CENTRAL BANK OF IRELAND **Circulated to Commission Members**

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FOR INFORMATION

BREXIT TASK FORCE: DECEMBER 2018 UPDATE

Brexit Task Force

Contents

Executive Summary

- **Section A** contains an update in relation to the work underway in the Bank to address Brexit cliff edge risks, through contingency planning and risk mitigation, under the Brexit Steering Committee.
- The key risks include the continuity of securities and euro settlement in the event of a no-deal scenario; service continuity for insurance; fund-management related risks; loss of market access to central counterparties (CCPs); contract continuity for uncleared derivatives; and data protection and transfer.
- The Steering Committee is also considering risks relating to: funding and liquidity in a no-deal scenario; firms passporting into Ireland from the UK; the contingency plans of Irish authorised firms seeking to continue to provide services in the UK; crisis management considerations; and operational and financial risks for the Central Bank itself.
- Regarding contingency planning of supervised entities, the Banking Supervision Division (BSD) has completed its in-depth assessment of Brexit-related risks and banks' preparedness for a hard, no-deal Brexit. There are no new high impact risks identified as part of this assessment. However, the level of preparedness and mitigation of the identified risks varies across the banks.
- For the insurance sector, the Bank has issued letters to firms in respect of approaches outlined in their contingency plans. Supervisors continue to challenge their respective firms on their proposed contingency plans, requesting more detail such as trigger points for implementing plans.
- The Central Bank also engages and collaborates with the UK and Gibraltar regulators on a bilateral basis to discuss and challenge the robustness of plans of Gibraltar insurance firms that write Irish premium.
- In the Asset Management sector, AMSD issued a follow-up letter to all Medium Low and Medium High impact firms, seeking an update on their Brexit contingency plans. There was a wide variation in the quality of responses, ranging from comprehensive to poor. Where the plans were deemed insufficient, supervisors engaged with firms, requesting they re-evaluate and re-submit their plans.
- The Organisational Risk Division (ORD) has identified twenty Divisions within the Bank which are High Risk from Brexit operational risk exposures. Risk focused workshops or bilateral engagements have been completed with all of these Divisions.

- **Section B** contains the usual update on political, economic and financial market developments relating to Brexit, as well the latest policy developments at European fora and authorisations activity at the Central Bank.
- On 25 November, EU 27 Leaders endorsed the EU-UK Withdrawal Agreement and approved the Political Declaration on the Future Relationship at an extraordinary EU Council in Brussels. The Agreement substantively addresses all of Ireland's priorities for the "backstop".
- The accompanying Political Declaration envisages a deep and comprehensive partnership between the EU and UK, including across a range of areas of importance for Ireland such as trade, transport, energy and police cooperation as well as protecting key sectors such as agriculture and fisheries.
- In the UK, the Government decided not to proceed with the "meaningful vote" on the Withdrawal Agreement on 11 December. Prime Minister May survived a vote of no confidence in the Conservative Party on 12 December.
- In financial markets, uncertainty has increased on the back of the Brexit process, with investors now more cautious on the prospects for sterling, but still view extreme downside risks as being relatively contained. The value of sterling has been relatively stable in spite of the heightened uncertainty. Irish bond yield volatility has increased on the back of UK developments, with some market participants expecting lower liquidity and reduced interest in the usual early January NTMA syndication.
- In the UK, the temporary factors behind the strength of the economy over recent months mask an underlying slowdown in activity. Business investment and inward migration have weakened while the outlook for the UK property market appears challenging.
- Regarding the Irish economy, there are still limited Brexit-related effects evident in the latest data releases, although there is some evidence of an impact on business and consumer sentiment. The main effect since the referendum has been the downward impact on import prices due to the weakening of sterling against the euro.
- [Omitted due to confidentiality].
- [Omitted due to confidentiality].
- [Omitted due to confidentiality].
- […] EU Commission has agreed that the temporary equivalence for the UK CSD will last for a period of two years (until end-March 2021).
- In October, the FCA published a consultation paper on the UK's proposed temporary permissions regime. The regime, if enacted, will allow EEA firms and funds to passport into the UK in the event of the UK leaving the EU in March 2019 without an implementation

period being in place. The paper sets out how it expects the regime will work in practice, how it can be entered, the proposed rules that will apply and how long it will operate for.

- As part of the ongoing Brexit programme of work, and building on previous correspondence with financial institutions, the Central Bank issued letters in November to all relevant financial institutions operating in the Irish jurisdiction, reminding them to adhere to the obligations set out in the EBA and EIOPA opinions, and particularly in relation to informing customers of the potential impact that Brexit may have on their financial products and services.
- **Special Topic One** provides an overview of the Single Resolution Board expectations to ensure resolvability of banks in the context of Brexit. The paper covers resolvability conditions under five different headings, including eligibility for the minimum requirement for own funds and eligible liabilities (MREL); internal loss absorbance; operational continuity; and governance and management information systems (MIS).
- **Special Topic Two** examines the potential implications of Brexit for Ireland's airline industry with a particular focus on the internationally-orientated aircraft leasing industry, domestic airlines and the role of the City of London in providing customised insurance contracts. There is a general view that the risks appear limited with the aviation insurance market in London having been preparing for a potential Hard Brexit for some time, with many firms establishing offices, or expanding operations, in other EU countries and Brexit clauses becoming a part of many insurance contracts.
- **Special Topic Three** assesses the Impact on the Irish economy and financial services of the draft EU-UK Withdrawal Agreement if it were to come into effect. The agreement would open the path to two types of possible future relationship between the UK and EU, following the implementation period, namely a Free Trade Agreement or a Customs Arrangement. These would have negative economic effects for Ireland compared to no-Brexit, through non-tariff barriers and the lack of provision for services trade. However, the impact would be much less severe than under no-deal scenarios.
- **Special Topic Four** summarises the results of new Brexit impact assessments published at end-November from the Bank of England and the UK government. It focuses in particular on "disruptive" and "disorderly" scenarios outlined by the Bank of England, which show that a no-deal outcome could lead to significant negative effects on the UK economy in the first year – between 4½ - 8 per cent of GDP. These scenarios would also have severe implications for the Irish economy.

Overview

Following the Brexit referendum, the Central Bank's Financial Stability Committee (FSC) requested that a Task Force on Brexit implications be established on a permanent basis to monitor and assess developments in this area.[1] The Brexit Task Force (BTF) provides updated information regarding political, economic and financial market developments, risks arising for firms supervised by the Central Bank and issues arising for the Central Bank itself, in particular with respect to authorisations. Furthermore, each report selects a number of issues or policy questions related to Brexit and provides an in-depth examination of these areas.

This tenth BTF Report follows the tenth meeting of the Task Force on 5 November. The Report is structured in two parts:

Section A contains an update in relation to the work underway in the Bank to address Brexit cliff-edge effects, as well as an update of contingency planning efforts underway across sectors of the Irish financial system.

Section B provides the regular update on political, economic, and financial market developments, along with other regulatory issues including authorisations activity. The section also includes four Special Topic analyses.

[1] The following Divisions and Directorates are represented on the Brexit Task Force: AMSD, AMAI, BSAD, BSSD, CPD, FMD, FRG, FSD, GSD, IEA, IR, SMSD, INSA, MPD, ORD, Risk, SRD, PSSD, RES, RCU. The report has also benefited from discussions with the Department of Finance. The Chair is the Director of Economics and Statistics, and the Secretariat is provided by MFD (Shane Byrne) and STSD (Andrew Hopkins).

SECTION A: Contingency planning for a hard Brexit

1. Introduction

This section sets out the Central Bank's consideration of cliff edge risks.

In September, in recognition of the critical phase entered in terms of Brexit contingency planning and preparedness, the Central Bank established a Brexit Steering Committee led by Deputy Governor Ed Sibley. This senior level Committee builds on the existing and extensive work completed and ongoing across the Bank and dovetails with the work of the Brexit Task Force.

The Committee is responsible, inter alia, for oversight of the implementation of contingency planning and risk mitigation for identified and emerging cliff edge risks associated with Brexit. It meets fortnightly, with each risk owner tasked with providing their assessment of their designated risk in terms of likelihood, impact and priority level for the Central Bank, for each meeting.

A key focus of the Steering Committee is to ensure that a cross-Bank view is taken in relation to identified risks, to ensure recommended actions are being progressed in a timely manner and to address any roadblocks to completion. It is recognised that not all Brexit risks will be fully mitigated and there may be areas where external assistance (e.g. from the Department of Finance, EU authorities) will be required.

The Steering Committee has been particularly focused on the following key risk areas:

- Loss of market access to CSD
- Loss of service continuity for insurance
- Fund management related risks
- Loss of market access- CCPs
- Contract continuity for uncleared derivatives

Loss of market access- CSD: Once the UK fully exits the EU, Euronext will no longer be able to use CREST without an equivalence decision from the European Commission and the European

Securities and Markets Authority's (ESMA) recognition of CREST. [Omitted due to confidentiality].

[Omitted due to confidentiality].

[Omitted due to confidentiality].

The EU Commission released a statement on 13 November stating that in the event of no Brexit agreement, the Commission will adopt temporary and conditional equivalence decisions in order to ensure that there will be no disruption in central clearing and in depositaries services. Furthermore, […] the EU Commission unanimously agreed that the temporary equivalence for the UK CSD will last for a period of two years (end March 2021), which was a positive outcome. [Omitted due to confidentiality].

These developments, specifically the EU Commission's granting of temporary 2-year equivalence, have lessened the specific cliff-edge risks identified in terms of loss of market access, albeit they will continue to be closely monitored and further clarity is needed in terms of the ESMA recognition decision and […]. Hence, a number of factors need to be considered in order for this risk to be fully mitigated:
[Omitted due to confidentiality].

This risk is still considered to be high impact and a priority.

Service continuity for insurance: Post Brexit, UK and Gibraltar authorised insurers and intermediaries (brokers) will lose their right to passport into Ireland on a Freedom of Establishment or Freedom of Services basis (and vice versa for Irish insurers/intermediaries passporting into the UK). The risk relates to the fact that unless insurers and brokers implement appropriate contingency plans, they will be unauthorised and unable to provide services such as claims handling and policy amendments post-Brexit. A significant majority of UK insurance undertakings have proposed appropriate Brexit contingency plans which are expected to be implemented in advance of Brexit. In particular, the larger UK insurers that currently operate in Ireland on a branch basis are well advanced in implementing their contingency plans to enable them to service existing business and to write new business post Brexit. However, there is a legitimate concern that not all UK insurance undertakings will have implemented Brexit contingency plans by that date, giving rise to a Brexit cliff-effect risk in respect of insurance contracts.

It is therefore proposed to establish a temporary domestic run-off regime to deal with the residual risk. [Omitted due to confidentiality]. This is deemed by the Central Bank as the most appropriate solution in seeking to protect policyholders from potential cliff-effect issues in respect of insurance contracts, in the event of a hard Brexit. [Omitted due to confidentiality].

Given the potential consumer impact, the loss of service continuity for insurance is still considered a high priority, albeit that the proposed temporary domestic run-off regime would mitigate against any potential cliff-edge risk.

Fund Management: Four main cliff effects have been identified that will affect Irish authorised investment funds in the event of a hard Brexit:

(i) *Loss of the passport for UK Fund Management Companies (FMCs) acting for Irish funds:* [Omitted due to confidentiality]. This risk remains a high-priority focus for the Central Bank.

(ii) *The loss of the ability of Irish funds to delegate their portfolio management to UK investment managers:* a large majority of Irish authorised investment funds delegate investment management to entities located in the UK. This will lead to a disruption of business models for Irish authorised investment funds, as it may not be possible for funds to move the delegation of investment management from the UK to another EU or third country jurisdiction due to relevant expertise residing in the UK. [Omitted due to confidentiality].

Recent pronouncements by ESMA and the EU Commission have eased fears somewhat of market disruption in the event of a hard Brexit, particularly in the area of portfolio management delegation. Discussions have also now commenced at technical level between the ESMA and the UK authorities with a view to agreeing the relevant Memorandums of Understandings (MoUs) in advance of the March deadline. Despite recent progress in the area of MoUs, given the potential impact for the industry in the event of a hard Brexit, this risk, although reducing remains a high priority for the Central Bank.

(iii) *The loss of the marketing passport for Irish funds into the UK market:* The UK's proposed temporary permissions regime (TPR) will allow Irish UCITS and AIFs to continue marketing into the UK for a period of 3 years after March 2019. The legislation supporting the introduction of the TPR was enacted on the 6 November with the Regulations coming into force on the 7 November, except for a number of provisions, which will come into force on exit day. The introduction of the TPR resolves this risk for Irish funds who seek to avail of it, in order to continue marketing into the UK market.

(iv) Ireland is the leading European jurisdiction for the location of Exchange Traded Funds (ETFs). [Omitted due to confidentiality]. [...] ETFs are also impacted by the Loss of Market Access CSD issue described in this paper and the solution proposed. [Omitted due to confidentiality]. This issue is dependent on the broader solution to the CSD issue and is still considered to be a high risk and high priority for the Bank.

Loss of market Access- CCPs: The risk relates to the potential for UK CCPs to lose their status as qualifying CCPs (QCCPs) to clear derivatives subject to the EMIR clearing obligation in the absence of an EMIR equivalence decision by the European Commission and recognition by ESMA as third country QCCPs. In light of the Commission announcement on 13 November regarding the adoption of a temporary and conditional equivalence decision to ensure that there will be no disruption in central clearing and the ESMA statement on 23 November stating that they are taking preparatory actions for the recognition process in the event of a no-deal scenario, this risk level has decreased. Additionally, Member States agreed at a meeting on 12 December to adopt the technical equivalence decisions and these will come into force on 30 March 2019, providing sufficient information-sharing arrangements between the Bank of England and ESMA can be agreed. Discussions between these two are underway. As such, this equivalence decision should eliminate the cliff edge risk in this area.

