thacaíochtaí rialtais a scaoileadh. Tá córas baincéireachta na hÉireann tar éis cailteanais a éiríonn as an bpaindéim a iompar agus tá an cumas aige leanúint de thacaíocht a thabhairt do theaghlaigh agus do ghnóthaí, fiú i gcomhthéacs torthaí eacnamaíocha i bhfad níos measa ná mar atáthar ag súil leis. Trí sheasamh beartais macrastaumachta an Bhainc Ceannais, cumasaítear don chóras baincéireachta leanúint den turraing a iompar agus de bheith ag tacú leis an téarnamh.

Rioscaí don chobhsaíocht airgeadais

Tá dúshlán ann i gcónaí do staid airgeadais gnóthaí agus teaghlach de bharr na paindéime. I gcomparáid leis an *Athbhreithniú* deiridh, tá laghdú tagtha ar an éiginnteacht a bhaineann leis an ionchas macra-airgeadais agus ar na rioscaí ar an taobh thíos don ionchas sin de bharr leathnú na gclár vacsaínithe. Ina ainneoin sin, is dócha go mbeidh téarnamh éagothrom ann agus go mbeidh impleachtaí aige sin do staid airgeadais roinnt iasachtaithe. D'fhéadfaí go gcuirfí an téarnamh ar gcúl freisin ag brath ar luas dáilte na vacsaíní agus ar na bagairtí a bheidh ann ó athraithe nua. Cé go ndearnadh tionchar na turrainge ar chuideachtaí agus ar theaghlaigh a mhaolú le tacaíochtaí rialtas, ní bheidh cruachás iomlán na n-iasachtaithe soiléir go dtí go dtosófar ar na tacaíochtaí sin a scaoileadh agus go dtí go mbeidh solúbthacht creidiúnaithe ina ceart arís. Dá mbeadh méadú gan choinne ar chruachás iasachtaithe, d'fhéadfadh go mbeadh tionchar aige sin ar fhonn riosca iasachtóirí freisin, rud a chruthódh impleachtaí díobhálacha don soláthar creidmheasa. Is ar mhaithe le leas comhchoiteann iasachtóirí atá sé soláthar iasachtaí chuig an ngeilleagar a chothabháil ar mhodh inbhuanaithe, rud a thacóidh leis an téarnamh.

Tá leochaileachtaí i margaí airgeadais domhanda ag méadú, i bhfianaise leibhéil níos airde an fhéichiúnais cheannasaigh agus chorparáidigh. Cé go bhfuil dálaí in-chomhfhoirmeacha domhanda airgeadais riachtanach chun tionchar eacnamaíoch thurraing na paindéime a mhaolú, tá níos mó rioscaí á nglacadh sna margaí airgeadais de thoradh na ndálaí sin. Toisc go bhfuiltear ar thóir torthaí ar fud an domhain, dealraíonn sé go bhfuil luachálacha i ndeighleoga áirithe den mhargadh sínte go teann agus d'fhéadfaidís bheith leochaileach d'athruithe ar ionchais maidir le fás domhanda nó maidir le conair na rátaí úis. D'fhéadfaí go gcuirfí le daingniú dálaí airgeadais domhanda i bhfianaise leochaileachtaí airgeadais i gcodanna den earnáil airgeadais neamhbhainc mar aon le leibhéil níos airde féichiúnais ag rialtais agus cuideachtaí ar fud an domhain de thoradh na freagartha beartais ar an bpaindéim.

Taobh amuigh de chúrsaí paindéime, tá rioscaí struchtúracha ann, lena n-áirítear rioscaí a éiríonn as athruithe ar an gcáin idirnáisiúnta, athruithe ar struchtúr na hearnála baincéireachta, agus as an athrú aeráide. D'fhéadfadh athruithe ar shocruithe cánach idirnáisiúnta impleachtaí díobhálacha a bheith acu don airgeadas poiblí in Éirinn, impleachtaí a mhéadófar agus a bheidh níos forleithne má dhéanann na hathruithe sin difear do chinntí cuideachtaí ilnáisiúnta i dtaobh a suíomhanna amach anseo. Is dócha go méadófar leochaileachtaí struchtúracha le himeacht dhá bhanc mhiondíola as

earnáil baincéireachta na hÉireann toisc go mbeidh soláthar seirbhísí baincéireachta níos comhchruinnithe agus beidh spleáchas breise ar fhoinsí intíre caipitil. Tá an t-athrú aeráide ina fhoinse riosca don chóras airgeadais de bharr na n-iarbhairtí fisiceacha a bheidh aige agus de bharr na n-impleachtaí a d'fhéadfadh a bheith ag an athrú chuig geilleagar ísealcharbhóin. Is gá don chóras airgeadais dul chun cinn suntasach a dhéanamh i dtreo rioscaí a bhaineann le hathrú aeráide a aithint, a mheas agus a bhainistiú.

Athléimneacht iasachtaithe agus iasachtóirí

Na cuideachtaí agus teaghlaigh sin is mó atá thíos leis na srianta sláinte poiblí, tá siad ag brath i gcónaí ar thacaíochtaí beartais agus is dócha go méadóidh an cruachás airgeadais sin de réir mar a scaoilfead na tacaíochtaí sin. Tá laghdú géar tagtha ar láimhdeachas agus ar bhrabúsacht FBManna de bharr na paindéime agus tá inmhharthanacht go leor gnóthaí ag brath ar thacaíocht airgeadais ón rialtas agus ar staonadh creidiúnaithe. Le téarnamh éagothrom ar fud na n-earnálacha éagsúla, scaoileadh na dtacaíochtaí rialtais de réir a a chéile, agus normalú solúbthachta creidiúnaithe, tástálfar inmhharthanacht na ngnóthaí sin is mó atá i gcruachás, agus is dócha go mbeidh gá le hathstruchtúrú dliteanas chun leachtú neamhéifeachtúil na ngnóthaí sin a bhfuil inmhharthanacht fhádtéarmach acu a sheachaint. Cé go raibh níos mó cailteanas post ann ná mar a bhí riamh le linn na paindéime, bhí ról ríthábhachtach ag tacaíochtaí rialtais chun an turraing d'ioncam a iompar, go háirithe i gcás teaghlaigh ísealioncaim. Tá sraith leochaileachtaí níos mó ann i gcónaí ón tréimhse roimh an bpaindéim, ar leochaileachtaí iad a eascraíonn as iasachtaithe morgáiste a bhfuil riaráistí acu nó a ndearnadh a gcuid iasachtaí a athstruchtúrú ón ngéarchéim airgeadais i leith, agus atá leochaileach do thurraingí.

Bhí cailteanas ag an gcóras baincéireachta in 2020 de bharr na paindéime, ach bhí an córas baincéireachta ábalta na cailteanas sin a iompar seachas iad a mhéadú mar gheall ar an athléimneacht a bhí tógtha roimhe sin - mar aon leis na gníomhartha beartais a glacadh le linn na paindéime. Mar thoradh ar scála na turrainge, tháinig méadú ar riosca creidmheasa a bhain le punanna iasachta na mbanc agus bhí ardú suntasach ar sholáthairtí. Le héileamh níos ísle ar chreidmheas, méadú mór ar thaiscí agus le timpeallacht na rátaí ísle úis, cuireadh brú anuas ar chorrllaigh úis na mbanc, fad atá costais arda ann i gcónaí i gcomhthéacs Eorpach. Mar thoradh ar na tosca seo le chéile, ba é seo an chéad bhliain ón ngéarchéim airgeadais i leith ina raibh cailteanas i gceist don chóras baincéireachta. I bhfianaise cóimheas caipitil CET1 arbh ionann é agus 18.2 faoin gcéad ag deireadh 2020, leanann córas baincéireachta miondíola na hÉireann de mhaolán suntasach a bheith aige os cionn na gceanglas íosta. San *Athbhreithniú* deiridh, áiríodh measúnú réamhbhreathnaitheach ar staid airgeadais an chórais baincéireachta faoi chásanna éagsúla. Ó shin i leith, tá an timpeallacht maicreacnamaíoch ag forbairt i gcomhréir leis an gcás bunlíne, a bheag nó a mhór, nó níos fabhraí ná an cas bunlíne. I dtuairim an Bhainc Ceannais, tá an cumas ag an gcóras baincéireachta ina iomláine tacú le teaghlaigh agus le gnóthaí, fiú i gcomhthéacs torthaí eacnamaíocha níos measa ná mar atáthar ag súil leis faoi láthair.

Beartas macrastuamachta

Tá beartas macrastuamachta reatha an Bhainc Ceannais ceaptha a chumasú don earnáil baincéireachta cailteanas ón bpaindéim a iompar agus tacú leis an téarnamh eacnamaíoch. Measann an Banc Ceannais go bhfuil ráta 0 faoin gcéad ar an gCúlchiste Fritimthriallach oiriúnach go fóill don timpeallacht reatha agus do na dálaí macra-airgeadais a bhfuiltear ag súil leo le linn 2021. Ar an gcaoi chéanna, níl sé i gceist ag an mBanc Ceannais tús a chur le tabhairt isteach an Mhaoláin um Riosca Sistémach in 2021 agus athdhearbhaíonn sé go bhfuil maoláin le haghaidh

institiúidí a bhfuil tábhacht shistéamach leo inúsáidte go hiomlán chun cailteanais a iompar agus chun a chumasú do na bainc leanúint de thacaíocht a thabhairt don fhíorgheilleagar le linn na tréimhse reatha.

Is ionann turraing COVID-19 agus an chéad tástáil shuntasach ar an gcreat macrastuamachta agus déanfar na ceachtanna a fhoghlaiméofar uaidh seo a chur san áireamh nuair a bheidh athbhreithniú níos forleithne á dhéanamh ag an mBanc Ceannais ar an gcreat macrastuamachta.

Le neartú maolán caipitil agus caighdeáin stuamachta an fhrithgheallta sa mhargadh morgáiste roimh an bpaindéim, bhí an córas airgeadais ullamh chun an turraing seo a iompar seachas í a mhéadú. Tá an Banc Ceannais ag tabhairt faoi athbhreithniú ilbhliantúil ar an gcreat macrastuamachta lena gclúdófar na trí cholún seo: an creat macrastuamachta maidir le caipiteal bainc, na bearta morgáiste agus airgeadas margadhbhunaithe. Aithnítear leis seo go bhfuil an timpeallacht oibriúcháin dár gcreat macrastuamachta de shíor ag athrú agus, ag pointí áirithe, is gá athbhreithniú níos doimhne a dhéanamh ar ár gcreataí.

Risks

A sudden financial market correction, prompting a tightening of global financing conditions

Accommodative financing conditions have been necessary to cushion the impact of the shock of the COVID-19 pandemic. But the low-yield environment has incentivised increased risk-taking in financial markets since the last Review, with some evidence of stretched market valuations. Notwithstanding the improved macroeconomic outlook, given the persistently high levels of uncertainty coupled with the increasing gap in economic performance across countries, the risk of sudden changes in global risk aversion remains high. The effects of any such sudden financial market correction could be amplified by pandemic-related increases in government and corporate debt. A reversal in global risk appetite could lead to a deterioration in global financing conditions with adverse consequences for the economic recovery, particularly in Ireland.

Looser financial conditions have helped cushion the global economic impact of the pandemic, but have also been accompanied by a global search for yield and an increase in risk-taking in financial markets. According to an IMF index, global financial conditions remain at historically accommodative levels in advanced economies and are not far off record levels in emerging market economies (Chart 1). Looser financial conditions have been primarily driven by lower risk-free rates since the onset of the pandemic. However, since the last Review, there has also been a further reduction in risk premia as well as evidence of increased risk-taking in financial markets. Together, these conditions create the potential for a sharp reversal of risk premia, especially in the context of continued heightened macroeconomic uncertainty.

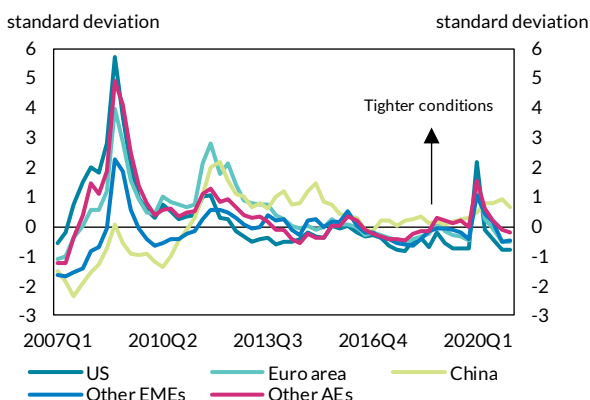
In equity markets, the market rally, combined with earnings still below pre-pandemic levels, have resulted in historically elevated price/earnings (PE) ratios, especially in some US market segments (Chart 2). Since the last Review, risk-on sentiment in equity markets was supported by positive vaccine news, substantial additional fiscal stimulus in the US and continued accommodative monetary policy support. IMF (2021) analysis suggests that equities are trading at levels higher than those suggested by models based on fundamentals, and deviations from fair value per unit of risk have reached levels last seen before the bursting of the dot-com bubble in 2001.¹ Accounting for the level of interest rates, the implied equity risk premium for the US is close to its long-run average of the past two decades. This implies that equities do not look overvalued relative to current valuations of risk-free bonds (Chart 3).² However, looking ahead, equity valuations could be vulnerable to interest rates increases.

¹ See [IMF Global Financial Stability Report, April 2021](#).

² See [BIS Quarterly Review March 2021, Box A](#).

Chart 1: Global financial conditions continue to be accommodative, while tightening in China

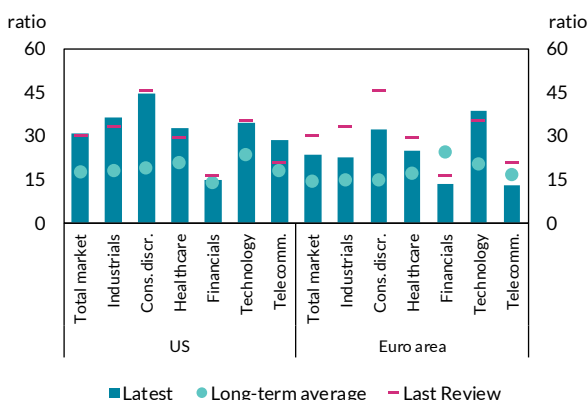
Global financial conditions index



Source: IMF.
Notes: Last observation 2021Q1.

Chart 2: Evidence of historically high price-to-earnings ratios continues

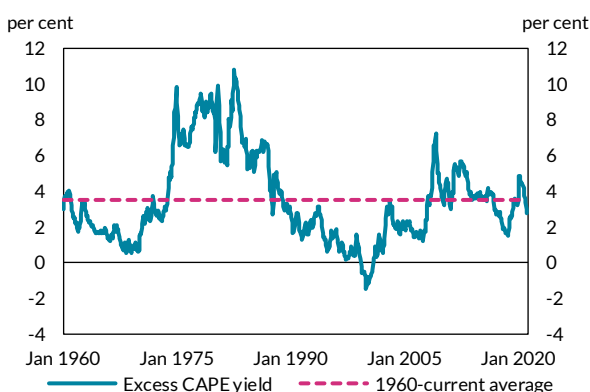
US and euro area price-to-earnings ratios



Source: Refinitiv Datastream and Central Bank of Ireland calculations.
Notes: Cons. Discr. = consumer discretionary. Weekly data with long term averages from 1973. Last observation 31 May 2021.

Chart 3: When compared to historically low risk-free interest rates, equity valuations look less stretched

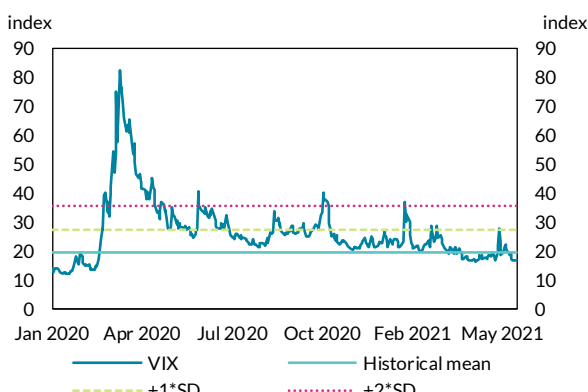
Excess CAPE yield



Source: R Shiller and Central Bank of Ireland calculations.
Notes: Inverse of the S&P 500 cyclically adjusted price/earnings ratio (CAPE) ratio less real (inflation-adjusted) interest rates.

Chart 4: Equity market volatility has been subject to frequent spikes over the past 12 months

VIX



Source: Refinitiv Datastream and Central Bank of Ireland calculations.
Notes: Notes: Historical mean from 1990. Last observation 31 May 2021. SD denotes standard deviation.

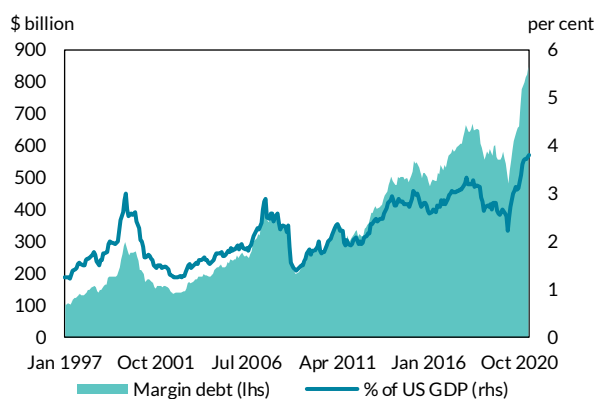
International financial markets remain vulnerable to further bouts of market volatility and fragility. A tightening in global financial conditions could be amplified by financial vulnerabilities in parts of the non-bank financial sector, which were exposed during the ‘dash for cash’ at the onset of the pandemic.³ There have also been a series of isolated events linked to non-bank financial institutions internationally since the last Review, which highlight the risks stemming from leverage, concentration and interconnectedness between various parts of the financial system, even when financial market conditions are buoyant. The Gamestop episode in January illustrated how the potential interactions between retail trading and leverage in non-bank financial institutions could lead to bouts of significant market volatility. The resulting spike in the VIX marked the fourth time the index exceeded its historical mean by more than two standard deviations since the beginning of 2020 (Chart 4). The Archegos episode in March demonstrated the potential for significant

³ See, for example, “Box H: Investment funds and the COVID-19 shock – emerging areas of policy focus”, [Central Bank of Ireland Financial Stability Review 2020:II](#).

losses by counterparties of highly-leveraged non-bank financial institutions. While not systemic in isolation, these episodes highlight vulnerabilities in financial markets, including through the build-up of leverage. Indeed, the value of margin debt now stands at a historical high (Chart 5).

Chart 5: Margin debt stands at record levels in the US

Margin debt and its percentage of US GDP

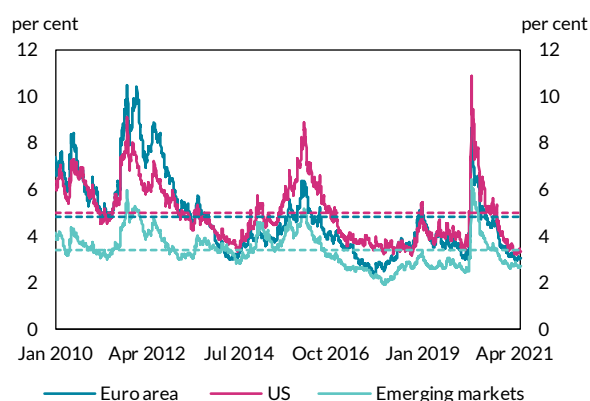


Source: Financial Industry Regulatory Authority, Haver Analytics, and Central Bank of Ireland calculations.

Notes: Margin debt are debt balances in customers' securities margin accounts at registered brokers and broker-dealer firms in the United States. Last observation April 2021.

Chart 6: High-yield corporate bond spreads are again compressed below their historical average

Corporate Bond Yields – High Yield Spreads



Source: St Louis Fed and Central Bank of Ireland calculations.

Notes: ICE BofAML Option-Adjusted Spreads on below investment grade corporate bonds. Dashed lines indicate historic averages since 1998 for US and euro area, and 1999 for emerging markets. Last observation 31 May 2021.

The low interest rate environment has incentivised investors' increased risk-taking over recent years, with further evidence of search for yield behaviour arising since the last Review. This is reflected in spreads on high-yield corporate bonds falling again below their historical averages, after the spike observed in March 2020 (Chart 6). In effect, investors are pricing corporate-related risks now at broadly the same level as before the onset of the pandemic, despite the significant impact of the shock on companies worldwide. Debt issuance remained strong, particularly in lower-rated segments, as prices in leveraged finance markets kept rising, surpassing pre-pandemic levels at the end of 2020.⁴ Buoyant risk appetite based on expectations of a strong recovery and policy support might underestimate credit risk built-up in the corporate sector. Meanwhile, moratoria on insolvencies and other constraints have limited information flows to markets.

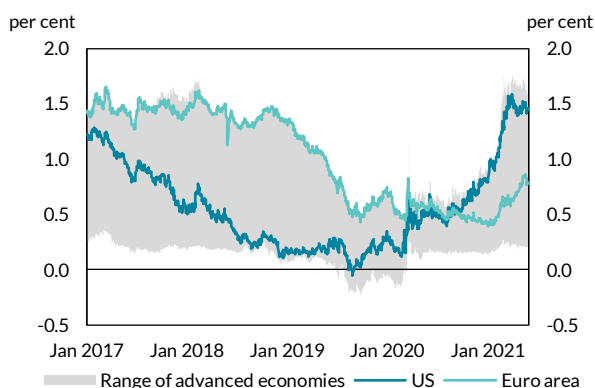
Long-term interest rates have increased significantly in the United States. Increased vaccine rollout and the large fiscal stimulus resulted in an improved economic outlook that, in turn, has led to the US yield curve steepening sharply since the last Review (Chart 7). Real long-term yields have also increased over the same period. Although these developments were driven by an improved macroeconomic outlook in the US, which is also beneficial for the global economic recovery and financial system, changes in core US markets can lead to spillovers across the globe. A rapid and persistent increase in US interest rates could result in a repricing of risk in markets and a sudden tightening in financial conditions, even in economies where the economic recovery is at an earlier stage. Such a tightening could interact with elevated financial vulnerabilities, with repercussions for confidence and with the potential to endanger wider macro-financial stability. US and euro

⁴ See [BIS Quarterly Review, March 2021](#).

area policy makers have clearly communicated that they will act to avoid an abrupt increase in real interest rates jeopardising the economic recovery.⁵

Chart 7: Yield curves are steepening

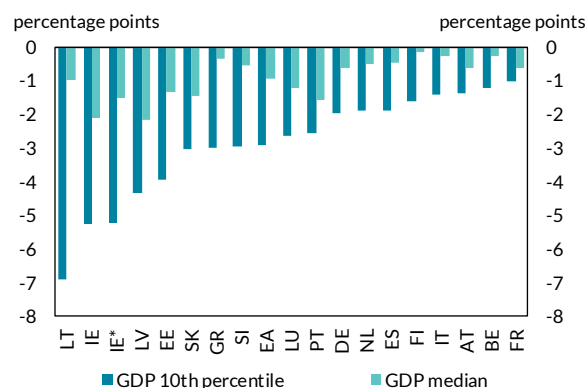
10-year minus 2-year government bond yields



Source: Bloomberg and Central Bank of Ireland calculations.
Notes: Advanced economies include AU, CA, CH, DK, euro area, JP, SE, UK and US. GDP weighted average for euro area. Last observation 31 May 2021.

Chart 8: Ireland has been particularly vulnerable to shocks in global financial conditions

GDP growth impulse response to a US excess bond premium (EBP) shock across the euro area



Source: Beutel, J., Emter, L., Metiu, N., Prieto, E. and Schueler, Y., (2020), "Dilemma or Trilemma? Evidence from the international transmission of US financial shocks to downside risks to growth", [mimeo](#).
Notes: 4 quarter sum of the IRF of log difference in GDP at the 10th percentile or median to a one standard deviation increase in US EBP. The underlying Bayesian Quantile VAR model also includes CPI and short-term interest rates and two lags of all variables and is estimated for the period 1980Q1 to 2018Q4, given data availability for individual countries. The variables are ordered as follows: EBP, GDP, CPI, interest rates. IE* denotes results for GNI*.

A sudden market correction could lead to a deterioration in global financial conditions with adverse consequences for the economic recovery, particularly in Ireland.⁶ As the increase in debt and leverage continues across the global financial system, Ireland could be particularly affected by the sudden repricing of risk in global financial markets. As documented in previous *Reviews*, such shocks could transmit through a number of channels including the direct and indirect exposures of banks and non-bank financial institutions resident in Ireland (see *Resilience*). In addition, as a small, open economy, Ireland could be particularly affected by a tightening in global financial conditions. Indeed, historically, Ireland has been more vulnerable to a tightening in global financial conditions than the euro area average (Chart 8).

⁵ See, for instance: [Lane \(2021\)](#), "The compass of monetary policy: favourable financing conditions" Speech given at the Portuguese Securities Market Commission, Portugal; [Powell \(2021\)](#) "Semi-annual Monetary Policy Report to the Congress". Speech given before the Committee on Banking, Housing, and Urban Affairs, U.S. Senate; and the [IMF World Economic Outlook, April 2021](#).

⁶ See Central Bank's [Financial Stability Review 2020:I Box 1](#).

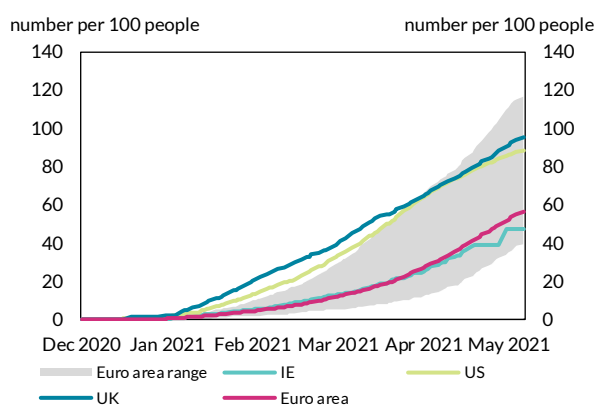
A protracted and uneven global economic recovery, adding to global sovereign and corporate financial vulnerabilities

In response to the liquidity shock faced by the real economy, governments internationally have provided large COVID-19 fiscal support programmes. These supports have increased the burden on public sector finances and increased co-dependency between corporates and governments. The timing and manner of the withdrawal of government supports will be a key determinant of the continued stability of both the corporate sector and public sector finances. The small open nature of the Irish economy creates heightened exposure to risks to the global recovery, which can also be amplified by other structural shocks such as international tax changes, trade tensions and deglobalisation.

While global economic activity has started to recover, aided by the deployment of vaccination programmes, the pace of the recovery remains uneven across countries and sectors. Since the last Review, the development, manufacture and distribution of a suite of vaccines against COVID-19 has paved a way out of the health and economic crisis. Still, it will take time for the global population to be inoculated and the pace of vaccination globally remains uneven both in advanced economies (Chart 9) and even more so in developing economies. A resurgence of the virus as a public health issue in a number of countries since the last Review, in part due to the emergence of new variants, has delayed the recovery in some countries, including in Europe (Chart 10).

Chart 9: Number of vaccine doses administered continues to rise

COVID-19 vaccines administered

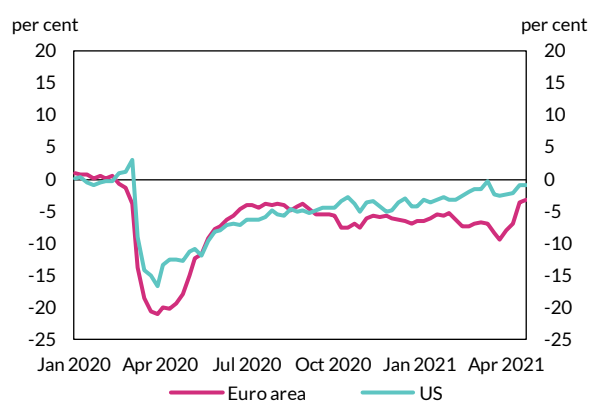


Source: Refinitiv Datastream, Haver Analytics, and Central Bank of Ireland calculations.

Notes: Vaccination rate refers to people who have received at least one dose of a COVID-19 vaccine. Euro area is the population weighted average across individual member states. Last observation 31 May 2021.

Chart 10: Latest GDP tracker indicates a rebound in economic activity

OECD Weekly GDP Tracker counterfactual



Source: OECD via Haver Analytics and Central Bank of Ireland calculations.

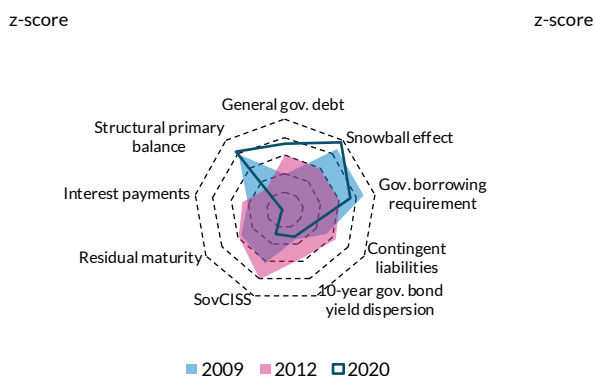
Notes: The euro area and US tracker represent the percentage difference in GDP relative to a pandemic-free counterfactual, using counterfactual data from the December 2019 OECD Economic Outlook forecasts. Tracker excludes data on Cyprus and Malta. Last observation 16 May 2021.

The global economic outlook remains uncertain and is closely linked to the path of the virus and the successful roll-out of vaccines internationally. Uncertainties related to the pandemic continue to weigh on the near-term recovery prospects for the global economy given continued COVID-19 infections and public health restrictions, the emergence of new variants of the virus internationally and elevated uncertainties regarding vaccine delivery and roll-out. In addition, the timing and nature of the tapering of fiscal programmes will be a key determinant of the near-term

global economic outlook. Since the last *Review*, the potential for a stronger than expected global economic recovery has also increased, which may give rise to market expectations around higher interest rates in some countries. This would create the potential for spill-over effects to different asset classes should a tightening in global financial conditions also occur (see *Risks: A sudden financial market correction, prompting a tightening of global financing conditions*).

Chart 11: Public sector vulnerabilities stem from the outstanding stock of government debt

Selected euro area fiscal vulnerability indicators during different crisis episodes

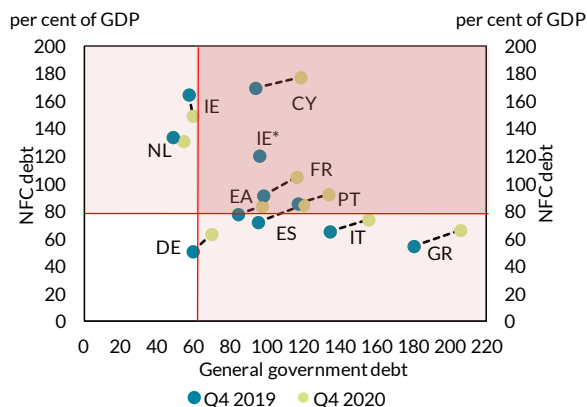


Source: ECB.

