

Quarterly Bulletin

QB1 – January 2019

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Notes

- 1. The permission of the Government has been obtained for the use in this Bulletin of certain material compiled by the Central Statistics Office and Government Departments. The Bulletin also contains material which has been made available by the courtesy of licensed banks and other financial institutions.
- 2. Unless otherwise stated, statistics refer to the State, i.e., Ireland exclusive of Northern Ireland.
- 3. In some cases, owing to the rounding of figures, components do not add to the totals shown.
- 4. The method of seasonal adjustment used in the Bank is that of the US Bureau of the Census X-11 variant.
- 5. Annual rates of change are annual extrapolations of specific periodto-period percentage changes.
- 6. The following symbols are used:
 - estimated е
 - n.a. not available
 - provisional
 - no figure to be expected
 - revised
 - nil or negligible
 - quarter q
 - forecast
- 7. Data on euro exchange rates are available on our website at www.centralbank.ie and by telephone at 353 1 2246380.

Enquiries relating to this Bulletin should be addressed to:

Central Bank of Ireland (Publications),

Bosca PO 559, Baile Átha Cliath 1, Éire

PO Box 559, Dublin 1, Ireland

Phone 353 1 2246278; Fax 6716561

www.centralbank.ie Email: publications@centralbank.ie

ISSN 0332-2645

Forecast Summary Table

	2017	2018	2019f	2020f
Real Economic Activity				
(% change)				
Personal consumer expenditure	1.6	3	2.1	2
Public consumption	3.9	5	5.5	2.9
Gross fixed capital formation	-31	-2.5	8	6.3
Exports of goods and services	7.8	7.3	4.3	3.9
Imports of goods and services	-9.4	2.5	4.3	4.0
Gross Domestic Product (GDP) ¹	7.2	7.5	4.4	3.6
Gross National Product (GNP)	4.4	5.6	4	3.2
Modified Gross National Income (Nominal)	3			
External Trade and Payments				
Balance-of-Payments Current Account (€ million)	24,920	30,107	31,460	33,281
Current Account (% of GDP)	8.5	9.5	9.3	9.3
Prices, Costs and Competitiveness				
(% change)				
Harmonised Index of Consumer Prices (HICP)	0.3	0.7	0.8	1.3
of which: Goods	-2.1	-0.2	-1.1	-0.6
Services	2.5	1.6	2.3	2.8
HICP excluding energy	-0.1	0.1	1.0	1.4
Consumer Price Index (CPI)	0.3	0.5	0.8	1.4
Compensation per Employee	0.8	2.8	3.4	3.6
Labour Market				
(% change year-on-year)				
Total employment	2.9	3.0	2.2	1.7
Labour force	1.1	1.9	1.5	1.5
Unemployment rate (ILO)	6.7	5.7	4.9	4.7
Technical Assumptions ²				
EUR/USD exchange rate	1.13	1.18	1.15	1.15
EUR/GBP exchange rate	0.88	0.88	0.88	0.88
Oil price (\$ per barrel)	48.03	60.18	58.28	58.96
Interbank market - Euribor (3-month fixed)	-0.33	-0.32	-0.23	0.09

 $^1\,\text{GNI}^*$ and adjusted presentations of the BOP/IIP provide more reliable estimates of the resources available to domestic residents.

 $^{^{2}}$ The technical assumption made is that exchange rates remain unchanged over the forecast horizon. Oil prices and interest rates are assumed to move in line with the futures market.

Comment

The Irish economy grew at a strong pace in 2018, supported by the strength of activity on the domestic side of the economy and a relatively favourable international growth environment. While headline GDP growth last year was distorted by the activities of multinational enterprises, the evidence from a range of domestic spending and activity indicators is that the domestic economy grew robustly in 2018. The strength of domestic activity has been underpinned by continuing strong and broad-based growth in employment, which has stimulated incomes and supported the growth of consumer spending, while the growth of key domestic components of investment, such as building and construction, has also accelerated.

Looking ahead, the Central Bank's central forecast is that underlying economic activity is projected to continue to grow at a relatively solid pace in coming years, though some moderation in growth is in prospect in 2019 and 2020. This reflects some expected slowing in growth given the advanced stage of the current cyclical expansion and also a less favourable and more uncertain international economic environment, with prospects for growth in our main trading partners having being lowered in recent months. With reference to Brexit, it should be pointed out that the central forecasts have been prepared on the basis of a transition period applying until end-2020, before any potential new post-Brexit trading relationship becomes operational. In present circumstances, what has to be overlaid on these forecasts, is uncertainty related to the future path of the Brexit process and its timing. The nature and timing of the UK's exit from the EU, in particular, whether it is orderly or disorderly, will have an important bearing on the growth of the Irish economy in coming years and, in the longer term, the scale of the ultimate impact of Brexit on the economy.

As a first step, abstracting from this uncertainty and conditional on the assumption of a transition period to end-2020, the outlook for the growth of the Irish economy remains broadly positive. While the forecast slowdown in external demand is projected to lead to some moderation in export growth, the main impetus to Irish economic growth over 2019 and

2020 is expected to continue to come from domestic demand, driven by further growth in employment and incomes. However, with employment growth forecast to moderate over the forecast horizon, the growth of consumer spending is projected to ease towards 2 per cent over this year and next. Allied to some easing in underlying investment spending, the growth of underlying domestic demand is projected to moderate to 4.1 per cent in 2019 and 3.3 per cent in 2020, following estimated growth of 6.0 per cent last year. This reflects a slowdown in the growth of private consumption and investment, partly offset by stronger growth in government consumption. With regard to GDP, following estimated growth of 7.5 per cent last year, growth is projected to moderate to 4.4 per cent in 2019 and 3.6 per cent in 2020. These are downward revisions of 0.4 and 0.1 per cent compared to the forecasts published in the last Quarterly Bulletin.

Turning to Brexit, in earlier analysis, the Bank has published work examining the potential medium-term impact on the Irish economy of an orderly WTO scenario and a Free Trade Area-like agreement. Given its unprecedented nature, quantifying the impact of a disorderly Brexit is highly uncertain. With a disorderly Brexit, significant additional frictions and costs arise, not just from the introduction of new trade arrangements, but from a breakdown in some of the arrangements that make trade possible - arising, for example, as a result of regulatory and customs issues, border infrastructure issues, legal uncertainties etc; with immediately damaging consequences for trade and the functioning of supply chains for production, distribution and retailing. Models and forecasting tools can be used to estimate the impact of long-run changes to trade arrangements but are less suited to predicting the short-run effects and potential disruption arising from a breakdown in those arrangements, the scale of which would also be influenced by the ability of firms and retailers to adjust to any new arrangements, as well as any policy responses or mitigating actions taken as a result.

Given these considerations, Box B (page 23) examines the possible macroeconomic implications of a sudden and disorderly Brexit in March 2019 on the Irish economy. The Box finds that the abrupt ending of existing cooperation agreements between the EU and the UK in a disorderly Brexit would have material and immediate economic implications. The impact of a 'no-deal' Brexit would permeate all areas of economic activity. There would be heightened stress in financial markets and a potentially large depreciation of sterling. The deterioration in economic conditions and a more adverse outlook would cause firms to delay or cancel investment plans. Consumer spending would also be negatively affected, reflecting concerns over future job losses and income prospects. At least for an initial period, it is likely that there would be disruption at ports and airports if

border infrastructure is unable to cope with the new arrangements. Given the deep supply chain linkages between Ireland and the UK, reflected in the reliance on the UK for imports of intermediate goods used in production by Irish firms, and also given the scale of food and consumer goods imports from the UK, there would be implications for firms through disruption to their production processes and for households through the price and availability of consumer goods. Exports would fall due to an immediate and large reduction in demand from the UK and the fall in sterling, with some sectors being further affected by any imposition of tariffs and non-tariff barriers. Those sectors which are more reliant on trade with the UK or which are more vulnerable to the imposition of tariff and non-tariff barriers, such as agriculture, food and smaller scale manufacturing, are likely to be more adversely affected.

Given its unprecedented nature, and the uncertainties around the scale and duration of the disruption arising from a sudden departure from existing arrangements, quantifying the impact of a disorderly Brexit through these channels is extremely uncertain. With these caveats, the estimates in Box B indicate that a disorderly Brexit could reduce the growth rate of the Irish economy by up to four percentage points in the first year. Given the current favourable central forecasts for the Irish economy, this means that there would continue to be some growth in output in 2019 and 2020, even in a disorderly Brexit. However, the pace of growth in both years would be materially lower. The fact that the economy would continue to grow in 2019 and 2020 in a disorderly Brexit reflects the current strong, broadbased growth in the economy, the diversified nature of production in many sectors and the strength of domestic demand. It is important to note these are not forecasts of future outcomes. Instead, they represent an illustration of the possible impact of a disorderly Brexit under a range of key assumptions.

However, Brexit is not the only risk to the Irish economic outlook and other material domestic and external risks persist. On the domestic side, while some moderation in underlying domestic demand is in prospect following a period of strong growth, labour market conditions are still set to tighten further. As the economy moves closer to full employment, there is a need to continue to guard against the risk that strong cyclical conditions give rise to overheating dynamics. On the external side, in addition to Brexit, there continue to be some clear downside risks facing the Irish economy. The international economic outlook has weakened since the publication of the last Bulletin, while risks related to international trade and taxation persist. Given the position of Ireland as a small, highly open economy and the important role of multinational firms within the economy, changes in global

trade, taxation and currency conditions have an important bearing on the performance of the economy.

In terms of domestic policy, the resilience of the economy and its ability to withstand future downturns is enhanced if buffers are built up during good times that enable stronger counter-cyclical policy actions in the event of any future economic downturn. The strong economic growth performance and still high levels of public debt warrant a greater improvement in the fiscal position than is planned. With regard to composition, the unpredictability of corporate tax revenues in recent years points to the danger of relying on, what might prove to be a partly transitory surge in revenues to fund lasting spending commitments. It would be more prudent to save rather than spend windfalls to mitigate pro-cyclical dynamics and build up buffers to limit the cost of future downturns.

An Timpeallacht Gheilleagrach

Bhí borradh maith faoi gheilleagar na hÉireann in 2018, agus tá neart na gníomhaíochta ar an taobh intíre den gheilleagar mar aon le fás idirnáisiúnta sách fabhrach ag tacú leis an mborradh sin. Cé go raibh fás OTI príomha á shaobhadh ag gníomhaíochtaí fiontar ilnáisiúnta, léirítear le fianaise ó réimse táscairí a bhaineann le caiteachas agus gníomhaíocht intíre go raibh borradh mór faoin ngeilleagar intíre in 2018. Tá fás láidir, leathan ar fhostaíocht mar bhonn agus mar thaca faoi neart na gníomhaíochta intíre, rud a chuireann borradh faoi ioncaim agus a thacaíonn le méadú ar chaiteachas tomhaltóirí, fad atá fás láidir tagtha freisin ar phríomhghnéithe intíre den infheistíocht, amhail tógáil agus foirgníocht.

Ag féachaint romhainn, tuartar i réamhaisnéis lárnach an Bhainc Ceannais go dtiocfaidh fás ar luas sách láidir ar an mbunghníomhaíocht eacnamaíoch in 2018, cé go bhfuil ionchas ann go dtiocfaidh maolú áirithe ar an bhfás sin in 2019 agus in 2020. Is léiriú é sin ar mhoilliú áirithe ar fhás a rabhthas ag súil leis i bhfianaise céim chun cinn an leathnaithe thimthriallaigh atá anois ann agus i bhfianaise timpeallacht eacnamíoch idirnáisiúnta níos lú fabhraí agus níos éiginnte, inar tháinig laghdú ar ionchais fáis ár bpríomhchomhpháirtithe trádála le míonna beaga anuas. Ó thaobh Brexit de, ba cheart a shonrú gur ullmhaíodh na réamhaisnéisí lárnacha ar an mbonn go mbeadh idirthréimhse i gceist go dtí deireadh 2020, sula dtiocfadh aon chaidreamh trádála nua ionchasach iar-Brexit i ngníomh. Agus cúinsí mar atá, is gá éiginnteacht i dtaca leis an treo a ghlacfaidh próiseas Brexit amach anseo, agus an t-am a bhainfidh leis, a chur leis na réamhaisnéisí sin. Maidir le nádúr agus am imeacht na Ríochta Aontaithe ón Aontas Eorpach agus go háirithe, más Brexit ordúil nó mí-ordúil a bheidh ann, beidh tionchar tábhachtach aige ar fhás gheilleagar na hÉireann sna blianta atá romhainn, agus ar scála an tionchair dheireanaigh a bheidh ag Brexit ar an ngeilleagar san fhadtéarma.

Má bhaintear tátal as an éiginnteacht, agus ar an gcoinníoll go mbeadh idirthréimhse ann go dtí deireadh 2020, tá an t-ionchas fáis do gheilleagar na hÉireann fós sách dearfach. Cé go dtuartar go n-eascróidh maolú áirithe ar fhás onnmhairí as an maolú tuartha ar éileamh seachtrach, meastar gur ó

éileamh intíre a thiocfaidh an príomhspreagadh don fhás thar 2019 agus thar 2020, arna spreagadh ag tuilleadh fáis ar fhostaíocht agus ar ioncaim. Dá ainneoin sin, toisc go dtuartar go maolófar an réamhaisnéis ar fhás fostaíochta thar thréimhse na réamhaisnéise, tuartar go mbeidh maolú ar fhás caiteachais tomhaltóirí i dtreo 2 faoin gcéad le linn na bliana seo agus le linn na bliana seo chugainn. I dteannta maolú áirithe ar bhunchaiteachas infheistíochta, tuartar go maolófar an fás ar bhunéileamh intíre go 4.1 faoin gcéad in 2019 agus go 3.3 faoin gcéad in 2020, tar éis fás measta 6.0 faoin gcéad an bhliain seo caite. Is léiriú é sin ar mhoilliú ar fhás tomhaltais phríobháidigh agus infheistíochta, arna fhritháireamh go páirteach ag fás níos láidre ar thomhaltas rialtais. Maidir le ONI, tar éis fás measta 7.5 faoin gcéad an bhliain seo caite, tuartar go mbeidh maolú ar fhás go 4.4 faoin gcéad in 2019 agus go 3.6 faoin gcéad in 2020. Is athbhreithnithe anuas de 0.4 faoin gcéad agus de 0.1 faoin gcéad iad sin ar an tuar a foilsíodh san Fhaisnéis Ráithiúil dheireanach.

Maidir le Brexit, tá saothar foilsithe ag an mBanc Ceannais in anailís a rinneadh roimhe seo inar scrúdaíodh an tionchar féideartha meántéarmach a bheadh ag cás EDT ordúil agus ag comhaontú amhail comhaontú Limistéir Shaorthrádála ar gheilleagar na hÉireann. Toisc nádúr Brexit atá gan fasach, tá ardéiginnteacht ag baint le tionchar Brexit mí-ordúil a chainníochtú. Le Brexit mí-ordúil, tagann teannais agus costais bhreise chun cinn, ní hamháin de thoradh teacht isteach comhaontuithe nua trádála, ach de thoradh cliseadh ar chuid de na comhaontuithe lenar féidir trádáil a dhéanamh d'fhéadfadh sé sin teacht chun cinn de bharr saincheisteanna rialála agus custaim, saincheisteanna maidir le bonneagar teorann, éiginnteacht dhlíthiúil etc; nithe a mbeadh iarmhairtí dochracha láithreacha acu ar thrádáil agus ar fheidhmiú slabhraí soláthair do tháirgeadh, do dháileadh agus do mhiondíol. Is féidir samhlacha agus uirlisí réamhaisnéise a úsáid chun tionchar athruithe fadtéarmacha ar shocruithe trádála a mheas ach níl siad chomh hoiriúnach céanna chun éifeachtaí gearrthéarmacha agus suaitheadh ionchasach a thuar arna n-eascairt as cliseadh na socruithe sin, a mbeadh a scála faoi thionchar cumas gnóthas agus miondíoltóirí dul i gcleachtadh ar aon socruithe nua, agus faoi thionchar aon fhreagairtí beartais nó bearta maolaithe arna nglacadh dá bharr sin.