Derivative contract continuity: This issue relates to whether uncleared derivatives contracts concluded between EU27 and UK counterparties will remain valid post-Brexit prior to any arrangement on the future EU-UK relationship being concluded. It is commonly accepted that the performance of standard contractual requirements, e.g. the daily exchange of variation margin, can continue post-Brexit, regardless of the form of the UK's exit arrangement.[2] Rather, the problem in this instance is that certain amendments to the terms of derivatives contracts, so-called 'lifecycle events',[3] are treated as resulting in new derivatives contracts and not amendments to existing contracts. The provision of derivatives contracts is a MiFID service and, therefore, the ability of UK counterparties to offer such a service post-Brexit is dependent on

[2] Although some countries may require authorisation for performing some or all execution events.
[3] For example, the rolling of positions, novations, portfolio compression, material amendments and unwinds via an offsetting transaction.

the MiFID II third country regime of each Member State (as this is a national discretion in MiFID). [Omitted due to confidentiality].
[Omitted due to confidentiality]

[Omitted due to confidentiality]

Data protection and transfer: This risk continues to be prioritised via supervisory engagement at a sectoral level as part of the ongoing contingency planning with firms. Whilst firms are broadly aware of the risks pertaining to data protection and transfer in a Brexit context, many firms have not yet implemented any contingency measures (such as standard contractual clauses) available to mitigate against this risk. [Omitted due to confidentiality].

The Steering Committee is also considering risks relating to: funding and liquidity in a no deal scenario; firms' passporting into Ireland from the UK [...]; the contingency plans of Irish authorised firms seeking to continue to provide services in the UK; and crisis management considerations. The Steering Committee also provides direction in relation to the Central Bank's Brexit communications strategy.

2. Contingency Planning

2.1. Banking

Banking Supervision Division (BSD) has completed its in-depth assessment of Brexit related risks and bank preparedness for a hard, no-deal Brexit. The purpose of the work was to provide a thorough assessment of Brexit-related supervisory risks across Significant Institutions (SIs) and Less Significant Institutions (LSIs) in the event of a no-deal Brexit scenario. This assessment was performed with a backdrop of adequate capitalisation and healthy funding and liquidity positions across the banks.

BSD's desired outcome for banks' planning for Brexit is that they have credible, and appropriate preparatory measures and contingency plans to withstand the prudential impacts of a hard, no-deal Brexit. Where there are risks identified, it is expected that they have been adequately assessed and have robust, effective mitigants in place.

Gaps against these expectations have been identified through the above-mentioned assessment, and these form the basis for further engagement with banks and internal analysis, largely in Q4.

There are no new high impact risks identified as part of this assessment. However, the level of preparedness and mitigation of the identified risks varies across the banks. The materiality and complexity of the risks also varies across banks depending on their business models. Based on this initial assessment, BSD's view is that in the majority of cases, planning is considered reasonably adequate at present. However, the level of preparedness and mitigation of the identified risks varies across the banks and there is significant follow-up action required.

Furthermore, the timeframe over which risks materialise mean that actions related to some cliff-edge risks need addressing over a much shorter timeframe than other risks (business model, credit) with longer realisation horizons.

The most significant risks affecting retail SIs are business model and credit risks. Supervisors believe that there is greater room for Board involvement in relation to Brexit risks given the strategic implications of Brexit for bank profitability and business models. In addition, given the uncertainty over the coming year, banks' 2019 planning cycle is particularly important. Consideration in these plans of the impact of a hard, no-deal Brexit on the fundamentals of banks businesses (for instance the most affected customer segments, the impact of a loss of waivers or the effects of financial market disruption surrounding Brexit) will place banks in a stronger position to deal with a range of possible outcomes over the coming year. This also applies to bank recovery planning, which could be particularly important in the event of a disorderly Brexit.

Regarding credit risk, the risks stem from macro-economic risks rather than cliff-edge effects. UK subsidiaries of Irish banks are well capitalised, while those banks Internal Capital Adequacy Assessment Process (ICAAP) and the EBA stress tests include quantification of credit risks in the context of a hard Brexit and this provides some assurance. However, much of this analysis is predicated on historical models that exclude a structural change like Brexit. This feature of historical models can be addressed, at least in part, by greater use of bottom up analysis by banks.

The credit quality of UK and Irish Corporate/Small to Medium Enterprise (SME) exposures will likely be negatively affected by Brexit. Banks have stepped up monitoring through use of customer surveys and additional information requested during regular reviews. However, greater identification and assessment of SME/Corporate lending exposures at risk from Brexit is needed to assess further the potential implications for profitability, capital and strategy. In addition, non-performing loan levels and cohorts of loans that have recently been restructured leave some borrowers vulnerable to an economic downturn.

Given the trade dependence between Ireland and the UK, in the short term, uncertainty regarding the post-Brexit trading relationship will undoubtedly impact the UK economy further.

Cliff-edge derivative contract continuity issues related to MiFID are to some extent reduced by the Irish transposition of MiFID. This allows for third country counterparties to provide services captured by MiFID to professional counterparties in Ireland (such as banks) without the establishment of a legal entity in Ireland (or elsewhere in the EU). That said, banks are repapering some transactions from UK to EU27 counterparties in certain circumstances. Some Irish-based banks provide MiFID related services to SMEs/Corporates or private banking clients in the UK. Where banks already service clients from a UK subsidiary, no action is needed, while where serviced from a branch, affected banks are engaged the process of applying for a UK third country branch.

The loss of qualifying status of UK central counterparties (CCPs) to clear interest rate swaps and index CDS subject to the clearing obligation under EMIR could see banks in breach of EMIR and face higher capital requirements (for clearing obligation and other clear derivatives). This is in the absence of an EMIR equivalence decision by the European Commission (EC) and recognition of UK CCPs as qualifying CCPs by ESMA or mitigating actions by banks. However, recent comments from the Vice President of the European Commission indicate that the European Commission will take necessary action to address the cliff-edge risk. However, it would be expected that over the medium term banks may need to take appropriate action. Affected Irish banks are in the process of securing or already have access to EU27 CCPs in order to clear interest rate swaps.

There are other supervisory specific issues, such as the loss of preferential treatments (e.g. intragroup large exposure exemptions, treatment of institutions under the standardised approach, etc.); however, capital impacts are generally manageable for the SIs and LSIs considering existing capital levels. On waivers, further consideration needs to be given by some banks to the risk of waivers for UK exposures not being granted where there is no equivalence determination and in the context of existing supervisory guidelines regarding waivers for third country exposures.

Practically all Irish regulated credit institutions handle data in the UK (by either storing, transferring, managing or processing themselves or through third party providers). There are risks posed by a non-adequacy decision by the European Commission on GDPR. Broadly, there is a lack of contingency planning by banks for such a scenario. Whilst banks' current capital ratios are sufficiently robust to withstand the impact of any fine imposed due to non-compliance with GDPR, the impact of a notification from the Data Protection Commissioner to prohibit transfers of personal data may be more material in terms of its potential impact on operational continuity.

In terms of resolution planning, under the Banking Recovery and Resolution Directive (BRRD), banks are required to include in contracts that are governed by the law of a third country, an Article 55 clause by which the creditor recognises the bail in power of the EU resolution authorities. Article 55 clauses alone, however, do not determine eligibility of third country contracts for Minimum Requirement Eligible Liabilities (MREL). Eligibility is determined by resolution authorities via an ex post review whereby the 'effectiveness' of bail-in of a third country liability must be demonstrated. Banks have inserted Article 55 clauses in recent issuances under UK and other third country law. There remains some uncertainty, however, about the MREL eligibility of both existing and future UK law issuances once the UK becomes a third country (see also Special Topic 1 'SRB expectations to ensure resolvability of bank in in the context of Brexit' in Section B of this Report).

2.2. Insurance

Contingency Planning Outwards: Ireland to UK

There is a risk that Irish insurers may not be able to pay out claims to UK policyholders or service existing insurance contracts.

Irish authorised insurance undertakings are implementing contingency plans to allow them to write and/or service existing insurance contracts, post Brexit. The options, which are available under the current legal framework to ensure service continuity that impact UK policyholders include:

i. Portfolio Transfer to an existing UK entity
ii. Portfolio Transfer to a newly established UK Subsidiary
iii. Establishing a Third Country Branch in UK (Outwards)
iv. Establishing a Third Country Branch in Crown Dependencies
v. Fronting arrangement with UK insurers
vi. Cease writing UK new business

Two of the proposed plans relate to accessing the UK market via "overseas person exemption" and on a "non-admitted basis" which may be permissible under UK law. A number of life insurers who provide offshore bonds from Ireland to the UK plan to access the UK market using these overseas exemptions. They have received legal advice in respect of their plans. The Central Bank has formally notified both the PRA and FCA of these approaches. FCA and PRA have provided no objection to these plans and have not requested additional plans from these firms. A number of captive insurers also intend to access the UK market on a non-admitted basis to write non-compulsory business. The PRA have also been formally notified of this approach.

Temporary permissions to address contract continuity – UK

In order to mitigate Brexit risks in respect of financial services for UK policyholders, the UK Government has passed the temporary permission regime under the UK EEA Passport Rights (Amendment) Regulations 2018. This allows EEA firms to passport in the UK for approximately a three-year period while they plan to set up a presence in the UK. This will allows firms to develop a longer-term strategy to access and operate in the UK market post Brexit.

As the UK Government have committed to providing a temporary permission regime for a three year period, the cliff edge effect for insurance contract continuity for Ireland to UK is effectively mitigated for a three year timeframe.

Contingency Planning Inwards: UK/Gibraltar to Ireland

Passporting from UK to Ireland

The key risk is a cliff edge effect of an insurance service contract continuity in a Hard Brexit scenario. UK insurers may not be able to pay out on claims and service existing contracts.

Through the EIOPA Brexit Platform, bilateral engagement with the PRA/FCA, the Central Bank has obtained the plans for the majority of undertakings with a number of them applying for authorisation for either an Irish subsidiary or third country branch in Ireland. A number of these firms already have existing branch operations in Ireland with either converting the existing branch to a third country branch or to a full Irish subsidiary. The remainder are seeking to establish a subsidiary or branch operations in other EU jurisdictions.

The insurance market in Ireland may change post Brexit. Some of the new applications to Ireland have sizeable “with profits” portfolios. [Omitted due to confidentiality].

Passporting from Gibraltar to Ireland

The Central Bank has obtained an overview of the proposed contingency plans of the Gibraltar firms that write Irish premium through the EIOPA Brexit platform and also through bilateral calls with the GFSC. [Omitted due to confidentiality]. The other remaining insurers are seeking either to transfer portfolios to existing EU insurers or establish subsidiary/branch operations in Europe.

There were no Gibraltar life undertakings that wrote into Ireland for year-end 2016.

Actions Taken by the Central Bank

EIOPA Brexit Cooperation Platform

The Central Bank actively participates in weekly EIOPA Brexit Co-operation Platform teleconference calls, which discuss specific contingency plans. All EU28 regulators attend this EIOPA platform. Through the platform, the Central Bank shares and provide updates on the Irish authorised undertaking progress and obtains details of the UK and Gibraltar undertakings contingency plans. EIOPA have issued three information requests on Brexit contingency plans (January, March and July). Through this information exchange, all EU28 regulators are able to get an updated status and progress of contingency plan implementation. A fourth information request is planned before the end of the 2018 focusing on UK and Gibraltar firms that do not have a realistic contingency plan.

Bilateral engagement with the UK and Gibraltar regulators

The Central Bank also engages and collaborates with the UK and Gibraltar regulators on a bilateral basis to discuss and challenge the robustness of plans. There have been several teleconference calls to discuss specific firms contingency plans progress.

The Central Bank held telcos with the PRA and FCA to discuss the plans of some undertakings in more detail. The Central Bank continues to share knowledge with the PRA and FCA on firms' contingency plans to ensure both parties are kept informed.

Direct engagement with firms

The Central Bank has issued letters to some firms in respect of approaches outlined in their contingency plans. Supervisors continue to challenge their respective firms on their proposed contingency plans, requesting more detail such as trigger points for implementing plans.

The Central Bank continues to communicate with the industry on the importance of having credible plans with key trigger points for implementation for Brexit through Brexit roundtables, industry events and industry newsletters.

Domestic Temporary Run-Off

In order to mitigate the Brexit risk of UK and Gibraltar firms that do not have a Brexit plan and for those firms that may have a plan but will not have implemented the plans on time to ensure insurance contract continuity for Irish policyholders, the Central Bank is currently working with the Department of Finance to draft a legislative solution. This legislative solution will allow UK and Gibraltar firms to run off existing portfolios for a limited three-year period. These firms will be deemed authorised. During this timeframe, the UK and Gibraltar firms will not be allowed to write new business. [Omitted due to confidentiality].

2.3. Asset management

AMSD issued a follow-up letter to all Medium Low and Medium High impact firms, seeking an update on their Brexit contingency plans. There was a wide variation in the quality of responses, ranging from comprehensive to poor. Where the plans were deemed insufficient, supervisors engaged with firms, requesting they re-evaluate and re-submit their plans. Supervisors have assessed the potential impact of a hard Brexit on a firm by firm basis and analysed the risks outlined in the plans to determine common sectoral risks among firms. The common risks for the Asset Management sector include UK market access, staffing, GDPR, impact on revenue, and investor impact.

Where firms were required to submit revised plans, these were received in September 2018 and the review of the plans has been completed. Follow-up engagement by supervisors is being undertaken on an individual firm basis with an initial focus on firms where the impact of Brexit is deemed material. There will be continued engagement with all firms to ensure that their contingency plans are appropriate for a hard Brexit scenario.