Note: See ECB (2021) Financial Stability Review, May. Data refer to euro area aggregates. Government contingent liabilities include the financial sector. The snowball effect relates to the interest rate-growth differential. SovCISS: composite indicator of systemic stress in euro area sovereign bond markets; for further information, see Garcia-de-Andoain, C. and Kremer, M., "[Beyond spreads: measuring sovereign market stress in the euro area](#)", *Working Paper Series*, No 2185, ECB, October 2018. The centre of the chart indicates lower risk.

Chart 12: Indebtedness varies by sector and country

Indebtedness of the general government and the NFC sector across the euro area



Source: Haver Analytics and Central Bank of Ireland calculations.

Notes: NFC sector debt figures are on a consolidated basis and include cross-border inter-company loans which tend to account for a significant part of debt in countries where a large number of MNEs are located (e.g. Ireland and Cyprus). The red horizontal line represents the estimated MIP benchmark of 76 per cent of GDP for consolidated NFC debt. Further information on this benchmark can be found at Schnabel (2021).⁷ The red vertical line represents the threshold of 60 per cent of GDP for sovereign debt as defined in the excessive deficit procedure under the Maastricht Treaty. Given the distortion caused by MNE activity on Irish NFC debt and GDP, IE* represents Irish-owned NFC debt and sovereign debt relative to GNI*.

Since the onset of the COVID-19 shock, governments internationally have activated large fiscal programmes to support economic activity. These fiscal supports include extraordinary measures to support households and companies most acutely affected by the COVID-19 shock. While these measures have been necessary to provide support to the real economy through the public health crisis, they have placed an increasing burden on public sector finances internationally. As a consequence, there has been a substantial increase in public debt. As noted in ECB (2021), vulnerabilities related to the outstanding stock of government debt have increased in the euro area when compared with previous periods of stress (Chart 11).⁸ The continued low interest rate environment and accommodative monetary policy has facilitated favourable financing conditions. Issuance by euro area sovereigns, which had already been elevated during 2020, set its monthly record in January 2021. Meanwhile, the European Commission continued to access the markets through the SURE programme.⁹

The nature of the COVID-19 shock – and the associated policy supports – have increased the interdependencies between sovereigns and corporates globally. Governments absorbed much of

⁷ See Schnabel (2021), "[The sovereign-bank-corporate nexus- virtuous or vicious?](#)". Speech given at the LSE conference on 'Financial Cycles, Risk, Macroeconomic Causes and Consequences', Germany.

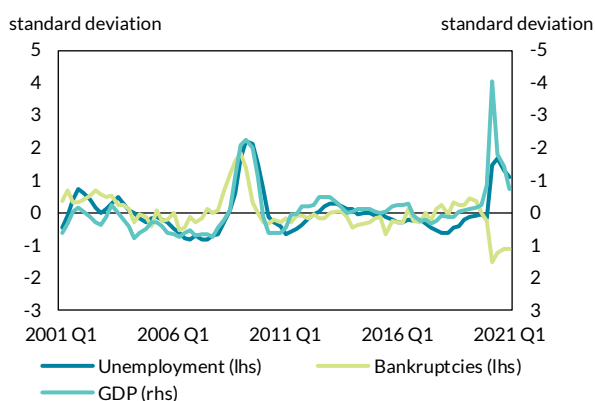
⁸ See ECB (2021), *Financial Stability Review, May*.

⁹ SURE represents a new EU instrument designed to help Member States mitigate unemployment risk during the COVID-19 pandemic. For more details see <https://ec.europa.eu/>.

the economic risk of the private sector during the crisis, including through job retention schemes, tax cuts and deferrals, loan guarantees as well as direct transfers. The outcome of the shock has been not only a significant increase in both government and corporate indebtedness (Chart 12), but also increased interdependencies between the two. On the one hand, the survival of companies has been reliant on the ability of governments to borrow to support them. On the other hand, the sensitivity of the public finances to future developments in the corporate sector has increased (e.g., due to deferred tax liabilities, government-guaranteed lending or the potential implications of ‘scarring effects’ of the crisis on the public finances). The emergence of this “sovereign-corporate nexus” can act as a potential transmission channel of risk, amplifying the vulnerability of both sectors, especially if some of the adverse effects of the pandemic prove persistent.

Chart 13: Bankruptcies remain low despite the global economic decline

Unemployment, GDP and bankruptcies across economies 2001Q1 - 2021Q1

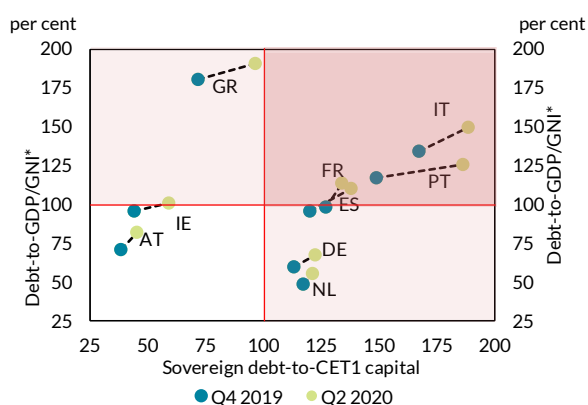


Source: Datastream, Haver Analytics and Central Bank of Ireland calculations.

Notes: The mean and standard deviations are calculated for bankruptcies, unemployment and GDP growth over the period 2001–2021 on an individual country basis. The graph shows the average of the standard deviations from the mean across countries, where data is available. Countries include AU, BE, CA, DE, DK, ES, FI, FR, JP, KR, NL, NO, SE, SG, TR, TW, UK, US, ZA. Last observation 2021Q1. GDP (rhs) is inverted for presentation purposes.

Chart 14: Holdings of domestic sovereign debt by domestic banks has increased during the pandemic

European banks' holdings of domestic sovereign debt and public sector indebtedness across selected countries



Source: EBA, Eurostat and Central Bank of Ireland.

Notes: The x-axis reports the holdings of domestic sovereign debt scaled by CET1 capital. For the IE Debt-to-GDP ratio, GNI* is used as the measure for economic output (see Chart 61).

The ‘sovereign-corporate’ nexus means that the timing and manner of the withdrawal of government supports will be a key determinant of the continued stability of both the corporate sector and public sector finances. Governments will have to balance the benefits that continued support provide to the corporate sector to reduce ‘scarring effects’, while keeping the public finances on a prudent path. The tapering of supports will need to ensure that viable firms remain supported through targeted support measures, while more broad-based supports are tapered in an appropriate manner.

While corporate insolvencies internationally have remained low on the back of fiscal support programmes, they are expected to rise.¹⁰ To date, fiscal policy supports such as direct grants, loan guarantees and tax deferrals have provided a direct financial support to corporates and have insulated many from the initial COVID-19 shock (Chart 13). A prolonged deterioration in global economic activity, however, including through further COVID-19 related shocks coupled with the

¹⁰ See: [ESRB \(2021\) Prevention and management of a large number of corporate insolvencies, April 2021](#).

tapering of fiscal support programmes, are likely to lead to an increase in corporate insolvencies. However, projections of future corporate insolvencies are particularly prone to uncertainty at this time given the scale of fiscal supports to the corporate sector.

The linkages between European banks and their respective sovereigns have also increased during the COVID-19 pandemic which may act as a potential feedback loop in times of stress. The increase in fiscal measures to support the corporate sector has also increased the indirect links between the banking sector and the sovereign. As government supports are unwound and potential 'latent' corporate vulnerabilities materialise, this could potentially further impair the credit quality of banks' balance sheets. At the same time, many national banking sectors have increased their holdings of domestic sovereign debt (Chart 14). European initiatives such as the establishment of the SSM, ESM and the adoption of the bank recovery and resolution directive (BRRD) have helped to weaken the sovereign-bank feedback loop. However, the Banking Union framework remains incomplete and the scale of the public support measures will likely see the sovereign-corporate-bank nexus remain a potential transmission channel of risk over the medium-term.

Beyond COVID-19 related uncertainties, there are ongoing developments related to international taxation and trading arrangements which may permeate through the corporate-sovereign nexus, with significant implications for Ireland. Central Bank research has highlighted that the increase in current public expenditure is the second largest in the euro area.¹¹ Compared to many other euro area economies, the Irish fiscal policy response has been more focused on direct rather than indirect measures (see *Resilience: Sovereign*). Ensuring that measures designed to be temporary do not become a permanent part of the expenditure base will be a key challenge for Government. While the deterioration in the public finances has not been as big as anticipated during much of 2020, the decline is nevertheless substantial. Moreover, as a small open economy, with a heavy reliance on foreign MNEs and on corporate tax revenue, Ireland is particularly exposed to abrupt changes in international tax and trading arrangements (See Box A). Ongoing US tax reforms have the potential to impact countries such as Ireland that have a large share of US MNEs and an increasing reliance on corporate tax revenues.¹² The potential reform of the taxation of MNEs as proposed by the OECD BEPS could have a disproportionate effect on Irish tax revenues given the increased role of corporation taxes within Ireland's tax base (see *Resilience: Sovereign*).¹³ MNEs in Ireland are also significant employers across the domestic economy (Chart 15) while their presence can also support indirect employment and economic activity through agglomeration economies including supply chain and related support services. Therefore, abrupt shifts in international tax arrangements leading to the potential relocation of MNEs or parts of their business operations, or falls in inflows of new foreign investment, could have significant macroeconomic as well as fiscal implications through reduced employment and output.

¹¹ For more see [Conefrey et al \(2021\) "COVID-19 and the Public Finances in Ireland", Central Bank of Ireland, Economic Letter Vol. 2021, No. 3.](#)

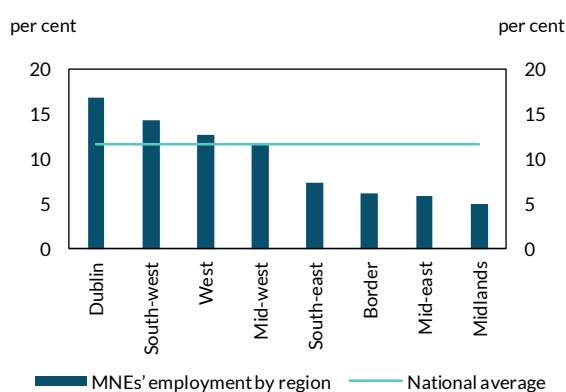
¹² By the end of last year, corporate tax accounted for close to 20 per cent of the total tax take. This is high both in historic terms but also by international comparison. Foreign-owned MNEs account for a large share of the corporate tax receipts. Estimates suggest that 80 per cent of corporate tax receipts are sourced from these firms.

¹³ For a discussion on the risks associated with corporate tax see [IFAC \(2021\) "Box F: Corporate tax reforms could reduce revenues", Fiscal Assessment Report, May 2021.](#)

Prior to the onset of the COVID-19 crisis, there were signs of increased trade tensions and deglobalisation internationally. A re-emergence of such developments after the pandemic could further stifle the global economic recovery. For the domestic economy the continued adjustment to the EU/UK trading environment represents one such important challenge. The new EU-UK Trade and Cooperation Agreement (TCA), which came into force on 1 January 2021, allows for the continuation of a basic economic relationship between the EU and UK averting the threat of a no-deal WTO Brexit. However, the new agreement makes trade in both goods and services more cumbersome and costly relative to EU membership with trade data for the start of 2021 already providing tentative evidence of a drop in EU-UK trade. This may partly reflect stockpiling in the run-up to the end of the Brexit transition period at the end of December, while the full effects of the impact on trade will take some time to feed through.

Chart 15: MNEs are significant employers both in Dublin and across a number of regions

MNEs' employment by region



Source: Department of Business, Enterprise and Innovation (DBEI) Annual Employment Survey 2020, CSO and Central Bank of Ireland calculations.

Notes: Full-time, permanent employment by agency-assisted foreign-owned companies over total regional employment for 2020.

A disruption in the domestic economic recovery, with more persistent effects of the COVID-19 shock on some sectors

The resurgence of the COVID-19 pandemic in Ireland in late 2020 necessitated extended public health measures and the closure of large sections of the domestic economy. The impact of these restrictions is most evident in the labour market, while estimates suggest that with each wave of the pandemic restrictions, the domestic economy has exhibited greater resilience. Moreover, the roll-out of vaccines provides a clearer path for an economic recovery and for a reduction in uncertainty and downside risks. Nevertheless, the macroeconomic outlook remains uncertain and the recovery is likely to be uneven across sectors and could be susceptible to unexpected setbacks. Cyclical risks combine with structural features such as those weighing on the outlook for commercial property, both directly due to the pandemic – such as more remote working – and the acceleration of pre-pandemic trends such as the digitalisation of retail.

The domestic economic recovery has been delayed given the resurgence of the virus in late 2020, and downside risks remain...

The rapid resurgence of the COVID-19 virus as a public health issue in December 2020 and the re-introduction of public health measures weighed on domestic economic activity in 2021Q1. Level 5 restrictions, reintroduced following the post-Christmas spike in positive cases, remained in place for the entirety of 2020Q1 and were extended into Q2. The resultant closure of non-essential elements of the retail and construction sectors, amongst others, resulted in subdued economic activity throughout the first quarter of 2021. The impact of the COVID-19 shock on the macroeconomic environment is most evident in the labour market where the scale of supports has fallen steadily since January 2021 but remains elevated (Chart 16). There were approximately 827,000 people in receipt of State income support in May 2021 compared with a peak of 1.1 million in May 2020 (Chart 16). With the planned gradual tapering of the income support schemes in the second half of 2021, the COVID-19-adjusted measure of unemployment and the traditional ILO measure will converge, with the unemployment rate projected to average 6.6 per cent this year and 8.1 per cent in 2022.

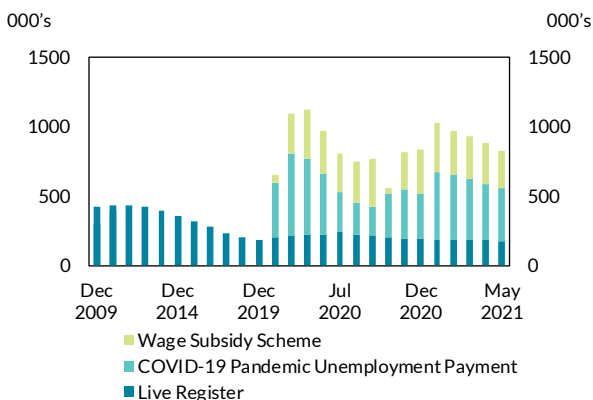
The macroeconomic outlook remains uncertain with downside risks stemming from developments in the trajectory of the COVID-19 pandemic. Since the last Review, the roll-out of the vaccination programme provides for a clearer path for an economic recovery and for a reduction in uncertainty and downside risks to the macro-financial outlook. Moreover, the gradual easing of public health restrictions has led to a further reopening of the economy. A strong recovery is expected in the second half of the year and in 2022 as more parts of the economy reopen and domestic economic activity increases. Such a recovery, however, remains heavily reliant on the increased supply and roll-out of vaccines as well as the avoidance of vaccine-resistant virus mutations. While near-term downside risks have eased following a deterioration in 2021Q1

(Chart 17), a disruption in the economic recovery could negatively affect corporate and household incomes as well as domestic asset values.¹⁴

While the unprecedented policy response has cushioned the impact of the shock on households and firms, the full extent of borrower financial distress will only become apparent as the economy further reopens and government supports start to be tapered. The policy supports provided to households and firms has reduced the risk of ‘scarring effects’ and supported financial stability. However, looking ahead, a delayed or uneven recovery across sectors and the tapering of government supports could test the viability of the most distressed firms as well as the incomes of households employed in the most affected sectors.

Chart 16: COVID-19 labour market supports remain elevated

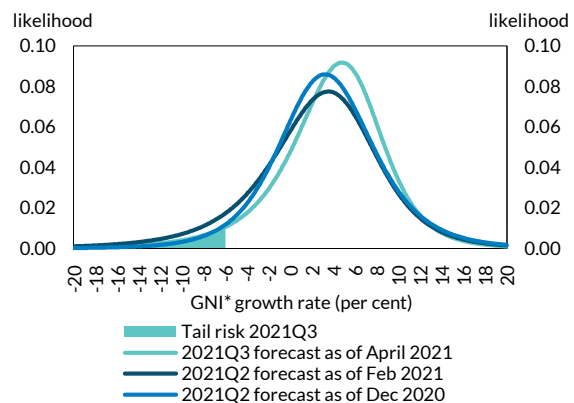
Irish Unemployment and COVID-19 support levels



Source: CSO, DEASP, and Revenue Commissioners.
Notes: Last observation 9th May 2021.

Chart 17: GNI* growth tail risk has eased but remains vulnerable to any deterioration of financial conditions

GNI* growth at risk



Source: Central Bank of Ireland calculations.
Note: Model estimated with growth data up to and including 2019Q3. 2021Q3 forecast fitted using observed data as of 2020Q3.

...the near-term outlook for the commercial real estate (CRE) market is weak and structural implications of COVID-19 are likely to adversely impact the office and retail sectors...

Cyclical developments arising from the COVID-19 shock and structural features, some of which pre-date the pandemic, are weighing on the outlook for the CRE market. Irish CRE capital values and rents weakened considerably throughout 2020 and into 2021, with both series recording negative annual growth rates (Chart 18).¹⁵ Aggregate figures mask a wide variance in performance at a sectoral level. The largest declines have occurred in the retail sector, where pandemic-related shocks have accelerated broader structural trends. For instance, the growth of e-retail and changing shopping habits are features that have likely become more entrenched since the onset of the COVID-19 shock and the associated public health restrictions (See Box B). A prolonged disruption to domestic economic activity, including through extended public health restrictions, are likely to impact the CRE retail market further.

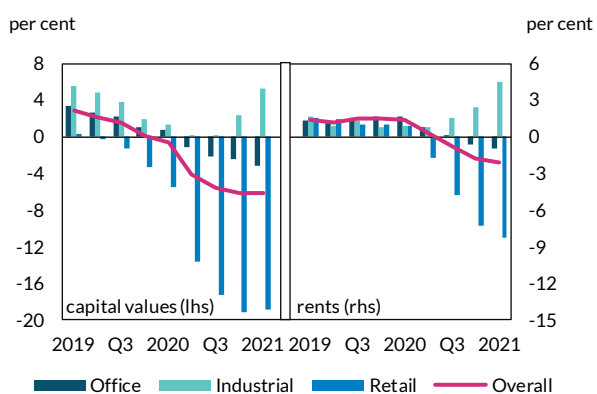
¹⁴ Irish financial market conditions, as captured by the Irish Composite Stress Indicator (ICSI), remained favourable since the last Review. The ICSI is a real-time measure of systemic stress across a range of indicators for Irish financial markets.

¹⁵ The decline in annual capital values of 6.1 per cent in 2020 represented their steepest drop since 2012. Similarly, on an annual basis rents declined by 1.8 per cent during 2020.

The negative impact of the COVID-19 crisis is also evident in the office sector.¹⁶ The office market is facing its own structural challenges as a result of COVID-19 (See Box B). The rise in remote working which occurred in response to the pandemic is likely to persist to some extent in the post-COVID-19 working environment for many companies in Ireland. A greater desire from staff and an increased willingness of firms to allow employees to work from home for all or part of the working week will affect future office space requirements. Much will depend on what companies and employees decide is the optimal split between working from home and time spent on site.

Chart 18: A combination of cyclical and structural issues are weighing on CRE market values

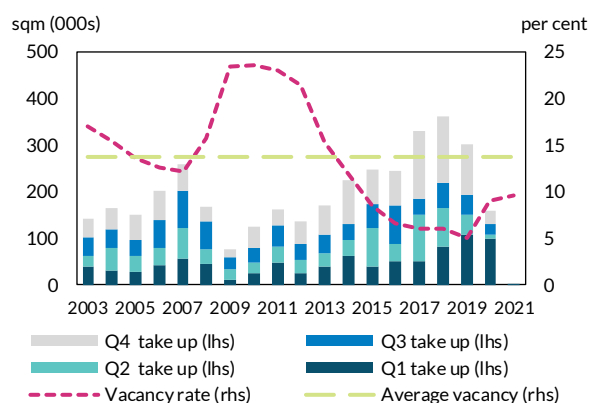
Annual change in CRE capital value and rental growth indices



Source: MSCI.
Notes: Last observation 2021Q1.

Chart 19: Take-up of Dublin office space has fallen considerably since the arrival of COVID-19

Dublin office stock take-up and vacancy rate



Source: CBRE research.
Notes: Latest observation 2021Q1.

In addition to these structural uncertainties, restrictions on the ability to inspect prospective premises have contributed to an unprecedented weakness in the 2021Q1 Dublin office take-up figures (Chart 19). Less than 4,000 square metres of space were let in the opening quarter of 2021. This was 63 per cent lower than the previous lowest Q1 take-up, which occurred in 2009, during the global financial crisis. The Dublin office vacancy rate has almost doubled to 9.6 per cent, from a low of 5.1 per cent at the end of 2019, but remains well below the average rate during 2003-2020 (13.7 per cent). Moreover, construction is yet to begin on a half a million square metres of office space for which planning has already been granted which may further increase supply.

Against this backdrop, and a comparatively favourable yield environment, Irish CRE continues to attract significant investment volumes, primarily from abroad. Following a relatively sluggish 2020Q2 and Q3, an uptick in Q4 activity brought commercial property spending for the year to approximately €3.6 billion (Chart 20). This was about half the level recorded in 2019, but well above average annual volumes of CRE investment from 2006 to 2020 (€2.5 billion). Despite the reintroduction of Level 5 COVID-19 restrictions, demand for Irish CRE assets held up in the opening quarter of 2021, with well over €1 billion invested in the market, the second highest Q1 total in recent years (Chart 20).

The nature of CRE investment in Ireland has evolved, reflecting the uncertain outlook for some sectors, most notably the retail sector. For instance, approximately half of 2020 investment has been on multifamily residential properties, up from an average of 14 per cent in the 2012-2019

¹⁶ Capital values and rents in the office sector recorded annual declines of 2.5 and 0.6 per cent in 2020, respectively, the largest in eight years.

average. In contrast, the outlay on office and retail assets, which had attracted an average of 48 and 22 per cent of average (2012-2019) spending, respectively, accounted for 37 and 4 per cent of the value of CRE assets purchased last year.

A greater involvement of non-bank financial institutions and foreign investors has seen the funding of the Irish CRE market become more diverse in recent years.¹⁷ While these developments can be associated with broader risk-sharing and increased liquidity in the market, they may also give rise to vulnerabilities from a financial stability perspective including the possible abrupt reversal of foreign investment. At a time when the outlook for CRE values, and for the office and retail sectors in particular is weak, a sharp fall in investor sentiment and/or wide-scale withdrawal of foreign investment from the market could have an adverse impact on the market, with implications for the domestic financial system and the wider economy.

Chart 20: CRE investment remains relatively robust

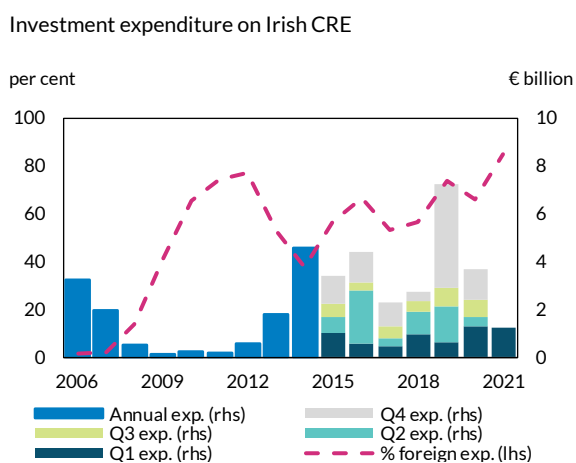
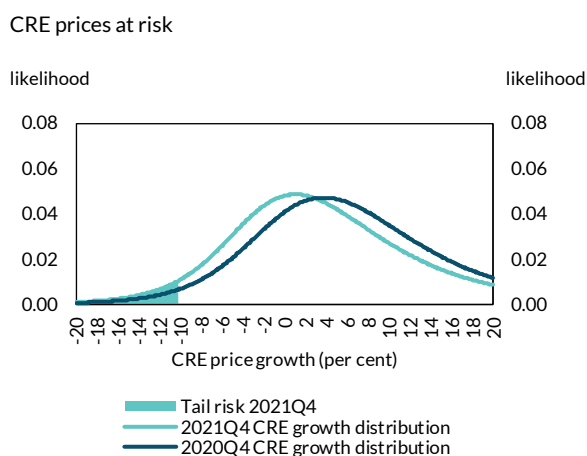


Chart 21: CRE downside risks have increased



Survey data point to continued weak sentiment amongst market participants, who anticipate further declines of approximately 5 per cent in CRE capital values and rents over the coming 12 months.¹⁸ Similarly, estimates from CRE price at-risk models suggest tail risk in the CRE market has increased since 2020Q4, with the forecast distribution having undergone a leftward shift (Chart 21).¹⁹

A substantial fall in CRE prices would likely have negative implications for the real economy and wider financial system, through knock-on collateral, wealth, investment and employment effects. Bank lending to non-real estate NFCs collateralised by Irish CRE is estimated to have amounted to

¹⁷ Investment funds – often funded from abroad – now hold over 40 per cent of the estimated stock of the investable CRE market. See Daly, P., Moloney, K., and S. Myers. (2021), “[Property funds and the Irish commercial real estate market](#)” Central Bank of Ireland Financial Stability Notes series, Vol 2021 No. 1. Meanwhile, Central Bank of Ireland data show that Irish retail banks’ exposures to the CRE sector have declined markedly over the same period.

¹⁸ See [RICS Economics \(2020\), Global Commercial Property Monitor 2020Q4](#).

¹⁹ See Kennedy, G., Killeen, N., Skouralis, A., Velasco, S. and M. Wosser (2021), “[COVID-19 and the commercial real estate market in Ireland](#)”, Central Bank of Ireland Financial Stability Notes series, Vol. 2021 No. 4 for further details.

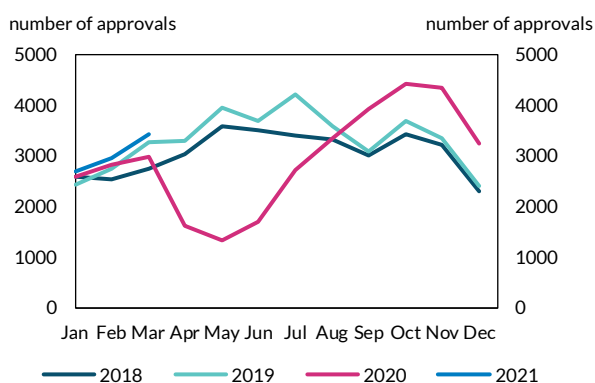
approximately €3 billion at the end of 2020. These NFCs, many of whom are already dealing with the fallout from Brexit and the disruption caused by the COVID-19 shock, may find it more difficult to have such debt re-financed if CRE prices fell sharply. In addition, whether through direct investments or through lending to the CRE sector, there is potential for spillover effects to Irish retail banks and other financial institutions such as investment funds and unit-linked entities with significant exposures to the domestic commercial property market (see *Resilience: Investment funds*).

...while prolonged COVID-19 disruptions risk exacerbating demand and supply imbalances in the housing market with implications for house prices in the near to medium-term.

Despite the shock to incomes and loss of employment arising from the COVID-19 crisis, there is little evidence to date of a substantial and persistent fall in the demand for housing. Though lower for the year as a whole, the number of residential real estate (RRE) transactions occurring in the latter months of 2020 exceeded the figures recorded during the equivalent months of 2019. There has been a similar recovery in the volume of mortgage lending, with 2020Q4 drawdowns up 60 per cent on the 2020Q3 figure. Meanwhile, December 2020 approvals were more than one third higher than the level seen during December 2019 (Chart 22).

Chart 22: Mortgage approvals continue to show signs of recovery

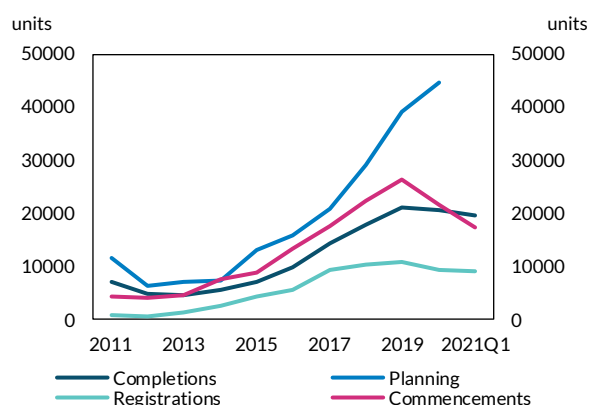
Volume of mortgage approvals: monthly



Source: Banking and Payments Federation Ireland.
Note: Latest observation March 2021.

Chart 23: Significant drop in forward looking residential construction indicators indicate a slower recovery in housing completions

Residential property construction indicators: annual



Source: CSO and Dept. of Housing, Local Government and Heritage.
Notes: Data are refer to annual totals. Latest observation end 2020 for planning permissions and 2021Q1 for all other indicators.

The closure of construction sites for prolonged periods as part of the COVID-19 public health restrictions has impeded the delivery of new housing units. Annual completions fell last year for the first time since 2013, with 400 fewer houses built than in 2019 (Chart 23). Forward-looking supply indicators have also weakened considerably (Chart 23), suggesting that a protracted

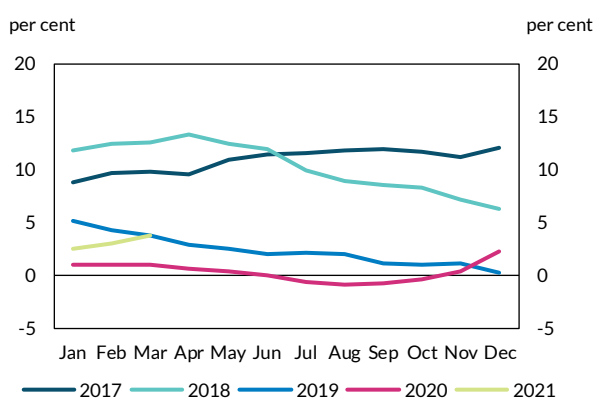
recovery in housing completions is likely.²⁰ The shortage of housing availability is compounded by an acute shortage of second-hand stock for sale.²¹

Low levels of housing supply, coupled with already high demand is placing upward pressure on residential property prices. In March 2021, national residential property prices were 3.7 per cent higher than a year earlier, the highest annual growth rate since March 2019 (Chart 24). This leaves nominal house prices around 15 per cent below their peak 2007 values.²²

Reflecting the supply constraints in the market, house prices remain high relative to incomes and – to a lesser extent – rents on a historical basis. Survey evidence suggests that there has been a notable shift in expectations and that the outlook for house prices amongst participants is much more positive, relative to the onset of the COVID-19 shock. Preliminary findings from the 2021Q2 Central Bank of Ireland/Society of Chartered Surveyors Ireland residential property price survey indicate that the median expectation is for house prices to rise by around 5 per cent over the coming 12 months, compared to an equivalent figure of around minus 5 per cent from the 2020Q1 survey. Similarly, the latest estimates from the house prices-at-risk (HPaR) model²³, introduced in the previous *Review*, point to an improvement in house price growth tail risks and forecast uncertainty (Chart 25).

