



Banc Ceannais na hÉireann  
Central Bank of Ireland

Eurosystem

# Financial Stability Review **2020: II**



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## Notes

1. Unless otherwise stated, this document refers to data available on 6 November 2020.
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.

Contributing to the safeguarding of financial stability, the Central Bank 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.

Over the past decade, the tools available to the Central Bank to safeguard financial stability have expanded significantly, including through new macroprudential instruments. The Central Bank has actively deployed these tools to strengthen the resilience of the financial system.

This expanded responsibility underscores the continued need for transparency and accountability. In this context, the Central Bank communicates its judgments around financial stability through the *Financial Stability Review*.

The structure of this publication mirrors the overall approach the Central Bank takes in reaching a judgment 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 judgments 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 choimirciú agus trína áirithiú go bhfuil an córas airgeadais ag feidhmiú ar mhaithe le leas na dtomhaltóirí agus leas an gheilleagair níos leithne.

Agus é ag cur le cosaint na cobhsaíochta airgeadais, déanann an Banc Ceannais measúnú ar na príomhrioscaí atá os comhair an chórais 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 i dtréimhsí maithe agus i ndrochthréimhsí araon. Le gníomhaíochtaí beartais an Bhainc Ceannais, féachtar lena áirithiú go bhfuil an córas airgeadais in ann turraingí dochracha a iompar, agus nach ndéanfaidh sé iad a mhéadú.

Le deich mbliana anuas, tá leathnú suntasach déanta ar na huirlisí atá ar fáil don Bhanc Ceannais chun cobhsaíocht airgeadais a chosaint, lena n-áirítear uirlisí macrastuamachta nua. Tá úsáid ghníomhach bainte as na huirlisí sin chun athléimneacht an chórais airgeadais a neartú.

Leis an bhfreagracht bhreise seo, cuirtear béim ar an ngá leanúnach atá le trédhearcacht agus le cuntasacht. Sa chomhthéacs sin, cuireann an Banc Ceannais a chuid breithnithe faoi chobhsaíocht airgeadais in iúl tríd an *Athbhreithniú um Chobhsaíocht Airgeadais*.

Is léiriú é an foilseachán seo ar an gcur chuige a ghlacann an Banc Ceannais chun breithniú a dhéanamh faoina staid maidir le beartas macrastuamachta.

- Sa chéad mhír, déantar cur síos ar mheasúnú an Bhainc Ceannais ar na príomhrioscaí atá roimh an gcóras airgeadais Éireannach sa ghearrthéarma agus sa mheántéarma.
- Sa dara mír, déantar cur síos ar mheasúnú an Bhainc Ceannais ar athléimneacht an chórais airgeadais intíre in aghaidh turraingí dochracha agus a inniúlacht chun rioscaí den sórt sin a iompar, seachas a mhéadú.
- Sa tríú mír, déantar cur síos ar ghníomhaíochtaí beartais an Bhainc Ceannais chun an chobhsaíocht airgeadais a chosaint agus chun a chinntiú go bhfuil athléimneacht an chórais airgeadais comhréireach i dtaca leis na rioscaí atá roimhe.

Tá córas airgeadais mór agus ilchineálach in Éirinn. Tá fás ag teacht ar an gcuid sin de sheirbhísí earnála airgeadais a fheastalaíonn ar chliaint idirnáisiúnta, agus tá impleachtaí díreacha teoranta ann don gheilleagar intíre. Dírítear san fhoilseachán seo ar na codanna den chóras airgeadais a chuireann seirbhísí ar fáil do theaghlaigh agus do ghnólachtaí Éireannach.

Léirítear breithnithe ó Choiste um Chobhsaíocht Airgeadais agus ó Choiste um Bearta Macrastuamachta an Bhainc Ceannais san *Athbhreithniú um Chobhsaíocht Airgeadais* agus tá na breithnithe sin mar bhonn faisnéise leis an athbhreithniú. Ní hé is aidhm leis an Athbhreithniú réamhaisnéis eacnamaíoch a chur ar fáil. Ina ionad sin, dírítear ar an bhféidearthacht go dtiocfadh torthaí diúltacha chun cinn. Tá an Banc Ceannais tiomnaithe do thrédhearcacht a chuid breithnithe maidir le cobhsaíocht airgeadais agus tá sé beartaithe aige an foilseachán seo a úsáid mar bhealach chun na gníomhaíochtaí beartais arna nglacadh laistigh dá shainordú, chun an chobhsaíocht airgeadais a chosaint, a mhíniú.



# Overview

The measures taken to protect public health in response to the COVID-19 pandemic have triggered an extraordinary economic shock. While the global and domestic economies have started to recover from the depths of the crisis, the second wave of the virus poses additional near term challenges. Notwithstanding progress around the development of an effective vaccine, the main risks stem from the possibility of further pandemic-related disruption to domestic and global economic activity; the related risk of further financial market stresses; and the adverse macroeconomic implications of trading arrangements at the end of the Brexit transition period. The full transmission of the shock to the economy and financial system will take time. The Central Bank has assessed the impact of different scenarios on the forward-looking financial position of the retail banking system. The loss-absorbing capacity of the system as a whole is sufficient to absorb shocks that are materially worse than current baseline projections. However, that loss-absorbing capacity is not without limits, and lenders should prepare for a wide variety of potential outcomes. The Central Bank's analysis also illustrates that the macroeconomic downturn would be worse if the banking system were to restrict the supply of credit materially. To mitigate against this risk, policymakers have responded with a range of fiscal, monetary, macroprudential and microprudential actions.

The main risks to domestic financial stability are:

**A disruption in the global economic recovery and a sharp tightening of global financial conditions.** Supported by extraordinary monetary and fiscal policy interventions, the global economy has started to recover from the depths of the crisis. There has also been continued easing of global financial conditions, after the abrupt tightening witnessed at the onset of the pandemic. However, the global economy is expected to contract by 4.4 per cent in 2020 and is prone to further setbacks during the recovery. The pace of the global recovery will ultimately depend on the success of containing the health risks associated with the pandemic. Amidst elevated uncertainty, and given signs of a divergence between certain financial market valuations and the real economy, the risk of sudden changes in global risk aversion remains high. The global economy's underlying vulnerability to a tightening in global financing conditions has also increased, as the response to the pandemic has led to a build-up of government and non-financial corporate debt. A slower global economic recovery and tighter financial conditions would have implications for economic activity and asset prices in Ireland, with adverse impacts on the balance sheets of the financial system.

**A disruptive Brexit at the end of the transition period.** The future EU and UK trading relationship post 2020 remains uncertain. The Central Bank – working with relevant authorities – has taken action to mitigate the most material and prominent risks to the provision of cross-border financial services between the EU and the UK. The macroeconomic impact of a trading arrangement post the Brexit transition period represents the main source of risk to the financial system as a whole. While the pandemic is the most salient source of near-term disruption to economic activity, the interaction with Brexit amplifies the downside risks to the overall economic outlook, as its impact differs by region and sector. The domestic banking system also has significant lending exposures to the UK, providing a direct transmission channel for the impact of Brexit on the balance sheets of Irish retail banks.

A prolonged impact of COVID-19 on the Irish economy, leading to a further deterioration in the domestic macro-financial outlook. Since the last Review, the domestic economy has started to recover, but there are significant downside risks to the outlook from further waves of the virus and the associated public health restrictions to contain it. The more prolonged the impact of the shock, the greater the likelihood that liquidity problems will evolve into solvency pressures for businesses and households. In property markets, commercial real estate is particularly vulnerable to both the near-term economic impact and the potential structural implications of COVID-19. The macroeconomic downturn will be worse if the financial system were to restrict the supply of credit required to support households and firms during the recovery. Policymakers have responded with a range of fiscal, monetary, macroprudential and microprudential actions to prevent amplification of the shock by the financial system.

Overall, the risk environment remains very challenging and broadly similar to the last Review, and continues to be characterised by pervasive uncertainty. Scenario analysis provides a basis for testing future resilience, not only against the most likely path of the economy, but one with negative outcomes materialising simultaneously. The Central Bank has calibrated two possible scenarios for the macro-financial outlook consistent with the latest *Quarterly Bulletin*. The baseline is the central expectation for the economy, including a move to WTO arrangements at the end of the Brexit transition period. Reflecting the main risks facing the financial system outlined above, the adverse scenario also captures: (i) the possibility of a slower-than-expected recovery in global demand; (ii) the uncertain path of the pandemic domestically, in terms of repeated public health restrictions; and (iii) the potential for the financial system to amplify the downturn, through tighter lending standards reducing access to credit during the recovery.

With reference to the above risk environment, the Central Bank assesses the resilience of the economy and the financial system and their ability to absorb, rather than amplify shocks.

COVID-19 will put pressure on banks' financial positions, but improved resilience over the past decade, supported by recent policy actions, results in a banking system that is better able to serve the needs of businesses and households through this period of uncertainty. In the years preceding the pandemic, the banking system was on a trajectory of improving resilience, with higher capital levels, funding based on more stable retail deposits and improved credit quality in domestic loan portfolios. The deterioration of the macro-financial environment has already affected the financial position of the banking sector, but it will take time for the shock to transmit fully to banks' balance sheets. A forward-looking assessment of the financial position of the retail banking system suggests that the system in aggregate has sufficient capital to absorb shocks that are materially worse than current baseline projections. While the impact of the adverse scenario would be significant, potential losses would still be absorbed by current capital buffers. The degree of uncertainty associated with these projections is high, in terms of the macro-financial outlook, the impact of policy supports, and the transmission of these to banks' balance sheets. In addition, the system-wide position can mask significant dispersion in the potential impact of the shock on individual banks, when, in practice, capital is not transferable across institutions. This underscores the need for regulated firms to prepare and plan for a variety of eventual outcomes.

The revenue shock experienced by non-financial firms has been cushioned, to some extent, by significant government supports, but those in most affected sectors, or those significantly impacted by Brexit, face further financial risks. Domestically, public health measures have had severe effects in sectors relying on customers' physical presence, with estimates of revenue



shortfalls close to €11 billion across the SME sector in 2020. Initially, almost a quarter ceased operations temporarily, but conditions have since improved, with the majority of firms within 25 per cent of their pre-pandemic turnover levels when surveys were conducted in August. However, more recent additional restrictions are likely to have hampered the recovery of many businesses and increased levels of uncertainty. The revenue shock faced by firms has been cushioned by a range of fiscal supports, by the banking system through payment breaks and the drawdown of existing credit lines, and through deferral of repayment of other liabilities such as taxes, rates, rent and trade credit. The effects of this support are evident in the historically low level of corporate insolvencies to date, but recurring public health restrictions will likely lead to increased firm indebtedness and higher rates of failure. An adverse economic outcome from Brexit would broaden firm distress into sectors that have been less affected by the COVID-19 public health restrictions.

**Stronger balance sheets and policy supports have aided household resilience, but significant risks and vulnerabilities from the last crisis remain.** In the decade preceding the COVID-19 shock, households' financial resilience had improved through falling aggregate debt and reduced interest burdens. More recently, aggregate liquidity has increased significantly due to income supports, payment breaks and increased savings, likely reflecting both constrained consumption opportunities and precautionary motives. However, the widespread nature of the shock means almost half of all workers relied on the State for some of their income when labour markets were weakest. By mid-summer, payment breaks on more than €11.5 billion of debt allowed households to postpone repayments, providing critical liquidity relief which has been required by a steadily falling share of the mortgage market. Significant risks remain due to pandemic-related uncertainty, employment in Brexit-affected sectors and the potential fiscal need to taper income support over time. In addition, vulnerabilities remain from the last crisis, with a substantial share of the mortgage stock consisting of loans with previous arrears, forbearance or restructuring, which have proved more vulnerable to shocks.

**The COVID-19 policy supports have had a significant negative impact on public finances.** The fiscal spending underpinning the liquidity support of firms and households, along with increased health-related costs, necessitated large increases in government spending – leading to projected deficits of 10-11 per cent of GNI\* in 2020 and 2021. Borrowing capacity and debt sustainability continue to be aided by accommodative monetary policy and an elongated maturity profile. Risks to debt sustainability stem from the possibility of sudden changes in market perceptions and the exceptional levels of uncertainty relating to the expenditure required for public health policy.

**The investment fund sector has a significant holding of Irish commercial real estate, with the potential to amplify shocks given a proportion of funds with relatively high leverage.** The size of the Irish investment fund sector relative to the size of the economy is among the largest globally. While predominantly internationally focused, important domestic linkages exist, in particular their holding of more than 40 per cent of investable Irish commercial real estate. Leverage is higher among Irish property funds compared to European peers creating additional vulnerability to price falls, which could in turn lead to selling pressures in the market. Liquidity risk in Irish real estate funds is mitigated to some extent – though not entirely – by the prevalence of closed ended and limited liquidity funds.

The Central Bank uses its macroprudential policies to promote financial stability in Ireland and considers the balance between the risks facing the economy and financial system and their

resilience. Macroprudential policy does not act in isolation and, given the scale of the COVID-19 pandemic, it has been complemented by unprecedented fiscal, monetary and microprudential actions in supporting financial stability.

The Central Bank has completed the annual review of the mortgage measures, with no change to the LTV and LTI limits or the allowances. The mortgage measures have the twin objectives of strengthening borrower and lender resilience and reducing the likelihood of an adverse credit-house price spiral emerging. The annual review of the mortgage measures focused on understanding the impact of the COVID-19 shock on the housing and mortgage markets. It drew on extensive analysis and stakeholder engagement on the effectiveness of the measures.

Key findings of this year's review informing the Central Bank's decision include the following:

- The initial effects of COVID-19-related disruption on the housing market have eased, but implications of the shock continue to feed into housing demand, supply, market activity and prices. Housing supply, in particular, is likely to remain significantly below pre-pandemic levels until 2022.
- House price growth has been relatively flat throughout 2020, with little sign of an adverse effect of the pandemic.
- Mortgage lending has shown signs of recovery, but remains below the levels of recent years with an uncertain outlook reflecting the potential shape and horizon of the recovery. There is no evidence of a generalised deterioration in new lending standards, with the 2020 H1 distributions of LTV and LTI ratios broadly consistent with 2019.
- Credit developments have not been excessively driving house prices. Mortgage credit contracted at the onset of the shock, but this was mainly driven by a very sharp fall in demand for credit. There is little evidence to suggest that observed price trends in the housing market were driven by a contraction in the supply of credit. In addition, the mortgage measures are not a material driver of the observed changes in credit supply conditions over the course of 2020 across the banking system.
- Taking a longer-term perspective, the mortgage measures have been effective in strengthening bank and borrower resilience. The benefits of that resilience are most evident in times of stress; payment break take-up rates show that financial distress is lower among loans issued under the measures relative to those originated under looser conditions during the 2000s.
- The Central Bank considered whether a temporary loosening of the mortgage measures might be appropriate to guard against any potential tightening in credit supply by lenders. However, it judged that – as the measures only provide a floor to underwriting standards – any changes to the rules would be unlikely to be effective in guarding against credit tightening decisions by lenders which predominantly reflect changes in their own risk appetite.
- More broadly, given the underlying demand-supply imbalance in the current housing market, additional debt would likely lead to greater pressure on house prices, with associated adverse implications for bank and borrower resilience.

Overall, the Central Bank has judged that the measures – as currently designed and calibrated – continue to meet their objectives.

**The CCyB rate at 0 per cent remains the most appropriate in the current domestic and global macro-financial conditions.** In March, given the severity of impact of the COVID-19 pandemic, the Central Bank announced the full release of the CCyB buffer on Irish exposures. The CCyB was released in light of the abrupt change in the macro-financial outlook, enabling the banking system to use accumulated capital buffers to absorb losses and maintain a sustainable supply of credit to the real economy. The outlook for the CCyB depends on macro-financial developments and the expected impact of those on the Irish banking system. Given current and expected macro-financial conditions, and to continue providing scope for the banking system to absorb and not amplify the COVID-19 shock, the Central Bank does not expect to announce a change in the CCyB through 2021. If those conditions were to change significantly to reflect a sustained trajectory in indicators associated with emerging cyclical systemic risk, the appropriate policy stance would change accordingly.

**The annual review of O-SII framework identified six institutions as systemically important with buffer rates between 0.5 and 1.5 per cent.** The O-SII buffer aims to reduce the probability of failure of a systemically important institution, with calibration based on the relative systemic importance of each institution. The 2020 review has resulted in no policy change, with the exception of the buffer rate for Barclays Bank Ireland plc (BBI) increasing to 1 per cent, consistent with the increased size and complexity of the institution since the last Review. The usability of the O-SII buffer to absorb losses in times of stress is an important element in the functioning of the capital buffer framework. The Central Bank emphasizes that the O-SII buffer is fully usable to absorb losses during this period of stress, consistent with the wider macroprudential and supervisory actions taken by the Central Bank and the ECB.

**COVID-19 provides the first real test of how the existing prudential capital framework operates and underscores the importance of completing the macroprudential framework.** While individual buffers aim to mitigate different risks, together they enable the banking sector to absorb the COVID-19 shock and continue to support the real economy. Looking ahead, the Central Bank will continue to develop the broader capital framework and consider the mix and interactions between instruments and buffers, including as a result of the impending transposition of CRDV into Irish legislation and embedding any lessons-learned from the COVID-19 experience. The transposition of CRDV will implement refinements made to the European macroprudential framework in Ireland, including the power to set a systemic risk buffer (SyRB). The Central Bank has previously outlined why such a buffer would be appropriate for Ireland, given the small and highly globalised nature of the Irish economy and financial system. While this motivation remains relevant, the Central Bank does not currently intend beginning the phase-in of such a buffer in 2021. Any phase-in of such a buffer would take account of the prevailing macro-financial conditions, the interaction with the other capital and borrower-based measures and the broader understanding of the operation of the macroprudential framework in light of the experience during the COVID-19 shock.

# Forbheathnú

Tá turraing eacnamaíoch neamhghnách spreagtha ag na bearta atá glactha chun sláinte an phobail a chosaint mar fhreagairt ar phaindéim COVID-19. Cé go bhfuil an geilleagar domhanda agus an geilleagar intíre ag teacht chucu féin arís i ndiaidh dhuibheagán na géarchéime, tá dúshlán bhreise ghearrthéarmacha ann mar gheall ar an dara ráig den víreas. D'ainneoin an dul chun chun atá déanta maidir le vacsaín éifeachtach a fhorbairt, eascraíonn na príomhríoscaí don chobhsaíocht airgeadais as an bhféidearthacht go mbeidh cur isteach breise ar an téarnamh eacnamaíoch domhanda; an riosca gaolmhar a bhaineann le strus breise sa mhargadh airgeadais; agus na hiarmhairtí díobhálacha maicreacnamaíocha a bheidh ag socrúithe trádála ag deireadh idirthréimhse Brexit. Beidh tamall ann sula mbraithfí iomlán na turrainge sa gheilleagar agus sa chóras airgeadais. Tá measúnú déanta ag an mBanc Ceannais ar thionchar na bhféidearthachtaí éagsúla ar staid réamhbheathnaitheach airgeadais an chórais baincéireachta miondíola. Tá cumas iompartha cailteanais an chórais ina iomláine leordhóthanach chun turraingí a iompar, ar turraingí iad atá i bhfad níos measa ná na turraingí a thuartar sna réamh-mheastacháin bunlíne reatha. Níl an cumas iompartha cailteanais sin gan teorainn, áfach, agus ba cheart d'iasachtóirí ullmhú do raon leathan torthaí ionchasacha. Léirítear freisin san anailís atá déanta ag an mBanc Ceannais go mbeadh cor chun donais maicreacnamaíoch ní ba mheasa ann dá gcuirfeadh an córas baincéireachta srian suntasach leis an soláthar creidmheasa. Chun an riosca seo a mhaolú, tá raon gníomhartha fioscacha, airgeadaíochta, macrastuamachta agus micreastuamachta glactha ag an lucht déanta beartais.

Is iad seo a leanas na príomhríoscaí atá ann don chobhsaíocht airgeadais intíre:

**Cur isteach ar an téarnamh eacnamaíoch domhanda agus daingniú géar ar dhálaí airgeadais domhanda.** Agus idirghabhálacha urghnácha beartais airgeadaíochta agus beartais fhioscaigh mar thaca aige, tá an geilleagar domhanda ag teacht chuige féin arís i ndiaidh dhuibheagán na géarchéime. Ina theannta sin, tá maolú leanúnach ar dhálaí airgeadais domhanda, rud atá ag teacht i ndiaidh an daingnithe thobainn a chonacthas ag tús na paindéime. Ar a shon sin, meastar go mbeidh crapadh 4.4 faoin gcéad ar an ngeilleagar domhanda in 2020 agus tá seans ann go mbainfear cor coise as arís le linn an téarnaimh. Ar deireadh thiar, beidh luas an téarnaimh dhomhanda ag brath ar a mhéid a éireofar le hiarrachtaí chun rioscaí sláinte a bhaineann leis an bpaindéim a shrianadh. I bhfianaise na móréiginnteachta atá i réim, agus ó tharla gur cosúil go bhfuil éagsúlacht idir luachálacha áirithe margaidh airgeadais agus an fíorghilleagar, tá baol ard ann i gcónaí go mbeidh athruithe tobanna ar dhrogall domhanda roimh rioscaí. Tá méadú tagtha freisin ar leochaileacht an gheilleagair dhomhanda d'aon daingniú ar dhálaí airgeadais domhanda toisc go bhfuil fiachas corparáideach rialtais agus neamhairgeadais carntha mar gheall ar an bhfreagairt don phaindéim. Bheadh impleachtaí ag téarnamh eacnamaíoch domhanda níos moille agus ag dálaí airgeadais níos géire do ghníomhaíocht eacnamaíoch agus do phraghsanna sócmhainní in Éirinn, sa mhéid go mbeadh iarmhairtí díobhálacha ar chláir chomhardaithe an chórais airgeadais.

**Brexit suaiteach ag deireadh na hidirthréimhse.** Tá éiginnteacht ag baint leis an gcaidreamh trádála a bheidh i gceist idir AE agus RA tar éis 2020. Tá bearta glactha ag an mBanc Ceannais - i gcomhar le húdaráis ábhartha - chun na rioscaí ábhartha is mó do sholáthar seirbhísí airgeadais trasteorann idir AE agus RA a mhaolú. An príomhríosca don chóras airgeadais ina iomláine is ea an tionchar maicreacnamaíoch a bheadh ag socrú trádála i ndiaidh idirthréimhse Brexit. Cé gurb í an phaindéim an fhoinsé riosca ghearrthéarmaigh is suntasaí don ghníomhaíocht eacnamaíoch,

méadaítear na rioscaí ar an taobh thíos don ionchas foriomlán eacnamaíoch de bharr Brexit toisc go mbíonn tionchar éagsúil ag Brexit ar na réigiúin agus ar na hearnálacha ar leith. Ina theannta sin, tá risíochtaí suntasacha ag an gcóras baincéireachta intíre ar RA ó thaobh an iasachtaithe de, rud a chruthaíonn bealach tarchuir díreach i ndáil le hiarmhairt Brexit ar chlár chomhardaithe bhainc mhiondíola na hÉireann.

**Iarmhairt fhada ag COVID-19 ar gheilleagar na hÉireann as a leanfadh meathlú breise ar an ionchas macra-airgeadais intíre.** Ó foilsíodh an tAthbhreithniú deiridh, tá an geilleagar intíre ag teacht chuige féin arís ach tá rioscaí suntasacha ar an taobh thíos ann don ionchas ó ráigeanna breise den víreas agus ó na srianta gaolmhara sláinte poiblí a úsáidtear chun é a shrianadh. A fhad a mhairfidh iarmhairt na turrainge is ea is dóichí go n-eascróidh brúnna sócmhainneachta as fadhbanna leachtachta atá ag gnóthaí agus ag teaghlaigh. I margaí réadmhaoine, tá eastát réadach tráchtála leochaileach d'iarmhairt eacnamaíoch ghearrthéarmach agus d'impleachtaí ionchasacha struchtúracha COVID-19. Bheadh cúlú maicreacnamaíoch níos measa ann dá gcuirfeadh an córas airgeadais srian leis an soláthar creidmheasa chuig teaghlaigh agus gnóthaí le linn an téarnaimh. Tá lucht déanta beartais ag freagairt don phaindéim le raon gníomhartha fioscacha, airgeadaíochta, macrastuamachta agus micreastuamachta chun go seachnófar aon ghéarú ar an turraing ón gcóras airgeadais.

**Tríd is tríd, tá timpeallacht riosca dhúshlánach ann i gcónaí atá cosúil, a bheag nó a mhór, leis an gceann a cuireadh in iúl san Athbhreithniú deiridh, agus is ionann príomhthréith na timpeallachta sin agus an éiginnteacht fhorleathan.** Le hanailís ar chásanna, bunaítear bonn chun an athléimneacht amach anseo a thástáil, ní hamháin maidir le conair ionchasach an gheilleagair, ach maidir le torthaí diúltacha a thiocthaidh chun cinn ag an am céanna. Tá dhá chás fhéideartha calabraithe ag an mBanc Ceannais don ionchas macra-airgeadais i gcomhréir leis an bhFaisnéis Ráithiúil deiridh. Is ionann an cás bunlíne agus an t-ionchas lárnach don gheilleagar, lena n-áirítear feidhmiú shocruithe WTO nuair a thiocthaidh deireadh le hidirthréimhse Brexit. Ag freagairt do na príomhrioscaí atá ag bagairt ar an gcóras airgeadais agus a leagtar amach thuas, cuimsítear an méid seo a leanas freisin sa chás neamhfhabhrach: (i) an fhéidearthacht go mbeidh téarnamh níos moille ar an éileamh domhanda; (ii) conair éiginnte na paindéime sa chríoch baile i dtéarmaí srianta sláinte poiblí arís agus arís eile; agus (iii) an fhéidearthacht go ngéaróidh an córas airgeadais an cor chun donais trí bhíthin caighdeáin iasachtaithe níos dainge, rud a laghdóidh rochtain ar chreidmheas le linn an téarnaimh.

I dtaca leis an timpeallacht riosca thuas, déanann an Banc Ceannais measúnú ar athléimneacht an gheilleagair agus an chórais airgeadais - agus ar a gcumas turraingí a iompar seachas iad a mhéadú.

**Cuirfidh COVID-19 brú ar staid airgeadais na mbanc ach tá cumas níos fearr ag an gcóras airgeadais anois freastal ar riachtanais gnóthaí agus teaghlach le linn na tréimhse éiginnteachta seo de thoradh athléimneacht fheabhsaithe le deich mbliana anuas a bhfuil gníomhartha beartais le déanaí mar bhonn taca aici.** Sna blianta a tháinig roimh an bpaindéim, bhí an córas baincéireachta ag druidim i dtreo athléimneacht fheabhsaithe trí bhíthin leibhéil caipitil níos airde, maoiniúcháin a bheadh bunaithe ar thaiscí miondíola níos cobhsaí agus trí bhíthin cáilíocht fheabhsaithe chreidmheasa i bpunanna iasachta intíre. Tá tionchar le brath cheana féin ag meathlú na timpeallachta macra-airgeadais ar staid airgeadais na hearnála baincéireachta ach tógfaidh sé roinnt ama go dtí go mbeidh an turraing sin le brath go hiomlán i gclár chomhardaithe na mbanc. I measúnú réamhbhreathnaitheach ar staid airgeadais an chórais baincéireachta miondíola, tugtar le tuiscint go bhfuil dóthain caipitil trí chéile ag an gcóras chun turraingí a iompar, ar turraingí iad a

bheadh i bhfad níos measa ná na turraingí a thuartar sna réamh-mheastacháin bunlíne reatha. Cé go mbeadh iarmhairt shuntasach ag an gcás díobhálach, dhéanfaí cailteanais ionchasacha a iompar ag maoláin reatha caipitil. Tá móréiginnteacht ag baint leis na réamh-mheastacháin seo i dtéarmaí an ionchais macra-airgeadais, i dtéarmaí na hiarmharta ar thacaíochtaí beartais agus i dtéarmaí tharchur an chéanna chuig cláir chomhardaithe na mbanc. Anuas air sin, tá seans ann go bhfuil mórleathadh thionchar ionchasach na turrainge ar na bainc aonair á gceilt ag an staid uile-chórais i bhfianaise nach bhfuil caipiteal inaistrithe, i gcleachtas, ar fud na n-institiúidí. Leagann sé seo béim ar an ngá atá ann go mbeidh gnólachtaí rialáilte ag ullmhú agus ag pleanáil le haghaidh torthaí éagsúla.

**Leis na tacaíochtaí suntasacha rialtais a cuireadh ar fáil, maolaíodh go pointe an turraing ioncain a bhuail gnólachtaí neamhairgeadais, ach tá rioscaí breise airgeadais ag bagairt ar ghnólachtaí sna hearnálacha is mó a ndéantar difear dóibh nó ar na gnólachtaí a ndéanann Brexit difear suntasach dóibh.** Sa chríoch baile, bhí éifeachtaí tromchúiseacha ag na bearta sláinte poiblí ar na hearnálacha sin a bhíonn ag brath ar láithreachtaí fhisiciúil custaiméirí; meastar go mbeidh easnamh ioncain thart ar €11 billiún ar fud earnáil FBM in 2020. Ar dtús, scoir aon cheathrú díobh dá gcuid oibríochtaí ar bhonn sealadach ach tá feabhas tagtha ar dhálaí ó shin i leith sa mhéid gur léiríodh i suirbhéanna a seoladh i mí Lúnasa go bhfuil léibhéil láimhdeachais thromlach na ngnólachtaí sin laistigh de 25 faoin gcéad de na leibhéil a bhí acu roimh an bpaindéim. Is dócha, áfach, go bhfuil bac á chur ar an téarnamh ar go leor gnóthaí agus go bhfuil leibhéal na héiginnteachta á mhéadú de thoradh na srianta breise a cuireadh i bhfeidhm le déanaí. Tá an turraing ioncain do ghnólachtaí maolaithe le raon tacaíochtaí fioscacha, trí bhíthin sosanna ó íocaíochtaí agus íostarraingt línte reatha creidmheasa ón gcóras baincéireachta, agus trí bhíthin iarchur aisíocaíochtaí dlíteanas eile amhail cánacha, rátaí, cíos agus creidmheas tradála. Tá éifeachtaí na tacaíochta seo le feiceáil i leibhéal íseal na ndócmhainneachtaí corparáideacha atá feicthe go dtí seo, ach is dócha go gcuirfidh na srianta leantacha sláinte poiblí le féichiúnas gnólachtaí agus le rátaí níos airde teipeanna. Dá mbeadh toradh eacnamaíoch neamhfhabhrach ag Brexit, leathnódh anás gnólachtaí chuig earnálacha eile inar lú an tionchar a bhí ag srianta sláinte poiblí COVID-19.

**Chuidigh cláir chomhardaithe níos láidre agus tacaíochtaí beartais le hathléimneacht na dteaghlach ach tá rioscaí agus leochaileachtaí suntasacha ann i gcónaí ón ngéarchéim deiridh.** Sna deich mbliana a bhí ann roimh thurraing COVID-19, tháinig feabhas ar athléimneacht airgeadais na dteaghlach trí laghdú ar fhiachas comhiomlán agus ar ualaigh úis. Le déanaí, tá méadú suntasach tagtha ar leachtacht comhiomlán de bharr tacaíochtaí ioncain, sosanna ó íocaíochtaí agus coigilteas méadaithe, rud is dócha a léiríonn deiseanna srianta tomhaltais agus údair réamhchúraim. Mar gheall ar chineál leathan na turrainge, áfach, bhí beagnach leath de na hoibrithe go léir ag brath ar an Stát i ndáil le cuid dá n-ioncam nuair a bhí na margaí saothair fíorlag. Faoi lár an tsamhraidh, bhí teaghlach in ann aisíocaíochtaí a iarchur ar fhiachas €11.5 billiún de bharr sosanna ó íocaíochtaí, rud a chuir faoiseamh ríthábhachtach ar fáil do chion den mhargadh morgáiste atá ag titim go seasta. Tá rioscaí suntasacha ann i gcónaí a leanann as an éiginnteacht a bhaineann leis an bpaindéim, as fostaíocht in earnálacha a ndéanann Brexit difear dóibh agus as an ngá ionchasach fioscach le tacaíocht ioncain a laghdú de réir a chéile. De bhreis air sin, tá leochaileachtaí ann i gcónaí ón ngéarchéim deiridh, sa mhéid go bhfuil cion suntasach den stoc morgáiste déanta suas d'iasachtaí a bhfuil riaráistí orthu cheana féin, a bhfuil staonadh ina leith nó a bhfuil athstruchtúrú déanta orthu, agus atá leochaileach i leith turraingí.

**Bhí tionchar suntasach diúltach ag beartais tacaíochta COVID-19 ar an airgeadas poiblí.** Bhí gá le méaduithe móra ar chaiteachas rialtais mar gheall an an gcaiteachas fioscach a bhí mar bhonn taca



ag an tacaíocht leachtachta a cuireadh ar fáil do ghnólachtaí agus do theaghlaigh, agus mar gheall ar na costais mhéadaithe sláinte - de bharr an méid sin ar fad, meastar go mbeidh easnaimh idir 10-11 faoin gcéad den OIN\* ann in 2020 agus 2021. Tá beartas in-chomhfhoirmeach airgeadaíochta ag cuidiú i gcónaí le cumas iasachta agus le hinmharthanacht fiachais agus próifíl fhadaithe aibíochta. Eascraíonn rioscaí don inmharthanacht fiachais as an bhféidearthacht go mbeidh athruithe tobanna ar mheon an mhargaidh agus as leibhéil eisceachtúla na héiginnteachta maidir leis an gcaiteachas atá ag teastáil don bheartas sláinte poiblí.

**Tá sealúchas suntasach d'eastát réadach tráchtála ag earnáil na gcistí infheistíochta, rud a d'fhéadfadh turraingí a mhéadú toisc go bhfuil gearáil sách ard ag cion de na cistí.** Tá earnáil cistí infheistíochta na hÉireann ar cheann de na cinn is mó ar domhan i gcomparáid leis an ngeilleagar intíre. Cé go bhfuil béim idirnáisiúnta go príomha ag an earnáil, tá naisc thábhachta intíre ann, go háirithe sealúchas de bhreis agus 40 faoin gcéad d'eastát réadach tráchtála in-infheistithe na hÉireann. Tá gearáil níos airde ann i measc cistí réadmhaoine na hÉireann i gcomparáid le piaraí Eorpacha, rud a chruthaíonn leochaileacht bhreise i leith laghduithe ar phraghas, rud a d'fhéadfadh brúnna díola a chruthú sa mhargadh. Le forleithne cistí iata agus cistí leachtachta teoranta, maolaítear go pointe an riosca leachtachta i gcistí eastáit réadaigh na hÉireann.

Baineann an Banc Ceannais leas as a chuid beartas macrastuamachta chun cobhsaíocht airgeadais in Éirinn a chur chun cinn agus breathnaíonn sé ar an gcothromaíocht idir na rioscaí atá ag bagairt ar an ngeilleagar agus ar an gcóras airgeadais agus athléimneacht an chéanna in aghaidh na rioscaí sin. Ní bhíonn beartas macrastuamachta ag gníomhú leis féin agus, i bhfianaise scála phaindéim COVID-19, tá sé á chomhlánú le bearta fioscacha, airgeadaíochta agus macrastuamachta chun tacú le cobhsaíocht airgeadais.

**Tá an t-athbhreithniú bliantúil ar na bearta morgáiste curtha i gcrích ag an mBanc Ceannais agus beartaíodh nach mbeadh aon athrú ar theorainneacha CIL nó CII ná ar na liúntais.** Tá dhá chuspóir ghaolmhara ag na bearta morgáiste, is é sin athléimneacht iasachtaithe agus iasachtóirí a neartú agus an dóchúlacht go dtiocfaidh bíseanna creidmheasa - praghsanna tithe chun cinn a laghdú. San athbhreithniú bliantúil ar na bearta morgáiste, díriodh ar thuiscint a shealbhú ar an iarmhairt atá ag turraing COVID-19 ar an margadh tithíochta agus ar an margadh morgáiste. Bhí sé bunaithe ar anailís fhorleathan agus ar rannpháirtíocht páirtithe leasmhara maidir le héifeachtacht na mbeart.

Bhí na príomhthátail seo a leanas ó athbhreithniú na bliana seo mar bhonn eolais le cinneadh an Bhainc Ceannais:

- Tá maolú tagtha ar na héifeachtaí tosaigh a bhí ag an gcur isteach ó COVID-19 ar an margadh tithíochta de bharr agus tá iarmhairtí na turrainge fós le brath ar an éileamh ar thithíocht, ar sholáthar tithíochta, ar ghníomhaíocht an mhargaidh agus ar phraghsanna. Ó thaobh soláthar tithíochta de, ach go háirithe, is dócha go mbeidh na leibhéil sin go mór faoi bhun na leibhéil a bhí ann roimh an bpaindéim go dtí 2022.
- Bhí an fás ar phraghsanna tithíochta sách cothrom le linn 2020 agus ní léir go raibh éifeacht dhíobhálach ag an bpaindéim orthu.
- Tá comharthaí ann go bhfuil feabhas tagtha ar iasachtú morgáiste ach tá sé fós faoi bhun na leibhéil atá feicthe le blianta beaga anuas; tá ionchas éiginnte ag freagairt do chineál agus d'fhad ionchasach an téarnaimh. Níl aon fhianaise ann go bhfuil meathlú ginearálta tagtha

ar chaighdeáin nua iasachta sa mhéid go bhfuil leithdháileadh chóimheasa CIL agus CII sa chéad leath de 2020 mórán mar an gcéanna leis na cinn a bhí ann in 2019.

- Ní raibh praghsanna tithe á spreagadh go hiomarcach ag forbairtí creidmheasa. Tháinig maolú ar chreidmheas morgáiste ag tús na turrainge ach bhí sé seo á spreagadh ag laghdú géar ar an éileamh ar chreidmheas. Is beag fianaise atá ann a thabharfadh le tuiscint go raibh treochtaí i bpraghsanna sa mhargadh tithíochta á spreagadh ag maolú ar sholáthar creidmheasa. De bhreis air sin, ní raibh na hathruithe a chonacthas ar dhálaí soláthair creidmheasa le linn 2020 ar fud an chórais baincéireachta á spreagadh ag na bearta morgáiste.
- Ó thaobh cúrsaí níos fadtéarmaí, bhí na bearta morgáiste éifeachtach maidir le hathléimneacht banc agus iasachtaithe a neartú. Tá buntáistí na hathléimneachta sin le feiceáil go háirithe le linn tréimhsí anáis; i líon na sosanna ó íocaíochtaí, léirítear go bhfuil anás airgeadais níos ísle ann i measc iasachtaí a eisíodh faoi na bearta i gcomparáid leis na hiasachtaí sin a eisíodh faoi choinníollacha níos scaoilte le linn na 2000idí.
- Bhreithnigh an Banc Ceannais ar chóir na bearta morgáiste a mhaolú ar bhonn sealadach chun go seachnófaí aon daingniú ionchasach ar sholáthar creidmheasa ag iasachtóirí. Bheartaigh sé, áfach, nach dócha go mbeadh aon athruithe ar na rialacha éifeachtach chun go seachnófaí cinntí ag iasachtóirí chun creidmheas a mhaolú, ar cinntí iad a bheadh ag freagairt go príomha d'athruithe ar a bhfonn riosca féin ó tharla nach bhfuil sna bearta ach bonn íosta faoi na caighdeáin frithgheallta.
- Tríd is tríd, is dócha go gcuirfeadh fiachas breise níos mó brú ar phraghsanna tithe i bhfianaise na héagothroime bunaidh idir éileamh agus soláthar sa mhargadh reatha tithíochta, agus go mbeadh impleachtaí díobhálacha gaolmhara ann d'athléimneacht na mbanc agus na n-iasachtaithe.

Ar an iomlán, measann an Banc Ceannais go bhfuil cuspóirí na mbeart sin á mbaint amach acu mar atá siad ceaptha agus calabraithe faoi láthair.

**Is é 0 faoin gcéad ráta iomchuí CCyB sna dálaí reatha macra-airgeadais intíre agus domhanda.** I bhfianaise ghéire iarmhairt phaindéim COVID-19, d'fhógair an Banc Ceannais i mí an Mhárta go ndéanfaí maolán CCyB ar neamhchosaintí Éireannacha a scaoileadh ina iomláine. Scaoileadh CCyB i bhfianaise an athraithe thobainn ar an ionchas macra-airgeadais chun a chumasú don chóras baincéireachta maoláin caipitil charntha a úsáid chun cailiteanais a iompar agus soláthar inmharthana creidmheasa chuig an bhfforgheilleagar a chothabháil. Tá an t-ionchas maidir le CCyB ag brath ar fhorbairtí macra-airgeadais agus ar an tionchar a bheidh acu sin ar chóras baincéireachta na hÉireann. I bhfianaise dálaí reatha agus ionchasacha macra-airgeadais, agus d'fhonn scóip a thabhairt don chóras airgeadais turraing COVID-19 a iompar seachas í a mhéadú, níl se i gceist ag an mBanc Ceannais aon athrú ar CCyB a fhógairt in 2021. Dá dtiocfadh athrú suntasach ar na dálaí sin sa chaoi go mbeidís ag freagairt do threocht inmharthana táscairí a bhaineann le riosca sistéamach timthriallach, d'athrófaí an seasamh beartais iomchuí dá réir sin.

**San athbhreithniú bliantúil ar chreat O-SII, aithníodh sé institiúid mar institiúidí a bhfuil tábhacht shistéamach leo agus rátaí maoláin idir 0.5 agus 1.5 faoin gcéad acu.** Is é is aidhm do mhaolán O-SII an dóchúlacht go dteipfidh ar institiúid a bhfuil tábhacht shistéamach léi a laghdú agus tá an calabrú bunaithe ar thábhacht shistéamach choibhneasta gach institiúide. Ní raibh aon athrú

beartais i gceist i ndiaidh athbhreithniú 2020, cé is moite den ráta maolánach do Barclays Bank Ireland plc (BBI) a méadaíodh go dtí 1 faoin gcéad, ráta atá i gcomhréir leis an méadú ar mhéid agus ar chastacht na hinstitiúide ón *Athbhreithniú* deiridh. Is gné thábhachtach ó thaobh fheidhmiú an chreata caipitil mhaolánaigh í inúsáidteacht mhaolán O-SII chun caillteanais a iompar le linn tréimhsí anáis. Cuireann an Banc Ceannais in iúl go láidir go bhfuil maolán O-SII inúsáidte go hiomlán chun caillteanais a iompar le linn na tréimhse anáis seo, rud atá i gcomhréir leis na bearta níos leithne macrastuamachta agus maoirseachta atá glactha ag an mBanc Ceannais agus BCE.