2.4. Securities and Markets

As the UK's withdrawal date approaches, SMSD continues to manage and adapt its response. The internal SMSD Brexit Task Force is now meeting on a fortnightly basis in an effort to step up its focus on the issues faced across the directorate and to link in with other areas of the Bank to ensure a coordinated approach is achieved across sectors and divisions. It will also continue to inform and contribute to the work of the Brexit Steering Committee.

In the investment funds area, recent announcements by ESMA and the FCA have eased fears somewhat of market disruption in the event of a hard Brexit, specifically in the areas of portfolio management delegation and investment fund passporting. The Chair of ESMA, Steven Maijoor, confirmed in a keynote speech on 3 October that ESMA intends to begin negotiations with the FCA to ensure MoUs are in place sufficiently on time and before the end of March 2019, whilst "taking the wider negotiations between the EU and the UK into account". He also recognised that "in the case of a no deal Brexit, National Competent Authority's (NCAs) and ESMA should have in place with our UK counterparts the type of MOUs that we have with a large number of third country regulators".

In a separate development, the FCA is pressing ahead with its intention to introduce a temporary permissions regime for investment funds passporting into the UK in the event of a hard Brexit. In October, the FCA published a consultation paper setting out how it expects the regime to work in practice, how funds can enter it, the proposed rules that will apply, and how long it will operate. The introduction of the regime will allow Irish UCITS and AIFs to continue marketing into the UK after March 2019 regardless of a deal being struck between the EU and the UK. Notwithstanding these developments, SMSD continues to plan accordingly for all Brexit scenarios.

With regard to UK Fund Management Companies (FMCs) losing their passport to manage EU27 funds, SMSD has identified those Irish authorised investment funds which are still currently being managed by a UK FMC. SMSD has subsequently commenced a mapping exercise in conjunction with AMSD to map the affected funds to the current AMSD authorisation pipeline for UCITS Management Companies and AIFMs. Following this, SMSD intends to communicate directly with those funds, which have not been mapped to a prospective Irish FMC by the end of 2018 to gain sight of their plans. Allied to this work being undertaken, SMSD recently presented to the Brexit Steering Committee on these matters, along with other issues facing funds such as clearing and settlement. A number of follow-on actions are proposed including decision points around future authorisations.

From a non-funds perspective, SMSD continues to liaise with Banking and AMSD in relation to the Brexit Authorisations Pipeline in assessing applications from credit institutions, MiFID firms and venues seeking authorisation. These applications are being assessed from a wholesale conduct, MiFIR transaction reporting and a market abuse perspective.

3. Organisational Risk

3.1. Non-financial risk

ORD's non-financial risk function is currently in the process of undertaking an internal Brexit operational impact assessment, examining the status of operational risk exposures arising from Brexit and to assess associated contingency planning within the Bank itself. The first stage of this involved a high-level scan of the organisation via a questionnaire issued to all divisions identifying seven key risk indicators, which enabled ORD to establish where higher operational risk areas lay within the organisation. Following on from the findings of this, twenty Divisions across all four pillars were categorised as 'High Risk' based on actual or anticipated impact. ORD have completed operational risk focused workshops with management in each of these High Risk Divisions. [Omitted due to confidentiality].

Each of the engagements focused on the current operational risks within the Division, how Brexit might impact upon the impacted processes and whether any additional operational risk exposures have been identified as a result of Brexit. Where such changes or new risks are added to the Division's risk register, consideration has been given to the controls in place and possible contingency measures to be adopted going forward. In general, while this work is on-going and remains subject to some uncertainty, the findings of these workshops and feedback from Divisions has validated the key risk indicators which ORD originally identified when engaging with Divisions earlier this year. Predominantly, elevated operational risk exposures are related to an increase in the volume and complexity of the work of impacted divisions as well significant work requiring reprioritisation to address issues arising from Brexit. Consequently, resource and expertise related challenges remain an area of concern for the impacted areas. ORD has also completed a follow up with all 'Medium Risk' rated divisions which were identified during the first stage to ensure that any updated risk exposures have been captured. ORD is amalgamating each of the updates received and will provide a report to the Brexit Steering Committee and Brexit Taskforce once completed.

3.2. Financial risk

[Omitted due to confidentiality]

SECTION B: Economic and financial effects

4. Political and Market Developments

4.1. Political Developments[4]

4.1.1. Article 50 Negotiations State of Play

On 25 November, EU 27 Leaders endorsed the EU-UK Withdrawal Agreement and approved the Political Declaration on the Future Relationship at an extraordinary EU Council in Brussels.

The Withdrawal Agreement substantively addresses all of Ireland's priorities for the 'backstop': it provides for a UK-wide customs backstop, with additional customs and regulatory commitments for Northern Ireland, to ensure there will be no hard border on the island. In the text, it is clear it will remain in place unless and until they are superseded by a subsequent agreement. It also includes UK commitments to ensure no diminution of rights, safeguards and equality of opportunity set out in the Good Friday Agreement.

The Agreement also includes legally binding commitments on level playing field conditions necessary for the UK-wide customs arrangement. These include dynamic alignment with EU acquis on competition and state aid, as well as agreed standards on anti-tax avoidance, environmental and social standards. Importantly, the Withdrawal Agreement secures a transition. It also includes an agreement on the rights of EU and UK citizens as well as on the financial settlement between the EU and the UK.

The accompanying Political Declaration published alongside the Withdrawal Agreement envisages a deep and comprehensive partnership between the EU and the UK, including across a range of areas of importance to Ireland, such as trade, transport, energy, and judicial and police cooperation as well as protecting key sectors such as agriculture and fisheries.

The Withdrawal Agreement will now go to the European Parliament for its consent before the European Council can formally conclude the Agreement with the UK. In the UK, the Government is required to bring the Withdrawal Agreement to Parliament for a 'meaningful vote', prior to bringing legislation on its ratification and implementation.

[4] Our thanks to the Department of Finance for providing the background information on the latest political developments.

4.1.2. Irish Developments

Brexit preparedness work has intensified across Government, with ongoing coordination by the Department of Foreign Affairs of an overall Government approach. All Departments have been tasked by the Government to rollout detailed Action Plans with a view to advancing, as appropriate, the mitigating measures which have been identified in the areas of their responsibility from the planning to the implementation phase.

The Government agreed in September that planning and preparation work should intensify for the implementation of the necessary import controls at ports and airports on an East-West basis in a 'central case' Brexit scenario to focus on the areas of staffing, infrastructure and ICT.

The Government also agreed to the phased recruitment of staff for customs, SPS and food safety controls over the period to 2021 with current projections of overall staffing requirements in the order of circa 1,050 full time equivalents.

A series of well-attended 'Getting Ireland Brexit Ready' public information roadshows have taken place around the country which provide information and resources to help citizens and businesses plan for Brexit.

4.1.3. UK Developments

Prime Minister May addressed the House of Commons (HoC) on 10 December and deferred the planned vote on the Brexit Withdrawal Agreement that was scheduled to take place on 11 December.

A revised date for the Westminster vote has yet to be announced. However, a spokesperson for Prime Minster May (11 December) stated that the PM would bring her Brexit deal back to the House of Commons "before January 21", and would observe the "spirit" of the EU Withdrawal Act which requires the PM to make a statement to the Commons on or before that date if no agreement in principle has been reached with the EU.

On 12 December, Prime Minister May won an internal Conservative Party vote of confidence by 200 votes to 117. The vote was triggered once the threshold of 15 per cent of the parliamentary party seeking such a vote was exceeded.

4.2. UK economic and property market developments

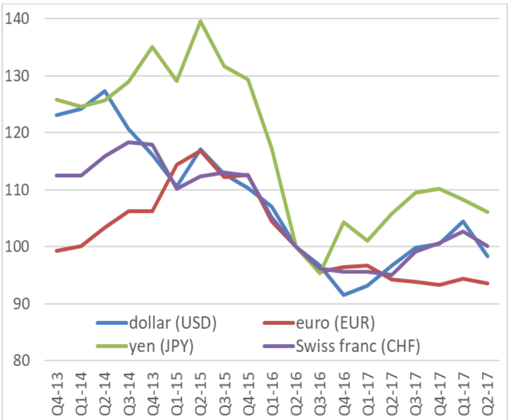
4.2.1. Macroeconomy

At its meeting on 31 October 2018, the Monetary Policy Committee (MPC) unanimously voted to keep the Bank Rate at 0.75 per cent.

CPI Inflation has remained above target at 2.5 per cent in Q3. This was mainly due to increases in global energy prices and to the increased price of imports, resulting from a weaker sterling. Yet, these external factors are expected to be short-lived, due to the fact that the contribution of energy prices will decrease by the second half of 2019, and also from the effects of the post-referendum depreciation (Chart 4.2.1). Internal factors are forecast to be the main drivers of inflation afterwards, when a tightening labour market is projected to feed into wage increases.

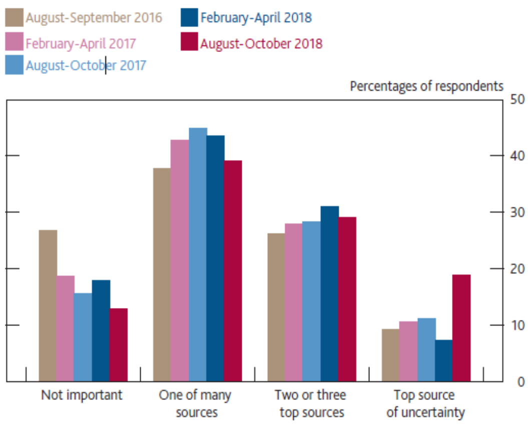
UK real GDP growth picked up in Q3 2018 with quarter-on-quarter growth of 0.6 per cent, compared to the previous 0.4 per cent. This increase is likely temporary, according to the Bank of England's Inflation Report, resulting from a catch-up in activity after the bad weather dampened GDP growth in the previous quarter. Brexit uncertainty does not seem to have affected households' confidence with household consumption growing by 0.3 per cent in Q2 2018, (down from 0.5 per cent in Q1 2018), amid low unemployment and with the vacancy rate at a record high (Chart 4.2.3). Brexit could soon be affecting investment decisions by firms, as it is increasingly ranked as a top source of uncertainty (see Chart 4.2.2). Business investment has decreased, registering a -0.7 per cent in Q2 2018 compared to the previous quarter.

Chart 4.2.1: Sterling exchange rates with major trading partners (2016Q2=100)



Source: ONS Balance of payments, UK: April to June 2018

Chart 4.2.2: Brexit as a source of uncertainty



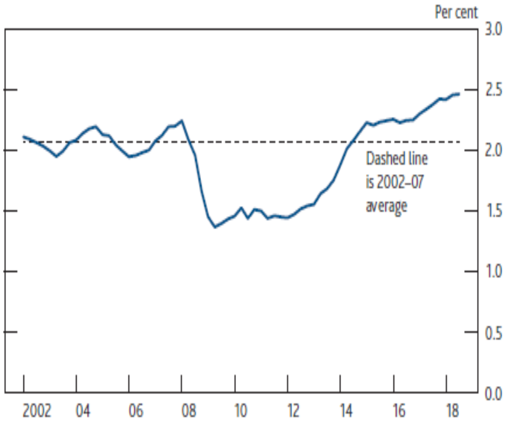
Source: Bank of England, Decision Maker Panel. Responses to the question 'How much has the result of the EU referendum affected the level of uncertainty affecting your business?'

The contribution of net trade to GDP growth in Q2 was negative, at -0.6 per cent, as forecasted in the August Inflation Report, but it is expected to contribute positively in Q3, at 0.9 per cent. Import growth has slowed, while exports have benefited from the weaker sterling.

Net migration is still decreasing and is expected to contribute less to labour supply in the coming years. The ONS principal population projections include a decline in net migration to below 200,000 per year, in 2021. Net EU migration has continued on its decreasing trend.

While narrowing over a longer period, the current account deficit has widened in Q2 2018, to 3.9 per cent of GDP, compared to a revised figure of 3 per cent in Q1 due to an increase in both the trade deficit and the primary income balance (Chart 4.2.4). The ONS imputes this larger trade deficit to movements in aircraft and non-monetary gold, and an increase in the price of oil. Movements in sterling have also affected the change in the UK international investment position, compensating for the decrease in inflows with a positive value stemming from currency changes. Q2 2018 registered another positive financial account (the last negative value dating back to Q2 2011), with portfolio investment net inflows at their highest in 10-years, and a positive net FDI inflow.

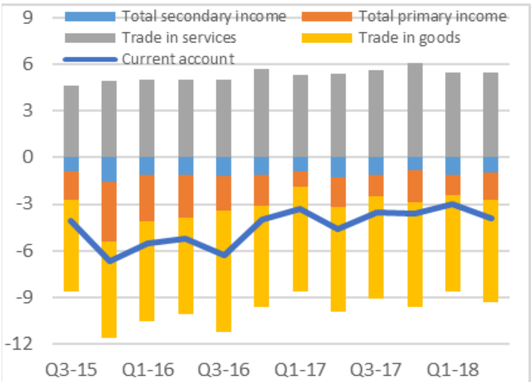
Chart 4.2.3: Vacancies to labour force ratio[(a)]



Source: ONS and Bank of England

(a) Vacancies as a percentage of the workforce, calculated using rolling three-month measures. Excludes vacancies in agriculture, forestry and fishing. Figure for 2018 Q3 shows vacancies in the three months to September relative to the size of the labour force in the three months to August.