I bhfianaise na ngnéithe sin, scrúdaítear i mBosca B (leathanach 23) na himpleachtaí macraeacnamaíochta féideartha a bheadh ag Brexit tobann mí-ordúil i Márta 2019 ar gheilleagar na hÉireann. Léirítear sa Bhosca go mbeadh impleachtaí eacnamaíocha ábhartha láithreacha ag deireadh tobann a bheith leis na comhaontuithe comhair atá anois ann idir an tAontas Eorpach agus an Ríocht Aontaithe i gcás Brexit mí-ordúil. Bheadh tionchar Brexit 'gan chomhaontú' le brath i ngach réimse de ghníomhaíocht eacnamaíoch. Bheadh strus ardaithe ann i margaí airgeadais agus b'fhéidir

go mbeadh dímheas mór ar steirling freisin. Mar gheall ar mheathlú ar dhálaí eacnamaíoch agus ar fhorbhreathnú ní ba dhiúltaí, chuirfeadh gnóthais pleananna infheistíochta ar athló nó ar ceal. Bheadh tionchar diúltach ar chaiteachas tomhaltóirí freisin, mar léiriú ar imní faoi chailliúint postanna agus faoi ionchas ioncaim sa todhchaí. Don tréimhse tosaigh ar a laghad, is dóigh go gcuirfear isteach ar chalafoirt agus ar aerfoirt mura mbíonn an bonneagar teorann in ann déileáil leis na socruithe nua. I bhfianaise na naisc dhoimhne sa sleabhra soláthair idir Éire agus an Ríocht Aontaithe, rud a léirítear sa spleáchas ar an Ríocht Aontaithe i gcomhair allmhairí earraí idirmheánacha a úsáideann gnóthais Éireannacha i dtáirgeadh, agus i ngeall ar scála na n-allmhairí bia agus earraí tomhaltóirí ón Ríocht Aontaithe, bheadh impleachtaí do ghnóthais trí shuaitheadh dá bpróisis táirgthe agus do theaglaigh trí phraghas agus infhaighteacht earraí tomhaltóirí. Thiocfadh laghdú ar onnmhairí de bharr laghdú mór láithreach ar éileamh ón Ríocht Aontaithe agus de bharr titim i steirling, agus bheadh tionchar breise ar roinnt earnálacha de bharr taraifí agus constaicí neamhtharaife. Maidir leis na hearnálacha sin a bhraitheann níos mó ar thrádáil leis an Ríocht Aontaithe nó atá níos leochailí i dtaca le tafaifí agus constaicí neamhtharaife, amhail talmhaíocht, bia agus déantúsaíocht ar scála níos lú, is dócha go mbeidh tionchar ní ba dhiúltaí ar na hearnálacha sin.

I bhfianaise nádúr Brexit atá gan fasach, agus i bhfianaise na héiginnteachta a bhaineann le scála agus tréimhse an tsuaite arna eascairt as imeacht tobann ó na socruithe atá anois ann, tá ardéiginnteacht ag baint le tionchar Brexit mí-ordúil ar na gnéithe sin a chainníochtú. Leis na foláirimh sin, tugann na meastúcháin i mBosca B le tuiscint go bhféadfadh Brexit míordúil ráta fáis gheilleagar na hÉireann a laghdú oiread agus 4 phointe faoin gcéad sa chéad bhliain. I bhfianaise na réamhaisnéisí dearfacha atá anois ann do gheilleagar na hÉireann, ciallaíonn sé sin go mbeadh fás áirithe fós ar aschur in 2019 agus in 2020, fiú agus Brexit mí-ordúil ann. Mar sin féin, bheadh an luas fáis sa dá bhliain sin laghdaithe go suntasach. Leanfadh an geilleagar ag fás in 2019 agus in 2020 i gcás Brexit mí-ordúil, agus is léiriú é sin go bhfuil fás láidir leathan ann sa gheilleagar anois, go bhfuil nádúr an táirgthe éagsúlaithe i mórán earnálacha, agus go bhfuil éileamh intíre láidir. Tá sé tábhachtach a thabhairt faoi deara nach réamhaisnéisí iad seo de thorthaí sa todhchaí. Ina ionad sin, is léiriú iad ar an tionchar féideartha a d'fhéadfadh a bheith ag Brexit faoi réimse príomhthoimhdí.

Dá ainneoin sin, ní hé Brexit an t-aon riosca amháin d'ionchas eacnamaíoch na hÉireann agus tá rioscaí ábhartha intíre agus seachtracha fós ann. Ar an taobh intíre, tá dálaí an mhargaidh saothair fós le daingniú tuilleadh, cé go bhfuil maolú áirithe ar bhunéileamh intíre ar an bhfás tar éis tréimhse fáis láidir. Fad is atá an geilleagar ag druidim i dtreo lánfhostaíochta, is gá

cosaint a thabhairt ar an riosca go go n-eascróidh dinimic an róbhorrtha as dálaí timthriallacha láidre. Ar an taobh seachtrach, tá roinnt rioscaí soiléire ar an taobh thíos fós ann do gheilleagar na hÉireann, sa bhreis ar Brexit. Tá an t-ionchas eacnamaíoch idirnáisiúnta lagaithe ó foilsíodh an Fhaisnéis dheireanach, fad is atá rioscaí do thrádáil idirnáisiúnta agus do cháin idirnáisiúnta fós ann. I bhfianaise chás na hÉireann mar gheilleagar beag fíoroscailte agus i bhfianaise ról tábhachtach na ngnóthas ilnáisiúnta laistigh den gheilleagar, bíonn tionchar tábhachtach ag athruithe ar thrádáil dhomhanda, ar cháin agus ar dhálaí airgeadra ar fheidhmiú an gheilleagair.

Maidir le beartas intíre, neartaítear athléimneacht an gheilleagair agus a chumas cúlú amach anseo a sheasamh má chruinnítear maoláin fhioscacha le linn tréimhsí maithe, rud a cheadóidh gníomhaíochtaí beartais fhritimthriallacha níos láidre i gcás aon chúlú eacnamaíoch amach anseo. Maidir leis an bhfeidhmíocht láidir i bhfás eacnamaíoch agus na leibhéil airde fiachais phoiblí atá fós ann, éilíonn siad sin feabhas ní ba mhó sa staid fhioscach ná mar atá beartaithe. De réir stuamacht fhioscach, ba cheart barrachais mhóra a bheith ann chun dinimic chomhthimthriallacha a mhaolú agus chun maoláin a chruinniú chun teorainn a chur le costas cúluithe amach anseo. I dtaca le comhdhéanamh, léiríonn neamhintuarthacht ioncaim cánach corparáidí le blianta beaga anuas go bhfuil baol ag baint le brath ar bhorradh faoi ioncam, a d'fhéadfadh a bheith ina bhorradh neamhbhuan, chun gealltanais chaiteachais mharthana a mhaoiniú. B'iomchuí amhantair a choigilt seachas iad a chaitheamh, chun dinimic chomhthimthriallacha a mhaolú agus chun maoláin a chruinniú chun teorainn a chur le costas cúluithe amach anseo.

The Irish Economy

Overview

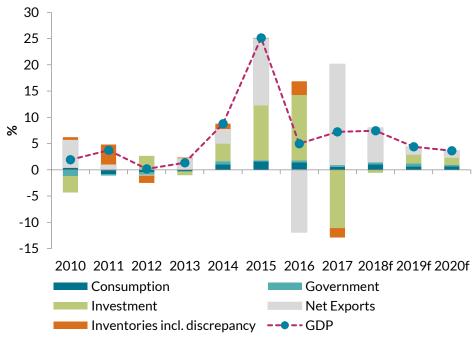
- Following a strong performance last year, while the underlying outlook for the economy remains positive, it is subject to heightened levels of risk and uncertainty. There has been some lowering of the prospects for growth in our main trading partners and downside risks arising from uncertainty regarding the terms of the UK exit from the European Union (Brexit) have heightened. Growth in underlying domestic demand is forecast to slow from about 6 per cent in 2018 to 4.1 percent this year, moderating further to 3.3 per cent in 2020. This reflects a slowdown in the growth of private consumption and investment, offset, in part, by a significant impetus to growth from government consumption. In the absence of distortions from globalised sectors of the economy, GDP growth of 4.4 percent this year and 3.6 percent in 2020 would be broadly in line with underlying developments.
- The forecasts for output and employment growth this year and in 2020 published in this Bulletin are predicated on the implementation of the Draft Brexit Agreement as agreed between the EU and The UK on 14 November 2018, or an agreement similar to this. Since it encompasses a transition period to the end of 2020 when EU law will remain applicable to and in the UK, the Draft Agreement, if implemented, will not have a material impact on the outlook for the economy up to that point. However, even under these assumptions, with the ratification of the agreement uncertain and given the continuing threat of a disruptive Brexit, increased uncertainty could have a negative impact on growth prospects this year.
- Strong labour market conditions that underpinned a marked acceleration in consumer spending last year will continue to support consumer demand this year and next. However, with increasing uncertainty about economic prospects weighing on sentiment, consumer spending is unlikely to match the growth in disposable incomes. Growth in consumer spending is forecast to slow from 3 per cent last year to 2.1 percent this year and 2 percent in 2020.
- Robust growth in underlying investment of about 17 per cent last year reflected continuing strength in building and construction investment together with a sharp rebound in underlying machinery and equipment following a surprisingly weak outturn in the previous year. In contrast to the buoyancy in underlying investment headline investment dropped sharply last year due to a significant fall in investment in intellectual property (IP).

- It is estimated that 18,000 housing units were completed in 2018 and forward-looking indicators point to 23,000 completions this year, rising to 27,000 units in 2020. Growth in overall building and construction investment is forecast to average 15.6 per cent this year, close to the outturn for last year, before moderating to 10 per cent in 2020. Projected growth in underlying machinery and equipment investment points to a more significant slowdown from almost 22 per cent growth in 2018 to 5 per cent this year and 4.2 per cent in 2020. This reflects both the exceptional strength last year, which would be difficult to sustain, and the negative impact of increased risks and uncertainty on investor confidence. Underlying investment is forecast to increase by 9 per cent this year and by 7.1 per cent in 2020.
- A strong labour market performance last year reflected corresponding strength in the domestic economy. It is estimated that employment growth averaged 3 per cent while unemployment declined by a full percentage point to 5.7 per cent, on average. While moderation in the pace of employment growth in line with the outlook for aggregate demand is forecast, growth of 2.2 per cent this year and 1.7 per cent in 2020 is likely to exceed growth in labour supply of about 1.5 per cent in both years. As a result, there is scope for a further decline in the unemployment rate to an average of 4.9 per cent this year and 4.7 percent in 2020.
- The strength of domestic demand is not reflected in the consumer and corporate credit trends which remain subdued. While new lending to both households and small and medium sized enterprises (SMEs) is growing at an increasing rate, in both cases it remains below the rate of repayment of outstanding loans. This ongoing deleveraging has resulted in significant declines in debt burdens from pre-crisis peaks. In the household sector, for example, the debt to disposable income ratio has declined from a peak of over 210 per cent in 2009 to less than 128 per cent in 2018 Q2. This ratio, nevertheless, remains high by international standards and is the fourth highest in the euro area.
- Underlying inflationary pressures in the Irish economy remain subdued despite the strength of domestic activity. While higher energy prices pushed up headline inflation during the course of last year, core inflation (excluding exergy prices) has been barely positive (0.1 per cent in November). Average headline inflation last year of 0.7 per cent reflected a 0.2 per cent decline in goods prices offset by a 1.6 per cent increase in services prices, which were mainly driven by growth in housing rents. Headline HICP inflation is projected to pick up marginally to 0.8 per cent this year as weaker goods prices inflation arising from exchange rate effects and lower energy prices offset a

- gradual pick up in services inflation due to increasing wage pressure in a gradually tightening labour market. HICP inflation is forecast to average 1.3 per cent in 2020.
- Robust growth in pharmaceutical exports drove a strong export performance last year with growth of 7.3 percent overall in volume terms. Growth in services exports, which was relatively weak in the first half of the year, picked up strongly in the second half led by strong growth in exports of computer services and business services. The geographical spread of export demand reflected the relative performance of our main trading partners, with strong demand in the EU (excluding the UK) and the rest of the World contrasting with a slowdown in the UK market.
- Looking ahead to this year and in 2020, a projected moderation in export growth reflects a corresponding slowdown in world demand. Export growth is forecast to moderate to growth of about 4.3 per cent this year and 3.9 percent in 2020. With Brexit-related uncertainty weighing on demand, the weakness in the UK market, evident last year, is likely to persist leading to a further shift in export sales to better performing markets such as the remaining EU Member States and the US.
- While the outlook for exports is predicated on a Brexit along the lines of the Draft Agreement, the probability of a more disruptive Brexit, beginning on 29 March with no transition, has risen appreciably. The potential impact of a disruptive Brexit is discussed in Box B below. While it is not possible to be precise in estimating the overall impact, it is clear that the effects would be severe for the UK and would have negative and material economic implications for Ireland. The impact on the Irish economy would be propagated predominately through the trade channel. A large and protracted drop in UK demand combined with a potentially severe disruption to trade and a loss in competitiveness in the face of a decline in sterling would lead to a dramatic drop in exports to the UK. Spillover effects would be likely to affect key areas of economic activity in Ireland.
- Risks to the outlook are mainly external but could be exacerbated by overheating in a domestic economy approaching full employment. While forecast revisions incorporate recent downward adjustments to the outlook for world demand, risks to the external environment remain high and with a more pronounced downward tilt. The most significant near-term external risk relates to uncertainty surrounding the terms of Brexit. While a benign Brexit is assumed in the baseline, the risk of a disruptive Brexit has increased significantly. Other external

risks that have the potential to undermine growth prospects here include changes to international tax regimes that can have an impact on FDI decisions by multinational firms, disruptive movements in bilateral exchange rates and risks to the world trading architecture.

Figure 1: Contributions to GDP Growth



Source: CSO and Central Bank of Ireland.

Box A: The International Economic Outlook

By Monetary Policy Division

Global economic activity has remained resilient and expanded at a steady pace, but signs of a less even expansion and a moderating momentum are emerging. The IMF foresees global GDP growth of 3.5 per cent in 2019 and 3.6 per cent in 2020. Projections were revised down for 2019, reflecting output gaps already closed in many advanced economies and spare capacity expected to tighten across emerging market economies. Moreover, while the global impact of the intensified trade tensions between the United States and China is still relatively limited, heightened uncertainty about future trade relations may adversely affect confidence and investment.

Euro area economic activity was weaker than expected in the second half of 2018, reflecting a diminishing contribution from external demand and some country and sector-specific factors. Real GDP increased by 0.2 per

cent on a quarterly basis and by 1.6 per cent on an annual basis in the third quarter of 2018. The unemployment rate was 7.9 per cent in November, down from 8.0 per cent in October, reaching the lowest level seen since October 2008. Monetary policy remains accommodative, underpinning domestic demand and supporting favourable financing conditions. This, together with a continued expansion in global activity, is supporting business investment.

The ECB staff macroeconomic projections released in December broadly reflect this assessment, foreseeing euro area GDP to increase by 1.9 per cent in 2018, 1.7 per cent in 2019, 1.7 per cent in 2020, and 1.5 per cent in 2021 (slightly revised down for 2018 and 2019 compared with the September projections). While the risks surrounding the growth outlook are still assessed as broadly balanced, the balance of risks is moving to the downside, due to rising protectionism, vulnerabilities in emerging markets and financial market volatility.

Turning to sentiment indicators for the euro area, the Markit composite PMI has moved markedly down recently. Down from 52.7 in November, the index reached 51.1 in December 2018, which is the lowest reading since late 2014. This figure is consistent with GDP rising by just under 0.3 per cent in the fourth quarter, but with quarterly growth momentum slowing to 0.15 per cent in December. The European Commission's sentiment indicators also weakened markedly in December, with the flash consumer confidence indicator, the economic sentiment indicator, and the business climate indicator decreasing by 2.3 points to -6.2, by 2.2 points to 107.3, and by 0.22 points to 0.82, respectively.

Euro area annual HICP inflation was 1.6 per cent in December 2018, down from 1.9 per cent in November. While declining from the very high rates observed in previous months, energy remained the component with the highest annual rate. Measures of underlying inflation have remained broadly stable, but subdued overall, with HICP excluding energy and unprocessed food increasing by 1.1 per cent in December. The December projections foresee annual HICP inflation at 1.6 per cent in 2019, 1.7 per cent in 2020 and 1.8 per cent in 2021 (slightly revised down for 2019 compared with the September projections). The energy component is expected to decline further over the forecast horizon, offset by gradually rising underlying inflation as supply constraints become increasingly binding.