Chart 24: Low levels of housing supply coupled with high demand placing upward pressure on house prices

Annual change in national residential property prices

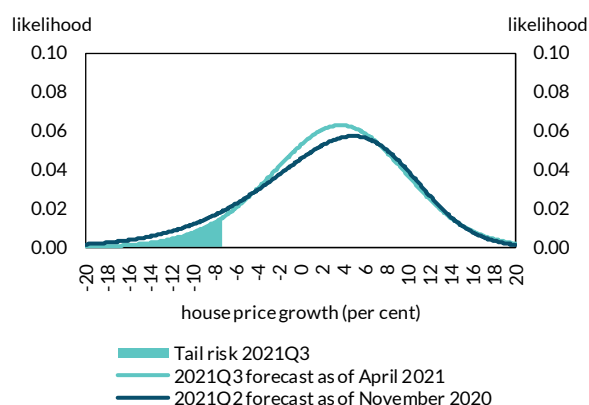


Source: CSO.

Notes: Latest observation March 2021.

Chart 25: Downside tail risks to house prices have declined

Residential property price growth at risk



Source: Central Bank of Ireland.

Note: Last observation 2020Q3.

While a fall in residential property prices arising from a prolonged COVID-19 shock remains possible, it is finely balanced with the potential for a widening of the mismatch between housing

²⁰ This is reflected in the Central Bank's latest housing supply forecasts of approximately 20,000 units this year and 23,000 in 2022, which are well below current estimates of medium-term demand for housing of approximately 34,000 units per annum. See Conefrey, T., and D. Staunton (2019), "[Population Change and Housing Demand in Ireland](#)", Central Bank of Ireland Economic Letter series Vol. 2019 No. 14 for more details.

²¹ A 40 per cent fall in the number of properties listed for sale on Daft.ie over the past year to 11,900 places the availability of residential units to purchase at an all-time low across the country in a series that stretches back to 2007.

²² Dublin RRE prices, meanwhile, were 2.5 per cent higher on an annual basis in March 2021.

²³ For more see FSR 2020 II, Box C. These forecasts are susceptible to shocks to financial conditions even though the systemic risk (cyclical) and property price misalignment input variables reflect relatively low risk levels compared with prior financial crises.

demand and supply to fuel significant house price growth in the near to medium-term. With existing supply constraints, a high degree of pent up demand and a recovery in the flow of mortgage credit, the conditions for significant upward momentum to house prices in the months ahead appear to exist. A rise in prices could increase the leverage of would-be buyers. This may lead to borrowers and banks becoming more vulnerable to potential income shocks and/or house price declines that could arise in the event of further economic shocks. The mortgage measures guard against dynamics that could lead to a significant deterioration in borrower and lender resilience (see *Macroprudential policy: Mortgage measures*).

The potential for risk amplification from the financial sector if lenders' risk appetite were to constrain credit supply

The scale of the economic disruption and the level of government support have affected dynamics in credit markets, both in Ireland and internationally. At the onset of the pandemic, demand for credit fell significantly, although it has since started to recover. Some tightening in credit supply conditions has also been observed – driven by heightened macroeconomic risk and lenders' own risk management, rather than bank balance sheet constraints. While there is little evidence to suggest that changes in credit supply have had broader macroeconomic implications to date, there are forward-looking risks to the supply of credit. A collective contraction in the supply of credit by the financial system, driven by structural changes in the banking system and a potential deterioration in credit quality as government supports are tapered, would have the potential to further inhibit and protract the economic recovery.

The COVID-19 pandemic has led to a significant disruption in economic activity and, as a result, has affected the dynamics of credit markets, both in Ireland and internationally. Absent any policy interventions, the combination of heightened economic uncertainty and the potential impact of the shock on banks' balance sheets would have had the potential to lead to a procyclical tightening in bank credit supply conditions. Significant policy actions have been taken, including monetary, microprudential, macroprudential and fiscal policies, to reduce the risk of a procyclical contraction in the supply of credit and to enable the financial system to support households and businesses during the onset of the COVID-19 shock.

The resilience of the banking sector at the onset of the pandemic – together with the policy actions to support credit supply since March 2020 – mean that a credit crunch has been avoided to date. In terms of observed credit outcomes, bank lending declined over the course of 2020, with outstanding loans to Irish residents falling by over €7 billion in 2020 (Chart 26). However, this was largely driven by a reduction in the demand for credit. This likely reflected the fall in economic activity due to the imposition of public health restrictions, increased uncertainty surrounding the economic outlook as well as longer-term issues around the preference for internal funding of investments by Irish businesses.²⁴ As the economy reopened in the second half of 2020, new lending volumes – including for mortgages and SME lending – picked up quickly, suggesting that credit demand had been the key driver of observed developments in credit outcomes last year. While there has also been a tightening in credit supply conditions, this has been much smaller than during the credit crunch of the financial crisis, with Ireland being less of an outlier than other euro area countries (Chart 27).

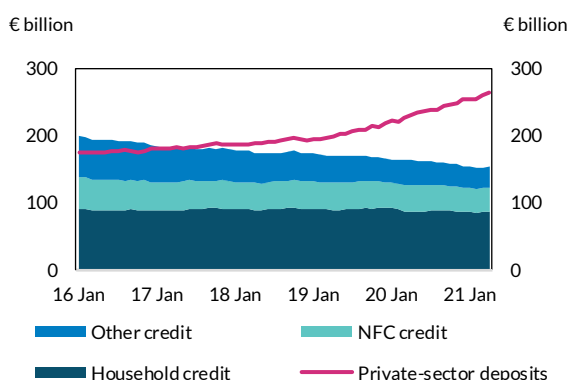
However, forward-looking risks to credit supply remain, especially as government support schemes start to unwind. As government supports are tapered and the economy further reopens, credit demand may pick up placing greater focus on the ability of the financial system to meet such credit demand. At the same time, the tapering of government supports could result in the crystallisation of latent financial distress for some borrowers, especially SMEs. This could have implications for bank balance sheets, adversely affecting the supply of credit. As noted in the last Review, the Irish retail banking system, in aggregate, has sufficient capital to absorb shocks that are

²⁴ For more on this development see the Central Bank's [SME Market Report](#).

materially worse than current baseline scenarios. Nonetheless, a prolonged period of economic disruption due to the COVID-19 shock or increased uncertainty around the medium-term effects of the crisis could weigh on lenders' risk appetite, even if lenders have sufficient financial resources to absorb the shock. The impact of the tighter risk appetite may be reflected across the full loan book or in specific sectors, particularly those most exposed to the negative effects of the COVID-19 shock. Such credit dynamics could potentially exacerbate the uneven impact of the shock across the domestic economy.

Chart 26: Domestic lending has decreased while the level of savings have increased

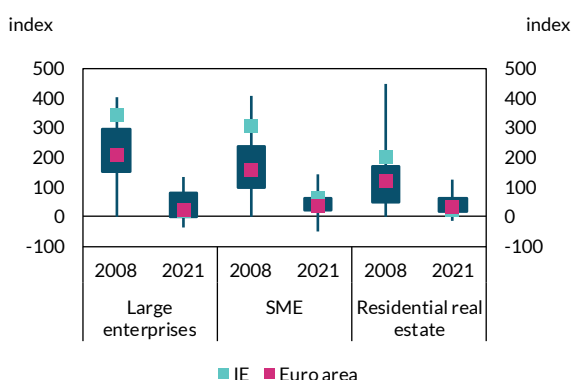
Private-sector credit and private-sector deposits



Source: Central Bank of Ireland.
Note: Last observation April 2021.

Chart 27: Credit standards tightened but by less than during the global financial crisis

Bank Lending Survey: Factors affecting credit standards on various loan categories



Source: ECB and Central Bank of Ireland.
Note: Data are from the ECB Bank Lending Survey. Negative values indicate a loosening of credit standards, positive values indicate a tightening of credit standards. Last observation 2021Q1.

A range of structural changes within the financial system in Ireland, occurring over a number of years, have been further accelerated since the onset of the COVID-19 shock and may have implications for credit supply conditions.²⁵ These factors include increasing competition from digital competitors and other non-bank lenders which has also been witnessed in the euro area banking sector. Factors such as a high cost base relative to income may affect Irish banks' capacity to generate profits, which may ultimately have implications for credit supply conditions (Chart 28). The COVID-19 shock has also accelerated structural changes such as the demand for new technologies in financial services both in Ireland and internationally, with possible implications for banks' costs and income streams.²⁶ The increase in savings as a result of the COVID-19 shock coupled with the low interest-rate environment also presents challenges for income generation for Irish banks. These various profitability challenges have the potential to lead to tighter credit supply conditions than what otherwise would have been the case.

The recent announcement by two banks to withdraw from the Irish market will result in a growing concentration of the banking system in Ireland (See Box C). While there is a significant degree of uncertainty regarding the future structure of the domestic banking system, the decisions of these

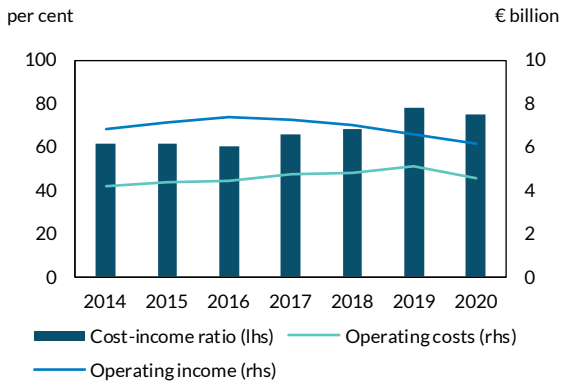
²⁵ Moreover, climate change also poses a structural risk to the financial system (see Box D).

²⁶ The role of innovation in financial services has been of increasing focus in recent years. See, for example, [the speech on the importance of technological improvements in both the banking sector and wider financial system](#).

lenders to withdraw from the Irish market could also have near-term consequences for the supply of credit to the real economy.

Chart 28: Efficiency gains have been more than offset by declines in income

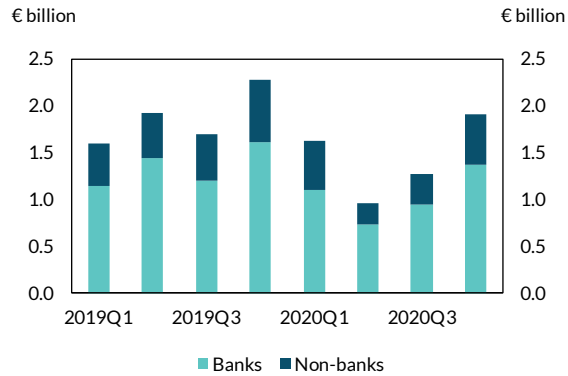
Irish retail banks' cost-to-income ratios



Source: Central Bank of Ireland.

Chart 29: Non-bank credit complements bank lending to SMEs

Breakdown of new lending to SMEs by credit provider



Source: Central Credit Register, CRO, Dun & Bradstreet and Central Bank of Ireland calculations.

While there is evidence of increasing involvement of non-banks in the provision of credit to the private sector, this form of financing remains relatively untested across the full economic cycle (Chart 29). While banks remain the main channel of lending for many sectors, an increase in non-bank lending diversifies financing options for enterprises and facilitates broader risk-sharing across the financial system. However, the resilience of this form of financing remains untested across the fully economic cycle. Given non-bank financial institutions' engagement in market-based financing, a rapid repricing of risks and tightening of global financing conditions may have adverse implications for their business models, particularly if they employ significant liquidity and maturity mismatches or leverage in their business models. The product offerings, business and funding models of these lenders also differ to traditional banks.²⁷ Further data and analysis is required to develop a deeper understanding of the risks and resilience of these non-bank financial institutions and their funding models across the full economic cycle.

²⁷ [The role of non-bank lenders in financing Irish SMEs](#), Central Bank of Ireland Behind the Data, April 2021.

Overall Risk Environment

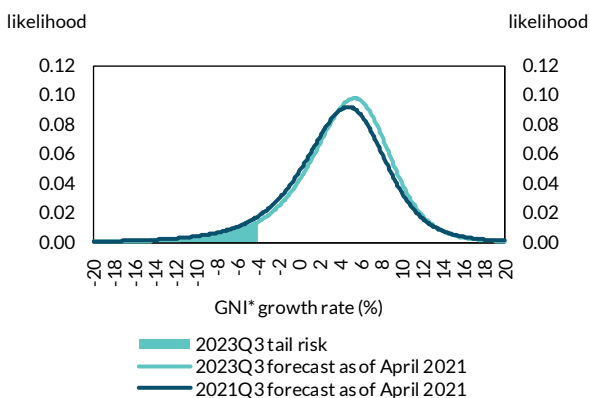
The overall risk environment remains challenging. The roll-out of vaccines provides a clearer path for an economic recovery and a reduction in uncertainty and downside risks. Still, the recovery is likely to be uneven and could be susceptible to unexpected setbacks while the tapering of fiscal supports will also be a key determinant of the near-term economic outlook. Although the most acute Brexit-related risks have receded since the last Review, risks related to structural changes to international taxation have increased. Such changes pose challenges to the macro-financial environment in Ireland given the small and open nature of the economy and the high dependence on international foreign direct investment (FDI) and trade.

There is significant interdependence across the four headline risks outlined in this Review which creates the possibility of different risks crystallising at the same time or prompting the materialisation of other risks. Shocks related to the continued low interest rate environment coupled with COVID-19 related uncertainties may interact to prompt a sudden reversal in risk premia and a tightening of global financial conditions. A protracted and uneven recovery could further add to global sovereign and corporate financial vulnerabilities. Moreover, the full extent of borrower distress will only become apparent as government supports start to unwind. A collective contraction in the supply of credit by the financial system as the domestic economy further reopens and government supports are tapered also risks constraining the recovery. Beyond the four headline risks highlighted in this Review, structural vulnerabilities and risks stemming from climate change are also increasing (Box D).

The growth-at-risk framework for Ireland, introduced in previous Reviews, can be used to track the evolution of downside risks to the macro-financial outlook over the three year horizon. These models assess future tail macroeconomic outcomes given current economic activity, financial conditions and cyclical systemic risk indicators. However, such models do not account for structural changes taking place in the macro-financial environment. The three year growth forecast for Irish GNI* growth has stabilised since the last Review (Chart 30). While the overall outlook remains uncertain, there have been some recent improvements which are reflected in the narrowing of the forecast distribution that has reduced the 5th to median growth percentile gap (Chart 31).

Chart 30: Growth at risk over 3 year forecast horizon

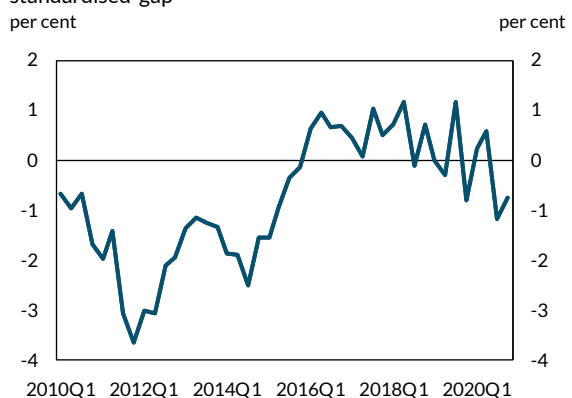
T+12Q GNI* Growth At Risk



Source: Central Bank of Ireland.
Notes: Model estimated at T+12Q up to 2017Q3. Last forecast for 2023Q3 fitted from observed data as of 2020Q3.

Chart 31: Measuring uncertainty using the growth at risk framework (5th percentile v median standardised gap)

T+12Q forecast uncertainty – 5th percentile to median standardised gap



Source: Central Bank of Ireland.
Note: Standardised 5th percentile to median percentile forecast gap. Last observation 2020Q3. Forecast horizon of T+12Q.

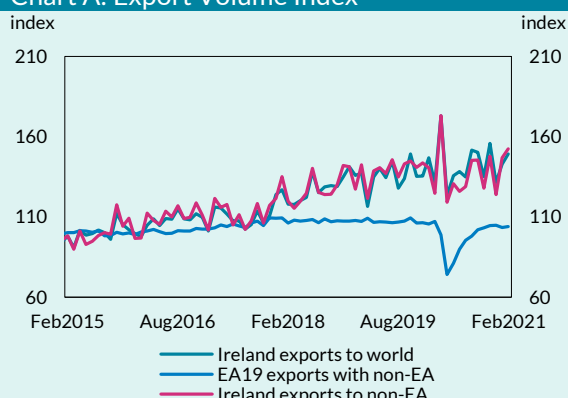
Box A: The exposure of MNE exports to changes in international tax and trade policy

By Silvia Calò, Luke Doyle, Lorenz Emter, and Kieran Sheehan (International Analysis & Relations)

Ireland's high dependence on trade is well captured by the size of exports relative to its economy. The resilience of its trade mix to the COVID-19 shock saw its external sector act as a buffer rather than a transmission channel for this shock, especially compared to other euro area countries (Chart A). While many sectors like hospitality, retail and tourism have been negatively impacted, multinational enterprises (MNEs) located in Ireland active in ICT, Pharma and MedTech have helped cushion the blow to the Irish economy.¹ This supported financial stability through employment and payments to the exchequer. This Box considers potential risks to MNEs with a large presence in Ireland, with possible implications for domestic financial stability.

One potential source of risk stems from protectionist trade practices. Chart B shows the number of harmful trade interventions since 2009. During 2020, such interventions increased by 42 per cent worldwide. Moreover, some of the sectors that play a significant role in the Irish export basket, such as chemical and pharmaceutical products, were among the most targeted. If this trend continues, the consequent decrease in gains from trade could have an impact on the Irish economy. Employment in Ireland could be affected by a drop in foreign demand for goods and services, while the concentration of government revenue in corporate tax exposes the public finances to any shock which could affect the profitability of its biggest contributors.

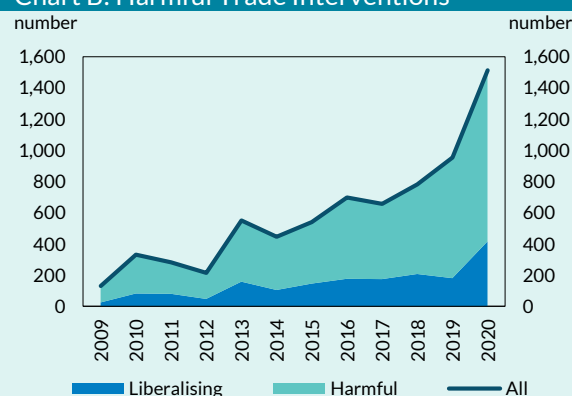
Chart A: Export Volume Index



Source: Haver Analytics.

Notes: 2015 = 100. Last observation February 2021.

Chart B: Harmful Trade Interventions

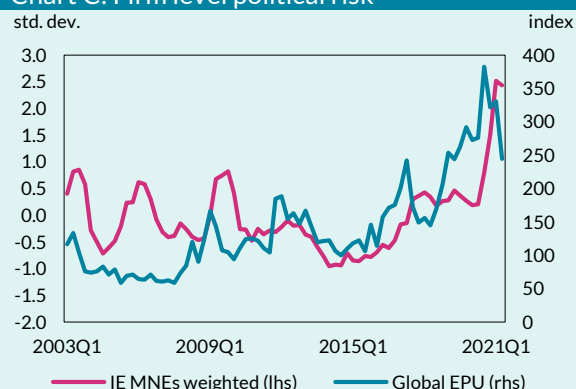


Source: Global Trade Alert.

Notes: Covers unilateral state interventions which are either harmful or beneficial changes in the relative treatment of foreign versus domestic commercial interests in trade in goods and services, investment and labour force migration. Last observation 2020.

Developments in international tax arrangements are another source of risk. The US administration increased its focus on tax and regulation and the BEPS 2.0 reform is gaining traction more globally in the G7.² On the EU side, the European Parliament agreed that MNEs should publicly report information on, for example, the number of employees and tax accrued and paid in the EU on a country-by-country basis. Moreover, the Next GenerationEU (NGEU) package created the need and political space for an increase in EU own resources, with the European Commission considering the introduction of a digital tax.

Chart C: Firm level political risk



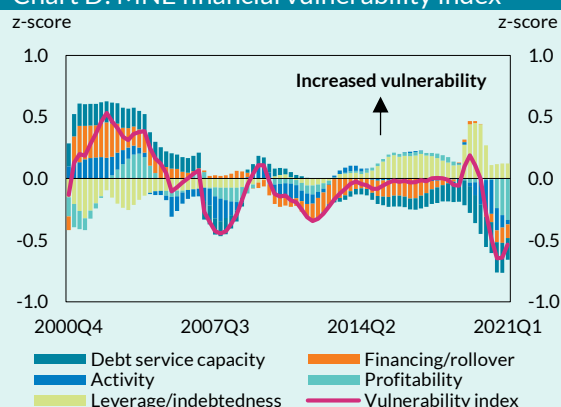
Source: Datastream, firmlevelrisk.com and authors' calculations.

Notes: Firm level political risk measure based on Hassan et al. (2019).

Average across all firms and standardized for MNEs with a large presence in Ireland. Irish MNEs weighted is a 4-quarter moving average weighted by employment in Irish subsidiaries.

Last observation 2021Q1.

Chart D: MNE financial vulnerability index



Source: Bloomberg and authors' calculations.

Notes: The indicators are standardised by transforming them into z-scores, with a mean of zero and a unit standard deviation. The index is based on MNEs with a large presence in Ireland only.

Last observation 2021Q1.

These developments are reflected in measures capturing levels of political risks reported by individual companies during their quarterly earnings conference calls. Chart C presents the average of the political risk index by Hassan et al. (2019) across Irish-based MNEs.³ While political risk at the beginning of 2020 mainly related to trade, and security and defence, during more recent quarters issues around economic policy and budget, and in particular taxation, have become more prevalent.⁴ These risks could be amplified by any vulnerabilities in the financial position of individual MNEs. Chart D shows that, for MNEs present in Ireland, financial health increased during 2020. The improvement in financial health was largely driven by an increase in activity, higher profitability and a decrease in leverage/indebtedness levels.⁵ This contrasts with developments for the (non-financial) corporate sectors in the euro area and the US more generally which saw increases in financial vulnerabilities during the pandemic.

Changes to the international corporate tax and regulatory landscape might have an immediate impact on corporate tax receipts, while in the medium-term they might affect FDI flows to Ireland or even possibly the location decisions both for existing MNEs and for those considering to locate in Ireland. Similarly, increasing barriers to trade could create incentives to reshape global value chains. Yet, location decisions are influenced by several factors, such as the composition of the workforce and the availability and cost of property and services, which might mitigate or amplify the effect of some policy changes. Moreover, sectors with more tangible investment might prove to be more resilient to policy changes than others.⁶ Overall, the large export-oriented sectors provided resilience and partially dampened the pandemic effects on the Irish economy and public finances. Yet, the rise in policy risk could negatively weigh on the economy in the medium-term, with potential implications for financial stability.

¹ Byrne, Stephen, "Exports continue to grow strongly despite downturn in global demand", Quarterly Bulletin Q4 2020 – Box C.

² The OECD's latest initiative on base erosion and profit shifting (BEPS) proposes tax on revenues where earned, and a global minimum tax.

³ Hassan, T., Hollander, S., Van Lent, L., and Tahoun, A. (2019), "Firm-Level Political Risk: Measurement and Effects", *QJE*, 134 (4), pp.2135-2202.

⁴ Topic-specific measures identify risks associated with specific political topics; categories include economic policy and budget, environment, trade, institutions and political process, healthcare, security and defence, tax policy, and technology and infrastructure.

⁵ The MNE financial vulnerability index is based on Gardó, S., Klaus, B., Tujula, M., and Wendelborn, J. (2020), "Assessing corporate vulnerabilities in the euro area", ECB FSR, November. The index combines five indicators measured by 15 individual firm level variables: debt service capacity, leverage, financing, profitability, and activity. All indicators are normalised and an overall MNE financial vulnerability indicator is generated by equally weighting the composite z-scores across sub-categories. A positive value indicates an increase in financial vulnerability while a negative one signifies lower financial vulnerability. Data is downloaded from Bloomberg for the period 2000Q1 to 2021Q1. MNEs include AbbottLab, Adobe, Alexion, Allergan, Apple, Baxter, Boston Scientific, Dell, Eaton, Facebook, Gilead, Google, Intel, Johnson & Johnson, Mallinckrodt, McKesson, Medtronic, Merck, Microsoft, Oracle, Perrigo, Pfizer, Shire/Takeda, VMware and SanDisk/WesternDigital.

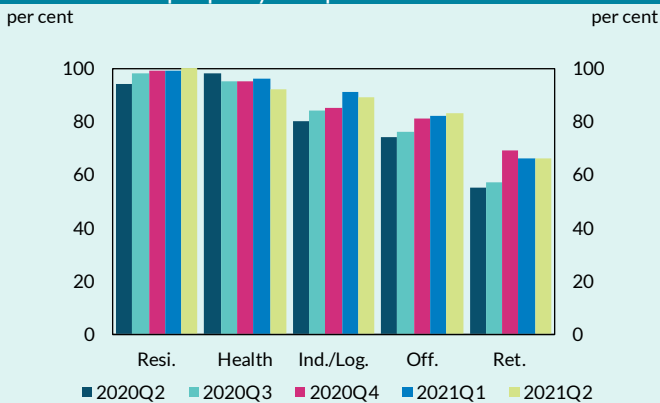
⁶ For details, see Emter, Mehigan, and McQuade (2019), "MNEs and Ireland: A Firm Level Analysis", Quarterly Bulletin Q3 2020 – Box E.

Box B: Structural implications of the COVID-19 shock on the retail and office commercial property markets in Ireland

By Gerard Kennedy and Neill Killeen (Macro-Financial Division)

The COVID-19 shock triggered a sharp slowdown in economic activity that has adversely affected commercial property markets worldwide, including in Ireland. The imposition of measures aimed at limiting the spread of the virus, such as the closure of “non-essential” retail outlets for prolonged periods and government guidance to work from home (WFH) have had a major impact on the performance of the retail and office sectors. For example, rent collection rates in these markets across Ireland and the UK have averaged approximately 60 and 80 per cent respectively since 2020Q2, representing much lower rates compared to the residential and healthcare sectors (Chart A). This Box examines the impact of the COVID-19 shock on the Irish commercial property market with a particular focus on the effects of structural changes such as the rise of online commerce (hereafter referred to as e-retailing) and the increased prevalence of working from home.

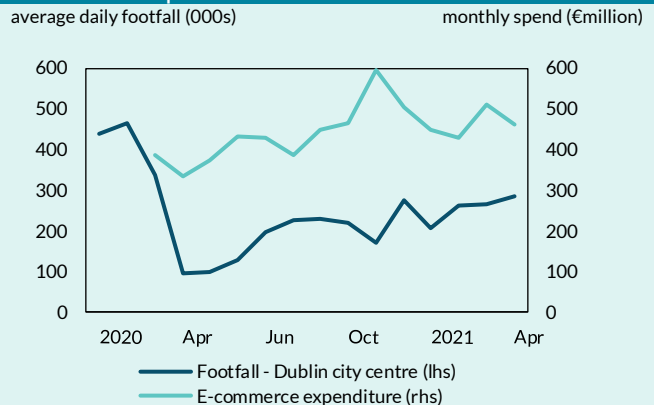
Chart A: Rent collection statistics as reported by Irish and UK listed property companies and REITs



Source: Goodbody and authors' calculations.

Notes: Latest observation May 7th 2021. Data refer to the combined rent collection rates across the main CRE sectors for a selection of approximately 50 Irish and UK listed property companies and REITs.

Chart B: Dublin city centre footfall and monthly e-commerce expenditure



Source: Dublin City Council and Central Bank of Ireland.

Notes: E-commerce reflects transactions where the physical credit or debit card is not present during payment. Latest observation April 2021.

A change in shopping habits, including the rise of e-retailing, was a familiar theme before the onset of the COVID-19 shock but has accelerated further since March 2020. Figures recording Dublin city centre footfall show the sharp decline in the number of daily visits at the onset of the pandemic and for periods when public health measures were at their most stringent (Chart B). Even during periods when restrictions were comparatively loose, for instance during December 2020, footfall remained approximately 40 per cent lower than early 2020 levels. There has been a simultaneous increase in on-line spending during this time. According to Central Bank figures for April 2021, e-commerce expenditure in that month was about 20 per cent higher than the March 2020 figure (Chart B).

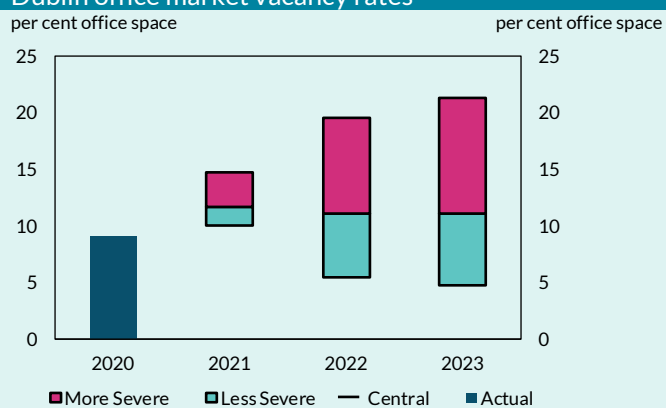
While the long-term impact of COVID-19 on the office sector remains highly uncertain, changes to the layout and use of the traditional office and increased levels of remote working are expected to be part of its legacy. Recent survey evidence points to a desire, amongst both employees and employers, to formalise current WFH policies in the aftermath the pandemic.¹

To assess the potential impact of these changes on the office sector and their associated effects, Kennedy et al. (2021) develop a scenario analysis based on a number of underlying assumptions.² The analysis focuses on seeking to understand the sensitivity of office vacancy rates to possible structural

implications of the pandemic shock, such as increased working from home and the potential repurposing of office space to take account of social distancing requirements or new ways of working. A “central” scenario is based on assumptions supported by current market data and publically available information, where available. Two additional scenarios are presented to illustrate the range of possible outcomes that could occur depending on changes to the underlying assumptions: therefore a “less severe” scenario, where the underlying assumptions are more benign and a “more severe” scenario where the underlying assumptions are more adverse compared to the central scenario.