Chart 4.2.4: UK balances as a percentage of GDP



Source: ONS Balance of payments, UK: April to June 2018

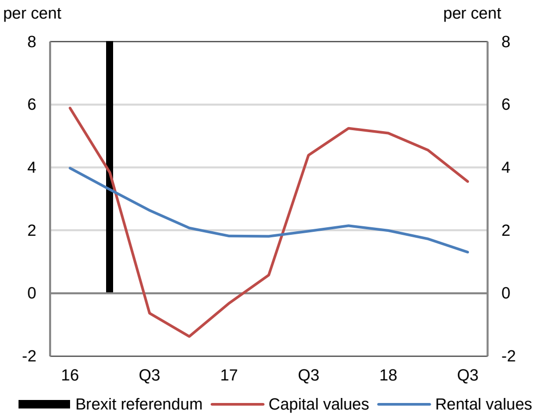
4.2.2. UK Property market developments

Commercial property market values

The UK commercial property market has been somewhat subdued in recent quarters. Quarterly returns of 1.4 per cent in 2018Q3 are the lowest since 2016Q3, resulting in total annual returns of 8.3 per cent, down from 9.4 per cent in 2017Q3. Capital values, the main driver of CRE returns over the past year or so, have moderated throughout 2018, while the pace of annual CRE rental inflation has eased to 1.3 per cent from approximately 2 per cent in 2017Q3 (Chart 4.2.5).

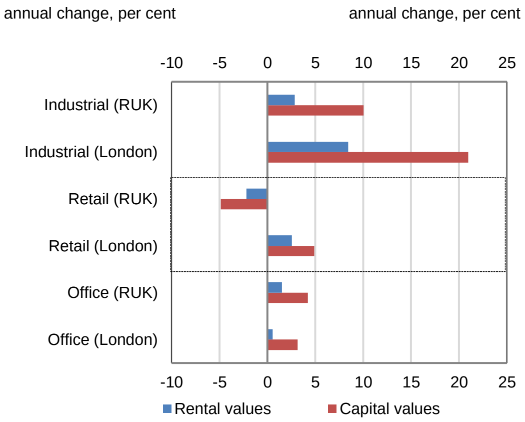
Performance has not been uniform across sectors and locations. For instance, industrial property has experienced the highest growth rates since early 2017, on the back of a particularly buoyant London market. Capital values and rents have increased 21.1 per cent and 8.4 per cent respectively in London since 2017Q3 (Chart 4.2.6).[5] Across the rest of the UK (RUK), annual capital and rental value growth was also significantly higher, at 10 per cent and 2.9 per cent respectively, than the aggregate CRE figure. Conditions across the broader office and retail markets were more diverse. Capital values in the UK office market grew by 3.1 per cent year-on-year, in contrast to a 2.1 per cent fall in retail property values. Respective annual rental inflation rose 1.1 per cent and declined 0.7 per cent in 2018Q3. It is interesting to note that as with the industrial sector, London retail outperformed the RUK; the same cannot be said for the office segment where growth tended to be strongest outside the capital (Chart 4.2.6).[6]

Chart 4.2.5: Total returns on UK commercial property



Source: MSCI/IPD and Central Bank of Ireland calculations

Chart 4.2.6: UK CRE capital and rental value growth by sector and location



Source: MSCI/IPD and central Bank of Ireland calculations

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[5] The entire UK industrial property market registered annual capital growth of 14.2 per cent and annual rental growth of 5 per cent in 2018Q3.

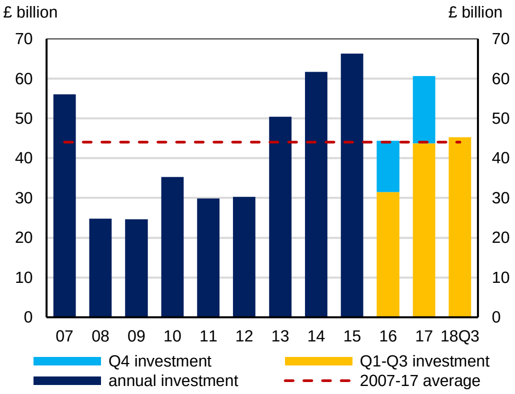
[6] It is worth noting that data presented in Chart 4.2.6 fails to reflect disparate developments within the London office market – for instance, capital values in the "Mid-Town" and the "City" areas and rents in the "West End" the "City" are growing faster than the overall aggregate figure.

Commercial property market investment

Investment volumes in the UK commercial property market have remained stable, despite the political and economic uncertainty surrounding the Brexit negotiations. Approximately £17 billion of CRE purchases occurred in 2018Q3, the largest quarterly total since the opening months of 2015 and over 70 per cent higher than that which occurred in the quarter immediately after the vote. As a result, investment in UK commercial property during the opening 3 quarters of 2018 (£45 billion), was 3 per cent higher than the equivalent period in 2017 and in line with the 2007-2017 annual average (Chart 4.2.7). Assuming CRE investment in 4th quarter of 2018 is comparable to 2017Q4 levels, the total for 2018 will reach circa £60 billion.

UK-based individuals/institutions remain the principle purchasers of UK commercial property, accounting for half of all investment flows in 2018Q3 (Chart 4.2.8) and 55 per cent over the past year. Demand from foreign investors has also remained steady. Asian buyers have retained their spot as the most active foreign buyers, accounting for 15 per cent of overseas investment in 2018Q3, with Europe (including Germany) not far behind with 13.6 per cent of the total. The bulk of foreign investment tends to target Central London offices; however, industrial space has also been attracting increasing volumes of overseas capital.

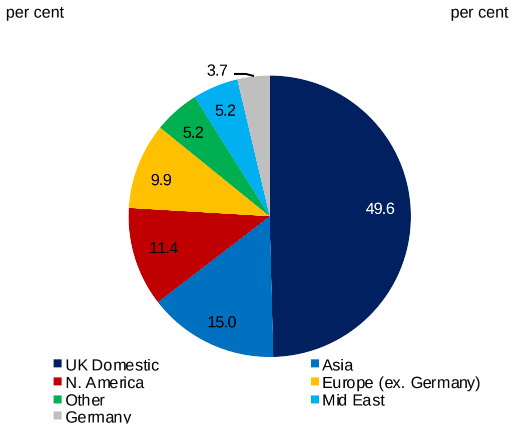
Chart 4.2.7: Annual value of UK CRE transactions



Source: LSH – UK Investment Transactions Bulletin Q3 2018

Note: Latest observations to 2018Q3

Chart 4.2.8: Breakdown of 2018Q3 UK investment flows



Source: LSH – UK Investment Transactions Bulletin Q3 2018

Note: 2018Q3 UK CRE investment flows amounted to €17 billion.

While greater involvement of international capital can serve to broaden a country's commercial property investor base and help increase market liquidity, it can also leave the sector more exposed to changes in investor perceptions and/or to changes in external financing conditions. In a recent report on the UK commercial property market, Goodbody noted the significant role of Asian investors in the market for London property assets, and questioned the sustainability of such capital flows and the outcome should they come to an abrupt end.[7] In this regard, the outcome of the Brexit negotiations will be vital in determining the outlook for the UK CRE market. According to LSH, a "hard Brexit" would likely create negative investor sentiment leading to a detrimental impact on values, save for prime, long-leased assets, where security of income will remain highly prized.[8]

Commercial property market outlook

According to the 2018Q3 edition of the RICS UK Commercial Property Market Survey, expectations surrounding capital value and rental growth are relatively mixed over the short-term. Again, sectoral differences emerge in terms of capital value projections. Falling values are anticipated for the broad retail sector and across secondary office space. Modest growth is expected in the prime office segment. Finally, solid gains are envisioned for the industrial sector, given the supportive supply demand dynamic.

As in previous surveys, respondents were asked if they have seen any evidence of firms looking to relocate at least some part of their business away from the UK as a result. Interestingly, this figure has picked up a little in the latest results, with approximately one quarter of respondents confirming that they had seen signs of this type of activity, up from a typical level of 15-18 per cent in previous surveys. Going-forward, this will be an interesting metric to monitor in order to gauge the concern of firms with respect to the outcome of the UK/EU negotiations and the contingency planning occurring.

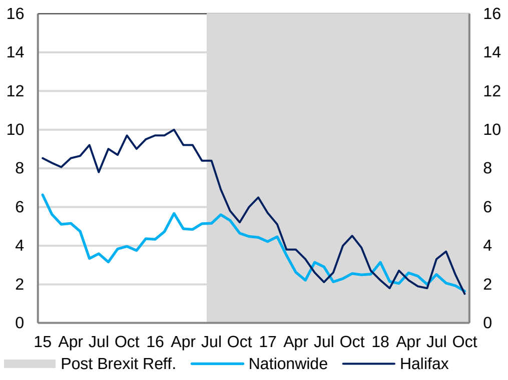
UK House Prices

The pace of UK residential property price growth has slowed in recent months (Chart 4.2.9). The Halifax and Nationwide house price indices rose 1.5 per cent and 1.6 per cent year-on-year respectively in October 2018, down from 4.5 per cent and 2.5 per cent respectively at the end of October 2017. The most recent data from Finance UK, points to an easing of mortgage market activity. Approximately 802,000 mortgages were drawn down in the 12 months ending in August 2018, compared to a figure of 814,000 at the end of 2017 and 847,000 in the months leading up to the 2016 referendum (Chart 4.2.10). Should the current trend continue for the

[7] See "*UK Commercial Property - Market continues to defy doomsayers, but for how long?*" Goodbody Stockbrokers, November 14 2017.
[8] See LSH UKIT Q32018.

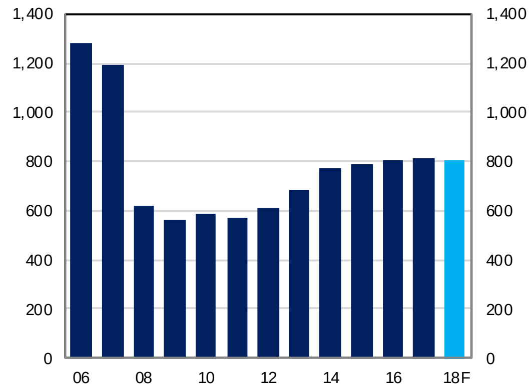
remainder of the year it is likely that there will be a fall in the number of annual mortgage transactions this year, for the first time since 2011 (Chart 4.2.10).

Chart 4.2.9: Annual growth in UK house prices



Source: Halfax and Nationwide HPIs (via datastream)

Chart 4.2.10: UK residential mortgage drawdowns



Source: UK Finance

Note: Forecast for 2018 based on the total number of drawdowns between September 2017 and August 2018.

The outlook for UK residential property remains challenging. The October 2018 RICS UK Residential Market Survey substantiates the occurrence of recent price declines and points to a further deterioration in housing demand in the months ahead, as affordability pressures, political uncertainty and a lack of new stock entering the market continue to hinder activity. Significant regional variation exists,[9] with much of the weakness stemming from London and the South East. With virtually all regions experiencing a decline in new instructions and a fall in stock levels to historical lows, it comes as little surprise that the number of sales transactions has also continued to fall across the UK.

4.3. Financial market developments

The following section provides an update on the main financial market developments, spanning the period since the last update to the Financial Stability Committee (FSC) from 28 August to 13 December. Section 4.3.1 discusses UK market developments (including a broader review of developments since the EU referendum), and section 4.3.2 provides an update on broader market themes over this period.

[9] In contrast, prices continue to rise and the outlook is relatively positive in the North West of England, NI and Scotland.

4.3.1. UK market developments

In summary, market uncertainty has increased on the outcome of the Brexit process following the decision of Prime Minister (PM) May to postpone the Parliamentary vote (due on 11 December) on the withdrawal agreement and an unsuccessful no confidence vote on her leadership by the Conservative party.[10] Investors are now becoming more cautious on the prospects for sterling. There has been a significant increase in option implied volatility of sterling, which illustrates that investors are more uncertain on the most likely Brexit scenario. However, GBP/USD risk reversals (a negative risk reversal indicates that the market expects a depreciation in sterling) still suggest that extreme downside risks in the currency are viewed as relatively contained.

Summary of developments since the EU referendum

This section briefly recaps on the main market developments since the UK referendum in June 2016 (Chart 4.3.1).

Chart 4.3.1: UK financial market moves

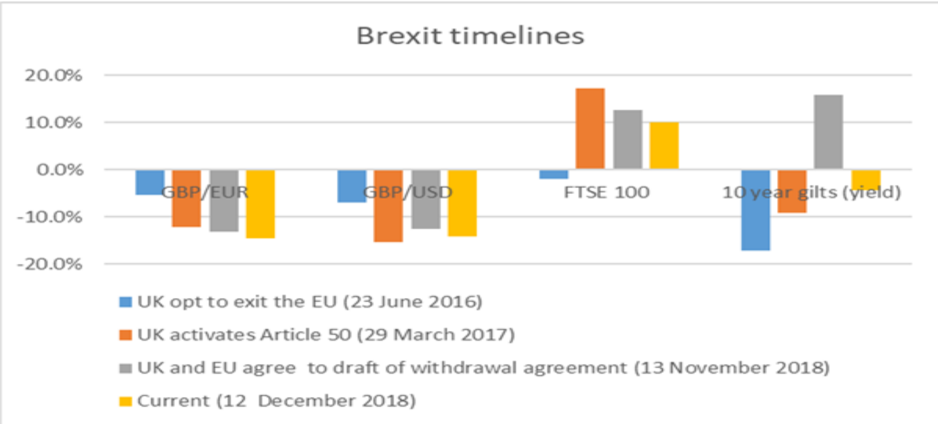


Chart 4.3.1 illustrates that sterling has been the most notable indicator of Brexit investor sentiment; the currency has fallen by over 15 per cent against the euro and the US dollar since the 2016 EU referendum. UK stocks have been mixed; the FTSE 100 index initially traded lower on the announcement of the 2016 referendum result before recovering as the market was supported by stronger than expected internal growth and a weaker currency. The FTSE 100 has risen by just over 9 per cent after the referendum, but has traded lower over the period on mounting Brexit uncertainty and signs of a slowdown in global growth.