In December, the Governing Council of the ECB confirmed the end of the net asset purchase programme but enhanced its forward guidance on reinvestment, which is expected to continue for an extended period past the date when the key ECB interest rates will rise. Forward guidance on

the policy rates was confirmed, with rates being expected to remain at their present levels at least through the summer of 2019, and in any case for as long as necessary to ensure that inflation remains aligned with a sustained adjustment path.

Turning to the United States, economic activity has been rising at a strong rate, with real GDP increasing by 0.9 per cent on a quarterly basis and by 3 per cent on an annual basis during the third quarter of 2018. Risks to the economic outlook appear roughly balanced. Labour market has continued to strengthen, with strong job gains and low unemployment. Annual headline inflation and inflation excluding energy and food have remained near 2 per cent.

The US Federal Open Market Committee (FOMC) decided to raise the target range for the federal funds rate to 2.25 to 2.5 per cent at its December meeting. Timing and size of future adjustment in the federal funds rate will reflect the FOMC's assessment of realised and expected economic conditions.

In the United Kingdom, Brexit uncertainties have intensified considerably in recent months, weighing on the exchange rate of the sterling, bank funding costs, corporate bond spreads and equity prices. Such uncertainties, coupled with the slowing global economy, has also weighed on the growth outlook, with business investment falling and expected to remain weak in the near term, and the housing market remaining subdued. On the other hand, household consumption have been resilient overall.

The Bank of England's Monetary Policy Committee voted unanimously, at its December meeting, to maintain the Bank Rate unchanged at 0.75% and the stock of bond purchases unchanged at £445 billion. Looking ahead, the appropriate path of monetary policy will necessarily reflect the broader economic outlook. This, in turn, will continue to depend significantly on the nature of EU withdrawal and in particular: the form of new trading arrangements between the European Union and the UK; whether the transition is abrupt or smooth; and how households, businesses and financial markets respond.

Demand

Domestic Demand Overview

Growth in domestic demand, while continuing to be the main driver of underlying growth in the economy is projected to moderate this year and in 2020. Following growth of 6 per cent last year, the Bank's adjusted measure of demand - underlying domestic demand - that removes a number of the volatile investment components, is forecast to grow by 4.1 per cent this year and by 3.3 per cent in 2020. This projected moderation in the pace of growth in the domestic economy reflects both the advanced stage of the business cycle and the negative impact of heightened uncertainty on consumer and investor confidence.

In addition to the underlying domestic demand measure, the Bank has developed a new economic activity indicator that uses a large panel of highfrequency data. This indicator (documented in Quarterly Bulletin No 3 2018) points to a broadly similar underlying rate of growth in the domestic economy of about 5.7 per cent in 2018.

8 Annual Growth Rate, % 6 4 2 0 -2 -4 -6 2011 2012 2013 2014 2015 2016 2017 2018 Underlying Domestic Demand (UDD) ••••• UDD Indicator (Monthly Data) ••••• UDD Indicator (Employment)

Figure 2: Underlying Domestic Demand and Indicator Models

Source: Central Bank of Ireland.

Consumption

Consumer spending increased by an estimated 3 per cent last year, rebounding strongly following a surprisingly muted outturn for 2017. The pattern of demand during the course of the year was one of weakness in the first quarter followed by a pronounced pick up in the following two quarters. Quarterly National Accounts (QNA) data show volume growth in consumer spending averaging 3.1 per cent in the first three quarters of the year.

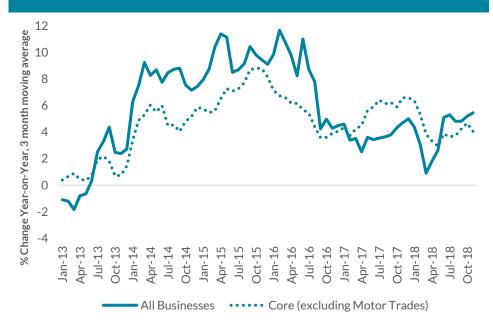
Strong growth in disposable incomes and favourable labour market conditions drove consumer demand last year. Consumer sentiment was, however, less supportive. While confidence among consumers regarding the personal finances remained relatively stable, growing uncertainty, regarding the outlook for the economy weighed on overall consumer sentiment.

Heightened uncertainty regarding international economic prospects and in particular the risk of a disruptive UK departure from the European Union will continue to weigh on consumer confidence this year and, notwithstanding continued growth in household incomes, the outlook is for some moderation in the growth of consumer spending compared to the 2018 outturn. Personal consumption expenditure is forecast to grow by 2.1 per cent this year slowing further to 2 per cent growth next year. This rate of growth is likely to be exceeded by projected growth in household disposable incomes resulting in a gradual increase in the savings rate over the forecast horizon.

Table 1: Expenditure on Gross National Product 2018e to 2020f

	% char	nge in	2018e	% cha	nge in	2019f	% cha	ange in	2020f
	vol	price	€millions	vol	price	€millions	vol	price	€millions
Personal									
Consumption	3	1.6	104,539	2.1	1.8	108,602	2	2.2	113,212
Expenditure Public Net Current									
Expenditure	5	2.5	31,832	5.5	1.9	34,222	2.9	2	35,919
Gross Domestic									
Fixed Capital	-2.5	3.6	69,782	8	3	77,584	6.3	2.5	84,558
Formation									
Building and	15.6	6.8	26,911	10.3	5.9	31,430	8	3.8	35,245
Construction		0.0			0.7	52,100		0.0	33,2 .3
Machinery and Equipment	21.8	0	21,332	5	0.1	22,426	4.2	1.2	23,658
Intangibles	-30	3.5	21,539	8	2	23,728	6	2	25,654
Value of Physical	50	0.5		U			U		
Changes in Stocks			3,532			3,532			3,532
<u> </u>									
TOTAL									
DOMESTIC	1.4	2.4	209,685	4.5	2.2	223,941	3.6	2.3	237,220
DEMAND									
of which: Underlying Domestic Demand	6	2.2	172,629	4.1	2.3	183,971	3.3	2.4	194,632
Exports of Goods									
& Services	7.3	-0.1	377,877	4.3	1	398,330	3.9	1.5	420,197
FINAL DEMAND	5.1	0.8	587,563	4.4	1.5	622,271	3.8	1.8	657,417
Imports of Goods	2.5	1.3	-273,400	4.3	0.8	-287,662	4	1.2	-302,637
& Services	2.0	1.0	27 0, 100		0.0	207,002	·		002,007
Statistical									
Discrepancy			2,773			2,773			2,773
Візстеринеў									
GROSS									
DOMESTIC	7.5	0.3	316,935	4.4	2	337,382	3.6	2.3	357,553
PRODUCT									
Net Factor Income	447	0.4	(0770	5 0	4	74/47	F 0	4.5	70/07
from Rest of the World	14.6	-0.1	-69778	5.8	1	-74,617	5.2	1.5	-79687
VVOITG									
GROSS									
NATIONAL	5.6	0.4	247,157	4	2.2	262,765	3.2	2.5	277,866
PRODUCT									
EU subsidies less			1,135			1,207			1,276
taxes			,			/			,
GROSS									
NATIONAL	5.6	0.4	248,292	4	2.3	263,972	3.2	2.5	279,142
INCOME	2.3	3. 1	0,_ / _		2.3	250,772	J	2.3	_, ,, _ ,_

Figure 3: Index of Volume of Retail Sales



Source: CSO and Central Bank of Ireland.

Box B:

The Macroeconomic Implications of a Disorderly Brexit By Thomas Conefrey, Gerard O'Reilly and Graeme Walsh

On 29 March 2019, the United Kingdom is due to leave the European Union. If an EU-UK withdrawal deal is ratified by the UK parliament, a transition period will take effect until 31 December 2020. During this period the entire body of EU rights and obligations will apply in the UK as if it were a member state. This means that the UK will continue to participate in the EU Customs Union and the Single Market (with all four freedoms) and all Union policies. The transition period would allow the EU and UK time to negotiate a new future relationship while also giving time for citizens and businesses to plan and prepare. The central forecasts presented in this Bulletin are predicated on a transition period coming into effect from 30 March. However, there is uncertainty at present as to whether a withdrawal agreement will be ratified by the UK parliament. If a withdrawal deal is not ratified, this could result in a disorderly exit of the UK from the EU on 30 March 2019. In previous analysis, we have examined the potential impact on the Irish economy over the medium term of an orderly WTO scenario and a FTA-like

agreement. ^{3,4} In this Box, we examine some of the macroeconomic implications of a disorderly Brexit in March 2019.

From the spectrum of potential outcomes, a no-deal disorderly Brexit represents a worst-case scenario for Ireland. In the event of a no-deal outcome, the UK's status would change to that of a non-member from 30 March 2019. This would mean that all existing cooperation agreements in place between the EU and UK would no longer apply. The scale of the potential disruption in a disorderly Brexit is reflected in the fact that the Preparedness Notices published to date by the European Commission cover 87 different areas of existing cooperation between the EU and the UK from movement of animals to energy policy. 5 The abrupt ending of these arrangements in a disorderly Brexit would have material and immediate economic implications.

The impact of a no-deal Brexit would permeate all areas of economic activity including: financial markets; importing and exporting; supply chains and business operations; investment; consumer spending; the labour market; and the public finances. The key channels through which a disorderly Brexit would affect the Irish economy are discussed below. It is important to note that, while this analysis assumes a disorderly UK exit from the EU on 30 March, there are some mitigating factors that would help to alleviate the severity of a disorderly exit. Should the date of the UK's exit be extended beyond 30 March, this would allow further time for firms and households to prepare and would lessen the scale of the disruption from a disorderly exit. Furthermore, in the financial services sector, substantial preparatory work has already been undertaken to mitigate the most immediate and material "cliff-edge" financial stability risks.6

³ See Conefrey, T., Walsh, G. and O'Reilly, G. (2018). "Modelling External Shocks in a Small Open Economy: The Case of Ireland." Available at:

https://www.niesr.ac.uk/publications/modelling-external-shocks-small-openeconomy-case-ireland and Conefrey, T. and Walsh, G. (2018). "The Macroeconomic Implications of the UK Government Brexit White Paper: A Preliminary Analysis." Available at: https://www.centralbank.ie/docs/default-

source/publications/quarterly-bulletins/qb-archive/2018/quarterly-bulletin-q4-2018.pdf?sfvrsn=4

⁴ McQuinn, K. (2018) examines the impact of different Brexit scenarios on output growth in 2019. See Box 1. https://www.esri.ie/system/files/media/fileuploads/2018-12/QEC2018WIN.pdf

⁵ See https://ec.europa.eu/info/brexit/brexit-preparedness/preparednessnotices en#move

⁶ See speech by Deputy Governor Ed Sibley on 17 January 2019. "Safety and Soundness: Strategic Priorities for the Next Three Years." Available at: https://www.centralbank.ie/news/article/safety-and-soundness----deputygovernor-ed-sibley18Jan2019

Financial Market Effects: A disorderly Brexit would cause immediate disruption in financial markets. Weaker economic conditions and a rise in uncertainty would result in falls in the values of bonds and equities with spillovers to other markets. Financial market conditions would be likely to tighten with increases in borrowing costs for UK firms and households. Exchange rates would also be affected. In a no-deal scenario, NIESR (2018) assume that sterling would depreciate against the euro by a further 10 per cent, on top of the 13.5 per cent depreciation since the 2016 referendum. In a worst-case stress scenario published by the Bank of England, it is assumed that sterling could fall by 25 per cent in a disorderly Brexit. While further depreciation of sterling would aid the adjustment of the UK economy, it would adversely affect the competitiveness of Irish exporters, as well as Irish producers that compete with UK imports in domestic markets.

Consumer Spending and Investment: In a disorderly scenario, uncertainty over future trade arrangements along with a deterioration in the economy and downward revisions to the growth outlook may cause firms to delay or cancel investment plans. Consumer spending would also be negatively affected as concerns over future job losses and income prospects could result in a rise in precautionary saving. A number of academic studies have demonstrated the existence of a link between the level of uncertainty and the spending decisions of firms and households.8 For the UK, there is already evidence that uncertainty has had a dampening effect on UK consumer spending and investment. In a disorderly Brexit, it is likely that similar effects would reduce activity in the Irish economy, reflecting a deterioration in both business and consumer sentiment.9

Importing: Around one quarter of Irish imports of goods come from the UK comprising mainly intermediate inputs (goods which are subject to further processing in Ireland and are then either exported or sold in the domestic market) and consumer goods. Lawless (2018) shows that for Irish-owned firms, more than half of total imports from the UK are

⁷ Comparing the average value of sterling in December 2018 with its average value in June 2016. See

https://www.niesr.ac.uk/sites/default/files/publications/NIESR%20Report%20Bre xit%20-%202018-11-26.pdf

⁸ See Bernanke, B.S. (1983). "Irreversibility, uncertainty, and cyclical investment," The Quarterly Journal of Economics, 98(1), pp. 85–106 and Bloom, N., Floetotto, M., Jaimovich, N., Saporta Eksten, I. and Terry, S. (2014). "Really uncertain business cycles," US Census Bureau Center for Economic Studies, Paper No. CES-WP-14-18. ⁹ Rice (2019) provides evidence of a link between uncertainty and consumption and investment spending in Ireland. Rice, J. (2019). "Economic Policy Uncertainty in Ireland." Forthcoming.

intermediate inputs with food products accounting for a further one third (these could be either consumer goods or intermediate inputs). 10 As well as this direct dependence on UK imports, the UK landbridge is used extensively by Irish firms for the transportation of a large proportion of Irish goods trade with the continent.¹¹

A disorderly Brexit occurring before new border infrastructure, customs procedures and processes have been established would disrupt supply chains and inhibit the transportation of goods into and out of Ireland. As outlined in the Government's No Deal Brexit Contingency Plan published on 18 December 2018, the work to prepare the infrastructure at Irish ports and airports is still at a preparatory stage. 12 As a result, a disorderly Brexit would be associated with additional congestion, disruption to transport services and delays at the border. Given the importance of time-sensitive agri-food products in Irish-UK trade, the disruption to Irish trade from infrastructure bottlenecks could be substantial. Firms using intermediate inputs sourced from the UK in their production processes in Ireland would therefore be negatively affected by higher costs and potential delays. For consumers, this disruption could result in increases in the price of imported goods while the availability of some products could also be jeopardised.¹³

Exports: a disorderly Brexit would reduce Irish exports due to lower demand from the UK, higher tariff and non-tariff barriers and exchange rate effects.

(i) **UK Demand for Irish Exports**

Membership of the EU customs union means that there are no tariffs or quotas on goods trade between the EU and UK. As well as ensuring the absence of tariffs, the EU single market is one of the most advanced regimes in the world in terms of reducing non-tariff barriers (NIESR, 2018). EU membership is therefore central in ensuring frictionless EU-

¹⁰ See Lawless, M. (2018). "Intermediate Goods Inputs and the UK Content of Irish Goods Exports." Available at: https://www.esri.ie/system/files?file=media/fileuploads/2018-06/BKMNEXT362.pdf

¹¹ Lawless and Morgenroth (2017) show that over two thirds of all Irish trade (by volume) with markets outside the UK is transported via the UK landbridge. The use of the landbridge is greater for exports than imports. See

https://www.esri.ie/system/files/media/file-uploads/2017-10/WP573.pdf

¹² Government of Ireland. (2018). "Preparing for the withdrawal of the United Kingdom from the European Union on 29 March 2019. Contingency Action Plan." Available at: https://www.dfa.ie/media/dfa/eu/brexit/brexitcontingency/No-Deal-Brexit-Contingency-Action-Plan-December-18.pdf

¹³ See Lawless, M. and Morgenroth, E. (2017). "Brexit and Irish Consumers." Available at: https://www.esri.ie/system/files?file=media/file-uploads/2018-03/QEC2018SPR SA Lawless.pdf

UK trade. Estimates from the academic literature show that moving from full membership of the EU customs Union and Single Market to a trade relationship on WTO terms would reduce EU-UK trade in goods by between 53-65 per cent in the long run.¹⁴ Services trade would fall by 43-65 per cent. 15 The scale of this decline in trade would reduce UK growth and hence demand for Irish exports. In addition to the trade channel, a range of studies show that overall UK growth would be negatively affected through other channels including lower UK FDI inflows and lower migration. These changes could impair productivity growth in the long run. Combining all these effects, analysis published by the Bank of England shows that in a worst-case stress scenario UK GDP could fall by up to 8 per cent in the first year of a disorderly Brexit, with output 10.5 per cent lower in the long run. 16 A severe reduction in UK activity of this magnitude would transmit directly to the Irish economy via lower UK demand for Irish exports.