The outcomes of the three scenarios are determined by the set of assumptions made to the key factors likely to influence the availability of office space in the near term. The key assumptions focus on (i) the supply pipeline, (ii) the volume of office leases expiring / up for renewal, (iii) increased rates of working from home by employees and (iv) the re-purposing of office space to take account of social distancing requirements and design changes such as additional canteen, changing, meeting or training facilities. The underlying assumptions, data sources and description of the methodology are presented in more detail in Kennedy et al. (2021).

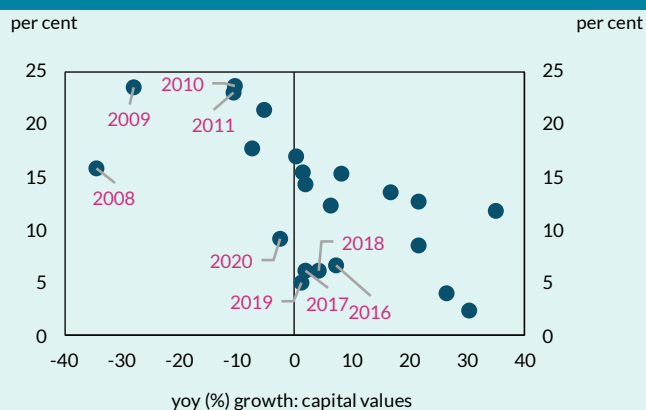
Chart C: Scenario analysis examining potential structural changes arising from COVID-19 shock: Dublin office market vacancy rates



Source: Authors' calculations based on initial (i.e. 2020) data from CBRE. See Kennedy et al. (2021) for a detailed description of the data, methodology and underlying assumptions underpinning the scenario analysis.

Notes: Black line between pink and teal boxes represents the vacancy rate under the central scenario. Bottom of teal box indicates the outcome of less severe scenario. Top of the purple box shows the office vacancy rate as per the more severe scenario.

Chart D: Dublin office annual capital value growth and vacancy rates (1999 to 2020)



Source: Authors' calculations based on data from CBRE and MSCI.

The results of the scenario analysis illustrate the potential impact structural factors such as increased WFH may have on Dublin office vacancy rates. As shown in Chart C, Dublin office vacancy rates were over 9 per cent at the end of 2020 having increased from approximately 5 per cent at the end of 2019. Under the “central scenario” shown in Chart C, the vacancy rate could rise from over 9 per cent in 2020 to approximately 11 per cent in 2022 and 2023 as space vacated due to assumed increased levels of working from home is partly repurposed for alternative uses. The more benign assumptions underpinning the “less severe” scenario suggest a potential decline in the vacancy rate towards pre-pandemic levels in 2022 and 2023. By contrast, the “more severe” set of assumptions sees the vacancy rate potentially rising significantly, as the envisaged alterations to office layouts are not enough to offset the excess vacant space arising from the assumed high instances of remote working. The wide range of vacancy rates - which would also have implications for rents and capital values (Chart D) -

illustrates the elevated uncertainty but also potentially the significant structural implications of COVID-19 on the office sector.

It is important to acknowledge that these are mechanical scenarios based on assumptions – which are subject to extreme uncertainty and potentially subject to change given the unprecedented nature of the COVID-19 shock. In addition, significant changes have occurred in Ireland’s commercial property landscape since the global financial crisis which also need to be considered. Funding sources for CRE have become more diverse in recent years, with greater involvement of international investors (see Chart 20). Moreover, indicators of CRE price misalignment³ do not suggest that CRE prices in Ireland were misaligned at the onset of the COVID-19 shock. Indeed, this indicator remained well below levels seen in the run up to the global financial crisis of 2008. Nevertheless, the analysis documents the potential impact working from home practices may have on office vacancy rates under a number of differing assumptions.

¹ Recent working from home surveys include Aon and Sigmar (2021), “[Talent leaders pulse report 2021](#)”, March 2021, Barrero, Jose Maria, Nicholas Bloom, and Steven J. Davis (2021), “[Why working from home will stick](#)”, National Bureau of Economic Research, No. w28731, CBRE (2020), “[2020 Global occupier sentiment survey - the future of the office](#)”, CBRE research client survey, June 2020, McCarthy, Alma, Noreen O’Connor, Tomás Ó Síocháin and Deirdre Frost (2021), “[Remote Working](#)” Ireland’s National Survey - Phase III Report”, Galway, Ireland: NUI Galway Whitaker Institute & Western Development Commission), and Cushman and Wakefield / CoreNet Global (2021), “[Workplace ecosystems - the office’s changing place in an agile world](#)”, April 2021.

² Kennedy, G., Killeen, N., Skouralis, A., Velasco, S. and M. Wosser (2021), “[COVID-19 and the commercial real estate market in Ireland](#)”, Central Bank of Ireland Financial Stability Notes series, No. 4.

³ See for instance Chart 4, in the Central Bank of Ireland, “[Systemic Risk Pack](#)”, October 2017.

Box C: The financial stability implications of bank withdrawals from the Irish market

The recent announcement by the two foreign-owned retail banks of their indicative intention to withdraw from the Irish market will result in further structural change in the Irish banking landscape, continuing a trend observed since the financial crisis. In the near term, the transactions under consideration entail both financial and operational risks, which need to be managed by the relevant financial institutions and their respective boards. The Central Bank has been clear in its expectations that lenders take a customer-centred approach throughout this potential period of change. The aim of this Box is to outline the channels through which these banks' withdrawal could have broader financial stability implications in the medium-term.

The structure and composition of the Irish financial system has changed substantially over the past decade. Since the financial crisis, the size of the domestically-oriented segment of the financial sector has almost halved. This has also been accompanied by continued consolidation in the retail banking sector. There has also been a reduction in the number of credit unions, driven by restructuring or exit of non-viable firms.¹ At the same time, the internationally-focused segment of the financial sector in Ireland has grown. This partly reflects the growth in the market-based finance sector, but also the (post-Brexit) growth of internationally-focused banks, as well as the size of the internationally-focused insurance sector resident in Ireland. The payments landscape is also changing, with an increasing number of non-bank payments providers based in Ireland.

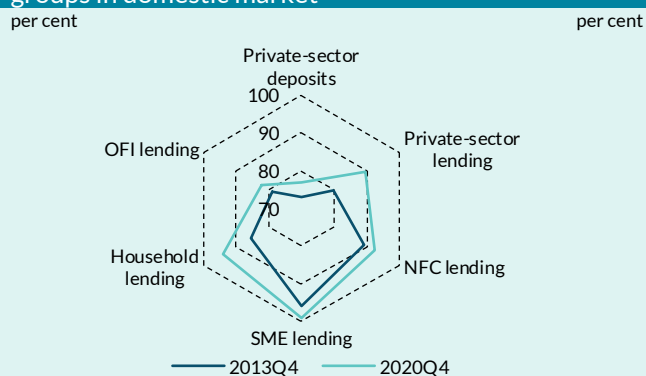
Purchases of the assets and liabilities of the withdrawing banks could increase the systemic importance of those remaining banks. A more concentrated banking sector would lead to an increase in the systemic importance of remaining institutions, as – everything else equal – the failure of these institutions would have a bigger impact on the economy and the rest of the financial system. Indeed, recent Central Bank research into the systemic risk-related implications of different macro-financial structures suggests that increased concentration increases the likelihood of downside GDP outcomes.² The Central Bank of Ireland has macro-prudential powers designed to mitigate the risks associated with banks deemed to be of systemic importance. Through the annual O-SII review, identified banks are required to maintain additional capital buffers. This additional buffer enhances the resilience of these institutions, commensurate with the greater impact that their potential failure would have. The ultimate impact of these structural changes on the systemic importance of remaining institutions will depend on the precise nature of the transactions under consideration.

The planned withdrawal of the two foreign-owned banks – in the context of an incomplete Banking Union – has the potential to increase risks stemming from interdependencies between the sovereign and the banking sector in Ireland in future periods of stress. The withdrawal of two foreign-owned banks increases the reliance of the domestic economy on a small number of domestically-owned banks.³ In periods of stress, this could increase risks associated with this “sovereign-bank nexus” in Ireland, as evidenced by the experience of the global financial crisis.⁴ European policy initiatives such as the establishment of the SSM and the ESM, as well as the adoption of the bank recovery and resolution directive (BRRD) and progress towards resolvability have helped weaken those links. Still, the Banking Union remains incomplete, with measures such as euro area-wide deposit insurance scheme remaining outstanding. In the absence of a full Banking Union, an increased reliance on domestically-owned banks – relative to greater diversification between domestically- and foreign-owned banks – has the potential to amplify the sovereign-bank nexus in future periods of stress.

The changing structure of the financial system has the potential to improve cost efficiencies of remaining banks. Remaining banks could take advantage of increased economies of scale – either organically, as they grow to fill the space previously occupied by the departing banks, or through the transfer of assets. This is particularly relevant in the Irish context, given that the domestic banking system has an elevated cost-to-income ratio relative to European peers, which acts as a drag on banks' capacity to generate capital in a sustainable manner and can translate into a higher cost of credit for households and businesses. Beyond the starting position of Irish banks, any efficiency gains would be relevant in the broader context of headwinds to profitability for banks globally, such as the low level of interest rates and increased competition from non-banks, amplified in the Irish case by the relatively small size of the domestic market. Mergers and acquisitions have helped improve efficiency in other parts of the financial system in the past. For example, transferee credit unions that were subject to restructuring reported lower levels of cost growth as they eliminated duplicated costs and achieved scale efficiencies. Continued progress in cost reduction and technological enhancements remain important to ensure the Irish banking system is in a better position to meet the needs of households and businesses in a sustainable manner.

The ultimate impact on credit supply conditions for households and business is difficult to gauge and will depend on the evolution of competitive forces, including from alternative providers of finance. The domestic retail banking system is already highly concentrated (Chart A) and the withdrawal of the two lenders will lead to a further increase in concentration. This could increase the market power of the remaining players, potentially translating into tighter credit supply conditions for borrowers relative to what might otherwise have been the case. There are however a range of countervailing forces, including efficiency improvements from current reforms and the possibility of economies of scale associated with asset transfers. In addition, the banking sector is not the sole provider of financial services and banks face competition from other entities. For example, in the mortgage market, there has been a gradual expansion of non-bank mortgage providers. In terms of company finance, considerations around the impact of bank withdrawals on credit supply may be particularly relevant for some small and medium-sized enterprises (SMEs). While non-banks also play a non-trivial role in SME lending, some segments of the SME market remain particularly reliant on bank finance.

Chart A: Market share of five largest banking groups in domestic market



Source: Central Bank of Ireland.

Notes: Data are adjusted for group structure. Credit unions are grouped together. Five largest banking groups are calculated per category and may not be the same across markets or points in time.

¹ For more see the Central Bank's [Thematic Review of Restructuring in the Credit Union Sector](#).

² For example, countries with a higher concentration of total banking system assets (3 largest banks' share), experience 5th percentile growth outcomes which are 2 percentage points lower (in GDP growth terms), than countries with less concentrated banking systems. See O'Brien and Wosser (forthcoming) for more details.

³ The Irish State has an equity stake in all three domestic-owned banks.

⁴ For example, see Albertazzi, U. Cimadomo, J. and N. Maffei-Facciolo (2021), "[Foreign banks and the doom loop](#)", ECB Working Paper Series, No. 2540, April. The authors find that the presence of foreign lenders stabilises lending in the presence of sovereign stress, thus mitigating the adverse feedback loop between sovereigns and banks.

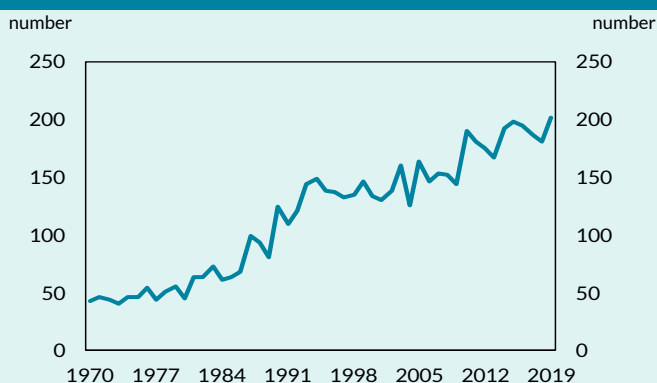
Box D: Climate change and financial stability

By Yvonne McCarthy (Climate Change Unit)

Climate change is already having – and is expected to continue to have – a profound effect on our planet, societies and economies. In that context climate change also poses risks to the financial system. Broadly, these risks fall under two categories. First, so-called ‘physical risks’, which stem from the increased incidence or severity of extreme weather events – such as floods and hurricanes – or more gradual, structural shifts in our environment – such as rising sea levels, growing weather variability and changes in precipitation. Second, so called ‘transition risks’, which stem from the possibility of abrupt changes in the relative price of carbon-intensive assets, due to the necessary adjustment towards a lower-carbon economy. The manifestation of these risks can bring economic and financial costs, with implications for financial stability.

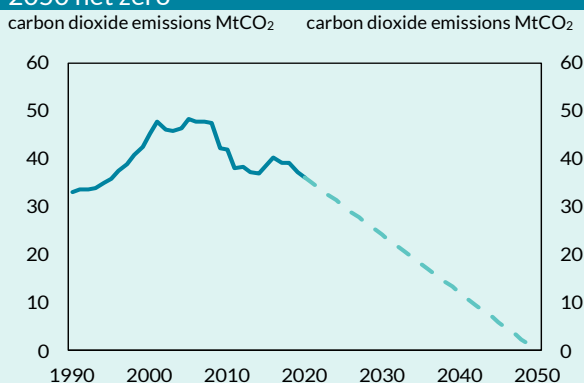
Physical risks, when they materialise, can erode physical assets, cause business disruption and labour migration, with possible adverse implications both for asset valuations and broader economic outcomes.¹ Globally, the incidence of physical climate events has been increasing (Chart A). Natural disasters are occurring five times as often today as they were in the 1970s, and the associated costs have been significant. Between 1980 and 2017, for example, economic damages of €453 billion were recorded as a result of natural disasters in the European Economic Area.² Adverse climate events are expected to increase in frequency as global temperatures rise further.³ The financial system is exposed to those risks through a number of channels. For example, insurance companies are exposed to losses borne by insured households and businesses when physical risks crystalize, while physical risks can adversely affect the quality of banks’ credit exposures, including those that are collateralised by physical assets, such as property.

Chart A: Number of global natural catastrophes, 1970–2019



Source: Swiss Re Institute.

Chart B: Emissions of carbon dioxide in Ireland, 1990–2019, with illustrative linear pathway to 2050 net zero



Source: EPA (2021) National Emissions Inventory (1990–2019 data). An illustrative linear pathway for net zero also shown (own calculations)

To curb physical risks, the world must reduce its greenhouse gas emissions to stem the increase in global temperatures. Domestically, for example, the Irish Government published the Climate Action and Low Carbon Development (Amendment) Bill in March, which provides for a legislative commitment to net zero emissions by 2050. The scale of adjustment needed is significant (Chart B). From a financial stability perspective, the pace of transition to a low-carbon economy gives rise to the second category of potential risk – transition risks. An early and orderly transition to a low-carbon economy is likely to

be associated with smaller eventual risks than a delayed and abrupt transition. Abrupt shifts in consumer or investor preferences, technological progress or policy action to transition to a lower carbon economy could prompt a reassessment of the value of certain assets, and, in some cases lead to 'stranded assets'. The financial system is exposed to transition risks through a range of channels. For example, in the face of delayed and abrupt transition, borrowers with particularly large carbon footprints may be unable to adjust their business models, struggling to meet debt obligations. Similarly, the value of collateral (e.g. properties with low energy efficiency) could be adversely affected by abrupt changes in preferences or public policies.

In aggregate, the economic costs of climate change are likely to be significant if global action to reduce greenhouse gas emissions in a timely manner is not sufficient. ESRB (2020) suggests that physical damage from climate change could reach one-tenth, or even one-fifth, of global GDP by the end of this century.⁵ Preliminary insights from an economy-wide climate stress test conducted by the ECB show that loan default probabilities rise substantially in the absence of policy action to curb climate change, leading to significant problems, especially for banks with portfolios in specific economic sectors or geographic locations.⁶

From the perspective of the financial system, assessing and managing climate-related risks entails challenges. The horizons over which impacts from physical and transition are likely to materialise will vary and could be relatively long in some cases; there is uncertainty around the timing of policy and technological-development-related events; and the transmission channels of the shocks are complex and widespread. Climate change also represents a structural shock, so conventional approaches to risk measurement that rely on historical data are unlikely to be sufficient. It is precisely in these circumstances where the potential for risk mispricing arises. In that context, significant additional effort is needed by the financial system to make meaningful progress in identifying, assessing and managing climate-related risks.

Addressing the risks to the financial system posed by climate change has become a priority for central banks and regulators, not only because of the need to ensure a system that is resilient to climate related risks, but also because the financial system itself has a key role to play in facilitating a smooth transition to a low-carbon economy.

The Central Bank of Ireland is working to integrate climate risk considerations into its supervisory and financial stability assessments and is collaborating with its counterparts at the Network for Greening the Financial System, the European Supervisory Authorities and other international organisations to fill data gaps, develop climate risk insights and tools, and to inform regulatory and policy development.⁷ In early-2021 the Central Bank established a new Climate Change Unit to take a strategic overview of the work on climate change across the organisation and to work across the Bank to develop a cohesive climate risk assessment framework. Insights from this work will be published in future Financial Stability Reviews and Central Bank publications as they become available.

¹ Lane, Philip R. (2019). "[Climate change and the Irish financial system](#)", Central Bank of Ireland Economic Letter, Vol. 2019, No.1.

² See "[Economic losses from climate related extremes](#)", in 2017 values.

³ IPCC (2014). [Climate change 2014 synthesis report summary for policymakers](#).

⁴ NGFS (2019). [A call for action: Climate change as a source of financial risk](#), April, Network for Greening the Financial System.

⁵ ESRB (2020). "[Positively green: measuring climate change risks to financial stability](#)", June.

⁶ De Guindos, Luis (2021). "[Shining a light on climate risks: the ECB's economy-wide climate stress tests](#)", The ECB Blog, March.

⁷ Makhlouf, Gabriel (2021). "[Climate change: towards action](#)", Central Bank of Ireland Governor's Blog, March.

Resilience

Non-financial corporations

The financial position of many businesses has been damaged by the COVID-19 pandemic. SME turnover declined sharply in 2020, with particularly large declines in sectors most affected by public health restrictions. SMEs have, with the help of extensive government supports, been able to access liquidity where necessary. Despite these supports and substantial cost reductions, the impact of the shock on SME profitability has been extensive, raising the potential for latent financial distress that may only become observable as policy support and creditor forbearance taper. While large corporates appear to have responded to the crisis by increasing the amount of cash they hold on their balance sheets, there is no evidence as yet of a rise in their leverage. Insolvency rates remain extremely low, reflecting exceptional support and flexibility. As this support is tapered, viable yet distressed firms will require the restructuring of their liabilities to avoid inefficient liquidation.

SME turnover has declined sharply during the pandemic (Chart 32). The median decline in turnover from 2019 to 2020 was 25 per cent across the SME sector, rising to 65 per cent among Accommodation and Food firms. This rapid deterioration in trading conditions has led to large declines in profitability for SMEs across all sectors, as well as widespread use of government supports and creditor flexibility.

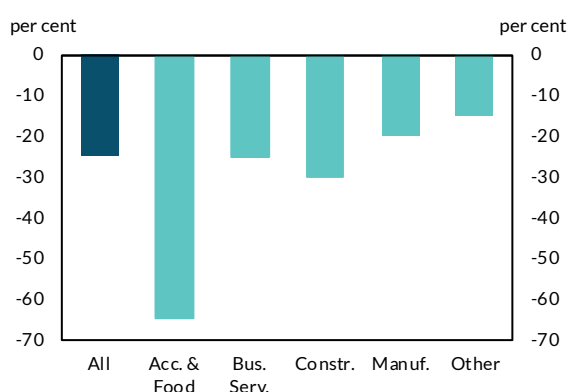
Extensive government supports have partly cushioned the shock. The State has provided approximately €7bn in grant aid to firms since the onset of the pandemic through wage subsidies, tax waivers, and other tailored schemes (see Box E). However, evidence from administrative and survey data suggests that micro enterprises were less likely to draw down supports relative to larger SMEs.²⁸ Where possible, firms appear to be selecting supports with lower cost and greater accessibility. As a result, grants and wage subsidies have been used the most, followed by low-cost and easily accessed debt finance in the form of tax deferrals, and finally loan schemes channelled through the financial system.

SMEs affected by the pandemic have been able to reduce their costs significantly (Chart 33). Due to both government supports and their own cost-cutting efforts, firms in highly affected sectors such as Accommodation and Food, and Business Services have cut their expenses by more than firms in other sectors. When faced with a 25 per cent decline in turnover during the pandemic, SMEs cut expenses by 9 per cent on average. The equivalent response among Accommodation and Food businesses to a shock of the same size was approximately 13 per cent. This higher cost flexibility is predominantly driven by substantially reduced labour costs and lower levels of purchases.

²⁸ [Kren et al., 2021, New survey evidence on COVID-10 and Irish SMEs: Measuring the impact and policy response, Research Technical Paper Vol. 2021, No. 3, Central Bank of Ireland](#). Additional information on enterprise support usage was published by the [CSO](#) in late April 2021.

Chart 32: SME turnover declined sharply during the pandemic

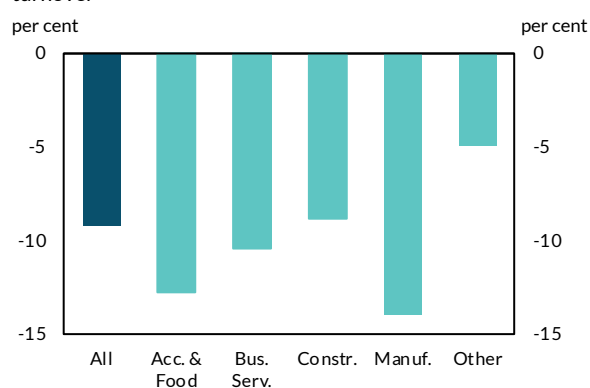
Median SME turnover change by sector



Source: Department of Finance *SME Credit Demand Survey 2020*.
Notes: Declines are measured when comparing the experience in the first six months of the pandemic to the equivalent period in 2019

Chart 33: SMEs have cut their expenses significantly, but by less than the fall in turnover

Estimated reduction in expenses for a 25 per cent fall in turnover



Source: Department of Finance *SME Credit Demand Survey 2020*; [Kren et al. \(2021\)](#).
Notes: Elasticities are estimated using realised cost and turnover reductions.

Despite cost reductions, the impact of the shock on SME profitability has been severe and points to potential latent financial distress in the system (Chart 34). Survey data show that average SME profits were negative across all sectors during 2020, down substantially from 2019 levels. SMEs in the Accommodation and Food sector were among the worst hit, with profit margins averaging below -35 per cent.²⁹ SMEs in every sector experienced a loss on average in 2020, highlighting the widespread nature of the pandemic shock across the SME population.

Estimates of SME financial distress indicate elevated risks (Chart 35). A modelling exercise by the Central Bank shows that government supports have alleviated some of this distress. In particular, supports have helped reduce distress for indebted firms, and this has had a positive impact on broader financial stability. Nonetheless, even after government supports are taken into account, the modelled financial distress rate for 2020 was approximately 16 per cent of SMEs, or 14 per cent of SME debt balances.

Large corporates responded to the crisis by raising the amount of cash they hold on their balance sheets (Chart 36).³⁰ The cash holdings of Ireland's largest corporates rose by a quarter at the median large firm, and nearly doubled on average, over the course of the pandemic. Some firms increased their cash holdings by a factor of five or more. This is similar to the experience of large corporates internationally, where firms employed precautionary liquidity measures such as credit line drawdowns.³¹ Bank financing and capital market conditions for large corporates have been supported by macroprudential measures and extraordinary monetary policy.

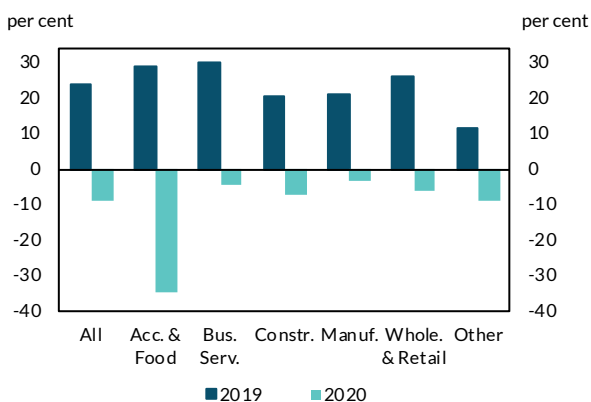
²⁹ Profit margins are defined as turnover minus expenditure over turnover. Evidence on the degree of cost reduction across cost types, and profit margins, is available in [Kren, J. et al. \(2021\), New survey evidence on COVID-19 and Irish SMEs: Measuring the impact and policy responses. Central Bank of Ireland Research Technical Paper 21RT03.](#)

³⁰ A large volume of relevant financial statements are due for release in the coming weeks and we will sharpen our narrative statements accordingly. Our ex ante prediction is that cash holdings and firm leverage rose due to a combination of precautionary cash hoarding, trading losses, credit line drawdown, and refinancing.

³¹ See [Acharya and Steffen \(2020\)](#).

Chart 34: SME profitability fell sharply in 2020

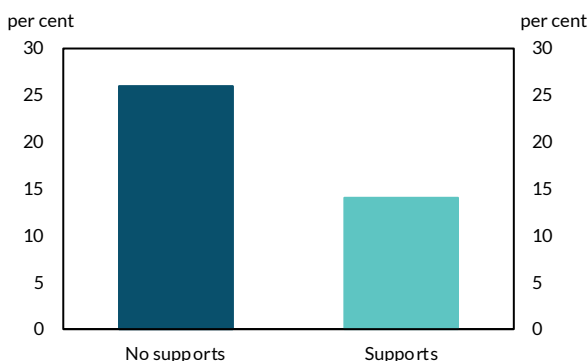
Profit margin by sector in 2019 and 2020



Source: Department of Finance *SME Credit Demand Survey 2020*.
Notes: Profit margin defined as turnover minus total expenditure divided by turnover.

Chart 35: Estimated SME financial distress rates were elevated at end-2020

Debt-weighted SME financial distress rate estimates by policy environment

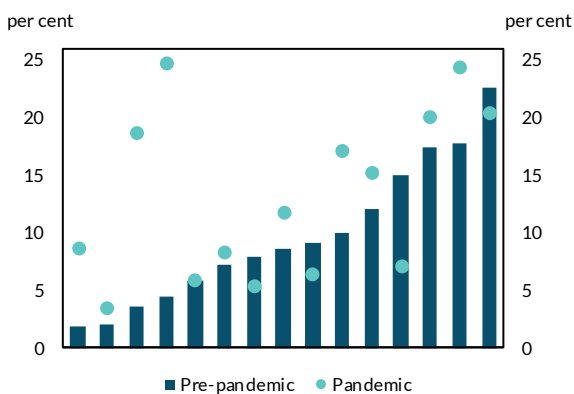


Source: [McCann and Yao \(2021\)](#).
Notes: Distress rates are estimated at end-2020 using a micro-simulation model. A firm is modelled as being in financial distress when (a) it has insufficient cash to fund three months' operating losses and (b) it cannot meet three months' interest payments while also being in negative equity. "Supports" in the graph represents a simulation where all supports up to September 2020 are modelled.

Leverage among large corporates does not appear to have increased during the pandemic (Chart 37). Globally, there has been heavy reliance on debt-based liquidity supports. This has raised concerns that trading losses and debt accumulation will lead to an over-indebted corporate sector. This could result in depressed levels of investment as the global economy recovers and heighten financial stability risks through future firm distress. In contrast to international developments, the data for large Irish corporates thus far do not show a significant increase in leverage ratios.

Chart 36: Cash holdings rose among the largest corporates

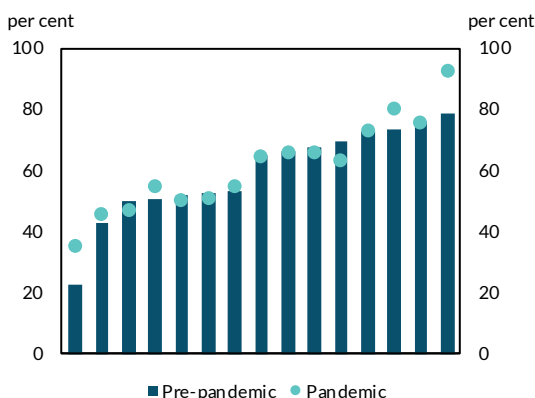
Cash-to-assets ratios of the largest Irish corporates



Source: Companies Registration Office.
Notes: Pre-pandemic is defined as the most recent balance sheet date prior to 31 March 2020. Pandemic is defined as the most recent interim or annual balance sheet date after 31 March 2020.

Chart 37: Leverage did not change significantly among the largest corporates

Liabilities-to-assets ratios of the largest Irish corporates



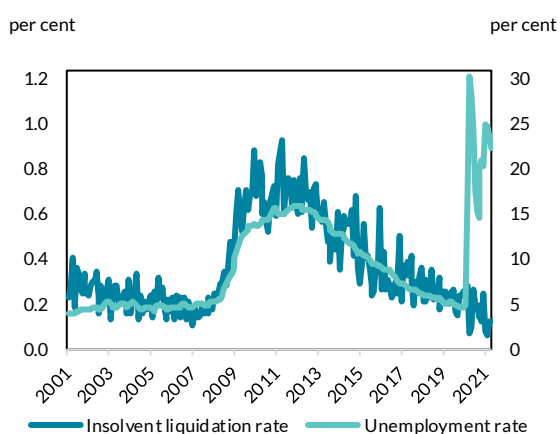
Source: Companies Registration Office.
Notes: Pre-pandemic is defined as the most recent balance sheet date prior to 31 March 2020. Pandemic is defined as the most recent interim or annual balance sheet date after 31 March 2020.

Corporate insolvency notifications remain unusually low (Chart 38). This is despite the high estimates of financial distress among firms. This pattern is similar to that observed in other jurisdictions (see *Risks: Sovereign and corporate debt sustainability*). Unlike in other jurisdictions, there is no moratorium on insolvency filings in Ireland and the court system continues to operate.