[10] A vote was scheduled after 48 Conservative members of Parliament submitted letters to the 1992 Committee demanding a ballot.

UK Gilt yields have been volatile, with the 10-year yield falling as low as 0.52 per cent (in August 2016) on a cut of the UK base rate to 0.25 per cent. However, Gilt yields subsequently moved higher as the BoE raised its policy rate twice in order to counter inflationary pressures.[11] More recently, 10-year Gilt yields declined as the market assesses the likely response from the BoE to a more uncertain Brexit outlook.[12]

UK market update since August FSC meeting

UK Gilt yields have been volatile since the last FSC meeting in August. Chart 4.3.2 illustrates that the 10-year yield briefly rose by 0.23 per cent to a high of 1.73 per cent in mid-October amid a growing perception that the UK's exit from the EU would be orderly and this would feed through to stronger growth and prompt the need for a tighter UK monetary stance to curb inflation. The announcement of a withdrawal agreement between the UK and the EU provided a brief respite, but sentiment soon turned negative on news of:

i) the resignation of Brexit Secretary Dominic Raab and other cabinet members;

ii) the postponement of the Parliamentary vote on the Withdrawal Agreement; and

iii) the announcement of a non-confidence vote in PM May.

As a result, 10-year gilt yields have fallen to 1.25 per cent on growing fears of a "Brexit no deal".

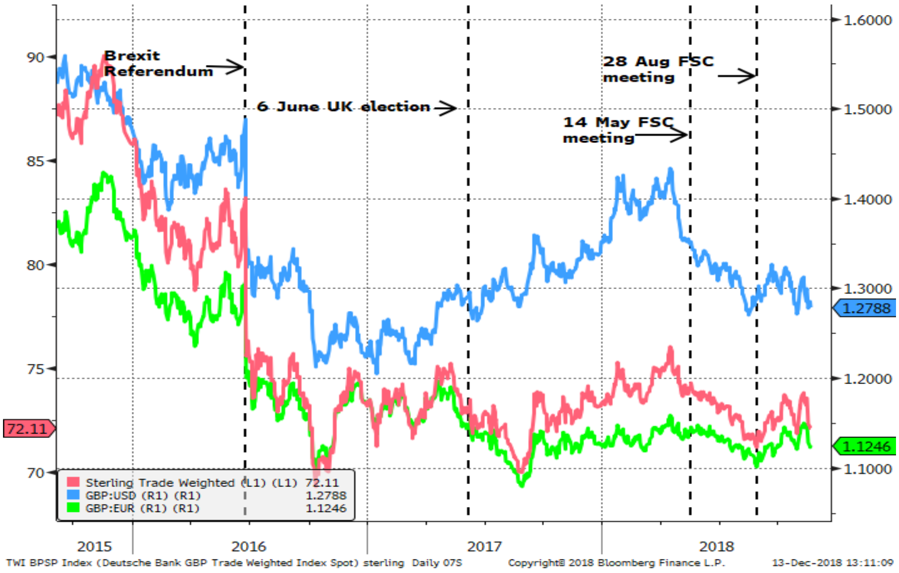
Chart 4.3.2: 2 and 10-year UK Gilts

[11] The BoE increased its policy rate in two increments of 25 basis points in November 2017 and August 2018.

[12] A successful passage of PM's May withdrawal deal or the possibility of a "soft Brexit" alternative is expected to push UK yields higher while a "Brexit no deal" (which is perceived as having increased over the period) is likely to impose downward pressure on UK yields on the likelihood of an easing in monetary policy.

Chart 4.3.3 below demonstrates that sterling has been relatively stable in spite of heightened Brexit uncertainty. Since the last FSC meeting in August, sterling has risen by just under 1 per cent against the euro to €1.113, while it has declined by nearly 2 per cent against the US dollar to $1.263. While sterling initially strengthened somewhat after the UK and the EU announced the agreement of the draft text for the withdrawal deal on 13 November, the currency retreated from its peak over the period amid growing uncertainty.

Chart 4.3.3: Sterling exchange rate

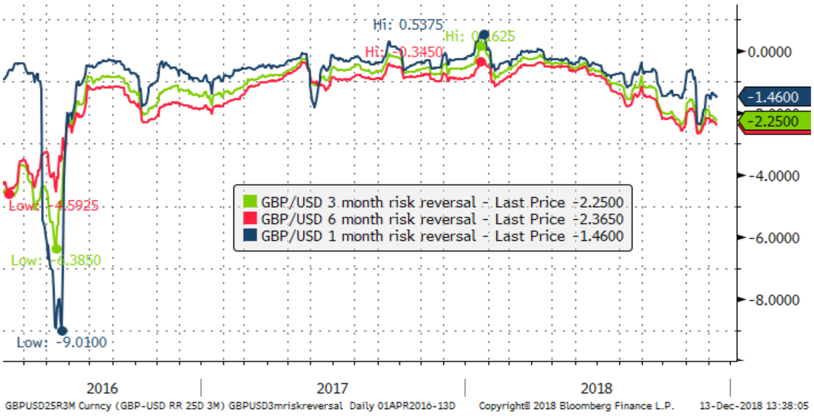


Despite the moderate moves in the currency, there has been a pick-up in sterling option-implied volatilities as investor uncertainty on the future path of sterling has increased, particularly in short-dated options. This reflects the fact that 3-month (GBP/USD) options will span the period up to the planned departure date (under Article 50 from the EU) of 29 March 2019. Chart 4.3.4 below shows the implied volatilities for 1, 3 and 6-month GBP/USD options:

Chart 4.3.4: Implied volatilities for GBP/USD options (1 to 6 months)

While GBP/USD options represent the most liquid market, the volatility outlook is similar for GBP/euro options. A review of the risk reversal chart for GBP/USD below suggests that investors are taking a more sanguine approach until they see how events unfold. Risk reversals are a measure of the relative demand for call versus put options and reflect the market view of the most likely direction of the currency (i.e. a negative value reflects an expectation of a depreciation at the option maturity date). Chart 4.3.5 illustrates that risk reversals are negative, but are above the levels observed at the time of the 2016 EU referendum. This can be put down to the fact that sterling has already fallen by 15 per cent since the result of the referendum and that the market, while hedging to some extent against a further depreciation, is unsure as to how to price Brexit risk given the number of possible outcomes.

Chart 4.3.5: Risk reversals for GBP/USD options (1 to 6 months)



Turning to equity markets, the FTSE 100 has fallen in line with other global equity markets, down by 8.6 per cent since August, reflecting the UK political situation and also amid signs of a global slowdown in economic growth.

The UK monetary policy committee (MPC) voted unanimously on 1 November, by a vote of 9-0, to leave its official rate unchanged at 0.75 per cent. The latest BoE minutes referenced tighter global financial conditions, particularly in emerging markets, slower euro activity and the threat of a further escalation of trade tensions between the U.S. and China. UK money markets are pricing in one UK rate hike in Q4 2019 (with a 61 per cent probability in November 2019).

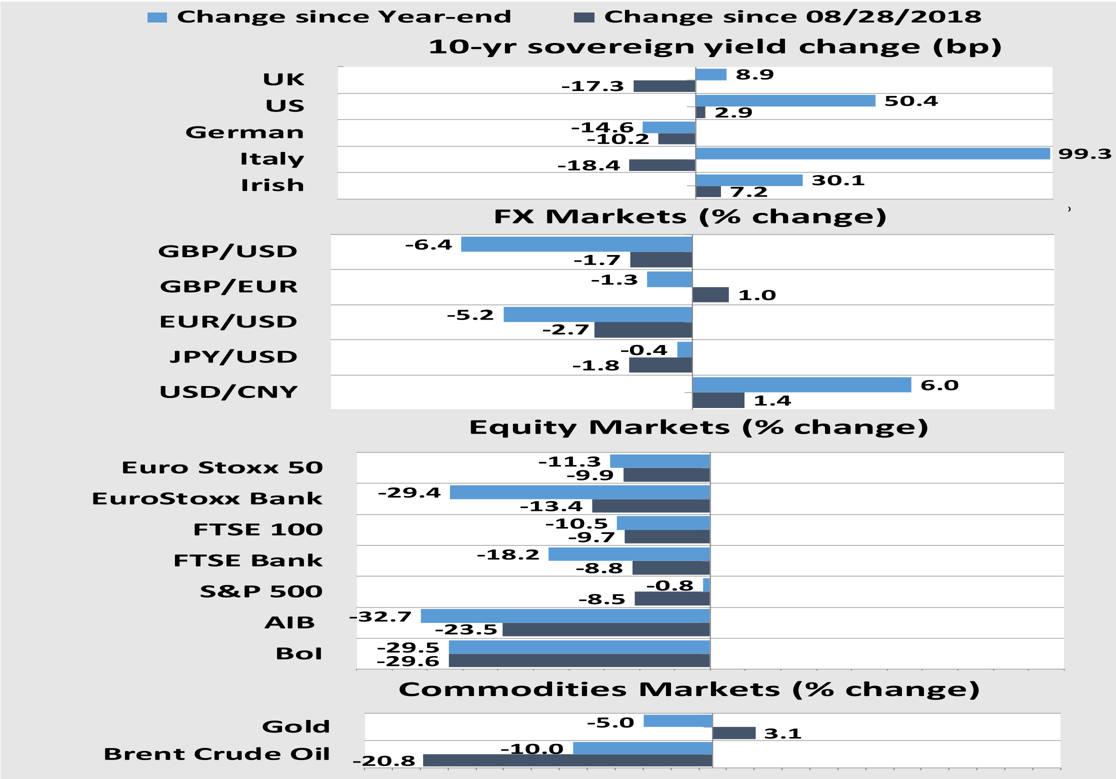
Impact of UK developments on the Irish sovereign bond market

Against a more challenging market backdrop, the Irish 10-year spread over Germany has continued to widen, by 16 bps over the period to 67 bps, with the Irish spread being sensitive to Brexit developments. Most of this increase in the spread occurred since the beginning of November, particularly coinciding with resignations in the UK government and as the eventual outcome of the UK parliament's vote on the withdrawal agreement, and the longer-term implications of this, remain uncertain. Cantor Fitzgerald reported that sellers have emerged on such events, which have seen flows in the Irish market increase. The underperformance in the Irish spread also coincides with general weakness in the 'semi-core' market, where concerns over the deficit have seen the French equivalent spread widen (as outlined in further detail below). Some market participants are expecting lower liquidity in the Irish market going forward and reduced interest in the usual early January NTMA syndication.

4.3.2. International market developments

This section provides an update of broader market developments over the period. Chart 4.3.6 depicts a summary of the main market moves over the review period, and also year-to-date.

Chart 4.3.6: Main market moves

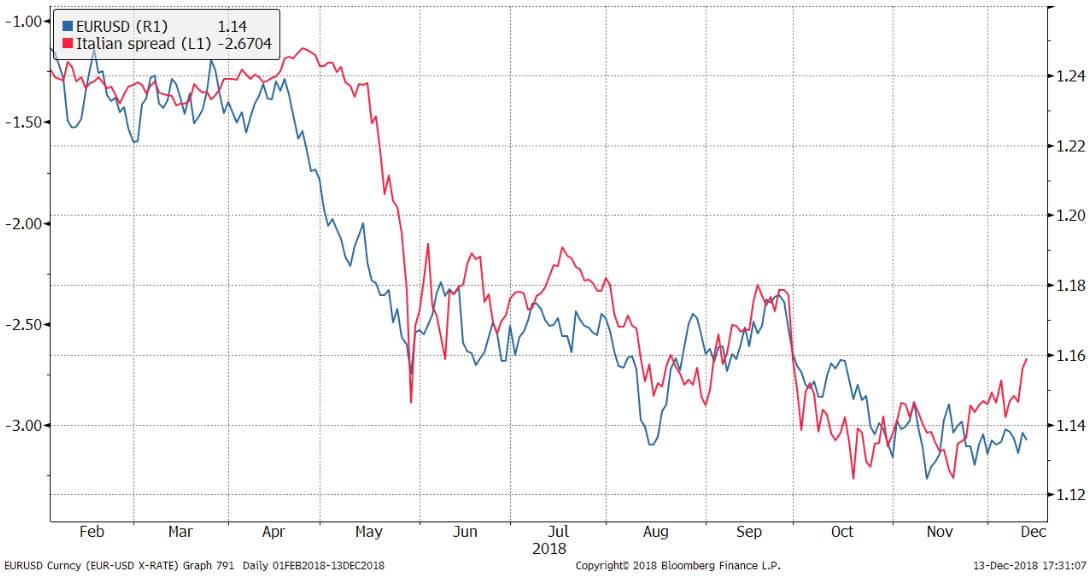


The key markets themes, as presented in Chart 4.3.6, included:

The euro has depreciated from \$1.174 to \$1.1375, taking its lead mainly from disappointing euro area economic data and ongoing concerns about the Italy's budget plan for 2019.[13] Market commentators have noted that the euro/US dollar exchange rate has been closely correlated with the 10-year Italian yield spread over Germany (see Chart 4.3.7 below).

[13] Euro area Q3 GDP growth came in at 0.2 per cent quarter-on-quarter, below market forecasts of 0.4 per cent. The inflationary outlook remains largely unaltered; euro area headline CPI rose by 0.1 to 2.1 per cent year-on-year (yoy) in September, however, underlying CPI remains subdued at 1.1 per cent yoy.