(ii) **Tariffs**

The imposition of tariffs affect trade by changing the prices of exports and imports.¹⁷ The levying of duties and taxes would introduce the need for customs declarations to be presented to the relevant authorities. Lawless and Morgenroth (2017) estimate that the average WTO tariff on UK to Ireland trade could be as high as 11.7 per cent. The implied tariff on Ireland to UK trade could be up to 18 per cent. These rates are significantly higher than the average implied tariff on all EU-UK trade. This is due to the concentration of Ireland-UK trade in products that would attract the highest WTO tariffs. Irish exports of agri-food products would be particularly exposed. 18 The sector is heavily reliant on the UK

¹⁴ There is already some evidence of reduced engagement by UK firms in EU trade since the 2016 referendum due to increased trade policy uncertainty. See Crowley, M., Exton, O. and Han, L. (2018). "Renegotiation of Trade Agreements and Firm Exporting Decisions: Evidence from the Impact of Brexit on UK Exports." Available at: https://www.repository.cam.ac.uk/handle/1810/280300 ¹⁵ A review of the literature is provided in Ebell, M. and Warren, J. (2016). "The

long-term economic impact of leaving the EU." National Institute Economic Review 236, 121-138. Available at:

https://journals.sagepub.com/doi/pdf/10.1177/002795011623600115 ¹⁶ See Bank of England (2018). "EU Withdrawal Scenarios and Monetary and Financial Stability." Available at: https://www.bankofengland.co.uk/- /media/boe/files/report/2018/eu-withdrawal-scenarios-and-monetary-andfinancial-stability.pdf

¹⁷ A simple unweighted average of EU MFN tariff rates in 2016 was 5.7 per cent. The trade-weighted average MFN tariff rate was lower at 3.2 per cent (Bank of England, 2018).

¹⁸ See Conefrey, T. (2018). "Irish Agriculture: Economic Impact and Current Challenges." Central Bank of Ireland Economic Letter no. 8. Available at: https://www.centralbank.ie/docs/default-source/publications/economic-

market and faces the highest tariffs in a WTO scenario. Estimates from Teagasc show that the tariff on fresh boneless beef, which accounts for two-thirds of the value of beef exports to the UK, would be 69 per cent. 19 Tariff rates of this size would significantly reduce, or could potentially eliminate, UK demand for particular products.

(iii) **Non-Tariff Barriers**

In addition to tariffs, a disorderly Brexit would restrict trade through the introduction of non-tariff barriers. Non-tariff barriers are important because of the discrete nature of some restrictions, i.e. they can determine the decision of firms whether to trade or not.²⁰ As a result, an increase in non-tariff barriers could cause an abrupt decline in trade in a disorderly Brexit. Non-tariff barriers include checks at the border such as rules of origin checks and other measures such as sanitary and phytosanitary rules (e.g. restrictions for substances, hygienic requirements, measures for preventing dissemination of disease and related to food safety), technical barriers to trade (e.g. labelling and certification), non-technical measures such as measures to protect intellectual property and rules on public procurement.

In a disorderly Brexit, the presence of non-tariff barriers – in particular, the loss of "passporting" - would also reduce Irish services trade with the UK.21

FDI: Mitigating some of these negative effects, Brexit could result in an increase in FDI inflows to Ireland that would boost output and employment. The increase in FDI could materialise either from the diversion of some existing UK FDI to Ireland or by attracting new FDI to Ireland that would otherwise have been destined for the UK. While the evidence to date suggests that the magnitude of this effect is small, over the longer term it is possible that higher FDI inflows could help offset

letters/vol-2018-no.8-irish-agriculture-economic-impact-and-current-challenges-(conefrey).pdf?sfvrsn=6

¹⁹ See "Brexit Update: Possible impacts on the Irish Beef Industry," https://www.teagasc.ie/media/website/rural-economy/ruraleconomy/Beefconference-Brexit-Update.pdf

²⁰ See Byrne, S. and Rice, J. (2019). "Non-Tariff Barriers and Goods Trade: a Brexit Impact Analysis." Available at: https://www.centralbank.ie/docs/defaultsource/publications/research-technical-papers/06rt18-non-tarriff-barriers-andgoods-trade-a-brexit-impact-analysis-(byrne-and-rice).pdf?sfvrsn=4

²¹ Passporting allows a firm authorised in an EEA state to carry on activities that it has permission for in its home state and any other EEA state by either establishing a branch or agents in an EEA state or providing cross-border services.

some of the loss of output from Brexit that would occur through the trade and other channels.²²

From this range of channels it is evident that a disorderly Brexit has the potential to significantly alter the path of the Irish economy in both the short and medium term. There would be heightened stress in financial markets and a potentially large depreciation of sterling. The deterioration in economic conditions and a more adverse outlook would cause firms and households to cut spending. It is likely that there would be disruption at ports and airports as border infrastructure is unable to cope with the new customs requirements, at least for an initial period. Imports would be affected with implications for firms through disruption to their production processes, and for households through the price and availability of consumer goods. Exports would fall due to an immediate and large reduction in demand from the UK and the fall in sterling.

Quantifying the impact of a disorderly Brexit through these channels is extremely uncertain. This is because there is no historical precedent for a country withdrawing from a major trading block as deep and complex as the EU. Before discussing the possible magnitude of the effects, there are some important analytical limitations which should be considered.

The range of channels discussed above include what are viewed as the main transmission channels of a Brexit shock. At the same time, it is not possible to include all potential effects. To model the no-deal scenario, we make a number of assumptions around the key transmission channels and then use macroeconomic models to quantify the impact of these assumptions.²³

²² See Lawless, M. and Morgenroth, E. (2016). "Opportunities and Risks for Foreign Direct Investment." Available at: https://www.esri.ie/publications/irelands- economic-outlook-perspectives-and-policy-challenges

²³ This analysis is carried out in two steps. In the first stage, we estimate the impact of a no-deal Brexit on March 2019 on the UK economy and broader external environment using the NiGEM model of the National Institute for Economic and Social Research (NIESR) in the UK. This part of the analysis is largely based on the work by Hantzsche et al. (2018) (referenced below). In the second stage, we then take the simulation results from the NiGEM model and run these through a separate macroeconomic model of the Irish economy called COSMO. This approach allows us to capture the impact of changes in the external environment (UK GDP, interest rates, exchange rates etc.) on the Irish economy in an internally consistent manner. COSMO was developed by the Central Bank of Ireland and the ESRI as part of a joint modelling project that ran from 2013-15. The Central Bank's version of the COSMO model – used for this analysis – may contain some differences compared to the ESRI version.

The disorderly no-deal analysis uses updated NIESR estimates of a WTO scenario for the UK.²⁴ To take into account the effects of disruption and uncertainty, the scenario includes additional shocks to consumption, investment and trade. We assume that in the long run, some of the negative effects of Brexit through these channels is partially offset by higher FDI inflows to Ireland, in line with the estimates in Lawless and Morgenroth (2016). The assumptions are supported by evidence from a range of sources, including existing studies on the effect of Brexit as well as research from the academic literature. At the same time, because of the unprecedented nature of the Brexit scenario we are attempting to model, there is considerable uncertainty around these assumptions.

With these caveats in mind, our estimates indicate that the large-scale disruption in a disorderly Brexit could reduce the growth rate of the Irish economy by up to 4 percentage points in the first year. In the context of the current favourable central forecasts as set out in this Bulletin, this means that there would continue to be some growth in output in 2019 and 2020, even in a disorderly Brexit. However, the pace of growth in both years would be materially lower. The fact that the Irish economy would continue to grow in 2019 and 2020 in a disorderly Brexit reflects the strong and broad-based expansion in economic activity currently, the diversified nature of production in many sectors and the strength of domestic demand. In terms of long-run effects, the scenario indicates that a disorderly Brexit could reduce the overall level of Irish output by around 6 per cent. It is important to note that these are not forecasts of future outcomes. Instead, they represent an illustration of the possible impact of a disorderly Brexit under a range of key assumptions.

Overall, compared to a scenario where the UK remained an EU member, a disorderly Brexit would result in a substantial and permanent loss of output in the Irish economy. The disruption and related decline in economic activity would be front loaded and would mean a significantly more adverse outlook for the Irish economy in 2019 and 2020, compared to the central forecasts in this Bulletin. In the long run, it is likely that the Irish economy would adjust to the new arrangements but the short-run challenges would be immense.

Investment

For the three quarters to Q3 2018, headline year-on-year investment was down 4.4 per cent compared with the same period of the previous year.

²⁴ Hantzsche, A., Kara, A. and Young, G. (2018). "The Economic Effects of the Government's Proposed Brexit Deal." Available at:

https://www.niesr.ac.uk/sites/default/files/publications/NIESR%20Report%20Bre xit%20-%202018-11-26.pdf

The main driver of this contraction was the fall in intangibles investment, which was 39 per cent lower over this period. Underlying investment (excluding intangible assets and aircraft), however, remains robust - up 17.2 per cent for the three quarters to Q3 2018 compared with the same period in 2017. It was underpinned by strong growth of 17.9 per cent in building and construction and by a continued rebound in growth of 18.8 per cent in machinery and equipment investment (excluding aircraft investment). Within the building component, new dwelling investment continued its recovery, increasing by 30 per cent in the first three quarters of 2018 compared with the previous year. Non-residential investment increased by 16.2 per cent year-on-year.

With regard to residential investment, available indicators point to a continued increase in housing output, but from a low base. Based on estimates from the CSO, there were just over 12,500 new dwellings completed in the first three quarters of 2018. For the year as a whole, it is projected that there were approximately 18,000 new dwellings completed last year, with forward-looking indicators suggesting that this will rise to 23,000 and 27,000 in 2019 and 2020, respectively. Coupled with forecasts for home improvements residential investment is expected to increase by 16.8 and 12.6 per cent in 2019 and 2020, respectively.

For the non-residential sector, construction activity is expected to increase by 8 and 6.5 per cent in 2019 and 2020. This forecast reflects a slowdown in the rate of growth compared with 2018, as front loading of the public capital investment program slows. The robust pace of expansion in the construction sector is corroborated by survey data from the Ulster Bank Construction PMI, registering values of 55.5 in November 2018. Overall, building and construction investment is forecast to increase by 10.3 and 8 per cent in 2019 and 2020.

The recovery of underlying machinery and equipment investment continued as expected, increasing by 19 per cent in the first three quarters of 2018 year-on-year. Following its significant rebound from unusual weakness in 2017, it is projected that underlying machinery and equipment investment grew by 18 per cent in 2018, with this forecast to moderate to growth of 5 and 4 per cent in 2019 and 2020, respectively.

Following a projected increase of 17 per cent in 2018, underlying investment is forecast to increase by 8.9 and 7.1 per cent in 2019 and 2020, respectively. This is a slight downward adjustment for 2019 compared to the previous Quarterly Bulletin, reflecting uncertainties associated with the external economic environment.

Government Consumption

Reflecting measures announced in Budget 2019, government consumption is projected to grow by 5.5 percent this year, moderating to growth of 2.9 percent in 2020. This follows estimated growth of 5 per cent in 2018.

External Demand and Balance of Payments

Exports and Imports

Following a strong contribution in the first two quarters of the year, net exports made a negative contribution to GDP growth in the third quarter. Growth of 9.4 per cent in exports was offset by a 16.4 per cent increase in imports driven primarily by large imports of machinery and transport equipment, specifically aircraft related to leasing.

Merchandise exports to the EU (excluding the UK) and to the rest of the world grew strongly, driven by significant growth in exports of pharmaceutical exports, which grew by 29 per cent year-on-year on average in the ten months to October 2018. Growth in pharmaceutical products have dominated developments in overall export growth this year (Box C). Without the contribution of these exports, growth in merchandise exports would have been negative over the period.

Annual growth in merchandise exports to the United Kingdom continued to decline in the third quarter, driven primarily by a decline in the exports of mineral fuels and machinery and transport equipment. Merchandise exports to the United Kingdom represented only 14.3 per cent of total exports over the first ten months of 2018. In comparison, 37 per cent of total exports went to EU member states other than the UK.

Table 2: Goods and Services Trade 2017 to 2020f

	2017	% cha	ange in	2018e	% change in		2019f	% cha	ange in	2020f
	€millions	vol	price	€millions	vol	price	€millions	vol	price	€millions
Exports	352,556	7.3	-0.1	377,877	4.3	1	398,330	3.9	1.5	420,197
Goods	192,854	9	-1.6	206,847	4.5	0.1	216,372	4	0.7	226,602
Services	159,701	5.2	1.8	171,030	4.1	2.2	181,959	3.8	2.5	193,595
Imports	263,268	2.5	1.3	273,400	4.3	0.8	287,662	4	1.2	302,637
Goods	85,214	5.4	0.8	90,550	4.3	0.5	94,885	4	0.6	99,229
Services	178,054	1.2	1.5	182,851	4.4	1	192,777	4	1.5	203,408

While growth in services exports was below average in the first half of 2018, robust growth in computer services and business services exports in the third quarter meant that the aggregate growth rate returned to levels akin to those seen in recent years.

Looking ahead, conditional on the latest available data for import demand in Ireland's trading partners, exports are forecast to continue to make a significant contribution to growth in the coming years. Export volumes are expected to rise by 4.3 per cent this year and by 3.9 per cent in 2020.

Growth in imports had been weak in 2017 and in the first half of 2018. Overall import volumes fell 6.7 per cent, year-on-year, in the second quarter of 2018, owing to a decline in the import of research and development services. The significant jump in imports in the third quarter appears to be related to an increase in the import of aircraft by leasing firms. As a result, overall import volumes grew by 15.3 per cent in the third quarter.

Looking to the forecast, the main drivers of import growth are set to ease during 2019 and 2020, as both domestic demand and export growth are expected to slow. Against this background, overall import volumes are projected to increase by 4.3 per cent next year and 4.0 per cent in 2020.

It is important to note that this forecast is predicated on current trading arrangements between the United Kingdom and the European Union applying during a transition period to end-2020. Any alternative scenario that results in increased barriers to trade between Ireland and the United

Kingdom will result in a significantly less benign outturn for exports. Firstly, the United Kingdom is a significant trading partner and any shock to UK import demand will have adverse consequences for Irish exporters. Secondly, as an island economy, Ireland relies significantly on UK road networks as a "land-bridge" to access markets on the European mainland. Even under a common travel area, any increased barriers to trade between the UK and the EU are likely to result in significant congestion for Irish suppliers travelling through the UK's main ports to Europe. The Bank's outlook for a disorderly Brexit is discussed in detail in in Box B.

Net Trade, Factor Incomes and International Transfers

Reflecting the distorting impact of globalisation on the data, the headline current account balance showed a surplus of over €9 billion, or 11.1 per cent of GDP in the third quarter of 2018. The trade balance, a measure of all goods and services exports minus all goods and services imports, decreased by €2.6 billion, or 8.8 per cent in annual terms in the third quarter of 2018. Developments in the trade balance were driven in particular by the strong merchandise surplus and a €14bn surplus in contract manufacturing (goods for processing).

Investment income earned abroad in the third quarter increased by 18 per cent compared with a year earlier while investment income payable to foreign investors increased by 16 per cent driven by an increase in FDI income outflows. Combined, these factors yielded a deficit on the income account of €17.8 billion. However, the depreciation of foreign owned domestic capital, as well as the retained earnings of firms that are owned by foreign portfolio investors significantly affect developments in the income balance. To take account of this, the CSO publish (on an annual basis) a modified measure of the current account which excludes these distortionary effects, as well as the effect of the depreciation of aircraft owned by leasing firms. In 2017, the modified current account surplus was 1.2 per cent of GNI*.

Global FDI flows fell by 41 per cent in the first half of 2018. This development was particularly affected by negative FDI inflows in Ireland.²⁵ The decline was primarily driven by large repatriations by United States parent companies of accumulated earnings from their affiliates abroad. This is confirmed by Irish BOP financial account data for Q1 to Q3 2018, which has shown large declines in direct investment in Ireland. This development was broadly expected given recent changes US tax legislation, and does not appear to reflect a decline in greenfield FDI or investment in physical assets in Ireland by multinational enterprises. It is likely that US "reinvested

²⁵ UNCTAD Investment Trends Monitor

earnings" in Ireland are a matter of accounting, and that the profits were already held in dollar denominated instruments.