The low liquidation rate is most likely explained by the easing of liquidity pressures on firms through government supports, as well as by creditor flexibility. This flexibility has meant that, while balance sheets have deteriorated significantly, immediate cashflow pressure forcing directors to place their companies into liquidation has not arisen. The low liquidation rate should not therefore be seen as a sign of robust corporate health, and more likely represents a delay in the transmission of the shock through to insolvency rates. There remains substantial uncertainty around the degree to which this latent distress will translate into SME closures.

Chart 38: Corporate insolvency notifications remain low

Monthly insolvent liquidation and unemployment rates



Source: Companies Registration Office, CRIF Vision-Net and CSO.
Notes: Insolvent liquidations are defined as Creditors' Voluntary Liquidation and Court-Ordered Liquidation notifications. See [McGeever et al. \(2020\)](#).

Chart 39: Some firms will require their liabilities to be restructured

Share of SMEs by profitability status in 2019 and 2020



Source: Credit Demand Survey and [Kren et al. \(2020\)](#).
Note: Profitability is defined as turnover minus expenditure divided by turnover.

Many bank borrowers that made use of a payment break are returning to full repayments.

Payment breaks provided an important source of liquidity relief to firms during 2020. The rate of payment break utilisation in June 2020 was 23 and 18 per cent for retail bank lending to Irish SME and corporate borrowers, respectively, highlighting the widespread nature of liquidity distress in the early part of the pandemic.³² Box E shows that SME borrowers that utilised payment breaks were also more likely to access other government supports. Four out of five SMEs that had made use of a payment break during the year resumed full repayments by the end of 2020, with term extensions playing an important role in this process.³³ While these figures are encouraging, it is too early to tell how the SME loan book will perform, with much depending on the combination of policy support tapering and the trajectory for economic reopening in the most affected sectors.

Survey data suggest that some firms will not reopen even as public health conditions improve. CSO analysis shows that 7 per cent of enterprises in Ireland reduced employment to zero during the pandemic.³⁴ While some firms may have entered a form of trading hibernation, international evidence suggests that outcomes for these firms may be poor. Evidence from the hospitality,

³² [Kearns et al., 2020, COVID-19 payment breaks: who continues to avail of them? Behind the Data, Central Bank of Ireland.](#)

³³ Among this group, some have returned to full payments while availing of a term extension (lengthening of loan maturity). See the [Central Bank of Ireland SME Market Report 2021](#).

³⁴ See the [CSO Business Signs of Life release](#).

leisure, and retail sectors in the US shows that each additional week of closure was associated with a lower probability of ever reopening and lower employment levels for those that do reopen.³⁵

Some firms will require the restructuring of their liabilities if they are to survive (Chart 39).

Roughly 13 per cent of SMEs in Ireland failed to turn a profit in 2019 and were loss-making during the pandemic. A further 23 per cent of SMEs had been profitable prior to making losses during the pandemic.³⁶ A key challenge as the economy continues its reopening will be to establish business viability and potentially restructure liabilities through informal negotiation with creditors and through formal legal channels such as examinership. The government is currently implementing reforms to the corporate restructuring regime facing small companies in Ireland, which should lower costs and boost accessibility.³⁷ Such policy actions, where they improve the likelihood that viable firms are restructured rather than liquidated, will mitigate the risk of inefficient scarring in the economy.³⁸

³⁵ See the [New York Fed analysis](#).

³⁶ All figures in this paragraph are weighted by SMEs' employment shares.

³⁷ Further information on the Small Company Administrative Rescue Process is available [here](#).

³⁸ For a similar discussion around restructuring of businesses in the USA, see [Greenwood, R. et al \(2021\), Sizing up corporate restructuring in the COVID crisis, NBER Working Paper 28104](#).

Box E: Pandemic credit risks among SME borrowers

By Fergal McCann and John McQuinn (Macro-Financial Division)

The impact of financial difficulties in the SME sector on bank capital has been mitigated by a range of policy actions.¹ Along with exceptional levels of fiscal support and macro/microprudential regulatory actions, widespread payment breaks (PB) to borrowers beginning in March 2020 were important in alleviating liquidity pressures on businesses carrying debt.²

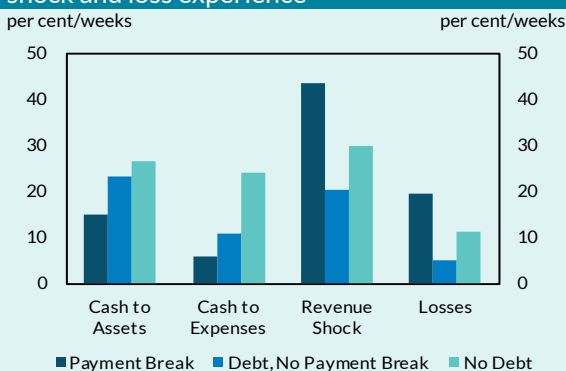
The outcomes for SME solvency and banks' associated credit risk remain highly uncertain, depending both on the form of the economic reopening and on policy support choices. In this box, we provide new statistics on the risk profile of SME borrowers that have availed of a PB during the pandemic, a group with particular macro-financial relevance given their repayment difficulties experienced in 2020. We build on the findings of [Duignan and McGeever \(2020\)](#), who show that those availing of a break had an ex-ante riskier loan profile than those who did not.

Chart A shows that SMEs with a PB entered the pandemic in a less resilient liquidity position. Whether measured by cash-to-assets or the number of weeks of expenses held in cash, these firms were less liquid than indebted firms that did not avail of a break, or SMEs without bank debt. The extent of the revenue shock, at close to a 45 per cent decline for those taking a PB, is more than twice as severe as that experienced by firms not availing of a break and feeding through to higher losses.

Chart B reports that those with a PB have been more reliant on policy support. Wage support take-up rates were above 80 per cent, relative to close to 60 per cent in other groups. Similarly, reliance on tax deferrals was close to 50 per cent for those taking a PB, and below 20 per cent for other SMEs.

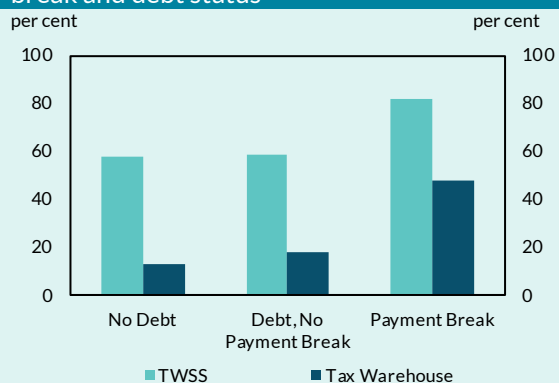
These findings emphasise the extent of the financial challenges facing some SMEs and the repayment difficulties that may lie ahead. The dependence of SME solvency on government decisions around policy support tapering is also apparent, with knock-on implications for bank losses and capital.

Chart A: Pre-pandemic liquidity, pandemic revenue shock and loss experience



Source: Dept of Finance Credit Demand Survey, authors' calculations.
Notes: Cash to expenses refers to the number of weeks that cash assets would cover expenditure. "Revenue Shock" as a per cent of turnover and "Losses" are reported as positive values.

Chart B: Policy support take-up rates by payment break and debt status



Source: Dept of Finance Credit Demand Survey, authors' calculations.

¹ Kren et al. (2021) report detailed statistics on the revenue, cost and policy take-up developments of SMEs in Ireland from March 2020. [Janez Kren, Martina Lawless, Fergal McCann, John McQuinn and Conor O'Toole, \(2021\), "New Survey Evidence on COVID-19 and Irish SMEs: Measuring the Impact and Policy Response.", Research Technical Paper, Vol. 2021, No. 3., Central Bank of Ireland.](#)

² Duignan et al. (2020) show that Irish SME payment break take-up rates were 30 per cent in June 2020 and 18 per cent in October 2020. [David Duignan and Niall McGeever, \(2020\), "Which firms took COVID-19 payment breaks?", Financial Stability Notes, Vol. 2020, No. 6., Central Bank of Ireland.](#)

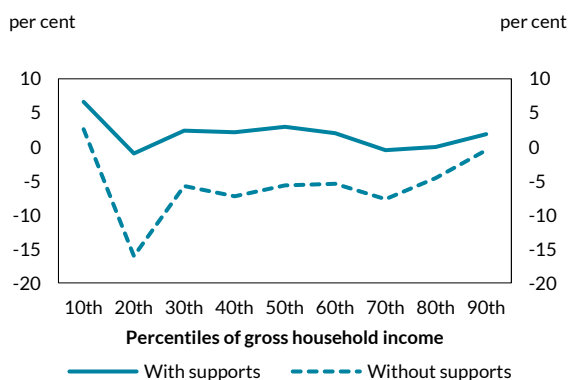
Households

Government policy supports have played a pivotal role in absorbing the adverse effect of the COVID-19 pandemic on household incomes, especially for those on low incomes. As a result, liquidity buffers across the household sector as a whole have strengthened and indebtedness has been stable. Payment breaks supported a significant number of borrowers during the early phase of the pandemic. Only nine per cent of those accessing these supports – less than one per cent of all mortgages – have requested further support following their expiration. Vulnerabilities in the mortgage loan book remain as a legacy of the credit boom of the 2000s, especially among high-risk loans with a history of default, forbearance or restructure. The path for tapering of exceptional pandemic-related supports, combined with the reopening of the most acutely affected sectors, is the key source of uncertainty facing household finances.

The household sector has experienced unprecedented levels of job loss as a result of the pandemic, but direct fiscal support has reduced the impact on household incomes. Owing to exceptional fiscal supports for incomes, such as the TWSS, EWSS and PUP schemes, household incomes were supported in 2020 (Chart 40). Without any social protection payments, median incomes could have fallen by 5.7 per cent in Q3, with larger average falls among those with lower incomes (6.7 per cent) than those on higher incomes (2.5 per cent). Policy supports have guarded against the disproportionate impact of job loss on low-income households. Median income increased by 3 per cent in Q3, once policy supports are accounted for (Cahill and Lydon, 2021).³⁹

Chart 40: Household income, in particular at the lower end, has been supported by government policy.

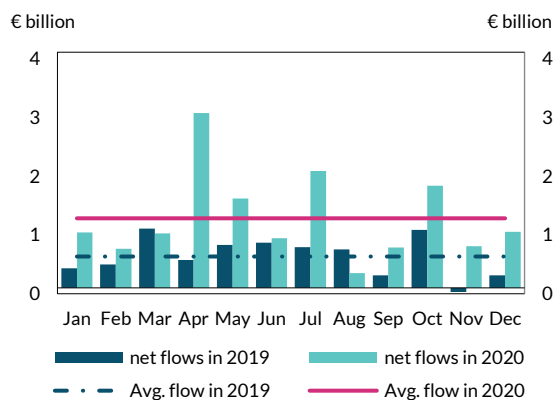
Year on year changes in gross household income in 2020Q3



Source: Cahill and Lydon (2021), Economic Letters Vol 2021, No. 2.
Notes: The data on incomes come from both administrative and survey sources. Individual household incomes are estimated to 2020Q3. The 'Without COVID-19 supports' counterfactual does not estimate what a household's income might be if it received pre-existing out-of-work income supports instead, like jobseekers allowance.

Chart 41: Household deposits increased throughout 2020.

Household deposits, monthly flows (Jan 2019 – Dec 2020)



Source: Central Bank of Ireland.
Note: Net household deposit flows between Jan 2019 and Dec 2020.

As a result of income supports and limited spending opportunities, household balance sheets have been strengthened in 2020. The net inflow of household deposits increased strongly on a year-on-year basis between March and December 2020 (Chart 41). On average, the household sector added €1.17 billion per month to liquidity buffers during 2020, compared to €0.53 billion in 2019.

³⁹ See Cahill and Lydon (2021) 'The Impact of COVID-19 on the incomes and debt sustainability of Irish households', Economic Letter Vol 2021, No. 2.

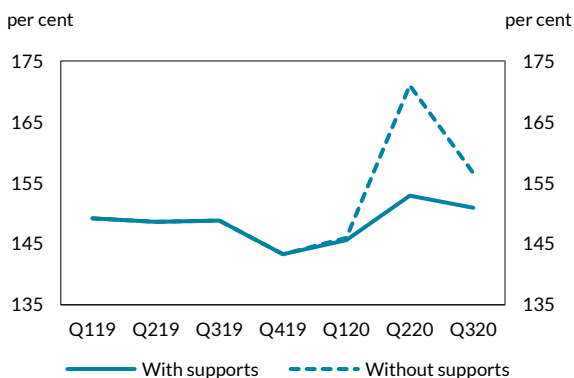
Recent Central Bank research highlights challenges in predicting how much of these additional deposits may be spent in the short or medium term, with the outcome depending on whether the savings are seen as similar to “windfall” gains, as opposed to regular savings. Up to one half of the accumulated savings may be spent, according to one estimate (Lydon and McIndoe-Calder, 2021).⁴⁰

Given the outlook for house prices, the risk of negative equity appears low compared to the recent past. Under Central Bank baseline projections, the proportion of households falling into negative equity will continue to decline to below 2.5 per cent (Chart 62 of FSR 2020:2).⁴¹ Risk highlights the continued upward pressure on house prices currently, with Chart 24 pointing to a build-up in growth rates in early 2021 so far.

Debt burdens relative to income have not increased, due to income support policies. Aggregate debt-to-income ratios and interest payment burdens reduced steadily during the 2010s.⁴² In the face of the COVID-19 shock, debt burdens relative to incomes could have increased, but this has not happened due to income supports (Chart 42). Cahill and Lydon (2021) show that median owner-occupier mortgage debt-to-income (DTI) ratios, when accounting for government supports, changed little during 2020, at around 1.5 times gross income.⁴³ Without income supports, the median ratio would have increased by 18 percentage points in Q2, to 1.71. The DTI-reducing effect of COVID-19 income supports is largest for heavily indebted households (Chart 43). For the 90th percentile, DTI ratios would have increased by more than 2.3 times gross income, without supports, to 6.65, instead of the 4.33 actually observed.

Chart 42: PUP and wage subsidies have prevented larger increase in debt-to-income ratios.

Debt-to-income ratio (HMR debt, median) under different policy support scenario

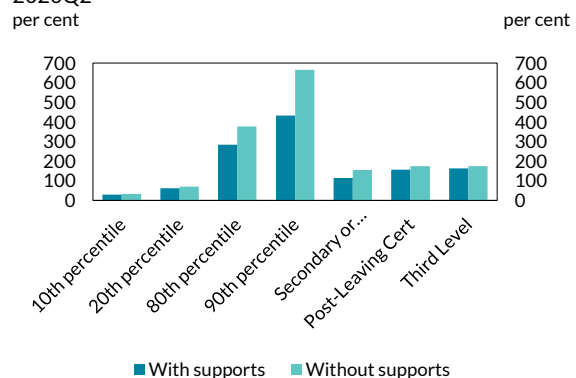


Source: Cahill and Lydon (2021).

Notes: The data on household debt comes from the 2018 Household Finance and Consumption Survey. To make sure that the debt data is representative of household debt in 2020, authors compared the distribution of debt levels and repayments in the 2018 HFCS with values in the June 2020 Central Credit Register. The distributions closely overlap.

Chart 43: COVID-19 income supports are most effective in reducing indebtedness for heavily indebted households.

Debt-to-income ratio (HMR debt, median) across distribution and by education of the household reference person in 2020Q2



Source: Cahill and Lydon (2021) Table A4.

⁴⁰ See ‘Saving during the pandemic: Waiting out the storm?’, Economic Letter Vol 2021, No. 4.

⁴¹ See Financial Stability Review 2020 II, Central Bank of Ireland.

⁴² See Financial Stability Review 2020 II, Central Bank of Ireland.

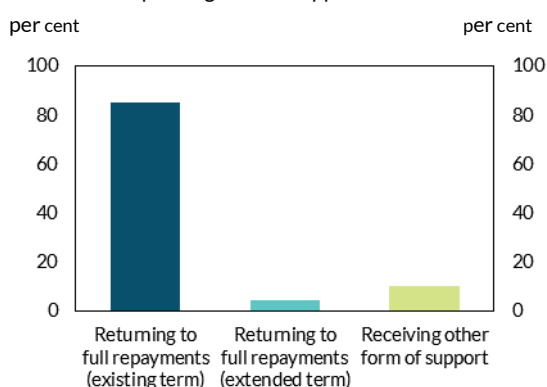
⁴³ See ‘The Impact of COVID-19 on the incomes and debt sustainability of Irish households’, Economic Letter Vol 2021, No. 2.

Payment breaks provided liquidity support to one in nine mortgage holders, but requests for further support have been less common. Requests for further support following the expiration of payment breaks have been low (Chart 44). Over 80,000 ROI mortgage accounts requested a payment break in 2020, representing 11 per cent of total ROI mortgages at the five main retail banks. 40,000 of these accounts requested a further three-month payment break. At the point of expiry, 7,000 accounts were receiving arrears or pre-arrears support from their lender. These include accounts that were already in arrears when the payment break was agreed. This represents ten per cent of borrowers availing of a payment break, and around 1 per cent of all mortgages. Box F highlights early patterns in the restructure types being offered to this group.

Vulnerabilities exist among the large group of restructured mortgages and those in long-term mortgage arrears, both legacies of the credit boom of the 2000s.⁴⁴ A portion of mortgage borrowers entered the COVID-19 crisis with existing vulnerabilities (Chart 45). On a count-weighted basis, 8.1 per cent of retail bank mortgages were classified as non-performing, of which one third were in mortgage arrears of more than one year. A further 17.4 per cent of loans are classified as performing, but have a history of repayment difficulty including arrears, past restructures and forbearance arrangements. Although performing, historical vulnerabilities remain in this cohort of borrowers. The mean default probability (as measured by banks' internal models) for such loans is 7.1 per cent, compared to 1.5 per cent for performing loans with no such history. The heightened vulnerability of this group of previously-restructured loans was evident during the pandemic, with take-up of payment breaks substantially higher than among other performing loans (Gaffney and Greaney, 2020).⁴⁵

Chart 44: Requests for further support have transpired at a low rate since the expiration of payment breaks.

Number of PDH borrowers availing of COVID-19 payment breaks and requesting further support.

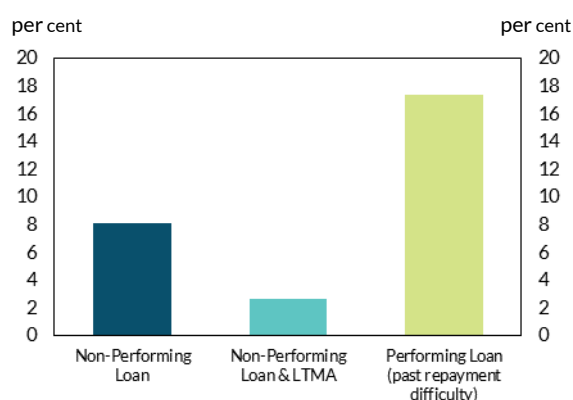


Source: Central Bank of Ireland.

Notes: Data refers to 5 Irish retail banks at year end, 2020.

Chart 45: Vulnerabilities remain in the mortgage market as a legacy from the credit boom in the 2000s

Mortgage accounts by vulnerability classification



Source: Central Bank of Ireland.

Notes: Data as of June 2020 are reported on a loan-count-basis. "Non-Performing Loan & LTMA" is a subset of the "Non-Performing Loan" category. Loan-level data are used from retail banks only. Long term mortgage arrears (LTMA) as defined above relates to loans greater than 360 days past due. "Past repayment difficulty" implies a history of any arrears or any temporary/ permanent modification to loan contracts.

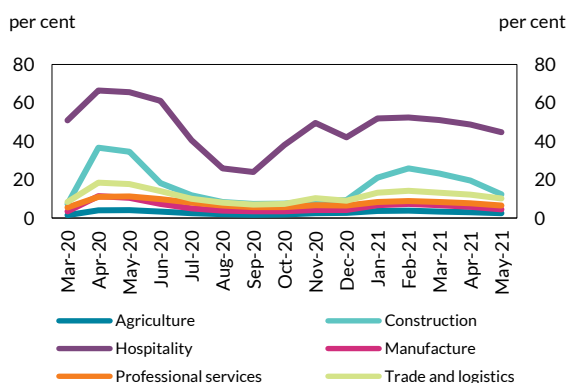
⁴⁴ Box F provides insights into the financial characteristics of distressed mortgage borrowers engaging with their bank since March 2020. 47% of those distressed borrowers didn't avail of a payment break.

⁴⁵ See Gaffney and Greaney (2020) "COVID-19 Payment Breaks on Residential Mortgages" Central Bank of Ireland Financial Stability Notes, Vol. 2020, No. 5.

Sector-specific demand, in the presence of tapering of exceptional pandemic-related supports, is the key source of uncertainty facing household finances. At the sectoral level, the hospitality (Accommodation and Food) sector has had employment levels at around 50 per cent of pre-pandemic levels for most of this year, with those out of work in receipt of the PUP. The construction sector also experienced a sharp rise in PUP recipients during the first quarter, which has since been alleviated as sites have reopened (Chart 46). In total, taking all forms of unemployment benefit and wage subsidy into account, there were approximately 935,000 people in receipt of income support in March 2021, from a labour force of 2.4 million (Chart 17), with this number falling in April and May 2021 and likely to be continuing to decline at the time of writing. However, in some sectors, job losses are likely to be more persistent due to longer-term changes arising as a result of the pandemic, with implications for the debt repayment capacity of some households. Previous Central Bank analysis (FSR 2020:H2) suggests that fiscal supports have alleviated financial pressure on mortgage holders substantially, perhaps lowering rates of new mortgage default by over one half during the pandemic. The extent of the challenges for household finances remains uncertain, with the true level of distress likely to emerge as sectors further reopen, supports taper, and creditors engage in longer-term assessments of repayment capacity.

Chart 46: In some sectors, substantial shares of employees have been out of work and in receipt of the Pandemic Unemployment Payment.

Share of pre-COVID employees on PUP by sector over time



Source: CSO.

Notes: Sectoral employee numbers are based on Labour Force Survey (LFS) 2019Q4.

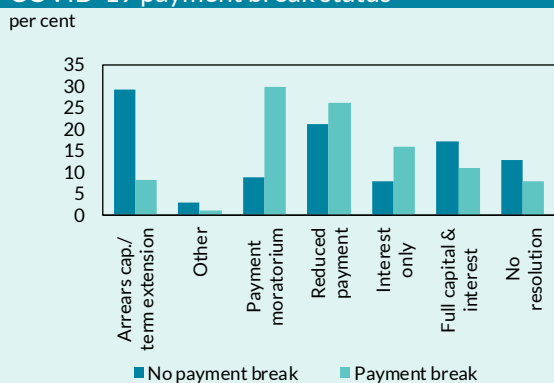
Box F: Financial position of distressed mortgagors and modification strategies during COVID-19

By Eoghan O'Brien (Macro-Financial Division)

This Box provides insights into the financial characteristics of distressed mortgage borrowers engaging with their bank since March 2020. We use almost 4,500 individual Standard Financial Statements (SFS) from five Irish retail banks submitted between March and December 2020. Among these borrowers, 53 per cent had availed of a payment break as of October 2020, while 76 per cent had received mortgage forbearance in the past.

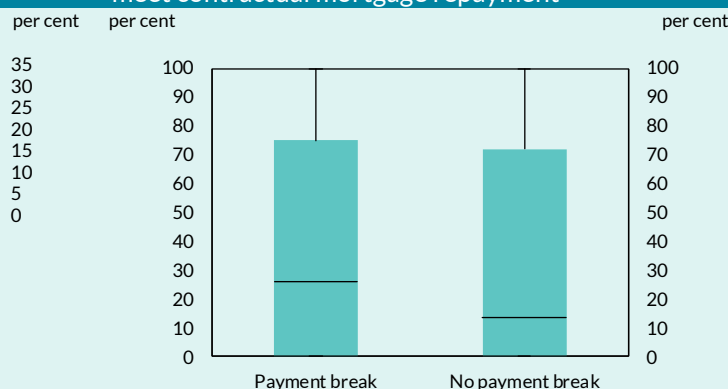
Borrowers in receipt of a COVID-19 payment break have been offered different forbearance options to those engaging without a payment break in 2020, which may indicate that lenders expect a temporary shock to incomes, with no requirement for permanent restructure solutions. Chart A contrasts the relative proportions of forbearance options implemented based on the borrowers' payment break record. Almost 30 per cent of borrowers who received a COVID-19 payment break and completed an SFS return have been offered a further payment moratorium following engagement during this period, compared to 8.5 per cent of those who did not receive a payment break. For those not in receipt of a COVID-19 payment break, an arrears capitalisation and/or term extension was the most popular solution offered, in line with mortgage restructuring before the pandemic.

Chart A: Lender forbearance decision based on COVID-19 payment break status



Source: Retail bank SFS submissions, 27 Mar - 31 Dec, 2020.

Chart B: Increase in current income required to meet contractual mortgage repayment



Source: Retail bank SFS submissions 27 Mar - 31 Dec, 2020.
Notes: Median value in each group is represented by the solid vertical black line. Edge of boxes represent the 25 and 75 percentile values.

The SFS data allow for an up-to-date representation of repayment capacity of engaged borrowers. In Chart B, we measure the level of liquidity pressure facing this group of households through a “reverse stress test” approach: based on current outgoings, what growth rate in total net monthly income would be required to allow borrowers to clear all mortgage debt by maturity? We estimate that 32 per cent of borrowers who have engaged in this period have sufficient residual income once reasonable living expenses¹ and other debts are met to fully service their current contractual mortgage repayment amount. This share is higher among the group who have received a payment break, at 38 per cent. 33 per cent of borrowers require an increase of up to 50 per cent in income in order to meet their repayments, while close to one-fifth would need their net monthly income to double to have the capacity to service their current contractual payments.

¹ Reasonable living estimates are calculated under Insolvency Service of Ireland guidelines. They are estimates “of the expenses a person incurs in achieving a reasonable standard of living, this being one which meets a person’s physical, psychological and social needs.”

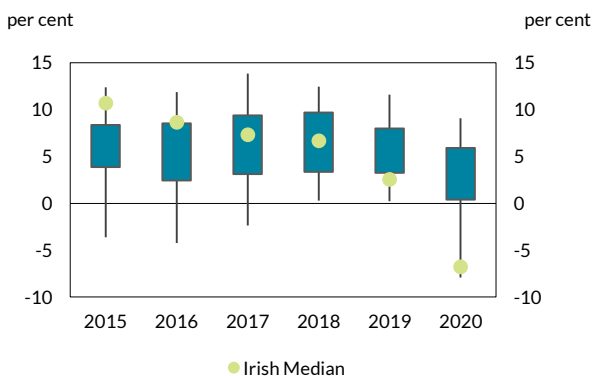
Retail banks

In expectation of future potential losses, Irish banks increased provisioning significantly in 2020, with an acute impact on profitability, exacerbating a declining trend in recent years. Along with high cost levels, a reliance on net interest income continues to pose further risks to profitability, and is being accentuated by the ongoing low interest rate environment. The sector's solvency position is more favourable, with retail banks entering the pandemic with relatively high levels of loss-absorbing capital, which, owing to the implementation of wide-ranging policy supports, have remained resilient in 2020. Non-performing loans have risen, but remain low in a historical context. Notwithstanding these timely policy responses, the full impact of the pandemic on bank balance sheets remains uncertain and will take time to filter through the system.

The pandemic has resulted in the first year of losses for the banking system since the financial crisis, primarily due to increased impairments for credit losses. Prior to the pandemic, the profitability of the sector, as measured by the return on equity (RoE), had been gradually declining. In a European context, since the mid-2010s, Irish bank RoEs have fallen from among the strongest in Europe to among the weakest (Chart 47). The shock stemming from the pandemic has led to losses for the Irish banking system, with the RoE falling from 2.7 per cent at end-2019 to -6.6 per cent at end-2020. The majority of the decline in RoE is attributable to large impairment charges taken by banks (Chart 48). Lower interest income, owing to both volume and pricing effects, has also negatively affected the sector, albeit to a smaller extent than impairments. These have been offset in part by a slight reduction in expenses (see Chart 28).

Chart 47: Profitability has been declining in recent years, a trend exacerbated by the pandemic

Return on Equity of European banks

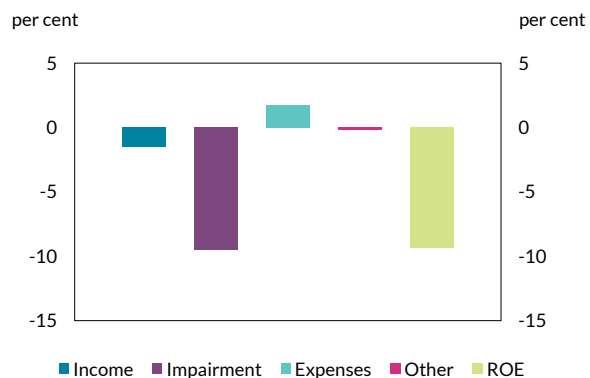


Source: BankFocus and Central Bank Ireland.

Notes: "Irish Median" reflects the median RoE for the five main retail banks in Ireland, sourced from the Central Bank of Ireland. The box and whisker plots reflect the 10th, 25th, 75th and 90th percentiles from a sample of representative European banks, sourced from BankFocus.

Chart 48: The decline in profitability in 2020 is largely due to a significant increase in impairment charges

Composition of the change in Return on Equity between 2019 and 2020



Source: Central Bank of Ireland.

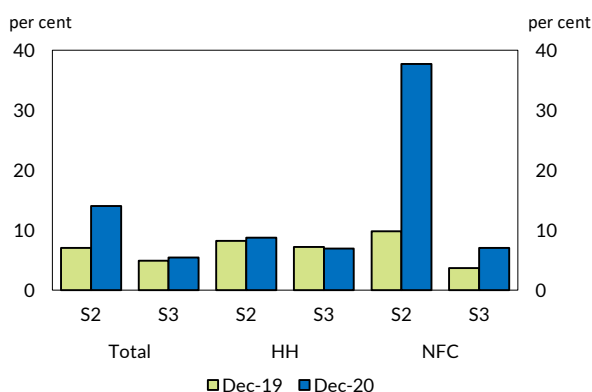
Notes: The chart shows the contributory factors behind the annual change in the RoE between 2019 and 2020 among the five main domestic retail banks.