**Le COVID-19, déantar fíorthástáil don chéad uair ar an gcaoi ina n-oibríonn an creat reatha caipitil stuamachta agus leagtar béim ar an tábhacht a bhaineann leis an gcreat macrastuamachta a chur i gcrích.** Cé go mbíonn na maoláin aonair ag féachaint le rioscaí éagsúla a mhaolú, nuair a thógtar i dteannta a chéile iad, cumasaíonn siad don earnáil baincéireachta turraing COVID-19 a iompar agus tacaíonn siad leis an bhfíorgheilleagar. Ag féachaint romhainn, leanfaidh an Banc Ceannais den chreat caipitil níos leithne a fhorbairt agus de mhéasúnú a dhéanamh ar chumasc agus ar idirghníomhú ionstraimí agus maolán, lena n-áirítear mar thoradh ar thrasuíomh beartaithe CRDV i reachtaíocht na hÉireann agus aon cheachtanna atá foghlamtha ó COVID-19 a leabú. Le trasuíomh CRDV, cuirfear i bhfeidhm in Éirinn aon mhionchoigeartuithe arna ndéanamh ar an gcreat macrastuamachta Eorpach, lena n-áirítear an chumhacht chun maolán riosca shistéamaigh a shocrú (SyRB). Mhínigh an Banc Ceannais roimhe seo cén fáth a mbeadh maolán den sórt sin iomchuí d'Éirinn i bhfianaise chineál domhandaithe gheilleagar agus chóras airgeadais na hÉireann. Cé go bhfuil an chúis sin ábhartha i gcónaí, níl sé i gceist ag an mBanc Ceannais ag an bpointe seo maolán den sórt sin a thabhairt isteach in 2021. Dá dtabharfaí maolán den sórt sin isteach de réir a chéile, cuirfí san áireamh na dálaí macra-airgeadais a bheadh i réim, an t-idirghníomhú le bearta caipitil eile agus bearta a bhaineann le hiasachtaithe agus tuiscint níos leithne ar oibriú an chreata macrastuamachta i bhfianaise na taithí ar thurraing COVID-19.

# Risks

*The global economy has started to recover from the depths of the downturn observed at the onset of the COVID-19 crisis. International financial markets have also rebounded from the initial shock, partly on the back of unprecedented monetary and fiscal policy support witnessed earlier this year across the globe. However, uncertainty remains elevated following the recent resurgence of the COVID-19 pandemic and the re-introduction of public health restrictions in a number of countries, including Ireland. The pace of the economic recovery – which will ultimately determine the magnitude of risks facing the financial system – will depend on the success in containing the health risks associated with the pandemic. In addition to COVID-19 related shocks, the uncertainty relating to Brexit and the future trading relationship between the EU and UK weighs on the domestic macro-financial outlook. As a small open economy, Ireland remains vulnerable to international shocks, including those stemming from COVID-19 and Brexit uncertainties. An increasingly prolonged COVID-19 economic impact on the domestic economy, including further containment measures, remains a significant source of risk for the macro-financial outlook. The macroeconomic downturn would be amplified if there were to be a sharp and prolonged tightening of credit supply conditions, a risk that policy action has sought to mitigate.*

## A disruption in the global economic recovery and a sharp tightening of global financial conditions

The global economy has started to recover following the “sudden stop” in economic activity at the onset of the COVID-19 pandemic, but risks to the recovery are elevated. Prior to the recent resurgence of the virus, the summer months pointed to an improvement in the economic outlook, with IMF October global GDP forecasts revised up to -4.4 per cent for 2020, after the June projection of -4.9 per cent. The upward revision was larger for the euro area, to -8.3 per cent from an initial -10.2 per cent (Chart 1). Global growth is projected at 5.2 percent in 2021 and global GDP is expected to recover to be 0.6 percent above that of 2019 at the end of next year.<sup>1</sup> Unprecedented monetary and fiscal policies have supported the recovery across the globe since the onset of the COVID-19 shock. Governments have deployed fiscal responses unmatched in peace times, while central banks have kept interest rates close to zero and expanded quantitative easing programmes. Yet, levels of infection from the virus have started to rise again, posing significant downside risks to the global recovery. While there is growing optimism over the availability of a COVID-19 vaccine, risks to the global economic recovery are likely to remain elevated until the health risks abate.<sup>2</sup>

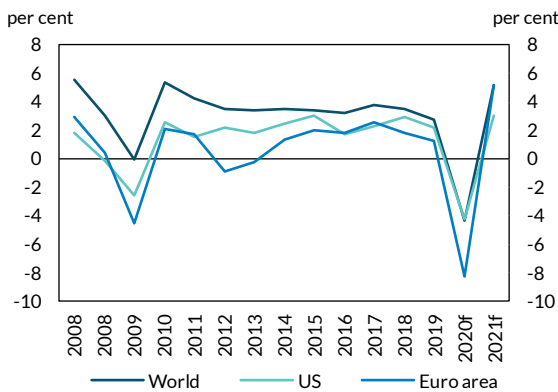
Global financial conditions have continued to ease since the last Review and following the initial abrupt tightening witnessed at the onset of the COVID-19 shock. Overall, measures of systemic stress in international financial markets declined on foot of improved market conditions (Chart 2). Real interest rates in the euro area and the US have moved deeper into negative territory.

<sup>1</sup> See [IMF World Economic Outlook, October 2020](#).

<sup>2</sup> According to a survey of forecasters by Good Judgment, Inc. dated 8 October 2020, the odds of distribution of vaccine doses in the US by 2021Q1 rose from 39 per cent on August 23 to 71 per cent on September 8. While this share decreased in October, the odds of a vaccine before 2020Q2/Q3 were steadily around 90 per cent.

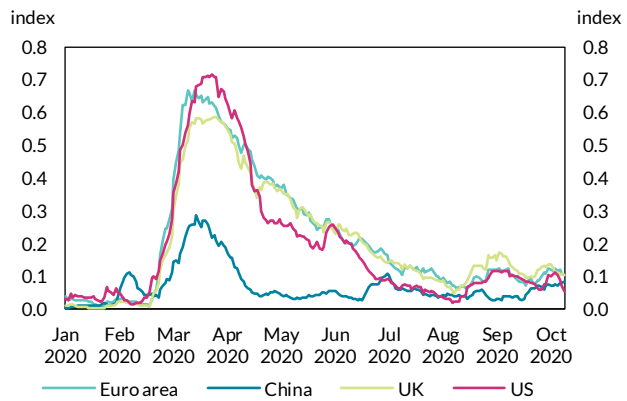
Worldwide, the share of bonds yielding between 0 and 1 per cent has roughly doubled over 2020, mostly at the expense of the yield band between 2 and 3 per cent. Notably, US corporate bond real yields have turned negative for maturities below 5 years at the end of August 2020 (Chart 3). Equity market valuations have roughly recovered from their losses experienced earlier in the year.

**Chart 1: The pandemic caused a widespread global recession but economies are beginning to recover**  
Global GDP growth



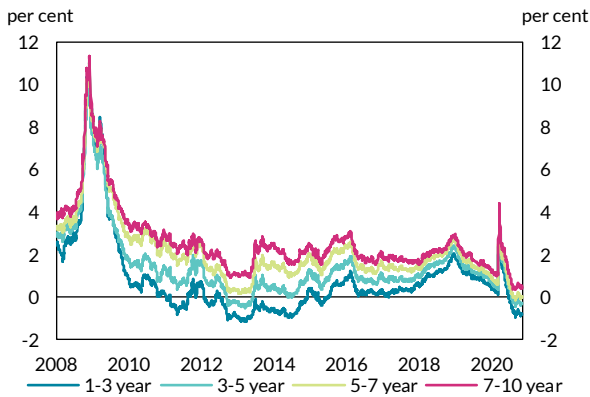
Source: IMF WEO October 2020.

**Chart 2: While measures of systemic stress have improved significantly**  
Composite Indicator of Systemic Stress (CISS)



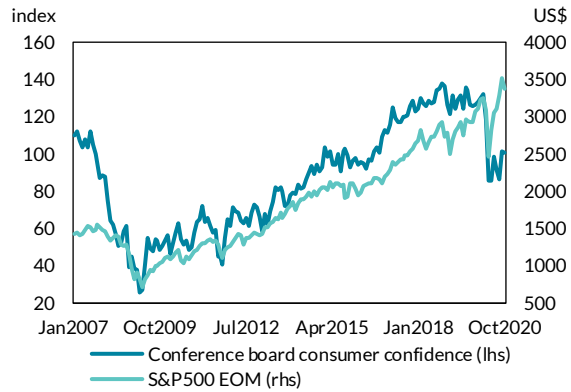
Source: ECB; via Haver Analytics.  
Notes: Last observation 6 November 2020.

**Chart 3: Real yields on corporate bonds turned negative on the back of strong policy support**  
US corporate bonds average yield minus breakeven inflation rate



Source: FRED and Central Bank of Ireland calculations.  
Notes: ICE BofA corporate index effective yield for 1-3 years, 3-5 years, 5-7 years and 7-10 years minus the 5 year breakeven inflation rate. Last observation 6 November 2020.

**Chart 4: Some signs of disconnect emerging between equity market valuations and the real economy**  
Consumer confidence and S&P500



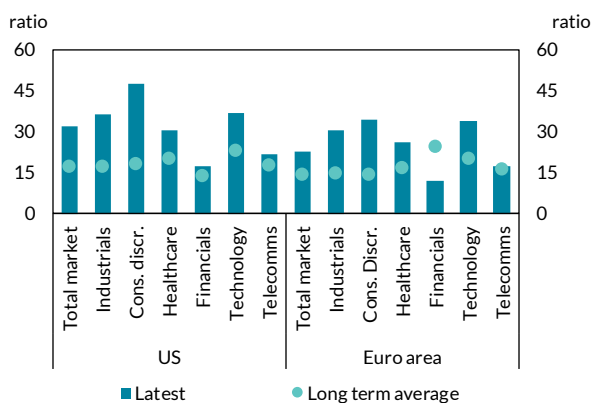
Source: Refinitiv Datastream.  
Notes: "EOM" denotes end of month data. Last observation October 2020.

A key risk to global financial conditions is signs of a growing disconnect between certain financial market valuations and the real economy. This apparent disconnect has been particularly pronounced in the US, where consumer confidence metrics and equity market valuations have diverged (Chart 4). Historically elevated price-earnings ratios persist despite a sharp decline in the corporate earnings outlook (Chart 5). On the back of the aforementioned policy support, markets appear to be pricing in a "v-shaped" rebound in activity. This is also supported by better than expected macroeconomic data releases in the summer, as initial releases for US GDP growth in 2020Q3 came out slightly above consensus. In addition, while measures of financial market volatility remain above their long-run averages, they have dropped sharply since the peak at the

onset of the COVID-19 crisis. These measures also do not appear to fully capture the heightened levels of economic policy uncertainty (Chart 6).

**Chart 5: Evidence of historically high price-to-earnings ratios**

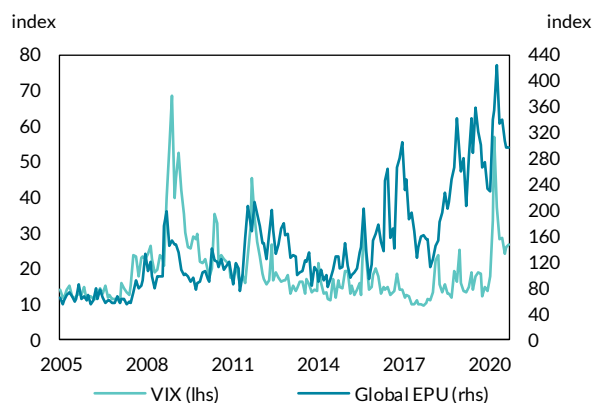
US and euro area price-earnings ratios



Source: Refinitiv Datastream and Central Bank of Ireland calculations.  
Notes: "Cons. Discr." denotes consumer discretionary. Weekly data with long term averages from 1973. Last observation 2 November 2020.

**Chart 6: Financial market volatility has eased, despite elevated policy uncertainty**

VIX and Global Economic Policy Uncertainty



Source: Chicago Board Options Exchange (CBOE), Baker, Bloom, Davies; via Refinitiv Datastream.  
Notes: Last observation October 2020.

**Sectoral heterogeneity points to the differential impact of the COVID-19 shock on firms (Chart 7).**

By September 2020, the S&P500's index for the Information Technology sector had increased by almost 50 per cent compared to its value at the start of December 2019, followed by the Communications sector (22 per cent) and Materials and Health Care (11 per cent). Indices for the energy sector and financials, on the other hand, lagged behind, trading well below their value at the start of December. Similar patterns were evident in Eurostoxx sectoral indexes.

**Meanwhile, the build-up of debt has surged in advanced and emerging economies - leaving governments and the private sector more exposed to shifts in global risk aversion and consequential risks for longer-term debt sustainability.** The global economy entered the COVID-19 crisis with a significant amount of debt as global debt-to-GDP rose to a new record of 331 per cent in 2020Q1, up from 320 per cent in 2019Q4.<sup>3</sup> In credit markets, spreads narrowed to long-term historical levels, despite evidence of deteriorating credit quality and ongoing liquidity and solvency concerns for some corporates. Firms have taken on more debt to cope with cash shortages as bond issuance at a global level has increased substantially, with non-financial firms tapping the debt markets rather than resorting to syndicated loans.<sup>4</sup> Hence, vulnerabilities have increased in the non-financial corporate sector although insolvency rates for corporates in some EU countries remain lower than would be expected given economic fundamentals (Chart 8).<sup>5</sup>

**As for the government sector, there has been a necessary but significant deterioration in global fiscal positions as a result of the fiscal measures introduced to limit the fallout of the COVID-19 crisis.** These emergency supports helped to cushion parts of the global economy from the initial

<sup>3</sup> IIF Global Debt Monitor, July 2020.

<sup>4</sup> See [Goel and Garralda \(2020\)](#). "Bonds and syndicated loans during the Covid-19 crisis: decoupled again?" [BIS Bulletin, No.29](#).

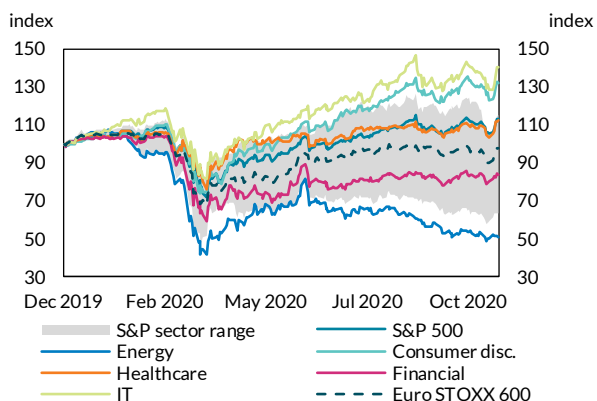
<sup>5</sup> Insolvency rates have been impacted by COVID-19 related disruptions which have slowed insolvency procedures in some countries in addition to policy changes and government support programmes for firms affected by the COVID-19 crisis.



COVID-19 shock earlier this year. The tapering of such fiscal supports over the medium term will give a clearer picture of the potential scarring on the real economy.

**Chart 7: Overall index performance hides pronounced sectoral heterogeneities**

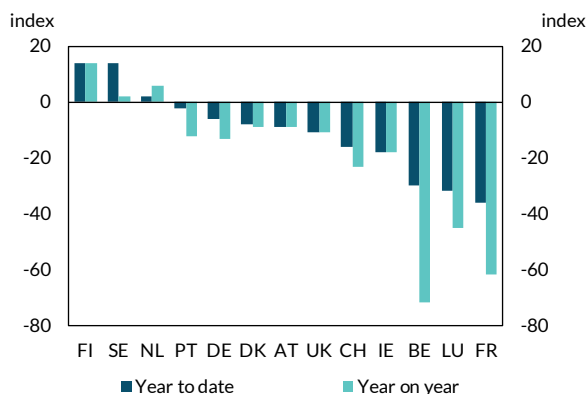
US and euro area indices and sectoral sub-indices performance



Source: Bloomberg and Central Bank of Ireland calculations.  
Notes: The grey shaded area represents the range of upper and lower bound performance of Euro STOXX 600 sectoral indexes. Euro STOXX 600 range includes the following sectoral indexes: energy, consumer discretionary, healthcare, financial, and IT. Base date 2/12/2019=100. Last observation 6 November 2020.

**Chart 8: Insolvencies remain low in severely affected countries due to policy support**

Insolvencies in Europe during the pandemic



Source: Euler Hermes.  
Notes: Bars display the reduction during the pandemic compared to the previous year. Last observation; SE, NL, PT, DK, CH, NE, LU, FR = May 2020; FI, AT, IE = Q1 2020; DE = April 2020; UK = March 2020.

Severe subsequent waves of COVID-19 infections requiring stringent lockdown measures in major advanced economies pose a substantial risk to the global economic outlook (Chart 9). Even without further restrictions, a larger-than-expected wave of ratings downgrades and bankruptcies – which have so far remained subdued, due to policy and technical reasons – might surprise the markets and potentially trigger a repricing of risk.<sup>6</sup> In the European context, as liquidity issues morph into solvency concerns, market confidence is supported by the EU recovery package – which still requires a number of hurdles to be overcome, including ratification.

As a small open economy Ireland remains particularly vulnerable to sudden deteriorations in global financial conditions. Although policy actions have greatly enhanced the resilience of the financial system (see *Resilience*), a sudden repricing of risk in global financial markets could adversely affect Ireland through a number of channels.<sup>7</sup> For instance, a repricing of risk could affect Ireland through direct exposures to corporate debt. Irish retail banks' exposure to corporate debt constitute a direct transmission channel, as holdings of leveraged finance amounted to €16 billion in 2020Q2. Moreover, Irish insurance corporations increased the share of corporate bonds in their portfolios which are mostly rated A and BBB during recent years. As documented in the last *Review*, a number of factors contribute to Ireland's vulnerability to changes in global financing conditions.<sup>8</sup>

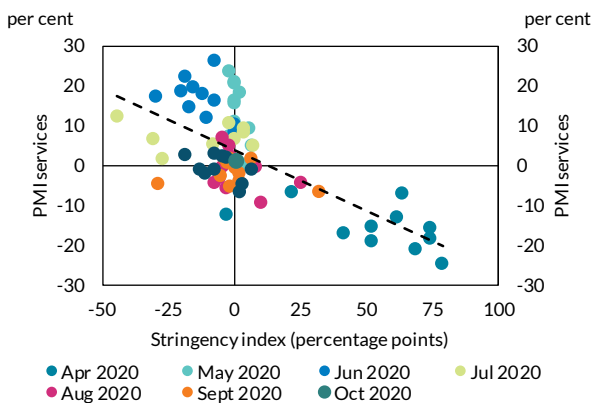
<sup>6</sup> ESRB (2020) tail scenarios find that, in the most adverse case, a very large downgrade of BBB assets might lead to a sell-off causing severe market freezes. See [ESRB \(2020\), "A system-wide scenario analysis of large-scale corporate bond downgrades", ESRB Technical Note.](#)

<sup>7</sup> As described in previous *Reviews*, Ireland hosts a large and internationally-orientated non-bank financial sector that is connected to the global economy through a number of channels. As documented in Box A, one such channel is Irish-resident investment funds' holdings of emerging market economies' (EME) portfolio securities.

<sup>8</sup> See [Financial Stability Review 2020: I Box 1.](#)

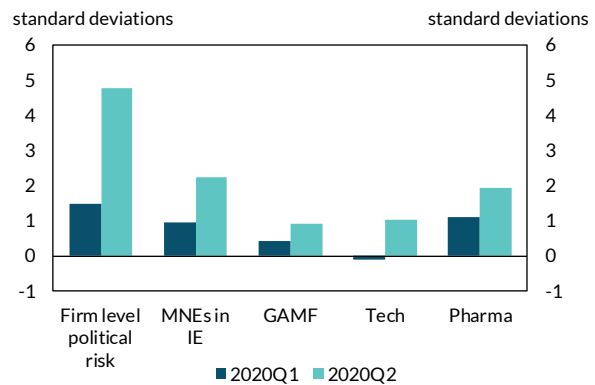
Ireland's overall reliance on multinational enterprises (MNEs) represents another channel of transmission of global shocks to the domestic economy. Sectors which dominate Irish MNE activity such as Pharma, MedTech and ICT have been resilient during the COVID-19 crisis. Still, MNEs in Ireland remain susceptible to global economic shocks, including the rise of protectionism. Measures of political risk relevant to a large share of Irish-resident MNEs suggest this risk has increased over recent months (Chart 10). Global value chains have, in some cases, displayed some idiosyncratic fragilities during the COVID-19 crisis. If these fragilities were addressed with a generalised reshoring of production, Ireland may witness some of the export-oriented MNEs it hosts re-evaluating their location decisions. On the other hand, if the response were tilted towards a regionalisation of production, Ireland may benefit from the already established presence of some sectors and act as a hub for the EU market.

**Chart 9: Necessity of stringent lockdown measures dampens economic outlook, particularly for services**  
Restrictions index and PMI services for selected economies



Source: Refinitiv Datastream, Haver, Oxford COVID-19 Government Response Tracker (OxCGRT) and Central Bank of Ireland calculations.  
Notes: Countries included are AU, BR, FR, DE, IE, IT, JP, RU, ES, UK and US. The stringency index records the strictness of government responses, as well as support measures and health system policies. Data are month on month changes in PMI services and the stringency index. Last observation October 2020.

**Chart 10: Exposure to political risk has increased for MNEs present in Ireland**  
Firm-level political risk



Source: firmlevelrisk.com and Central Bank of Ireland calculations.  
Note: standard deviations above historical mean (since 2002Q2) in firm level political risk measure by Hassan et al. (2019).<sup>9</sup> Average across all firms (firm level political risk) and for MNEs with a large presence in IE. GAMF: Google, Apple, Microsoft and Facebook. Tech: Adobe, Dell, Intel, Oracle, VMware, Western Digital. Pharma: Abbott Lab, Alexion, Allergan, Baxter, Boston Scientific, Gilead, Johnson & Johnson, Mallinckrodt, Medtronic, McKesson, Merck, Perrigo, Pfizer, and Takeda.

<sup>9</sup> See [Hassan, Hollander, van Lent and Tahoun, \(2019\), "Firm-Level Political Risk: Measurement and Effects," Quarterly Journal of Economics, 134 \(4\), pp.2135-2202.](#)

## A disruptive Brexit at the end of the transition period

Uncertainty relating to Brexit and the future EU and UK trading relationship has been elevated since the last Review. Progress on negotiating a trade agreement has been slow and stalled further with the onset of the COVID-19 crisis. In that context, the Central Bank's latest projections assumed that the UK moves to trading on WTO terms from 1 January 2021. Irrespective of the conclusion of negotiations expected in late November or early December, EU-UK trade will face new frictions when the transition period ends on 31 December 2020. The imposition of non-tariff restrictions, coupled with the limited time remaining in the transitional period, means that some near-term disruption and frictions will still arise in EU-UK trading arrangements.

The impact of a disruptive Brexit is likely to exacerbate the already difficult operating environment faced by firms. Brexit would see the introduction of non-tariff barriers with respect to goods trade with the UK. Such a development would have the effect of increasing costs, raising uncertainty and disrupting trade flows while the impact on the Irish economy would be frontloaded. Non-tariff barriers can increase the cost of business and are associated with more stringent customs and documentary related procedures or adherence to individual product standards.

The direct economic shock from the COVID-19 crisis and Brexit is expected to differ by sector, but their interaction nevertheless weighs on the overall economic outlook.<sup>10</sup> Sectors such as tourism and accommodation and food services are already experiencing challenges – much related to the economic impact of the COVID-19 pandemic. There are also sectors, such as agriculture, which have been less affected by the COVID-19 shock to date and would be particularly vulnerable to a disruptive Brexit. The initial economic impact of the COVID-19 pandemic is expected to be much larger than the effects of Brexit (Chart 11).<sup>11</sup> However, the full impact of Brexit on the Irish economy may take some time to be fully realised.

More broadly, Brexit will result in increased indirect costs for Irish businesses, and the possibility for implementation challenges to any new regime leading to disruption cannot be fully discounted. Exports to the UK represent only one channel through which Brexit will impact domestic firms. The impact of Brexit could see increases in both input costs and logistical expenses. Many firms' source inputs and raw materials from the UK and therefore increased trade frictions may result in higher input costs. At the same time, a large percentage of Irish exports to mainland Europe travel through Britain via the so called "landbridge". Increased checks and procedures may add to the cost of trade and in extreme cases impact the viability of the route for certain types of business. While these challenges have been known for some time firms may not be fully prepared for 1 January 2021 and near-term operational issues may still exist. The COVID-19 crisis has already impacted firms and disrupted their operations. Such logistical challenges has reduced the time available for firms to prepare for the UK's departure from the Single Market.

From the perspective of the financial system, actions have been taken to mitigate the most material 'cliff-edge risks' to the provision of cross-border financial services between the EU and the UK. Links between the domestic and UK financial systems have been underpinned by both

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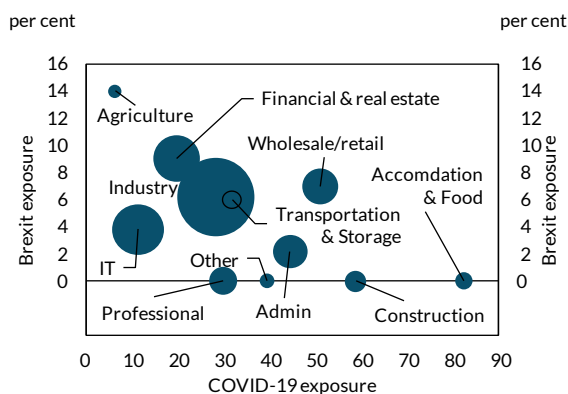
<sup>10</sup> See [Daly and Lawless \(2020\), "Examination of the sectoral overlap of COVID-19 and Brexit shocks", ESRI Working Paper No. 677.](#)

<sup>11</sup> In addition to output, employment is also expected to be impacted by both COVID-19 and Brexit.

countries' participation in the Single Market. The Central Bank, working with other authorities domestically and internationally, has taken action to ensure that the most material and immediate risks to the provision of cross-border financial services from a disorderly exit of the UK from the EU's Single Market have been mitigated. Despite these efforts, the possibility remains that pockets of disruption may emerge.

**Chart 11: The direct economic shock from COVID-19 and Brexit differ by sector**

Estimated impact of Brexit and COVID-19 on output per sector

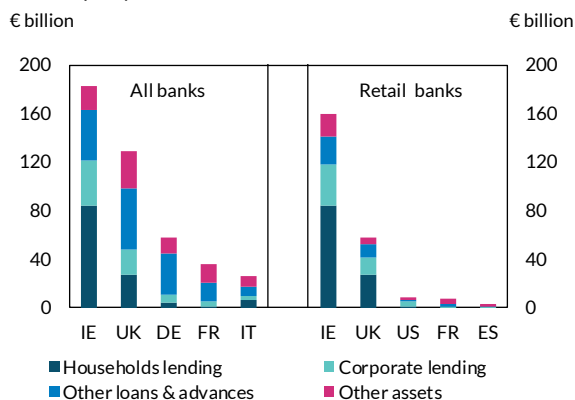


Source: CSO, OECD and Central Bank of Ireland calculations.

Note: Chart shows the relative impact of both Brexit and COVID-19 related shocks on output per sector. Size of the circle reflects the Gross Value Added (GVA) per sector for 2019. Not all sectors are shown in the chart.

**Chart 12: Direct UK exposures remain sizeable across the Irish banking system**

Breakdown of financial assets by type and location of counterparty



Source: Central Bank of Ireland.

Notes: Other assets include derivatives holdings and equity instruments. Data are for a sample of banks that submit geographical exposure data. Data as at 2020Q2.

The trading of Irish equities is facing some near-term uncertainty following the end of the transition period, though recent developments should ameliorate the worst of the potential impacts. EU regulation, under MiFIR, requires that share trading take place on platforms either based in the EU or in a recognised third country. This is particularly relevant for those Irish equities dual-listed in both Ireland and the UK and solely listed in the UK given that a significant amount of the liquidity for these shares is on markets based in the UK rather than the EU. ESMA has recently updated its proposed approach to the application of the share-trading obligation following the end of the UK's transition period on 1 January 2021.<sup>12</sup> This is a welcome development and should reduce the likelihood of widespread disruption in the trading of Irish shares from 1 January 2021 onwards. Additionally, the UK FCA has recently announced its approach to the UK's share trading obligation, the effect of which is that Irish and EU shares will not be captured by overlapping share trading obligations. The Central Bank will monitor closely the evolution of trading in Irish shares following the end of the transition period.

Longer-term, the impact of Brexit on the European financial system remains unclear. The departure of the UK from the EU will represent a significant change in the composition of the EU's financial system. The UK was the Union's largest financial centre and capital market. Some EU legislation requires certain activities be conducted from within the EU or EU-authorized entities. In the absence of a wide-range of equivalence decisions, uncertainties remain as to how the EU financial system will adapt, especially in areas where reliance on UK-based entities remain high. This includes, for example, the central clearing of interest rate swap derivatives. However, initiatives such as the Capital Markets Union (CMU) are aimed at strengthening the capacity of the

<sup>12</sup> For more see [ESMA's recent statement](#) setting out the final position on the Share Trading Obligation.

EU financial system in certain sectors, which should offset at least some of the effects of the UK no longer being a member of the EU.

**The decision by the UK to exit the EU has already had an impact on the structure of the Irish financial system.** Since 2016, many financial institutions that were based in the UK have looked to establish subsidiaries in the EU to maintain access to the Single Market. There has been an influx of UK based firms which have chosen to set up operations in Ireland. In banking, the transfer of assets from UK operations has resulted in the asset base of the Irish banking system increasing by over 25 per cent compared to pre-Brexit levels. This masks a continued decline in the total assets of the Irish banking system when such relocations are excluded. While traditional banking activities such as lending remain to the fore, other activities such as trading in derivatives have more than doubled given the recent relocations.

**The Irish banking system remains heavily exposed to the UK market and, in turn, the performance of the UK economy.** The UK accounts for the second largest share of exposures held by the Irish banking system (Chart 12). While the COVID-19 pandemic and associated public health response measures have already had a severe impact on economic activity around the globe, the addition of Brexit will negatively impact the performance of the UK economy. UK exposures primarily consist of loans and advances. However, some firms have significant exposures through derivative holdings. Irish retail banks are particularly exposed to UK households, accounting for 48 per cent of UK exposures with UK corporate lending accounting for a further 25 per cent. In addition to the direct exposure to the UK, Irish banks are indirectly exposed through lending to many of the sectors highlighted in Chart 11 that rely on the UK either as an export market, a source for inputs or as a means of shipping goods to continental Europe. Beyond these exposures, some parts of the Irish banking system are subsidiaries of UK groups and are therefore connected to the UK financial system through their membership of these wider corporate groups.

## A prolonged COVID-19 economic impact on the domestic economy leading to a deterioration in the domestic macro-financial outlook

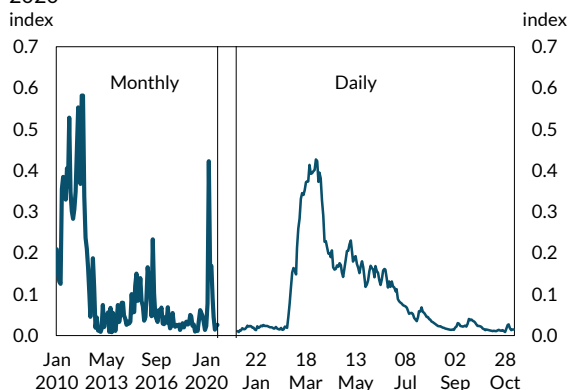
A resurgence of the COVID-19 crisis could lead to a further deterioration in the macro-financial outlook<sup>13</sup>

The COVID-19 shock has resulted in an abrupt deterioration in the macro-financial outlook for Ireland. Since the trough reached in the April-May period, domestic economic activity rebounded as public health restrictions were gradually lifted throughout the summer months. The imposition of further public health restrictions in mid-October will further inhibit domestically-oriented economic activity in the final quarter of 2020.

Irish financial conditions have improved following a sharp increase in uncertainty and volatility in 2020H1. A real-time measure of systemic stress across a range of indicators for Irish financial markets, covering bonds, equities, banking and foreign exchange markets, has stabilised since the spike witnessed in the first half of the year. The Irish Composite Stress Indicator (ICSI) has fallen from the elevated levels seen in March mirroring the improvements seen in global financial conditions following the support of fiscal and monetary policies (Chart 13). As noted in the last Review, financial market conditions can impact the real economy through a number of channels, especially if the banking system or sovereign are particularly affected.

**Chart 13: Irish financial market stress levels have returned to low levels following a sharp increase in 2020Q2**

Irish Composite Stress Index. January 2010 – November 2020

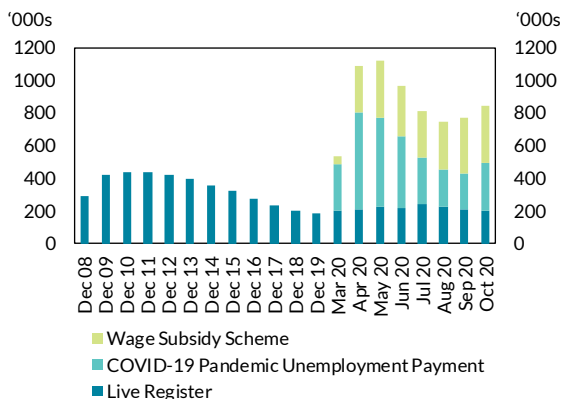


Source: Refinitiv Datastream and Central Bank of Ireland calculations.

Notes: The ICSI is a weighted composite of five market sub-indices (Banking=0.3, Bond=0.15, Equity=0.15, FX=0.25, Money=0.15) that is further adjusted to account for degree of correlation amongst sub-indices. Daily frequency. Last observation 6 November 2020.

**Chart 14: Scale of labour market supports since COVID-19 has been unprecedented**

Irish unemployment and COVID-19 support levels



Source: CSO, DEASP and Revenue Commissioners.

Notes: Last observation October 2020.

The impact of the COVID-19 shock on the macroeconomic environment is reflected in the labour market, where the scale of supports has been unprecedented. At the end of October, following the announcement of further public health restrictions, there were almost 840,000 people in the

<sup>13</sup> Further information on domestic macro-financial conditions are presented in the Central Bank's [Systemic Risk Pack \(SRP\)](#). The SRP presents indicators and visualisation methods for monitoring systemic risk in the Irish financial system.



labour force in receipt of State income support compared with approximately 1.1 million in May (Chart 14). Approximately 295,000 people were in receipt of the Pandemic Unemployment Payment which corresponds to less than half the number receiving the payment in early May. Numbers on the Live Register remain similar to those witnessed in early March at approximately 203,000 with those in receipt of the wage subsidy scheme decreasing more recently. The COVID-19 adjusted unemployment rate, which includes those in receipt of the Pandemic Unemployment Payment, stood at 20.2 per cent as of October 2020. By contrast, the traditional International Labour Organisation (ILO) measure of unemployment was 6.9 per cent during the same period. With the planned ending of the income support schemes in 2021, the COVID-19-adjusted measure of unemployment and the traditional ILO measure will converge, with the unemployment rate projected to average 8 per cent next year and 7.5 per cent in 2022.

**The recovery of the Irish economy since the onset of the COVID-19 shock has been uneven and the level of domestic-focused economic activity remains well below pre-pandemic levels.** The latest data highlight a strong divergence in performance between the resilience of exports and the weakness in domestic demand. For example, exports held up in 2020Q2 driven by strong growth in the pharmaceuticals sector and are expected to fall by just 0.3 per cent in 2020 while domestic demand is expected to decline by 7.1 per cent in 2020 according to the latest Central Bank baseline forecasts.<sup>14</sup>

**The domestic macro-economic outlook remains highly uncertain and will be closely linked to the path of the pandemic and the future EU-UK trading relationship.** A range of scenarios developed by the Central Bank, and described in Box B, envisage more moderate to relatively severe macroeconomic outcomes. A baseline scenario entails moderate COVID-19 disruptions involving a relatively short-lived second wave of the virus. Adverse scenarios incorporate the effects of more prolonged and severe COVID-19 disruptions domestically and are further reinforced by a slower global economic recovery as well as much tighter domestic financial conditions. While both scenarios envisage a move to a WTO trading relationship between the UK and EU from 1st January 2021, any free trade agreement between the EU and the UK would present an upside risk to both scenarios.

**Results from the growth-at-risk (GaR) models suggest increased uncertainty and heightened tail risk for future growth outcomes.** These models, as described in FSR 2020:I, take current output growth as well as financial conditions and systemic risk levels into account in order to predict the distribution of future average annual economic growth. Of particular interest are developments in the left hand, or “at-risk”, tail of the distribution. According to the latest estimates from these models, the 5<sup>th</sup> percentile growth is set to deteriorate from -1.8 per cent to -5.2 per cent over the period 2020Q4 to 2021Q2. The forward-looking growth distribution looks likely to flatten and to exhibit fatter tails, highlighting increased tail risk to GNI\* growth (Chart 15).<sup>15</sup>

**The commercial real estate (CRE) market is already experiencing downward adjustments in valuations and is particularly vulnerable to both near-term and structural implications of COVID-19...**

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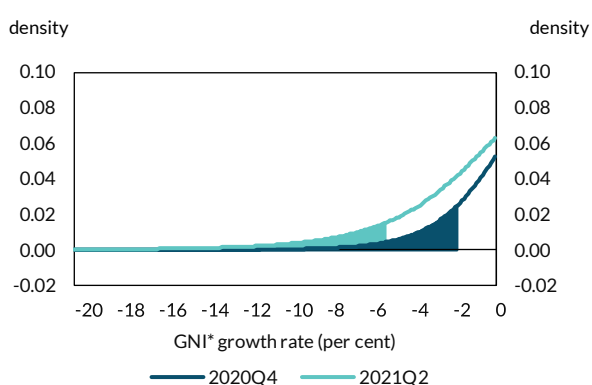
<sup>14</sup> See [Central Bank of Ireland Quarterly Bulletin No. 4, 2020](#).

<sup>15</sup> The corresponding probabilities are 2.5 per cent and 1.5 per cent, respectively.

Irish commercial property capital values and rents have weakened considerably since the onset of the COVID-19 shock, with both series recording negative values for the first time since 2013. The decline in annual capital values of 5.6 per cent in 2020Q3 coincided with year-on-year rental deflation of 0.8 per cent. Aggregate figures mask a wide variance in performance at a sectoral level. The largest declines in capital values and rents have occurred in the retail sector (Chart 16), which has been one of the hardest hit sectors by the COVID-19 crisis. The retail sector is also facing a range of broader structural issues such as the growing prevalence of e-retail, which increased further following the COVID-19 pandemic and the associated public health restrictions.

**Chart 15: Forecast GNI\* growth at risk (tail risk) set to deteriorate over 2021H1**

GNI\* growth at risk

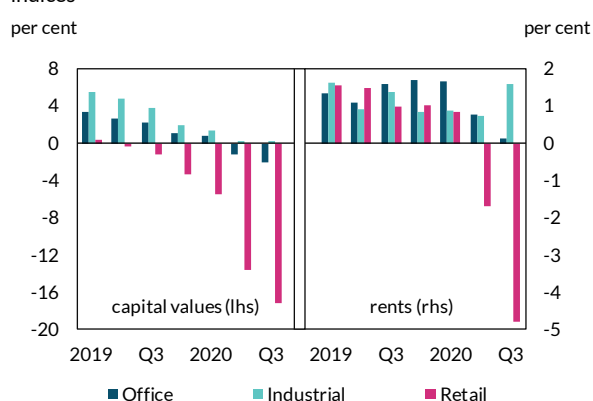


Source: Central Bank of Ireland.

Note: Forecast tail distribution of modified GNI\* growth for 2020Q4 (dark teal) and 2021Q2 (light teal) projected off 2019Q4 and 2020Q2 data, respectively. Tail risk refers to the left tail of the possible growth outcomes.

**Chart 16: Aggregate CRE capital value and rent figures mask a wide variance in performance at a sectoral level**

Annual change in CRE sectoral capital value and rental growth indices



Source: MSCI.

Notes: Last observation 2020Q3.

**The outlook for CRE values in the short-to-medium term is weak.** Recent survey evidence suggests market participants expect a further decline of 5 per cent in capital values and a 6 per cent decrease in rents over the next 12 months.<sup>16</sup> Over the medium-term, cyclical developments arising from the COVID-19 and Brexit shocks are likely to interact with more structural features such as the rise of e-retailing and increased working from home practices and are likely to impact the outlook for the CRE market.

**COVID-19 and the public health measures enacted to halt its spread will have a significant impact on future supply and demand in the office market.** The cessation of construction activity earlier in the year and subsequent adoption of on-site social distancing protocols will delay the completion of a number of Dublin office schemes in 2021 and 2022. Approximately 580,000 square metres of additional office space is under construction and due to come on-stream during the period 2020-22. While 70 per cent of this stock is classified as pre-let, many of these agreements are likely to pre-date the COVID-19 pandemic.

**There has been a drop off in demand for Dublin office space from a cyclical high at the end of 2019.**<sup>17</sup> Cumulatively, 32,000 square metres of space was let between April and September of this

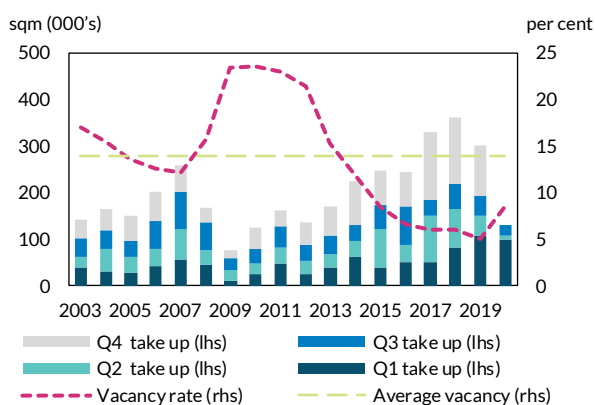
<sup>16</sup> For more details see [RICS Q3 2020: Global Commercial Property Monitor](#).

<sup>17</sup> As of end-2019, demand for Dublin office space stood at approximately 430,000 square metres of active requirements, according to estimates from CBRE. The subsequent fulfilment of a portion of this demand, in

year - a 62 per cent decrease on the same figure last year (Chart 17). The Dublin office vacancy rate increased to 8.6 per cent by the end of September from just over 5 per cent at the end of 2019, but remains well below the average rate during 2003-2019 (Chart 17). Similar to the retail sector, the office market is facing its own structural challenges arising from the COVID-19 crisis. An increase in the willingness of firms to allow staff to work remotely will affect requirements for office space going forward (Chart 18). Much will depend on what companies and employees decide is the optimal split between working from home and time spent on site. With planning granted for a further 470,000 square metres of office space, this raises risks around the supply pipeline in the office sector.

**Chart 17: Significant decrease in the take-up of office space in quarters 2 and 3, with corresponding increase in the vacancy rate**

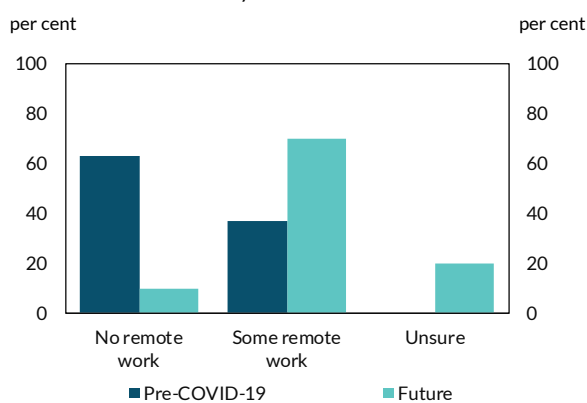
Dublin office stock take-up and vacancy rate



Source: CBRE research.  
Notes: Last observation 2020Q3.