Chart 4.3.7: Italian 10-year spread over Germany & euro/USD exchange rate



Core euro area sovereign bond yields have generally ticked lower since August, as the German 10-year yield fell by 10 basis points (bps) to 28 bps. Despite the Governing Council, at its December monetary policy meeting, announcing that net asset purchases via the Asset Purchase Programmes (APP) will end this year, a safe haven bid and revised expectations on the ECB hiking cycle have led to a fall in German sovereign yields. Euro area money markets are pricing in a first hike in the rate on the Deposit Facility in Q4 2019.

Amongst **euro area non-core markets**, the Italian budgetary situation has been the main development after the European Commission (EC) rejected the government's budget proposal. Initially, the 10-year Italian spread to Germany increased by circa 40bps to 320bps upon the rejection of Italian budget proposal. More recently, however, the 10-year Italian spread has rallied from this peak, to currently trade at 267bps, on reports that the Italian Economy Minister is seeking to reach a deal with the EC over the fiscal policy. There has been some spread widening observable in the French sovereign market also, coming as a result of political uncertainty and as the recent tax relief announced by President Macron is likely to see the French budget deficit rise above 3 per cent of GDP in 2019. This may in turn result in the EC opening proceedings against France for excessive deficits. Over the period, the 10-year French spread to Germany has increased by 10bps to 43bps.

Global equities dropped by between 1 and 15 per cent, with euro area banks and emerging markets being the worst performers since the last meeting. Most of the losses occurred up to mid-October, amid signs of a global growth slowdown, tighter US financial conditions, ongoing trade tensions between the US and China, growing uncertainty about a “Brexit no-deal” and concerns surrounding Italy’s commitment to EU’s fiscal rules. Amongst euro area banks, Banco Bilbao Vizcaya Argentaria (BBVA), UniCredit and BNP Paribas were amongst the weakest performers, with share prices dropping by between 12 and 13 per cent since August.[14]

In terms of the Irish banks, Bank of Ireland and AIB’s share prices dropped by 24 and 30 per cent respectively on increasing Brexit uncertainty, some slowdown in Irish property price growth and reports that An Post is looking to enter the Irish mortgage market, undercutting the current market offerings by 1 per cent.

In the **US**, markets continue to expect, with a 72 per cent probability, that the Federal Reserve (Fed) will hike rates by 25bps at the next meeting on 19 December. This would bring the federal funds target range to 2.25-2.50 per cent. Despite this expectation, U.S. Treasury yields have been falling over the past month largely as a result of dovish comments made by FOMC members and amid expectations of lower U.S. growth and inflation, in part as a result of a waning impact from the Trump administration’s tax cuts. Indeed, the U.S. sovereign yield curve has now inverted out to 5 years, meaning that the 5-year yield is now lower than the 2-year yield. An inversion of the U.S. curve is often reported as being a good lead indicator of an impending recession.

The price of **Brent crude** has declined by more than 30 per cent from a four-year high (of $86.74) in early October to below $60 per barrel at present. This depreciation occurred amid a large increase in U.S. crude production and due to increased trade tensions. More recently, the commodity has been supported by an agreement being reached by OPEC and a number of non-OPEC countries (most notably Russia) to curtail supply for another six months.

[14] BBVA fell sharply on a proposal by the incoming Mexican government to cap bank fees in the country; Unicredit SA declined on a €850mn charge to revalue its holding in Turkish bank, Istanbul-based Yapi Kredi Bankasi. BNP disclosed a dip in Q3 revenue (fell by 0.4 per cent from a year earlier to €10.4bn) with a disappointing performance at its international and fixed income businesses.

5. Impact on Irish economy

5.1. Latest economic developments

Since the last Brexit Task Force report, the Irish economy has continued to grow at a strong pace. Domestic economic activity, helped by growth in employment remains one of the primary factors behind the continued expansion. In our most recent forecasts, published in the Quarterly Bulletin in October, GDP is projected to grow by 6.7 per cent this year, 4.8 per cent in 2019 and 3.7 per cent in 2020. These forecasts continue to assume no disruptions arising from Brexit negotiations over the period. Alternative arrangements involving a sudden or disruptive UK departure is a clear downside risk particularly for indigenous sectors. To date, the main Brexit impact has been felt via a weaker sterling exchange rate and the pass through to consumer prices. There are some signs of Brexit effects in recent softer data releases – notably via declines in consumer sentiment.

Trade and Output

There are still limited Brexit related effects in recent data releases. Looking at merchandise trade by commodity shows that the value of exports to the UK fell by 4.5% in the first 8 months of the year relative to the same period in 2017 (within year effects remain highly volatile). See Chart 5.1.1 for a detailed breakdown. Food exports to the UK increased (by 3.1%) despite a modest fall in volumes (-1.2%). Looking at the food sector in more detail, dairy exports to the UK were up strongly whereas live animal exports fell sharply. In terms of industrial production, traditional sector output (which includes food and beverages) has bounced back strongly in recent months compared to the start of the year. After contracting in the first quarter, traditional sectors' output has grown by 6 per cent on average. On the import front, once again we are seeing a fall-off in new private car licencing indicative of cross-border trade in cars. New vehicle licenses were down 5% in the first 10 months of 2018. This compares with a fall of 10% over the same period in 2017. This phenomenon has been highlighted in previous Task Force reports. Overall merchandise imports from the UK are up modestly (by just 2.4%) in the first 8 months of the year with strong increases in food related imports offset in part by weak chemicals related trade.

Sentiment

The most recent ESRI sentiment surveys for consumers and investors point to a fall in confidence. The consumer sentiment index fell to a 46-month low in October with sentiment down for the last three successive months. This is being attributed to Brexit and wider concerns over the global economy. So far, retail sales figures however have remained strong with core retail sales up 3.5 per cent in the first three quarters of the year.

The ESRI Savings and Investment Index also suffered a fall in October, reaching its lowest level since March. This decline was attributed to concerns over the outlook for stock markets. On the savings front, the savings index has fallen in recent months which is at odds with what we might expect given Brexit related uncertainties (i.e. intuitively we would have expected to see a rise in precautionary savings).

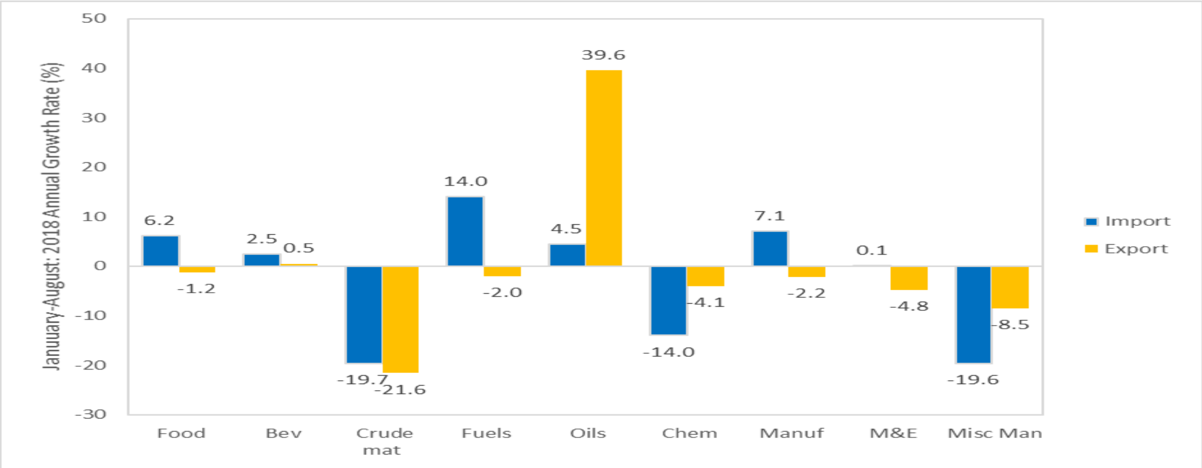
Data on firms expectations remain strong, the latest data from the purchasing managers index (PMI) have showed continued expansion in new export orders for manufacturing and services. In other work, IEA have engaged in intelligence gathering exercises using the network of contacts from the supply chain disruption in the import channel roundtable event which was held in the Bank in 2017. This group is drawn from the private sector as well as the official sector bodies responsible for trade facilitation and regulation. [Omitted due to confidentiality].

These discussions chime with various announcements in the media and trade journals by large firms in the food and beverages sector (which previous bank research has identified as most sensitive to time delays). Ornua (who own Kerrygold) and C&C have both reported that they plan to begin to stockpile ingredients and final goods in the UK according to a recent report by BDO, an accountancy firm.[15]

Another report from Bord Bia has warned firms they should prepare for supply chain bottlenecks after Brexit. In particular, they have warned that any disruption to the "land-bridge" would significantly increase costs for Irish food firms.

[15] http://www.bdo.ie/en-gb/news/2018/irish-companies-stockpile-goods-in-uk-to-counter-no-deal-brexit

Chart 5.1.1: Growth in UK Trade Volumes in Jan- August 2018 compared with Jan-August 2017



5.2. Property sector

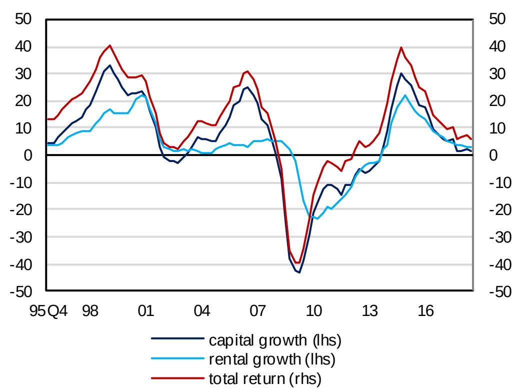
5.2.1. Irish Property Market: Commercial property

Despite a slight dip in 2018Q3, total annual commercial property returns (6.3 per cent) are broadly in line with the rate of return at end-2017 (Chart 5.3.1). Similarly, annual CRE capital value growth (1.4 per cent) has been relatively stable throughout 2018, while annual commercial property rent inflation has slowed a little over the course of the year, from 3.9 per cent in 2017Q4 to 3 per cent more recently.

Aggregate figures for the entire CRE market mask a divergence in developments across individual sectors and locations. In particular, some commercial property segments, such as industrial properties in North Dublin, continue to record substantial capital gains and rental appreciation, reflecting the limited availability of prime stock located close to key transport networks. Conversely, conditions within the retail sector appear challenging with more muted growth in some segments due to the advancement of e-commerce and internal competitive pressures.

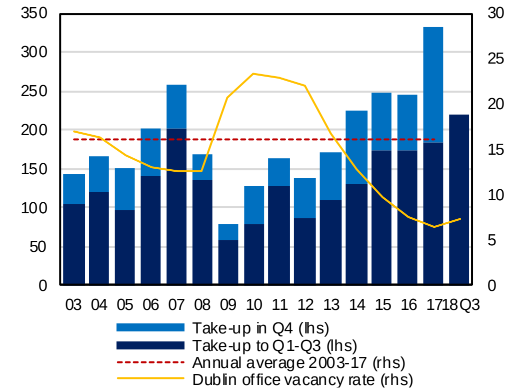
The brisk pace of take-up activity evident for some time now in the Dublin office market has been maintained throughout 2018. More than 220,000 square metres of office space was leased during the first three quarters of 2018, the strongest January to September period of leasing on record and a 19 per cent increase on the equivalent period in 2017 (Chart 5.3.2). Economic recovery, FDI and, to a lesser extent, companies relocating from the UK in advance of Brexit have contributed to strong demand for Dublin office space.[16]

Chart 5.3.1: Irish commercial property: total annual returns and annual growth in capital values & rents



Source: MSCI/IPD.
Notes: Last observation 2018Q3.

Chart 5.3.2: Dublin office market take-up activity

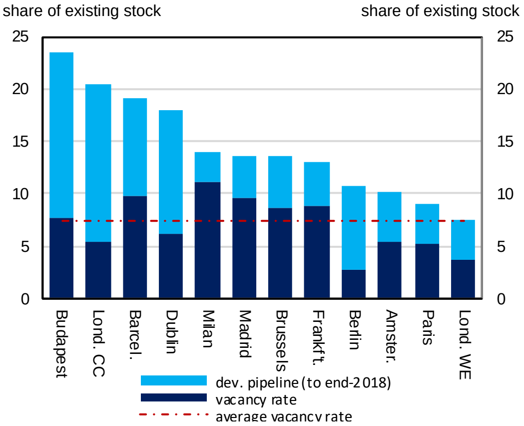


Source: CBRE and Central Bank of Ireland calculations
Note: Dublin office vacancy refers to the average of the available end-quarter data from the year in which they relate.

The high volume of office leasing in the capital over recent years has seen the office vacancy rate in Dublin drop to approximately 7 per cent, below the average across a number of major European cities (Chart 5.3.3). Meanwhile, the delivery of new office space in Dublin continues apace. According to CBRE estimates, over 900,000 square metres of office space is currently under construction, has acquired planning permission, or is seeking permission at an earlier stage of the planning process (Chart 5.3.4). Current projections are for about 400,000-450,000 square metres of this space to be delivered by the end of 2020, which would accommodate about 39,000 employees (based on an assumption of 10.3 metres of space per worker as used by Goodbody in previous analysis[17]). Such an outcome would leave Dublin well-placed vis-à-vis its peers in terms of the availability of modern office space (Chart 5.3.3).

[16] According to CBRE (Dublin Office MarketView Q3 2018) of the 80 individual lettings, which occurred in the Dublin office market in the third quarter, 31 involved Irish companies, 17 transactions involving US firms, while UK businesses accounted for 13 deals.
[17] See “Does Dublin have enough offices for Brexit influx?” - Goodbody, April 2017.