Taking account of the trade forecasts outlined above, the trade balance is projected to average close to 32 per cent of GDP 2019. Net factor income outflows are expected to increase in 2019, with a further pick-up envisaged in 2020, albeit more modest. Reflecting the prospective trends across these components, a headline current account surplus of around 9.3 per cent of GDP is estimated for 2019, followed by 9.3 per cent of GDP in 2020.

Table 3: Balance of Payments 2016 to 2019f

	2017	2018e	2019f	2020f
Trade Balance	89,287	104,476	110,667	117,559
Goods	107,640	116,495	120,608	125,293
Services	-18,353	-12,018	-9,939	-7,733
Net Factor Income from the Rest of The World	-59,777	-69,778	-74,617	-79,687
Current International Transfers	-4,590	-4,590	-4,590	-4,590
Balance on Current Account	24,920	30,107	31,460	33,281
(% of GDP)	8.5	9.5	9.3	9.3

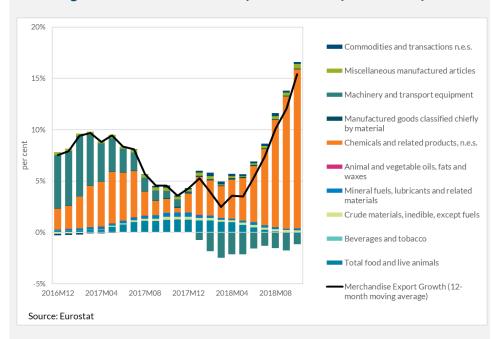
Box C: Strong Pharmaceutical Exports Boost Overall Export Growth

By Stephen Byrne

Irish merchandise exports have grown remarkably strongly in the first ten months of 2018, increasing by an average of 14.3 per cent compared with the same period in 2017 in value terms. One feature of the recent strong growth is the extent to which it has been dominated by developments in Chemicals and Related Products, the statistical product category which is mainly made up of the exports of the pharmaceutical sector. More striking, is the extent to which one product, vaccines, accounted for a substantial proportion (36 per cent) of total merchandise exports on average in the ten months to October 2018.

Figure 1 shows the contributions of each product category to growth in merchandise exports. Volume data are used to abstract from any currency or valuation effects. In the first ten months of 2018, growth in the Chemicals product category has been the main contributor to the positive expansion. Indeed, if the contribution from the chemicals sector is excluded (i.e. the level of chemicals exports had been the same as in 2017) the rate of volume growth in overall merchandise exports would have been negative.





Looking at this in more detail, the United States and Belgium have been the largest source of the growth in Chemicals exports in 2018. Up to October, exports of Chemicals to the United States grew by 6.2 per cent on a weighted average basis. The second largest destination for chemicals export growth was Belgium. The largest product contribution to growth in Chemicals exports to both the United States and Belgium was in Antisera and Other Blood Fractions, Vaccines. This single product accounted for 36 per cent of Irish merchandise exports in the ten months to October 2018.

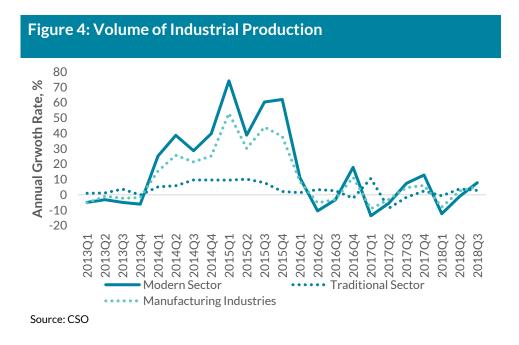
Exports of Chemicals to the United Kingdom fell by 0.7 per cent on average in the first ten months of the year. This was primarily driven by a large fall in the export of "Medicaments, n.e.s., put up in measured doses/in forms/packings for retail sale". These goods are primarily medicinal preparations with active substances used for the treatment of or prevention of disease, as opposed to goods which just maintain general health (e.g. vitamins).

Supply

The latest QNA release, which contains data up to Q3 2018, shows continued growth in output across almost all sectors of the economy. Information and Communication remains the fastest growing sector,

growing by 26.9 per cent compared with the first three quarters of 2017. Financial and Insurance Activities and Public Administration, Education and Health also grew strongly, expanding by 6.5 per cent and 4.5 per cent respectively during the same period. Outside of services, the Construction sector grew by 17.1 per cent year-on-year in the first three quarters of 2018, continuing its robust growth. The sector has expanded in every quarter since Q4 2014. Agriculture, Forestry, and Fishing remains the only sector not in expansion, contracting by 10 per cent relative to the first three quarters of 2017.

In the year to October, Industrial Production rose by 3.4 per cent when compared with the first 10 months of 2017. This increase was mostly driven by a rise in output seen since August, as there had been little improvement over 2017 prior to this. As the Industrial Production data is distorted by the activities of multinational companies, it is best to look at the growth of output in the Modern and Traditional sectors should be looked at separately. Both sectors are expanded in the first 10 months of the year, the Modern sector by 3.5 per cent and the Traditional sector by 2 per cent. The three months of data released since the last Quarterly Bulletin have moved the Traditional sector into an expansion relative to the same period in 2017 - in the year to July it had declined by 0.4 per cent. Full year data is now available from the Investec Manufacturing PMI which also shows an expansion, albeit a smaller one of 0.4 per cent. Growth in the Modern, Traditional, and Manufacturing sectors is shown in Figure 6.



The Labour Market

The latest data point to a continued strong labour market performance in the second half of 2018. Labour Force Survey (LFS) data reveal employment was 3 per cent higher on an annual basis in the third quarter, representing an additional 67,000 persons at work compared to the same period in 2017. Employment growth was relatively broad based across the services sector during this period, with the largest increases coming in accommodation and food, administration and support services, and education. There was also a large rise in employment in the construction sector over the year. These developments offset a decline in industrial employment and brought the total number of persons at work to 2.27 million, a new peak level for the Irish economy. Reflecting data for the first three guarters of the year, it is estimated that the total number employed increased by 3 per cent in 2018. The pace of expansion in employment is expected to moderate somewhat in coming years; employment growth of 2.2 and 1.7 per cent is projected for 2019 and 2020 respectively. These projections point to an additional 90,000 jobs over the forecast horizon.

The LFS data also showed continued robust growth in the labour force in the third quarter, which increased by 2 per cent on annual basis. This reflected stronger contributions from both demographic factors (including net inward migration) and participation; the former added 27,000 persons to the labour force with the latter adding around 20,000. The labour force participation rate increased to 62.6 per cent during the quarter, with a notable increase in the female participation rate over the past year. In terms of 2018 as a whole, labour force growth is estimated to have accelerated to 1.9 per cent. Increases of 1.5 per cent are then projected for both 2019 and 2020.

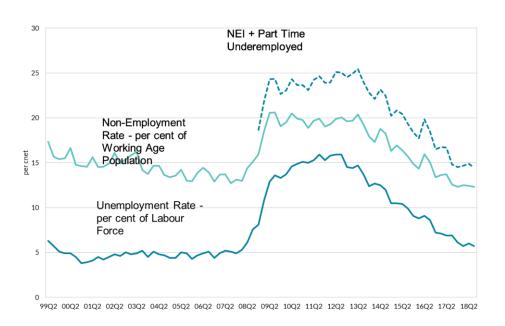
Taking account of the above outlook, unemployment is expected to continue to fall over the forecast horizon. Recent trends in this regard have been notable. The seasonally adjusted unemployment rate was 5.7 per cent in the third quarter of 2018, a full percentage point lower than a year earlier. In terms of numbers, that represented a fall of 20,000 to 136,000 over the year, with around one-third of these classified as long-term unemployed. The CSO's monthly unemployment data, meanwhile, points to further declines in October and November. Reflecting these developments, the unemployment rate is estimated to have averaged 5.7 per cent for 2018 as a whole. Further declines to 4.9 and 4.7 per cent are projected for 2019 and 2020 respectively.

Although the labour market outlook is relatively favourable, risks are clearly on the downside reflecting the increased potential for a no-deal Brexit. While the labour market would be broadly affected through growth, exchange rate and confidence channels, certain sectors - and regions - of the economy would be more affected than others. In particular, employment in agri-food industries is particularly exposed, given the sector's reliance on the UK as an export market.

In light of labour market prospects, wage pressures are projected to strengthen over the forecast horizon. Economy-wide compensation which reflects the growth of employment, hours worked and earnings - is estimated to have grown by 5.9 per cent in 2018, up a full percentage point from a year earlier. Further increases of 5.7 and 5.4 per cent are expected in 2019 and 2020 respectively although, within this aggregate, the balance between wages and employment is likely to be increasingly driven by the former as the economy converges on full employment.

At this stage in the economic cycle employers looking to grow their workforce face a dwindling supply of potential workers. An update of our Non-Employment Index²⁶ shows a levelling out of the degree of labour market slack. Measures of job-to-job switching are now very close to, and by some measures, above previous highs. As highlighted in the Bank's recent Economic Letter,²⁷ job-switching is a leading indicator of wage growth.

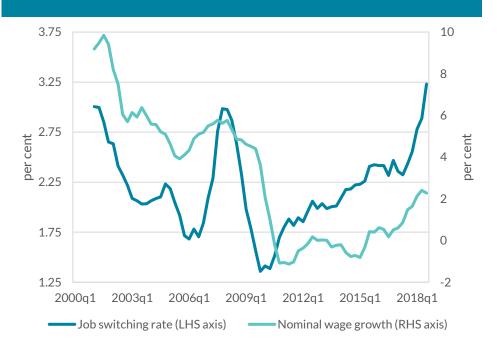
Figure 5: Non-employment Index to Q3 2018



²⁶ Byrne, S. and Conefrey, T., 2017. A Non-Employment Index for Ireland. Central Bank of Ireland Economic Letter Series, 9.

²⁷ Lydon, R. and Staunton, D., 2018. Does increased job switching signal higher wage growth? Central Bank of Ireland Economic Letter Series, 13.





The reduction in available slack and increased job switching both support our forecast for a strengthening of wage growth in the near-term. Compensation per employee is forecast to increase by 3.4 and 3.6 per cent in 2019 and 2020 respectively, up from 2.8 per cent last year. With consumer price inflation projected to remain subdued (see below), this points to the prospect of further gains in terms of real purchasing power.

The most recent earnings data point to some increase in wage inflation. While the average hourly earnings growth rate moderated in the third quarter, an annual increase of 2.7 per cent was recorded for the first three quarters of the year together. This compares to growth of 0.6 and 1.6 per cent in the same periods of 2016 and 2017 respectively. Wage growth in 2018 appears to have been relatively broad based across sectors, with particularly strong increases occurring in mining and quarrying, information and communication, and financial and service activities.

Table 4: Employment, Labour Force and Unemployment 2016 to 2019f

	2017	2018f	2019f	2020f
Agriculture	110	105	105	105
Industry (including construction)	412	425	437	450
Services	1,672	1,730	1,768	1,795
Total Employment	2,194	2,260	2,310	2,350
Employment Growth (%)	2.9	3	2.2	1.7
Labour Force	2,352	2,396	2,430	2,465
Labour Force (%)	1.1	1.9	1.5	1.5
Unemployment	158	136	120	116
Unemployment Rate (%)	6.7	5.7	4.9	4.7

Inflation

Prices

HICP inflation registered a year-on-year increase of 0.8 per cent in November 2018. Goods prices increased by 0.2 per cent year-on-year, supported by higher energy prices. The energy component of the HICP increased as increases in international oil prices in the first three-quarters of 2018 passed through to energy products such as the price of petrol, diesel, gas and electricity. Food prices and non-energy industrial goods prices, however, declined by 2.0 per cent and by 2.6 per cent year-on-year respectively in November 2018. Services price increases moderated as flight prices, insurance and communications prices declined (see Figure 7). Despite the strength of domestic activity, overall underlying inflationary pressures remain subdued. Core inflation - HICP excluding the energy component - increased by 0.1 per cent in November 2018 year-on-year.

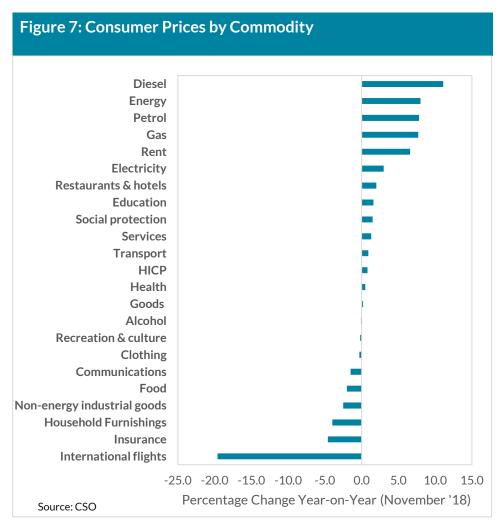
Lower import costs are a major factor behind the weakness in goods prices, as the euro's strength against sterling, and to a lesser extent the dollar, continues to weigh on the price of goods with a high import content (Figure 8). The euro/sterling exchange rate was 2.3 per cent higher year-on-year in December 2018 and is likely to exert downward pressure on import prices into 2019. A disorderly Brexit could result in further sterling weakness and weigh on import prices throughout the remainder of 2019.

While oil prices increased for the first three-quarters of 2018, they declined in the final quarter and financial market expectations of future prices are lower than those of the last Bulletin. Further oil price declines would likely also pass through to lower energy prices in 2019, with already some evidence of this in December 2018 prices for petrol and diesel. Domestically generated inflation is, in turn, conditional on the pace of wage growth. With wage growth projected to pick up over the forecast horizon, it is expected that services inflation will continue to rise over the horizon.

Conditional on the market implied path for oil prices, exchange rates as well as the Bank's own projections for growth in real activity - inflation is projected to pick up moderately this year and next. Current assumptions point to a forecast of 0.8 and 1.3 per cent for HICP inflation in 2019 and 2020. (see Table 5). Goods prices are projected to decline by 1.1 and 0.6 per cent in 2019 and 2020, respectively. The more moderate decline in 2020 is due to lower assumed declines in energy prices. Services prices, meanwhile, are projected to rise by 2.3 and 2.8 per cent over the same period.

Uncertainty surrounding the forecast primarily relates to external factors. Most importantly, developments in the negotiations surround the UK's exit from the European Union may result in a deviation in the path for the Euro/Sterling exchange rate away from that which is assumed in the current forecast, and a higher tariff environment would have knock on effects for consumer prices.





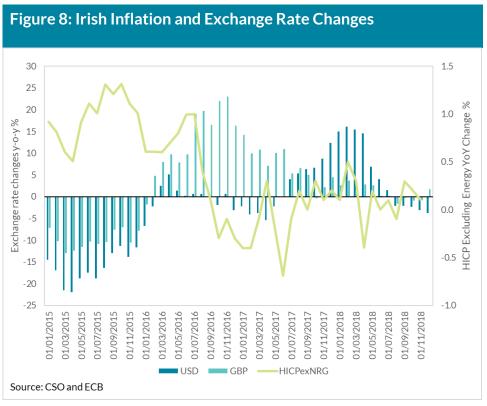


Table 5: Inflation Measures - Annual Averages, 2016 to 2020f

Measure	HICP	HICP excluding Energy	Servicesa	Goodsa	СРІ
2017	0.3	-0.1	2.5	-2.1	0.3
2018f	0.7	0.1	1.6	-0.2	0.5
2019f	0.8	1	2.3	-1.1	0.8
2020f	1.3	1.4	2.8	-0.6	1.4
a Goods and services inflation refers to the HICP goods and services components					

Residential Property²⁸

The latest data from the CSO's Residential Property Price Index for October 2018 shows an increase of 8.4 per cent in the previous 12 months - down from the 10.4 per cent reported at the time of the last bulletin. The annual rate of residential property price growth is now at its lowest level in two years. Residential property prices in Dublin showed an annual increase of 6.3 per cent, while a 10.6 per cent increase was seen across the rest of the country. This disparity has existed since mid-2014, and is partly driven by the fact that Dublin property prices recovered more quickly after the crisis. The Mid-West continues to show the fastest price increases, with house prices rising by 21.5 per cent in the year to October. The lowest increase was in South Dublin, where house prices rose by 5 per cent over the same period. The national index remains 17.6 per cent below the precrisis peak of April 2007. Dublin and non-Dublin regions are 20.1 per cent and 22.7 per cent lower than their peaks, respectively. Further differences are apparent when the price increases of high value and low value residential properties are compared - the price of low value properties is increasing much more quickly. In the year to June the price of properties in the top five value deciles increased by 2.7 per cent, while the price of properties in the bottom five deciles increased by 10.5 per cent. The top decile was the only one which showed a decrease over this period, with prices falling by 1.6 per cent.