**Chart 18: Compared to pre-COVID-19, surveys suggest an increasing number of firms believe the future of work in their company will involve some remote work?**

CBRE research, client survey findings – what is the future of full-time remote work in your firm?



Source: CBRE research client survey.  
Notes: Data as of June 2020.

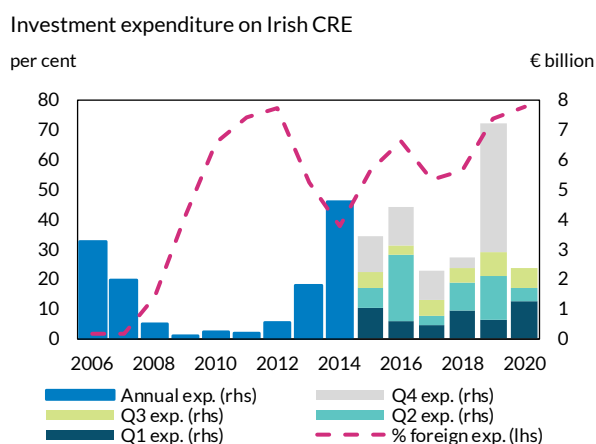
Against this backdrop and the uncertain macro-financial outlook, Irish CRE has continued to attract investment, primarily from abroad. Following a relatively sluggish second quarter, an uptick in third quarter activity brought commercial property spending for the year to approximately €2.4 billion by the end of September. This is in line with the average sums spent across the equivalent period in recent years, albeit the year-to-date comparison was buoyed by a strong 2020Q1 (Chart 19). Approximately half of this year's investment has been on multifamily residential properties, with offices accounting for a further 40 per cent. In contrast, the spend on retail assets, which had attracted half of all expenditure volumes as recently as 2016, was less than 2 per cent in the first 3 quarters of this year.

The funding of the Irish CRE market has become more diverse in recent years, with foreign investors and non-bank financial institutions playing an increasing role (Chart 19). Investment funds – often funded from abroad – now hold over 40 per cent of the estimated stock of the investable CRE market. Irish retail banks' exposures to the CRE sector have declined markedly

in addition to the cancellation or indefinite postponement of some requirements due to COVID-19 uncertainty, has seen the estimated demand for space fall to about 270,000 square metres by mid-2020. This compares to a long-run average demand for Dublin office space of 225,000 square metres.

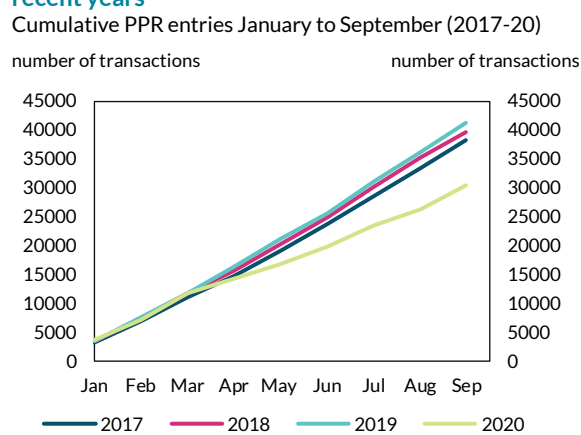
over the same period.<sup>18</sup> While these developments can be associated with broader risk-sharing and increased liquidity in the market, they also give rise to vulnerabilities including the possible reversal of foreign investment.

**Chart 19: Irish CRE has continued to attract investment, primarily from abroad**



Source: CBRE research.  
Notes: Last observation 2020Q3.

**Chart 20: RRE transactions in the year to date are about one quarter lower than the same period in recent years**



Source: Property Services Regulatory Authority.  
Notes: Data as of 4 November 2020.

**A sharp fall in investor sentiment and/or wide-scale withdrawal of foreign investment from the Irish commercial property market would have an adverse impact for the domestic financial system and the wider economy.** A substantial fall in CRE prices would likely have negative implications for the real economy, through knock-on collateral, wealth, investment and employment effects, as bank lending to non-real estate NFCs collateralised by Irish CRE is estimated to amount to approximately €3 billion at 2020Q2. NFCs, many of whom are already suffering from the disruption caused by the COVID-19 shock and/or Brexit, may find it difficult to have such debt re-financed. In addition, there is potential for spillover effects to Irish retail banks and other financial institutions with exposures to the commercial property market, either through direct investments or through lending to the CRE sector.

**...whereas the impact of the COVID-19 shock on the housing and mortgage markets, while significant, has been less adverse than originally expected.**

There has been a marked decline in transaction activity during 2020, as COVID-19 related public health restrictions have impacted the functioning of the market. By end-September, the cumulative volume of year-to-date residential real estate (RRE) transactions was about one quarter lower than the equivalent 2019 figure (Chart 20). More recently, however, there are some signs of market resilience relative to previous expectations. The number of property purchases registered in September was 40 per cent higher than the number recorded in August, the largest month-on-month increase since the onset of the COVID-19 shock in March 2020. The influence of non-household buyers in the Irish housing market continues to grow.<sup>19</sup> In addition to institutional

<sup>18</sup> Central Bank data for 2020Q2, show that Irish retail bank lending to the domestic CRE sector stood at €10.8 billion, down from €11.7 billion in 2019Q2 and approximately €38 billion in mid-2012.

<sup>19</sup> CSO data from 2019 show that about one quarter of all housing market transactions were undertaken by non-household entities.

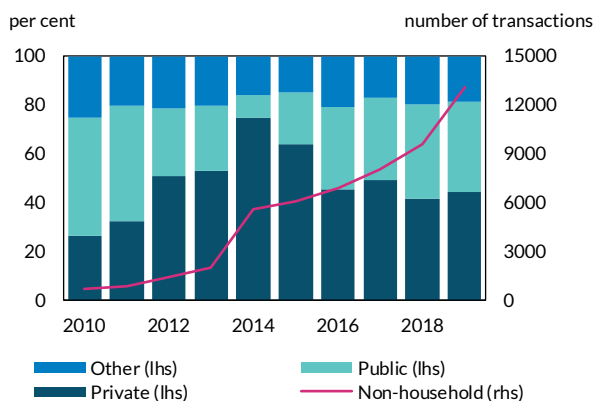
investors, the public sector plays a significant role through local authorities and approved housing bodies (Chart 21).

Despite the more moderate level of sales there is little evidence of a substantial and persistent fall in the demand for housing. Buyer sentiment remains relatively robust with 8 in 10 participants in a recent survey of consumer attitudes<sup>20</sup> indicating that they were either, “just as committed” or “more committed” to purchasing a property as they had been pre the COVID-19 pandemic. Similarly, there was broad agreement among attendees at a series of recent Central Bank roundtable engagements that demand in the market was holding up better than was anticipated earlier in the year (see Annex).

The impact of the public health restrictions implemented to halt the spread of COVID-19 pandemic is particularly apparent on housing supply. Housing construction activity, as measured by Ulster Bank’s purchasing managers index (PMI), fell to historical lows earlier in the year following widespread site closures (Chart 22). Notwithstanding a sharp rebound upon the resumption of residential building during the summer months, the indicator returned to contractionary territory throughout August and September. While the latest reading points to an expansion in residential construction activity in October, sentiment in the sector is reported to remain subdued owing to concerns about the COVID-19 shock and also the re-emergence of Brexit uncertainties that can weigh on the outlook for the sector.<sup>21</sup>

**Chart 21: Non-household buyers continue to increase in significance, with the public sector becoming much more active in recent years**

Share of non-household transactions by purchaser

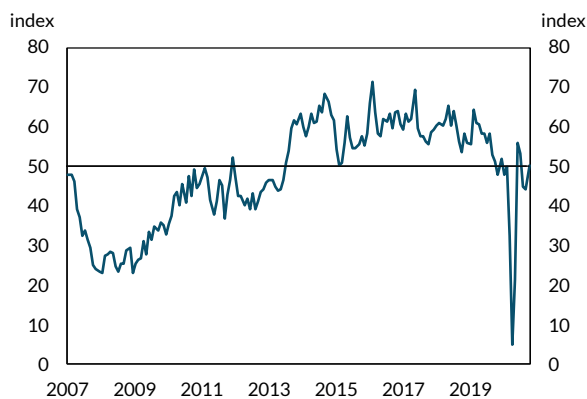


Source: CSO.

Notes: "Private" includes buyers from "construction", "finance and insurance" and "real estate" sectors. Extra territorial buyers are included in the "other" category. Last observation 2019.

**Chart 22: Housing construction activity fell to historical lows earlier in the year following widespread site closures**

Ulster Bank PMI: Housing Activity



Source: Ulster Bank Ireland.

Notes: Value of 50 signifies no change in activity compared to the previous month, values above 50 signify an expansion of activity, while those below 50 signify a contraction of activity. Last observation October 2020.

Completions in 2020Q2 were one third lower than in the equivalent quarter of 2019 and the outlook suggests a subdued recovery in housing supply (Chart 23). Approximately 3,300 units were delivered during the second quarter of 2020, the lowest quarterly total since 2017Q2. With fewer units delivered, annual completions for the year (17,500)<sup>22</sup> are forecast to be approximately

<sup>20</sup> For more details see [Sherry FitzGerald Consumer Attitudes Survey](#).

<sup>21</sup> For more details see [Ulster Bank Construction PMI Report](#) for October 2020.

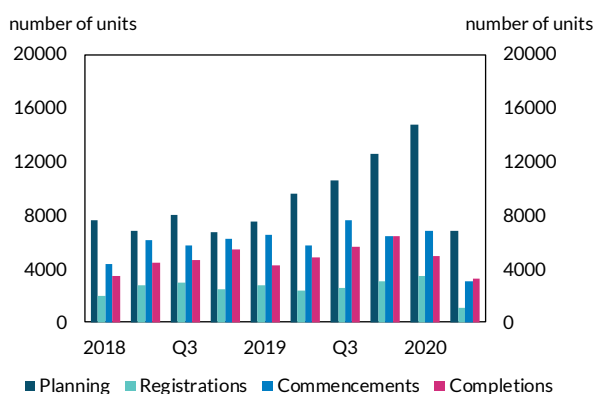
<sup>22</sup> See [Central Bank of Ireland Quarterly Bulletin No. 4 2020](#). Initial indications are that there may have been a rebound in house completions in Q3 – for instance Goodbody are reporting that their BER proxy for completions registered 5,500 completions in Q3, up from 3,290 units in Q2. As a result they have revised

20 per cent lower than last year's total and well under half medium-term estimates of fundamental demand. Moreover, forward-looking-supply indicators, such as registrations and commencement notices, have also declined notably since March, pointing to a protracted recovery in delivery of new units lasting well beyond 2020. Given the heightened macroeconomic uncertainty facing market participants at present, it is plausible that the decline in the delivery of new units over the next couple of years is greater than forecast, as developers may be unwilling to begin work on new schemes that they may be unable to sell.

Constraints on the delivery of new supply at this time are compounded by an acute shortage of stock for sale in the second hand homes market. According to DAFT.ie data from October, less than 17,700 properties were listed for sale nationally, of which approximately 4,000 were located in Dublin (Chart 24). Not only are these figures about one third and one quarter lower than the respective availability in October 2019, nationally the level of market supply is at its lowest since September 2006. The lack of availability does not appear to reflect the unwillingness of sellers to put properties forward for sale. DAFT.ie data confirm that the number of homes put up for sale each month since June has been in line with the equivalent figures for 2015-19. This inflow of properties has been exceeded by the outflow of units in recent months however, through sales or withdrawals. Thus, this has led to a reduction in the overall stock and underlines the on-going strength of demand in the market at present. Together with the steep decline in completions, this should serve, all else being equal, to act as a potential floor under house prices.

**Chart 23: Forward-looking-supply indicators point to a protracted recovery in delivery of new units**

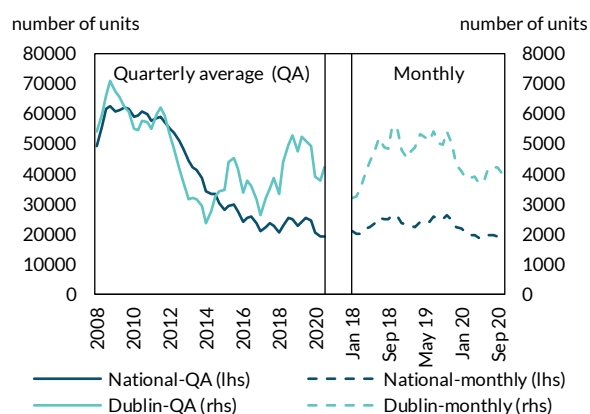
Construction of residential property: quarterly



Source: CSO and Department of Housing, Local Government and Heritage.  
Notes: Last observation 2020Q2.

**Chart 24: The availability of second hand stock for sale is at its lowest since September 2006**

Stock listed for sale on Daft.ie: national & Dublin



Source: Daft.ie.  
Notes: Last observation October 2020.

House price growth has been relatively flat throughout 2020 with little sign of an immediate impact from the COVID-19 shock. National residential property prices were 0.6 per cent lower in August 2020 compared to a year earlier (Chart 25), with house price growth having turned negative a month earlier for the first time since May 2013. Overall, however, the level of prices has been broadly flat over the past 12 months. Current nominal house prices are around 18 per cent below their previous 2007 peak (Chart 26). The decline in prices is more evident in Dublin where annual house price inflation has been largely negative since August 2019. Since then, RRE prices in

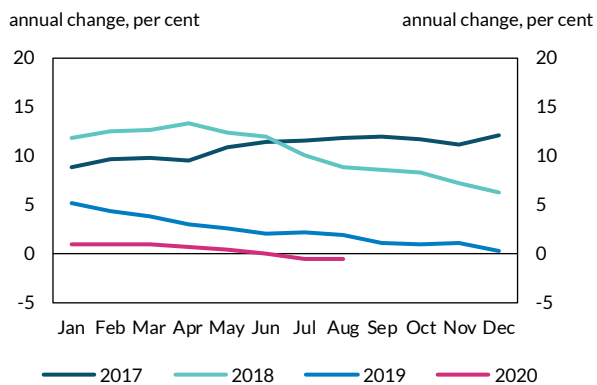
their forecast from 16,500 to 20,000 completions in 2020 (Goodbody [BER Housebuilding Tracker](#) (Q3 2020)).



the capital have fallen by 1.5 per cent. House price moderation has also been a feature outside of Dublin although less pronounced.

**Chart 25: House price inflation which has been moderating since 2018, has so far been relatively flat in 2020**

CSO RPPI annual residential property price changes: national

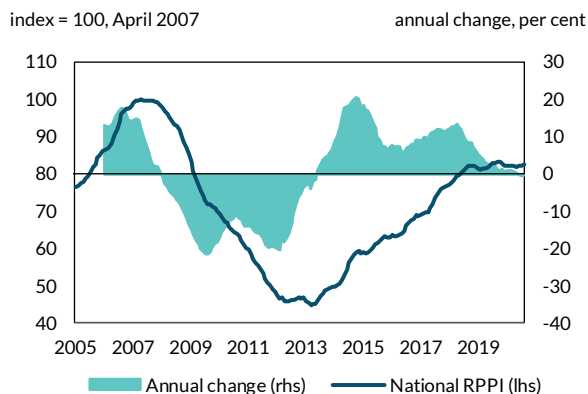


Source: CSO.

Notes: Last observation August 2020.

**Chart 26: Nominal house prices are similar to 2009 levels and remain about 18 per cent below previous peak values**

CSO annual residential property price index (RPPI) and annual changes: national



Source: CSO.

Notes: Last observation August 2020.

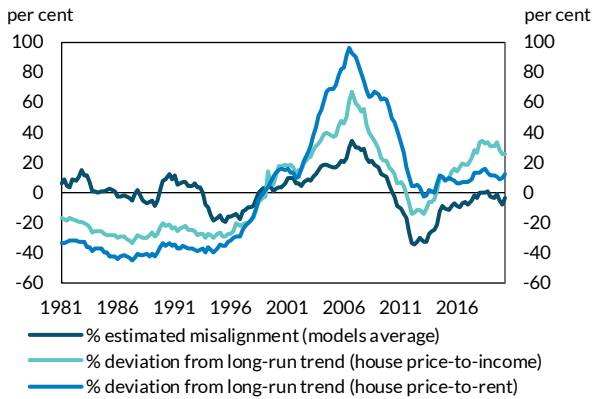
House prices are somewhat below long-run estimates of fundamental levels, but they remain high compared to income – and to a lesser extent rents – on a historical basis. The suite of model-based approaches used by the Central Bank to assess misalignment in house prices show that, on average, actual prices in 2020Q2 remain somewhat below what would be expected given economic fundamentals (Chart 27).<sup>23</sup> This is explained, in part, by the relative shortfall in supply compared to medium-term estimates of demand in recent years, a situation likely to persist in the period ahead. In contrast, statistical indicators of house price valuations, such as the house price-to-income ratio – and to a lesser extent – the house price-to-rent ratio, are above historical average values. Higher positive deviations from long-run averages of price-to-income are typically associated with higher probabilities of house price declines in the future, especially when shocks occur.

Survey evidence shows residential property prices are expected to remain flat in the short-term – with anaemic growth forecast over the medium term. Only about one third of respondents to the latest Central Bank/SCSI Property Survey (2020Q3) expect property prices to fall over the coming year, down from 80 per cent of respondents to the previous survey in 2020Q1. The median expectation is for 0 per cent house price growth nationally over a one-year time horizon (Chart 28). By contrast, the +1 year median expectation was for house prices to fall 5 per cent in the 2020Q1 survey. Looking further ahead, the majority of survey respondents expect a relatively weak rate of house price growth over the medium term. By the end of the third quarter of 2023, participants' median expectation is for national house prices to be just 3 per cent higher than they were at the end of 2020Q3.

<sup>23</sup> Building on [Kennedy, O'Brien and Woods \(2016\) "Assessing the sustainability of Irish residential property prices: 1980Q1 - 2016Q2", Central Bank of Ireland, Economic Letter, Vol. 2016, No. 11](#), research is ongoing within the Central Bank on further developing the suite of models used for assessing residential property developments.

**Chart 27: House price valuations somewhat below long-run estimates of fundamental levels, but high compared to income or rent on a historical basis**

Estimates of residential property price misalignment

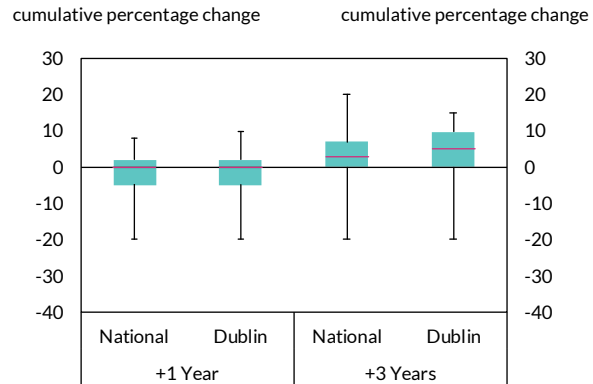


Source: CSO and Central Bank of Ireland calculations.

Notes: "Models" series is calculated as the average of 3 simple reduced-form house price models, outlined in [Kennedy, O'Brien and Woods \(2016\)](#). Last observation 2020Q2.

**Chart 28: Property professionals median expectation is for house prices to remain flat over the coming year and to rise marginally over the medium term**

Distribution of Central Bank/SCSI property survey participants' +1 year and +3 years house price expectations



Source: Central Bank of Ireland/SCSI property survey.

Notes: Last observation 2020Q3. Time horizons relate to 2021Q3 and 2023Q3.

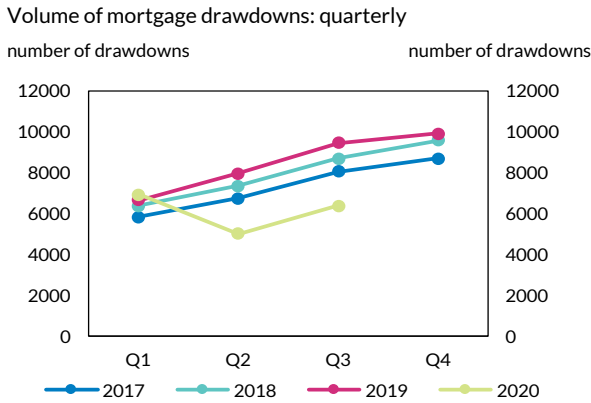
The conditions that would give rise to a large downward correction in house prices are not immediately apparent. While a fall in house prices remains possible, it is finely balanced with the potential for a wider demand/supply imbalance fuelling house price growth in the near to medium term (for a discussion on house prices at risk see Box C). Responses to a Central Bank/SCSI survey question on the key issues influencing house price expectations in the immediate period ahead found a relatively even split in the majority of participants citing one of two factors likely to drive house prices in opposing directions, i.e. a shortage of new units (inflationary) and the uncertain economic outlook (deflationary). Looking ahead, property price movements over the next couple of years will likely be determined by whichever of these two factors is the most persistent. Prior to the onset of the COVID-19 shock, the gap between supply and demand for properties was also evident in the rental market. Such market dynamics led to a steady increase in rents, which were broadly in line with house price growth. The relative stability of the house price-to-rent ratio above its long-run average value in recent years reflects these developments (Chart 27).<sup>24</sup>

While showing signs of recovery from the initial impact of the COVID-19 shock, overall new mortgage lending remains below the levels of recent years. Following a strong start to the year, where first quarter lending had been running ahead of 2019Q1 levels, there were significantly fewer drawdowns in the second and third quarters (Chart 29), leaving the overall number of mortgages originated in the first nine months of 2020 about one quarter lower than in the same period during 2019. While mortgage approvals also dropped notably during the initial lockdown period (Chart 30), there has been a rebound since. Not only were approvals in September the highest monthly total so far this year, they were also 27 per cent higher than the level seen 12 months ago, and one of the highest figures for the past four years. Similarly, mortgage enquiries to the Central Bank's Central Credit Register (CCR) have recovered since the lows of the second quarter to levels similar to those seen in February (see *credit developments subsection for more detail*). Given developments to date, and forecasts for 2020 mortgage lending about one third

<sup>24</sup> According to Central Bank calculations, the value of the house price to rent ratio has not been outside the range 17.3 to 18.3, since 2017, placing it 9 to 15 per cent above its long-run average value.

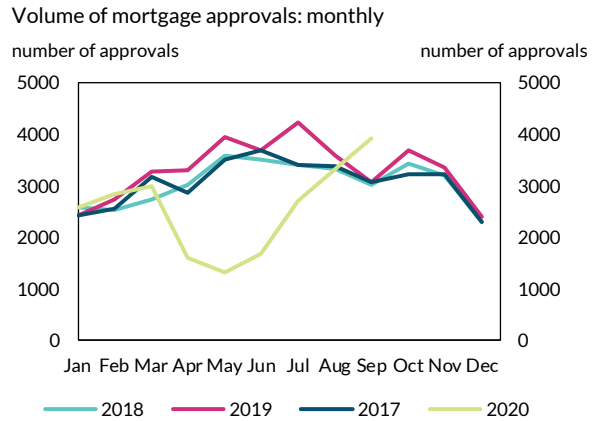
lower than pre-COVID-19 expectations, the scope for further sustainable lending exists (Chart 31).

**Chart 29: Mortgage drawdowns in 2020Q3 declined by about one third relative to the third quarter of 2019**



Source: Banking and Payments Federation Ireland.  
Notes: Data refer to drawdowns for residential property purchases. Last observation 2020Q3.

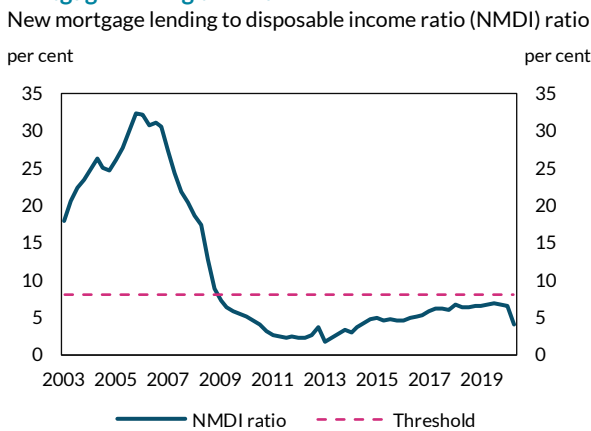
**Chart 30: Mortgage approvals dropped notably during the initial lockdown period, but there has been a rebound since**



Source: Banking and Payments Federation Ireland.  
Notes: Last observation September 2020.

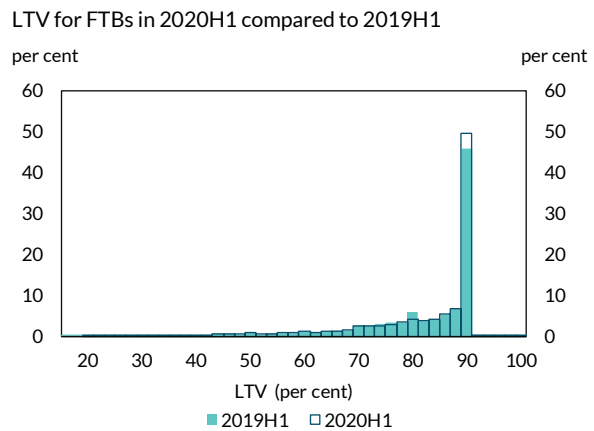
There is no evidence of a generalised deterioration in new lending standards that would adversely affect bank and borrower resilience. According to data received from the first half of 2020, the distribution of LTV and LTI for first time buyers (FTBs) is consistent with the picture from 2019H1. In terms of the provision of allowances above the LTI and LTV limits; 17 per cent of the value of 2020H1 FTB lending was originated at a level above the LTI limit of 3.5, with less than 1 per cent occurring above an LTV of 90 per cent. While few FTB loans exceeded the LTV limit in H1 2020, almost half approached the limit at 89-90 per cent LTV, up from 45.8 per cent in 2019H1 (Chart 32). There was also a slight increase in the average FTB LTV to 81.7 per cent in 2020H1.<sup>25</sup> At 3.1 times gross income, average LTI was unchanged between the two periods.

**Chart 31: Given current, broader economic developments, the scope exists for further sustainable mortgage lending to occur**



Source: Central Bank of Ireland.  
Notes: Last observation 2020Q2.

**Chart 32: A slightly larger share of 2020H1 FTB loans were originated with an LTV of 89-90 per cent**



Source: Central Bank of Ireland.  
Notes: Sample used is new property purchase and self-build loans only. Loans with LTVs > 100 per cent and LTV's < 15 per cent have been removed. LTV's > 90 represent less than 0.1 per cent of LTV loans. Last observation 2020H1.

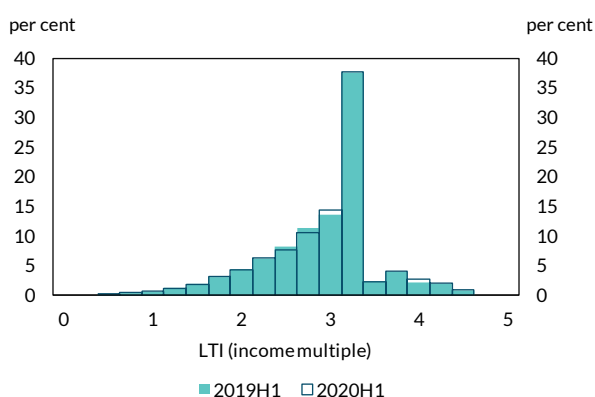
<sup>25</sup> Up from 80.7 per cent in 2019H1.

Similarly, there has been little movement in the distribution of new lending to SSBs. During the period, 16 per cent of the value of SSB lending was granted an allowance to exceed the SSB LTV limit of 80 per cent, whereas 7 per cent originated above the LTI limit. Overall, the share of 2020H1 loans originated in the 3.25 to 3.5 LTI bucket was marginally higher than during the first half of 2019 (Chart 33). Unlike FTBs, the average LTV for SSBs dropped slightly in H1 2019<sup>26</sup>, while as it was for FTB lending, the average SSB LTI was unchanged at 2.6 times gross income.

Looking ahead, there is significant uncertainty as to the likely path for mortgage credit in the coming months and into 2021. Following the initial COVID-19 shock in the spring and early summer, demand for mortgage credit has recovered in recent months, but uncertainty remains elevated. The macroeconomic effects of the COVID-19 pandemic on household incomes would, typically, be expected to place downward pressure on mortgage demand. The extent to which this is the case in part relies on the characteristics of those potential borrowers most impacted by the COVID-19 shock. To date for instance, the labour market impact of the COVID-19 shock has been most pronounced among cohorts of the population who tend not to be engaged in the mortgage market (Chart 34). In addition, the household sector in aggregate has built up substantial savings due to a forced reduction in spending. This could potentially support demand for mortgages should current uncertainty and concern around issues such as the COVID-19 crisis and Brexit begin to dissipate. At the same time, a sharp tightening of credit criteria risks amplifying the COVID-19 shock over the medium-term. The extent to which banks avail of the flexibility in the mortgage measures provided by the proportionate limits is also likely to play a role. In the immediate response to the COVID-19 shock, many of the main retail banks stopped issuing new allowances. While this is easing somewhat now as banks look to manage their pipeline into 2021, uncertainty over actual credit outcomes (notwithstanding banks' own risk appetite) could see banks take a relatively conservative approach to their management of the proportionate limits.

**Chart 33: In 2020H1 loans with an LTI of 3.25 to 3.5 were more prevalent amongst SSB mortgages**

LTI for SSBs in 2020H1 compared to 2019H1

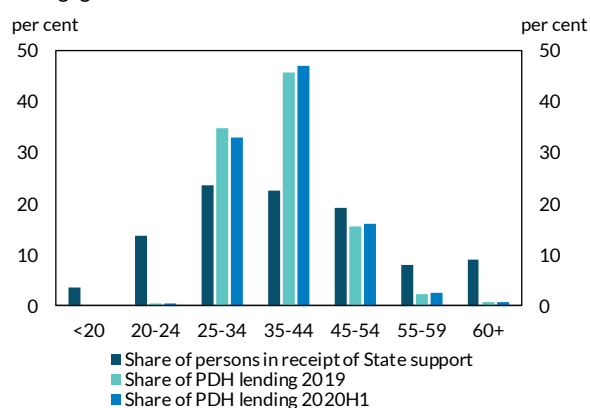


Source: Central Bank of Ireland.

Notes: Sample used is new property purchase/self-build loans only. LTI <0.25 and LTI >5 removed. Last observation 2020H1.

**Chart 34: The extent to which a tightening of credit criteria risks amplifying the COVID-19 shock in part relies on the characteristics of those potential borrowers most impacted by it**

Age distribution of COVID-19 shock (state supports) vs. mortgage demand



Source: Central Bank of Ireland.

Notes: Last observation for PDH lending, 2020H1 and for persons in receipt of State support, September 6th 2020.

<sup>26</sup> Average SSB LTV in 2020H1 was 67.9 per cent, down from 68.1 per cent during the first half of 2019.

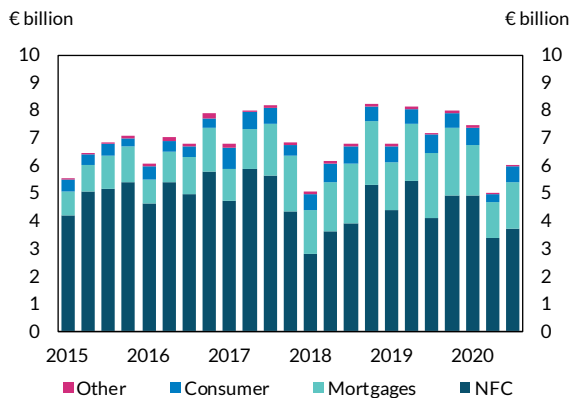
## A sharp and prolonged tightening in credit supply conditions has the capacity to amplify the deteriorating macroeconomic outlook.

Credit volumes have weakened markedly since the onset of the COVID-19 shock. The impact of the shock on credit and the domestic economy is captured in new lending data showing a 16 per cent drop in the value of loans originated in 2020Q3 compared with the same quarter a year earlier (Chart 35). This comes in the wake of a 40 per cent decline in the value of new lending in 2020Q2 compared to 2019Q2. The decline in new lending is evident across all the major loan categories, with mortgage lending hit particularly hard. Mortgage lending has declined by approximately one third from a year earlier (see Box D on recent credit developments in Ireland).

Indicators of credit demand point to a recovering appetite for lending amongst borrowers, but the uncertain economic outlook could weigh further on credit demand. High-frequency data from the CCR show a gradual recovery in the number of enquiries for NFC loans from the lows of April and May, albeit still shy of pre-COVID-19 pandemic levels (Chart 36). Similar trends are evident in enquiries for personal loans and mortgage lending. In addition, Bank Lending Survey (BLS) data suggest that demand for credit amongst enterprises and households (for house purchases, consumer credit and other lending) increased in the third quarter, and are likely to do so again in the fourth quarter.

**Chart 35: Substantial decrease in volume of new lending with the arrival of COVID-19**

Quarterly volume of new business lending to Irish residents

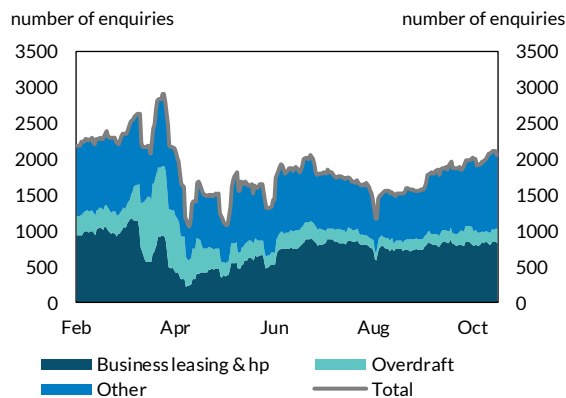


Source: Central Bank of Ireland.

Notes: New lending data excluding renegotiations. Data reflect volume of new lending in each quarter. Last observation 2020Q3.

**Chart 36: CCR data point to a recovery in NFC loan applications**

CCR credit enquiries on new loan applications from companies



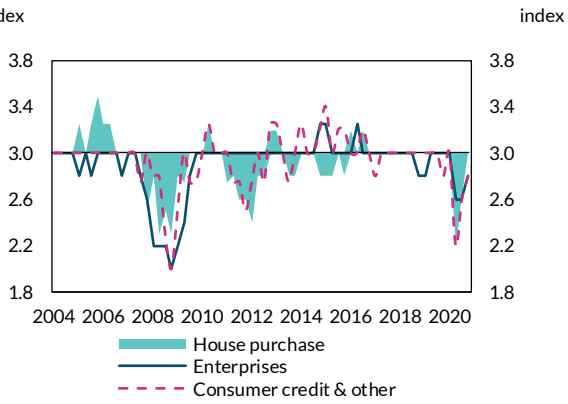
Source: Central Bank of Ireland.

Notes: Last observation October 21<sup>st</sup> 2020.

The macroeconomic downturn would be amplified by a sharp and prolonged tightening of credit supply by the banking system. According to the BLS data, credit standards on loans to enterprises are expected to tighten somewhat in 2020Q4, having already tightened during 2020Q3, although for very different reasons to the past (Chart 37 and Box D). While credit standards on household loans remained unchanged during the third quarter, risks remain given the uncertain economic outlook and the associated implications for the credit worthiness of borrowers. A significant decrease in the supply of credit would have adverse implications for the wider economy.

**Chart 37: Credit standards on loans to enterprises and consumer credit lending are expected to tighten in 2020Q4**

Bank Lending Survey (2020Q3) findings on expected credit standards index



Source: Central Bank of Ireland.

Notes: Data are the one quarter ahead expected lending standards. Above/below 3 implies a net loosening/tightening of credit standards. Last observation 2020Q3.



## Box A: Irish-domiciled funds and EMEs during the COVID-19 market turmoil

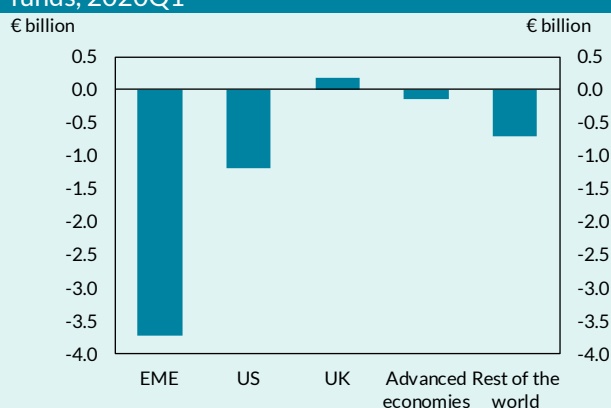
By Silvia Calò, Lorenz Emter, and Vahagn Galstyan (International Analysis & Relations)<sup>1</sup>

As emerging market economies have become increasingly important for the global economy in recent decades, they also matter for the Irish real economy through linkages with key trading partners such as the US and the UK. Moreover, Irish-resident investment funds have substantial positions in EME portfolio securities totalling €200 billion at the end of 2019. In 2020Q1, EMEs experienced significant outflows of portfolio investment capital to which Irish-resident funds contributed through sales of EME securities in response to heightened redemptions.<sup>2</sup> Analysing this episode helps shed light into the dynamics of a sector that is becoming increasingly important in channelling capital flows to EMEs, and can assist policymakers to better develop tools aimed at preserving financial stability.<sup>3</sup>

In 2020Q1, Irish-resident funds witnessed a 19 per cent (€18 billion) reduction in their holdings of EME debt securities and of 28 per cent (€34 billion) for equities.<sup>4</sup> These shifts were largely driven by valuation changes, associated with global repricing of assets at the onset of the COVID-19 shock. During this period, flows turned negative as well. These outflows from EMEs were large for debt securities (€2.3 billion), while for equities, the outflows were smaller (€1.1 billion). As in the broader investment fund sector, redemptions and associated asset sales were larger in funds investing in less liquid assets.<sup>5</sup> Among fund types, EME government bond funds also resorted to selling off more liquid advanced economy assets, particularly US securities (Chart A) to meet redemption pressures. Meanwhile, hedge funds experienced the biggest retrenchment relative to initial positions - suggesting leverage amplifying asset sales (Table A).

The observed sell-off of both EME and US securities in the face of redemption pressures by Irish funds highlights important channels in the transmission of shocks to global risk sentiment intermediated by the funds sector. It is also noteworthy that, during the most acute period of outflows in 2020Q1, EMEs with stronger economic fundamentals were somewhat cushioned from the retrenchment.

Chart A: Asset Purchases by EME government bond funds, 2020Q1



Source: Central Bank of Ireland and author's calculations.  
Note: Net purchases of debt security asset by issuing country.

Table A: Flows and positions by fund type, 2020Q1

|        | Portfolio Debt Assets |       |              |            | Portfolio Equity Assets |       |              |            |
|--------|-----------------------|-------|--------------|------------|-------------------------|-------|--------------|------------|
|        | Open-<br>ing          | Flows | Clos-<br>ing | F/O<br>(%) | Open-<br>ing            | Flows | Clos-<br>ing | F/O<br>(%) |
| Bond   | 75.8                  | -1.8  | 60.1         | -2.4       | 1.1                     | 0.1   | 1.0          | 7.4        |
| Equity | 1.5                   | -0.1  | 0.7          | -6.6       | 107.4                   | -1.3  | 75.5         | -1.2       |
| Hedge  | 0.7                   | -0.2  | 0.4          | -22.1      | 1.1                     | -0.2  | 0.6          | -17.2      |
| Mixed  | 4.9                   | -0.2  | 3.8          | -4.6       | 5.9                     | 0.2   | 4.9          | 3.8        |
| Other  | 0.6                   | 0.0   | 0.4          | -4.9       | 0.9                     | 0.1   | 0.8          | 8.8        |
| Total  | 83.6                  | -2.3  | 65.4         | -2.7       | 116.3                   | -1.1  | 82.7         | -0.9       |

Source: Central Bank of Ireland and author's calculations.  
Note: Irish-resident investment funds' opening position (O), the net flows (F), closing position (in € billion) in securities.

<sup>1</sup> This box is based on Calò, Emter, and Galstyan (2020), "Repricing of risk and EME assets: the behaviour of Irish-domiciled funds during the COVID-19 crisis", Central Bank of Ireland Financial Stability Notes, Vol. 2020, No 9.

<sup>2</sup> The sample of emerging market economies consists of 22 EMEs, see Calò et al. (2020), for a full list.

<sup>3</sup> See, for example, Carney (2019), "Pull, Push, Pipes: Sustainable Capital Flows for a New World Order," Speech given at Institute of International Finance Spring Membership Meeting, Tokyo.

<sup>4</sup> Changes in holdings are composed of transactions (flows) and valuation changes.

<sup>5</sup> See FSR 2020:II Box 6 for details on redemptions in March.

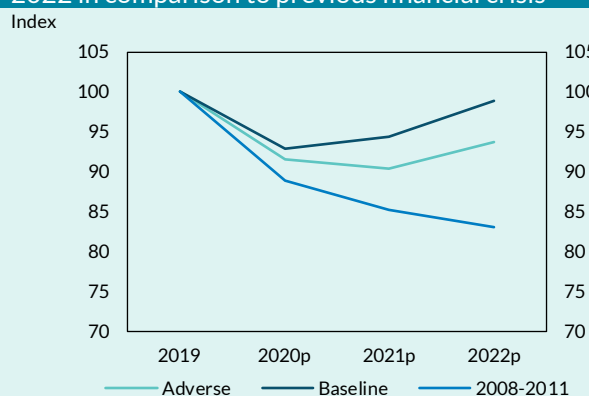
## Box B: Scenarios for the macro-financial outlook to 2022

### By Irish Economic Analysis Division & Macro-Financial Division

COVID-19 represents an exceptional shock to economic activity. Uncertainty around the macro-financial outlook remains particularly elevated and closely related to the path of the virus itself. This Box provides details of two macro-financial scenarios that are used as inputs to the analysis of system-wide resilience in *Resilience: Retail banks and credit unions*. The baseline scenario draws from the projections published on 6 October in the Central Bank's Quarterly Bulletin (QB). The adverse scenario is consistent with the analysis presented in Box E of the QB and the Central Bank's judgments around the main risks facing the financial system that are outlined in *Risks*.<sup>1</sup>

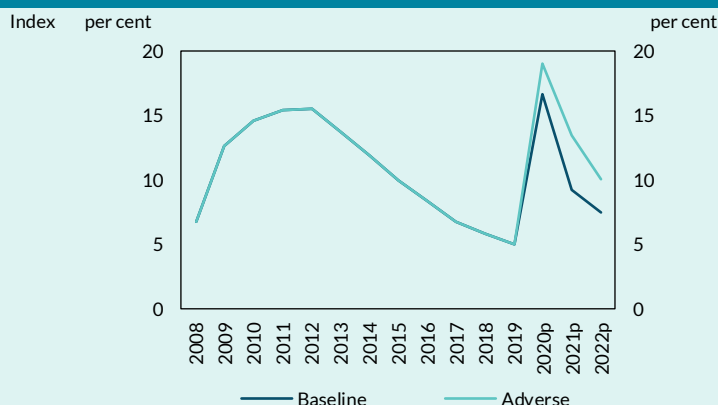
The primary difference between the baseline and adverse scenarios lies in the degree of global and domestic pandemic-related disruption during 2021. In the adverse scenario a prolonged period of disruption similar to what was experienced in Spring and early Summer 2020 is assumed to persist through most of 2021. These enhanced and stringent containment measures are assumed to be in place not just in Ireland, but also in key trading partners. Added to these real economic shocks, the adverse scenario also includes a range of financial shocks consistent with (1) higher risk premia passing through to interest rates and (2) tighter credit conditions on mortgages and other loans to households and businesses impacting on the volume of credit. These last shocks in particular are consistent with the risk of a restriction in credit supply relative to demand, where the actions of the banking sector are assumed to amplify the economic shock of COVID-19. In both scenarios it is assumed that a WTO Brexit takes place in January 2021.