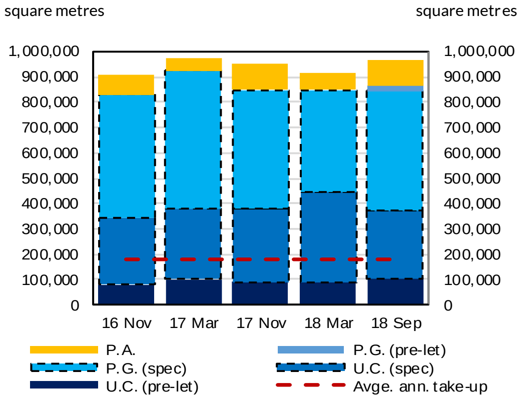
Chart 5.3.3: Selected European city office vacancy rates and supply pipeline



Source: CBRE Research.

Notes: Data as of 2018Q2.

Chart 5.3.4: Dublin office supply pipeline

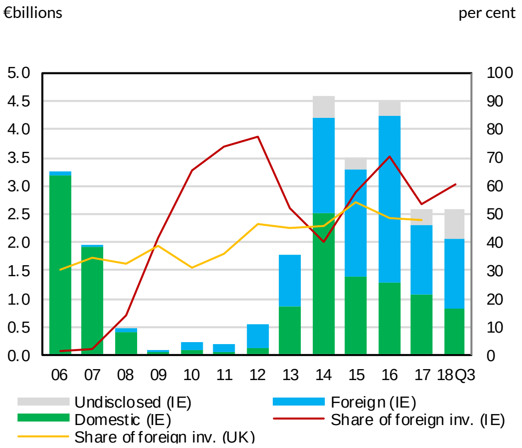


Source: CBRE research

Notes: P.A. = planning application; P.G. (pre-let) = planning granted with a tenant upon completion; P.G. (spec) = planning granted with no tenant at present; U.C. (spec) = under construction with no tenant at present; U.C. (pre-let) = under construction with a tenant upon completion; Avge. ann. take-up = average annual take-up.

The demand for Irish commercial property assets remained strong throughout 2018, with the level of CRE investment to date this year (€2.6 billion) already on a par with the total for 2017 (Chart 5.3.5). In terms of buyer profile, well over half of the investment that occurred so far this year originated from overseas (mainly North America and Europe). Similar developments are evident in the UK data, where the share of foreign transactions accounted for by foreign buyers annually has risen from one-third to almost a half over the past decade (Chart 5.3.5).

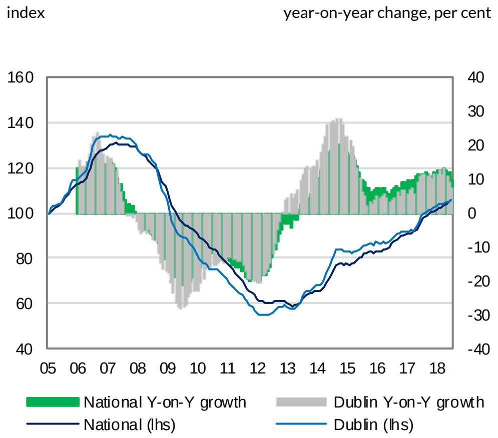
Chart 5.3.5: Breakdown of commercial property investment volumes by source and UK comparison



Source: CBRE, Bank of England and Central Bank of Ireland calculations.

Notes: Data as of 2018Q2.

Chart 5.3.6: CSO residential property price growth rates



Source: CSO.

Notes: Residential property price index = 100 in January 2005. Last observations: August 2018.

New lending to the domestic CRE market is still quite muted, with the €570 million advanced in 2018Q2, bringing the cumulative rolling four-quarter total to €3 billion, from €2.2 billion a year earlier. In overall terms, new Irish commercial property lending over the 12 months to 2018Q2 amounted to 10 per cent of all new bank lending. Central Bank regulatory data show that this new commercial property lending tends to be for non-speculative purposes, i.e. for existing or pre-let buildings.

5.2.2. Irish Property Market: Residential Property

There has been a moderation in the rate of residential property price inflation in recent months, with a national annual growth rate of 8.6 per cent recorded in August 2018. National residential prices are now 19 per cent below their 2007 peak, with the CSO RPPI at its highest point since February 2009. Dublin property prices increased by 6.1 per cent in the year to August, compared to 11.4 per cent for the rest of the country. Residential rent inflation has also been easing of late, with an annual increase in national private residential rents of 6.3 per cent in August 2018 down from 7.4 per cent a year previously.

In terms of the Irish housing market, the main issues surrounding Brexit concerns supply and the ability of the market here to cope with a surge in demand for accommodation should there be a widespread relocation of UK based firms/workers here. Aside from the strain this would place on existing infrastructure, it is likely that house prices and residential rents also come under further upward pressure, at a time when despite signs of an expansion in residential construction activity, there remains a severe shortage of units for sale or rent.

6. Sectoral developments

6.1. Banking

6.1.1. Authorisations

BSD has full time resources dedicated to the authorisation assessments of all institutions establishing a presence/expanding in Ireland as a response to Brexit. A key issue emerging during the course of the authorisation assessments, […], relates to the adequacy and timeliness of submissions to the Bank. [Omitted due to confidentiality].

6.2. Insurance

6.2.1. Authorisations

A summary (as at November 2018) of the total Brexit authorisation activity within the Insurance Directorate is set out below:

[Omitted due to confidentiality]

A summary of the current Brexit-related applications is given below:

[Omitted due to confidentiality]

6.3. Asset management

6.3.1. Authorisations[18]

The Asset Management Supervision Directorate (AMSD) continues to have engagement with firms regarding Brexit and the authorisation process. AMSD has held […] meetings with firms regarding authorisation in September and October with a further [...] scheduled. AMSD is also seeing […] applications submitted without any prior engagement.[19] […] Brexit authorisations have been processed by AMSD year-to-date.

[Omitted due to confidentiality].

[Omitted due to confidentiality].

6.3.2. ESMA engagement

[18] As at 31st October 2018
[19] These applications would therefore not have been included in pipeline numbers.

The ESMA Supervisory Co-ordination Network (the 'SCN') continues to meet regularly to discuss cases of authorisation requests and issues of supervision/enforcement arising from investment firms, asset managers and trading venues seeking to relocate from the UK. The Director of Asset Management Supervision, Michael Hodson, represents the Central Bank at the SCN. Key issues for ESMA include, inter alia, the risk of letter-box entities, substance in the EU, governance, significant outsourcing or delegation that lead to a substantial part of the activities being carried out outside the EU and the risk of significantly different treatment between entities across the EU.

NCAs are invited to present live cases to the Network on an anonymised basis for discussion and as applications develop NCAs will then provide further updates to keep the Network informed. The Central Bank most recently presented at the September and October SCN meetings on a number of authorisation cases including: a thematic on Management Company applications; an existing regulated firm which is materially changing its business model as a result of Brexit; a MiFID Investment Firm application and follow ups on cases previously presented on.

6.4. Market infrastructure

Work is ongoing between the Irish Authorities (the Bank, the DoF and the NTMA) and Euronext on the long-term solution for the settlement of Irish corporate securities. [Omitted due to confidentiality]. […] the choice of a CSD provider for the Irish market is ultimately Euronext's commercial decision to make.

Separately, the Bank is engaging with the Eurosystem […] to continue to provide euro settlement in a hard Brexit scenario. The EU Commission communication published on 13 November on their Brexit contingency action plan noted the issue for markets served by UK CSDs and their intention to take action by granting temporary and conditional equivalence to ensure no disruption to markets. Furthermore, […] it was unanimously agreed […] at the EU Commission that the temporary equivalence for the UK CSD will last for a period of two years (end March 2021), which was a positive outcome. [Omitted due to confidentiality].

6.5. Payment Institutions, Electronic Money Institutions and Retail Intermediaries

6.5.1. Authorisations

Consumer Protection Directorate (CPD) is responsible for the authorisation and supervision of Payment Institutions (PI) and Electronic Money Institutions (EMI). [Omitted due to confidentiality]. The volume of PI/EMI applications for authorisation is now at many multiples of normal levels. [Omitted due to confidentiality]. The transposition of PSD2 in January 2018 has significantly increased the level of work required to assess every application.

CPD is also responsible for the authorisation and supervision of Retail (insurance and mortgage credit) Intermediaries (RI). [Omitted due to confidentiality].

It is anticipated that the pipeline of Brexit-related applications in both the PI/EMI and RI sectors will continue to grow and this, coupled with the complexity of business models, are a key challenge. [Omitted due to confidentiality].

7. Authorisations activity

7.1. Overview

[Omitted due to confidentiality]

7.2. Asset Management Supervision

[Omitted due to confidentiality]

7.3. Banking

[Omitted due to confidentiality]

7.4. Consumer Protection

[Omitted due to confidentiality]

7.5. Insurance

[Omitted due to confidentiality]

7.6. Securities and Markets

[Omitted due to confidentiality]

8. Central Bank engagement on Brexit issues at a European level

8.1. European Banking Authority (EBA)

Following the publication in June 2018 of the EBA Opinion on preparations for Brexit and the subsequent Central Bank statement in July 2018, the Central Bank continues to work closely with the EBA and with financial institutions directly to monitor contingency planning with respect to Brexit.

[Omitted due to confidentiality]

8.2. European Insurance and Occupational Pensions Authority (EIOPA)

EIOPA, with input from EU27 Brexit platform members, has been investigating potential solutions to the issue of loss of service continuity for insurance contracts in the case of a hard Brexit. [Omitted due to confidentiality]. The Bank is actively engaged in these discussions and the assessment of these potential solutions.

On November 5, EIOPA issued a statement calling for immediate action by insurers to address service continuity in cross-border insurance, noting that there were 124 insurers from the UK and Gibraltar with cross border business in the EU that have no or insufficient contingency plans in place.

The Central Bank continues to participate in the weekly teleconference hosted by EIOPA to discuss the progress of contingency plans for individual insurers with cross border business and other issues of common interest.

[Omitted due to confidentiality]

8.3. European Securities and Markets Authority (ESMA)

[Omitted due to confidentiality]

[Omitted due to confidentiality]

ESMA agreed new draft regulatory technical standards (RTS) on the clearing obligation under EMIR, which will now be submitted to the European Commission. The draft RTS relate to the treatment of OTC derivative contracts novated from a counterparty established in the UK to a counterparty established in another Member State. The amendments would allow these counterparties to novate their contracts to EU counterparties without triggering the EMIR clearing obligation.

[Omitted due to confidentiality].

[Omitted due to confidentiality].

In January, the ESMA BoS is planning to have a high level discussion on Brexit to discuss both ESMA and NCAs' strategic approach to remaining issues, to take stock of work done to date and focus on big picture solutions.

The Central Bank continues to present cases at the Supervisory Coordination Network (SCN) on a monthly basis.

8.4. ECB: Single Supervisory Mechanism (SSM)

[Omitted due to confidentiality]

[Omitted due to confidentiality]

8.5. ECB: International Relations Committee (IRC)

The IRC Brexit Task Force met on 26/27 November. The task force discussed the ongoing negotiations and Brexit preparedness as well as monitoring of the economic effects on the UK. Communication challenges for the ESCB in relation to Brexit were also be on the agenda.

8.6. Single Resolution Board (SRB)

The SRB published its first official communication on Brexit in the form of a position paper on the SRB's expectations to ensure resolvability of banks in the context of Brexit. The paper highlights that banks need to be prepared for future changes on foot of Brexit and outlines high-level expectations in this regard. The expectations expressed in the paper are consistent with the EBA's opinions on Brexit and in line with international standards on resolvability. A more detailed summary of the position paper's contents is outlined in section 9 of the Task Force report.

9. Special Topic 1: SRB expectations to ensure resolvability of banks in the context of Brexit

9.1. Background

The Single Resolution Board (SRB) published its first public Brexit communication to banks within the Single Resolution Mechanism (SRM) on 16 November. The position paper outlines what the SRB expects from banks within the SRM, in order to ensure that they will be resolvable in the context of Brexit. The SRB also expects the same principles to be applied to SRM banks with close links to other third countries.

Overall, the expectations in the position paper are consistent with the European Banking Authority's opinions[20] on Brexit and in line with international standards on resolvability.

The paper covers resolvability conditions under six different headings which include: eligibility for the minimum requirement for own funds and eligible liabilities (MREL); internal loss absorbance; operational continuity; access to Financial Market Infrastructure (FMI); governance; and management information systems (MIS). The position of the SRB is summarised hereunder.

9.2. MREL eligibility

The eligibility of bonds issued by EU-27 banks, which are governed by English law, is seen as a possible cliff-effect risk of Brexit. Should such bonds be deemed ineligible, banks may have significantly greater MREL shortfalls than previously forecast. In terms of MREL eligibility for new liabilities, the paper offers two options. Firstly, if the liability is governed by UK or third country law, the paper provides that banks should include contractual recognition clauses, to enable the EU resolution authority to bail-in that liability. Nonetheless, banks need to be able to also demonstrate that this contractual recognition clause would be effective in the third country jurisdiction.

Secondly, the paper provides that banks should issue MREL liabilities under the law of any of the EU-27 jurisdictions, in order to achieve legal certainty in terms of an EU resolution authority's ability to bail-in that liability.

[20] https://www.eba.europa.eu/documents/10180/2137845/EBA+Opinion+on+Brexit+preparations+%28EBA-Op-2018-05%29.pdf
https://www.eba.europa.eu/documents/10180/1756362/EBA+Opinion+on+Brexit+Issues+%28EBA-Op-2017-12%29.pdf

In terms of MREL eligibility of stock issuances and MREL shortfalls, the paper also provides that the SRB may consider extending the bank's transitional period for meeting its MREL requirement under certain circumstances. Despite MREL eligibility for liabilities governed by third country law being an ex-post assessment, the SRB in the paper encourages banks to engage with the SRB on their issuance plans at an early stage, in order to address any possible shortfalls.