Rents have continued to increase at a strong pace but have slowed slightly in the third quarter, according to figures from property website Daft.ie. In the year to September 2018, the national rent increase was 11.3 percent, down from the 12.4 per cent annual increase to July. This is the 25th consecutive quarter that rents have increased. In Dublin, average rents increased by 10.9 per cent in the year, slower than in other cities, where rents rose by 15.8 per cent. The annual rate of increase in Dublin has slowed since the previous quarter - which showed inflation of 13.4 per cent. This slight slowdown in rent increases could be attributed to the

²⁸ The Bank's Macro Financial Review for H2 2018 provides a more detailed review of residential and commercial property prices.

minor improvements in the rental stock - Daft.ie figures show the number of properties available to rent in Dublin increased by 7.1 per cent over this period.

The smallest increase was in rental properties outside of cities, where rents rose by 10.6 percent. The uptick in availability in Dublin is not apparent in the rest of the country, nationally there was a 4.5 per cent decrease in the number of properties available to rent.

Commercial Property

The latest data from MSCI/IPD shows continued moderation in commercial property prices. In the year to Q3 2018 Industrial and Office capital values grew by 1.7 per cent and 1.6 per cent, respectively. This is down from rates of 7.4 per cent and 5.7 per cent seen in Q3 2017. Retail property prices are down slightly from 2017 levels - showing an annual decrease of 0.3 per cent.

The Public Finances

Overview

The latest fiscal data suggest that the economy may have achieved a small general government surplus last year, which would be the first since 2007. End year data revealed that the Exchequer ran a surplus in 2018, with the outturn considerably better than had been expected at the start of the year (€106m - €2.6 billion ahead of profile). This partly reflected factors that do not affect the general government balance - most notably portions of Central Bank Surplus income and certain capital receipts. Nevertheless, developments in other parts of the broader government finances, such as surpluses in the Social Insurance Fund and Irish Strategic Investment Fund, suggest the main international budgetary measure may also have moved out of deficit.29

²⁹ The general government balance – the main international budgetary measure – is broader than the Exchequer balance. The Exchequer balance is the domestic budgetary aggregate which measures the net surplus or deficit position (the difference between cash inflows and outflows) of central government's main treasury account, the Central Fund. The general government balance is an EU national accounting aggregate which measures the net surplus or deficit position of all arms of Government, i.e. central government, Local Authorities, Vocational Education Committees and non-commercial State sponsored bodies, as well as funds such as the Social Insurance Fund. For more information see the Department of Finance's Methodological note here: https://www.finance.gov.ie/wp- content/uploads/2017/08/Methodological-Note-Reconciliation-table-from-Exchequer-Balance-to-General-Government-Balance-December-2013.pdf

Despite this positive development, fiscal vulnerabilities persist. While tax revenue growth was relatively broad based last year, corporation taxes (CT) continue to play a key role in driving this expansion. This is important given the high level of uncertainty surrounding the international tax environment and the importance of a relatively small number of multinational companies in supporting the CT tax base here. Public debt, meanwhile, remains very high. General government debt is estimated to have remained above 100 per cent of GNI* in 2018, despite the improvements that have occurred in the budgetary position in recent years, leaving the fiscal position vulnerable to shocks. With this in mind, a no-deal Brexit could have consequences for the public finances via weaker economic growth.

Exchequer Returns

The Exchequer ran a small surplus of €106m last year, a considerably better outturn than had been expected at the beginning of 2018. This was a second successive annual surplus, although in both cases the outturn has benefited from temporary factors. Significant once-off AIB share sale receipts boosted revenue in 2017, while last year the Government note it received €700m in CT receipts that are not recurring. The surplus also partly reflected factors that do not affect the general government balance. When these are excluded the Exchequer ran a deficit of €2.1 billion, broadly unchanged from last year (see Table 6). Again, this was well ahead of expectations, as above profile revenues more than offset higher than planned spending.

Table 6: Analytical Exchequer Statement, January to August 2018 (€millions)

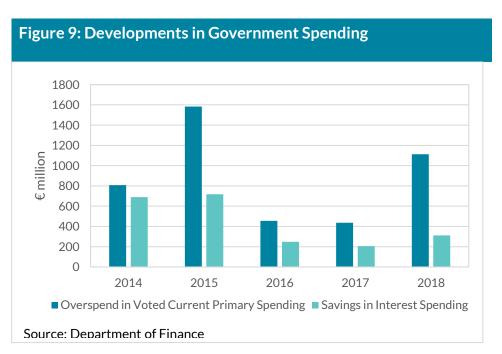
	2018 €m	2017 €m	Annual Change (%)	Outturn vs Profile (€m)
Revenue	69,748	65,009	7.3	2,197
Tax Revenue	55,557	50,737	9.5	1,382
Appropriations-in-Aid	12,621	12,262	2.9	493
Other Revenue	1,570	2,011	-21.9	321
Expenditure	71,815	67,005	7.2	828
Current Primary Expenditure	60,012	56,328	6.5	953
Capital Expenditure	6,011	4,585	31.1	188
Interest on National Debt	5,791	6,092	-4.9	-312
Balance	-2,066	-1,995	-71	1,369

Source: Department of Finance

Note: The figures in the Table exclude transactions with no general government impact, to try and give a closer approximation to the General Government balance.

Taking a closer look at revenue, tax receipts continued to record strong growth, increasing by 9.5 per cent on an annual basis. Most of the major tax heads strengthened against the backdrop of robust economic activity. Income tax receipts, for example, increased by €1.2 billion and PRSI revenue ended the year ahead of expectations as employment and earnings continued to grow. VAT increased by 7 per cent supported by strong personal consumption. Despite these developments – and the relative size of their bases - CT was the largest driving force behind the improvement, having once again experienced significantly stronger than expected growth. CT increased by 26.6 per cent on annual basis and ended the year €1.9 billion ahead of the level forecast by the Government at the start of 2018. As a result, it was responsible for 45 per cent of the total increase in tax last year. Non tax revenue declined from the previous year in 2018, but this was fully anticipated as Central Bank Surplus income, dividends and local government fund reciepts were all projected to decline.

Government expenditure grew by 7.2 per cent on annual basis. This was partly driven by stronger capital spending linked to the National Development Plan; gross voted capital expenditure increased by one-third from the previous year, with the largest increase coming in the Housing, Planning and Local Government vote group. By far and away the biggest factor driving the expansion, however, was strong growth in voted current primary spending. This increased by €3 billion (5.7 per cent) from 2017, and was €1.1 billion ahead of its Budget 2018 profile following the introduction of significant supplementary intra year spending in the most recent Budget. This overspend was partly offset by lower than expected interest on the national debt.



As Figure 8 shows, these latter two expenditure developments follow a trend established in recent years. Gross voted current primary spending has been higher than targeted in each of the last five years. The average overspend in this period has been €880m per annum, with the largest increases – over €1 billion - coming in 2015 and 2018, years that saw huge CT windfall revenues. This higher current spending, meanwhile, has been partly offset by lower than forecast interest costs in each of the five years. The average interest saving has been almost exactly half, €440m per year, although the size of this saving has been smaller in more recent years (averaging close to €705m in 2014/15 and €260m in 2016 to 2018).

Funding and Other Developments

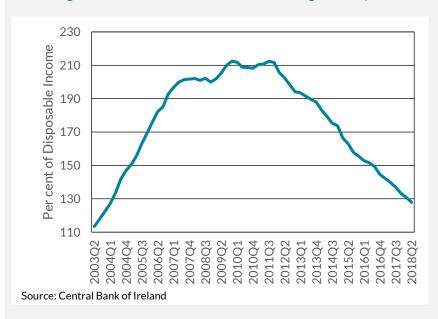
The National Treasury Management Agency (NTMA) raised an additional €3.75 billion in the final quarter of last year through Government bond sales. This brought the total raised in 2018 to €17.25 billion, close to the upper bound of the NTMA's target for the year. For 2019 the NTMA once again plans to issue between €14 and €18 billion of bonds and made a strong start raising €4 billion from the sale of new 10-year benchmark bonds in January. The State's funding requirements for the year are almost fully covered by cash reserves. €15 billion of bonds are set to mature over the course of the year, while the Budget projected an Exchequer deficit of €2.2 billion. Cash balances, by comparison, were reported to be €15.3 billion at the end of 2018. Recent months also saw a further €1 billion of the floating rate treasury bonds issued in connection with the liquidation of Irish Bank Resolution Corporation cancelled. As a result, more than half of these bonds - issued in 2013 - have been cancelled, with a balance of €11.5 billion outstanding.

Box D: Credit Developments in the Irish Economy **By Statistics Division**

Credit trends in the economy remain largely negative as deleveraging by Households and Small And Medium Sized Enterprises (SMEs) continues. However, there are signs that wider economic developments are leading to a recovery in credit flows. Credit from the Irish banking sector has become positive for both mortgage and consumer lending, while new lending to SMEs remains strong.

The recovery in household consumption and investment activity has taken place despite overall negative flows of credit to the household sector. The Quarterly Financial Accounts gives the most comprehensive overview of credit to the household sector, and shows that households are still, on aggregate, paying off their liabilities. However, the rate at which this is occurring has declined significantly. Falling household debt combined with rising household incomes has led to substantial deleveraging. The ratio of household debt to income fell to 127.9 per cent in Q2 2018, the lowest point since Q1 2014. It should be noted that Irish households are relatively highly indebted, ranking fourth highest amongst European countries in terms of debt to income.

Box D Figure 1:Household Debt as a Percentage of Disposable Income



Loans to Households

While the overall flow of household credit remains negative, annual lending from the resident banking sector turned positive in the second half of 2017, following a seven and a half year period of deleveraging by households. This suggests that the overall negative net flow of credit is being driven by the repayment of loans that have been sold off or securitised from the banks' balance sheets.

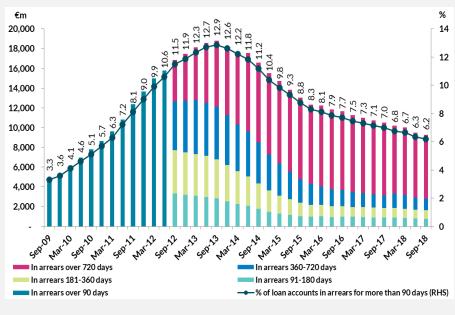
New mortgage lending by Irish resident banks was consistently higher than repayments by households through the second half of 2018, reversing a trend of declining mortgage lending which had taken place since the onset of the financial crisis. Net lending for house purchase grew by €715 million in the calendar year to end-November. Mortgage drawdowns also showed an upward trend, with a 17.5 per cent increase in the value of drawdowns in the year to Q3 when compared with the same period a year earlier.³⁰ The data also shows a large increase in

³⁰ Source: Banking and Payments Federation of Ireland: https://www.bpfi.ie/wp-content/uploads/2018/11/BPFI-Mortgage-Approvals-Report-October-2018.pdf

mortgage approvals, up 16.6 per cent in the year to October, indicating that increases in bank mortgage drawdowns are likely to continue in the near future.³¹ Nonetheless, demand for credit for house purchase, as measured in the Central Bank of Ireland Bank Lending Survey, decreased slightly in Q3 2018,³² owing to the perceived impact of the regulatory and fiscal regime governing the housing market, and competition from other lenders. This is the first decrease in housing credit demand since Q2 2015.

Levels of mortgage arrears continue to fall. Having peaked at 12.9 per cent in 2013, the percentage of principal dwelling homes (PDHs) mortgage accounts in arrears of over 90 days has more than halved to 6.2 per cent. The figure has now fallen for 12 consecutive quarters. A large arrears reduction has also been seen in the buy-to-let (BTL) market segment, though the level of arrears over 90 days remain high at 14.7 per cent. The majority of the remaining arrears in both market segments are now concentrated in the greater than 720 days category, suggesting that the remaining arrears cases may be more difficult to resolve. A large number of these cases have also been shown to be in arrears of significantly more than the 720 days threshold.³³



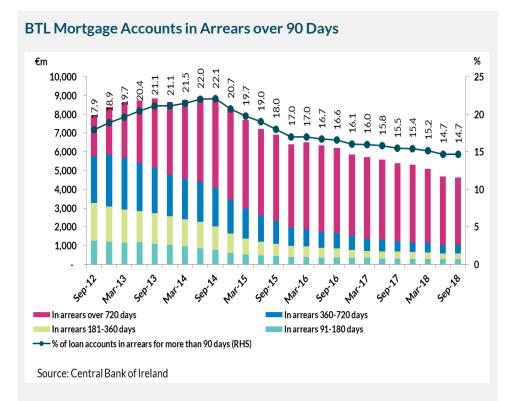


³¹ Source: Banking and Payments Federation of Ireland: https://www.bpfi.ie/wp-content/uploads/2018/12/BPFI-Housing-Market-Monitor-Q3-2018-FINAL.pdf

https://www.centralbank.ie/docs/default-source/statistics/data-and-analysis/credit-and-banking-statistics/bank-lending-survey/comment-on-results--october-2018.pdf?sfvrsn=4

³² Source: Central Bank of Ireland Bank Lending Survey:

³³ Source: Central Bank of Ireland: https://www.centralbank.ie/docs/default-source/publications/research-technical-papers/10rt17---resolving-a-non-performing-loan-crisis-the-ongoing-case-of-the-irish-mortgage-market.pdf



Levels of consumer credit advanced by banks also continues to increase, though at a reduced pace when compared with the growth levels seen in 2016 and 2017. Some of this growth can be attributed to increases seen in new lending for the purposes of car finance. Banks loaned €57 million more in gross terms between January and June 2018 for the purpose of financing consumer vehicles than they did in the same six month period in 2017. This is in spite of the 4.9 per cent decline in new car sales between the two periods, as reported by the CSO.³⁴ PCP finance, typically used for the purchase of new cars, saw a gross new lending decline of €61 million in the period, but this was more than offset by increases in lending for car term loans and standard hire purchase agreements. It is likely that more lending is now taking place to finance the purchase of used cars, as used car sales increased by 11.9 per cent in the period.³⁵ Meanwhile, the Q3 2018 Bank Lending Survey indicates that demand for consumer credit continued to expand over the quarter, reflecting growing consumer confidence and increased spending on durable goods.

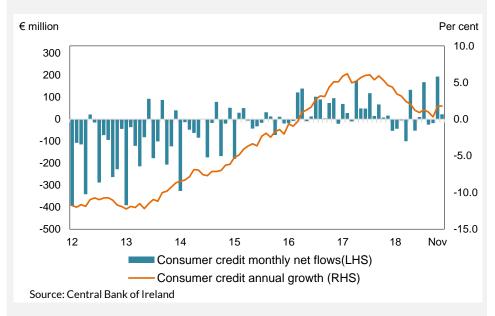
https://www.cso.ie/en/releasesandpublications/er/vlftm/vehicleslicensedforthefirsttimejune2018/

https://www.cso.ie/en/releasesandpublications/er/vlftm/vehicleslicensedforthefirsttimejune2018/

³⁴ Source: Central Statistics Office Ireland:

³⁵ Source: Central Statistics Office Ireland:





Lending to SMEs

New SME lending remains strong, with loaned amounts for the first three quarters of 2018 being the highest recorded for an equivalent period, going back to the start of the data collection in 2010. This trend conforms to results from the ECB SAFE survey that show that Irish SMEs are some of the most likely to report an improvement in the availability of bank loans. 36 SMEs are still reporting obstacles in accessing finance, however, with a relatively high 10 per cent of respondents to the SAFE survey reporting this as an issue, the joint second highest reported total in the euro area. As levels of repayments have held roughly steady when compared to the previous year, the aforementioned increases in gross new lending have led to a slowdown in the net decline in SME lending in 2018. The rate of decrease is now at the lowest levels on a four-quarter rolling sum basis since the series began in 2010.