Chart A: Scenario underlying domestic demand 2019-2022 in comparison to previous financial crisis



Source: Central Bank of Ireland and CSO.  
Notes: "p" denotes projection.

Chart B: Unemployment rate



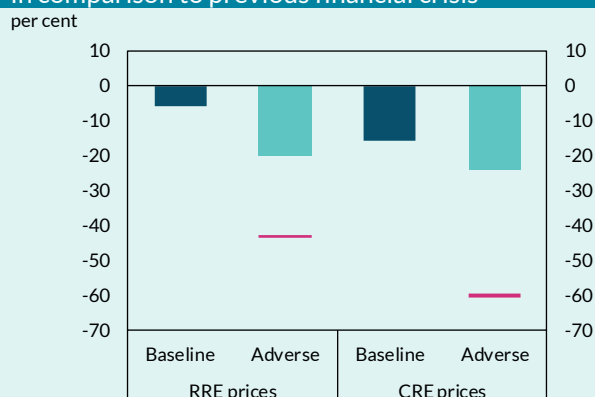
Source: CSO and Central Bank of Ireland.  
Notes: ILO unemployment rate 2008-2019 and 2022. COVID-19 adjusted unemployment rate in 2020 and 2021. "p" denotes projection.

The scenarios include a very sharp drop in underlying domestic demand (UDD) in 2020, with a gradual recovery emerging in the baseline scenario for 2021 and 2022 (Chart A). In the adverse scenario UDD continues to decline in 2021, with measured growth taking place in 2022. In both scenarios UDD remains below its 2019 level by the end of the projection horizon in 2022, with the adverse being some 6.3 per cent lower. The COVID-19 adjusted unemployment rate peaks in 2020 at 19.1 per cent in the adverse scenario, and gradually falls to 10.1 per cent in 2022 (where it reverts to the standard ILO unemployment definition), approximately 2.5 percentage points higher than is projected to be the case in the baseline (Chart B). Potential future paths for real estate prices consistent with the main macroeconomic narrative have also been derived for the purposes of the FSR scenario analysis. These

draw on a suite of modelling approaches, market expectations based on survey results and expert judgment.<sup>2</sup> Both baseline and adverse scenarios include reductions in residential and commercial real estate prices over the 2019-2022 period, ranging from -5.8 per cent to -24.0 per cent (Chart C). Projecting asset prices is inherently uncertain and that uncertainty is only amplified in the current macro-financial environment. These real estate price projections should not be interpreted as the Central Bank's forecasts, but potential paths that would be consistent with the macroeconomic scenario and used for the purposes of assessing the resilience of the banking system.

While the projections in the adverse scenario are significantly more negative than the baseline, they are not as severe as that experienced during the previous financial crisis from 2008 (Chart A). This is due to the lower degree of vulnerability of the economy at the onset of the COVID-19 crisis relative to the onset of the last financial crisis and, in particular, the absence of an unsustainable, credit-fuelled real estate boom or large starting macro-economic imbalances. The relative distribution of the COVID-19 shock on the labour market is another, especially in the case of real estate prices. Similarly the scale, speed and breadth of the fiscal, monetary and prudential policy response is better positioned to mitigate the severity of the COVID-19 crisis than was the case previously.

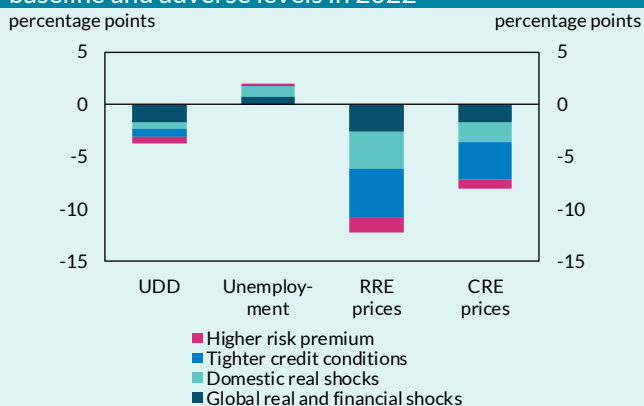
Chart C: Scenario Real Estate Price Changes 2019-2022 in comparison to previous financial crisis



Source: CSO, MCSI and Central Bank of Ireland.

Notes: RRE and CRE are residential and commercial real estate, respectively, change in annual average values between 2019 and 2022. Pink markers indicate the maximum change over a similar period during the financial crisis from 2008.

Chart D: Contributions to difference between baseline and adverse levels in 2022



Source: Central Bank of Ireland.

Notes: Deviations in level terms in 2022. Derived primarily from the Core Structural Macroeconomic (COSMO) model. Along with the model-determined shocks, judgment is applied in arriving at the final scenario projections.

The relative role of the different shocks in influencing the severity of the adverse scenario are shown in Chart D. Global shocks and domestic real shocks to consumption and investment dominate the adverse developments for UDD and unemployment. In the case of real estate prices, the financial shocks, and in particular the assumed potential for tighter credit supply are more prominent drivers.

Uncertainty is a feature of any scenario analysis, even more so for exercises being undertaken in the current climate where factors related to the pandemic are changing on a frequent basis. The scenarios presented here are just two of a wide range of potential outcomes for the macro-financial environment in the coming years.

<sup>1</sup> See [Central Bank of Ireland Quarterly Bulletin No.4 2020](#) for more detail on the main factors underpinning the baseline projection in particular.

<sup>2</sup> In the adverse case, projections for real estate prices lie further to the left of the distribution of conditional forecasts than the 5 per cent "at-risk" benchmark discussed in *Risk*.

## Box C: House prices at risk

By Gerard Kennedy and Michael Wosser (Macro-Financial Division)

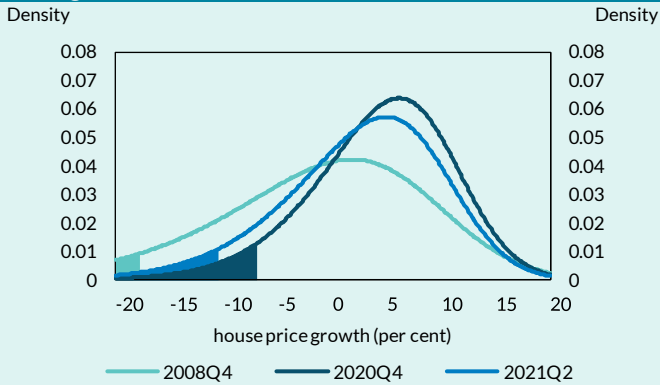
A prolonged COVID-19-related shock and uncertainties related to Brexit have the potential to negatively affect the domestic macro-financial outlook, including the real estate market (see Box B). While these are exogenous shocks to the economy and financial system, the eventual impact of such exogenous shocks is typically a function of the magnitude of underlying macro-financial imbalances. In this Box we extend the “Growth-at-Risk” (GaR) framework to assess the distribution of future house price outcomes given current macro-financial conditions that capture the onset of the COVID-19 shock.<sup>1</sup>

In the GaR framework we can examine the developments in the entire distribution of expected future house prices. Particular focus is paid to the left-tail (i.e. the “at risk” tail) or house price-at-risk (HPaR), with the 5<sup>th</sup> percentile of the distribution often taken as a reference point (5<sup>th</sup> per cent HPaR).<sup>2</sup> A left shift of the entire distribution, relative to some earlier point in time, corresponds to a general reduction in the outlook for house prices. However the left-tail of the distribution may move to a greater or lesser extent, depending on the role of the various macro-financial drivers (e.g. the degree of starting overvaluation, a weakening of financial conditions or the extent to which credit has been building up in the system) and reflecting the severity of these tail outcomes. A flatter or broader distribution may imply “fatter” tails, such that the likelihood of a tail event increases whilst central outcomes become less likely.

The latest estimates from the HPaR models show that the distribution of house price projections for 2021Q2 is somewhat flatter and further to the left than the distribution of projections for 2020Q4 (Chart A).<sup>3</sup> The shift to the left of the overall distribution is consistent with a general deterioration in house price expectations. Focusing on the left-tail specifically, the 5 per cent HPaR deteriorates to -10.43 per cent for 2021Q2, which is 3.5 percentage points worse than the equivalent benchmark for 2020Q4. This is driven by a deterioration in financial conditions and systemic risk levels over this period as well as slightly weaker house price growth rates. It is noteworthy that the change in the left-tail from 2020Q4 to 2021Q2 is more pronounced than the change in median of the distribution. This suggests that developments since the onset of the COVID-19 shock have had a more significant impact on the downside risk to central house price expectations. Overall, though, the size of the downside tail remains much smaller than what was observed at the onset of the last crisis. This reflects the much improved starting macro-financial environment.

One approach to understand how future house price distributions vary over time is to consider the distance between the median and the 5<sup>th</sup> percentile forecasts (Chart B). When the gap between median and left tail (5 per cent HpaR) widens the plotted series is increasing in value. This widening between the median and 5<sup>th</sup> percentile is associated with greater overall uncertainty about possible outcomes for house prices. Although the current gap falls considerably short of levels realised over the course of the 2008-2010 Global Financial Crisis, it has nevertheless been increasing in recent quarters, indicating relatively higher uncertainty of house price outcomes in 2021.

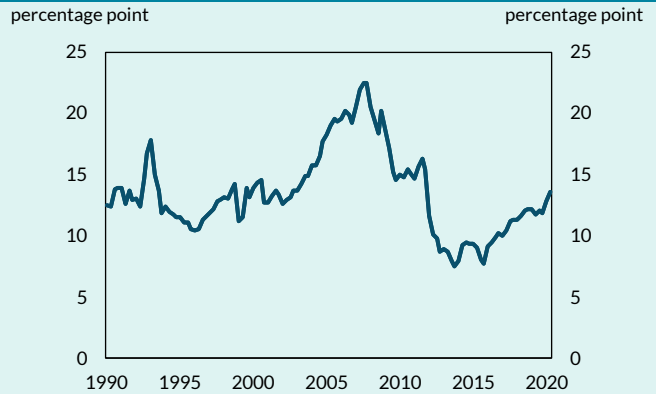
**Chart A: House prices more at risk during 2021H1 than in 2020H2, but risks are not as pronounced as they were during the 2008 financial crisis**



Source: Central Bank of Ireland.

Notes: Forecast central and tail tendencies of house price scenarios, contrasted with the outcomes estimated at the onset of the 2008 GFC. Growth is measured in year-on-year terms relative to the same quarter 1 year earlier.

**Chart B: Recent increases in the median to 5<sup>th</sup> percentile forecasts suggests greater uncertainty in future outcomes**



Source: Central Bank of Ireland.

Notes: Increases in the gap between the median and 5<sup>th</sup> percentile reflects a widening of forecast distributions, last observations 2020Q2.

<sup>1</sup>The model used here generates future house price distributions conditioned on current house price growth rates, a house price misalignment indicator (based on house price-to-income ratios), current financial conditions (ICSI in the case of Ireland) and the prevailing level of systemic risk (alternative credit gap in the case of Ireland) as well as market structure which is captured via a country fixed effects variable.

<sup>2</sup>Our house price at risk model is similar to that of [Hannes Lang, Pirovano, Rusnak and Schwarz, \(2020\), "Trends in residential real estate lending standards and implications for financial stability", ECB Financial Stability Review May 2020](#). Our data comprises a panel of 27 OECD countries, with data measured quarterly from 1990Q1 to 2020Q3 as described in [O'Brien and Wosser, \(2018\), "An Early Warning System for Systemic Banking Crises – A Model-Robust Approach", Central Bank of Ireland Research Technical Paper Series No.9](#). See also [Deghi, Welz and Zochowski, \(2018\), "A new financial stability risk index to predict the near-term risk of recession", ECB Financial Stability Review May 2018](#) and [Aikman, Bridges, Burgess, Galletly, Levina, O'Neill and Varadi, \(2019\), "Measuring risks to UK financial stability", Staff Working Paper No. 738, Bank of England](#) for other examples of the growth at risk framework.

<sup>3</sup>The forecast horizon is t+1 year, hence 2020Q4 future distribution is driven by 2019Q4 data etc.

## Box D: Recent credit developments in Ireland

By Jane Kelly, Rory McElligott, Conor Parle & Martina Sherman (Macro-Financial, Statistics and Monetary Policy Divisions)

Well-functioning credit markets are key to meeting the liquidity and credit needs of firms and households throughout and after the COVID-19 crisis. This Box provides an update on developments in credit supply and demand in Ireland for households and SMEs throughout the pandemic period.

### **Fall in credit demand at the onset of the pandemic, which has started to recover more recently**

The initial months of the COVID-19 pandemic in Ireland saw sharp declines in new lending across mortgages, consumer credit and SME lending, as COVID-19 related restrictions suppressed economic activity (Chart A). The sharpest decline was in the consumer credit market, with lending agreements 60 per cent below 2019 levels in April and May. All banks reported a significant fall in demand for consumer loans in the Bank Lending Survey (BLS), marking the largest decline since the survey began in 2002. Despite the economic distress with the onset of the pandemic, at an aggregate level, households did not increase use of short-term credit such as overdraft and credit cards. In fact, such debt declined and deposits grew as the pandemic heavily curtailed consumption and government supports mitigated income shocks to some extent.

On the other hand, NFCs initially increased overdraft usage (in April and May) before cutting back, with NFC deposits also growing strongly. SME new lending in Q2 was at the lowest level since 2014, with new lending in the wholesale, retail and hotels sectors contracting by almost 60 per cent when compared to the second quarter of 2019.

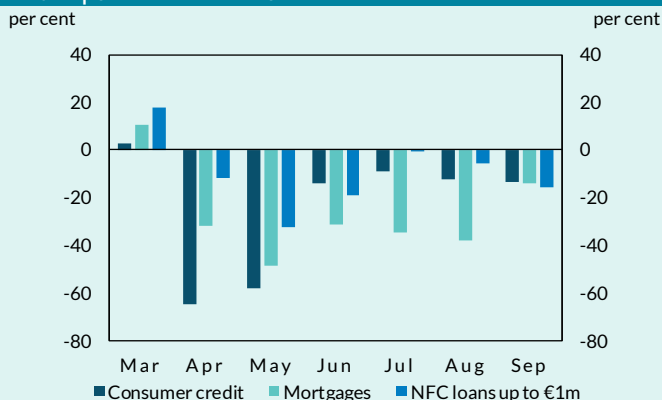
The decline in new mortgage and SME lending in Ireland was at the upper end of the scale compared to many other euro area countries (Chart B). This coincides with the relative severity of COVID-19 related restrictions in Ireland. The BLS also highlights that the fall in credit demand was more severe in Ireland than in the euro area as a whole. For new mortgage credit agreements, the c.40 per cent year-on-year reduction in Ireland in August was the largest among euro area reporting countries. The biggest change was during the first round of restrictions in Q2 (Chart B). For new SME credit agreements (under €250,000), Ireland recorded the third largest decline (after Estonia and Spain) in August 2020 and the largest reduction in Q2.

### **Credit supply conditions also tightened at the onset of the shock, mainly driven by perceptions of risk**

Lenders also took a more cautious stance on lending. For example, most banks initially suspended mortgage lending above the LTV and LTI limits. Market intelligence suggests banks focused on supporting existing customers, and took a very cautious approach towards sectors heavily impacted by the pandemic and new business/customer proposals.



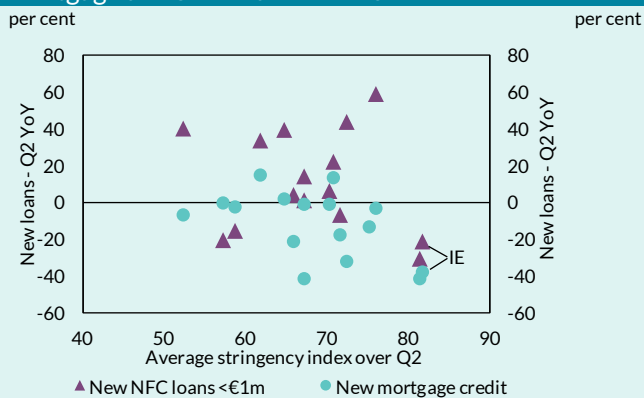
Chart A: Sharp fall in new lending activity with the onset of the pandemic in Ireland



Source: Central Bank of Ireland.

Notes: Chart indicates annual rates of change of new credit agreements in each month of 2020 compared to 2019.

Chart B: Strictest measures over Q2 and sharp new mortgage and SME loan declines



Source: Central Bank of Ireland and Oxford COVID-19 Government Response Tracker (OxCGRT).

Notes: The stringency index records the strictness of government responses, as well as support measures and health system policies. A higher index value indicates a more stringent response.

The tightening of credit standards since the onset of the pandemic was however much lower than experienced during the 2008 financial crisis and driven by very different factors (Chart C). More specifically, the 2020 tightening was driven by perceptions of risk in the general economic and industry outlook and the consequent impact on borrowers' creditworthiness. In contrast, the much sharper and extended 2008 tightening of credit standards was driven by banks' concern about their own capital and liquidity positions and ability to access funding in markets, in addition to broader economic concerns.

### As the economy has reopened, demand has picked up, but remains uneven and lenders are taking a cautious approach

As public health restrictions eased in early summer and spending opportunities improved, new mortgage and consumer lending activity picked up. Forward-looking indicators for consumer lending were the quickest to rebound with consumer lending from June to September significantly higher than earlier months albeit remaining 12 per cent below last year. Delayed new car purchases may have temporarily boosted activity in September as they outpaced 2019 levels (car finance accounts for a significant proportion of total consumer credit volumes). Credit register enquiries on new personal loan applications peaked in July, and data for October points to an average application rate down 10 per cent compared to February (Chart C). BLS data and market intelligence also point towards continued muted consumer credit demand over the rest of 2020, with the latest government restrictions, which were announced after the survey was conducted, also likely to further dampen credit demand. In parallel with the lower demand, lenders are also indicating a cautious and selective approach to underwriting new consumer lending.

A return to new lending in the mortgage market was slower to materialise. The latest data from September show the first signs of improvement in drawdowns, after applications and approvals data indicated improved activity during the summer. New mortgage agreements in September were on par with that of March 2020, albeit still 14 per cent below 2019 levels, while the mortgage approvals pipeline increased significantly. The latest BLS, carried out before the level 5 lockdown announcement, shows that lenders expect demand growth to continue into Q4. There is mixed evidence regarding banks future lending standards, some are marginally tightening lending standards, but supervisory

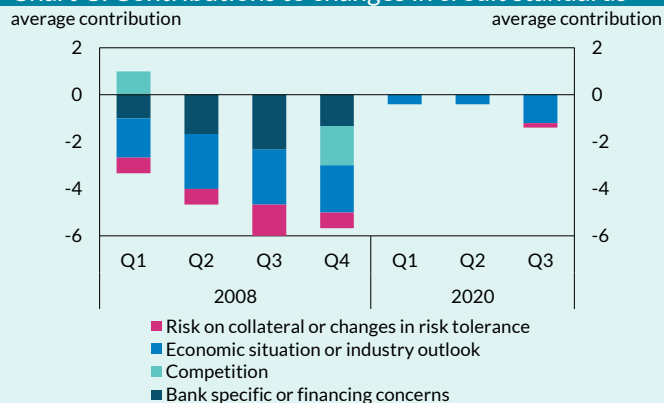
intelligence shows that some lenders are beginning to make early steps towards relaxing credit policy around mortgage lending above the LTV and LTI limits.

New SME lending (as estimated by loans under €1 million) is 15 per cent down on September 2019. Forward-looking indicators such as firm credit enquiries on the Central Credit Register point to a recovery in applications. The introduction of the Credit Guarantee Scheme as well as other support schemes has the potential to provide credit at favourable rates to those firms in a position and willing to borrow, although some firms may be reluctant to do so given [scarring effects](#) from the last crisis, the presence of other fiscal supports, and aversion to taking on debt when the economic outlook is highly uncertain (see [Lambert et al 2020](#)). While use of the Credit Guarantee Scheme is slowly increasing, the volumes to date represent only a very small fraction of typical new lending activity. In the period up to 11 November, €53 million has been approved under the scheme, which compares to an average of €140 million agreed in new company loans under €250,000 in recent months.

Evidence from the BLS suggests that loan demand from SMEs rose marginally in Q2, but began to fall back in Q3. Most banks expect an increase in demand in Q4, particularly for short-term loans. Recent public health measures announced after the survey was conducted may delay the expected return of demand, in particular demand for investment purposes.

While activity in the credit market has started to recover, intermittent rounds of COVID-19 restrictions may have implications for incomes, economic activity and household / firm confidence, so that the evolving progress of the pandemic and related restrictions will largely determine the future path for credit.

**Chart C: Contributions to changes in credit standards**



Source: Central Bank of Ireland.

Notes: Data are from the ECB Bank Lending Survey for Ireland (aggregated responses to question 2). Positive values indicate the factor contributed to a loosening of credit standards, negative values indicate the factor contributed to a tightening of credit standards. Data are for enterprise lending.

**Chart D: Credit applications have stabilised**



Source: Central Credit Register, authors' calculations.

Notes: Data relate to credit enquiries to the Central Credit Register for individual and company loan applications. Last observation 21 October 2020.

# Resilience

## Retail banks and credit unions

*The banking system entered this crisis with substantial buffers of loss-absorbing capital and an improved quality of credit exposures. The sector's capacity to withstand future potential losses and maintain lending to the economy has been supported by macroprudential actions and supervisory flexibility on the use of capital buffers. Liquidity ratios have remained stable, with funding sourced predominantly from deposits. The sector continues to exhibit relatively low funding costs.*

*The pandemic-related shock has already led to diminished profitability, but it will take time for the impact of the shock to transmit fully to bank balance sheets. There are considerable challenges ahead, including uncertainty over the repayment capacity of borrowers, particularly those requiring payment breaks and subsequent forbearance or restructuring. Further, a disruptive Brexit would exacerbate the effects of the pandemic on Irish banks' borrowers.*

*A forward-looking analysis of the resilience of the retail banking system suggests that loss-absorbing capital within the system as a whole is sufficient to absorb shocks that are materially worse than the current baseline projections, which include a WTO Brexit. Underlying this aggregate resilience, individual institutions will vary in their capacity to absorb the shock. The significant uncertainty around these projections means that all lenders must continue to plan for a wide variety of outcomes.*

The banking system entered this crisis with substantial buffers of loss-absorbing capital, which have remained resilient in 2020. Despite the extent of the shock, the system-wide average CET1 ratio was close to stable in the first half of this year, standing at 18.5 per cent on a transitional basis and 16 per cent on a fully-loaded basis at end-June (Chart 38).<sup>27</sup> While loan loss provisions exerted downward pressure on CET1 ratios, this has been offset by changing risk weighted assets, the regulatory treatment of provisions on certain exposures and the retainment of previously planned dividends.<sup>28</sup> However, underlying the strong system-wide CET1 ratio, there is significant variation among banks, where the transitional ratio is at 16.5 per cent or lower among the bottom two lenders. When measured independent of risk weighted assets via the Leverage Ratio, capital resilience has been stable in 2020 and, at 8.1 per cent remains well above the 3 per cent minimum regulatory requirement (Chart 39).

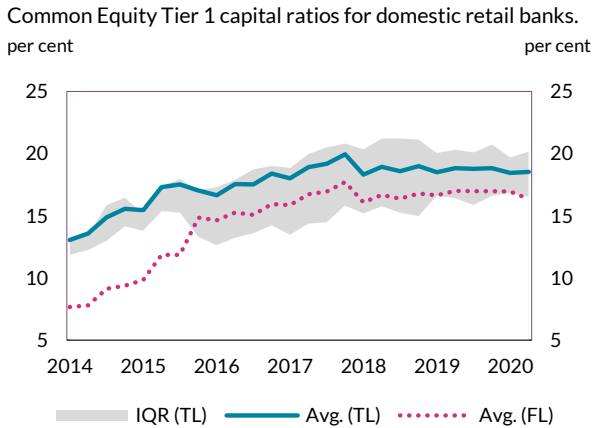
Macroprudential actions and supervisory announcements on buffer usability have increased banks' capacity to absorb losses and support lending to the real economy. The relaxation of the CCyB and supervisory announcements of the temporary usability of the CCoB, P2G and O-SII buffers have put the banking system in a better position to absorb losses and maintain the supply of lending to the real economy (Chart 40). The system-wide average CET1 headroom above

<sup>27</sup> Management updates for Q3 from the main Irish retail banks have indicated that their fully-loaded CET1 ratios continued to prove resilient and leave them well positioned to support lending to the real economy.

<sup>28</sup> The "CRR Quick Fix" contains an amendment to the Capital Requirements Regulation that allows institutions to add back to CET1 capital all new Stage 1 and Stage 2 provisions in 2020 and 2021, 0.75 of these charges in 2022, 0.50 in 2023 and 0.25 in 2024. In line with [EBA Guidelines](#) on payment moratoria, many loans on payment breaks did not undergo the re-classification as "defaulted" or "forborne" which would typically trigger a higher-risk accounting classification requiring additional provisions.

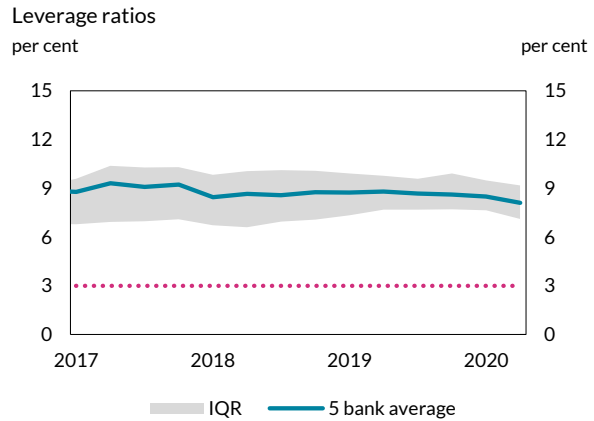
minimum capital requirements currently stands at 12.4 per cent, which is approximately 6 percentage points higher than the level of CET1 headroom that would have been available in the absence of the macroprudential actions and the supervisory announcements on buffer usability. Despite these large capital buffers, the future repayment capacity of borrowers is inherently uncertain, such that a potential retrenchment from lending remains a key macro-financial risk in the event of a large loss-driven depletion of capital.

**Chart 38: Risk-based capital ratios have remained stable in recent quarters and remain high in a historical context.**



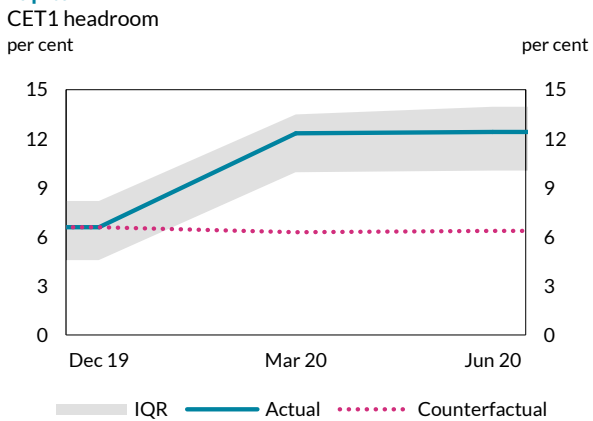
Source: Central Bank of Ireland.  
 Notes: "Avg. (TL)" and "Avg. (FL)" reflect the asset-weighted system average of the CET1 ratio on a transitional basis and fully-loaded basis respectively. "IQR (TL)" denotes the interquartile range for the CET1 ratio on a transitional basis. Sample includes the 5 retail banks. Last observation at 2020Q2.

**Chart 39: Leverage ratios remain resilient and well above minimum regulatory requirements.**



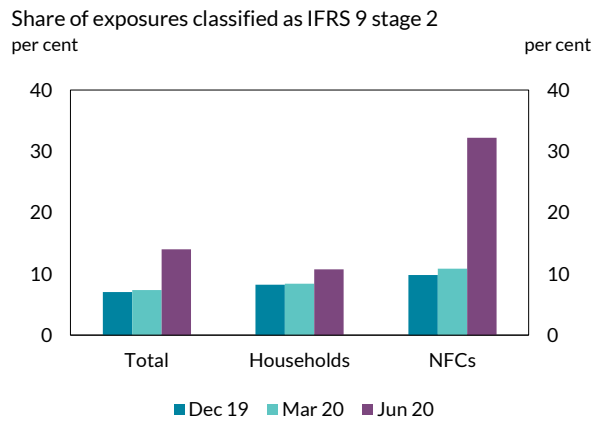
Source: Central Bank of Ireland.  
 Notes: "5 bank average" reflects the asset-weighted system average. "IQR" denotes the interquartile range, while IQR reflects the interquartile range. The dotted line reflects the 3 per cent minimum requirement as set out in the Capital Requirements Directive CRD IV. Sample includes the 5 retail banks. Last observation at 2020Q2.

**Chart 40: Recent announcements of supervisory flexibility have freed up a significant quantity of CET1 capital**



Source: Central Bank of Ireland.  
 Notes: Headroom is defined as the difference between the level of CET1 capital held and minimum regulatory requirements. "Actual" reflects the weighted average CET1 headroom for the five retail banks. "IQR" denotes the interquartile range corresponding to the distribution of actual CET1 headroom. The "Counterfactual" series is an estimate of what the CET1 headroom would have been in the absence of supervisory flexibility regarding CET1 capital demand in addition to the relaxation of the CCyB.

**Chart 41: A third of commercial lending, while not defaulted, has been classified as higher-risk**



Source: Central Bank of Ireland.  
 Notes: The chart shows the share of loans classified as IFRS 9 stage 2. The "Total" bars, indicate the relative share of stage 2 loans as a percentage of all loans subject to impairment. "Households" and "NFCs" reflect the relative share of loans classified as stage 2 as a percentage of all loans subject to impairment advanced to households and NFCs, respectively.

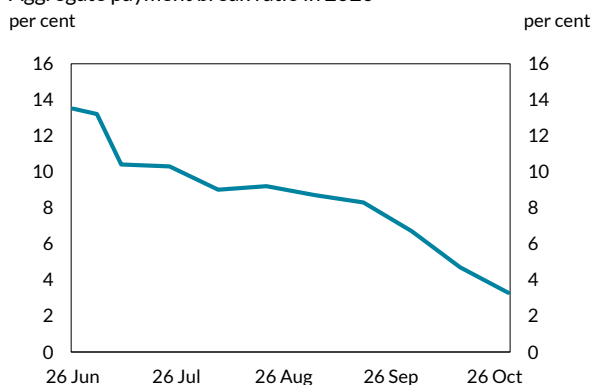
The credit quality of retail banks' loan books has deteriorated due to the impact of the pandemic. The deteriorating macroeconomic environment has led to a sharp increase in the share of

exposures that are classified by banks as having exhibited a significant increase in credit risk and were classified as IFRS9 Stage 2 in 2020 Q2 (Chart 41). The deterioration in asset quality has been much more prominent in commercial lending relative to loans advanced to households. The level of risk on balance sheets is, to some extent, under-stated by the IFRS9 Stage 2 metric, given that, despite management overlays to re-classify some loans subject to payment breaks, others continue to be classified in IFRS 9 Stage 1.<sup>29</sup>

**Thirteen per cent of loans availed of payment breaks at the peak, but many did not seek extension beyond three months.** Suggesting that some borrowers have experienced improved financial circumstances since accessing the initial payment break (PB), the aggregate PB ratio fell from 13 per cent to 9 per cent between June and September. This ratio has fallen further to 3.3 per cent in late-October (Chart 42), with some of the more recent decline explained by the expiry of six-month PBs begun early in the pandemic. There remains considerable uncertainty around repayment capacity of many borrowers accessing a PB, with the successful resolution presenting a key challenge for the resilience of the financial system (see Box F).

**Chart 42: The share of lending on a payment break has continued to fall in recent months**

Aggregate payment break ratio in 2020

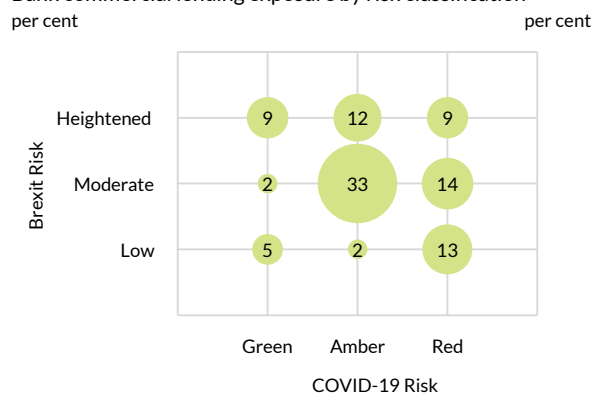


Source: Central Bank of Ireland.

Notes: The payment break ratio is defined as the total value of active payment breaks divided by total loans and advances across all asset classes and all geographic borrower locations.

**Chart 43: A disruptive Brexit would exacerbate the effects of the pandemic on borrowers**

Bank commercial lending exposure by risk classification



Source: Central Bank of Ireland.

Note: Chart shows the share of commercial loans (as a percentage of total commercial loans) by risk classification for both Brexit and COVID-19 shocks. Box G describes the classification methodology. For commercial borrowers based in the UK, the COVID-19-exposure follows the same classification as for Irish borrowers, while all UK-based borrowers are classified as "Heightened" for the Brexit risk.

**The majority of banks' commercial lending is to companies at high exposure to a disruptive Brexit, the pandemic, or both.** The banking sector's commercial loan book has substantial exposure to SMEs, Corporates and CRE firms in sectors that are vulnerable to the twin risks of COVID-19 and Brexit (Chart 43). As at 2020 Q2, 68 per cent of the sector's total commercial exposures was classified as an amber or red COVID-19 risk in addition to being classified as at moderate or heightened risk in the event of adverse Brexit-related disruptions (see Box G for additional detail on the risk classification method). The relatively small share of exposures (5 per cent at the lowest

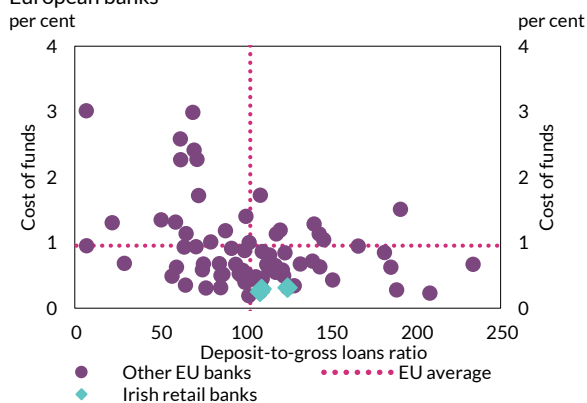
<sup>29</sup> [EBA Guidelines on payment moratoria](#) published on April 2<sup>nd</sup> stated that, where market-wide PBs were offered, lenders would not be required to classify those exposures as "forborne" or "defaulted". The data for Irish banks suggest that these guidelines had a sizable impact during the first half of the year. At end-June 2020, close to one half of corporate, SME and CRE loans with a payment break remained classified in IFRS9 Stage 1. Among Irish mortgage borrowers with a payment break, 60 per cent of PDH and 49 per cent of BTL loans were Stage 1, while 89 and 87 per cent of UK BTL and PDH loans remained Stage 1, respectively.

risk from both, for example) that would be largely unaffected by both shocks reinforces the potential vulnerabilities that may arise due to the incidence of these twin risks.

**Irish banks continue to fund their loan books predominantly through customer deposits. The cost of this funding is among the lowest in Europe.** Irish banks currently fund their loan books predominantly through customer deposits (Chart 44). Due to precautionary behaviour and forced savings due to an inability to spend, customer deposits have grown at an unprecedented rate since March. Deposits are generally seen as a more stable source of funding than wholesale borrowing. The cheap rates paid on the large deposit base held by Irish banks have resulted in relatively cheap funding costs in a European context. Moreover, liquidity support offered by the ECB, in the form of TLTROs, has provided further support to the funding costs of Irish banks, if required.

**Chart 44: Irish banks are funded predominantly through customer deposits, while their funding costs remain among the lowest in Europe**

Deposit-to-gross loans ratio and cost of funds for Irish and European banks

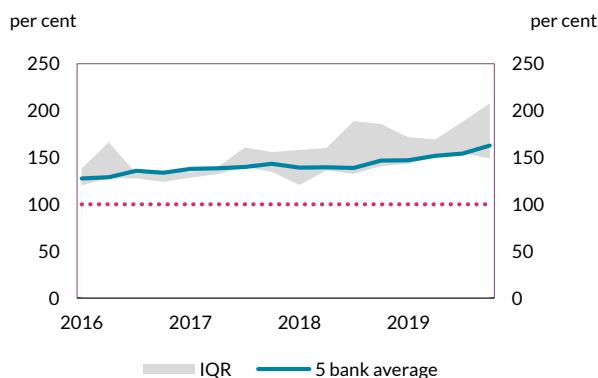


Source: S&P Global.

Notes: Irish retail banks include AIB, BOI and PTSB. Data as at 2020H1.

**Chart 45: The liquidity coverage ratio has remained resilient in 2020 and remains well above minimum regulatory requirements**

Liquidity coverage ratios



Source: Central Bank of Ireland.

Notes: "5 bank average" denotes the asset-weighted system average for the five domestic retail banks, while "IQR" reflects the interquartile range. The dotted line reflects 100 per cent minimum requirement as set out in the Capital Requirements Directive CRD IV. Last observation 2020H1.

**Banks have continued to improve their liquidity positions and now hold substantial liquidity buffers.** The liquidity position of the banking system has continued to improve in recent years, where the system-wide average liquidity ratio (LCR) now stands at 163 per cent well in excess of the minimum requirement of 100 per cent (Chart 45). The LCR is indicative of whether a bank is likely to cover their expected liquidity needs during a stressed month, where a higher ratio implies that banks are better able to meet their redemption requirements.

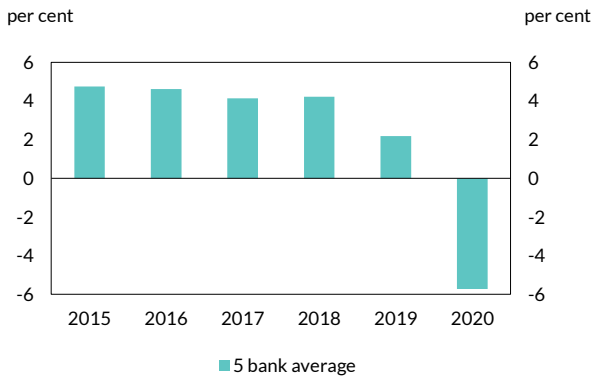
**Credit unions have experienced similar surges in liquidity.** The credit union sector experienced similar trends, with savings in the sector growing from €15.4 billion to €16.2 billion in the first six months of the year while lending in the sector has remained static. This has contributed to an increasing imbalance between savings and loans, heightening sustainability challenges for many individual credit unions. The sector held €12.9 billion, or approximately 70 per cent of its total assets, in financial investments at end-June 2020. These were heavily concentrated in bank deposits, reflecting continued interconnectedness. Credit unions have also made payment breaks available to customers, with take-up lower than in the banking sector: PB ratios fell from 3.7 per cent in June to 1.2 per cent at end-September.



The profitability of the banking sector has declined sharply since the onset of the pandemic, driven by increased loan impairment. Weak profitability presents a challenge to future capital resilience as profits are an important element of capital growth. Return on Equity has undergone a sharp and sudden fall in the first half of 2020 (Chart 46). The effects of the pandemic on profitability have been acute, largely driven by a substantial increase in loan impairments owing to the deterioration in the macroeconomic outlook (Chart 47). In a cross-country comparison, the annual change in the level of provisioning made by Irish banks in 2020 was among the highest in Europe relative to a year ago (Chart 48). Notwithstanding the heightened uncertainty around the outlook, it is important that losses on banks' balance sheets are recognised in a timely manner, to reduce the risk of uncertainty around the impact of the shock on banks' balance sheets.

**Chart 46: Profitability has been significantly weakened in light of COVID-19**

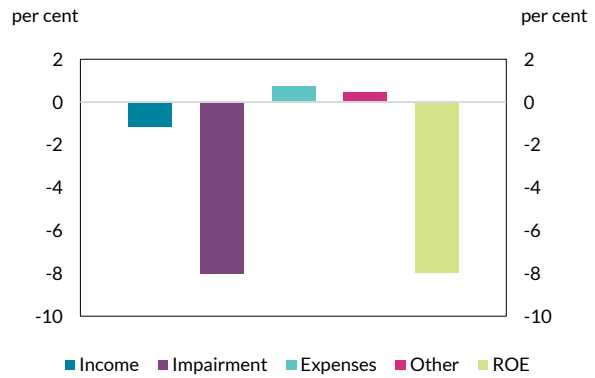
Half-year Return On Equity for domestic Irish retail banks



Source: Central Bank of Ireland.  
Notes: Each observation reflects the half-year figure for RoE on a non-annualised basis. Last observation 2020H1. Sample includes the 5 retail domestic banks.

**Chart 47: The 2020 decline in profitability is predominantly due to higher impairment**

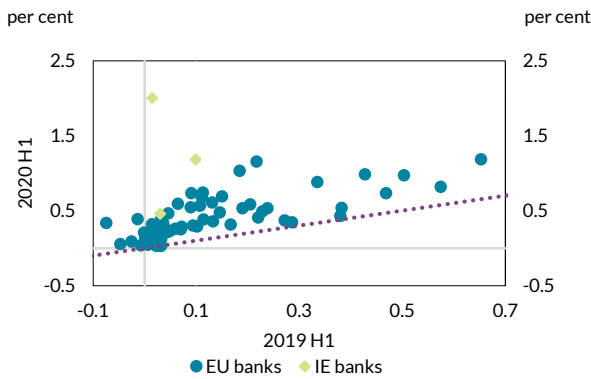
Composition of the change in half-year Return On Equity between 2019H1 and 2020H1



Source: Central Bank of Ireland.  
Note: The chart shows the contributory factors behind the change in RoE between 2019H1 and 2020H1. Sample includes the 5 retail domestic banks.