The pandemic has resulted in an increase in credit risk on Irish banks' loan books. Precipitated by the global pandemic, the worsening macroeconomic environment has triggered a deterioration in the measured credit quality of the banking sector's loan book. This is reflected through a marked increase in the share of loans that have been classified as IFRS 9 Stage 2, which, for total loans and advances, has doubled over the course of 2020 (Chart 49). The increase in reported credit risk has

been driven by a deterioration in credit quality in NFC exposures. Despite sharp reductions owing to successful restructuring and loan sales since the last crisis, NPL ratios in Ireland remained high in a European context at the onset of the pandemic (Chart 50). Further to this elevated starting point, Irish banks experienced relatively high increases in NPL ratios in 2020. These increases were due primarily to revisions in the definition of default⁴⁶ and assessments of borrowers' unlikelihood to pay, particularly among businesses involved in real estate activity.

Chart 49: The share of lending classified as higher-risk has doubled in 2020, driven predominantly by lending to businesses

IFRS 9 Stage Shares

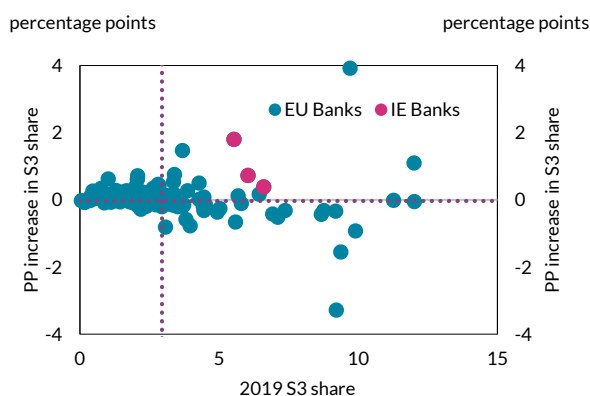


Source: Central Bank Ireland.

Notes: The chart shows the share of loans classified as IFRS 9 stages 2 and 3. The "Total" bars indicate the relative share of either Stage 2 or Stage 3 loans as a percentage of all loans subject to impairment. "Households" and "NFCs" reflect the relative share of loans classified as either Stage 2 or Stage 3 as a percentage of all loans subject to impairment advances to households and NFCs respectively.

Chart 50: Irish bank NPL ratios were relatively high in 2019, and have increased by more than most European banks in 2020

Changes in the share of Stage 3 (Non-Performing) assets



Source: EBA Transparency Exercise.

Notes: Irish banks include AIB, BOI and PTSB. The increase in the Stage 3 share is calculated between Dec-19 and Jun-20. Stage 3 shares are equivalent to Non-Performing Loan ratios

The increase in credit risk on bank's balance sheets has resulted in a sharp rise in provisioning. In anticipation of future potential losses, the Irish banking system has increased its provisions substantially during 2020 (Chart 51), where the majority of the increase has been driven by Stage 2 commercial loans. Moreover, there has also been a material increase in provisioning on Stage 3 (defaulted) assets.⁴⁷ Overall, Irish banks have taken proportionally larger provisions in 2020 than European peers (Chart 52). Looking across European banking systems, higher levels of provisioning by Irish banks do not appear to be explained by relative macroeconomic developments or by the share of exposures to more vulnerable sectors. There does, though, appear to be a stronger correlation between impairment charges by banking systems in 2020 and the peak take-up of payment moratoria, with Irish bank provisioning levels being in line with that expected under this relationship. The elevated level of provisions, in particular where related to loans that have not yet defaulted, should - all else equal - put Irish banks in a stronger position to absorb defaults as current "latent distress" crystallises.

⁴⁶ For two of the Irish banks included in this analysis, [AIB](#) and [BOI](#) have both reported increases of €0.2bn and €0.6bn in defaulted exposures respectively, owing to the revision of the definition of default.

⁴⁷ However, the provision coverage ratio (PCR) on Stage 3 exposures has not significantly increased in 2020 and remains low in a European context. The relatively lower coverage ratio on non-performing assets may be partly accounted for by differences in asset composition (higher share of collateralised loans) and NPL classification (high share of loans classified as UTP and less than 1 year past due).

Chart 51: Impairments have risen in 2020, largely due to an increase credit risk on commercial lending

Provisioning by IFRS 9 Stage and asset class

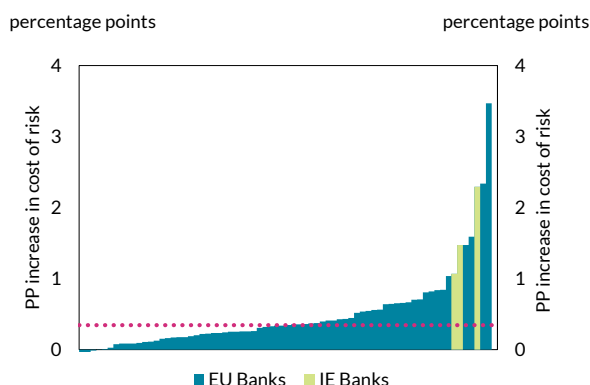
	Total		Households		NFCs	
	Δ (mn)	%Δ	Δ (mn)	%Δ	Δ (mn)	%Δ
S1	€379	104	€211	121	€164	90
S2	€1,135	125	€1	0	€1,116	442
S3	€610	18	€25	1	€584	69
Total	€2,123	45	€237	7	€1,864	146

Source: Central Bank of Ireland.

Notes: The table shows the change in impairments by IFRS 9 stage and lending segment. Changes are presented as the absolute change in monetary terms and on a relative basis.

Chart 52: The increase in provisioning by Irish banks is among the highest in Europe

Cost of risk



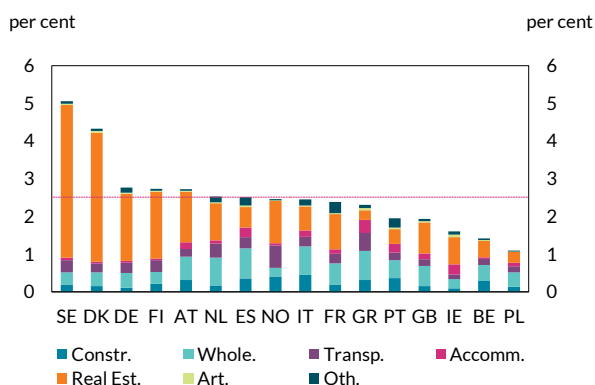
Source: BankFocus.

Notes: The cost of risk is defined as impairment scaled by total gross loans and advances. "EU Banks" represent a sample of European significant institutions, while "IE Banks" includes AIB, BOI and Ulster Bank Ireland.

As a share of capital, the volume of commercial lending to sectors hardest hit by the pandemic is low for Irish banks relative to European peers. European banking systems are heavily exposed to sectors that have been adversely affected by the pandemic and remain vulnerable in the event of further restrictions to contain the virus. The average volume of lending to vulnerable sectors is 2.5 times CET1 capital across Europe, with considerable variation beneath this average (Chart 53). The Irish banking system sits at the lower end of this distribution, with the value of vulnerable lending being equivalent to 1.6 times the value of CET1 capital held system-wide, indicative of a greater capacity to absorb losses from exposures to more vulnerable sectors.

Chart 53: Lending volumes to more vulnerable sectors, relative to CET1 capital, are among the lowest in Europe.

Share of more vulnerable lending to CET1 capital

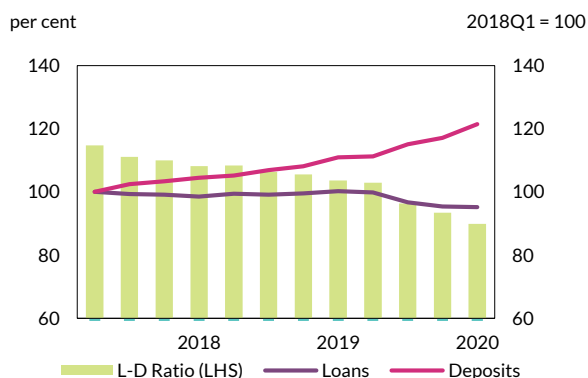


Source: EBA Transparency Exercise.

Notes: The chart shows the volume of commercial exposures to sectors hardest hit the pandemic expressed as a multiple of CET1 capital. The dashed line reflects the average multiple among the countries included in the chart. "Constr." denotes construction, "Whole." denotes wholesale and retail trade, "Transp." denotes transport and storage, "Accomm." denotes accommodation and food services, "Real Est." denotes real estate activities, "Art." denotes arts and entertainment and "Oth." denotes other services. Irish banks include AIB, BOI and Ulster Bank Ireland.

Chart 54: System-wide liquidity surges have contributed to a fall in the loan-to-deposit ratio.

Loan-to-deposit ratio



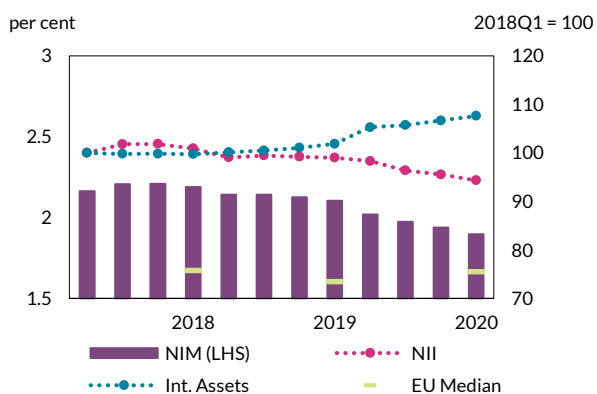
Source: Central Bank of Ireland.

Notes: The chart shows the trend in the loan-to-deposit ratio for households and NFCs, "L-D Ratio", for the main five retail banks, in addition to its numerator, "Loans", and denominator, "Deposits", indexed to 100 at 2018Q1.

Lower loan volumes and a surge in customer deposits have led to a contraction in the loan-to-deposit ratio in 2020, adding to near-term profitability pressures. The dominance of customer deposits as a source of funding for Irish banks was firmly established prior to the pandemic. The crisis has accentuated this trend, with the loan-to-deposit ratio decreasing from 104 per cent at 2019 year-end to 90 per cent at 2020 year-end (Chart 54). The surge in deposits is the product of increased liquidity in the real economy through government policies, some precautionary motives and “forced savings” due to public health measures that have curtailed consumption. The prevailing macroeconomic environment has meant it has been difficult for banks to channel the higher volume of deposits into profitable investment opportunities, leading to increases in central bank reserves and government bond holdings, adding pressure to profit margins. In a European context, the increase in household deposits was, on a proportional basis, among the highest in Europe at the onset of the pandemic.⁴⁸ From a funding stability perspective, these increases in customer deposits have however provided a benefit to the liquidity of Irish banks which continue to operate well in excess of their regulatory requirements.⁴⁹

Chart 55: The net interest margin has continued to trend downwards in recent years.

Net interest margin

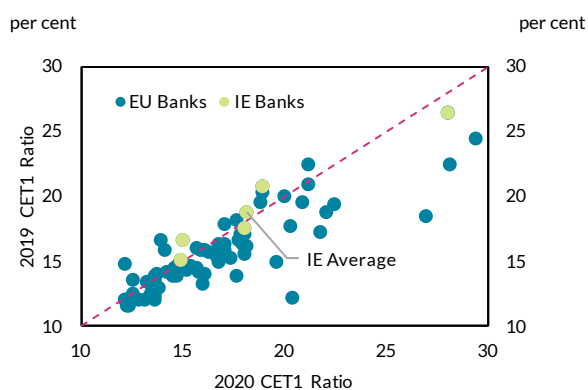


Source: Central Bank of Ireland and BankFocus.

Notes: The chart shows the quarterly trend in the net interest margin, “NIM”, for the main five retail banks, in addition to its numerator - net interest income, “NII”, and denominator - average interest earning assets, “Int. Assets”, indexed to 100 at 2018Q1. “EU Median” denotes the median net interest margin computed for a sample of representative European banks.

Chart 56: CET1 capital ratios across Europe have remained resilient in 2020.

CET1 Ratios for Irish and European banks.



Source: Central Bank of Ireland and Bank Focus.

Notes: Irish banks includes the five main retail banks. “IE Average” denotes the system-wide CET1 ratio at both points in time. Data as at year-end for both years. For reference, the dashed line reflects the 45 degree line.

While Irish lending margins remain high in a European context, excess liquidity, the low interest rate environment and cost inefficiencies continue to exert pressure on profitability. The Irish system-wide net interest margin (NIM) has continued its downward trend in recent years (Chart 55), with the decline in 2020 being particularly apparent. The pandemic has impacted the NIM through the acquisition of low-yielding assets, such as central bank reserves and government bonds, contributing to a decline in net interest income. Given the high dependence of Irish banks on net interest income, persistently low interest rates will continue to pose challenges even after

⁴⁸ See, for example, [Heffernan, Saupe and Woods \(2020\) "Investigating Household Deposits during COVID-19" Central Bank of Ireland Behind the Data, July 2020.](#)

⁴⁹ The liquidity coverage ratio was 183.7 per cent as at 2020 year-end, well in excess of the 100 per cent minimum requirement and the 2019-year end figure of 151.9. However, as discussed in *Resilience: Households*, a large share of these additional deposits may be spent in the short or medium-term.

the worst of the pandemic has filtered through the economy. Moreover, high cost inefficiencies exhibited by the sector reflect a further structural challenge that hampers the sector's ability to rebuild capital organically.⁵⁰

The banking system entered the pandemic with relatively high levels of loss-absorbing capital, enabling it to absorb pandemic-related losses and support the economy. Despite the severity of the shock, the CET1 ratio of each individual Irish bank, in addition to the system-wide ratio, has been resilient in 2020, with the latter declining marginally from 18.7 per cent at 2019 year-end to 18.2 per cent at 2020 year-end. Moreover, the level of dispersion in CET1 ratios among Irish banks has remained similar in 2020 to that observed in 2019. Capital resilience during the pandemic has been common across Europe. Seventy-eight per cent of banks increased their CET1 capital ratios in 2020, with Irish bank capital evolving similarly to European peers (Chart 56). As reported in the [ECB's recent FSR](#), in aggregate, the system of Significant Institutions in Europe experienced an increase of 60 basis points in the CET1 ratio in 2020, driven by reductions in RWAs, regulatory changes and prudence on dividends. In addition, headroom above regulatory minima remains substantial due to the setting of the CCyB at 0 per cent and the ongoing flexibility provided by the Single Supervisory Mechanism around the availability of capital buffers to support the real economy (see *FSR 2020:II* for further details).

The headline stability of the system-wide capital ratio partly reflects the impact of a number of policy actions taken to enable the banking system to support the economy through the crisis. The sector's capital position has been supported by a range of policy actions that have been implemented to enable the banking sector to support the economy through the pandemic. First, the implementation of the [CRR Quick Fix](#) has provided support to the CET1 ratio through both a decrease in risk weights⁵¹ and the manner in which provisions filter through to CET1 capital.⁵² Secondly, capital has also been preserved through the ECB's recommendation to suspend dividend payments in 2020. Additionally, in line with the [EBA guidelines](#) on payment moratoria, many loans in receipt of a payment break did not undergo a re-classification to "defaulted" or "forborne", which would typically trigger a higher-risk accounting classification and knock-on increases in provisions. On aggregate, the joint impact of these policies is estimated to have provided approximately 2 percentage points of relief to the system-wide CET1 ratio (Chart 57). The higher level of Irish bank capital relative to total assets (on a non-risk weighted basis) relative to their European peers also means that the regulatory leverage ratio is much less likely to act as a constraint on buffer usability in Ireland relative to other European countries.

Developments in bank capital ratios have been more favourable than previously expected by the Central Bank in its end-2020 forward-looking projections. Last November, the Central Bank conducted a forward-looking analysis of the system-wide capital position of the banking system under different scenarios.⁵³ The assessment concluded that the system in aggregate had sufficient capital to absorb shocks that were materially worse than baseline projections at the time, including a no-deal Brexit. Moreover, the macroeconomic environment has evolved in line with, or more favourably than was envisaged in the baseline scenario, with CRE price developments being

⁵⁰ For example, see [FSR 2020:II](#) (Chart 49) for context.

⁵¹ For instance, through a more favourable treatment of risk weights associated with SME and infrastructure exposures.

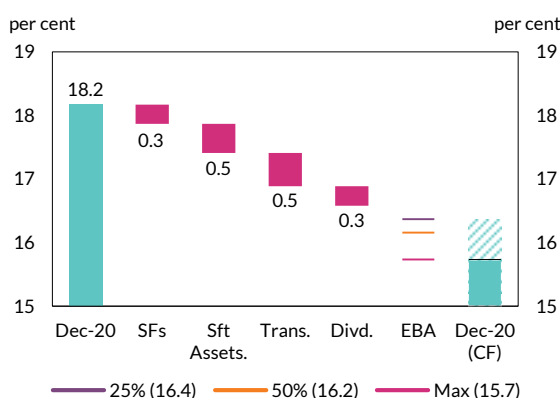
⁵² By allowing institutions to increase the IFRS9 Transitional Arrangement add back to CET1 capital, permitting all new provisions raised on performing exposures be added back to CET1.

⁵³ See [FSR 2020:II](#).

the notable exception. While banks' current capital positions (Chart 58) look favourable in comparison to the Central Bank's baseline projection, further additional losses crystallising through 2021 and 2022 due to the withdrawal of government supports and the materialization of latent distress upon economic reopening does reflect a downside risk to capital. Overall, the main conclusions of that analysis, that the system has sufficient capital to absorb losses in an adverse scenario, remain unchanged.

Chart 57: Policy actions have provided ample support to the system-wide capital ratio.

CET1 capital supports

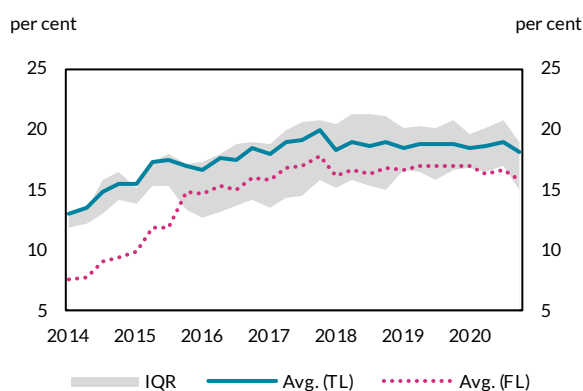


Source: Central Bank of Ireland.

Notes: "SFs" denote the impact of the SME and infrastructure supporting factors, "Sft Assets" denotes the impact of the non-deduction of certain software assets from CET1 capital, "Trans" denotes the impact of the IFRS 9 transitional arrangements on performing provisions, "Divd." denotes the impact of the dividend block and "EBA" denotes the estimate of the impact of the guidelines on payment moratoria. The "Max" line is an estimate of the maximum capital relief that the guidelines provided. In estimating the maximum impact we assume that all performing loans in receipt of a payment break did not see their IFRS9 stage increase and attract higher provisioning. Given the possibility that some loans would have retained their IFRS9 stage independent of the guidelines, the "25%" and "50%" lines capture this uncertainty by assuming that 25 per cent and 50 per cent of the loans we consider in our analysis would have been unaffected. The figures in parentheses denote the range of end-point CET1 ratios after the impact of the various capital supports have been considered.

Chart 58: The banking system's loss-absorbing capital remained resilient in 2020

Common Equity Tier 1 capital ratios for domestic retail banks



Source: Central Bank of Ireland.

Notes: "Avg. (TL)" and "Avg. (FL)" reflect the asset-weighted system average of the CET1 ratio on a transitional basis and fully-loaded basis respectively. "IQR" denotes the interquartile range for the CET1 ratios on a transitional basis. Sample includes the 5 retail banks. Last observation 2020Q4.

Climate change and cyber security pose additional risks to financial stability. The pandemic and international cyber-attacks have drawn greater attention to risks arising from the use of technology. While the widespread adoption of remote operations was initially in response to the pandemic, it is likely to continue as part of new models of working. Cyber risk continues in a heightened state due to increased traffic volumes across the networks, modified practices and controls to accommodate remote access needs, and malicious activities of opportunistic cyber attackers. Additionally, climate change poses a further risk to financial stability, both through its physical manifestations as well as the possibility of abrupt and unanticipated changes in climate-related policy, which are more likely to happen in the case of a delayed transition. As such, large exposures to carbon-intensive sectors may be vulnerable to large increases in credit risk in the event of a disorderly transition (see Box D).

Sovereign

The pandemic has had a significant impact on the Irish public finances. From a surplus of 0.8 per cent of GNI in 2019, the general government balance is estimated to have recorded a deficit of 8.4 per cent last year. This compares to a deficit of 7.2 per cent of GDP for the euro area as a whole. The Irish deterioration primarily reflects the substantial counter-cyclical response to the crisis. The impact on the public debt ratio appears to have been much smaller, but the ratio is still expected to remain close to 100 per cent of GNI* over the medium term. Fiscal sustainability remains an important consideration, even in an environment of low interest rates, particularly for a small open economy such as Ireland. A key risk over the medium term is the potential for international reforms to have a negative impact on corporation tax receipts, which have played an important role in supporting revenue growth in recent years.*

The pandemic has had a significant impact on the public finances. The general government balance is estimated to have deteriorated from a surplus of 0.8 per cent of GNI* in 2019 to a deficit of 8.5 per cent last year (Chart 59). This primarily reflected sharp growth in expenditure as the Government increased resources for the health sector and introduced a range of supports for households and businesses.⁵⁴ Declining revenue played a much smaller role, as a sharp contraction in indirect taxes was partly offset by resilience in direct taxes. Looking ahead, the general government deficit is projected to stabilise this year, before improving significantly to 3.4 per cent of GNI* in 2022.⁵⁵ Two key assumptions underpin this outlook. The first is that the full amount of the 'unallocated' expenditure outlined in Budget 2021 – the COVID-19 Contingency and the Recovery Fund – is utilised. The second is that all pandemic support measures are temporary and do not recur next year.

Pandemic-related Government spending has been substantial by European standards, mitigating the impact on the economy. Compared to many other euro area economies, the Irish fiscal policy response has been more focused on direct rather than indirect measures (both revenue and expenditure related).⁵⁶ This increases the upfront costs to the Exchequer, but potentially limits future fiscal exposure. Total direct measures are estimated to have cost just under €20bn (9 per cent of GNI*) last year, with income supports representing around half of this. As a result, Ireland experienced the third fastest growth in government spending in the euro area in 2020 (Chart 60). There was also €5bn (2.3 per cent of GNI*) in indirect measures – primarily loans and guarantees. A further €12.6bn in direct measures (5.8 per cent of GNI*) have been forecast by the Department of Finance for this year.⁵⁷ Ensuring that measures designed to be temporary do not become a permanent part of the expenditure base will be a key challenge for Government. While the deterioration in the public finances has not been as big as anticipated during much of 2020, the decline is nevertheless substantial. The change in the Irish budget balance ratio is estimated to

⁵⁴ Gross voted expenditure in the Social Protection and Health votes increased by 47 and 19 per cent respectively last year. This compares to annual growth rates of 2 and 9 per cent in 2019.

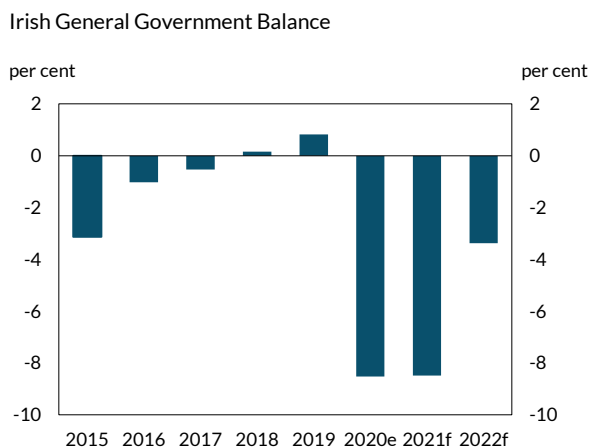
⁵⁵ These projections are more favourable compared to those published in April's Quarterly Bulletin reflecting the better than estimated general government balance outturn last year. This base effect is the only revision made to the projections.

⁵⁶ See [Conefrey, Hickey and McLnerney \(2021\) "COVID-19 and the Public Finances in Ireland", Central Bank of Ireland Economic Letter, Vol 2021 No 3.](#)

⁵⁷ See ['Taking Stock: The Fiscal Response to COVID-19', Department of Finance, November 2020.](#) This includes €5.5bn in unallocated expenditure for the COVID-19 Contingency Reserve and the Recovery Fund.

have been the fourth largest in the region (Chart 62), while the deficit itself is modestly above the euro area average.

Chart 59: The deficit rose to 8.5 per cent of GNI* in 2020 and is projected to stabilise in the next two years



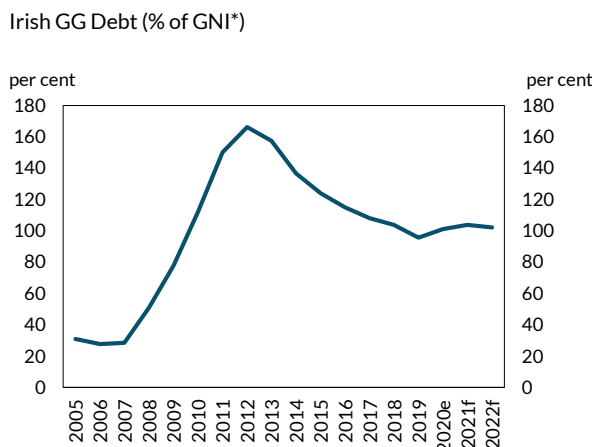
Source: CSO and Central Bank of Ireland Projections.
Notes: The General Government Balance (GGB) and General Government Debt are measured as a percentage of GNI*. As the level of GDP becomes increasingly disconnected from domestic activity, the preferred denominator of GNI* better reflects Ireland's ability to sustain a certain debt/deficit level.

Chart 60: Ireland experienced the third fastest growth in government spending in the euro area between 2019 and 2020



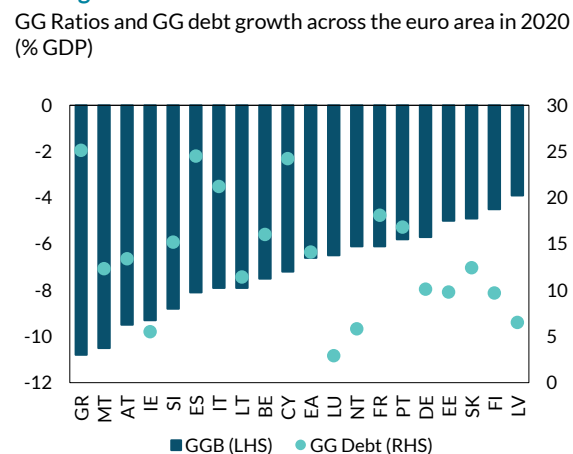
Source: Eurostat.

Chart 61: Irish General Government Debt remains at an elevated level.



Source: CSO and Central Bank of Ireland Projections.

Chart 62: The decrease in the Irish budget balance ratio is estimated to have been the fourth largest in the region.



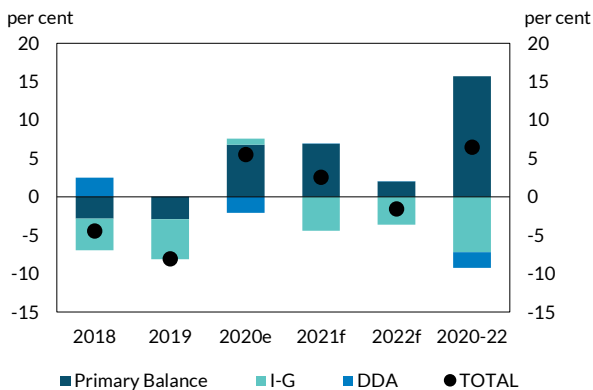
Source: Ameco, and Central Bank of Ireland Projections
Notes: Irish ratio is % of GNI*. GGB: General Government Balance. Across all euro area countries, the deficit is measured as a percentage of GDP, except in Ireland, where GNI* is used.

The increase in the government debt ratio has not been as significant, but the level of debt remains elevated. The debt ratio is estimated to have increased from 95.6 to 101 per cent of GNI* in 2020, the first increase in eight years following consistent reductions since the last crisis (Chart 61). In contrast to the change in the budget balance, the increase in the Irish debt ratio is modest relative to most other euro area economies (Chart 62). This reflects more favourable debt dynamics in the Irish economy. While interest rates remain low across the region, Ireland is the only economy expected to have recorded positive output growth in the euro area, resulting in a modestly

positive interest-growth differential. The Government has also availed of existing resources – most notably NAMA and Central Bank surplus incomes and revenue in the National Surplus Reserve Fund – to fund part of the spending increase (reflected in a positive Deficit Debt Adjustment in Chart 63). The debt ratio is projected to record a further small increase in 2021 before resuming its downward trend in 2022. At just over 100 per cent of GNI* the ratio will remain elevated, and significantly above its pre-2008 position.

Chart 63: Ireland has had favourable growth dynamics in recent years that are likely to continue

Factors behind Change in Debt ratio in Ireland

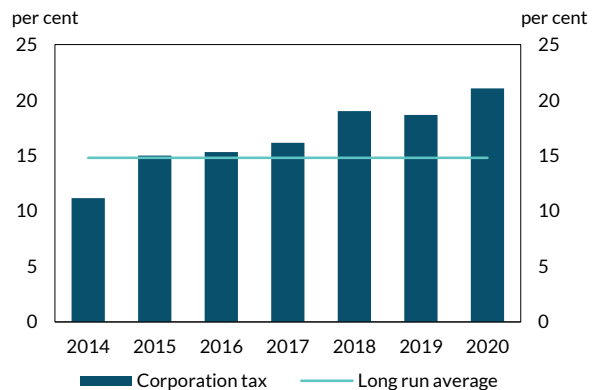


Source: Central Bank of Ireland Estimates.

Notes: The deficit debt adjustment (DDA) refers to one-off factors that impact the debt level without affecting the budget balance. The interest-growth differential (I-G) is the difference between interest costs and the rate of economic growth.

Chart 64: Ireland has been increasingly reliant on corporation tax receipts

Corporation tax as a percentage of total Government revenue



Source: Revenue Commissioners.

Note: Long run average is based on 2003-2020 tax receipts.

Funding conditions for the Irish sovereign remain favourable. Elevated debt levels in the euro area, combined with uncertainty about the trajectory of the virus, could have generated concerns about creditworthiness in the region. Swift and substantial action taken by the ECB since the emergence of the pandemic, however, has helped to preserve favourable financing conditions across the economy.⁵⁸ The National Treasury Management Agency (NTMA) raised 40 per cent of its target funding for 2021 in the first quarter at very low yields. More generally, the NTMA has taken advantage of favourable market conditions in recent years to improve Ireland's maturity profile by extending the maturity of borrowing and refinancing at lower interest rates. This activity, coupled with the high level of cash reserves on hand and strong issuance in the first quarter increases flexibility in meeting borrowing requirements. Notably there are no long-term government bonds set to mature until March 2022.