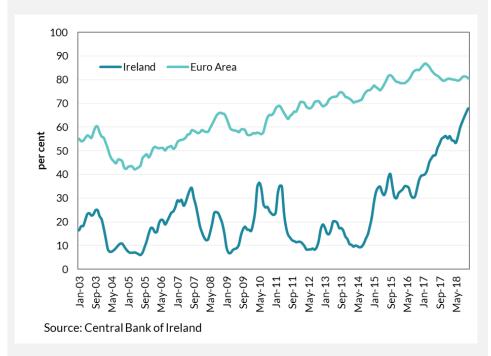
Interest Rates

The cost of credit facing new mortgage borrowers remains high relative to European peers. The average rate recorded for new mortgage lending in November 2018 was 3.04 per cent, higher than the average for any other euro area country other than Greece. Despite this, fixed rate mortgages comprised 66 per cent of all new agreements by loan amount on a three-month rolling basis to October. This proportion of fixed rate

³⁶ Source: Survey on the Access to Finance of Enterprises (SAFE) https://www.ecb.europa.eu/stats/accesstofinancesofenterprises/html/ecb.safe20 1811.en.html#toc2

drawdown volumes as a fraction of total drawdowns is the highest recorded in the series' history.

Box D Figure 4: New mortgage agreements: Share of fixed rate mortgages (3-month rolling average)



The trend in SME new lending rates is more difficult to discern. Changes in the weighted average rate being charged to SMEs are largely caused by changes in quarterly lending volumes between sectors, with some sectors consistently attracting higher rates than others. For example, the weighted average SME new lending rate decreased between Q2 and Q3 2018, falling from 4.46 to 4.03 per cent. This was largely driven by increased volumes in sectors that are charged relatively low interest rates, such as hotels and restaurants, coupled with decreased volumes to sectors that are typically charged higher rates such as lending for agricultural purposes. On a sectoral basis, seven sectors saw increases in new lending rates with another seven reporting declines. Nevertheless, taking a longer-term view, SME new lending rates have declined in recent years, falling from 5.11 per cent in 2015 to 4.03 per cent in Q3 2018. Outstanding SME interest rates continue to rise slightly however, because new lending rates charged have been consistently higher than the rates charged on outstanding amounts in recent years.

Overview of Financial Developments in the **Irish Economy**

The Overview of Financial Developments Chapter presents a summary of the latest financial trends in Ireland. The Financial Statistics Summary Table and accompanying graphs provide key insights for understanding important trends, utilising the latest data for the household sector, small and medium sized enterprises, the financial sector and the public finances. Links to the relevant source data are provided below each chart.

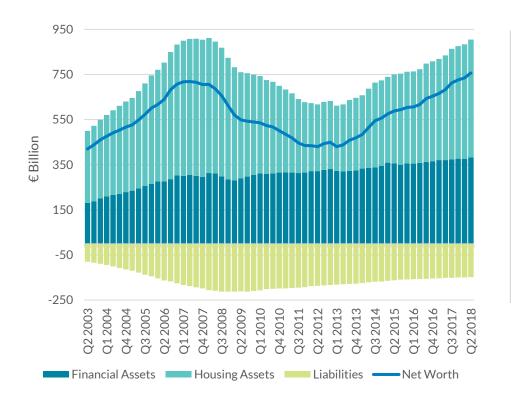


Financial Statistics Summary Table

	2015	2016	2017	2018
Lending - Outstanding, € billion				
Irish Households for House purchase	77.0	73.5	74.8	76.0***
main louseholds for Flouse purchase	-2.7%	-1.3%	0%	+1.3%***
Irish Households for Consumer and Other	14.9	14.7	15.1	15.1***
credit	-3.7%	+0.4%	+2.2%	+0.2%***
Cicuit	0.770	10.470	12.270	10.270
Irish Non-Financial Corporates	46.8	42.3	41.3	41.1***
ITIST NOTI-FITIALICIAL COLPOLATES	-6.3%	-3.3%	-0.6%	+2.1%***
luish wasidant Cuarll and Madions Ciard	22.0	28.3	27.4	24.2**
Irish resident Small and Medium Sized Enterprises	33.8 -10.8%	-8.2%	26.4 -4.0%	24.3** -3.6%**
Litterprises	-10.0%	-0.270	-4.070	-5.070
Irish Private Sector ¹	157.3	147.5	148.4	148.9***
	-5.4%	-2.5%	0.7%	1.4%***
Deposits - Outstanding, € billion	a			
Irish Households	94.7	97.1	99.5	103.4***
	+3.3%	+2.3%	+3.4%	+4.7%***
	42.7	45.6	50.5	52.5***
Irish Non-Financial Corporates	+7.6%	+9.0%	+9.8%	+2.6%***
Irish Resident Private-Sector Enterprises	87.0	89.3	93.2	96.8**
	+7.8%	+0.7%	+6.3%	+4.6%**
New Business Interest Rates, % Lending for House purchase ²	2.0	2.5	2.2	0.4***
	3.8	3.5	3.3	3.1***
Non-Financial Corporate Lending Irish Small and Medium Sized Enterprises	2.8	2.6	2.5	2.3***
Lending	4.8	4.1	4.0	4.1**
Household Term Deposits	0.3	0.2	0.1	0.1***
Households - € billion	0.0	0.2	0.1	
Household Debt to Disposable Income	155.6%	144.7%	133.2%	127.9%*
Household Net Worth	603.9	653.9	726.3	756.9*
Financial Sector Assets - Outstanding, €	000.7	030.7	720.0	
billion				
Credit Institutions	613.2	590.3	552.1	557.3***
Investment Funds	1,792.9	1,938.4	2,241.8	2,443.6**
Money Market Funds	473.7	485.2	500.6	485.5***
Special Purpose Entities	761.4	740.1	731.8	709.6**
Insurance Corporations ³	n/a	301.1	311.8	317.1**
Securities - € billion				
Securities Held by Irish Residents ⁴	2,091.1	2,496.6	2,768.2	2,880.5*
Government Bond Debt	125.1	121.6	127.0	131.8***
Debt Securities Issued by Irish Residents ⁵	811.5	732.0	719.7	693.2***
¹ Includes lending to households, Non-Financial Corporates, Insurance Corporations and Pension Funds, and Other Financial	*Ref. Q2 2018			
Intermediaries ² Ex. renegotiations	**Pef ()2 2010			
³ First reporting commenced in 2016	**Ref. Q3 2018 ***Data up to end-Nov	vember 2018		
⁴ Direct Insurance Corporations Securities holdings not included	Saturation of the Property of			
in 2015 5Debt Securities all surrensies				
⁵ Debt Securities: all currencies				

Household Sector

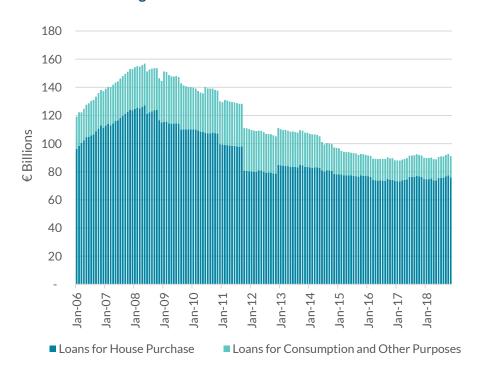
Chart 1: Household Net Worth



Household net worth now exceeds its pre-crisis peak.

Source: Quarterly Financial Accounts, Central Bank of Ireland

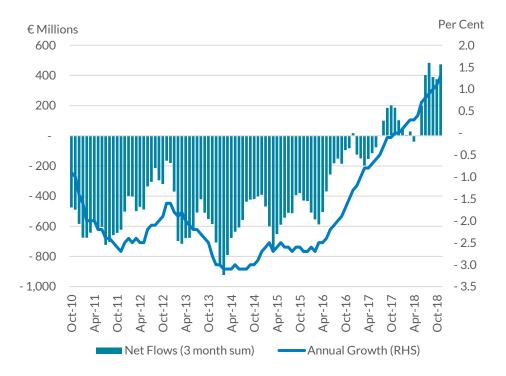
Chart 2: Outstanding Loans to Irish Households from Irish Banks



Outstanding amounts of Irish bank loans to Irish households remains at a subdued level relative to its historical highs.

Source: Bank Balance Sheet Statistics, Central Bank of Ireland

Chart 3: Net flows for Loans for House Purchase

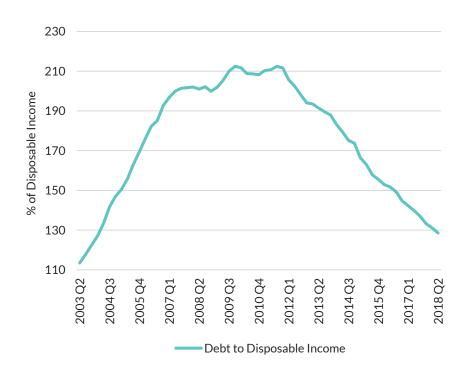


Loans for house purchase growing at fastest annual rate since 2009.

Source: Bank Balance Sheet Statistics, Central bank of Ireland

Note: Data encompasses Irish resident bank on balance sheet net lending for the purpose of house purchase.

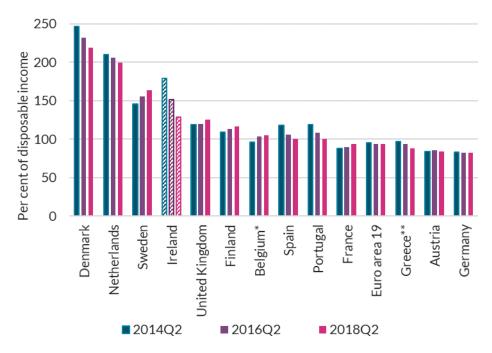
Chart 4: Household Debt to Disposable Income



Households are continuing to deleverage - debt to disposable income is at its lowest point since Q1 2004.

Source: Quarterly Financial Accounts, Central Bank of Ireland

Chart 5: EU Cross Country Comparison of Household Indebtedness

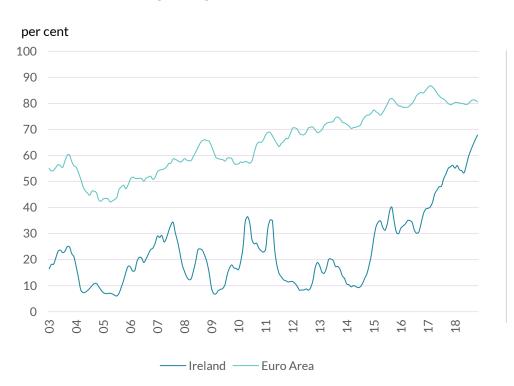


Ireland ranks fourth among European countries when comparing ratios of household debt to disposable income.

Source: Quarterly Financial Accounts, Central Bank of Ireland

Note: *Data is from Q1 2018. **Data is from Q4 2017

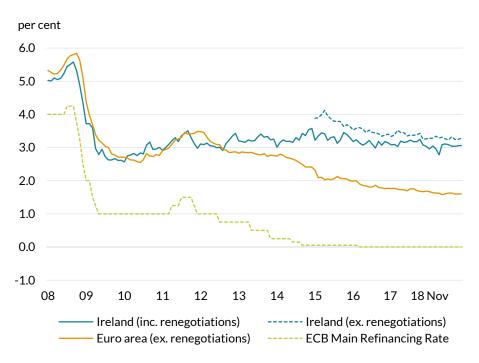
Chart 6: New mortgage agreements: Share of fixed rate mortgages (3 month rolling average)



Highest proportion of new fixed rate mortgage agreements in series history.

Source: Interest Rate Statistics, Central bank of Ireland; ECB Statistical Data Warehouse

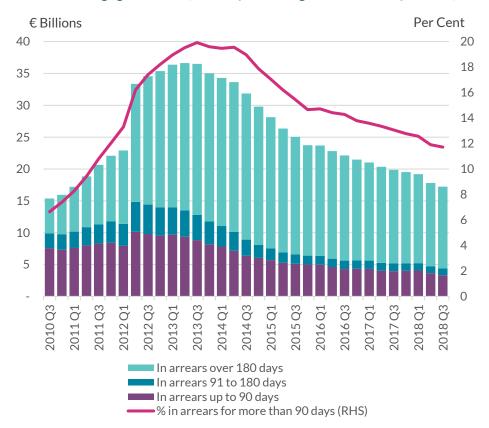
Chart 7: Interest rates on new variable rate loan agreements to households for house purchase



New variable rate mortgage agreements (excluding renegotiations) had a weighted average of 3.28 per cent in November 2018.

Source: Interest Rate Statistics, Central bank of Ireland

Chart 8: Mortgage Arrears (Primary Dwelling House and Buy-to-Let)

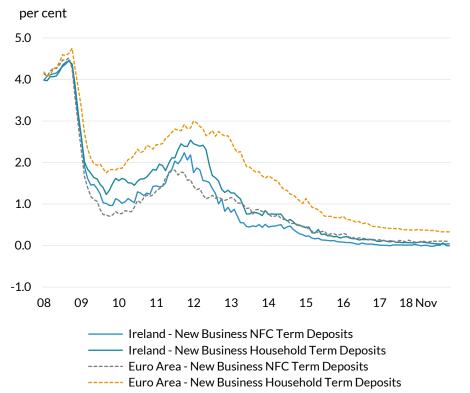


Mortgages in arrears continues to decline.

Source: Mortgage Arrears Statistics, Central Bank of Ireland

Note: Buy-to-let mortgages enter statistical population in Q2 2012

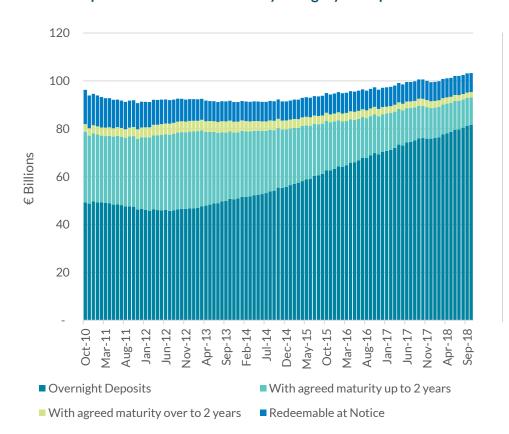
Chart 9: Interest rates on household & NFC term deposits



Interest rates on new household term deposits of 0.04 per cent in November 2018.

Source: Interest Rate Statistics, Central bank of Ireland

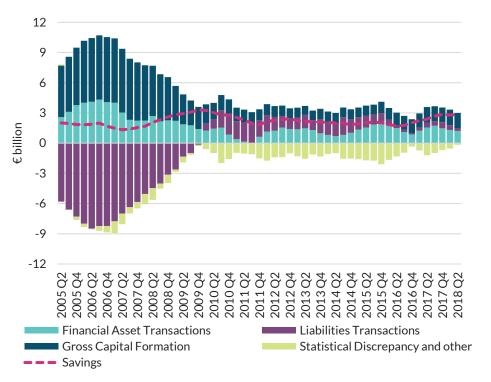
Chart 10: Deposits of Irish Households by Category of Deposit



Total household deposits continue to increase, but overnight deposits continue to increase their share of the total.

Source: Bank Balance Sheet Statistics, Central Bank of Ireland

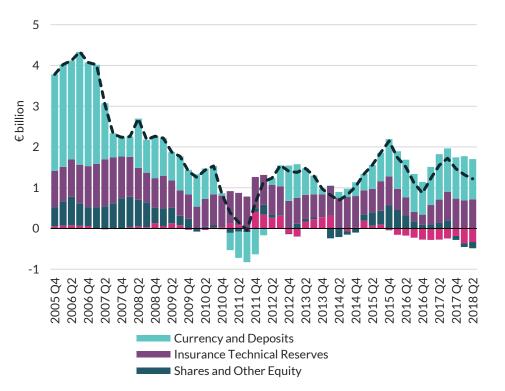
Chart 11: Household Savings by Use (4-quarter moving average)



Of the €2.8 billion saved by households in Q2 2018, €1.5 billion was used to buy new houses and €1.2 billion was put into financial assets.

Source: Quarterly Financial Accounts, Central Bank of Ireland; Quarterly Institutional Sector Accounts Non-Financial, CSO

Chart 12: Household Transactions in Financial Assets (4-quarter moving average)

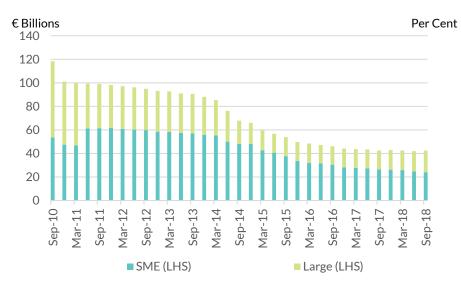


Households are investing primarily in currency and deposits and in insurance and pension policies.