**Chart 48: The impairment charges taken by Irish retail banks in 2020 H1 are among the highest in Europe**

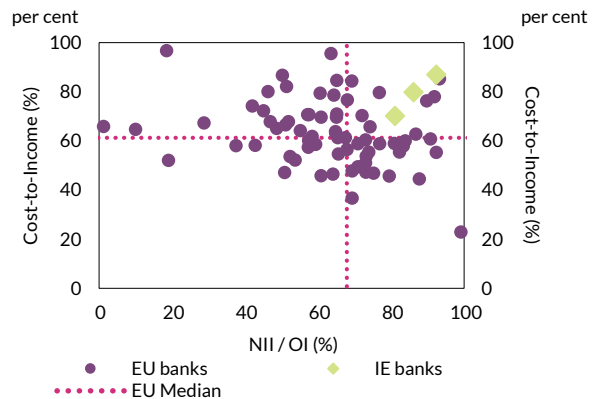
Cost of risk



Source: S&P Global.  
Notes: Cost of risk, defined as impairment scaled by total gross loans and advances for a sample of European and Irish banks. The dashed line refers to the 45 degree line. Irish banks include BOI, AIB and PTSB. Data are as at 2020H2 and is presented on a non-annualised basis.

**Chart 49: Costs are high relative to incomes, while dependence on net interest income is high**

Cost-to-income and reliance on net interest income



Source: S&P Global.  
Note: Chart shows cost-to-income ratios and the share of net interest income to total operating income (NII / OI) for a sample of Irish and European banks. Irish retail banks include AIB, BOI and PTSB. Data are as at 2020H2.

Irish banks continue to exhibit relatively high costs in addition to being reliant on net interest income. Irish banks faced structural profitability challenges entering this crisis. In particular, cost-to-income ratios are among the highest in Europe (Chart 49). A relatively high reliance on net

interest income leaves the sector vulnerable to compressed margins in an environment of persistently low interest rates. Exacerbating these weaknesses are limited opportunities for loan growth in a period of heightened uncertainty and weak credit demand.

**Banks continue to build their MREL buffers, enhancing their resolvability.**<sup>30</sup> While there was limited debt and capital issuance in general following the onset of the pandemic, Irish banks were successful in accessing the financial markets in advance of and following the acute period of market turbulence in 2020, thereby reducing their MREL shortfalls. On an aggregate basis, overall target levels decreased from €38 billion to €32 billion and the MREL stock of Irish banks increased by approximately €3.3 billion in 2020 to date. The shortfall to prescribed MREL target levels in Ireland has reduced to zero on an aggregate basis; however this masks underlying variation, as some banks have nominal MREL surpluses while others have yet to reach their target levels and continue to present shortfalls.

**The pandemic has drawn greater attention to the operational risks arising from the use of technology.** Banks have significant dependencies on technology and third parties to support their business operations. The move to remote working for the majority of financial services staff has put additional pressure on banks' IT infrastructure and capabilities and highlighted the criticality of robust technology in the delivery of services that are essential for the economy. The prolonged nature of the pandemic and the likelihood that remote working will continue to play a prominent role in any future ways of working, means that firms are having to rethink the resilience and security of their IT infrastructure. The widespread adoption of remote working continues to heighten cyber risk due to increased network traffic volumes, modified practices and controls to accommodate new remote access needs, and malicious activities of opportunistic cyber attackers. In most cases, firms have worked hard to address vulnerabilities that arose as a result of the sudden shift to remote working and have put in place enhanced controls and capacity, but many risks persist. The operational resilience of the financial system is a priority for the Central Bank. Firms can expect an increased focus on operational and cyber resilience in 2021, with an emphasis on Board accountability for the implementation of robust resilience programmes to ensure the continuity of their critical business services.

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<sup>30</sup> Minimum Requirement for own funds and Eligible Instruments, is a prudential measure which aims to ensure banks have sufficient capital and liabilities that can be 'bailed-in' if the need arises. The target level is set by the resolution authority, with EU banks granted a transition period to build up their MREL capacity.

## Box E: Forward-looking assessment of the resilience of the retail banking sector

### Introduction

The COVID-19 shock is having, and will continue to have, material adverse effects on the Irish economy. Due to exceptional levels of policy support, the role of payment breaks, the retention of dividend payments and a natural lag between economic shocks and borrower defaults, the pandemic has only had a modest impact on banks' reported key capital ratios so far in 2020 (Chart 38 and Chart 39).

The capacity of the banking system to absorb losses is much larger than it was in advance of the 2008 crisis. However, banks remain exposed to the economic effects of the pandemic, with uncertainty remaining over the macro-financial outlook, borrowers' repayment capacity, and opportunities for income generation through new lending, and other factors including market risk.

In this context, the Central Bank has produced forward-looking projections of the capital position of the domestic retail banking sector under different potential scenarios. The analysis focusses on the five domestic retail banks in aggregate, projecting the system-wide CET1 and total capital ratios under two macroeconomic scenarios over the 2020-2022 horizon.

As explained in more detail in this Box, there is significant uncertainty around both the macro-financial outlook itself and its impact on bank balance sheets. The objective of the analysis is to inform the Central Bank's judgment around the resilience of the banking system, recognising the inherent uncertainty around these estimates.

### Modelling approach

The full suite of analytical tools available to the Central Bank have been used to project system-wide capital ratios. This approach seeks to guard against the risk that the analysis becomes excessively exposed to the unavoidable weaknesses of any single model or piece of analysis. It also means that – like any forecasting exercise – the projections incorporate a degree of judgment, for example in combining different model outputs or incorporating satellite analysis to reach an overall projection for system-wide capital in the scenarios.

Details on the methodological approach used to project system-wide capital ratios are published [separately](#). Some of the key components of the approach are summarised below:

- **Credit losses:** Credit loss modelling involves a projection of the Probability of Default, Loss Given Default, and Exposure at Default (PD, LGD and EAD), conditional on the macroeconomic scenarios. PD and LGD approaches include both portfolio-level and loan-level models, while EAD projections come from the gross loans model described below. In addition, the results incorporate judgments from additional analysis (specifically for areas where history may not be a good guide to the future, such as the impact of recent government supports) as well as additional information (e.g. payment breaks). The analysis incorporates the effects of the "[CRR quick-fix](#)", a legislative package introduced in June 2020 to facilitate lending by banks during the COVID-19 crisis, including around treatment of impairments arising due to IFRS 9 accounting treatment.
- **Net interest income:** The starting position for net interest income is based on end 2019 net balances for interest earning assets and interest paying liabilities. Implied effective rates for the 3 months to December 2019 by counterparty type are estimated based on regulatory data. From this starting point, the model factors in changes in outstanding balances for assets and liabilities, in particular

new lending and redemption assumptions for loan balances; changes in interest rates consistent with the scenarios; and the effect of credit losses in determining interest income.

- **Balance sheet and risk-weighted assets:** The approach incorporates adjustments to banks' loan balances during the scenario horizon consistent with the macroeconomic projections, often referred to as a "dynamic balance sheet". A suite of approaches have been used to arrive at projected balance sheets. These include macro models of aggregate credit as well as bottom-up analysis of new lending and redemption rates, incorporating the impact of payment breaks. To move from balance sheet exposure to Risk-Weighted Assets (RWA), RWA densities (the ratio of RWA to Total Assets) are also modelled to move in line with the scenario.
- **Fees, commissions and expenses:** Net fee and commission income is modelled based on observed 2020H1 data and historical performance, with adjustments made to reflect the effect of the macroeconomic scenario on banks' capacity to generate such income in each scenario. Operating expenses, including operational losses, are assessed in a similar manner.
- **Other items:** Other material risks to capital including pension, fair value exposures and other market related risks have been considered. The projections also incorporate known factors that are likely to influence capital ratios in the future irrespective of the precise shock, including regulatory developments such as the phase-in arrangements for the definition of regulatory capital or changes in RWAs and provisions reflecting the way in which risk is measured.
- **Starting point and associated adjustments:** The analysis updates regulatory information at end-2019 with material actions that have been taken by the retail banking system so far this year, including new capital issuances and loan sales executed this year. The projections do not incorporate future management actions that lenders could take to mitigate the impact of the shocks on their balance sheets.<sup>1</sup>

### Macroeconomic scenarios

The resilience assessment is conducted considering a baseline and an adverse economic scenario, published in Box B of this *Review*. The scenarios are consistent with those produced in the Central Bank's recent *Quarterly Bulletin* for 2020 Q4 and already incorporate a WTO Brexit at the end of the transition period. In the adverse scenario, a prolonged period of disruption similar to that experienced in Spring and early Summer 2020 is assumed to persist through most of 2021. These enhanced and stringent containment measures are assumed to be in place not just in Ireland, but also in key trading partners. Added to these real economic shocks, the adverse scenario also includes a range of financial shocks consistent with (1) higher risk premia passing through to interest rates and (2) tighter credit conditions on mortgages and other loans to households and businesses reducing the volume of credit and leading to bigger asset price falls.

While the immediate economic disruption related to the pandemic has been much sharper than the 2008/2009 experience, both the nature of the shock and the starting macro-financial position of the economy are significantly different. This results in a faster economic recovery – in both scenarios – than the financial crisis, when the downturn was much more protracted. Amongst the key vulnerabilities not present in the current situation is a credit-fuelled real estate boom and other large starting macro-economic imbalances as well as unstable bank funding conditions. This is also reflected in the less severe paths for real estate prices in the current scenarios relative to the declines experienced during the previous crisis.

### **Sources of uncertainty in the projections**

Any forward-looking projection is subject to inherent uncertainty. In the current circumstances, projecting the capital position of the domestic banking system is particularly challenging, due to three key sources of uncertainty: first, that stemming from the size, shape and trajectory of the economic shock experienced to date and the resulting macro-financial outlook; second, that relating to the effectiveness of government supports in mitigating financial distress; and, third, the extent to which improvements in the credit quality of new lending over the past decade would imply a deviation from historical relationships between macro-financial conditions and banking system losses.

#### *Macroeconomic Uncertainty*

The speed and depth of the shock experienced since March are without precedent. The forward-looking path for the economy is also subject to significant uncertainty around the path for the virus and vaccine, the potential need for repeated public health measures that severely hamper economic activity, the capacity of government to continue to support businesses and households whose incomes are affected by the crisis, as well as the long-term structural implications of the pandemic or the possibility of 'scarring effects' on the economy. Due to this uncertainty, the two outcomes for capital ratios reported in this Review are drawn from a wide range of possible outcomes.

A range of features of the Irish lending market imply that model outputs based on historic relationships may require judgment-based overlays. The Central Bank has considered many specific features of the lending portfolios of the banking system in this light. Factors such as the specific effect of the pandemic and a WTO Brexit on some SME sectors and the risk posed to the CRE landscape from home working or a structural shift towards e-commerce have been considered as potentially adding risk beyond those embedded in the historic models.

#### *Impact of government interventions*

The unprecedented government policy response to the pandemic means that historic relationships will not capture all the channels through which government supports mitigate financial distress. For this reason, the Central Bank has adjusted a number of its model-based projections to allow for the exceptional levels of policy support currently being provided to household and business borrowers. For example, the size of Pandemic Unemployment Payment (PUP) relative to Jobseeker's Benefit (JB) payments means that, for a given level of job loss, there is more income available to service household debts than in the past. In the SME lending market, the size of existing supports is again without precedent, with PD model outputs being adjusted downward to reflect the role of direct grants, wage supports, tax warehousing and guaranteed lending.<sup>2</sup> Furthermore, enhanced government policy responses announced in Budget 2021 may imply that some of the macroeconomic effects embedded in any adverse scenario are cushioned beyond the levels envisaged in the current scenarios.

#### *Historical changes in credit quality*

Beyond policy support, historic relationships between macroeconomic variables and loan default may also warrant adjustment due to the changing nature of loan portfolios over time. In the mortgage book, the importance of tighter underwriting criteria after 2009, and the application of the macroprudential mortgage measures since 2015, mean that new lending now covering around 40 per cent of total mortgage exposures have conditions different to those in place when loans defaulted in large scale from 2008 to 2013. Historic sensitivities, based on a portfolio that was dominated by lending under looser underwriting criteria, may over-state the extent of default risk in the scenario horizon, which motivates

a downward adjustment to modelled mortgage credit risk. Going in the other direction, there is heightened risk among borrowers with a history of forbearance or arrears since the last crisis.

In the SME book, similarly, the share of highly-indebted firms has been falling in recent years, as has the overall size of SME debt and the share of SMEs with any debt outstanding.<sup>3</sup> Further, property-related lending and associated elevated default risk among real economy SMEs, a prominent occurrence in the previous crisis, is much less prevalent in 2020.<sup>4</sup>

Similarly, in the CRE market, banks' lending appetite and volumes retrenched substantially in the last decade, meaning that speculative activity is less of a feature than at the onset of the 2008 crisis. While the precise role of these features in lowering credit risk projections is difficult to pinpoint, the Central Bank has factored in all of the above changes, along with model-based projections using historic relationships, when arriving at its view on default and loss severities in credit portfolios.

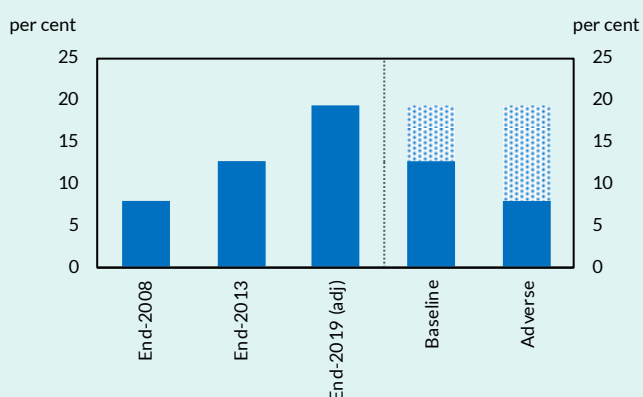
### **Key results**

In the baseline scenario, the system-wide average capital ratio of the retail banking system – on a transitional CET1 basis – is projected to fall to 12.6 per cent over the scenario horizon (Chart A). This compares to Total SREP Capital Requirements (TSCR) – on an equivalent basis in terms of the definition of capital – that average 6 per cent across the institutions. The impact of the adverse scenario is much more significant, with the system-wide transitional CET1 capital ratio projected to fall to 8 per cent over the course of the scenario horizon. Chart A provides historical context for these system-wide capital ratios, illustrating how higher levels of capital over the past decade mean that the system is now in a better position to absorb this shock. Broadly similar patterns emerge when the projections are considered from a Total Capital (rather than CET1) perspective.

Charts B and C decompose the drivers of falls in the system-wide CET1 capital ratio in the two scenarios, baseline and adverse. The magnitude of credit losses is the key driver of overall capital developments. Impairments contribute 4.7 and 8.8 percentage points to baseline and adverse capital depletion, respectively. The mitigating effect of income generation (net of expenses) is to contribute 2.4 and 2.1 percentage points to system-wide CET1 capital across the two scenarios. It is also important to note that part of the fall in the system-wide capital ratio stems from factors that are expected to happen, irrespective of the precise shock or scenario. For example, the projections incorporate the impact of factors such as the phase-in arrangement for the definition of regulatory capital or changes in RWAs and provisions reflecting the way in which risk is measured. Together, these account for between 3 and 4 percentage of the fall in the CET1 ratios in the two scenarios.



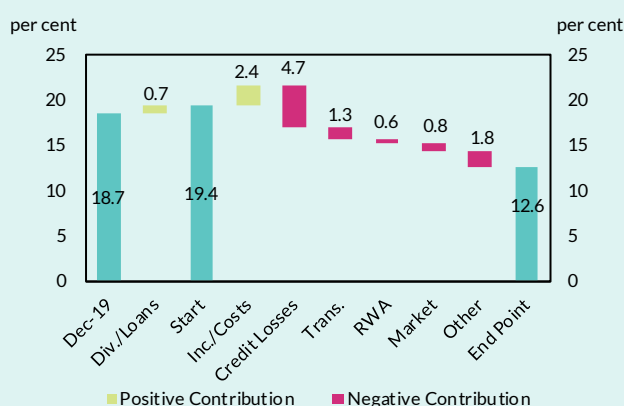
Chart A: Resilience assessment results in context of aggregate capital position since the financial crisis



Source: Central Bank of Ireland.

Notes: System-wide CET1 capital ratios reported. Shaded areas are capital depletion levels in the Central Bank's 2020 resilience assessment. Sample of banks used from 2008 to 2020 is not identical to sample used in current resilience assessment. End-2019 (adj) = December 2019 values, adjusted for known changes in balance sheet positions up to November 2020. The definition of capital changes over time because of transitional arrangements, so that on a like-for-like basis capital ratios in 2008 would be lower than indicated in the chart. Baseline and adverse refer to cumulative changes over the scenario horizon.

Chart B: Baseline CET1 Capital waterfall



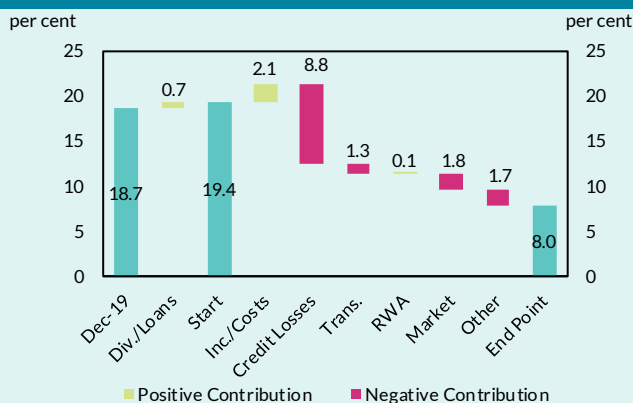
Source: Central Bank of Ireland.

Notes: CET1 ratios over the scenario horizon. Green bars imply a positive contribution to the capital ratio, while red bars imply a negative contribution. Opening CET1 ratio reported on a transitional basis. Five retail banks included in resilience assessment. The starting point includes the impact of dividend reversals, loan sales and securitisations ("Div./Loans"). "Inc./Costs" refers to differential between income and costs. "Trans." refers to the impact of Capital Requirements Directive transitional effects e.g. Deferred Tax Assets and IFRS 9. "RWA" refers to risk weighted assets. "Market" refers to market risk losses. "Other" captures the impact of a number of items including: the operational risk charge; the non-deduction of certain software assets as outlined in the CRR quick fix and non-scenario related factors affecting the provision on legacy non-performing loans.

While credit losses are a material driver of the projections, especially in the adverse scenario, they are significantly lower than those observed in Ireland due to the previous financial crisis. For example, even in the adverse scenario, the cumulative three-year default rate in the Irish mortgage market is projected at 13 per cent, relative to a maximum three-year default rate of over 20 per cent in the historic data. Similarly, for CRE, default rates in the adverse scenario are much lower than those observed during the crisis. For SMEs, default rates in the adverse scenario come closer to historic maximum levels, but do not surpass them. This reflects the additional judgments around the specific effects of the shock in some heavily affected sectors. In addition, due to a far less severe fall for property prices during this assessment horizon relative to the worst three year period in the last crisis, negative equity is less of a concern for loans secured against property, which leads to significantly lower projections for Loss Given Default than were experienced in the past. For this reason, overall loss rates in this assessment are less severe than in the crisis.

Acknowledging the uncertainty surrounding the scenario and modelling error, the analysis in Chart D considers the most material drivers of capital depletion (for example, pre-provision profit, collateral valuations, probabilities of default on SME and CRE exposures and the cyclical nature of Risk-Weighted Assets) and applies sensitivities around them. Considering different combinations of adjustments to each of the parameters independently, the analysis produces a range of results for the system-wide CET1 ratio in each scenario, with each box plot presenting the distribution of the simulations' output. The lower end of the chart assumes that all of the drivers are negatively impacted, while the upper end assumes that they are all positively impacted. These combinations do not map precisely to coherent economic outcomes, but aim to illustrate the range of uncertainty around the projections.

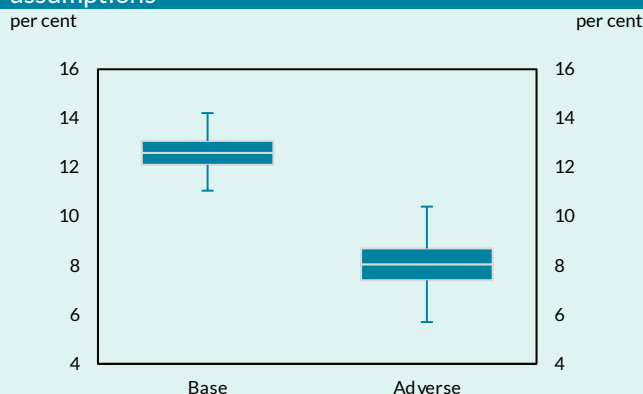
Chart C: Adverse CET1 Capital Waterfall



Source: Central Bank of Ireland.

Notes: CET1 ratios over the scenario horizon. Green bars imply a positive contribution to the capital ratio, while red bars imply a negative contribution. Opening CET1 ratio reported on a transitional basis. Five retail banks included in resilience assessment. The starting point includes the impact of dividend reversals and loan sales ("Div./Loans"). "Inc./Costs" refers to differential between income and costs. "Trans." refers to the impact of Capital Requirements Directive transitional effects e.g. Deferred Tax Assets and IFRS 9. "RWA" refers to risk weighted assets. "Market" refers to market risk losses. "Other" captures the impact of a number of items including: the implementation of the provision calendar; operational risk charges; conduct risk charges; and the non-deduction of certain software assets as outlined in the CRR quick fix.

Chart D: Sensitivity of assessment results to varying assumptions



Source: Central Bank of Ireland.

Notes: CET1 ratio reported. The following model factors are adjusted upwards and downwards to produce variation in CET1 ratios for both base and adverse scenarios: Pre-provision profit, Collateral valuations, Non-retail losses, UK mortgage losses, RWA cyclicality. The model is run iteratively, combining a range of the above adjustments to factors in different combinations, to produce a box plot of capital headroom.

Overall, the Central Bank's assessment is that the retail banking system is, in aggregate, capable of absorbing shocks that are materially worse than current baseline projections, which include a WTO Brexit. The adverse scenario, absent management actions taken by the lenders, would be more challenging for the banking system. Although potential losses would be absorbed by existing capital buffers, it would pose heightened risks to the supply of lending to the economy, itself potentially reinforcing the downturn and feeding back to banks' balance sheets. In addition, this system-wide position can mask significant variation, with the specific effect on individual banks depending on their individual risk profile. This underscores the need for regulated firms to prepare for a wide range of eventual outcomes, including consideration of management actions they would take to mitigate the impact of the shock on their balance sheets, without adversely affecting the macroeconomy.

1 Through the calibration of the adverse macroeconomic scenario, the projections implicitly incorporate additional restrictions in the supply of lending by the banking system. As shown in Box B, these have the aggregate effect of making the macro-financial outcome worse, with adverse eventual implications for bank balance sheets.

2 The downward adjustment to mortgage default probabilities owing to the size of PUP support is motivated by simulation work on household balance sheets from forthcoming Central Bank research (*Simulating Household Financial Distress*, Terry O'Malley, Mimeo, 2020). Similarly, the role of government supports in reducing SME financial distress has recently been modelled by Central Bank staff (*Modelling financial distress in SME sectors during the COVID-19 pandemic - from liquidity to solvency*, Fergal McCann and Fang Yao, Mimeo, 2020). Results from this model have been published in [Lambert, McCann, McQuinn, Myers, Yao \(2020\) "SME finances, the pandemic and the design of enterprise support policies"](#) Central Bank of Ireland, Financial Stability Notes, Vol. 2020, No. 8 and motivate the downward adjustment to credit losses applied in the SME model.

3 See the Central Bank's [SME Market Report](#) and [McCann and McQuinn \(2017\) "The financial vulnerability of Irish Small and Medium Enterprises, 2013 to 2017"](#), Central Bank of Ireland, Economic Letter, Vol. 2017, No. 14 for further details on changing indebtedness levels among Irish SMEs over the last decade.

4 See [McCann and McIndoe-Calder \(2014\) "Irish SME property exposure: what do we know?"](#) Central Bank of Ireland, Economic Letter, Vol. 2014, No. 8 for a detailed discussion of property-related debt and default risk among SMEs not primarily engaged in the real estate business during the last boom-bust cycle.

## Box F: Distressed debt after COVID-19 payment breaks

Payment breaks (PB) of up to six months have been a key feature of the financial system response to the crisis, providing important temporary relief from loan repayments for affected borrowers. This system-wide response, undertaken across many loan portfolios without individual credit assessments, provided relief regardless of whether the income shock was short-term or potentially more permanent. Non-legislative PBs in Ireland were offered by lenders in line with [European Banking Authority guidelines around such market-wide moratoria](#), announced in April 2020, and covered in-depth in [FSR 2020:1](#), Box 5.

At its peak at end-June 2020, there were 220,546 active COVID-19 payment breaks representing €27.1 billion in loan balances issued by entities regulated by the Central Bank. Irish resident businesses (NFCs) and households accounted for approximately 80 per cent of the total value of approved payment breaks to all households and NFCs. Almost all payment breaks were expired by end-October. For residential mortgages, of the circa 86,000 of Irish mortgage accounts having received a COVID-19 payment break, just under half - over 40,000 - availed of a second payment break (see [Kearns et al. \(2020\)](#) for a detailed discussion of the evolution of payment break take-up during the summer). The successful returning of borrowers to full repayments through additional forbearance and restructuring is one of the key variables determining the resilience of the financial system to the COVID-19 shock.

As payment breaks expire, there will be borrowers who cannot return to full repayments and will require individually assessed supports to address the specific issues they are experiencing. There will also be borrowers who are experiencing either new or additional financial distress, particularly in the event of the need for additional public health restrictions that restrict economic activity into 2021.

There were significant successes in distressed debt resolution in Ireland in the decade preceding this crisis, as the system responded to the fallout from the 2008 crisis. The Central Bank has applied lessons both from successes and failures of the last decade to shape its policy response to the expiry of PBs currently ongoing. Experience from the past crisis has shown that short-term forbearance can assist borrowers to return to full repayment if their income has reduced temporarily but is not effective in addressing longer term or permanent distress. Lenders may also, without effective oversight, be incentivised to rely excessively on short-term forbearance measures that may not be in the borrowers' best interests over the longer term. An important lesson from the previous crisis is for early engagement between borrower and lender to prevent the build-up of arrears.<sup>1</sup>

The Central Bank continues to engage with the BPF and with lenders on its clear expectation that lenders engage effectively and sympathetically with distressed borrowers – in line with the Code of Conduct on Mortgage Arrears (CCMA), the Consumer Protection Code and regulations for firms lending to SMEs – to deliver appropriate and sustainable solutions and facilitate as many borrowers as possible to return to repaying their debt.

In the context of the pandemic, the Central Bank has completed a review of the strategic and operational plans submitted by firms setting out their approach to payment breaks, identifying a number of key priorities around which firms need to continue to invest in order to manage likely increases in distressed debt, outlined in Table A.

The Central Bank expects lenders to act at pace to continue to support businesses and borrowers. This is likely to require immediate interim measures to support borrowers experiencing sudden, additional income shocks. These interim measures should be used in situations where the additional shock to a

borrower's income is expected to be temporary and where the financial position of the borrower is not yet assessed or where more permanent solutions are being determined.

| Table A: Summary of the Central Bank's Expectations for Firms' Implementation of Distressed Debt Plans |  |
|--|--|
| Management Information and Board Oversight   | <ul style="list-style-type: none"> <li>- Effective management information (MI) is driving informed decision making around distressed debt;</li> <li>- Boards are challenging and accountable for the execution of strategy and its progress.</li> </ul>  |
| Operational Capability   | <ul style="list-style-type: none"> <li>- Early constructive engagement is a feature of firms' outreach programme to manage distressed debt;</li> <li>- Operational capacity is maintained throughout any deterioration in the economy.</li> </ul>  |
| Sustainable Return to Repayment  | <ul style="list-style-type: none"> <li>- Restructures are being delivered with a focus on sustainably returning as many borrowers as possible to full capital and interest repayments after expiry of payment break;</li> <li>- Customer engagement and assessment is the basis for decisions around borrowers' repayment capacity.</li> </ul> |
| Risk Recognition and Financial Resources   | <ul style="list-style-type: none"> <li>- There is a robust approach to assessing adequacy of distressed debt provisions;</li> <li>- Short-term extensions do not mask the severity of distress in loan books.</li> </ul>   |
| IT / Automated solutions   | <ul style="list-style-type: none"> <li>- Ongoing support is not overly dependent on automated solutions, and that the handling of borrowers' cases is not delayed while waiting for the implementation of automated solutions.</li> </ul>  |
| Application and Appropriateness of the ARAs  | <ul style="list-style-type: none"> <li>- Firms' plans to apply a more flexible approach to the provision of ARAs, tailored to the specific circumstances of individual borrowers, with less operational friction points.</li> </ul>  |

It is in the best interests of consumers and the wider economy that all stakeholders identify potential system improvements. This includes lenders, who may need to identify innovative repayment options that are robust and responsive to intermittent disruptions to borrower income. The Central Bank is actively engaged in this area, ensuring that all regulated entities comply with all relevant codes and meet the expectations that the Central Bank has set out throughout the pandemic. Despite this, current efforts are unlikely to solve all cases, meaning there is a continued need for improvements and innovation within the system. For institutional and governmental stakeholders, the smooth functioning of all frameworks that can facilitate borrowers to retain homeownership, such as the personal insolvency system and the Mortgage to Rent scheme, must be a priority.

Engaging with borrowers on a case-by-case basis is in the longer-term interest of borrower. Extended or additional individually-tailored payment breaks may be suitable for some borrowers, but as these are payment breaks on commercial terms, the longer the payment breaks go on, the more interest is accruing. Borrowers should be encouraged to make payments where they can, and always avoid accruing arrears where possible. The inherent uncertainty in the current situation, and the possibility of additional intermittent sudden shocks to repayment capacity, highlights the need for lenders to be flexible and provide specific interim supports to those borrowers as their positions are assessed.

<sup>1</sup>For a recent overview of mortgage debt resolution in the last decade in Ireland, see [McCann and O'Malley, 2020 "Resolving mortgage distress after COVID-19: some lessons from the last crisis", Central Bank of Ireland, Financial Stability Note, Vol. 2020, No. 7.](#)

## Box G: Sectoral commonalities in exposure to the pandemic and a disruptive Brexit.

As outlined in the Risks section, the Irish economy is facing exposure to two potential direct sources of risk: the ongoing pandemic, and the potential for economic disruption stemming from an adverse Brexit. A number of analyses in this Resilience section quantify the extent of common exposure of economic sectors to these two risks. This Box presents the method used to classify each sector of economic activity according to exposure to each source of risk.

The potential for non-overlap between these sectors informs assessments of the way economic turbulence may transmit through the economy: if the same sectors that have survived the COVID-19 crisis up to now without substantial disruption are now more exposed to the effects of Brexit, this will enlarge the segment of the economy undergoing financial strain in 2021. On the other hand, were the effects to accrue within the same sectors, one would expect one part of the economy to remain buoyant while the other experienced the twin effects of the two shocks.

Exposures to COVID-19 are defined according to the share of 2019Q4 employment in the TWSS and PUP labour market support schemes at 3/5/2020. Exposures are categorised into: Green (less than 10 per cent), Amber (less than 20 per cent but at least 10 per cent) and Red (greater than 20 per cent) as follows;

- **Green:** Agriculture (A), Information & Communication (J), Public Administration & Defence (O), Education (P) and Health & Social Work (Q),
- **Amber:** Industry (B to E), Financial & Real Estate (K, L) and Professional, Scientific and Technical Services (M),
- **Red:** Construction (F), Wholesale & Retail (G), Transport & Storage (H), Accommodation & Food (I), Administrative & Support (N) and Arts, Entertainment and Other Services (R to U).

It is important to point out that the above categorisation may not necessarily reflect the relative ranking of future risk profile across sectors, as certain sectoral restrictions in place during 2020 Q2 are not in place in Level 5 of the current framework. Further, there are subsectors with differing restriction levels within the same sector, for example the grocery sector relative to non-essential retail outlets. The Red-Amber-Green classification above assesses objectively the relative labour market effects during the most acute phase of the pandemic.

Exposures to Brexit are defined based on the findings of two studies: firstly, sectoral output losses reported in OECD modelling ([Arriola et al., 2018](#))<sup>1</sup>; secondly, a study of the export-related output losses coming from tariff and non-tariff barriers ([Daly and Lawless, 2020](#))<sup>2</sup>. Exposures are categorised into Low, Moderate, and Heightened risk categories;

- **Low-risk:** Construction (F), Accommodation & Food (I), Professional, Scientific and Technical Services (M), Public Administration & Defence (O), Education (P), Health & Social Work (Q) and Arts, Entertainment and Other Services (R to U),
- **Moderate-risk:** Industry (B to E), Wholesale & Retail (G), Transport & Storage (H), Information & Communication (J), Financial & Real Estate (K, L) and Administrative & Support (N),
- **Heightened-risk:** Agriculture (A)

The effects of the pandemic to date have been far more acute than any of the modelled effects of a no-trade-deal Brexit. For this reason, one should not interpret a “Heightened-risk” Brexit exposure to be as significant a risk to a sector as a “Red” classification for COVID-19. Rather, the aim of the joint

classification is to understand whether additional pockets of risk are likely to emerge should a disruptive Brexit arise.

Combining these two classifications, Chart A places each sector into one of nine risk categories. There are important degrees of non-overlap, with sectors that are at low risk from Brexit being red or amber on the COVID-19 risk, such as Construction, Accommodation and Food, and the Arts/Entertainment sector. On the other hand, Agriculture stands out as the sector to have suffered muted effects from the pandemic so far, while being at the highest risk from a no-trade-deal Brexit. The Information and Communication, Industry, Financial Services and Real Estate sectors are also classified as not having experienced the worst (red) effects of the pandemic, but being at risk of at least a moderate shock to output from a no-trade-deal Brexit.

Analysis in the *Risks, Resilience: Retail banks and credit unions, Resilience: Non-financial corporations and Resilience: Households* sections will consider the joint incidence of the two shocks. Chart 11 (*Risks: Brexit*) presents employment across all Irish enterprises in this framework. Chart 43 applies this methodology to the commercial lending exposures of Irish retail banks in their entirety, while Chart 61 applies it to Irish mortgage holders' sector of employment.

Chart A: Classification of NACE sectors according to exposure to economic effects of COVID-19 and Brexit

|                 |            | Covid-19 exposure  |  |   |
|-----------------|------------|--|--|---|
|                 |            | green  | amber  | red   |
| Brexit exposure | low        | Public Administration & Defence (O); Education (P); Health & Social Work (Q) | Professional, Scientific and Technical Services (M), | Construction (F); Accommodation & Food (I); Arts, Entertainment and Other Services (R to U) |
|                 | moderate   | Information & Communication (J)  | Industry (B to E); Financial & Real Estate (K, L)    | Wholesale & Retail (G); Transport & Storage (H); Administrative & Support (N)               |
|                 | heightened | Agriculture (A)  |  |   |

<sup>1</sup> See [Arriola et al., \(2018\), "The potential macroeconomic and sectoral consequences of Brexit on Ireland" OECD Economics Department Working Papers No. 1508.](#)

<sup>2</sup> See [Daly and Lawless \(2020\), "Examination of the sectoral overlap of COVID-19 and Brexit shocks", ESRI Working Paper No. 677.](#)



## Non-financial corporations

*The impact of the COVID-19 shock is challenging the resilience of Irish businesses. Firms experienced an uneven recovery following the decline in cases in early summer. Trading conditions improved for many firms, with turnover down a quarter or less from normal levels for 75 per cent of firms. However, sectors such as Accommodation & Food continue to struggle. Government supports are playing an important role in alleviating the financial distress of firms, with positive implications for broader financial stability. Access to debt finance is being facilitated through tax deferrals and government loan schemes, while loan payment breaks from retail banks have provided firms with temporary liquidity relief. There remains a high degree of uncertainty about the nature and frequency of future waves of COVID-19 cases. It is likely that recurring episodes will lead to increased firm indebtedness and higher rates of failure. An adverse economic outcome from Brexit would further exacerbate the problems facing firms, though some sectors exposed to Brexit have been less affected by COVID-19.*

The impact of the COVID-19 shock is challenging the resilience of Irish businesses. The initial wave of the pandemic in spring saw turnover decline by half or more for 44 per cent of firms.<sup>31</sup> Trading conditions improved for many firms over the summer, though with evidence of an uneven recovery (Chart 50).<sup>32</sup> Turnover in August was down a quarter or less from normal levels for 75 per cent of firms, but sectors like Accommodation & Food continued to struggle. A second wave of cases in autumn has again resulted in a large number of temporary business closures. An adverse outcome to Brexit negotiations would further exacerbate the problems facing firms, though some sectors most exposed to Brexit have been less affected during the pandemic (see Chart 11).

SMEs entered this period following years of falling indebtedness. Debt-to-turnover ratios have fallen substantially since 2013, while SME credit growth at Irish retail banks has been relatively modest. This relatively strong starting position has allowed SMEs to absorb losses and boost liquidity, reducing defaults and the amplification of the shock through creditor balance sheets.

The revenue shortfalls experienced by firms have been extremely large. Research from the Central Bank estimates that the COVID-19 shock will result in full-year shortfalls of between €10.3 billion and €11.7 billion for Irish SMEs.<sup>33</sup> Firms will assess their long-term prospects by comparing their expected profitability with the potentially large level of indebtedness they have built up through the pandemic. The ability of many firms to survive will depend on their ability to restructure their pre-existing and pandemic-related liabilities.<sup>34</sup>

The liquid asset holdings of SMEs were modest entering the pandemic and are likely to have depleted in many cases (Chart 51). At the onset of the pandemic, survey evidence suggests that the share of SMEs with cash holdings insufficient to cover three months' operating expenses was 8

<sup>31</sup> See [Financial Stability Review 2020: I](#).

<sup>32</sup> See also the [Central Bank of Ireland's Credit and Debit card statistics](#) and the [CSO's Retail Sales Index](#).

<sup>33</sup> See [Lambert, McCann, McQuinn, Myers and Yao \(2020\) "SME finances, the pandemic and the design of enterprise support policies"](#) Central Bank of Ireland, [Financial Stability Notes, Vol. 2020, No. 8](#).

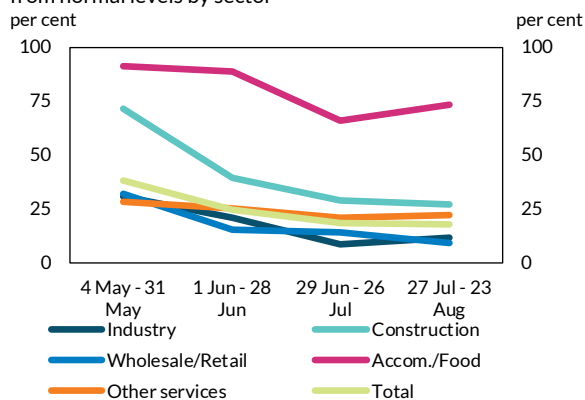
<sup>34</sup> Note that the the Company Law Review Group are considering proposals to trim the costs of Examinership for small businesses and are expected to report in late 2020.



per cent. Central Bank modelling of the revenue and cost experience of SMEs since March suggests that this number has doubled during the pandemic.<sup>35</sup>

**Chart 50: Trading conditions improved over the summer**

Share of firms with turnover down more than 50 per cent from normal levels by sector

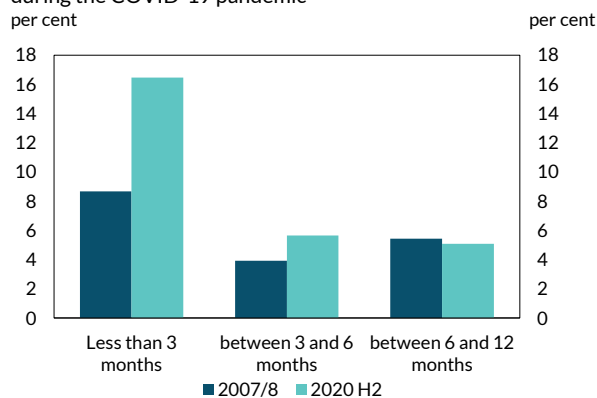


Source: CSO Business Impact of COVID-19 Survey.

Notes: The data relate to responding enterprises only and are unweighted. Non-response may be related to whether businesses are adversely impacted by COVID-19 and could bias the estimates. Weighting procedures would not correct non-response in this case.

**Chart 51: Pandemic-related losses are likely to have depleted many firms' cash buffers**

Simulated changes in liquidity coverage ratio of Irish SMEs during the COVID-19 pandemic



Source: Central Bank of Ireland.

Note: Liquidity coverage ratio is defined as number of months in which a firm's cash reserve covers its operational losses. Further details will be published in *Modelling financial distress in SME sectors during the COVID-19 pandemic - from liquidity to solvency*, Fergal McCann and Fang Yao, Mimeo, 2020.

**Government supports are playing an important role in meeting the liquidity needs of firms.** The State has provided around €3 billion in wage subsidy supports and has committed to retaining this scheme until March 2021 at a further cost of over €2 billion. Non-wage supports are also significant (Chart 52). Firms have received roughly €750 million through various grant schemes and benefited from commercial rates waivers of roughly €900million. Loan-based supports have also been substantial. Tax deferrals amounted to €2.1 billion as of October 13<sup>th</sup>, with roughly 75 per cent of this debt finance drawn by SMEs. Further debt finance is available through a range of government loan schemes and a €2 billion Credit Guarantee Scheme. The utilisation of these loan schemes has been relatively low, but should be considered in the context of other policies including tax deferrals.

**Government supports are alleviating financial distress.** A simulation exercise based on survey data shows that financial distress rates of Irish SMEs have been lowered substantially by government supports (Chart 53). The share of SMEs unable to either service interest on their debt or meet three months of operational losses falls from 19 to 16 per cent when government support measures up to September are considered. The supports play a more important role in reducing financial distress for firms with higher levels of debt, with the debt-weighted distress ratio falling from 26 to 14 per cent. Even after accounting for state supports, the relatively high level of SME financial distress suggests the restructuring of liabilities will be essential to ensure survival for some.