Policy support will need to be maintained over the short term, but it is crucial that the debt ratio is reduced when conditions allow. The counter-cyclical policy response to the crisis has mitigated the impact of the pandemic on households, firms and the broader economy.⁵⁹ As health risks diminish, the focus of this support should shift to targeted and forward-looking measures to foster recovery and avoid scarring effects. At the same time, however, fiscal sustainability remains an important consideration, even in an environment of low interest rates. Research by the Irish Fiscal Advisory

⁵⁸ See 'Easing the Pain? Estimating the Economic Impact of Domestic and Global Policy Responses to the COVID-19 Pandemic', ESR 2021.

⁵⁹ See [Conefrey, Hickey and McInerney \(2021\) "COVID-19 and the Public Finances in Ireland", Central Bank of Ireland Economic Letter, Vol 2021 No 3.](#)

Council⁶⁰ has shown that high debt levels are much more sensitive to changes in interest and growth rates and, as a small open economy, Ireland is more vulnerable to external shocks.

There are renewed concerns over the sustainability of corporation tax flows. While overall tax revenues declined last year, their performance was much stronger than expected at the start of the pandemic as resilience in income and corporation tax receipts offsets sharp falls in VAT and excise. Looking ahead, however, there are renewed concerns about corporation tax revenue against the backdrop of proposed tax reforms in the US and the ongoing BEPS process.⁶¹ While the exact impact on Ireland of these policy reforms is currently highly uncertain, increased reliance on corporation tax in recent years (Chart 64) means that the Irish tax base is less resilient to this source of risk.

⁶⁰ See [‘Managing Government Debt at High Altitude’, Irish Fiscal Advisory Council, Working Paper No 15 March 2021.](#)

⁶¹ *Risks: International Sovereign and Corporate* has highlighted recent global policy developments that pose a potential risk to Ireland’s tax competitiveness, both from the Biden administration and the OECD.

Non-bank financial sector

Investment funds

Relative to the size of the economy, Ireland has one of the largest investment fund sectors in the world. While this sector is mostly internationally focused, funds with exposures to Irish commercial real estate own over 40 per cent of that market and many of these have significant funding linkages with Irish banks. Property price declines and falling rental incomes experienced during the pandemic resulted in significant challenges for property funds. So far, though, the main channel of risk to domestic financial stability – the potential for widespread sales of property assets by funds – has not crystallised. There has only been a small number of suspensions and loan covenant breaches, which have been managed by funds through engagement with lenders. However, the weak outlook for Irish CRE and the continued potential for breaches of loan covenants mean that risks remain. Vulnerabilities are highest among highly levered funds and those with exposures to retail CRE.

Most investment funds domiciled in Ireland have minor linkages to the domestic economy, but those with investments in Irish commercial real estate (CRE) play a significant role in that market. The total value of Irish investment funds' asset holdings is large in comparison to the size of the economy. Despite the large size of this sector, the links to the domestic economy are relatively limited, as most funds' investments and their investors are predominantly internationally focused. However, Irish domiciled funds have become significant investors in Irish CRE, with implications for domestic financial stability.

Investment by funds is particularly important in the financing of domestic CRE. Irish property funds hold a total of €23 billion in Irish property and land or over 40 per cent of the estimated 'investable' Irish CRE market. As Irish property funds are largely funded from overseas, this represents a beneficial diversification of CRE funding, away from domestic investors towards international investors. However, the growing importance of funds in the CRE market also means that the resilience of this form of financing matters more today for the functioning of the overall CRE market than it did a decade ago. In particular, if – in the presence of financial vulnerabilities – property funds needed to sell property assets in the face of adverse shocks, their collective behaviour would have the potential to amplify shocks in the CRE market.

Leverage and liquidity mismatches are two sources of financial vulnerability that can amplify shocks. Forced sales are more likely for highly levered funds. For example, falls in capital values could lead to some funds breaching loan-to-value (LTV) covenants, while a loss of rental payments may impact funds' ability to repay loans and potentially breach their debt servicing covenants. This is particularly relevant given the impact COVID-19 is having on some CRE sectors such as retail or offices (see *Risks*) and the fact that a cohort of property funds in Ireland has high leverage. Additionally, large redemption requests (or forced closures) can lead to forced sales of property assets if funds cannot cover the redemption requests out of liquid assets (or credit facilities). Redemption risk is less of an issue for Irish property funds, given the lower frequency of dealing periods. Given the very illiquid nature of property assets, there is a cohort of funds where some liquidity mismatch remains apparent. Such asset sales could put downward pressure on asset prices, amplifying any CRE market downturn.

So far during the COVID-19 shock, the main channel of risk to financial stability – the potential for widespread sales of property assets by these funds – has not crystallised. Irish property funds have faced challenges in 2020, including due to valuation uncertainty and a fall in rental income, but there have not been large scale sales of property assets. The levels of redemptions from funds have been low. In 2020, only 3 property funds suspended redemptions, primarily due to valuation uncertainty.⁶² Two of these funds have since resumed normal dealing, while one fund presently allows subscriptions but not redemptions. Separately, 4 funds that have breached LTV covenants and another 6 funds that are close to their covenant limits have been granted covenant waivers by their lenders.

Highly levered funds, and those with exposures to CRE sectors potentially facing weak recovery prospects and market liquidity issues, remain vulnerable. Irish property funds have experienced significant valuation and rental income declines following the COVID-19 shock. However, the extent of the impact of COVID-19 on these funds varies depending on the level of leverage, portfolio liquidity and the subsector of exposure. The CRE market was considerably impacted by the COVID-19 shock. CRE values on average declined 6 per cent from end-2019 to end-2020. However, the decline has been much worse for retail CRE (19 per cent), in part reflecting larger rental income falls for this sector (see *Risks*). Additionally, there has been reduced activity in the retail market, indicating a potential decline in liquidity. Anticipated declines in valuations and rents of 5 per cent in the next 12 months, point to a weak outlook for the CRE market. Additionally, the withdrawal of government supports to businesses, particularly in the hospitality and non-retail sectors, could potentially result in increased insolvencies that would also impact this sector.

Given the steeper price declines, the potential weaker prospects for a recovery and less market liquidity, investment funds with exposure to the retail sector appear more vulnerable. There are 57 funds (from the population of 176 funds with exposure to Irish CRE assets) that have significant exposures to retail CRE assets as of 2020Q4. The total AUM of Irish property funds is €24.9bn at this date. Funds with exposure to retail CRE assets have an AUM of €12.9bn, of which €5.3bn relates to retail CRE assets. While some funds solely invest in retail CRE, others have diversified portfolios that are composed of retail and exposures to other CRE sub-sectors (residential, office, industrial etc.)

On average, funds with exposure to retail CRE have higher leverage than those that do not invest in retail assets. While the average LTV (total loans/total assets) of all Irish property funds is 43 per cent, it is 48 per cent for funds that invest in retail CRE and 37 per cent for those not exposed to this sector. Funds with exposures to retail CRE also dominate the population of funds with high LTVs. In terms of AUM, they account for roughly two-thirds of funds with LTVs above 70 per cent (Chart 65). A similar split also emerges when looking at third party lending only (i.e. excluding shareholder loans), although the levels of leverage are somewhat lower.

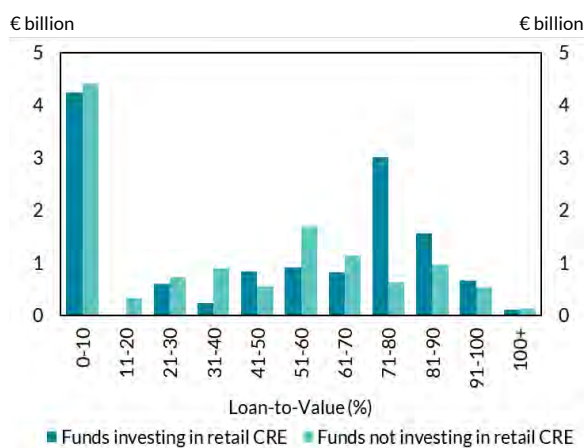
Irish retail banks represent one-quarter of lending to Irish property funds investing in Irish CRE (Chart 66). Additionally, more than half of the lending relates to funds with exposures to retail CRE. However, in the case of funds with a diversified exposure to retail and other CRE subsectors, not all of these loans may be secured on retail CRE. The weak outlook for CRE values and rents

⁶² In this instance, the relevant investment fund / Fund Management Company suspended dealing in light of the 'material uncertainty' associated with valuing the assets that the fund held. It was deemed that the net asset value of the fund could not be calculated with sufficient certainty.

(particularly for retail CRE), means highly levered funds remain vulnerable to breaching LTV and/or debt-servicing covenants. The potential for the enforcement of covenants by lenders could then feedback to potential forced sales of assets, with adverse implications for the CRE market.

Chart 65: Funds exposed to retail CRE assets account for the majority of highly levered funds

Distribution of total assets by Irish property funds loan-to-value ratio for total loans

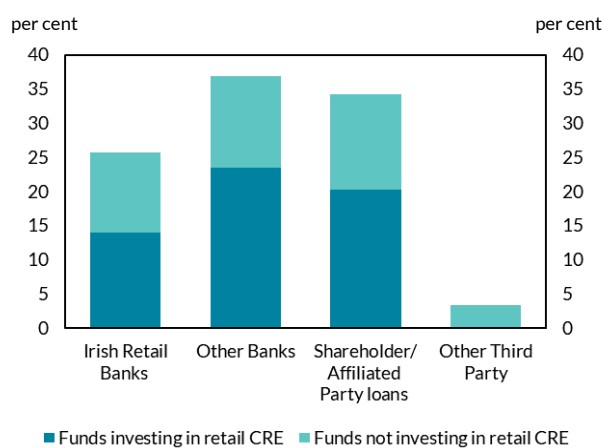


Source: Central Bank of Ireland.

Notes: Loan-to-Value (LTV) is calculated as Total Loans/Total Assets. Data as of 2020Q4.

Chart 66: Most of leverage employed by Irish property funds take the form of loans from banks and other financial institutions

Structure of debt owed by Irish property funds



Source: Central Bank of Ireland.

Notes: 'Other Banks' include Irish-resident non-retail banks and foreign banks. Data as of 2020Q4.

Up to now, only a limited number of funds have required covenant waivers and suspensions of redemptions to support resilience. Collectively, the 10 funds that have been granted covenant waivers represent 9 per cent of all Irish property funds in terms of AUM (or €2.3bn). Of these, 7 funds with €1.9bn in AUM have exposure to the retail CRE sector. Additionally, the 3 funds that suspended redemptions in 2020 represent 2 per cent of all funds in terms of AUM (or €0.4bn) and are all exposed to the retail CRE market. These actions reduce the risk that funds may be forced to sell properties over a short period to meet any redemptions. Given the outlook for the Irish CRE market and the retail CRE sector in particular, the Central Bank continues to actively monitor Irish property funds and particularly those with high leverage and exposures to the retail CRE sector (see, for example, [Kennedy et al. \(2021\)](#)).⁶³

⁶³ Gerard Kennedy, Neill Killeen, Alexandros Skouralis, Sofia Velasco, Michael Wosser. COVID-19 and the commercial real estate market in Ireland. Central Bank of Ireland Financial Stability Note, Vol. 2021, No. 4

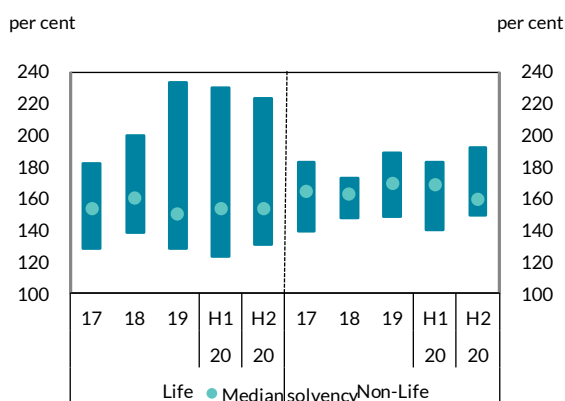
Insurance firms

Insurance companies play a key role in the economy, helping individuals and organisations protect themselves against the financial impact of adverse events. To be able to meet their promises when called upon, insurers need to be financially resilient and are, therefore, required to have solvency capital above their technical provisions (solvency capital requirements). At the industry level, the solvency position deteriorated somewhat at the onset of the pandemic, but recovered in the second half of 2020. The primary drivers of solvency have been financial market and interest rate movements affecting insurers’ investment portfolios and liability valuations. COVID-related insurance claim impacts have, so far, been limited for life insurers, while non-life claims, for example business interruption and event cancellation, have been more material. More broadly, though, the consequence of COVID for the sector and the economy are yet to fully play out.

Insurers based in Ireland have so far proved to be resilient to the impact of the COVID-19 pandemic, although the full effects have yet to be seen. At an industry level, Solvency Capital Requirement (SCR) coverage ratios⁶⁴ fell at the outset of the pandemic but recovered in the second half of 2020, with an industry median of 192 per cent at 2020Q4. The insurance sector in Ireland is heterogeneous and covers both domestically and internationally focused firms, comprising both life and non-life insurance and reinsurance companies.⁶⁵ The range of SCR coverage ratios in the domestic life and non-life insurance sectors rose in 2020H2 with available capital continuing to exceed firms’ SCR (Chart 67). Inevitably, some firms’ solvency coverage proved more volatile than others with a small number taking steps to strengthen their capital position over the year, while the EIOPA and ESRB limitations on dividend distributions also served to retain capital within the sector.

Chart 67: Domestic insurers’ solvency positions remain robust and are above regulatory requirements

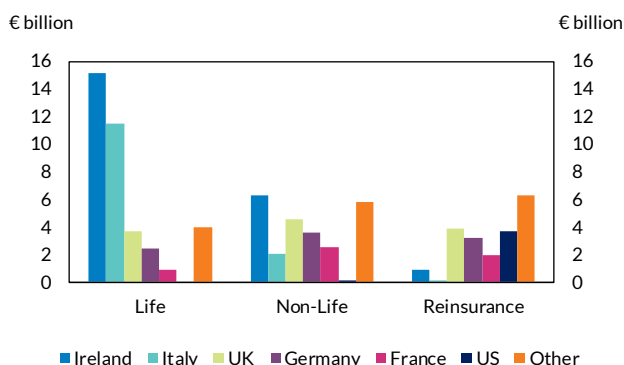
Solvency coverage of domestic life and non-life insurers



Source: Central Bank of Ireland.
Notes: The box at each point shows the maximum and minimum range. Sample is time varying comprising the largest domestic life and non-life insurance firms. Last observation 2020Q4.

Chart 68: (Re)insurance companies domiciled in Ireland generate over two-thirds of their gross written premium overseas

Gross written premium by country in 2020



Source: Central Bank of Ireland.
Notes: For direct business, the country refers to the country in which the insurance services are provided under freedom of establishment (FoE) or freedom to provide services (FoS). For reinsurance business, the country refers to the location of the ceding undertaking.

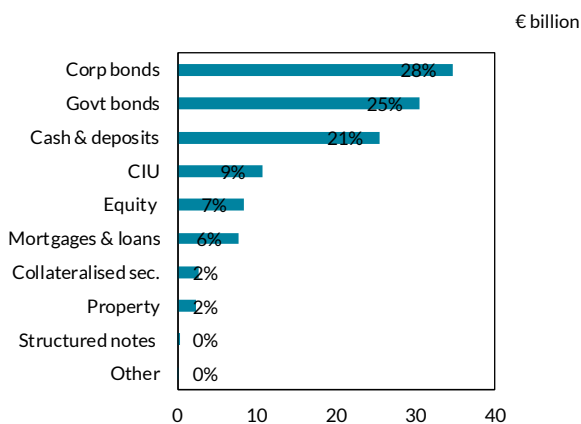
⁶⁴ The solvency coverage ratio is measured as a firm’s available capital (known as “own funds” under Solvency II) as a percentage of SCR.

⁶⁵ A reinsurance company provides insurance to insurance companies and other reinsurance companies (the cedant) whereby it will meet, in return for a premium, some or all of the financial risk the cedant assumes under the policies/ treaties it issues.

The primary drivers of solvency ratio movements have been financial market and interest rate movements affecting insurers' investment portfolios and liability valuations. These in turn reflect the extraordinary fiscal and monetary policy interventions put in place by governments and central banks. Insurers' market footprint and assets are predominantly internationally oriented and firms are, therefore, exposed to economic conditions and policies not just in Ireland but globally (Chart 68). While financial markets generally rebounded during 2020H2 and into 2021, there continues to be heightened uncertainty given stretched valuations in some asset classes (see *Risks*). There is the potential for disorderly market corrections to occur if, for example, investor sentiment were to change or the fiscal and monetary supports in place were removed prematurely or in an unexpected way. There also remains the possibility of further declines in the already ultra-low and negative interest rates which can particularly affect the limited number of life insurers offering longer term guaranteed products, albeit potentially mitigated by effective asset-liability management strategies.

Chart 69: Insurers' investments are predominantly sovereign and corporate bonds with limited exposure to riskier asset types

Insurers' non-linked investment allocation

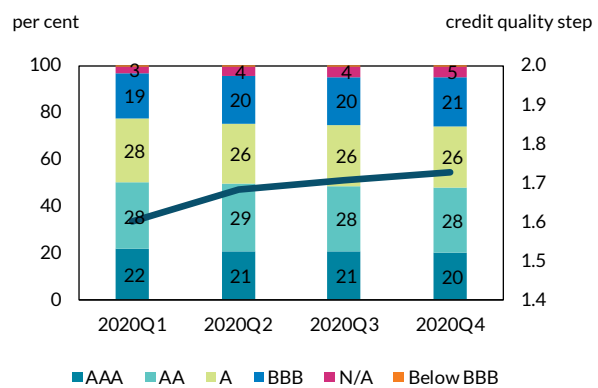


Source: Central Bank of Ireland.

Notes: Non-linked investments exclude those which life insurers hold to back their unit-linked policies. CIUs are collective investment units. The percentages are the investment category as a percentage of total investments. Last observation 2020Q4.

Chart 70: The credit rating of insurers' corporate and sovereign bond holdings deteriorated slightly over 2020

Credit quality of non-linked corporate and sovereign bond holdings



Source: Central Bank of Ireland.

Notes: The credit quality scale (rhs) shows the average credit quality using the credit quality steps specified in Solvency II reporting, which map the ratings for each rating agency to a scale from 0 (AAA) to 6 (CCC and below). A higher score means a lower credit quality.

Exposure to market risk varies across the sector and depends on an individual firm's asset mix which will reflect the duration, nature and currency profile of their liabilities plus their risk appetite. Fixed interest securities represent the majority of insurers' investments accounting for 53 per cent of non-linked investments at 2020Q4, with a spread of country of issue and currency denominations (Chart 69). There is modest exposure to Irish sovereign and corporate debt, which accounted for only 4 per cent of bond holdings at 2020Q4. Across the industry, there was a slight decrease in the credit quality of the bond holdings backing non-linked business with the weighted average equating to a Standard & Poor's AA- rating at 2020Q4 (Chart 70). In the non-life sector, there is evidence that the continuing low interest rate environment has resulted in "search for yield" behaviour with, for example, BBB rated bonds now accounting for 26 per cent of domestic non-life insurers' investments (Chart 71) mainly concentrated in the financial sector. Apart from at some individual firms, insurers' holdings of the riskier asset types, such as equities, collective investment undertakings and property, are generally in respect of the investments that back the unit-linked savings products offered by life insurers where the investment risk is borne by the

policyholder. Even here, though, a fall in investment values due to a market correction would lead to a decline in future income and profitability through lower annual management fees.

Chart 71: Domestic non-life insurers' holdings of BBB rated bonds are increasing

Domestic non-life insurers' financial assets by asset rating



Source: Central Bank of Ireland.

Notes: Categories are as a per cent of total financial assets. Last observation 2020Q4.

The impact of COVID on insurance claims has, so far, been limited for life insurers, while the higher level of non-life claims that have emerged to date, for example business interruption and event cancellation, are proving to be absorbable. Non-life insurers have been most affected by COVID-related claims but these have not been at a level to threaten firms' solvency positions.⁶⁶

Contractual ambiguity associated with some business interruption policy wordings resulted in test cases being brought to the Irish Commercial Court. In February 2021, the Court ruled that the insurer was liable under the contested policies for business interruption claims arising out of the pandemic and related closure orders. The basis of the compensation calculation was to be separately addressed by the Court. As regards life insurance claims, surveys of the main domestic life insurers undertaken by the Central Bank suggest that there has been no significant rise in Irish death claims beyond normally expected volatility levels, in large part reflecting that the insured population has a younger age profile compared to the general population where COVID deaths are occurring in older age groups. However, the possible impact of "long COVID"⁶⁷ and of any delayed diagnosis and treatment of non-COVID conditions on future mortality and morbidity rates requires close monitoring by life and health insurers. Reinsurance is a key risk mitigant for these insurers given that some or all of the cost of any deterioration in claims experience would be recovered from their reinsurers.

The business model underlying the insurance sector means that firms are generally exposed to low levels of liquidity risk. However, the continuing uncertain operating environment and the potential for a confluence of unforeseen events could heighten liquidity risk in individual firms. As highlighted in FSR 2020:II, the ongoing fallout from the COVID-19 pandemic could, for example, lead to unanticipated negative net cash flows arising from some combination of a large spike in

⁶⁶ This refers to solvency positions of firms prudentially supervised by the Central Bank. Many of the non-life insurance companies providing business interruption cover in Ireland are prudentially supervised in other EEA member states.

⁶⁷ 'Long COVID' refers to the long lasting health issues that COVID-19 patients can suffer, irrespective of the severity of the initial infection.

claims, reduced premium income, a deterioration in the market liquidity of some asset types or increased collateral margin calls due to heightened market volatility. As a result there has been increased regulatory focus on liquidity monitoring across Europe. Liquidity issues can arise at unit-linked fund level, particularly among real estate funds, which could face liquidity shortfalls in the event of significantly increased redemption requests. In 2020Q1 the main domestic life insurance firms closed some of their daily-dealing unit-linked property funds to withdrawals.⁶⁸ This was due to a sharp increase in redemption requests, the consequent need to raise liquidity by selling properties and challenges in reliably determining the value of some of the underlying properties in times of market uncertainty. These firms have been progressively removing the deferral of withdrawals as property transactions were completed and valuation uncertainties dissipated.

The profitability and capital generating capacity of the insurance sector in the medium term will be driven by the shape and speed of recovery of the Irish and global economy and financial market performance as countries eventually emerge from the pandemic, together with other structural changes impacting the industry. While the insurance sector has proved to be resilient, there is no room for complacency given the elevated financial market risk levels, the continuing uncertainty over the future path of COVID, including the potential for new variants to emerge, and the outlook for the economy. All of these will drive, amongst other things, future insurance demand and premium income, customer retention rates, competitive conditions, investment income and consequent profitability levels, with some firms' business models potentially coming under pressure if they are not able to consistently deliver the return on capital sought by their owners. In addition, in the domestic non-life sector, for example, there are other dynamics at play including the introduction of the new Judicial Guidelines on personal injury award levels which were approved by the Judicial Council in March 2021. In general terms, the level of awards are lower than the prevailing Book of Quantum and are intended to lead to greater certainty and reduced volatility of claims and create a more stable reserving environment for insurance firms. A more stable claims environment could contribute over time to an increase in the availability of insurance in some sectors and a reduction in premium levels.

⁶⁸ Property-related assets account for €6 billion of the unit-linked funds, which includes € 4 billion invested in Irish properties, mostly commercial property.

Macroprudential policy

The Central Bank's current macroprudential policy stance aims to support the banking sector in absorbing the pandemic shock, so that it can continue to serve the real economy in a sustainable manner (Table 1). The Central Bank's approach to its use of macroprudential policy is to build resilience when times are good, so that this resilience can be used when times are bad. In doing so, the aim is to ensure the domestic financial system can absorb, rather than amplify, adverse shocks.

The current setting of the macroprudential capital buffers looks to provide scope for the banking sector to absorb losses and support the economy. The Central Bank reiterates that a CCyB rate of 0 per cent remains appropriate in the current environment and for the macro-financial conditions expected during 2021. Similarly, the Central Bank does not intend to begin any phase-in of a systemic risk buffer (SyRB) in 2021. O-SII buffer requirements continue to be phased-in. However, the O-SII buffer is fully usable to absorb losses and enable banks to continue to support the real economy during the current period.⁶⁹ Macroprudential capital buffers, coupled with wider actions by prudential authorities, have supported banking sector headroom above regulatory minima (See *Resilience: Retail banks* and Box G) and thus are acting to mitigate the risk of a material contraction in credit supply, which if it occurred could amplify the macroeconomic downturn.

The mortgage measures have been effective in strengthening bank and borrower resilience. The benefits of these measures have been evident in recent times. Loans that were originated under more prudent credit underwriting (as arose after 2010), or under the mortgage measures were less likely to avail of a COVID-19 payment break for instance. Furthermore, as has been noted in previous *Reviews*, counterfactual analysis suggests that prior to the pandemic house prices could have been significantly higher in the absence of these policies and, so, more vulnerable to a correction during the shock. Overall, the 2020 annual review resulted in no changes to the measures. This review found that, despite the disruption due to the COVID-19 shock, the measures continued to meet their objectives of strengthening bank and borrower resilience and reducing the likelihood and impact of a credit-house price spiral emerging.

While the full transmission of the economic shock arising from COVID-19 to the banking system is still ongoing, to date, the core of the financial system has remained financially and operationally resilient. Over and above the prudential policy response to COVID-19, monetary and fiscal authorities have provided exceptional policy support to mitigate the impact of the shock. These measures continue to play an important role with fiscal supports in particular mitigating the financial distress experienced by the private sector.

⁶⁹ See the [Systemically Important Institutions Buffer webpage](#) for the current list of O-SIIs and corresponding buffer rates.

Table 1 | Summary of macroprudential policies for the banking sector

	Mortgage Measures	O-SII	CCyB
Objective	(i) Increase resilience of banks and borrowers to negative economic and financial shocks (ii) Dampen pro-cyclicality of credit and house prices.	Increase resilience of systemically important banks, defined as those institutions whose failure would have a large impact on the financial system.	Increase banking system resilience to cyclical risks to facilitate a sustainable flow of credit to the economy in good times and bad.
Rate	LTV: 70% - 90% depending on borrower type LTI: 3.5 times A proportion of new lending above the limits is allowed See Table 2 Details of the LTV and LTI Regulations – 2021 for more detail	0.5% - 1.5% depending on the institution	0%
Type of risk addressed	Cyclical and structural	Structural	Cyclical
Exposures in scope	Proportion of newly originated mortgage exposures	All exposures	Irish exposures
Effective from	February 2015	July 2019 on a phased basis	April 2020
Next review	Q4 2021	Q4 2021	Q3 2021 ¹

Notes: ¹While the Central Bank reviews the CCyB rate quarterly, it has outlined that given the current macro-financial outlook it does not expect to announce an increase in the CCyB rate through 2021.

The Central Bank continues to progress work on its multi-year programme for developing its macroprudential framework across bank capital buffers, the mortgage measures and in the area of market-based finance. Absorbing the COVID-19 shock provides the first material test of the macroprudential toolkit for banks and underscores the importance of reviewing and completing the framework for the banking sector and widening it to the non-bank sector. In the area of bank capital, the Central Bank is considering the appropriate mix and level of capital for the banking system which would take account of the interactions between buffers. This will include considerations regarding the implementation of the SyRB. The SyRB became part of the Central Bank's macroprudential policy toolkit with the transposition of CRDV into Irish law.⁷⁰ The Central Bank has previously outlined why such a buffer would be appropriate for the Irish financial system, given the small-globalised nature of the Irish economy and financial system. The Central Bank does not intend to begin the phase-in of such a buffer in 2021, but the rationale remains relevant when macro-financial conditions are conducive to the build-up of capital buffers once again.

Relating to the borrower-based measures, in parallel to the regular annual review, the Central Bank is conducting a deeper review of the mortgage measures framework over the course of 2021

⁷⁰ See [Statutory Instrument 710/2020](#).

and 2022. It is approaching seven years since the introduction of the mortgage measures. While the mortgage measures are a permanent feature of the market, the Central Bank is seeking not only to maintain the good practice of regularly reviewing the calibration of policy but also the overarching framework surrounding the measures. The review will consider the current objectives relative to the overall aim of the measures, the evolution of the housing and mortgage markets and the advent of new data sources, such as the Central Credit Register, allowing for an in-depth analysis on the effective design of the measures. Alongside the analysis underlying this deeper review, a key focus will be on public engagement.

The Central Bank is currently exploring the costs and benefits of potential macroprudential policy measures aimed at increasing the resilience of the Irish property fund sector. Analysis outlined in *Resilience: Investment Funds* illustrates that there is a cohort of property funds that have high levels of leverage and, to a lesser extent, liquidity mismatches. In that context, the Central Bank is exploring the costs and benefits of possible macroprudential policy interventions in this area, such as leverage limits and options to limit liquidity mismatches to strengthen the property fund sector's overall resilience to potential future shocks. More broadly, the development of a comprehensive macroprudential framework for the market-based finance sector remains a priority for the Central Bank.⁷¹

Policy announcements and updates

Macro-financial conditions remain consistent with a 0 per cent CCyB rate.

The Central Bank is maintaining the CCyB rate at 0 per cent and – given current expectations around the macro-financial outlook – does not expect to announce any change to this policy stance in 2021. By maintaining a 0 per cent rate at this time, the Central Bank's policy stance aims to support a sustainable supply of credit to Irish households and businesses. The near-term policy outlook is based on current expectations regarding the outlook for the macro-financial environment. Ultimately, the future path for the CCyB rate will depend on macro-financial developments and the forward-looking risks facing the Irish banking system.

Following its latest quarterly review, the Central Bank has made no change to its policy stance for the CCyB, which will remain at 0 per cent. Maintaining the CCyB rate at 0 per cent at this time aims to support credit supply to the Irish economy and ultimately reduce the likelihood that the banking sector acts as a source of amplification of the on-going shock to the economy. The Central Bank announced the reduction in the CCyB rate from 1 per cent to 0 per cent at the onset of the COVID-19 pandemic, given the emerging severe shock to the economy.