Source: Quarterly Financial Accounts, Central Bank of Ireland

Non-Financial Corporate Sector

Chart 13: Credit Extended to Large and Small and Medium (SME) nonfinancial enterprise



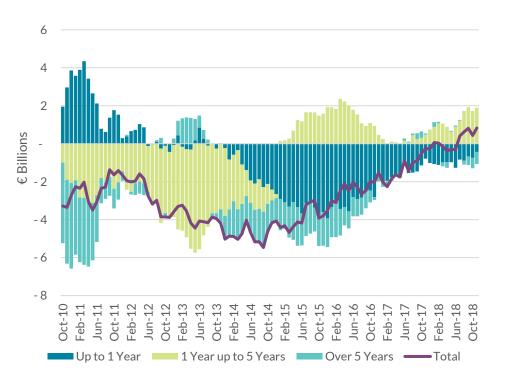
Bank lending to large enterprises has begun to recover, while lending to SMEs is stabilising.

Source: SME and Large Enterprise Credit and Deposits; Author's Calculations, Central Bank of Ireland

Note: SMEs are defined as enterprises with fewer than 250 employees and whose annual turnover does not exceed €50 million and/or whose annual balance sheet does not exceed €43 million. This is the standard EU definition of an SME.



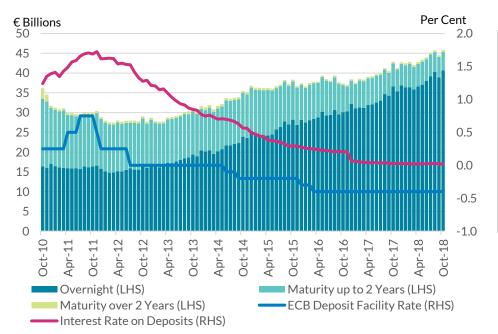
Chart 14: Loans to Irish NFCs; net flows (12 month sum) by original maturity category



Annual NFC net lending turned positive last year having been negative since 2009.

Source: Loans to Irish Private Sector Statistics, Central Bank of Ireland

Chart 15: Deposits of Irish NFCs by Category of Deposit

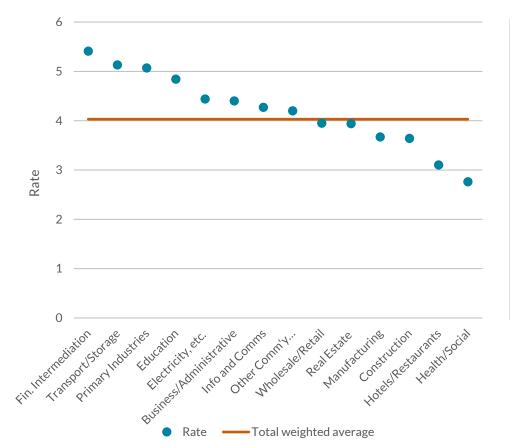


Deposits from NFCs are increasing, growth is coming from deposits of overnight maturity.

Source: Bank Balance Sheet Statistics; Author's Calculations, Central Bank of Ireland

Note: Interest rate on deposits is a weighted average across maturity categories.

Chart 16: SME new lending interest rates, Q3 2018



Real Estate SMEs saw the largest net new lending in Q3 2018.

Source: SME and Large Enterprise Credit and Deposits, Central Bank of Ireland

Chart 17: Gross New Lending to SMEs, Q3 2018

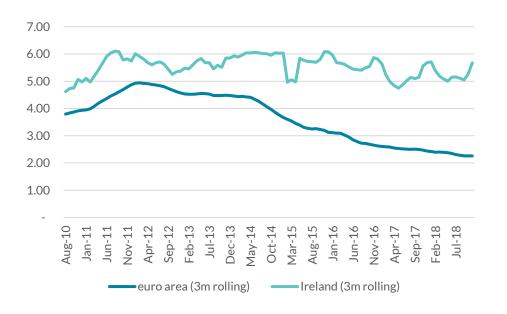


The chart provides a hierarchical view (depicted by the relative size of the rectangle) of gross new lending to SMEs.

Real estate has consistently been the sector receiving the highest level of bank lending in the past year.

Source: SME and Large Enterprise Credit and Deposits, Central Bank of Ireland Note: *Other includes Education, Information & Communications, Electricity, Gas, Steam and Air Conditioning Supply

Chart 18: Interest Rates on Small Loans to Non-Financial Corporations

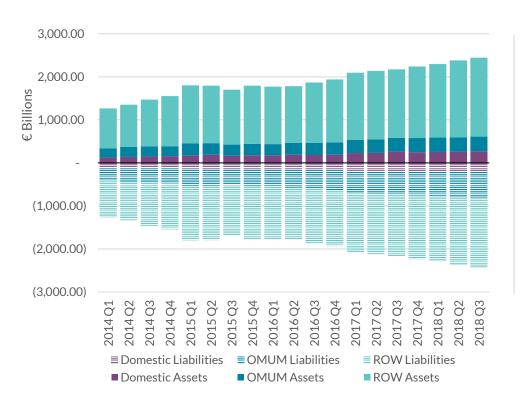


Irish NFCs consistently face higher funding costs than the Euro area average for bank loans. Many of these would be SME

Source: Bank Interest Rate Statistics, ECB Statistical Data Warehouse Note: Only includes interest rates charged on new bank lending to NFCs of amount <250k.

Non-Bank Financial Sector

Chart 19: Total Assets and Liabilities of Investment Funds, by Region

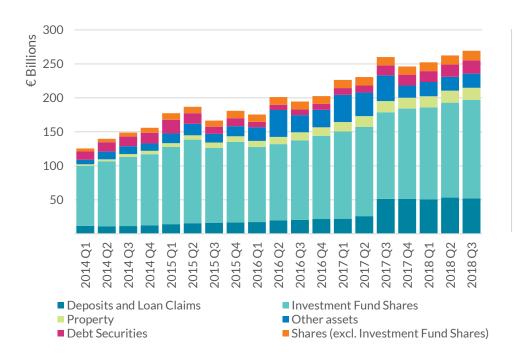


Investment funds are mainly used by foreign investors to invest in foreign assets.

Source: Investment Funds Dataset, Central Bank of Ireland

Note: OMUM= Other Monetary Union Member, ROW=Rest of World

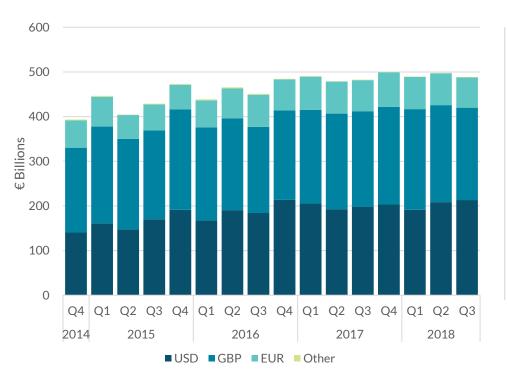
Chart 20: Total Assets of Domestic Investment Funds, by Asset class



Investment in other Irish funds constitutes the majority of Irish assets held by Irish resident investment funds.

Source: Investment Funds Dataset, Central Bank of Ireland

Chart 21: Total Assets of Money Market Funds, by Currency

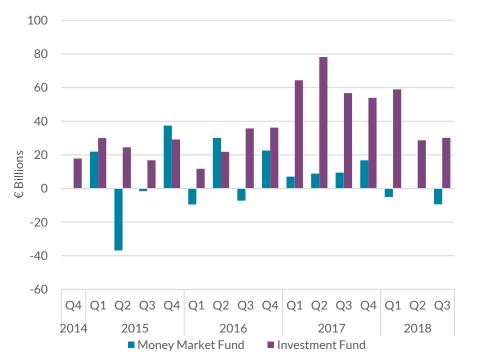


Money Market Funds mainly satisfy demand from GBP and USD investors.

Source: Money Market Funds Dataset, Central Bank of Ireland

Note: Source excludes other assets and equity held by money market funds, and thus does not exactly match chart.

Chart 22: Net Subscriptions of Money Market and Investment Funds

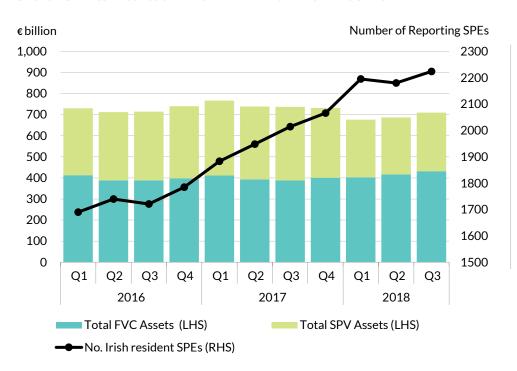


Investment funds have seen elevated net subscriptions since Q2 2016, although this is slowing.

Source: Investment Funds Dataset; Money Market Funds Dataset, Central

Bank of Ireland

Chart 23: Total Assets and Number of Irish Resident SPEs

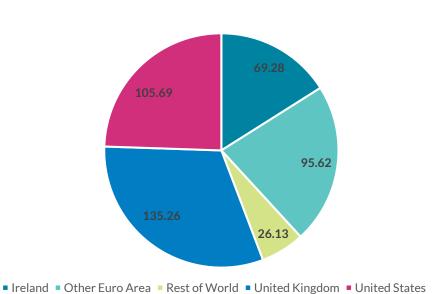


While total assets remain stable, the number of special purpose entities continues to increase.

Source: Special Purpose Entities Dataset, Central Bank of Ireland

Note: FVC= Financial Vehicle Corporation, SPV= Special Purpose Vehicle.

Chart 24: Total Financial Vehicle Corporation Assets by Sponsor Region in Q3 2018, € Billions

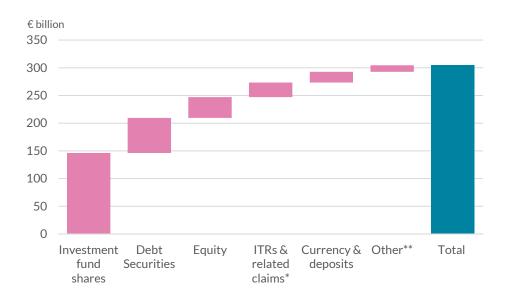


United Kingdom and United States sponsors have set up the majority of SPEs (by assets).

Source: Special Purpose Entities Dataset, Central Bank of Ireland; Authors own calculations

Note: The sponsor of an FVC is the institution that has set it up.

Chart 25: Irish Insurance Corporations (ICs) Financial Assets breakdown, Q3 2018



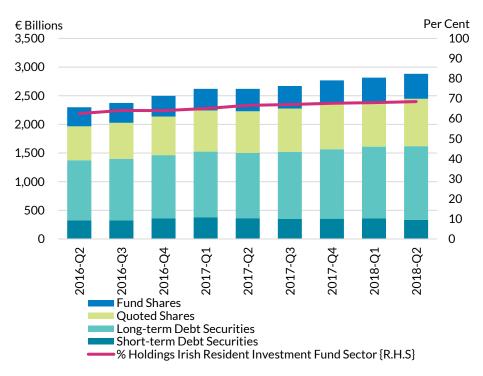
Insurance Corporations predominantly hold Investment Fund Shares.

Source: Insurance Corporation Statistics, Central Bank of Ireland.

Note: *Insurance Technical Reserves and Related Claims. **Other includes Loans and Financial Derivatives.

Other Statistics

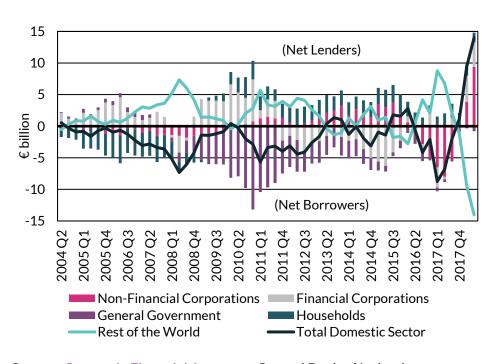
Chart 26: Total Securities holdings of Irish residents



Investment Funds hold the majority of debt and equity held by Irish residents

Source: Securities Holdings Statistics, Central Bank of Ireland; Author's calculations

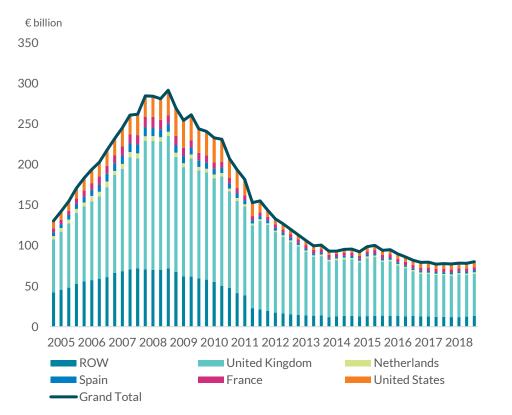
Chart 27: Net lending/borrowing of Irish residents (4-quarter moving average)



Substantial financial inflows increased net lending by the domestic economy to €14 billion.

Source: Quarterly Financial Accounts, Central Bank of Ireland

Chart 28: Location of Irish Foreign Claims

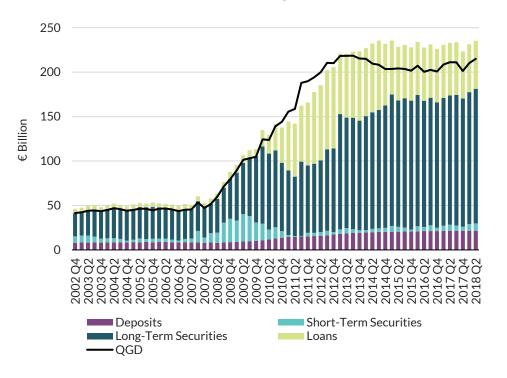


Domestic banks' largest foreign claims continue to be on the United Kingdom.

Source: Consolidated Banking Statistics, Central Bank of Ireland

Government Sector

Chart 29: Irish Government Debt, by Category

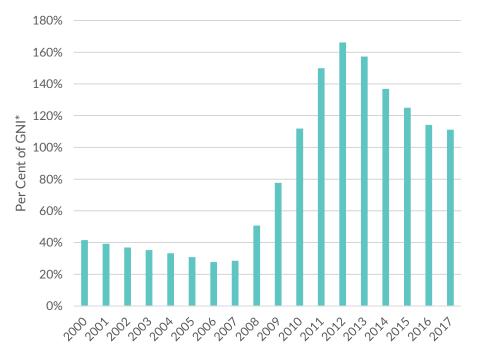


Quarterly
Government Debt
rose by €5 billion
to €215 billion in
Q2 2018.

Source: Quarterly Financial Accounts, Central Bank of Ireland

Note: QGD = Quarterly Government Debt

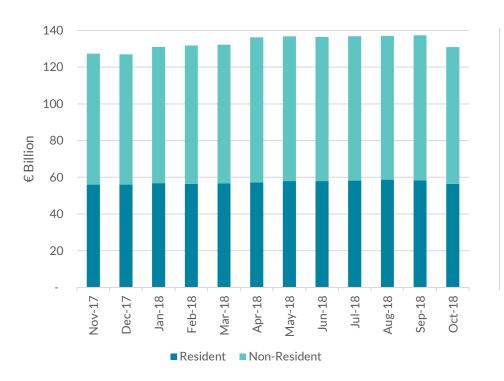
Chart 30: Irish Government Debt-to-GNI*



The ratio of
General
Government Debt
to GNI* was 111
per cent in 2017.

Source: CSO, <u>Annual Government Financial Statistics</u> and <u>National Income</u> and <u>Expenditure Annual Results</u>

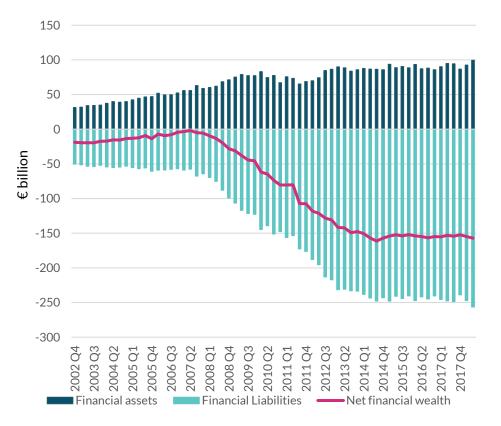
Chart 31: Breakdown of Holders of Government Bonds



Non-resident investors hold the majority of Irish government bonds.

Source: Holdings of Long Term Government Bonds, Central Bank of Ireland

Chart 32: Government Net Financial Wealth



Government net financial wealth fell by €2.3 billion during Q2 2018 as the increase in liabilities outstripped the increase in financial assets.

Source: Quarterly Financial Accounts, Central Bank of Ireland