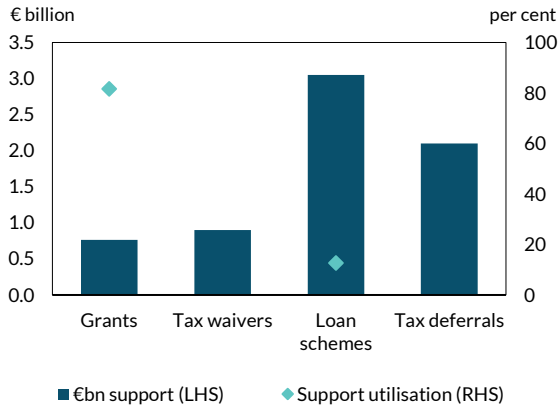
**Loan payment breaks and flexibility from other creditors have also provided important liquidity relief to firms.** Irish retail banks responded to the initial wave of the pandemic by offering firms

<sup>35</sup> See McCann and Yao (2020), "Modelling financial distress in SME sectors during the COVID-19 pandemic - from liquidity to solvency" Central Bank of Ireland, *Mimeo* and [McGeever, McQuinn, and Myers \(2020\), "SME liquidity needs during the COVID-19 shock" Central Bank of Ireland, Financial Stability Note, Vol. 2020, No. 2](#)

temporary loan payment breaks of up to six months. Uptake of these breaks was high among SMEs and especially borrowers in highly affected sectors.<sup>36</sup> Roughly 25 per cent SME balances and 18 per cent of Large Corporate balances at major Irish retail banks were on payment breaks throughout the summer (Chart 54). While not comprehensive, data from investment companies continue to show high rates of commercial rent non-payment by retail and leisure tenants.<sup>37</sup>

**Chart 52: Government supports are sizeable**

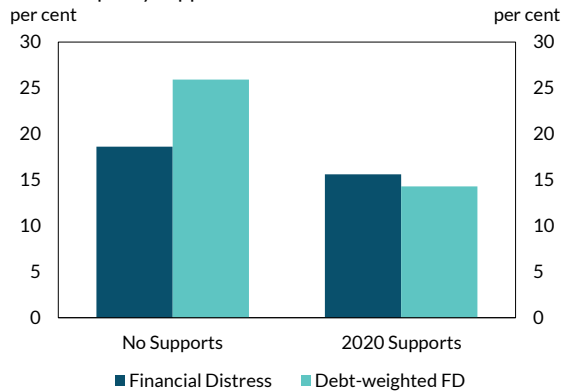
Size and utilisation of non-wage government supports



Source: DBEI, Revenue Commissioners.  
 Notes: The utilisation rate for relevant categories is the proportion of funds that have been allocated or drawn down. Utilisation data correct as of 30 October 2020 for the COVID-19 Credit Guarantee Scheme, 6 November 2020 for all other supports.

**Chart 53: Government supports are alleviating SME financial distress**

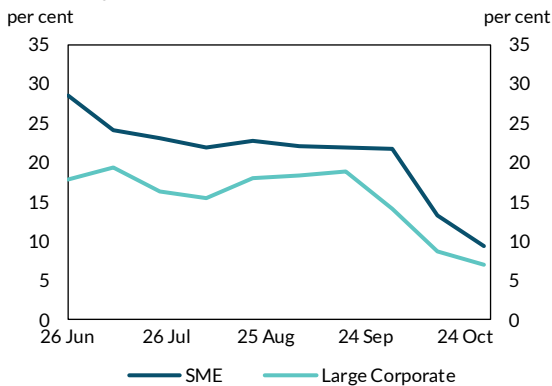
Simulations of Irish SME financial distress (FD) rates under different policy support scenarios in 2020H2



Source: Central Bank of Ireland, McCann and Yao (2020), Lambert et al. (2020).  
 Notes: Financial distress is defined as the inability to service interest on debt or meet three months of operational losses with cash. 2020 supports include the total value of announced government supports of €7.5 billion as of September 2020.

**Chart 54: Loan payment breaks provided important liquidity relief to firms**

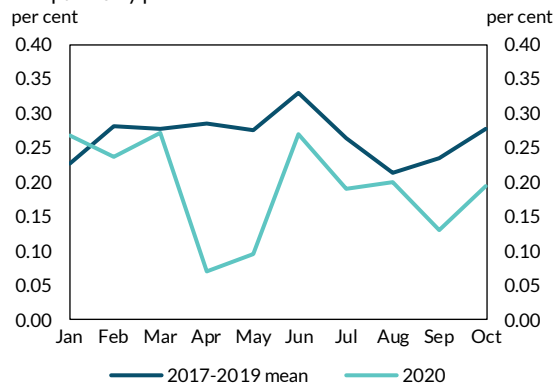
Share of outstanding loan balances with a payment break by borrower size



Source: Central Bank of Ireland.  
 Notes: Based on the outstanding loan balances of Irish-resident borrowers of three Irish retail banks.

**Chart 55: Corporate insolvencies have yet to rise above normal levels**

Annualised insolvent liquidation rate of Irish-registered companies by period



Source: Companies Registration Office; CRIF Vision-Net.  
 Notes: Insolvent liquidations are defined as the sum of creditors' voluntary liquidations and court-ordered liquidations.

<sup>36</sup> See Duignan and McGeever (2020), "Which firms took COVID-19 payment breaks?" Central Bank of Ireland, Financial Stability Note, Vol. 2020, No. 6 and Kearns, Campbell, McDonnell, Duignan and Greaney (2020), "COVID-19 payment breaks - who continues to avail of them?" Central Bank of Ireland, Behind the Data release.

<sup>37</sup> <https://www.hammerson.com/media/press-releases/debt-liquidity-and-rent-collection-update/>  
[https://www.davy.ie/binaries/content/assets/davy/corporate-institutional/real-estate/dipf/2020/davy-real-estate\\_dipf-quarterly-report.pdf](https://www.davy.ie/binaries/content/assets/davy/corporate-institutional/real-estate/dipf/2020/davy-real-estate_dipf-quarterly-report.pdf)

**Corporate insolvencies have yet to rise above normal levels.** Unlike in the 2008-2009 financial crisis, the corporate insolvency rate has not risen as other macroeconomic indicators deteriorated. The insolvency rate actually *fell* during the initial wave of the pandemic in spring 2020 due to the inability of company directors to safely convene creditors' meetings (Chart 55).<sup>38</sup> As of October, there is no evidence of an increase in corporate insolvencies above normal levels seen between 2017 and 2019. Despite significant financial distress among firms, the impact of extensive government supports and creditor flexibility are likely holding down the insolvent liquidation rate. The future path for company liquidations will depend on the capacity and willingness of the government and other creditors to continue provide support to distressed companies.

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<sup>38</sup> See [McGeever, Sarchi and Woods \(2020\), "Irish company births and insolvent liquidations during the COVID-19 shock" Central Bank of Ireland, Economic Letter, Vol. 2020, No. 13.](#)

# Households

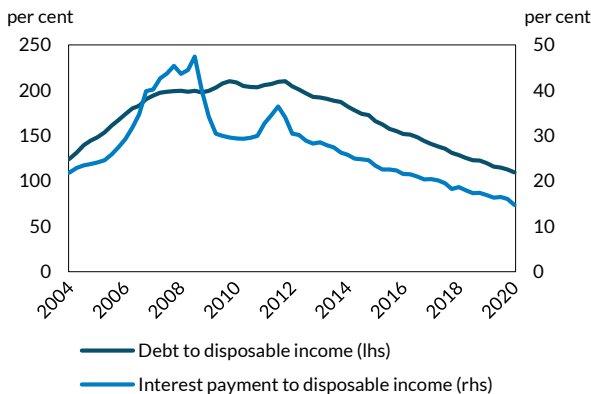
Household balance sheets had become more resilient in the years leading up to the COVID-19 crisis. State support has acted to cushion much of the effect of an unprecedented shock to employment and income, with close to half of all workers relying on the State for some of their income at the peak in June. The aggregate liquidity buffer, as measured by deposits, has increased significantly as a result of supported incomes, precautionary savings and constrained spending opportunities. Payment breaks have provided important liquidity relief to the most-affected mortgagors. The risks posed by negative equity are greatly reduced relative to the last crisis.

Nonetheless, significant risks remain due to uncertainty around future public health restrictions and the potential fiscal need to taper income support over time. A disruptive Brexit would exacerbate pandemic-related risks to household finances given that workers in many of the sectors currently sheltered from the worst effects of the pandemic (e.g. manufacturing, agriculture, finance, IT services) are more likely to have mortgages and are at a relatively heightened exposure to Brexit-related disruption. Previously-identified vulnerable groups such as those with loan modifications since the last crisis or a history of arrears add an additional source of risk, potentially larger in size than the group accessing pandemic-related payment breaks.

The resilience of household balance sheets increased steadily in the decade leading up to the COVID-19 crisis. Both aggregate debt to income ratios and interest payment burdens reduced steadily in the decade preceding COVID-19, improving the sector’s capacity to withstand adverse shocks such as that being experienced in 2020 (Chart 56). In [FSR 2020:1](#), micro data was used to highlight that this deleveraging occurred across most borrower types and included important reductions among households with high Loan to Income (LTI) ratios. These improvements have lowered the risk that household indebtedness would amplify the current COVID-19 shock.

**Chart 56: The household sector entered the crisis with lower debt-to-income levels than in the previous crisis**

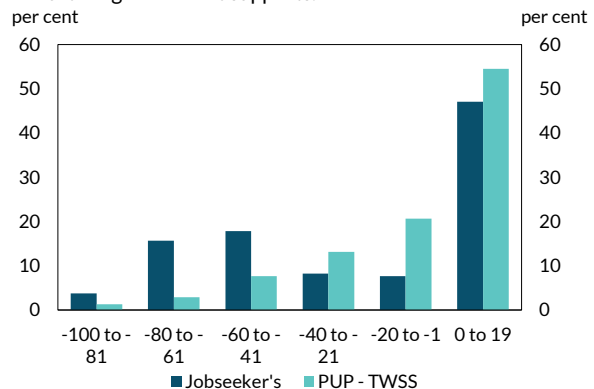
Household sector debt to disposable income and the debt servicing ratio



Source: CSO, Central Bank of Ireland.  
 Notes: Data prior to 2003 contains series breaks, so is not included. Interest rate calculated as a weighted average of interest rates on all household debt types. Last observation 2020Q1.

**Chart 57: Exceptional fiscal supports have cushioned the income effects of the pandemic for many**

Distribution of change in mortgaged households’ net income from March to June 2020, compared with alternative under no further government supports.

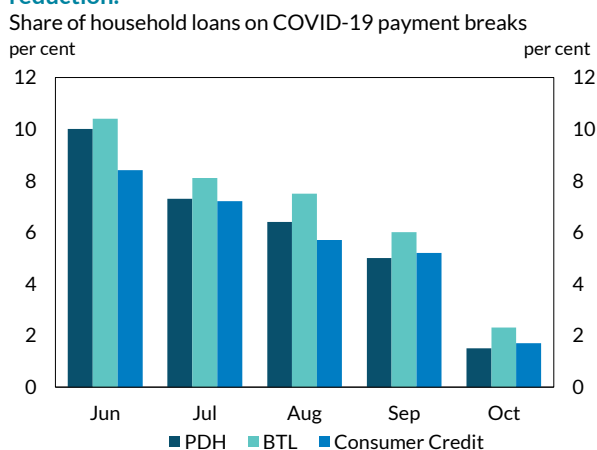


Source: O'Malley (2020), using CSO HFCS 2018, CSO Labour Force Survey, and CSO Detailed COVID-19 Income Support Tables.  
 Note: The two data series are results from a simulation exercise in which the impact of the pandemic on household incomes is modelled based on available data and known details about income replacement policies. "Jobseeker's" policy is a simulation in which PUP-TWSS repayments are replaced with Jobseeker's Benefit.

Households have experienced unprecedented levels of job loss, but direct fiscal support has cushioned the effect on incomes. The Irish economy has undergone a divergence since the onset of the pandemic, with the most severe effects on firms and employees in sectors relying on physical presence of customers. The TWSS and PUP schemes have led to exceptional levels of fiscal support for incomes of affected employees. In unaffected sectors, incomes have been stable and even grown in some cases. This combination of benign financial outcomes for some and heightened support for those affected has meant that the worst potential effects of the crisis on household incomes have been avoided in 2020 (Chart 57). In total, 24 per cent of mortgage-holding households are estimated to have had income falls greater than one fifth in 2020, whereas this number is estimated at 45 per cent if all those on PUP and TWSS had received Jobseeker's Benefit instead.

Mortgage holders are less likely to work in the most-affected sectors, further improving resilience of mortgage books to the pandemic. The sectoral distribution of mortgage holders has supported mortgage market resilience, with high mortgage market shares among sectors less directly affected by the public health restrictions such as the public service, manufacturing, education and health (see Chart 40 of [FSR 2020:1](#)).

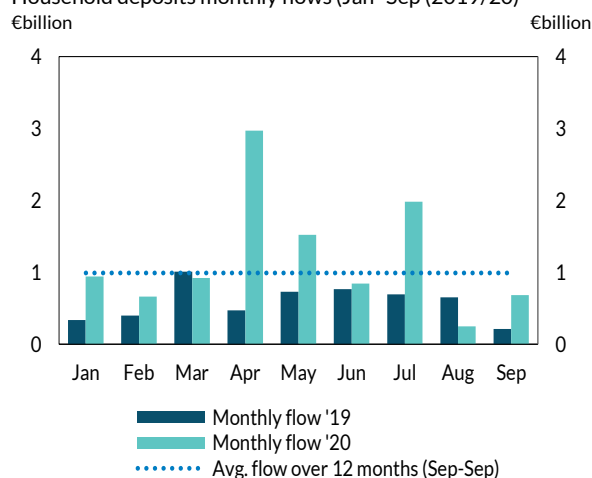
**Chart 58: Over ten per cent of mortgages were on a payment break in June, followed by a gradual reduction.**



Source: Central Bank of Ireland.

Notes: Share of loan balances at five retail banks on COVID-19-related payment breaks. Data reported are from templates collected on the 26th of June (the peak of active payment breaks), 24th of July, 21st of August, 18th of September and the 30th of October.

**Chart 59: Net inflow of Household deposits increased strongly in the first few months of COVID-19 lockdown, but the strong net inflow eased in August**



Source: Central Bank of Ireland.

Notes: September net household deposit flows between September 2019 and September 2020.

Payment breaks have provided critical temporary liquidity relief, and have been used by an ever-falling share of the market since June. At end-June, payment breaks (PBs) representing €11.5 billion of loans had been approved for Irish household borrowers (PDH, BTL and consumer loans), but take-up has been falling since (Chart 58). The share of owner-occupier mortgages with a PB fell from 10 per cent in late June to 1.5 per cent in late October, with the most recent rate being slightly higher for BTL and consumer loans. The steady decline in PB ratios from June to September confirms that some households have experienced an improvement in their financial circumstances as the economy normalised and the initial uncertainty facing many borrowers was alleviated. The fall from September to October is explained in large part by the expiry of a cohort of six-month PBs. Crucial to overall household resilience will be the way lenders assess and

restructure the debts of these borrowers with expired PBs, many of whom will require additional tailored support as the crisis continues to weigh on repayment capacity (see Box F for further detail on the Central Bank's approach to the expiry of PBs).

As a result of both policy-supported income and constrained spending opportunities, household deposits have increased significantly during the COVID-19 lockdown period, adding more liquidity buffers to households' balance sheets. Relative to the previous year, the net inflow of deposits increased by €3 billion in April and €2 billion in July (Chart 59). The aggregate trend is observed across all retail banks and credit unions. Additional savings give households additional buffers to support consumption during a time of income uncertainty, while also creating a source of potential future consumption for those unaffected.

**Chart 60: Loans with payment breaks represent a smaller vulnerability than the group with legacy issues from the last crisis**

Vulnerable household mortgages, percentage of all loans

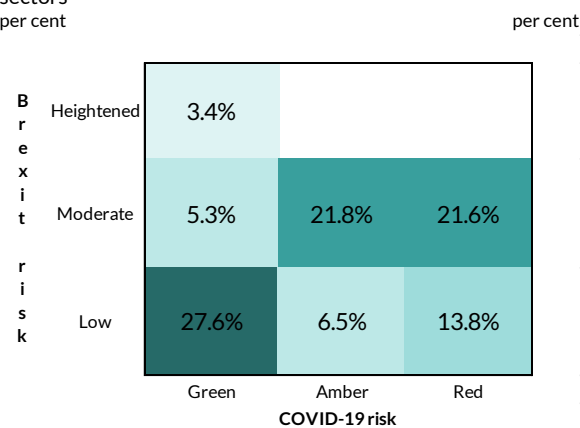
|                                    | No payment break | Payment break at end-June |
|------------------------------------|------------------|---------------------------|
| Never forborne or in arrears       | 67.9%            | 6.6%                      |
| Currently forborne                 | 6.8%             | 2.1%                      |
| Currently in arrears, not forborne | 2.3%             | 0.4%                      |
| Formerly forborne or in arrears    | 11.2%            | 2.7%                      |

Source: Central Bank of Ireland Loan-Level Data, five retail banks.

Notes: Shares of Irish mortgage balances at Irish retail banks as at 30 June 2020. "Payment break" includes all mortgages approved for payment breaks on or before 30 June. Here "Forborne" refers to any restructuring, modification or forbearance measure recorded against the loan, regardless of duration.

**Chart 61: A disruptive Brexit would add risk for 9 per cent of mortgage market at lowest risk from the pandemic.**

Proportion of mortgaged households working in affected sectors per cent



Source: Central Bank of Ireland analysis based on CSO Census 2016.

Notes: Box G describes the classification methodology used. Top two panels are blank because there are no sectors classified as being at "heightened" Brexit risk while also being at Amber or Red risk from the pandemic.

### Vulnerabilities remaining from the last crisis increase the potential exposure to the shock.

Measured at June 30 2020, before a significant share of payment breaks began to expire, two sources of vulnerability can be disentangled: those relating to COVID-19 payment breaks, and those relating to legacy issues from the previous crisis (borrowers already in arrears, those already with forbearance, and those with a history of either).<sup>39</sup> In total, 32.1 per cent of the Irish mortgage market is vulnerable by one of these metrics (Chart 60). Highlighting the importance of issues that pre-date the pandemic, the group of loans in some form of forbearance or restructuring but not using a payment break (6.8 per cent) is larger than the group using an initial payment break with no

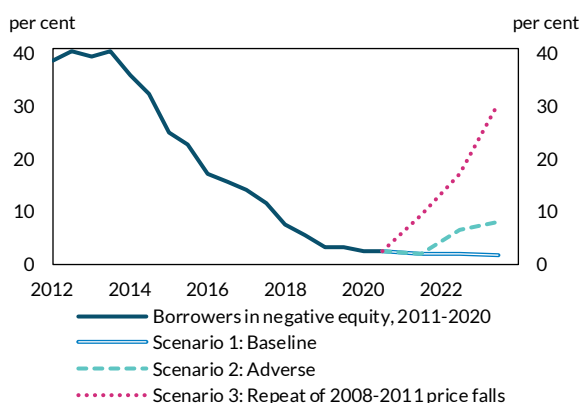
<sup>39</sup> [Gaffney and Greaney \(2020\), "COVID-19 payment breaks on residential mortgages", Central Bank of Ireland, Financial Stability Notes, Vol. 2020, No. 5](#) provides a detailed analysis of loans with payment breaks using these data, showing that loans with current or historic forbearance were much more likely than others to have availed of the initial payment breaks offered from March. There are many other potential sources of vulnerability in the mortgage market not measured in this graph, such as loans with high LTV or LTI ratios, and those with weak underwriting criteria.

additional source of vulnerability (6.6 per cent). Further, 2.3 per cent of mortgage balances were in arrears in June without availing of a payment break, and another 11.2 per cent had some history of either forbearance or arrears. Previous Central Bank research has shown that these groups with current or historical forbearance or arrears are many times more likely to default than other performing loans ([McCann and Gaffney \(2018\)](#), [McCann \(2017\)](#))<sup>40</sup>.

**A no-trade-deal Brexit would pose new challenges, particularly in sectors less affected by the pandemic.** Economic sectors vary in their exposure both to COVID-19 and to Brexit. Classifying sectors according to the method outlined in Box G, 28 per cent of mortgages are to employees in sectors at low risk from a disruptive Brexit and at the lowest risk from the COVID-19 crisis (Public Administration and Defence, Education, Health and Social Work (Chart 61). Brexit will create the greatest new challenges for mortgage holders in the Agriculture sector, which has been at low risk from the pandemic yet at heightened Brexit risk (comprising an estimated 3.4 cent of mortgages). Further, a “moderate” effect from a disruptive Brexit may present particularly challenging trading conditions for those already at “red” risk from the pandemic (Wholesale and Retail, Transport and Storage and Administrative and Support Services, representing 22 cent of mortgages).

**Chart 62: The risks of negative equity are greatly reduced relative to the past**

Percentage of mortgage borrowers at retail banks in negative equity under different scenarios

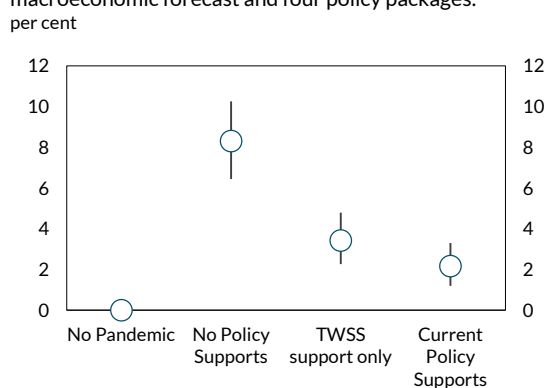


Source: Central Bank of Ireland.

Notes: Scenario projections are as at 30 June in each year from 2021 to 2023. In each scenario, loans amortise on schedule; however, this plays a relatively small role compared to property price fluctuations. New loans originate each year at 2018 LTVs and volumes.

**Chart 63: Government income support policies are likely to have a dampening effect on future mortgage repayment difficulties**

Percentage point change in owner-occupied mortgage distress rates from March 2020 to September 2021 under a baseline macroeconomic forecast and four policy packages.



Source: Central Bank of Ireland.

Note: The chart shows modelled change from a baseline mortgage default rate of 4per cent 18 months after the onset of the pandemic. The data series are results from a simulation exercise in which the impact of the pandemic on household incomes is modelled based on available data and known features of the policy supports, in addition to Central Bank forecasts as of June 2020 and modelling assumptions informed by academic research. Each data point is accompanied by a 95 per cent simulation interval which represents a likely range of outcomes based on the modelling assumptions. “No pandemic” shows outcomes when labour income is completely unaffected. “No policy supports” shows outcomes when persons whose labour income is affected by the pandemic receive jobseeker’s benefit. “TWSS support only” shows a policy scenario in which current TWSS recipients are unchanged, but PUP recipients receive jobseeker’s benefit instead. “Current policy supports” shows scenario in which PUP and TWSS programmes are unchanged and homeowners can avail of a six month payment break.

<sup>40</sup> See [Gaffney and McCann \(2018\)](#) "The cyclicity in SICR: mortgage modelling under IFRS 9" Central Bank of Ireland, Research Technical Paper, Vol. 2018, No. 16 and [McCann \(2017\)](#), "Resolving a non-performing loan crisis: The ongoing case of the Irish mortgage market" Central Bank of Ireland, Research Technical Paper 10/RT/17.



The risk of negative equity appears muted relative to the past. Under Central Bank baseline projections (see Box B), the proportion of households falling into negative equity will continue to decline (Chart 62). In the adverse scenario, however, where house prices could fall by more than 15 per cent, negative equity would rise but only to 2018 levels, implying there is significant resilience in the mortgage market to this risk. In the unlikely event of a fall in house prices of a magnitude seen between 2008 and 2011, negative equity could rise to 2014 levels, but the greater resilience in the system through lower LTV ratios implies that negative equity levels seen in 2011-2013 are unlikely to re-emerge. Given the importance of “double-trigger” models of mortgage default, where both illiquidity and negative equity are necessary conditions for borrowers to default, the prospect of greater housing equity is likely to bolster mortgage market resilience to the COVID-19 crisis.<sup>41</sup> Furthermore, even when defaults do occur, the banking system will experience lower losses where there is less negative equity through the Loss Given Default channel.

Government policies have provided income replacement never seen before in Ireland, and this exceptional support will reduce mortgage repayment difficulties. The Central Bank models household financial distress as the point at which neither incomes nor cash holdings can support mortgage payments, while maintaining non-housing consumption.<sup>42</sup> Without policy supports, assuming all those on the TWSS or PUP were to receive Jobseeker’s Benefit, the distress rate on mortgages could have risen to 10 per cent by mid-2021, based on income, debt and cash holding information reported in the 2018 Household Finance and Consumption Survey (HFCS) (Chart 63). The current level of TWSS and PUP supports may lower financial distress over this horizon by up to two thirds. The effect of the TWSS alone, compared to a counterfactual where all TWSS participants lose their jobs and earn only Jobseeker’s Benefit, would more than half the modelled distress rate. The longer-term resilience of the mortgage book is much more uncertain, depending on public health policies, the UK-EU trade relationship and the capacity of the State to continue to provide such exceptional levels of income support.

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<sup>41</sup> See for example [Campbell and Cocco \(2015\), "A model of mortgage default", \*The Journal of Finance\*, Vol. LXX, No. 4](#) or [Foote and Willen \(2018\), "Mortgage-default research and the recent foreclosure crisis", \*Annual Review of Financial Economics\*, Vol. 10](#) for a discussion of the mechanisms at play when mortgage borrowers default.

<sup>42</sup> Terry O’Malley (2020), “Simulating Household Financial Distress”, Mimeo, Central Bank of Ireland.

## Sovereign

*The public health crisis has led to a very significant deterioration in the Government finances. The pandemic has necessitated large increases in government spending, which are projected to lead to deficits of 10-11 per cent of GNI\* in 2020 and 2021. Policy actions to support the health system and the economy have been facilitated by higher-than-expected tax receipts, driven by increasing corporate tax returns and above-expectations income tax performance. Borrowing capacity and debt sustainability continue to be supported by the ECB's accommodative monetary stance. In the event of a change in market perceptions, the elongated maturity profile of Irish sovereign debt lowers refinancing risks over the coming years. All projections for expenditure and taxation are subject to exceptional levels of uncertainty relating to the required path for public health policy.*

The public health crisis has led to a very significant deterioration in the Government finances. In October the Department of Finance projected that the budget balance would record deficits of €21.6 billion and €20.5 billion (-10.7 and -9.8 per cent of GNI\*) in 2020 and 2021, respectively (Chart 64). Government expenditure was forecast to increase by 21.3 per cent this year, driven by just under €17 billion of direct COVID-19 related spending.<sup>43</sup> Government revenue was forecast to decline by 5.5 per cent, as restrictions imposed during the year have negatively affected some tax heads – in particular indirect taxes – and social contributions. The expected improvement next year reflects a recovery in these revenue components. While the deficit projection for 2020 was better than had been expected in mid-year<sup>44</sup>, it nevertheless represents an extremely sharp deterioration in the budget balance from the pre-pandemic position. Furthermore, these projections were made before additional restrictions were introduced in mid-October. Under a scenario in which restrictive public health policies are continued, the Department of Finance estimated that the deficit would reach €22 billion this year and increase further to €25 billion next year.

Tax revenues have proved to be more resilient to the downturn than had been expected at the start of the pandemic. This explains the better-than-expected deficit position this year, despite increased expenditure. This resilience is particularly evident in direct taxes. Reflecting the progressive nature of the Irish tax system, coupled with the nature of the labour market shock, cumulative income tax receipts were almost 20 per cent ahead of the Government's revised profile for the first 10 months of the year. Higher-wage sectors have been less affected by public health measures (employment levels grew in ICT and Finance in Q2), while lower paid sectors which are responsible for a much lower proportion of income taxes have been hit hardest (Chart 65).<sup>45</sup> Corporation taxes, meanwhile, have continued their trend of recent years by performing well ahead of expectations.<sup>46</sup>

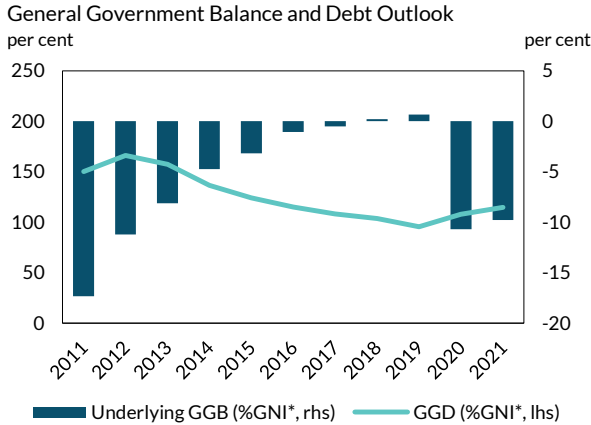
<sup>43</sup> These include income support schemes, increased resources for the health sector and a range of business supports. The Government has also introduced a number of direct revenue measures, although these have a much smaller impact on the public finances. The figure does not include the potential impact of guarantees and loans made by Government. While these indirect measures do not currently affect the general government balance, they could do so in the future if, for example, guarantees were called.

<sup>44</sup> In documentation accompanying the July Stimulus the Government projected a budget deficit of €30 bn this year.

<sup>45</sup> See [Hickey, Horan and Keenan \(2020\)](#), Box F, Central Bank of Ireland Quarterly Bulletin No. 4 2020.

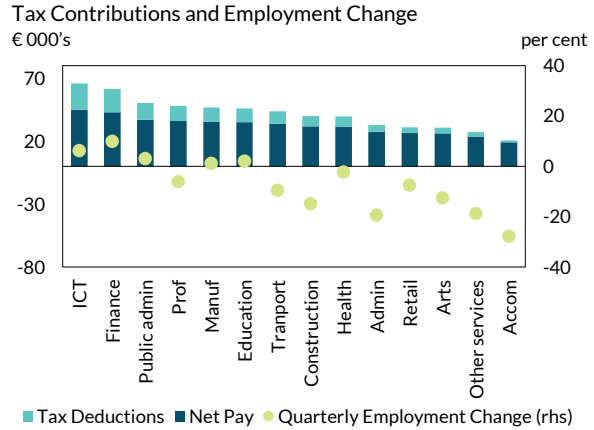
<sup>46</sup> Corporation tax receipts were €1.4 billion or 23 per cent ahead of the Government's profile in the year to October. This profile was revised in April to take account of the pandemic.

**Chart 64: The deficit will rise to 10 per cent of GNI\* this year and next**



Source: CSO, Department of Finance and Central Bank of Ireland calculations.  
Notes: The General Government Balance (GGB) and General Government Debt (GGD) are measured as a percentage of GNI\*. As the level of GDP in Ireland has become increasingly distorted in recent years, the preferred denominator of GNI\* better reflects Ireland's ability to sustain a certain debt/deficit level.

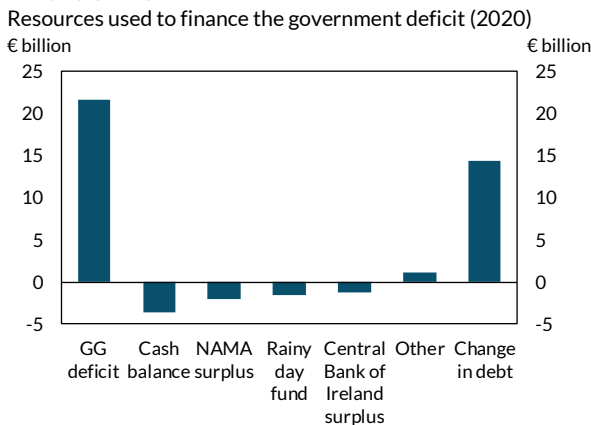
**Chart 65: IT and financial services are providing significant tax contributions**



Source: CSO.  
Notes: Seasonally adjusted Earnings and Labour Costs (EHECS) data are used to estimate the annual average earnings for workers across sectors. Tax deductions are calculated based on average earnings across the various sectors.

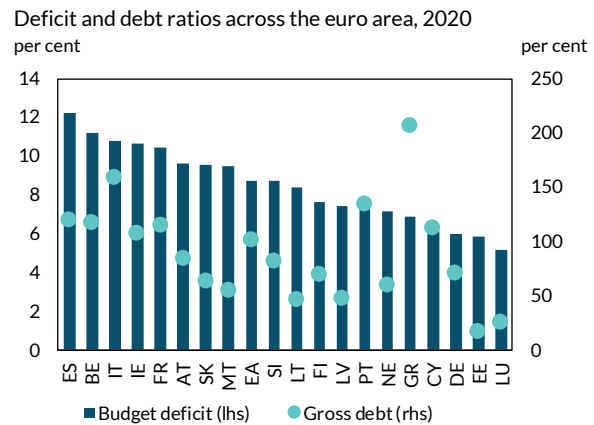
**Cushioning the effect on overall debt balances, existing resources will be used to partially fund the deficit.** The Department of Finance project that public debt will increase to just under €220 billion this year (or from 95.6 to 107.8 per cent of GNI\*). The nominal increase represents around 60 per cent of the change in the budget deficit (€22 billion, left-hand side) reflecting the sizeable resources available to the government. The large deficit is financed by new borrowing (€14.8 billion, right-hand side) and the drawdown of cash reserves held by the National Treasury Management Agency; Budget 2021 estimated that these reserves would be run down by €3.6 billion (1 per cent of GNI\*) this year. Other sources include the Rainy Day Fund, National Asset Management Agency surplus payments and Central Bank of Ireland surplus payments available to the Government (Chart 66). General government debt is expected to increase further in 2021 to €239 billion (or 114.7 per cent of GNI\*), with this budget deficit having to be fully financed by new borrowing.

**Chart 66: Cash balances and other resources will mitigate some of the effects of the deficit on overall debt balances**



Source: Department of Finance and Central Bank of Ireland calculations.  
Notes: The expected nominal increase in debt this year (€14.8 billion) will be less than the projected budget deficit (€22 billion). The difference reflects the sizeable resources available to the government to finance the deficit.

**Chart 67: Deficits have been large across Europe**



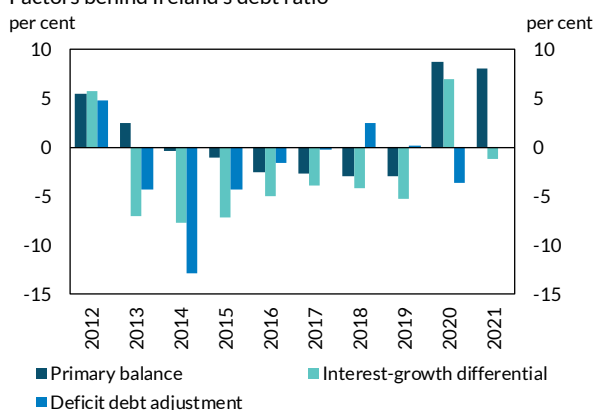
Source: European Commission AMECO Database.  
Notes: Across all Euro Area countries, the deficit and debt ratios are measured as a percentage of GDP, except in Ireland, where GNI\* is used. Data relates to 2020.

**Budget deficits and increases in sovereign debt have occurred across the euro area.** The European Commission anticipates that the region will run a budget deficit of 8.8 per cent of GDP this year, up from just 0.6 per cent in 2019. Euro area public debt, meanwhile, is projected to increase from 85.9 to 101.7 per cent of GDP, with further small increases in subsequent years (Chart 67). While in the majority of the region's high debt countries the debt ratio is forecast to surpass its post Financial Crisis peak this year, this is not expected to be the case in Ireland. This reflects the very strong reduction in the debt ratio that occurred in Ireland since end-2012, when the debt ratio has fallen by 50 percentage points, compared to an improvement of just 7 per cent for the region as a whole.

**The factors contributing to Ireland's particularly rapid debt ratio reduction in recent years may not be present.** The recovery in Ireland's debt ratio leading into the COVID-19 crisis was underpinned by favourable debt dynamics. Since the end of 2012, the interest-growth differential – the difference between interest costs and the rate of economic growth – contributed 40 percentage points to the reduction in the debt ratio, while the deficit-debt adjustment helped reduce the debt ratio by a further 20 percentage points (Chart 68).<sup>47</sup> These positive factors were very specific to Ireland.<sup>48</sup> The absence of such favourable dynamics in upcoming years implies a more gradual improvement is likely. Consistent with broader European and global developments, a longer period with more elevated debt levels would leave the economy more vulnerable to future shocks.

**Chart 68: Ireland has had favourable growth dynamics in recent years that are unlikely to continue**

Factors behind Ireland's debt ratio

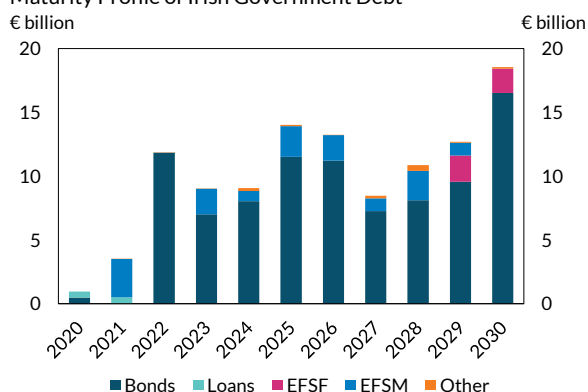


Source: CSO and Central Bank of Ireland calculations.

Notes: The debt ratio used is Debt to GNI\*, which removes the impact of very strong GDP growth in 2015. The deficit debt adjustment (DDA) refers to one-off factors that impact the debt level without affecting the budget balance. The interest-growth differential is the difference between interest costs and the rate of economic growth.

**Chart 69: Refinancing towards longer-dated bonds has mitigated risks to the sovereign**

Maturity Profile of Irish Government Debt



Source: NTMA.

Notes: EFSM loans are subject to a 7-year extension and it is not expected Ireland will have to refinance any of these loans until 2027.

**The cost of Irish sovereign borrowing remains extremely low.** Monetary policy decisions taken by the ECB since the emergence of the pandemic – particularly the €750 billion Pandemic Emergency Purchase Programme (PEPP) – have kept rates at very low levels in the region. As a result the NTMA has been able to meet its target issuance for the year at favourable rates despite the deterioration in economic conditions. Preceding the pandemic, the NTMA had taken advantage of favourable market conditions in recent years to build up cash balances, reduce interest costs and improve the maturity profile of Irish government debt. Ireland's relatively long maturity profile,

<sup>47</sup> The stock flow adjustment is a residual term which takes into account changes in the stock of outstanding debt that arise for reasons unrelated to the deficit in a period.

<sup>48</sup> See [Conefrey, Hickey and Walsh \(2019\) "Debt and Uncertainty: Managing Risks to the Public Finances", Central Bank of Ireland, Economic Letter Vol 2019, No. 11.](#)

with particularly low redemptions in 2021, lowers the risks associated with any repricing of risk in sovereign debt markets in the coming years (Chart 69).

## Non-bank financial sector

### Investment funds

*Relative to the size of the economy, Ireland has one of the largest non-bank financial sectors in the world. These non-bank financial entities are generally internationally focused, but important domestic linkages exist. Notably, funds that invest in Irish commercial real estate own over 40 per cent of that market, and are more levered than similar funds in other European countries. In addition, there are interlinkages with the retail banking system. Irish retail banks provide about a quarter of the leverage. The COVID-19 pandemic introduced additional risk and uncertainty around property asset valuations, which has led to a limited number of suspensions of funds. Liquidity transformation is more limited as funds are either close ended (i.e. investors cannot liquidate their investment until the end of a period, say five years) or have limited liquidity (i.e. limited opportunities to liquidate their investments, for example annually). However, sustained pressure on these funds can potentially amplify shocks in the domestic CRE market, or aid in the transmission of this shock to the banking or other sectors.*

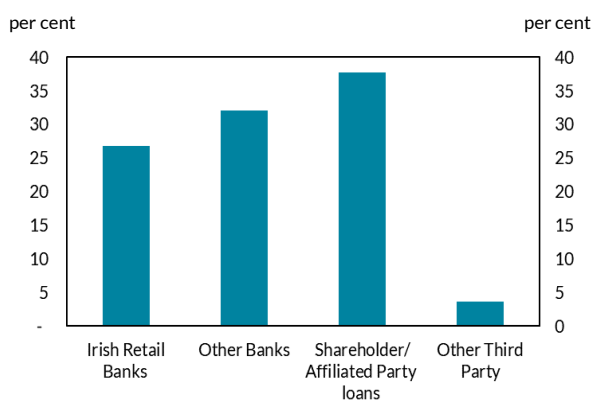
Most Irish-resident investment funds are internationally focused, although they are becoming more important as investors in the Irish economy. Investment funds form the largest part of the non-bank financial intermediation sector in Ireland, and are large in comparison with both the banking sector and the economy. Following the onset of the COVID-19 period, there are a number of areas of policy focus emerging domestically and internationally (see Box H below). The vast majority of the sector's assets and liabilities are not directly connected to the domestic economy, but Irish domiciled funds have become significant investors in commercial real estate.

Investment by funds is particularly important in the financing of the domestic commercial real estate (CRE). Irish investment funds now account for over 40 per cent of the CRE market (a total of €23 billion in Irish property and land, partially funded from abroad). This represents a potentially beneficial diversification of CRE funding, but also poses potential vulnerabilities. Highly levered funds may sell assets if they breach loan covenants or face an increased cost of borrowing. This could occur because of falls in capital values or loss of rental payments. This is particularly relevant given the current risk of a global tightening in financing conditions and the impact COVID-19 is having on some CRE sectors i.e. retail or offices. Funds with liquidity mismatches may also have to sell assets if they receive large redemption requests from investors (this may be less of an issue for single investor funds). Such asset sales could put downward pressure on asset prices, amplifying any CRE market downturn.

Irish resident funds that invest in domestic CRE use financing from various sources, including Irish retail banks. The loans provided to these funds, which make up their leverage, come from a variety of sources (Chart 70). About a third come from shareholder and affiliated party loans and another third from other (non-Irish or Irish non-retail) banks and third parties. Finally, about a quarter of the loans comes from Irish retail banks, highlighting interconnectedness between the two. Potentially, a shock to the CRE market could be transmitted through Irish CRE funds to the banking sector, thus amplifying existing pressures on the banking sector.

**Chart 70: Most of leverage employed by real estate funds take the form of loans from bank and other financial institutions**

Structure of debt owed by Irish-resident real estate funds

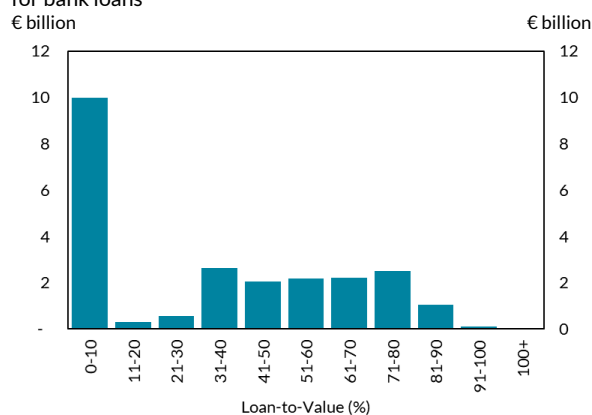


Source: Central Bank of Ireland Deep Dive Survey of IREFs.

Notes: Irish real estate funds are those investment funds resident in Ireland which hold Irish real estate. Data as of 2019Q4.

**Chart 71: Leverage of real estate funds displays significant heterogeneity**

Distribution of Property Assets by IREFs Loan-to-Value Ratio for bank loans



Source: Central Bank of Ireland Deep Dive Survey of IREFs and Investment Fund Prospectuses.

Notes: Loan-to-Value (LTV) is calculated as Bank Loans/Property Assets. Data as of 2019Q4.

**Some Irish-resident real estate funds have high levels of leverage.** On average, Irish funds investing in CRE are more levered than real estate funds in over 90 per cent of European countries.<sup>49</sup> There is a question of whether debt in the form of loans from equity holders constitutes meaningful economic leverage. Even if these loans are removed from the measure of leverage at the end of 2018, average leverage measured as Loan-to-Value reduces from 54 per cent to 40 per cent, still higher than the leverage of real estate funds in the vast majority of European countries.<sup>50</sup> These aggregate leverage metrics also mask significant heterogeneity amongst individual funds (Chart 71). While approximately €10 billion in property assets is held by funds with little to no leverage, 16 per cent of IREFs, in terms of property assets held (or €3.6 billion), have an LTV on bank loans of greater than 70 per cent.