New lending activity has strengthened since the initial contraction experienced in Q2/Q3 last year but remains uneven across different segments of the market (Chart 72).⁷² Late 2020 saw a marked recovery in the level of mortgage activity which has continued into early-2021. This is evident across a range of indicators covering new credit agreements, mortgage approvals and enquiries. In

⁷¹ See [Lessons from COVID: A Macroprudential Framework for the Market-Based Finance Sector](#)

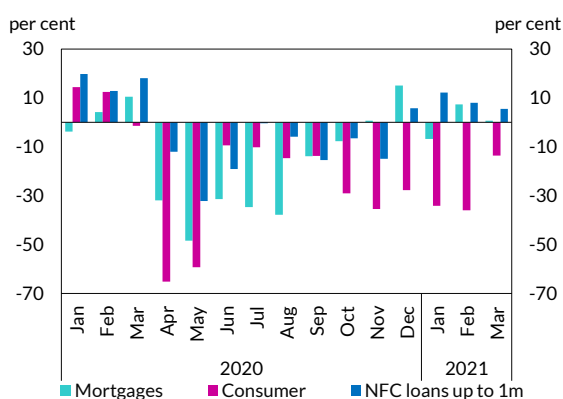
⁷² [Kelly et al., Credit conditions for Irish households and SMEs, Central Bank of Ireland, Economic Letter Vol. 2021 No.5](#)

contrast, consumer lending remains subdued relative to pre-pandemic levels. New lending to SMEs has recovered from very low levels, although varying across sectors in line with the relative impact of the public-health measures. Fiscal measures are also playing a role here, as the level of government support has likely reduced the demand for credit.

The credit gap is a required reference indicator for the setting of the CCyB, albeit it is subject to a number of limitations. Latest data on the standard and national specific credit gaps indicate they remained negative over all quarters in 2020. The alternative gap, which is a more representative cyclical indicator for Ireland⁷³, remains close to 0 as has been the case for some time now (Chart 73).

Chart 72: New lending growth differs across borrower segments

Year-on-year percentage change in monthly new lending volumes

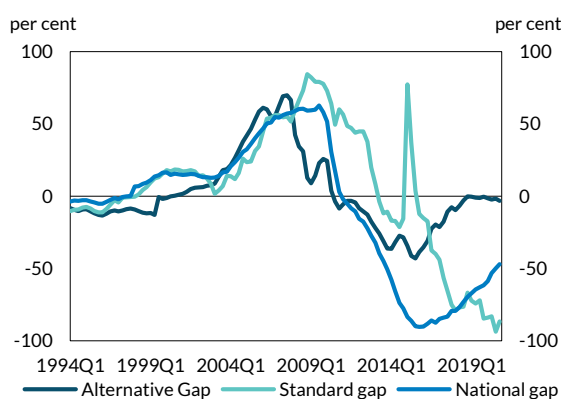


Source: Central Bank of Ireland.

Notes: Mortgages exclude renegotiations. Consumer includes all new lending to households for purposes other than house purchase.

Chart 73: Credit gaps remain negative and are not suggestive of excess credit

Credit gaps



Source: Central Bank of Ireland.

Notes: The standard gap is a required reference indicator under CRD V and based on GDP. The national gap is based on based on GNI*. The alternative gap was developed by the Bank, see O'Brien *et al.* (2018).

The near-term economic outlook, as discussed in *Risks*, is consistent with a 0 per cent CCyB rate. In FSR 2020:II, given expected conditions, the Central Bank set out that it did not expect any change to the 0 per cent CCyB rate to be announced in 2021. As outlined elsewhere in this *Review*, the macroeconomic environment has evolved in line with, or more favourably than the baseline scenario underlying the forward looking resilience assessment contained in FSR 2020: II. Furthermore, as discussed in *Resilience*, capital levels of the banking sector were broadly unchanged over 2020 and remained substantially above regulatory requirements. Nonetheless, the full impact of the pandemic on bank balance sheets remains uncertain and will take time to filter through the system. In light of these developments, the Central Bank is maintaining its outlook for the CCyB rate, i.e., no change is expected in 2021.

Nonetheless, the future path of the CCyB rate depends on macro-financial developments. The Central Bank's objective in using the CCyB is to build resilience in the banking system, so as to protect it against potential losses associated with a build-up of cyclical systemic risk, thereby supporting the sustainable provision of credit to the real economy throughout the cycle. Were a

⁷³ For further details on the development of a cyclical indicator for Ireland see [O'Brien, O'Brien and Velasco \(2018\) "Measuring and mitigating cyclical systemic risk in Ireland: The application of the countercyclical capital buffer" Central Bank of Ireland Financial Stability Notes, 2018, No. 4](#) and [O'Brien and Velasco \(2021\) "Unobserved components models with stochastic volatility for extracting trends and cycles in credit" Central Bank of Ireland Research Technical Paper Vol. 2021, No. 9](#).

sustained trajectory in indicators (across credit, asset prices and the macroeconomy) consistent with the emergence of cyclical systemic risk to develop, such conditions could warrant the re-introduction of a positive CCyB rate. Any increase in the CCyB would also take account of the evolving macroprudential framework, the interaction amongst various policy tools, and draw on (emerging) lessons learned from the COVID-19 experience.

Mortgage measures

Improved bank and borrower resilience, supported by the mortgage measures, has been evident during the pandemic. The 2020 annual review of the mortgage measures did not result in any changes to the measures. The review, which focused on understanding the impact of the COVID-19 shock on the housing and mortgage markets, found the measures continued to meet their objectives despite the COVID-19 induced disruption. The next annual review of the mortgage measures will be published in November 2021. The Central Bank will continue to monitor the impact of COVID-19 on the mortgage measures and the mortgage market more generally.

The Central Bank reviews the mortgage measures on an annual basis. The most recent review, published in November 2020, found that the measures continued to meet their objectives despite the COVID-19-induced disruption and saw no changes to the measures (see Table 2).⁷⁴ The review focused on understanding the impact of the COVID-19 shock on the housing and mortgage markets.

Table 2| Details of the LTV and LTI Regulations – 2021

LTV Limits	For primary dwelling homes (PDHs):	First-time buyers (FTBs): 90%	5% of new lending to FTBs allowed above 90%
		Second and subsequent buyers (SSBs): 80%	20% of SSB new lending allowed above 80%
	For buy-to-let borrowers (BTLs):	70% LTV limit	10% of new lending allowed above the BTL limit
LTI Limit	For PDHs	3.5 times income	20% of new lending to FTBs allowed above 3.5 limit
			10% of SSB new lending allowed above 3.5 limit
Exemptions	From LTV Limit Borrowers in negative equity	From LTI Limit BTL borrowers Lifetime mortgages	From both limits: Switcher mortgages Restructuring of mortgages in arrears

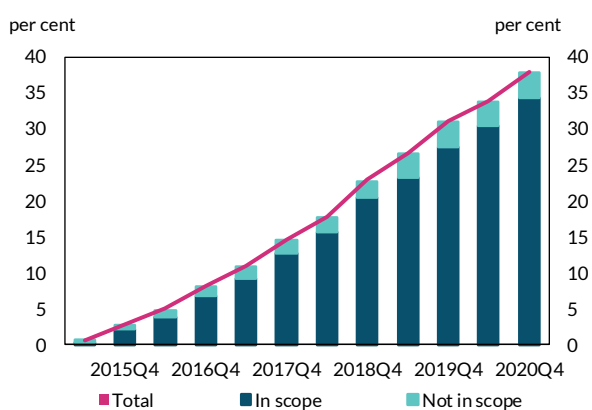
⁷⁴ See the [Financial Stability Review 2020:II](#).

The mortgage measures consist of loan-to-value (LTV) and loan-to-income (LTI) limits, which restrict the size of mortgages that consumers can borrow, while allowing a portion of lending to occur above the limits. The twin objectives of the measures are (i) strengthening bank and borrower resilience to negative economic and financial shocks, and (ii) dampening the pro-cyclicality of credit and house prices in order to prevent the emergence of a damaging credit-house price spiral.

The increased resilience that the measures have fostered since their introduction in 2015 is particularly important in light of the pandemic. The LTV limits provide a collateral buffer against house price declines, while the LTI limits provide a buffer against the effects of income and employment shocks. As the mortgage measures operate through the flow of new lending, they have an incremental effect on the overall stock of outstanding mortgages. As of end-2020, 38 per cent of outstanding mortgage lending at Irish retail banks had been issued since the introduction of the Central Bank's mortgage measures, 34 per cent in scope of the measures and 4 per cent not in scope (Chart 74). FSR 2020:II noted the close relationship between receipt of a COVID-19 residential mortgage payment break and the originating LTI.⁷⁵ An update on this analysis, based on those borrowers who received an extension to the initial payment break, shows the same pattern whereby mortgages originated at relatively higher LTIs were more likely to receive a COVID-19 payment break (Chart 75).

Chart 74: The mortgage measures have been incrementally increasing resilience.

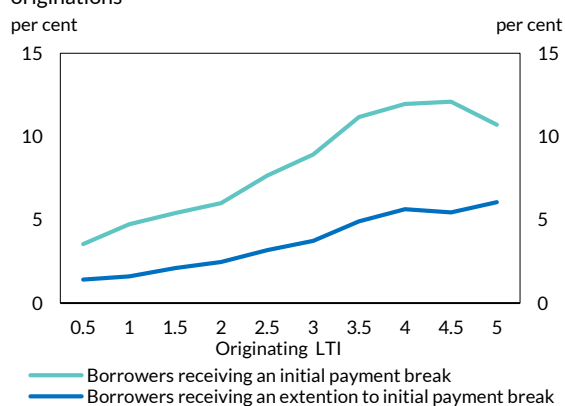
Share of Irish retail bank mortgage lending issued under the mortgage measures framework



Source: Central Bank of Ireland calculations using LL and MT data.
Notes: Mortgages issued under the mortgage measures framework are those mortgage loans approved and drawn down since 9 February 2015. Data is a join of the loan-level data and monitoring template data.

Chart 75: COVID-19 payment breaks are more likely at higher loan-to-income ratios

Residential mortgage COVID-19 payment break propensity by loan-to-income ratio at origination, 2016-2019 originations



Source: Central Bank of Ireland.

Since the conclusion of the 2020 review, loan level data on new mortgage lending for the full year of 2020 are available.⁷⁶ These data show that €8.5 billion of new lending was originated by reporting institutions in 2020, a decrease of approximately 13 per cent relative to the value of lending in 2019 (€9.7 billion). However, the composition of lending across borrower types in 2020 remained consistent with previous years. FTB lending continues to be the largest proportion of new mortgage lending, followed by SSB lending. FTB lending at €4.5 billion comprised 53 per cent

⁷⁵ See [Gaffney and Greaney \(2020\) "COVID-19 Payment Breaks on Residential Mortgages" Central Bank of Ireland Financial Stability Notes, Vol. 2020, No. 5](#), for a more in-depth discussion of COVID-19 payment breaks on residential mortgages.

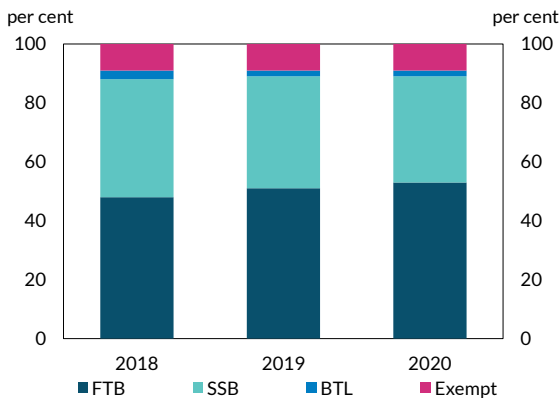
⁷⁶ See [New mortgage lending – data and commentary](#)

of total new lending in 2020, compared to 51 per cent in 2019 and 48 per cent in 2018. SSB lending, at just over €3 billion, represented 36 per cent of total new lending, down from 40 per cent in 2018. BTL lending and lending exempt from the regulations have remained steady at around 2 per cent and 9 per cent of total lending respectively (Chart 76).

The data reveal a significant drop in mortgage credit activity in 2020Q2, which was then followed by a strong recovery after the initial COVID-19 shock. The value of new mortgage lending drawdowns in scope of the measures fell sharply at the onset of the pandemic before recovering over the later months of 2020 (Chart 77) (Box H examines approval-to-drawdown timeframes during 2020). The value of in-scope new mortgage lending drawdowns in 2020Q2 was approximately 35 per cent lower than the corresponding figure in 2019 while in-scope drawdowns in 2020Q4 totalled circa €2.8 billion, marginally higher than in 2019Q4. Indications are that this strengthening in lending activity has continued into the early months of 2021.

Chart 76: The composition of lending has remained steady over the past three years with FTB lending now comprising over half of all new mortgage lending

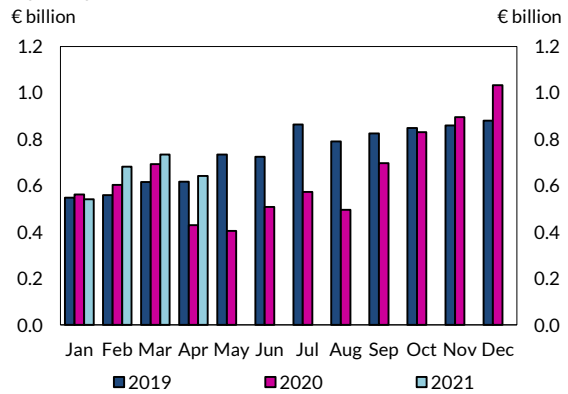
Composition of new mortgage lending 2018-2020



Source: Central Bank of Ireland calculations using MT data.
Notes: FTB, SSB and BTL are shares of in-scope lending. Lending exempt from the MM regulations includes refinancing (with no increase in capital). Data refers to the value of new mortgage lending.

Chart 77: New mortgage lending drawdowns recovered in 2020Q4 following the COVID-19 shock

Monthly value of new mortgage lending drawdowns 2019-2021



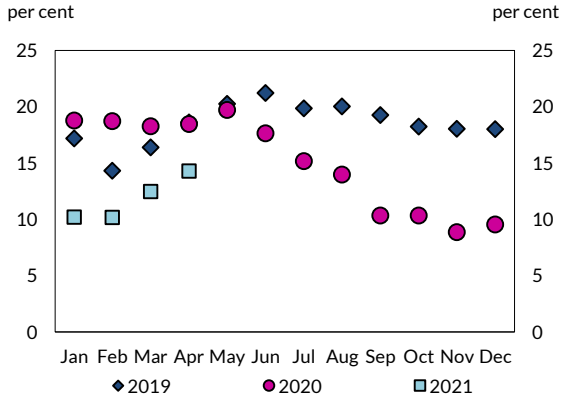
Source: Central Bank of Ireland calculations.
Notes: Data represents the value of new lending in-scope of regulations aggregated over 7 reporting institutions. Data for 2021 is provisional and is subject to change.

There was less allowance lending in 2020 than in previous years. In aggregate, about 14 per cent of the value of in-scope new mortgage lending in 2020 received an allowance above a mortgage measures limit, down from 18 per cent in 2019 (Chart 78). As discussed in FSR 2020:II, the overall lower level of allowance lending in 2020 fed through from the decision of lenders to restrict or in some cases suspend the provision of new mortgage approvals requiring an allowance, in response to the initial shock. The 2020 annual review did not find the mortgage measures themselves to have been a critical fundamental driver of credit supply conditions across the market, with the restriction of new allowances reflecting the interaction of the deterioration in the macroeconomic environment, banks' credit policies and managing compliance with the proportionate limits. Preliminary indications are that the proportion of new lending with an allowance did pick up in recent months.

There has been further bunching of new lending at or just below the maximum available LTV and LTI limits in 2020. This is most evident in the SSB LTV category where over 30 per cent of lending took place at or just below the 80 per cent limit and in the FTB LTI category with approximately 42 per cent of lending took place at or just below the 3.5 limit (Chart 79).

Chart 78: The proportion of new lending with an allowance increased recently but remains below pre-pandemic levels

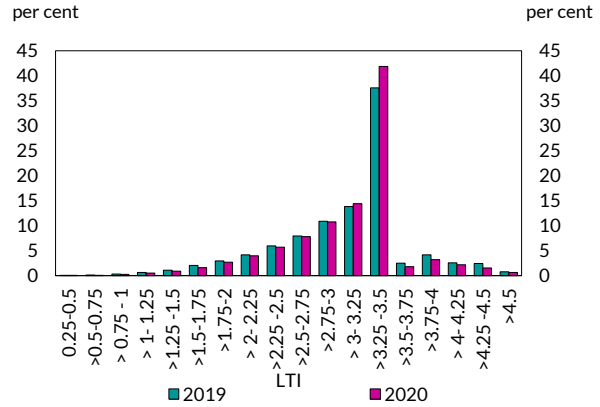
Monthly percentage share of new lending with an allowance from the Central Bank’s mortgage rules 2019-2021



Source: Central Bank of Ireland calculations.
 Notes: Data is aggregated over 7 reporting institutions and refers to the share of the value of new mortgage lending drawdowns in-scope of regulations with an allowance. Data for 2021 is provisional and is subject to change. Some borrowers receive both a LTI & LTV allowance.

Chart 79: While FTB lending above the LTI limit of 3.5 decreased, lending at or just below the LTI limit increased

LTI distribution for FTBs in 2019 vs 2020



Source: Central Bank of Ireland calculations using MT data.
 Note: LTI <0.25 and LTI >5 removed. Sample used is new property purchase/self-build loans only.

The next annual review of the mortgage measures will be published in November 2021. The Central Bank continues to monitor the impact of COVID-19 on the mortgage measures and the mortgage market more generally.

Box G: Policy supports during the pandemic

By Jane Kelly, Derek Lambert and Eoin O'Brien (Macro-Financial Division)

The policy actions taken by monetary, fiscal and prudential authorities have been complementary to one another in mitigating the macro-financial impact of the COVID-19 pandemic. This Box discusses one aspect of this complementarity – the role of prudential and fiscal measures in reducing the risk that bank capital acts as a source of a pro-cyclical contraction in credit supply.

Limiting a pro-cyclical contraction in credit supply has been a key aim of prudential policy actions, including macroprudential actions such as the release of the CCyB rate on Irish exposures by the Central Bank. These relief measures have supported capital headroom for the banking sector above regulatory requirements, over and above the level of headroom held by the banking sector prior to the COVID-19 pandemic (Chart A). Analysis looking to identify the short-term effect of lower capital requirements on loans to the non-financial private sector over 2020 points to these policies providing scope for higher levels of credit growth than would have been the case in their absence. More broadly, responses to the bank lending survey suggest that capital has not been a constraining factor on credit developments, so far during the pandemic.

On the fiscal side, substantial supports have helped (and as set out below continue) to mitigate partially the financial distress of [households](#) and [firms](#). Such measures interact with the dynamics of bank credit and capital. The *Resilience* section of this *Review* highlights the role played by fiscal supports in cushioning the impact of the shock on households and firms and mitigating the losses experienced by the banking sector to date. Furthermore, the scale of supports is influencing credit dynamics by, on the one hand, providing a short-term alternative to bank finance as a source of liquidity for those availing of the supports and, on the other, supporting credit demand by playing a role in reducing uncertainty over the economic outlook. For new lending that has taken place, government guarantees reduce the risk (and therefore the cost) faced by banks.

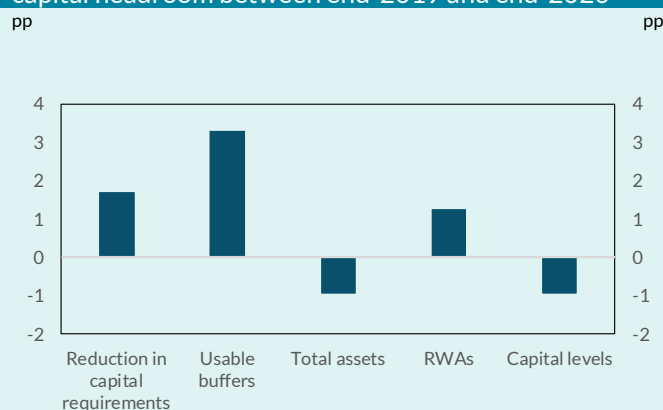
Scheme take-up initially dominated by wage supports, tax deferrals and grants rather than loans

The Irish fiscal response to COVID-19 has been large in the euro area context ([Conefrey et al. 2021](#)) with a greater focus on direct supports and grants than indirect supports including loan guarantees ([SME Market Report 2021](#), [ESRB 2021](#)). In volume terms, the CRSS and TWSS/EWSS wage supports have been the most important subsidy to Irish businesses, totalling €7.6bn from the €15.1bn of overall available support (Chart B).¹ Taken together, direct grant-like support (including wage supports and tax waivers) totals €9.8bn, relative to €5.3bn for loan and tax deferrals, which involve a liability for the businesses receiving the support.

Take-up is highest among grant based supports and wage supports (Chart B). Grant utilisation increased from under 50 per cent in September 2020 to c.85 per cent as of 28 May 2021, driven by the [Restart Grant Plus](#). Utilisation also increased among loan schemes, increasing from 7 per cent to 34.2 per cent over the same period. Among loan schemes, the [Future Growth Loan Scheme](#) has been the most popular to date but is now fully subscribed for five of the six approved lenders. It offers longer terms (up to 10 years) and a larger amount than other loan schemes (Chart B).

In terms of outreach, there are currently 49,500 employers covering 570,500 employees registered with Revenue for EWSS (27 May 2021). Over May, payments were processed to approximately 34,100 employers covering 298,500 employees, at a value of €357.7mn. Overall, 66,500 employers received subsidies under the TWSS (covering 664,000 employees) by the schemes end of 31 August 2020. To end March 2021, 81,422 businesses used debt warehousing. To date, there were 108,634 approved applications for the [Restart Grant \(Plus\)](#). By contrast, there have been 5,005 qualifying loans issued under the [COVID-19 Credit Guarantee Scheme](#) by 20 May 2021.

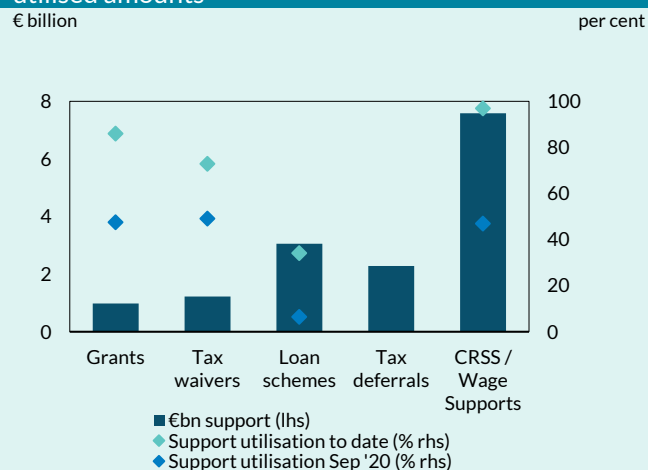
Chart A: Factors influencing change in banking sector capital headroom between end-2019 and end-2020



Source: Central Bank of Ireland.

Notes: RWAs stands for risk weighted assets. Reduction in capital requirements relates to the impact of changes in CCyB rates and to the composition of Pillar2 Requirements. Usable buffers relate to the combined buffer requirement as of end-2020 which authorities have indicated are available. Chart represents the impact on the change on the CET1 capital ratio above regulatory requirements between end-2019 and end-2020. Chart does not include Pillar2 Guidance.

Chart B: Support for business: available and utilised amounts



Source: Central Bank of Ireland, Department of Enterprise, Trade and Employment, Department of Finance.

Notes: CRSS: COVID Restrictions Support Scheme

Bank capital and credit supply

As discussed in *Risk*, the banking system to date has not been a source of amplification of the shock, with bank capital not playing a material role in observed credit outcomes. The tightening of credit standards that has occurred has tended to be driven by economic factors, in contrast to 2008 ([Kelly et al, 2021](#)).² The level of resilience that the banking sector entered the shock with, the capital relief provided by prudential authorities and fiscal supports have all been contributing to this outcome.

¹ Overall support for specified measures contained within Chart B is €15.1bn up to end June 2021 (Includes the CRSS/TWSS/EWSS, specified SME grants, tax warehousing scheme and specified loan supports) with supports such as the CRSS/EWSS and tax debt warehousing scheme to be extended to end December 2021. Estimated total fiscal cost of pandemic-related measures for 2020 is €24.6bn. See [Conefrey, Hickey and McInerney \(2021\) "COVID-19 and the Public Finances in Ireland" Central Bank of Ireland Economic Letter, Vol. 2021, No. 3.](#)

² [Kelly, McElligott, Parle and Sherman \(2021\), "Credit Conditions for Irish Households and SMEs", Central Bank of Ireland Economic Letter, Vol. 2021, No. 5.](#)

Box H: Mortgage approval-to-drawdown timeframes during 2020

By Jane Kelly, Christina Kinghan and Derek Lambert (Macro-Financial Division)

This Box uses new information on mortgage approvals¹ from a loan level data collection. It examines approval to drawdown timeframes by borrower type and whether any changes occurred in approval-to-drawdown timeframes after March 2020 due to the COVID-19 pandemic.

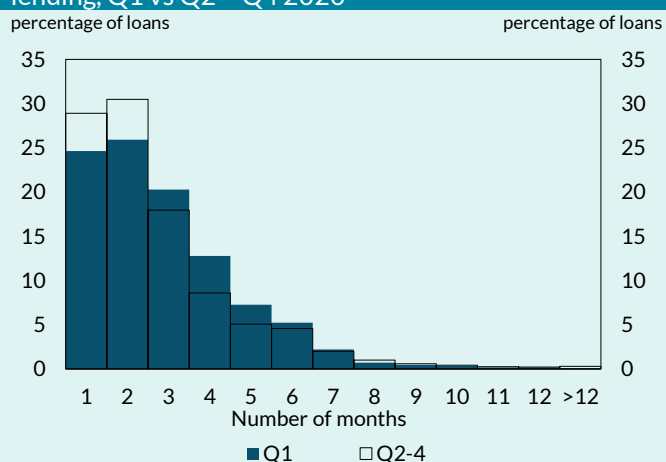
The share of loans with a shorter approval to drawdown window increased after March 2020

As part of monitoring compliance with the mortgage measures, new data is now collected on the approval date for loans drawn down. This new data can be used to derive insights into whether there has been any change in the timeframe between loan approval and drawdown for new lending within the four quarters of 2020. The share of loans with a shorter approval to drawdown window increased after March. Almost 60 per cent of loans in Q2-Q4 were drawn down within two months, compared to around half in Q1 (Chart A).

90 per cent of new loans are drawdown within 5 months of approval, consistent across borrower types.

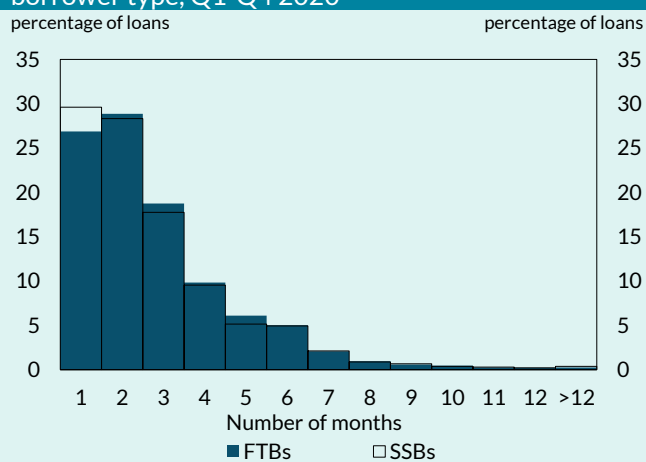
It is also possible to check if there is variation in the timeframe between approval and drawdown by borrower type. The majority of loans are drawn down within 5 months of approval (Chart B) with 90 per cent of FTB and SSB loans drawdown within this time period. Overall, there is very little difference in the timeframe between approvals and drawdown based on whether the borrower is an FTB or an SSB.

Chart A: Approval to Drawdown period for new PDH lending, Q1 vs Q2 – Q4 2020



Source: Central Bank of Ireland, MTD.
Notes: Data is for all new PDH loans.

Chart B: Approval to Drawdown period by borrower type, Q1-Q4 2020



Source: Central Bank of Ireland, MTD.
Notes: Data is for all new PDH loans by FTB and SSB.

These new data show that approval-to-drawdown timeframes became slightly quicker in the second half of the year and that there are no differences in approval-to-drawdown timeframes dependent on borrower type. Ongoing monitoring will remain important in the broader context of the many measures taken by policymakers to minimise the risks of credit supply side constraints as the economy recovers (Kelly et al., 2021).²

¹ Approval date is defined herein as the date when the new lending was fully underwritten and approved and will only include approvals that were drawn down.

² See Kelly, McElligott, Parle and Sherman (2021), "Credit Conditions for Irish Households and SMEs", Central Bank of Ireland Economic Letter, Vol. 2021, No. 5.

Abbreviations

Country and currency abbreviations follow the [European Union standards](#).

AIB	Allied Irish Bank	LTV	Loan to value ratio
AE	Advanced economies	MSCI	Morgan Stanley Capital International
AMECO	Annual macro-economic database of the European Commission's Directorate General for Economic and Financial Affairs	MT	Monitoring templates
AUM	Assets under management	NAMA	National Asset Management Agency
BEPS	Base erosion and profit shifting	NFC	Non-financial corporation
BIS	Bank of International Settlements	NPL	Non-performing loan
BOI	Bank of Ireland	NTMA	National Treasury Management Agency
BRRD	Bank Recovery and Resolution Directive	OECD	Organisation for Economic Co-operation and Development
BTL	But-to-let	O-SII	Other Systemically Important Institutions
CBRE	Coldwell Banker Richard Ellis Group	PB	Payment breaks
CCyB	Countercyclical capital buffer	PDH	Primary dwelling house
CET1	Common equity tier 1	PTSB	Permanent PTSB
CRD	Capital Requirements Directive	PUP	Pandemic Unemployment Payment
CRE	Commercial real estate	REIT	Real Estate Investment Trust
CRO	Companies Registration Office	ROE	Return on equity
CRSS	COVID Restrictions Support Scheme	RRE	Residential real estate
CSO	Central Statistics Office	SCR	Solvency capital requirement
DTI	Debt to income	SFS	Standard Financial Statement
EBA	European Banking Authority	SME	Small and medium enterprise
ECB	European Central Bank	SSB	Second and subsequent buyer
EEA	European Economic Area	SSM	Single Supervisory Mechanism
EIOPA	European Insurance and Occupational Pensions Authority	TCA	Trade and cooperation agreement
ESM	European Stability Mechanism	TWSS	Temporary COVID-19 Wage Subsidy Scheme
ESRB	European Systemic Risk Board	UBI	Ulster Bank Ireland
EU	European Union	VA	Value added
EWSS	Employment Wage Subsidy Scheme	WTO	World Trade Organisation
FDI	Foreign direct investment		
FOE	Freedom of establishment		
FOS	Freedom of service		
FSR	Financial Stability Review		
FTB	First-Time Buyer		
GDP	Gross domestic product		
GNI	Gross national income		
IFRS	International Financial Reporting Standards		
IMF	International Monetary Fund		
KBC	Kredietbank ABB Insurance CERA Bank		
LE	Large enterprises		
LTI	Loan to income ratio		

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