**The starting leverage position of some of the funds makes them more vulnerable to CRE price falls.**

This is particularly relevant to the bank loans of these funds. To investigate this, we use the CRE price downfall scenarios (see Box B) and start with the baseline scenario CRE price fall between the end of 2019 and the end of 2022 (i.e. 15.8 per cent cumulative fall in CRE prices). We estimate that such shock would increase the weighted average Loan-to-Value (LTV) across IREFs' bank loans from 46 per cent to 55 per cent, and would result in 24 IREFs, with over €3 billion in property assets, breaching LTV covenants. For the adverse scenario, we estimate that the relevant shock (23.7 per cent fall in CRE prices) would increase the weighted average Loan-to-Value (LTV) across IREFs' bank loans to 60 per cent, and result in 43 IREFs, with over €6.5 billion in property assets, breaching their LTV covenants. The Central Bank has been engaging with funds to ensure they are prepared to potential shocks in the CRE market.

**Liquidity mismatches in Irish-resident funds that invest in commercial real estate are limited, though still apparent in some cases.** Liquidity is particularly important for funds holding CRE, as it is difficult to sell a building in a short period at prevailing market prices. For example, analysis of CRE transaction times suggests that an average time to sell is around 7 months in non-stressed

<sup>49</sup> The data on European real estate funds is limited, thus the nature of the business model reasons for stated differences cannot be ascertained in detail.

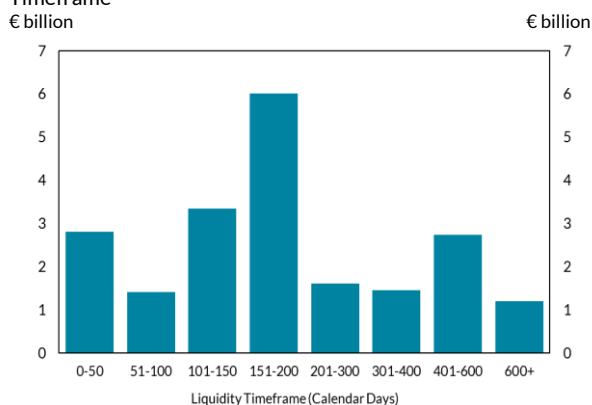
<sup>50</sup> See [Financial Stability Review 2019:II](#).



periods (Chart 72). The majority of Irish real estate funds (IREFs) give investors at most one opportunity per year to redeem their investments, though there are some funds with more frequent redemption periods. In addition, many funds require a notice period (during which investors can notify the fund of their wish to redeem) and outline a typical settlement period for redeeming fund shares. This is known as the liquidity timeframe and allows funds to sell property over a longer period, to meet any redemptions. Analysis by Bank staff suggests that this timeframe is less than 7 months for around 96 funds, with holdings of €13.6 billion of property, pointing to some degree of liquidity mismatch. Liquidity mismatches are likely to be less of a concern for single investor funds, which may be less likely to make large redemptions and may choose to close the fund instead. Funds also keep liquid holdings, such as cash or deposits, which allow them to fulfil typical redemption flows without the need to sell real estate assets. These liquidity buffers are on average around 5 per cent of assets. Liquidity management tools are also available to these funds. For example, they can limit large redemption requests with gates and redemption fees or they can suspend redemptions for a period. These characteristics reduce the risk that Irish real estate funds may have to sell properties quickly at discounts to meet redemptions.

**Chart 72: Irish real estate funds have diversified liquidity profile**

Distribution of Property Assets Across IREFs by Liquidity Timeframe

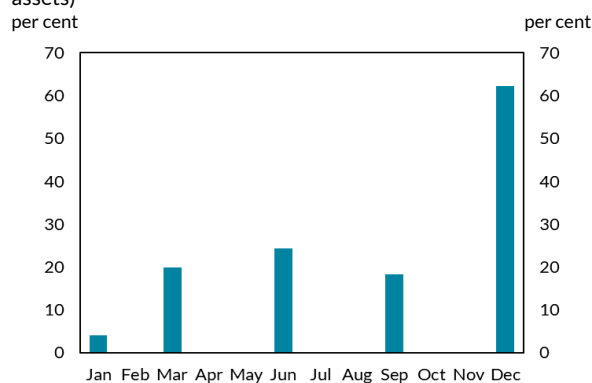


Source: Central Bank of Ireland Deep Dive Survey of IREFs and Investment Fund Prospectuses.

Notes: Information on liquidity timeframes not available for funds with €3 billion in property assets. Liquidity timeframe = standard notice period + settlement period. Standard notice period is the number of days prior to the dealing day during which redemptions may be requested. Data as of 2019Q4.

**Chart 73: Sixty per cent of assets held in funds that invest in CRE will be redeemable in December**

Irish real estate fund dealing dates (per cent of property assets)



Source: Central Bank of Ireland Deep Dive Survey of IREFs and Investment Fund Prospectuses.

Notes: Data as of 2019Q4.

### Three Irish real estate funds suspended redemptions, given the increase in valuation uncertainty.

Due to the liquidity profile of the majority of IREFs, only a limited number have had dealing days in the period from March to date (Chart 73). Only six of the funds have received redemption requests from March, most of which were effected as normal. In March, two Irish IREFs suspended redemptions. This was because the valuers of their property holdings had activated 'material uncertainty' clauses in the context of the COVID-19 shock. This prompted those funds to suspend as it was deemed the net asset value of the fund could not be calculated with sufficient certainty. One monthly dealing fund suspended in July as ongoing redemption requests were likely to lead to liquidity issues. While these actions were taken from an investor protection perspective, they also have broader, system-wide benefits, as they reduce the risk that funds may be forced to sell properties over a short period to meet any redemptions. As the majority of IREFs have a dealing date in December (Chart 73), the Central Bank has been engaging with funds around their preparedness for any potential future redemptions.

## Box H: Investment funds and the COVID-19 shock – emerging areas of policy focus<sup>1</sup>

At the onset of the COVID-19 pandemic, global financial markets experienced acute stress. Interventions by public authorities – unprecedented in speed, scope and size – were necessary to restore market functioning and reduce the risk of broader financial distress. These events were triggered by the pandemic, an exogenous and exceptional shock to the economy and financial system. But underlying vulnerabilities within the financial system, especially in parts of the non-bank sector, also contributed to the observed disruption in global financial markets. This box outlines the main areas of vulnerability in the fund sector (exposed during the COVID-19 shock) that will need to be considered from a policy perspective. Many of these issues had been on the agenda of global regulatory authorities before the shock, but have come to the fore following the severe market stresses in March.

The nature of the financial system has changed in recent years, with market-based finance growing rapidly – both in Ireland and internationally. Investment funds have been a key driver of that growth over the past decade. Ireland has become one of the main global hubs of investment fund activity, with significant links to the international economy and the financial system. Market-based finance provides a valuable alternative to bank financing, supporting economic activity. But, like all forms of financial intermediation, market-based finance can also contribute to the build-up of financial vulnerabilities. The Central Bank and other financial stability authorities internationally have previously focused on the potential for liquidity mismatches and leverage in investment funds to contribute to the amplification of shocks. Some of these vulnerabilities came to the fore during the COVID-19 shock.

A first key area of policy focus given the experience of the COVID-19 shock is on **money market funds (MMFs)**. As the COVID-19 crisis began to unfold, some Irish MMFs – similar to other MMFs globally – saw a substantial increase in redemptions and a deterioration in the liquidity of their assets. Redemptions were concentrated in MMFs with investments in less liquid, private sector debt instruments, such as commercial paper or certificates of deposit. By contrast, MMFs with investments in government debt securities saw large inflows over the same period (Chart B). These dynamics led to liquidity management challenges by MMFs and contributed to a disruption in the functioning of short-term money markets. Although all MMFs managed to meet redemption requests, had MMFs been forced to suspend redemptions, liquidity stresses could have spilled over to other parts of the financial system. For example, the majority of Irish-resident MMF shares are held by other financial institutions, which relied on MMF shares for their own liquidity management purposes during the COVID-19 shock (e.g. to meet margin calls etc.). The interconnectedness of MMFs with other parts of the financial system – including banks and other non-banks – means their resilience in periods of stress can be systemically important. The March episode also highlighted that, while MMFs are used by investors as a source of daily liquidity, the money market instruments in which MMFs invest may not be as liquid in all circumstances as investors expect.

A second key area of policy focus given the experience of the COVID-19 shock is on **liquidity management by open-ended investment funds**. At the height of the market turmoil in March, open-ended investment funds with short redemption periods and investments in less liquid assets, saw particularly large redemptions. As a share of assets under management, redemptions were highest amongst corporate bond funds (especially less liquid, high-yield corporate bonds) and emerging market (EME) government bond funds and lowest for funds with exposures to more liquid instruments, such as developed market government bonds and equities. Redemptions from funds were not necessarily correlated with asset returns. For instance, equity price falls were much larger than falls in corporate bond or EME government bond prices and equity funds saw much smaller redemptions compared to

corporate bond or EME government bond funds. These patterns point to particular challenges in liquidity management for funds with investments in less liquid assets. Open-ended investment funds have a range of liquidity management tools (LMTs) at their disposal to manage liquidity risk. At a European level, there is an extensive legislative and regulatory framework governing investment funds, which includes specific obligations on fund management companies to manage the liquidity risk of their funds appropriately. However, the availability of such tools is not harmonised at a European level and there is scope for improving transparency for investors on the availability and use of LMTs. In addition, the extent to which LMTs are used by fund management companies in response to a given shock can vary significantly.

A third key area of policy focus is the **macroprudential framework for the investment fund sector**. The lack of a complete and operational macroprudential framework for investment funds in Europe and internationally remains a key gap which is gaining more attention following the recent market events. Although the vast majority of funds managed to meet investor redemptions during the COVID-19 shock, the sale of less liquid assets to meet those redemptions requests contributed to the pro-cyclical market dynamics observed over that period.

The Central Bank is also actively engaging with this work at an international level. In Europe, the Central Bank contributed to the development of the European Systemic Risk Board's Recommendation around investment fund preparedness to further shocks following the initial COVID-19 market turbulence and the follow-up work by the European Securities and Markets Authority. The Central Bank has also actively engaged in international deliberations around the lessons learned from the COVID-19 market turmoil as a member of the International Organisation of Securities Commissions (IOSCO) and, through them, the Financial Stability Board (FSB). The FSB has recently formed a group on non-bank financial intermediation, composed of market regulators, macroprudential authorities, and international organizations. This group has carried out a holistic review of the market turmoil that occurred in March.

Chart A: Net investment flows across fund types

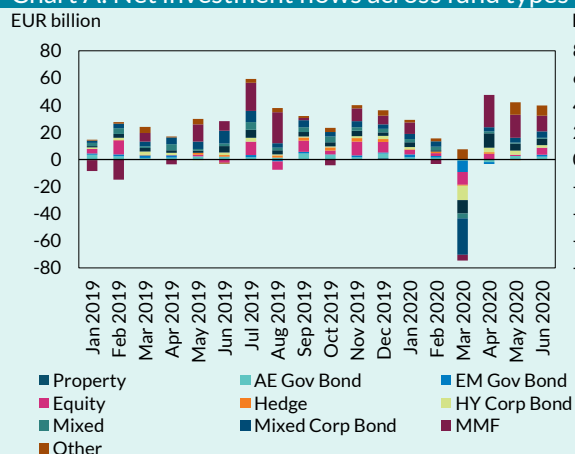
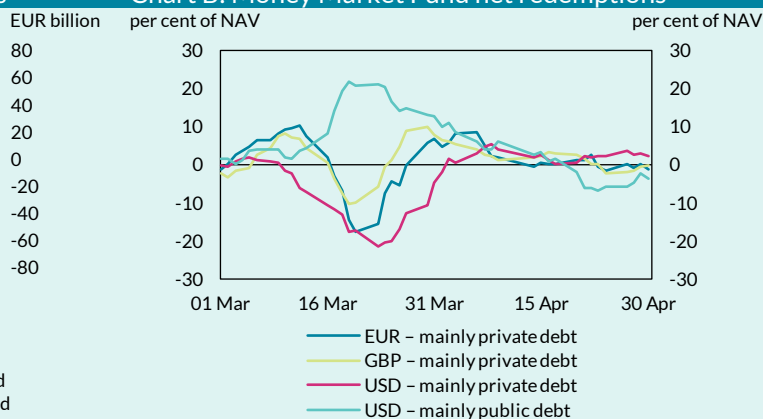


Chart B: Money Market Fund net redemptions



<sup>1</sup> This box is prepared with thanks to Elaine Byrne, Peter Dunne, Tarek Elbay, Brian Golden, Colm Kincaid, Vasileios Madouros, Kitty Moloney, Cian Murphy, Samantha Myers and James O'Sullivan.

## Insurance firms

*The fallout from the COVID-19 pandemic on the insurance sector is evolving and the full effect will emerge over the longer term. Firms' solvency positions have been affected to varying degrees by financial market movements and falls in risk free interest rates, together with claims paid (or reserved for) on some products being higher than previously expected. Nevertheless, domestically-focused insurance firms' solvency positions remain above regulatory requirements as at 2020 Q2, implying additional capacity to absorb losses. The protracted low interest rate environment along with the economic fallout from the pandemic will have implications for insurance firms' future profitability. The ultimate impact of COVID-19 on the level of insurance claims remains uncertain and it is expected that non-life insurers will be most affected by virus-related claims. However, the possible impact of "long COVID" and any delayed diagnosis and treatment of non-COVID-19 conditions on future mortality and morbidity rates needs to be closely monitored by life and health insurers.*

The impact of the COVID-19 pandemic varies across insurance firms, given the heterogeneous nature of business models throughout the sector. The solvency capital ratios (SCR) of the domestically-focused life and non-life insurers fluctuated over the course of the first six months of 2020.<sup>51</sup> The median SCR ratio for both sectors declined marginally between end-2019 and 2020Q2, although available capital (known as "own funds") continued to exceed their SCR under Solvency II (Chart 74). Capital quality is high for both domestic life and non-life firms with Tier 1 unrestricted capital accounting for 97 per cent and 96 per cent of total own funds, respectively.<sup>52</sup>

While financial markets rebounded somewhat during 2020Q2, there is heightened uncertainty surrounding the outlook. The potential for future credit downgrades also represents a risk for insurers. The impact on insurance firms' investment portfolios has varied according to their asset mix and quality. Domestic non-life insurers' aggregate investment portfolio predominantly comprises fixed-income securities, with the allocation shifting from sovereign bonds in recent years to corporate bonds and collective investment funds as firms have sought to increase investment returns in the low interest rate environment (Chart 75). Credit rating downgrades and defaults are anticipated by financial markets, particularly in respect of corporations most affected by COVID-19, the materialisation of which could increase capital requirements for insurers under Solvency II. In particular, BBB rated bonds account for 27 per cent of non-life insurers' investments (Chart 76) with firms' financial asset holdings heavily concentrated in the financial sector. In the main, domestic non-life insurers have limited exposure to riskier asset types such as equities, collateralised loan obligations (CLOs) and property.

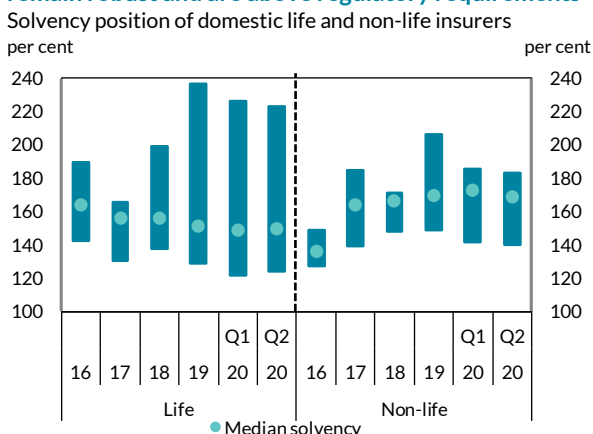
The prospect of the low interest rate environment continuing into the future has been reinforced by central banks' response to the COVID-19 pandemic, increasing the likelihood of a "low-for-very long" environment. This, along with the economic fallout from the pandemic, will have implications for insurance firms' future profitability. Domestically-focused non-life insurers' profitability was affected by a decline in investment income of almost 10 per cent in the first half of 2020 compared to the same period in 2019 (Chart 77). A prolonged low yield environment could result in a

<sup>51</sup> The insurance sector in Ireland is heterogeneous in nature, comprising life, non-life and reinsurance firms operating across a range of product and geographical markets. The analysis in this section focuses on the large domestically-focused life and non-life insurance firms.

<sup>52</sup> Insurers' 'Own funds' are divided into 3 'tiers' based on both 'permanence' and 'loss absorbency'. Tier 1, being the highest quality, is also divided into 'restricted' and 'unrestricted' tier 1 which includes issued share capital and reserves.

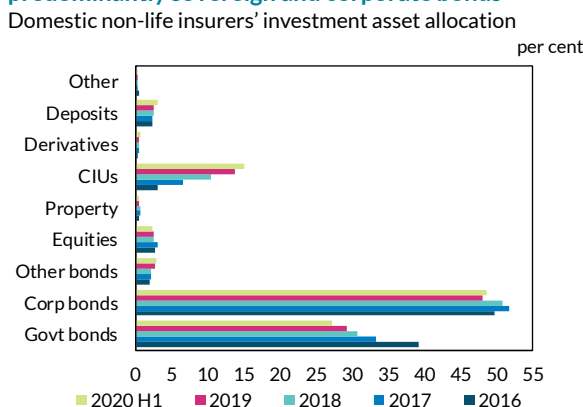
continued fall in investment income as proceeds from maturing assets are reinvested in lower-yielding assets. However, the short-term nature of non-life insurers' policies helps to potentially lessen the impact as they may be able to reprice some contracts to offset pressure on income, depending on competitive conditions. The profitability of domestic life insurance firms, which are primarily focused on unit-linked savings and pension products, would be negatively affected by any further falls in financial asset values through a reduction in firms' fee income, as these fees are typically based on the value of the assets under management. There is also the potential for lapse rates to increase if some policyholders are unable to afford their ongoing premium payments or dip into their savings, especially as Government COVID-19 financial supports are reduced, thereby creating further profitability challenges for some firms. The volume of new business premium income may be adversely affected by the pandemic-related economic shock, as well as market volatility and any adverse effects on economic conditions arising from Brexit.

**Chart 74: Domestic insurers' solvency positions remain robust and are above regulatory requirements**



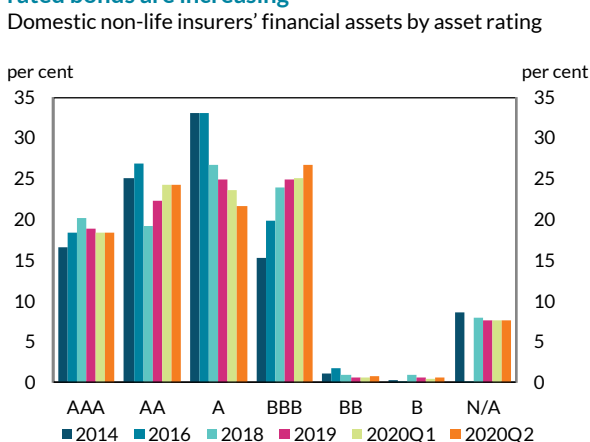
Source: Central Bank of Ireland.  
Notes: The solvency position is measured as eligible own funds as a percentage of SCR. The box at each point shows the maximum and minimum range. Sample is time varying comprising the largest domestic life and non-life insurance firms. Last observation 2020Q2.

**Chart 75: Domestic non-life insurers' investments are predominantly sovereign and corporate bonds**



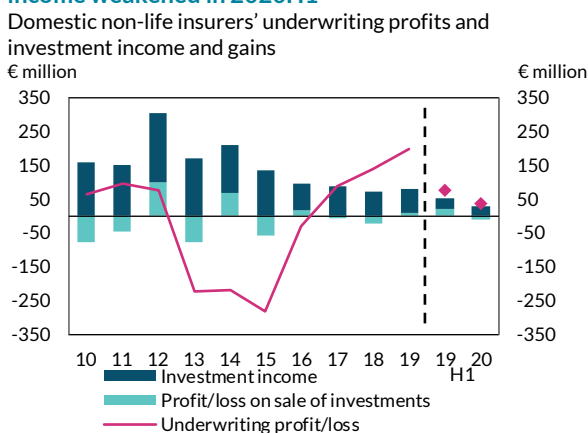
Source: Central Bank of Ireland.  
Note: CIUs refer to collective investment funds/units. Last observation 2020Q2.

**Chart 76: Domestic non-life insurers' holdings of BBB rated bonds are increasing**



Source: Central Bank of Ireland.  
Notes: Categories are as a per cent of total financial assets. N/A is no rating available. Last observation 2020Q2.

**Chart 77: Domestic non-life insurers' investment income weakened in 2020H1**



Source: Central Bank of Ireland.  
Note: Data are an aggregation of domestically-focused firms. Profit/loss on sale of investments includes realised and unrealised gains and losses. Data relate to firms' domestic and global business. Last observation: 2020H1.

The ultimate impact of COVID-19 on the level of insurance claims remains uncertain and the outcome of current and possible future litigation with respect to disputed claims heightens the level of risk for some firms. It is expected that non-life insurers will be most affected by virus-related claims, although the possible impact of “long COVID” and of any delayed diagnosis and treatment of non-COVID-19 conditions on future mortality and morbidity rates needs to be closely monitored by life and health insurers.<sup>53</sup> The contractual ambiguity associated with some insurance products, for example some business interruption policy wordings, could result in an increase in litigation risk for insurers. While the ultimate cost of claims due to the impact of the virus will only emerge over time, larger than expected costs of such claims may be offset by a fall in claims on other product lines, for example motor insurance, as a result of COVID-19 public health related restrictions and reduced levels of economic activity.

In general, insurance firms are exposed to low levels of liquidity risk. Nevertheless, a confluence of events, amidst an uncertain operating environment, could give rise to heightened liquidity risk in individual firms. 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 claims, reduced premium income, a deterioration in the market liquidity of some asset types or increased collateral margin calls due to heightened market volatility. Taken together, these could create liquidity stresses for individual firms. Firms offering unit-linked insurance products invested in less liquid asset types could face liquidity shortfalls in the event of significantly increased redemption requests. As highlighted in FSR 2020:I, a number of life insurance firms had closed their property-related unit-linked funds to withdrawals and/or changed the unit pricing basis.<sup>54</sup> This was due to a sharp increase in redemption requests as well as challenges in reliably determining the value of some of the underlying properties in times of market uncertainty. These firms are continuing to maintain the deferral of withdrawals as market conditions remain largely unchanged. The actions were taken to protect the interests of all policyholders: both those looking to exit, and those remaining in, the fund.

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<sup>53</sup> “Long COVID” refers to the long lasting health issues that COVID-19 patients can suffer, irrespective of the severity of the initial infection.

<sup>54</sup> 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 uses its macroprudential policies to promote financial stability in Ireland and consider the balance between the risks facing the economy and financial system and their resilience. The COVID -19 pandemic and associated public health response represents an exceptional economic shock. Realisation of the full impact of the pandemic takes time and depends on the nature of the recovery. At this time then, the Central Bank's macroprudential policies are looking to support the banking sector in absorbing the current shock so it can continue to serve the real economy.

Macroprudential policy is not acting in isolation. The broader policy actions of fiscal, monetary and micro-prudential authorities continue to support financial stability. These actions, as outlined in FSR 2020:I, through their own objectives continue to work to mitigate the economic and financial impact of COVID-19 related public health restrictions which will have a positive benefit for financial stability and, ultimately, the ability of the financial system to support households and businesses.

This section outlines the outcome of the Central Bank's latest reviews of its macroprudential policy instruments: the mortgage measures, the countercyclical capital buffer, and buffers for systemically important institutions (Table 1).

Table 1 | Summary of macroprudential policies for the banking sector

|                               | Mortgage Measures  | O-SII   | CCyB  |
|-------------------------------|--|---|---|
| <b>Objective</b>              | (i) Increase resilience of banks and borrowers to negative economic and financial shocks<br>(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. |
| <b>Rate</b>                   | LTV: 70% - 90% depending on borrower type<br>LTI: 3.5 times<br>A proportion of new lending above the limits is allowed<br><i>See Table 2 for more detail</i> | 0.5% - 1.5% depending on the institution  | 0%  |
| <b>Type of risk addressed</b> | Cyclical and structural  | Structural  | Cyclical  |
| <b>Exposures in scope</b>     | Proportion of newly originated mortgage exposures  | All exposures   | Irish exposures   |
| <b>Effective from</b>         | February 2015  | July 2019 on a phased basis   | April 2020  |
| <b>Next review</b>            | Q4 2021  | Q4 2021   | Q1 2021 <sup>1</sup>  |

Notes: <sup>1</sup>While 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.



## Macroprudential mortgage measures

### Mortgage measures

*The Central Bank has completed the annual review of the mortgage measures, with no change to the LTV and LTI limits or the allowances. The review focused on understanding the impact of the COVID-19 shock on the housing and mortgage markets.*

*On balance, in light of the available information, the Central Bank judges that the merits of maintaining the current calibration are more consistent with the objectives and design of the measures than those of a loosening of the measures. As the measures only provide a floor to underwriting standards, any changes to the rules would be unlikely to be effective in guarding against credit tightening decisions by lenders reflecting changes in their own risk appetite. More broadly, given the underlying demand/supply imbalance in the housing market, additional debt could lead to greater pressure on house prices, with associated adverse implications for bank and borrower resilience.*

*As part of the annual review, the Central Bank once again assessed the functioning of the proportionate allowances. While at this time there is not considered to be a better alternative to the current system, the Central Bank is open to further industry engagement on the issue.*

*Overall, the Central Bank has judged that the measures – as currently designed and calibrated – continue to meet their objectives of strengthening bank and borrower resilience and reducing the likelihood and impact of a credit-house price spiral emerging.*

This section contains the main findings of the 2020 review of the Central Bank's macroprudential mortgage measures. The review centered on understanding the impact of the COVID-19 shock on the housing and mortgage market, as relevant for the objectives and operation of the measures. The Central Bank annually reviews the calibration of the mortgage measures, to ensure that they continue to meet the objectives of:

- increasing the resilience of banks and borrowers to negative economic and financial shocks, and;
- dampening the pro-cyclicality of credit and house prices so a damaging credit-house price spiral does not emerge.

The Central Bank views the measures as a permanent feature of the market but the calibration can be adjusted depending on prevailing dynamics to promote the long-term sustainability of Irish mortgage lending and safeguard wider financial stability.

### Calibration of the measures

The Central Bank has decided that the LTV and LTI limits, and the related allowances, will remain unchanged in 2021. The 2020 review finds that the measures continue to meet the objectives of strengthening bank and borrower resilience and reducing the likelihood and impact of a credit-house price spiral emerging.

The mortgage measures have been effective in strengthening bank and borrower resilience. The benefits of that resilience are most evident in times of stress like this. As discussed in more detail

in *Risks* the housing and mortgage markets – like other parts of the economy – saw significant disruption over the course of 2020 due to the COVID-19 shock. Indeed, in the immediate aftermath of the shock, there was a sharp fall in the demand for credit for mortgages. Mortgage credit supply also tightened at the onset of the shock, but there is little evidence to suggest that observed trends in the housing market were driven by the observed tightening in credit supply. There is also little evidence to suggest that the mortgage measures themselves were a material driver of observed changes in credit supply conditions over the course of 2020 across the banking system.

The recovery in the housing and mortgage market has been faster than originally expected, especially in the first-time buyer segment of the market, pointing to strength in underlying demand for housing. Looking forward, a number of factors will affect dynamics in the mortgage market. These include the pass through of macroeconomic conditions into household incomes and banks' lending, the distributional effects of the shock as well as the accumulated savings of households and potential Government housing policy initiatives. Given the possibility for continued strong demand and risks to housing supply tilted to the downside, additional debt could create pro-cyclical dynamics between credit and house prices.

Overall, the main findings of the review regarding the calibration of the measures were:

- On balance, in light of the available information, the merits of maintaining the current calibration are most consistent with the objectives and design of the measures.
  - The mortgage measures have been effective in strengthening bank and borrower resilience. The benefits of that resilience are most evident in times of stress like this.
  - There is little evidence to suggest that the mortgage measures themselves are a fundamental driver of observed changes in credit supply conditions over the course of 2020 across the banking system.
  - Credit developments have not been excessively driving house prices. Mortgage credit contracted at the onset of the shock, but this was mainly driven by a very sharp fall in demand for credit. There is little evidence to suggest that observed price trends in the housing market were driven by a contraction in the supply of credit.
  - As the measures only provide a floor to underwriting standards, a loosening of the measures may not be effective in guarding against credit tightening decisions by lenders which predominantly reflect changes in their own risk appetite.
  - Following an initial decline at the outset of the pandemic, demand for mortgage credit and housing has displayed resilience to the macro-financial environment of recent months. Its persistence is uncertain and depends on the distribution of the employment shock, with one cohort of households having a continuing need for income supports, while another is underpinning the substantial increase in aggregate savings.
  - Conditions exist which could widen the demand/supply imbalance in the housing market through 2021. In such conditions, a loosening of the measures would not be

consistent with the objectives of enhancing resilience and damping pro-cyclicality between credit and house prices.

- A tightening of the measures would not be consistent with their objectives given the potential to excessively constrain the supply of credit.

- *Bank and borrower resilience*

The LTI and LTV limits complement each other in promoting bank and borrower resilience by addressing different elements of financial stability risks that can arise from the housing and mortgage markets. The LTI limit provides a buffer against the effects of income and employment shocks as well as the possibility of interest rate shocks on mortgage affordability, reducing the probability of borrowers facing challenges in servicing their mortgage. The LTV limit provides protection for borrowers against house price falls, which could result in negative equity and the related challenges that can arise as a result. Similarly, bank resilience benefits from the lower probability of default and loss given default than may otherwise be the case without the LTV and LTI limits.

The mortgage measures have been gradually promoting resilience in banks' mortgage books since their introduction. The benefits of that resilience are most evident in times of stress like this. The mortgage measures operate through the flow of new lending and as such have an incremental effect on the overall stock of outstanding mortgages. As of end-June 2020, 34 per cent of outstanding mortgage lending at Irish retail banks had been issued since the introduction of the Central Bank's mortgage measures, 31 per cent in scope of the measures and 3 per cent not in scope (Chart 78). FSR 2019:II discussed how the mortgage measures have assisted in maintaining lending standards in recent years, preventing an expansion of riskier high LTI/LTV lending. More recent analysis points to a close relationship between payment breaks on residential mortgages and higher LTI ratios at origination.<sup>55</sup> Residential mortgages originated in 2016-2019 were approximately twice as likely to have a payment break at an LTI of 4 relative to an LTI of 2 (Chart 79). More broadly, the analysis also suggests that mortgages issued in the 2010s were much less likely to be on a payment break than those issued in the credit boom of the 2000s.

While there was a noticeable impact on the volume of mortgage drawdowns in Q2 2020, the composition of that lending remained relatively stable. The overall distribution of lending in H1 2020 was broadly in line with that of H1 2019, as was the overall share of lending which received an allowance.<sup>56</sup> Borrower and loan characteristics too remained similar.<sup>57</sup> Lending in H1 2020 will, however, have been largely based on mortgage applications approved prior to the COVID-19 pandemic. Therefore, changes in the composition of new mortgage lending may become somewhat more evident in H2 2020, when the impact of the actions taken by lenders in response to the effects of the pandemic might be expected to feed through to drawdowns. A decline over the course of H2 2020 in the share of new lending receiving an allowance can be expected for instance. In the year to end-October, new mortgage lending, in-scope of the mortgage measures, amounted to €5.8 billion, an 18 per cent decline on 2019. The corresponding figure for new

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<sup>55</sup> [Gaffney and Greaney \(2020\), "COVID-19 payment breaks on residential mortgages", Central Bank of Ireland, Financial Stability Notes, Vol. 2020, No. 5](#)

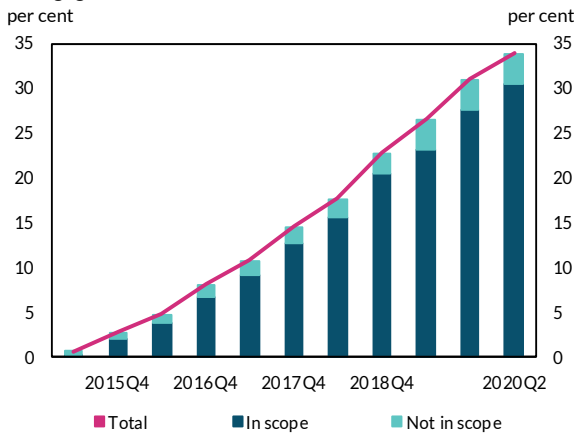
<sup>56</sup> See [new mortgage lending data and commentary](#) for a more detailed overview of new mortgage lending in H1 2020.

<sup>57</sup> See for example the [Household Credit Market Report 2020](#).

lending with an allowance was €920 million which represented a 30 per cent decline on 2019 levels. This corresponds to allowance lending accounting for approximately 16 per cent of new mortgage lending (in-scope of the mortgage measures) as of end-October 2020 compared with 19 per cent at the same point in 2019 (Chart 80). Data from recent years would indicate that certain cohorts of borrower such as those who are younger or located in Dublin have been more reliant on allowances.

**Chart 78: The mortgage measures have been incrementally increasing resilience, as lending since their introduction accounts for a greater share of outstanding mortgages**

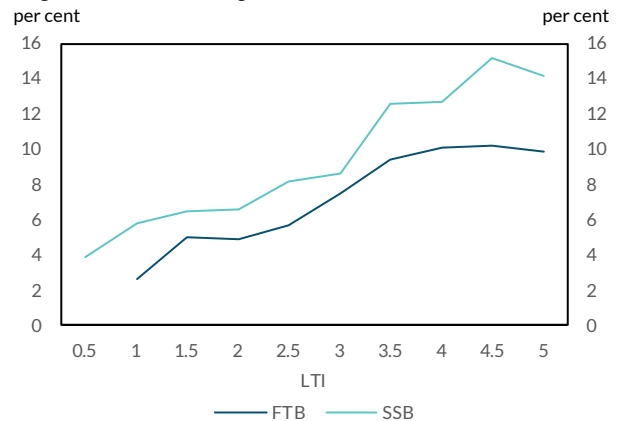
Share of Irish retail bank mortgage lending issued under the mortgage measures framework



Source: Central Bank of Ireland.  
Notes: Mortgages issued under the mortgage measures framework are those mortgage loans approved and drawn down since 9 February 2015.

**Chart 79: Mortgages with higher LTIs at origination more likely to have a COVID-19 payment break**

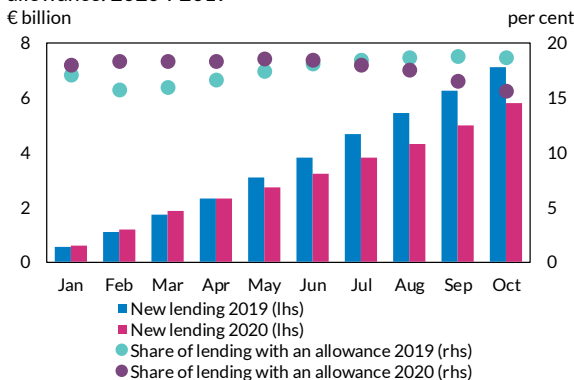
Payment break propensity by loan-to-income ratio at origination, 2016-19 originations



Source: [Gaffney & Greaney, 2020](#).  
Notes: Each data point represents loans with LTI at origination in a bracket of width 0.5, ending at and including the value depicted in the chart. LTI above 5 is not depicted due to small loan volumes at those levels in 2016-19.

**Chart 80: The share of lending with an allowance has been declining in recent months and is now below levels seen in 2019**

Year-to-date new mortgage lending and share with an allowance: 2020 v 2019



Source: Central Bank of Ireland calculations.  
Notes: Data are the aggregate in-scope lending based on a sample of 7 reporting institutions. Data represent the volume of new mortgage lending on a cumulative year-to-date basis and the share of which received an allowance from the Central Bank's mortgage rules. Data for 2020 are provisional.

**Chart 81: Allowances generally have an LTV of less than 90 per cent and 4.5 LTI**

Allocation of allowances for SSB, H1 2020



Source: Central Bank of Ireland.  
Notes: Sample used is all new property purchase/self-build loans with and without an allowance. For loans with an LTV<=100 per cent and LTI<=5.

While the mortgage measures have become more binding since their introduction, the upper portion of the LTI and LTV distributions, which are not constrained by the measures, do not point to an increase in mortgages being issued at higher LTV and LTI ratios. Of those loans receiving a LTV allowance, generally these are not in excess of 90 per cent (Chart 81). Loans with a LTI

allowance generally had LTIs below 4.5 times gross income. Looking in more depth at the FTB LTI distribution over time shows the 90<sup>th</sup> percentile to have been fairly stable at about 3.8 (Chart 82). These trends at the upper end of the distribution reflect banks' own credit policies and lending standards. The mortgage measures themselves do not constrain the composition of lending above the limits.

As discussed in *Risks*, the fundamental demand/supply imbalance in the housing market has been reflected in high residential rents in recent years, particularly in areas of high housing demand. For some potential FTB borrowers in those areas, this may limit the ability to raise a deposit to access a mortgage within the benchmark 90 per cent LTV. The proportionate allowances within the mortgage measures allow some flexibility for lenders to issue mortgages to these prospective borrowers at LTVs greater than 90 per cent. The take up on this flexibility for FTBs is practically non-existent however (See Chart 32 for example).<sup>58</sup> The affordability challenges in the current housing market – in terms of the level of house prices as well as the level of rents relative to income – reflect an underlying imbalance between the demand for and supply of housing, as well as the composition of that supply. In the context of housing supply constraints, higher levels of borrowing to purchase housing would most likely result – everything else constant – in higher levels of house prices relative to incomes, which in turn would require an even greater level of deposit relative to income. Addressing wider housing affordability issues would require addressing the fundamental demand/supply imbalance for housing. The mortgage measures contribute by ensuring unsustainable lending practices do not exacerbate such general affordability issues.

While retail interest rates have decreased since the introduction of the mortgage measures this has been counterbalanced by increases in loan amounts.<sup>59</sup> Research last year showed that while median and average LTIs were increasing, mortgage servicing burdens had remained stable.<sup>60</sup>

- *Procyclicality of mortgage lending and the potential for a credit – house price spiral to emerge*

The COVID-19 shock has had an acute impact on the volume of new mortgage lending but there is little evidence to suggest that observed trends in the housing market are being driven excessively by credit supply developments. As discussed in *Risks*, the housing and mortgage markets – like other parts of the economy – saw significant disruption over the course of 2020. The main factor underpinning that disruption were the necessary public health measures to contain the spread of the virus. Indeed, in the immediate aftermath of the COVID-19 shock, there was a sharp fall in the demand for credit for mortgages. More recently, a combination of resilient demand and supply constraints in the house market have contributed to more benign developments in house prices to date than might have been expected.

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<sup>58</sup> The Help to Buy Scheme currently offers the possibility that FTBs can access mortgage funding for purchasing newly built properties without the need to raise a 10 per cent deposit from their own funds.

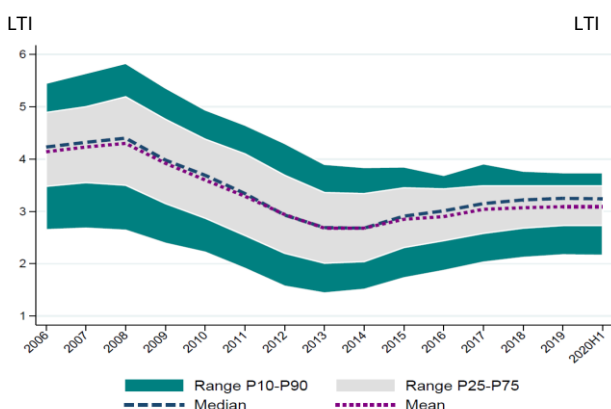
<sup>59</sup> When considering the implications of the prevailing retail interest rate environment for the affordability of regular instalments, it is necessary to understand the relative cyclical and structural drivers of retail interest rates, which in turn can influence the possibility of sharp changes in retail interest rates and servicing burdens. Within the monetary union, where the policy rate reacts to euro area-wide conditions, there is a complex interaction between the policy rate, the long-run natural interest rate at the Member State level and the retail interest rate on a Member State level. Further, there is a literature showing that credit conditions beyond the cost of credit itself loosen in response to lower monetary policy rates (the so-called “risk-taking channel” of monetary policy).

<sup>60</sup> See [Kelly & Mazza, 2019, Mortgage servicing burdens and LTI caps, Central Bank of Ireland, Financial Stability Notes, No. 13 2019](#)

There is also little evidence to suggest that the mortgage measures themselves are a material driver of observed changes in credit supply conditions over the course of 2020 across the banking system. 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 reflected the interaction of the deterioration in the macroeconomic environment, banks' credit policies and managing compliance with the proportionate limits. However, trends in allowance lending since March do not suggest that the mortgage measures themselves have been a critical fundamental driver of credit supply conditions across the market (Chart 83). The Central Bank considered whether a temporary loosening of the mortgage measures might be appropriate to guard against any potential tightening in credit supply by lenders. However, it judged that – as the measures only provide a floor to underwriting standards – any changes to the rules would be unlikely to be effective in guarding against credit tightening decisions by lenders, driven by their own risk appetite.

**Chart 82: No increase in the 90<sup>th</sup> percentile LTI for FTB lending over time**

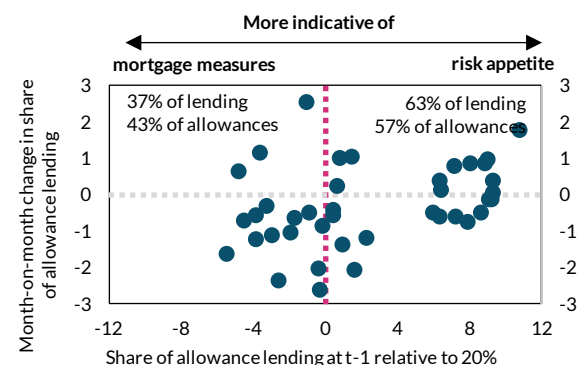
FTB LTI over time



Source: Central Bank of Ireland calculations.  
Notes: All loan types, In-scope loans only from 2015 to H1 2020. 4 bank view from 2006 – 2014.

**Chart 83: The mortgage measures themselves do not appear to have been a critical structural driver of credit supply conditions at a market level**

FTB LTI lending - change in the monthly share of allowance lending relative to the overall share of allowance lending as of the previous month. percentage points



Source: Central Bank of Ireland calculations.  
Notes: Chart shows bank-month combinations for the period March-October 2020 of the change in the share of allowances drawn down in month t against distance of the rolling YTD share of allowance lending in month t-1 from 20 per cent. Shares displayed represent the percentage of (i) total in-scope lending and of (ii) lending with an allowance over the period March-October. All data relates to FTB LTI category. Data are provisional.

In addition, given the underlying demand/supply imbalance in the market at the moment, additional debt would likely put greater upward pressure on house prices. As discussed in Risks, the outlook for the housing market is characterised by significant uncertainty. Nonetheless, the distributional effects of the shock to date, the high levels of aggregate savings held by the household sector as well as broader housing market policies could support demand into 2021. In contrast, the outlook for supply is tilted to the downside. In such a scenario, a loosening of the measures could excessively create pro-cyclical dynamics between credit and house prices. Something which in turn could create even more acute affordability pressures for borrowers.

Taking a longer-term perspective, the mortgage measures have been mitigating the risk of credit-fuelled house price growth in recent years. The benefits of that are most evident in times of stress like this. As explained in FSR 2019:II, had the mortgage measures not been in place in recent years, the level of credit and house prices would likely have been significantly higher entering into the COVID-19 shock. Had this been the case, the overall vulnerability of the economy and the housing



market would also have been higher entering into the COVID-19 shock (Box C discussed how the measure of house prices at risk can be influenced by their starting position). By limiting the risk of a credit-fuelled housing boom on the upside, the mortgage measures strengthen resilience in a downturn.

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

|  |  |   |
|--|--|---|
| <b>For primary dwelling homes (PDHs):</b>          | 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%  |
| <b>For buy-to-let borrowers (BTLs):</b>            | 70% LTV limit  | 10% of new lending allowed above the BTL limit  |
| <b>For PDHs</b>                                    | 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  |
| <b>From LTV Limit Borrowers in negative equity</b> | <b>From LTI Limit</b><br>BTL borrowers<br>Lifetime mortgages | <b>From both limits:</b><br>Switcher mortgages<br>Restructuring of mortgages in arrears |

## The operation of the measures

No changes to the mortgage measures regulations are being made following an assessment as to whether the current text<sup>61</sup> continues to be appropriate given experience from the practical implementation, supervision and monitoring of the measures.

### - Functioning of the proportionate allowances

The proportionate allowances are an important feature of the mortgage measures, as they allow flexibility for some lending to exceed the LTV and LTI limits, subject to the banks' own lending standards.<sup>62</sup> Compliance with the proportionate allowance limits in Ireland is on an annual or calendar year basis. The allowances are set in terms of the percentage of the total value of new lending. The operation of the proportionate allowances has been a recurring issue in annual reviews of the measures. The 2019 review, as discussed in FSR 2019:II, included an in-depth assessment of the operation of the allowances which resulted in no changes to the mortgage measures.

Mortgage lenders faced particular challenges in managing uncertainty on multiple fronts in 2020. As a result, the Central Bank again considered the operation of the allowances as part of this year's

<sup>61</sup> The Central Bank (Supervision and Enforcement) Act 2013 (Section 48) (Housing Loan Requirements) Regulations 2015 (S.I. No. 47 of 2015) (as amended).

<sup>62</sup> [Kinghan, C. and McCann, F. \(2019\) "Lending above macroprudential mortgage limits: The Irish experience since 2015", Financial Stability Notes No. 8.](#)



review. As well as having a negative impact on the volume of mortgage lending (see *Risks*), the COVID-19 related shock increased the level of uncertainty faced by lenders in projecting the flow of drawdowns over the remainder of the year.

Taking into account perspectives expressed by a number of stakeholders, including lenders themselves, a number of options were considered:

- A system of ‘carry-over’ whereby the over or under utilisation of allowances in any given year would be added to or subtracted from the permitted level of above-limit lending in the following year;
- A ‘rolling’ approach whereby limits would be complied with at more frequent intervals (e.g. quarterly), but where compliance would be based on a rolling period (e.g. the most recent 12-months), and
- Basing the allowable volume of allowance lending as a proportion of previous year lending (rather than current year lending).

The Central Bank considered these alternatives in view of the objectives of the measures, their practical implementation and the need to monitor compliance with the mortgage measures. Overall the Central Bank did not see these alternatives as providing better functioning of the system of allowances. The Central Bank sees some merit to a ‘carry over’ approach in terms of the flexibility it may provide at year-end to account for the challenges faced by lenders in forecasting the flow of lending. Such a system, however, raises challenges in terms of the objectives of the measures and monitoring compliance. Furthermore, it does not directly address the underlying challenges faced by lenders, i.e. the difficulty in forecasting lending volumes and managing the flow of approvals into drawdowns. In terms of ‘rolling limits’ – for example, comparable to those operated by other countries such as the UK – it is not clear that they would offer more operational flexibility than the current annual compliance period in Ireland.<sup>63</sup> Finally, basing the allowable volume of allowance lending relative to the previous year’s lending would risk excessively limiting the share of allowances in a market that is growing sustainably over time.

The Central Bank, however, remains open to further consideration of the functioning of the proportionate allowances. As set out above, this would be done in the context of the objectives of the measures, their practical implementation and need for compliance monitoring.

#### - *Other topics reviewed*

The Central Bank considered the appropriateness of the exemption of negative equity loans<sup>64</sup> from the LTV limit and mortgages to address arrears or pre-arrears<sup>65</sup> from the LTV and LTI limits. This was to ensure that the drafting of the regulations and the rationale for the exemptions continues to be appropriate. The LTV limit does not apply to borrowers in negative equity who

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<sup>63</sup> Such an approach would also have practical implications in terms of reporting requirements and compliance monitoring.

<sup>64</sup> Under the mortgage measures regulations a “negative equity loan” means subject to paragraph (3), an amount that a borrower owes to a lender under a loan that had been a housing loan made for principal home purposes where the relevant principal home has been sold and the proceeds from the sale have been insufficient to discharge in full the amounts (whether principal, interest, arrears, other amounts or any combination of them) that had been outstanding under the housing loan.

<sup>65</sup> Under the mortgage measures regulations “arrears” means any amount under a housing loan that is due but unpaid; “pre-arrears” means a housing loan in respect of which there is a reasonable prospect that the borrower will go into arrears.

wish to secure a new housing loan for the purchase of a principal home. While the number of loans availing of the exemption is small, the value of the exemption is that the mortgage measures do not act as a constraint to those with negative equity loans from trading in the housing market.<sup>66</sup> Under the Regulations, the LTV and LTI limits do not apply to mortgages entered into in order to address arrears or pre-arrears. It was deemed appropriate that the regulations would continue to not inhibit the ability to address the arrears or pre-arrears of borrowers.

[A review of the cross-border effects of the Regulations, as recommended by the ESRB<sup>67</sup> found no evidence to indicate notable cross-border spillovers of the measures.](#) With the UK remaining the most prominent foreign market for Irish retail banks, this year's assessment does not point to any outward spillovers arising from the operation of the mortgage measures. An increase in Irish retail banks' exposures to the UK private sector appears to be more related to domestic credit conditions in the UK market, as opposed to a material change in credit supply from Irish banks.

[An important feature of the annual review of the mortgage measures is the assessment of banks' credit policies in relation to mortgage lending.](#) Individual bank retail mortgage credit policies are the frameworks through which banks manage mortgage lending. Whereas in previous years, there would have been a focus on whether lenders were loosening their definition of income, this year's analysis focused on the tightening of banks' credit policies. One of the key factors coming through from engagement with the banks was the importance placed on income stability in their affordability assessments in light of COVID-19. As referenced in Box D, the focus of banks was on supporting existing customers, with a cautious approach being taken to new lending. This approach, was consistent with the cessation or restriction in new allowances.

## Macroprudential capital buffers

[Capital buffers are designed to strengthen the banking sector's capital position in good times, by providing additional loss absorbing capacity above minimum requirements, and hence to enhance resilience to adverse shocks.](#) COVID-19 represents an unprecedented shock to the economy with implications for banks' balance sheets. The policy actions taken by both micro and macro prudential authorities since the outbreak of COVID-19 have been aimed at the buffer framework, facilitating the banking sector to absorb the shock and continue to serve the real economy (thereby looking to minimise the overall economic downturn). While some tightening of credit supply has been evident, to date it has related more to risk management issues rather than balance sheet concerns (See Box D).

[Consistent with the macro-financial outlook as discussed in \*Risks\* and the outlook for bank losses discussed in \*Resilience\*, the Central Bank judges that financial stability will be enhanced if banks use the accumulated capital buffers to maintain the supply of credit to households and businesses in a sustainable way.](#) For the buffer framework to work as intended the banking sector needs to be willing to utilise the capital space provided in order to support lending and limit excess deleveraging. As discussed by the ECB in a recent Macroprudential Bulletin<sup>68</sup>, there are market-based factors as well as prudential and regulatory factors which could act as impediments to

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<sup>66</sup> Switcher mortgages with no increase in capital are also exempt from both the LTV and LTI limits.

<sup>67</sup> [ESRB/2015/2 ESRB Recommendation on the assessment of cross border effects of and voluntary reciprocity for macroprudential measures.](#)

<sup>68</sup> [ECB Macroprudential Bulletin October 2020, Issue 11](#)

buffer usability. In the short-term, clarity of communication by prudential authorities has an important role to play in mitigating certain impediments to buffer usability.

As set out below, the CCyB remains at 0 per cent and the Central Bank does not expect to announce an increase through 2021. The impending transposition of CRDV into Irish legislation, will implement refinements made to the European macroprudential framework in Ireland (See Box I). As part of this process, the SyRB is expected to become part of the macroprudential policy toolkit in Ireland. The Central Bank has previously outlined a rationale, related to the small globalised nature of the Irish economy and financial system, as to why such a buffer would be appropriate for the Irish financial system.<sup>69</sup> While this rationale remains relevant, the Central Bank does not intend beginning phase-in of such a buffer in 2021. The phase-in and calibration of O-SII buffer requirements, which are institution specific, in 2021 remains consistent with the purpose and design of that part of the buffer framework which ensures that the systemic footprint of individual institutions are reflected in resilience. The Central Bank re-iterates that the O-SII buffer is fully usable to absorb losses and enable banks to continue to support the real economy during the current period.

Over the medium-term the Central Bank's framework for capital buffers will evolve taking account of lessons from the current experience and legislative amendments. On this latter point, the implementation of CRDV will increase the allowable range for O-SII buffers. More broadly, it is still too early to draw definitive conclusions on the operation of the buffer framework overall, as the realisation of the impact of the current shock continues to feed through. Nonetheless, the experience to date has raised issues warranting consideration. The issues of macroprudential space and the balance of releasable and usable buffers within the buffer framework will be important elements of the longer-term discussion on buffer usability. As part of its evolving thinking, and taking on board the broader understanding of the operation of the macroprudential framework in light of the experience during the COVID-19 shock, the Central Bank will look to consider the appropriate level of capital for the Irish banking system and the composition of this across the various macroprudential buffers. This will influence the levels and phasing-in of individual buffers, when conditions are conducive to do so.

### **The CCyB rate at 0 per cent remains appropriate in the current economic environment.**

*In line with previous communications from the Central Bank, the CCyB remains at 0 per cent. A rate of 0 per cent remains appropriate in the current economic environment and is consistent with the objective of the Central Bank's CCyB rate setting framework. Looking forward, given current and expected macro-financial conditions and to continue providing scope for the banking system to absorb and not amplify the COVID-19 shock, the Central Bank does not expect to announce a change in the CCyB through 2021. If those conditions were to change significantly to reflect a sustained trajectory in indicators associated with emerging cyclical systemic risk, the appropriate policy stance would change accordingly.*

Given the continuing materialisation of risk the CCyB rate remains at 0 per cent. The COVID-19 pandemic and associated public health response represents an exceptional economic shock the realisation of which is still being felt. A 0 per cent CCyB rate looks to support the banking sector in

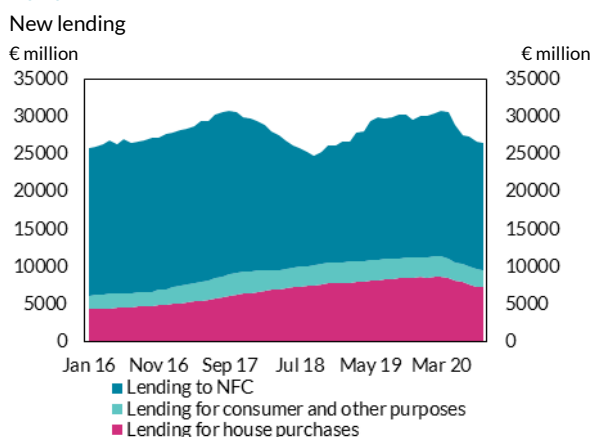
<sup>69</sup> See [Financial Stability Review, 2019:II](#).

absorbing the current shock so it can continue to serve the real economy. Maintaining the CCyB rate at 0 per cent limits the scope for regulatory capital requirements to act as a source of amplification of the shock.

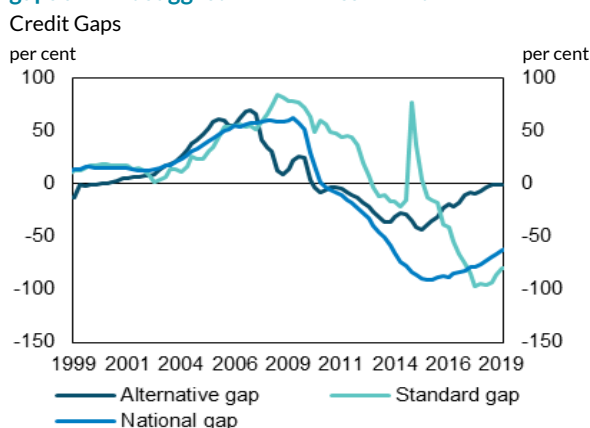
As outlined above, the economic impact triggered by the necessary public health response to the COVID-19 pandemic continues to be evident. By maintaining the CCyB at 0 per cent the Central Bank aims to support the supply of credit to the domestic economy. As detailed in Box D, domestic credit markets have seen both weakening demand and some tightening supply conditions. Headline rates of credit growth at present are being influenced by the provision of payment breaks, which have the effect of keeping outstanding loan balances higher than they would be had repayments followed their initial schedule. Data on new lending are not affected by this issue. Chart 84 shows the 12-months rolling sum of new lending. These data point to a declining path of new lending since March 2020 (See *Risks* for a broader discussion of credit developments). Looking at the real economy, unemployment adjusted for the impact of COVID-19 stood at 14.7 per cent in September.<sup>70</sup> The Irish PMI and KBC’s monthly index of Irish consumer sentiment and consumer expectation remain subdued despite its rebound in July and August. Given the highly globalised nature of the Irish financial system, global financial conditions represent an important element to consider when setting the CCyB on Irish exposures. As discussed in more detail in *Risks*, international financial conditions have eased thanks to global policy interventions, however accommodative monetary policy can lead to financial stability risks which need to be closely monitored.

Notwithstanding its limitations, particularly during periods where cyclical risks have materialised such as the present time, the credit-to-GDP gap is a required reference indicator for the CCyB. Latest data on the standard and national specific credit gaps (2020Q2) indicate they remain negative. The alternative gap measure is close to but below zero (see Chart 85).

**Chart 84: New lending has been declining since early-2020**



**Chart 85: While of limited value at this time credit gaps are not suggestive of excess credit**



<sup>70</sup> Since March, the CSO has produced a COVID-19 adjusted measure of unemployment which takes account of those receiving state supports such as the Pandemic Unemployment Payment. For more information see the [CSO Technical Note - Impact of COVID-19 on the Earning and Labour Costs Release](#).

Given current and expected macro-financial conditions, and to continue providing scope for the banking system to absorb and not amplify the COVID-19 shock, the Central Bank does not expect to announce a change in the CCyB rate through 2021. If those conditions were to change significantly to reflect a sustained trajectory in indicators associated with emerging cyclical systemic risk, the appropriate policy stance would change accordingly. Alongside the release of the CCyB rate announced in March, the Central Bank outlined that it did not expect to announce a subsequent increase in the CCyB rate until Q1 2021 at the earliest. The future path of the CCyB beyond Q1 2021, consistent with the Central Bank's framework and the objective of the CCyB, will be conditioned on future macro-financial developments and the implications of that for the banking system. The Central Bank's framework for setting the CCyB provides for the setting of a positive rate early in the cycle. Thus, when there is a sustained trajectory in indicators, consistent with emerging cyclical systemic risk the Central Bank expects to maintain a positive CCyB rate. Notwithstanding the unprecedented level of uncertainty which surrounds macroeconomic projections at present, the Central Bank's forecasts under the baseline scenario point to subdued economic activity and elevated unemployment rates during 2021. Scenario analysis exercises carried out in the context of assessing banking sector resilience, also suggest that Irish banks would experience losses in this scenario. Such conditions are not considered to be consistent with a change from the current policy stance of a 0 per cent CCyB rate.

### Buffers for systemically important institutions

*Arising from the Central Bank's 2020 O-SII review, six institutions are being identified as systemically important and required to maintain an associated supplementary capital buffer. The 2020 review has resulted in no policy change for five O-SIIs, namely AIB Group plc (AIB), Bank of America Europe DAC (BoFAE), Bank of Ireland Group plc (BOI), Citibank Holdings Ireland Ltd. (Citibank) and Ulster Bank Ireland DAC (UBI). The buffer rate for Barclays Bank Ireland plc (BBI) is being increased to 1 per cent from 0.75 per cent. The increased buffer is consistent with the expansion of the institution since the last review and will apply from January 2022. Consistent with the purpose of the buffer and the wider macroprudential policy response to the COVID-19 shock, the O-SII buffer is fully available to banks to absorb the impact of the shock to the economy.*

The objective of the O-SII buffer is to reduce the probability of failure of a systemically important institution. The failure of one of these systemically important institutions would have a greater impact on the financial system and economy than the failure of a non-O-SII. The O-SII buffer is an institution specific requirement, calibrated based on the relative systemic importance of each institution. It enhances the resilience of these institutions, which due to the scale or nature of their business are of systemic importance, by providing an additional layer of loss absorbing capital.

Consistent with the purpose of the buffer and the wider macroprudential policy response to the COVID-19 shock, the O-SII buffer is fully available to banks to absorb the impact of the shock to the economy. The usability of the O-SII buffer to absorb losses in times of stress is an important element in the functioning of the capital buffer framework. As of July 1 2020, the O-SII buffer provided €1.6 billion of capital across the six Irish O-SIIs. The Central Bank emphasises that this

capital is fully available to institutions to absorb the impact of the economic shock arising from COVID-19.<sup>71</sup>

The Central Bank's 2020 O-SII assessment has identified six credit institutions as being systemically important. EBA guidelines provide a framework for the O-SII identification process.<sup>72</sup> In essence, the systemic importance of an institution is assessed with regard to indicators relating to size, importance in providing deposit and lending services to the non-financial private sector across Europe, complexity and interconnectedness. The first step in the assessment of systemic importance was carried out using the mandatory scoring process of the EBA methodology. Five institutions (AIB, BofAE, BOI, BBI and Citibank) were identified as part of this methodology with each exceeding the standard 350 basis point threshold set out in the EBA guidelines. One additional institution, UBI, who did not have a score in excess of 350, was designated as an O-SII on the basis of supervisory overlay given its importance in terms of financial intermediation with the domestic non-financial private sector.

On the basis of this year's assessment, there is no change in the buffer rate or associated phase-in period for five of the six O-SIIs, while in the case of one institution the buffer rate is being increased. Buffers are set on the basis of guided discretion, taking account of the systemic importance of an institution as reflected in the O-SII identification exercise, an institution's size and its role in providing financial intermediation services to the domestic economy.<sup>73</sup> This approach takes on board the specificities of the Irish banking system including the differing nature of its firms. Higher buffer rates are applied to more systemically important institutions while institutions of similar systemic importance receive similar buffers. The full list of O-SIIs, O-SII buffers and associated phase-in periods are laid out in Table 3. While the review has not seen an increase in the buffer rates assigned to AIB, BofAE, BOI, and Citibank, these buffer rates continue to be phased-in.<sup>74</sup> The review has resulted in a change to the policy stance with respect to BBI, namely:

- The buffer applied to BBI is increased to 1 per cent, from 0.75 per cent, due to the expansion of its operations arising from the UK's decision to leave the EU. Relative to last year's assessment, BBI has seen a substantial increase in its overall EBA score reflecting an increase in size, complexity and interconnectedness.
- The phase-in of the buffer is such that the buffer will increase to 0.75 per cent as of July 2021, in line with last year's review, with the additional 25bps arising from this year's assessment taking effect as of 1 January 2022.

Nonetheless, the O-SII buffer is fully available to banks to absorb the impact of the shock to the economy.

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<sup>71</sup> The O-SII buffer, along with the capital conservation buffer, and where relevant the countercyclical capital buffer and the systemic risk buffer make up an institutions combined buffer requirement (CBR). If an institution's level of capital dips below its CBR certain restrictions and limitations apply – See [ECB Banking Supervision FAQs on supervisory measures in reaction to the coronavirus](#).

<sup>72</sup> See [EBA Guidelines in relation to the assessment of O-SIIs](#).

<sup>73</sup> The Bank sets buffer rates in accordance with the legislative framework as well as taking account of the [ECB buffer floor methodology](#) and the Basel Committee on Banking Supervision [principles relating to domestic systemically important institutions](#).

<sup>74</sup> Ulster Bank's buffer rate of 0.5 per cent has been fully phased-in since 1 July this year.



Table 3 | 2020 O-SII review and associated phased-in buffer requirements<sup>1</sup>

| O-SII                                   | Level of consolidation | O-SII Buffer Rate (%) |             |             |                |
|---|------------------------|-----------------------|-------------|-------------|----------------|
|   |                        | 1 July 2019           | 1 July 2020 | 1 July 2021 | 1 January 2022 |
| AIB Group plc                           | Consolidated           | 0.5                   | 1.0         | 1.5         | 1.5            |
| Bank of America Europe DAC <sup>2</sup> | Individual             |                       | 0.5         | 0.75        | 0.75           |
| Bank of Ireland Group plc               | Consolidated           | 0.5                   | 1.0         | 1.5         | 1.5            |
| Barclays Bank Ireland plc               | Individual             |                       | 0.5         | 0.75        | 1.0            |
| Citibank Holdings Ireland Limited       | Consolidated           | 0.25                  | 0.5         | 1.0         | 1.0            |
| Ulster Bank Ireland DAC                 | Individual             | 0.25                  | 0.5         | 0.5         | 0.5            |

Notes: <sup>1</sup> The Central Bank emphasises that this capital is fully available to institutions to absorb the impact of the economic shock arising from COVID-19. Further, [ECB Banking Supervision](#) has set out that banks will be not required to comply with the combined buffer requirement any earlier than end-2022.

<sup>2</sup> Formally Bank of America Merrill Lynch International DAC.

No investment firms have been identified as systemically important as part of this year's review. A separate assessment was carried out for investment firms.<sup>75</sup> The EBA guidelines are less specific regarding the O-SII assessment of investment firms and the assessment considered a bespoke set of indicators appropriate for the Irish investment firm population as well as the changing nature of the prudential regime for investment firms at a European level. On the basis of this assessment, no investment firm is identified as an O-SII.

The Central Bank undertakes an O-SII review on an annual basis. This allows for any changes in the banking sector and the systemic importance of individual institutions to be captured and reflected, as appropriate, in the outcome of these regular reviews. CRD V, which will come into effect in 2021, will provide designated authorities with greater scope and flexibility in relation of setting O-SII buffers, including an increase in the allowed buffer range (See Box I). From mid-2021, the vast majority of investment firms in Ireland will be subject to the Investment Firms Directive (IFD) and Regulation (IFR) and will no longer be subject to CRD, thereby removing them from the scope of the O-SII assessment.<sup>76</sup>

## Recognition of macroprudential measures taken by other countries

Reciprocity aims to increase the effectiveness of macroprudential measures by reducing cross-border leakages and by minimising negative cross-border effects. When a country introduces a national macroprudential policy measure that may have cross-border effects, reciprocity requires other countries to apply the same or an equivalent measure to domestically authorised institutions. The Central Bank has laid out a reciprocation framework in line with the ESRB Recommendation on voluntary reciprocity for macroprudential policy measures.<sup>77,78</sup> Reciprocity

<sup>75</sup> The O-SII exercise is carried out for investment firms which carry out the MiFID services of dealing on own account or underwriting on a firm commitment basis.

<sup>76</sup> After the introduction of IFD/IFR, investment firms meeting certain criteria will be remain subject to CRD.

<sup>77</sup> See [Central Bank of Ireland \(2016\) Macro Financial Review 2016:1, Pg. 50](#).

<sup>78</sup> [ESRB/2015/2 ESRB Recommendation on the assessment of cross border effects of and voluntary reciprocity for macroprudential measures](#).



involves two distinct processes; responding to ESRB reciprocity recommendations and conducting an annual review of outstanding reciprocity recommendations.

There are currently four active measures in other Member States for which the ESRB has recommended reciprocity. The Central Bank considers all requests for reciprocity and to date has reciprocated a French macroprudential measure under Article 458 of Regulation (EU) No 575/2013 (“CRR”).<sup>79</sup> With regard to the three other active measures for which reciprocity has been recommended by the ESRB, the Central Bank’s annual review in November 2020 confirmed that the conditions for non-reciprocity continued to be met and that the decisions to not reciprocate the measures remained appropriate.<sup>80</sup>

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<sup>79</sup> [Announcement](#): Decision by the Central Bank of Ireland to reciprocate a French measure under Article 458 of Regulation (EU) No 575/2013 (“CRR”).

<sup>80</sup> ESRB (2019) Reciprocity of Measures: [Belgium](#), [Finland](#) and [Sweden](#).

## Box I: Changes to macroprudential capital buffers under the Capital Requirements Directive (CRDV)

This Box provides a brief overview of some of the key changes to macroprudential capital buffers, as a result of amendments to the Capital Requirements Directive (CRDV). Member States, including Ireland, have to transpose CRDV into national law by 28 December 2020. The Central Bank is working closely with the Department of Finance on the transposition process.<sup>1</sup> Not all changes to macroprudential capital buffers will be covered in this Box. Instead some of the most important updates related to the O-SII buffer and SyRB will be outlined. The adjustments to the macroprudential capital buffer framework should enhance the flexibility and comprehensiveness of macroprudential tools. For example, there will be a clearer delineation between buffers so they address different risks.<sup>2</sup>

### *Systemic Risk Buffer (SyRB)*

As part of the CRDV transposition process, the SyRB is expected to become part of the macroprudential policy toolkit in Ireland. Under CRDV, it will be possible to apply a SyRB to all exposures (domestic or foreign), and to institutions or subsets of institutions. However, it will also be possible for a SyRB to be set on sectoral exposures and on subsets of these sectoral exposures. The sectoral exposures are: residential real estate, commercial real estate, exposures to non-financial corporations (NFCs) excluding real estate, and exposures to households excluding real estate. EBA Guidelines on the appropriate subsets of sectoral exposures of the SyRB were published on 2 October 2020.<sup>3</sup> The flexibility of the SyRB is further enhanced by the removal of the language that a SyRB must address "long-term non-cyclical" systemic risks. Consequently, it will be possible for a SyRB to address cyclical risks. However, CRDV also clarifies that the SyRB should not be used to address risks covered by the CCyB and G-SII/O-SII buffers. As a result, the SyRB can no longer be used to address risks stemming from systemically important institutions. SyRB rates between 3-5 per cent require a Commission opinion and SyRB rates >5 per cent can only be imposed if authorised by the Commission, after taking into account the opinions of the ESRB, and, potentially, the EBA.

### *Other Systemically Important Institutions (O-SII) Buffer*

Under CRDV, the O-SII buffer provides designated authorities with greater scope to mitigate the risks stemming from systemically important institutions. The O-SII buffer rate at the level of the parent institution is no longer limited to 2 per cent. Instead, the O-SII buffer rate can be up to 3 per cent of Common Equity Tier 1 (CET1) capital as a percentage of risk-weighted assets. For O-SII buffer rates greater than 3 per cent, European Commission authorisation is required, following the consideration by the Commission the opinions of the ESRB and the EBA. Relative to CRD IV, authorities will also have greater flexibility in setting O-SII buffer rates where the O-SII is itself the subsidiary of a G-SII or O-SII.

### *Interaction of the SyRB and O-SII buffer*

The O-SII buffer and the SyRB will now be additive in all cases. Where a buffer is being set which on a cumulative basis would result in a combined buffer rate > 5 per cent, European Commission authorisation will be required.

**Table 1 | Key changes to macroprudential instruments under the CRDV package**

| SyRB   | O-SII buffer   |
|--|--|
| <ul style="list-style-type: none"> <li>• Can target sectoral exposures or subsets of sectoral exposures</li> <li>• Removal of requirement that SyRB must address “long-term non-cyclical systemic risks”</li> <li>• Cannot be used to address risks covered by O-SII or G-SII buffers</li> <li>• Removal of 1% minimum requirement.</li> </ul> | <ul style="list-style-type: none"> <li>• 2% O-SII buffer cap removed</li> <li>• To set an O-SII buffer &gt;3% requires Commission authorisation</li> <li>• The O-SII cap at the subsidiary level is the lower level of:               <ol style="list-style-type: none"> <li>i. the sum of the O-SII buffer rate at the parent level and 1 percent of the TREA</li> <li>ii. 3% of the TREA or the higher buffer rate authorised at the parent level by the European Commission.</li> </ol> </li> </ul> |
| <p>SyRB and O-SII/G-SII buffers are additive<br/>ESRB &amp; EBA assessment and EC authorisation for cumulative rate &gt;5%</p>   |  |

<sup>1</sup> The final acts of CRDV and CRR II were signed on 20 May 2019 and published in the Official Journal of the EU on 7 June 2019. [Directive 2019/878](#) of the European Parliament and of the Council amends the fourth Capital Requirements Directive, or CRD IV (Directive 2013/36/EU). [Regulation 2019/876](#) of the European Parliament and of the Council amends the Capital Requirements Regulation, or CRR (Regulation 2013/575/EU). CRR II with various exceptions, will be applicable as of 28 June 2021. See [European Parliament: Amending capital requirements: The ‘CRD V package’](#).

<sup>2</sup> See ESRB (2018) [‘Special Feature C: Upcoming changes to the macroprudential provisions in EU banking legislation’](#).

<sup>3</sup> [EBA Guidelines on the appropriate subsets of sectoral exposures in the application of a SyRB](#).

# Annex: Property Market Stakeholder Engagement

## Introduction

In late September and early October, the Central Bank held a series of stakeholder engagements with property market experts and professionals. These on-line sessions, similar in nature to events held in previous years, ensure that the Central Bank has as much information as possible on issues in the broader property market as part of the annual review of the Mortgage Measures. This Annex provides a qualitative high-level summary of the topics and viewpoints raised by participants at these events.

Discussions during the course of these engagements were wide-ranging and touched on a variety of topics including the impact of COVID-19 and the outlook for the Irish property market. Other topics discussed include housing supply, feedback on the mortgage market measures and views on broader housing market policies. On many issues, there was broad consensus amongst the participants. On some matters however, particularly with respect to the mortgage measures and broader housing market policy, participants held contrasting views. This Annex provides a high-level account of these roundtable discussions, summarising the key topics raised and views put forward by the participants at the events.

## Market overview: Impact of COVID-19 and outlook

There was broad agreement amongst participants that the housing market was performing better than expected at the onset of COVID-19. To date, indicators of house price developments, the level of construction activity, the number of housing transactions and the volume of mortgage drawdowns and approvals remain relatively robust compared to what was anticipated earlier in the year when the COVID-19 shock first impacted the domestic macro-financial outlook.

While the impact of COVID-19 on the market to date has been more muted than expected earlier in 2020, there was a sense from stakeholders that this situation may be unlikely to last. Some participants suggested that a downturn in house prices and market activity could well occur in 2021 and beyond as the on-going impact of the pandemic weighs on employment and disposable incomes. The expected tapering and eventual withdrawal of government supports may also likely to impact the housing market over the medium-term.

Assessing shifts in potential buyer preferences, including moves away from the main urban centres is difficult in the current environment. Given the increased prevalence of working from home (WFH) practises since the onset of COVID-19 pandemic, many participants noted that it was too early to say whether this was likely to be a permanent structural change or more of a short-term phenomenon that would possibly fade once the public health risks related to COVID-19 had subsided.

## Supply-side developments

Concerns were expressed that there could be a significant decline in the delivery of new housing units next year. According to industry representatives the number of residential completions is expected to be in the region of 16-17,000 this year (down from about 21,000 in 2019). There were concerns that there may be a major decline in the delivery of new supply next year due to elevated

levels of uncertainty arising from COVID-19 and the associated unwillingness of developers to undertake new schemes. It was a common view that the level of residential completions was unlikely to return to 2019 levels until 2022/23.

**Beyond the impact of COVID-19, several other impediments to the supply of new housing units were raised.** Some participants noted a mismatch between (increasing) delivery costs and the selling price that amounts potential house purchasers can attain in areas of high housing demand. Others raised planning inefficiencies, issues surrounding building densities and difficulties obtaining development finance. Regarding the supply of development finance, some participants noted that it may become even more rationed due to the potential for rising bank losses in other sectors. In addition to the above observations on delivery costs, there was also some discussion on the higher cost of apartment construction in Ireland compared to elsewhere in Europe. Differences between what is expected in Ireland vis-à-vis apartment finishes and furnishings and what is delivered elsewhere are also a factor in the higher costs observed in the domestic market.

### Feedback on the mortgage measures

**Notwithstanding participants' universal support for the key objectives of the mortgage measures, some thought they were having an excessive impact on the functioning of the housing market in the current environment.** Participants involved in the construction of housing, for example, voiced concerns that the macroprudential rules, as currently constituted, were constraining the demand, supply and deliverability of housing to the market. Some participants suggested a re-examination of the measures was required, given the changing economic and housing market circumstances seen over the past five years, and especially given prevailing challenges. While seeking further clarity on the circumstances under which alterations would be made to the macroprudential mortgage measures they noted the different approaches taken to borrower based measures in various countries.

**Some participants from the property industry also put forward a selection of options for the mortgage measures that could be considered from their view.** The list includes suggestions to (i) raise the current LTI threshold above 3.5, (ii) extend the proportional cap on FTB LTI borrowing in excess of the 3.5 limit from 20 to 30 per cent, (iii) implement the rules on a regional basis (iv) replace the LTI limit with one based on DSTI and (v) reduce the 30 deposit requirement for BTL borrowers.

**In contrast, numerous other attendees raised arguments against any loosening of the existing rules.** Those making this case questioned the wisdom of additional volumes of credit, a likely outcome of any relaxation in the mortgage measures, to a housing market already characterised at this time by significant supply constraints. These participants noted that additional household indebtedness to achieve a house purchase price point driven by high costs of delivery was not sustainable.

**Relatedly, others cautioned that an easing of the mortgage measures could have an adverse impact on borrower-resilience, with the potential for more people to acquire increased levels of potentially unsustainable debt.** They pointed out the importance of avoiding the harmful consequences that such an outcome can have on vulnerable households or individuals. They noted that the absence of the mortgage measures in the past had seen people encouraged to borrow beyond their means in order to purchase properties they could not ultimately afford. Furthermore, they noted that there needed to be an acceptance that some people will never be able to afford to

buy a house. For this cohort of the population, it was argued, the use of an absolute affordability threshold to determine one's need for social housing may have to be re-examined. The situation in Austria was put forward as an example to follow, where the State can provide as little as 1 per cent or as much 100 per cent support respectively, depending on an individual's requirements.

### Broader housing market policies

The benefits and costs of the provision of enhanced budgetary measures to help address a range of housing market failures were raised by some participants. For instance, most stakeholders from the property industry advocated for an extension of the enhanced Help-to-Buy scheme beyond December 2020 or the establishment of a "Shared Equity Scheme" to address a house purchase affordability/funding shortfall they perceive. Others were against demand-side measures of this sort, arguing instead that the government should engage in a major State house building programme, which would prevent the stalling of residential construction over the next couple of years.

There was heterogeneous views amongst participants on the impact of land prices and speculation in the growing costs of construction. The existence of large differences between the cost of housing delivered by the public/voluntary and private sectors were noted by a few participants, which in their opinion were due primarily to land costs and developer margins.

The State's role in the property market was another issue of debate. The point was made for example, that its involvement as a major landowner or as a provider of housing supports such as the HAP could be contributing to the maintenance of high house prices and rents, respectively. Another area of State involvement that generated discussion was the potential for the Rent Pressure Zone (RPZ) regulations to distort rents in a downturn. A scenario was laid out whereby in a falling market it might be more attractive for landlord's to offer incentives such as a period of reduced/free rent for a period – rather than a reduction in headline rents, which would reduce the scope for future rental increases once the market began to recover.

There were calls to consider reform of the system of development levies and its replacement with a site value tax. A few individuals put forward the view that consideration should be given to an expansion of the urban renewal/living city initiative schemes, where vacant city centre properties e.g. unused space over a commercial/retail unit is converted for residential purposes. As cost and regulatory issues can act as barriers to the undertaking of such conversion projects – these matters would have to be addressed before any widespread rollout of such schemes.

On data issues, numerous participants were strongly in favour of the creation of a land register and a land price index, which they believe would serve to bring greater transparency to the market. Others suggested that greater information pertaining to the number of mortgage applications in a period, and reasons for the rejection of applications would be beneficial to market participants.

Many individuals made the point that ultimately, there was no single solution to the current challenges in the housing market – but rather a combination of measures, supports and provision of tenure choices will be required to address market imbalances. There was also an observation that people are not homogenous when it comes to demand for housing and that State intervention needs to be more targeted at the bottom-end of the market where help is needed most.

Table 1: List of property roundtable attendees and affiliation

| <b>Attendee</b>  | <b>Institution</b>                |
|------------------|-----------------------------------|
| Annette Hughes   | EY-DKM EAS                        |
| Brian Moran      | IIP/Hines Ireland                 |
| Caitlyn Phillips | JLL                               |
| Conor O'Toole    | ESRI                              |
| David Duffy      | PII                               |
| Deirdre Costello | JLL                               |
| Donal O'Neill    | Ardstone capital                  |
| Edward McCauley  | SCSI                              |
| Fiona Cormican   | Clúid Housing                     |
| Hugh Brennan     | Ó Cualann Cohousing Alliance      |
| Ivan Gaine       | PII & Sherry Fitzgerald New Homes |
| James Benson     | IHBA                              |
| Lorcan Sirr      | TUD                               |
| Marian Finnegan  | Sherry FitzGerald                 |
| Marie Hunt       | CBRE                              |
| Max Reilly       | JLL                               |
| Michael Stanley  | IIP and Cairn Homes               |
| Micheál Mahon    | SCSI                              |
| Neil Durkan      | IHBA                              |
| Niall Gunne      | JLL                               |
| Orla Hegarty     | UCD                               |
| Pat Davitt       | IPAV                              |
| Pat Farrell      | IIP                               |
| Ronan Lyons      | TCD / Daft.ie                     |
| Sean O'Neill     | IHBA                              |
| Shirley Coulter  | SCSI                              |
| Stephen McCarthy | IHBA                              |
| Tim Crowley      | Ó Cualann Cohousing Alliance      |
| TJ Cronin        | SCSI                              |



# Abbreviations

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

|               |  |              |  |
|---------------|--|--------------|--|
| <b>AIB</b>    | Allied Irish Bank  | <b>KBC</b>   | Kredietbank ABB Insurance CERA Bank                        |
| <b>AMECO</b>  | Annual macro-economic database of the European Commission's Directorate General for Economic and Financial Affairs | <b>LCR</b>   | Liquidity coverage ratio                                   |
| <b>BIS</b>    | Bank of International Settlements  | <b>LTI</b>   | Loan to income ratio                                       |
| <b>BLS</b>    | Bank Lending Survey  | <b>LTV</b>   | Loan to value ratio  |
| <b>BOI</b>    | Bank of Ireland  | <b>MiFIR</b> | Markets in Financial Instruments Regulation                |
| <b>BPFI</b>   | Banking & Payments Federation Ireland  | <b>MMF</b>   | Money market fund  |
| <b>BTL</b>    | But-to-let   | <b>MNE</b>   | Multinational Enterprises                                  |
| <b>CBOE</b>   | Chicago Board Options Exchange   | <b>MREL</b>  | Minimum requirement for own funds and eligible liabilities |
| <b>CBRE</b>   | Coldwell Banker Richard Ellis Group  | <b>MSCI</b>  | Morgan Stanley Capital International                       |
| <b>CCoB</b>   | Capital Conservation Buffer  | <b>NFC</b>   | Non-financial corporation                                  |
| <b>CCP</b>    | Central clearing counterparty  | <b>NPL</b>   | Non-performing loan  |
| <b>CCR</b>    | Central Credit Register  | <b>NTMA</b>  | National Treasury Management Agency                        |
| <b>CCyB</b>   | Countercyclical capital buffer   | <b>OECD</b>  | Organisation for Economic Co-operation and Development     |
| <b>CET1</b>   | Common equity tier 1   | <b>O-SII</b> | Other Systemically Important Institutions                  |
| <b>CRD</b>    | Capital Requirements Directive   | <b>PDH</b>   | Primary dwelling house                                     |
| <b>CRE</b>    | Commercial real estate   | <b>PMI</b>   | Purchasing managers' index                                 |
| <b>CRR</b>    | Capital Requirements Regulations   | <b>PTSB</b>  | Permanent PTSB   |
| <b>CSO</b>    | Central Statistics Office  | <b>PUP</b>   | Pandemic Unemployment Payment                              |
| <b>EA</b>     | European Area  | <b>REIF</b>  | Real Estate Investment Fund                                |
| <b>EBA</b>    | European Banking Authority   | <b>REIT</b>  | Real Estate Investment Trust                               |
| <b>ECB</b>    | European Central Bank  | <b>ROE</b>   | Return on equity   |
| <b>EME</b>    | Emerging Market Economies  | <b>RWA</b>   | Risk-weighted asset  |
| <b>EPS</b>    | Earnings per share   | <b>SCR</b>   | Solvency capital requirement                               |
| <b>ESMA</b>   | European Securities and Markets Authority  | <b>SCSI</b>  | Society of Chartered Surveyors of Ireland                  |
| <b>ESRB</b>   | European Systemic Risk Board   | <b>SME</b>   | Small and medium enterprise                                |
| <b>ESRI</b>   | Economic and Social Research Institute   | <b>SRM</b>   | Single Resolution Mechanism                                |
| <b>EU</b>     | European Union   | <b>SSB</b>   | Second and subsequent buyer                                |
| <b>FDI</b>    | Foreign direct investment  | <b>SSM</b>   | Single Supervisory Mechanism                               |
| <b>FINREP</b> | Financial reporting  | <b>SyRB</b>  | Systemic Risk Buffer                                       |
| <b>FSR</b>    | Financial Stability Review   | <b>TLTRO</b> | Targeted longer-term refinancing operations                |
| <b>FTB</b>    | First-Time Buyer   | <b>TWSS</b>  | Temporary COVID-19 Wage Subsidy Scheme                     |
| <b>GDP</b>    | Gross domestic product   | <b>UBI</b>   | Ulster Bank Ireland  |
| <b>GNI</b>    | Gross national income  | <b>WEO</b>   | World Economic Outlook                                     |
| <b>ICSI</b>   | Irish Composite Stress Indicator   | <b>WTO</b>   | World Trade Organisation                                   |
| <b>IFRS</b>   | International Financial Reporting Standards  |              |  |
| <b>ILO</b>    | International Labour Organisation  |              |  |
| <b>IMF</b>    | International Monetary Fund  |              |  |
| <b>IREF</b>   | Irish Real Estate Fund   |              |  |
| <b>JLL</b>    | Jones Lang LaSalle   |              |  |

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