9.3. Internal interconnections for loss absorption

The paper also puts forward the SRB's expectations regarding internal down-streaming mechanisms with respect to capital and liquidity, and provides that banks need to ensure group structures are not unduly complex, so as to enable capital to be down-streamed and for losses to be up-streamed in a resolution situation.

9.4. Operational continuity

Operational continuity arrangements are also referenced in the paper; and the SRB expects institutions to identify and map critical services to critical functions, core business lines, critical operational assets, critical staff and legal entities. Critical agreements must also be documented and contain resolution resilience language, or failing this, banks should implement mitigating actions.

9.5. Access to FMI

When it comes to arrangements to maintain continuity of access to FMI, the SRB expects banks to develop local contingency plans for FMI services provided by group entities outside the EU27, in order to enhance the likelihood of maintaining access to FMI services in the case of a resolution situation. Banks will also be expected to minimise their reliance on group entities outside the EU27 for FMI access for services such as payments, clearing and settlement systems. The paper does specify that where reliance on such FMIs is unavoidable due to lack of other providers, in these circumstances, such reliance should be underpinned by contractual arrangements with resolution resilient language.

9.6. Governance and MIS

With regard to governance, the SRB emphasises the importance of dedicated local management, noting that management of the Banking Union parent entity needs to be well informed about the group resolution strategy and contribute to the group resolution planning activities in the third country. The paper also provides that MIS and staff with expertise to support independent valuations need to be available at local entity level.

10. Special Topic 2: Brexit and Ireland's airline industry: aircraft leasing and customised insurance contracts

Jenny Osborne-Kinch and Dermot Coates[21]

This section provides a preliminary assessment of the position of Ireland's airline industry against the backdrop of Brexit. It focuses specifically on the aircraft leasing industry, domestic airlines and the role of the City of London in providing customised insurance contracts.

10.1. Introduction

'The UK insurance market is one of the only global locations with the specialist aviation insurance knowledge and financial capacity to provide full coverage of these risks'.[22]

In order to operate, an EU27 airline requires a wide range of insurance coverage. The majority of this is mandatory. Similar mandatory insurance requirements also apply to the operation of the aircraft leasing industry, an industry in which Ireland has come to play a major role. This insurance cover is typically structured – and/or underwritten – by an insurance broker, or insurer, based in London but it is necessary to consider the potential impact upon these operations post-Brexit.

Ireland has developed as a hub for the global aircraft leasing industry. Alongside the US, Ireland has become one of the two major centres in the world for aircraft leasing multinationals, with a significant number of the largest global entities operating here[23]. Notwithstanding the possible impact of Brexit, the future prospects of the global aircraft leasing industry appear positive, and in July 2018, Aircraft Leasing Ireland was launched by Ibec, its first representative body specific to aircraft leasing, to ensure that Ireland retains its position globally in aircraft leasing. Moreover, the growth trend in absolute numbers for aircraft fleet is projected to continue to be strong over the next five years (22%), albeit at slightly more moderate levels. (PWC, 2018, taking flight). Boeing and Airbus forecasts estimate that the future demand pipeline for new aircraft is $5-$6 trillion over the next 20 years, with approximately 50 per cent of this to be leased (KPMG, 2015).

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[21] The authors are both Manager/Senior Economist-Statistician in the Statistics Division. The views expressed in this Note are those of the authors.
[22]EY–Brexit pinch points: Case studies for financial services (December 2017), https://www.ey.com/Publication/vwLUAssets/ey-brexit-pinch-points-dec-2017/$FILE/ey-brexit-pinch-points-dec-2017.pdf
[23] The scale of the aircraft leasing sector relative to the size of the Irish economy has the capacity to impact official statistics; albeit this can be lumpy in nature.

In order to assess the impact on the aircraft leasing sector and customised insurance contracts post-Brexit, the authors undertook a market intelligence gathering exercise. This entailed a wide consultation with various market participants including accountants, legal firms, insurance brokers, lessors, and academia. [Omitted due to confidentiality].

[Omitted due to confidentiality]. The outcome of these consultations constitute much of the material presented below.

10.2. Insurance Contracts

The importance of insurance in aviation finance and leasing transactions cannot be overstated and there are two specific types of cover applicable to the broader aviation industry: full cover and contingent cover. Many of the underlying policies are renewed annually but there are also longer-term policies. Full cover relates to the insurance of an aircraft – including the hull – by an airline operator (regardless of whether said operator own the aircraft outright or is operating under a leasing arrangement). Where an aircraft is leased, the lessee assumes sole responsibility for the craft, including the duty to put in place appropriate insurance cover. With regard to full cover, a single insurance programme will cover a wide range of specified risks including air freight, hull, public liability, terrorism and hijack[24].

Contingent cover is cover taken out by the aircraft lessor (i.e. first party) as a back-up. This does not directly insure the leased aircraft but it provides a contingent cover in the case of any shortfall. With regard to aircraft leasing specifically, a committee of Lloyd's and London Company underwriters was established to consider how to address this issue for the aviation industry (including aircraft lessors). The result was AVN67 (The Airline Finance/Lease Contract Endorsement), introduced in February 1991.

This standard has evolved over time and AVN67(c) is now in operation. Our work indicates that the London-based insurance market plays a leading role here. For instance, standard industry contract documentation refers to the 'Lloyds Form'. As a matter of general practice, lessors and financiers pay particular attention to ensure that an AVN67 endorsement exists and that the list of Contracts and Contract Parties in the endorsement are complete and correct. Generally speaking, a certificate and letter of undertaking from the airline's broker is the way in which insurance protection is demonstrated.

[24] Specifically, hijack, kidnap and extortion

US-based underwriters do not follow this industry norm unless they are participating in transactions involving London-led underwriting. Our understanding, however, is that although there is competition from other jurisdictions, London continues to be the principal hub for aviation-related insurance activity, particularly for entities across the EU27.

In the context of the foregoing, two specific risks were relayed to the authors: (i) the ability of a London-based broker to represent EU client as insurance broker; and (ii) the ongoing ability of a London-based insurer to continue to insure EU client and pay claims.

10.3. Risk Mitigation

In order to mitigate the risk(s) that London-based insurers and/or brokers will cease to be able to provide aviation insurance solutions in the near-term, it is our understanding that several market participants have begun to institute an organisational restructuring.

For instance, we understand that Lloyds has sought to establish a third subsidiary in Luxembourg in order to continue to serve policyholders post-Brexit. As Reuters have noted[25] 'Lloyds will have legal bases in Britain, Berlin, Frankfurt and the Duchy, underlining the scale of reorganisation underway at UK-based banks as Brexit draws nearer'. In addition, we understand that Lloyds and AIG have also established operations in Brussels and Luxembourg, respectively, to write EU business and that Lloyds will be moving all legacy EEA business to Brussels by end-2020.

[Omitted due to confidentiality].

Finally, a number of those consulted also referred to the emerging role of a Brexit Clause in aviation insurance contracts. Specifically, these allow the insured to remove an insurer with notice if its licence to conduct business within the EU is not valid post 29th March 2019 (or the date of a full departure of the UK from EU under any transition agreement). The insurer must prove it has an EU licence, etc. within a certain timeframe prior to Brexit date. The broker will typically be responsible for ensuring that insurers can practice within EU.

[25] https://uk.reuters.com/article/uk-britain-eu-lloyds-exclusive/exclusive-lloyds-banking-group-to-locate-third-eu-subsidiary-in-luxembourg-source-idUKKCN1M01SY

On the basis of our discussions with the industry, there is a general view that the risks appear limited.

10.4. Summary of Findings

i. The principal risk relates to whether Brexit – specifically, a hard Brexit – would affect the ability of London-based brokers to represent EU clients as insurance brokers and the ability of London-based insurers to continue to insure EU clients. Our consultations suggest that the market in London has been preparing for some time for a hard Brexit, with many establishing offices (or expanding existing operations) in the EU, which would underwrite and handle claims from that office for EU business. As noted above, a *Brexit Clause* has now become a part of insurance contracts.

ii. With regard to contracts that are renewed annually, we have been informed that these are being transferred en-masse from UK-based operations to EU-based offices. We have also been informed that there is an industry-wide understanding that any longer-term contracts will continue to be honoured post-Brexit, albeit that we have no further visibility around this. Lloyds have made a public statement to this effect[26].

iii. A more general issue relates to the potential absence of a new/comparable Single Aviation Market agreement (and the need to re-structure ownership arrangements). Specifically, there are ownership and control restrictions in place at present with regard to foreign nationals' ownership of the voting equity share capital of airlines. The European Union limits non-EU ownership of the airlines of its member states to 49 per cent[27] and such an airline must be effectively controlled by nationals of an EU member state. An airline seeking to obtain and/or maintain an EU air operating licence must satisfy the EU rules (EU Regulation 1008/2008)[28].

iv. It has been noted that *'Regulation 1008/2008 in its current form raises concerns for airlines fully or partially owned by UK nationals because of the application of thresholds outlined above to a post-Brexit world. If an airline is no longer (more than 50 per cent) owned or effectively controlled by EU Member State(s) and/or nationals of EU Member States, it is not entitled to hold an airline license and cannot operate or continue to operate within the EU air transport market'*. We understand that some corporate restructuring has been initiated by several airlines to remedy this matter.

[26] http://www.advisen.com/tools/fpnproc/fpns/articles_new_5/P/325325989.html?rid=325325989&list_id=5
[27] https://centreforaviation.com/analysis/reports/airline-ownership-and-control-rules-at-once-both-irrelevant-and-enduring-345816
[28] https://www.mhc.ie/uploads/pdf/MHC_Brexit_and_the_Aviation_Industry_-_October_2017.pdf

v. On this point, a recent media report has noted that that several airlines – including Aer Lingus and Ryanair – are seeking a one-year moratorium from the EU on the airline ownership rules. In the event that those equity stakes held by UK nationals no longer count towards the EU ownership threshold, these airlines would need to introduce a share buyback or face a risk to their operating licenses[29].

vi. Finally, there are a number of ancillary risks facing the broader aviation industry post-Brexit. These include downward pressure on passenger numbers, passporting rights for UK-based asset financiers, adverse foreign exchange movements – albeit that currency risk is not likely to be high as most lease/finance-related dealings are in US dollars – and interest rate risk.

[29] https://www.independent.ie/business/irish/irish-airlines-ask-the-eu-for-grace-period-on-ownership-rules-37537442.html

11. Special Topic 3: EU-UK Withdrawal Agreement – Impact on Irish Economy and Financial Services

Thomas Conefrey and Amanda Hartley[30]

This section outlines potential effects of the EU-UK Withdrawal Agreement, which was published in mid-November, if it were to come into effect. If approved, the draft agreement would result in the transition or implementation period coming into effect from 30 March 2019 until 30 December 2020. During this period EU-UK trade would continue as at present – although some modest economic effects might be experienced compared to a no-Brexit scenario as firms prepare for the new arrangements. This assumption already underpins the Bank's current forecasts for the Irish economy for 2019/2020 as published in the October 2018 Quarterly Bulletin.

If no agreement is reached on the future EU-UK trading arrangement before the end of the transition period, the Withdrawal Agreement (WA) allows for a possible extension of the transition. If there is still no agreement, the WA states that a single EU-UK customs territory (the Northern Ireland backstop) will be established from the end of the transition period until the future relationship becomes applicable.[31] Northern Ireland will remain part of the same customs territory as the rest of the UK with no tariffs, quotas, or checks on rules of origin between Northern Ireland and the rest of the UK. Northern Ireland will **remain aligned** to a limited set of rules that are related to the EU's Single Market and indispensable for avoiding a hard border: legislation on goods, sanitary rules for veterinary controls ("SPS rules"), rules on agricultural production/marketing, VAT and excise in respect of goods, and state aid rules. The rest of the UK will also remain part of the single customs territory **but will not be aligned to these EU rules and standards** to the same extent as NI.

Compared to the market access which the UK currently enjoys as a member of both the EU single market and the customs union, the customs territory which would replace the status quo would be considerably less comprehensive than the current EU customs union and single market. The customs territory allows for tariff-free access to the EU market but nothing more. This would introduce frictions for EU-UK (**excluding NI**) trade in goods with macroeconomic

[30] Thomas Conefrey is a senior economist in the Irish Economic Analysis Divisions, Amanda Hartley is a senior policy specialist in Banking Risk Policy

[31] The *Political Declaration Setting out the Framework for the Future Relationship* states that the EU and UK will seek to agree "comprehensive arrangements creating a free trade area….with zero tariffs, no fees, charges or quantitative restrictions across all goods sectors, with ambitious customs arrangements that build on the single customs territory provided for in the Withdrawal Agreement". Thus, two types of future relationship can be identified based on the current proposals: a scenario where the EU and UK reach an agreement on a future relationship during the transition as envisaged in the Political Declaration. Failing this, the customs territory (backstop) arrangement would apply.

implications. The required checks on EU-UK (**excluding NI**) trade would be extensive. EU-UK (**excluding NI**) trade would be subject to Sanitary and Phytosanitary Regulations (SPS). For Ireland, these requirements are particularly important given the concentration of trade in agri-food and other raw materials. If there is any divergence in this regard then there will need to be SPS checks under EU regulations at Irish ports, which would create time delays and non-tariff barriers.

Overall, a future relationship based on the combined customs territory in the WA would involve tariff-free trade in goods only. There would be important non-tariff barriers and the WA makes no provision for services trade beyond the limited scope of the EU's existing equivalence framework.

A future arrangement as envisaged in the WA would also see an end to the free movement of labour between the EU and UK. In the short run, a curtailment of immigration flows could be disruptive for particular sectors where migration has been important in meeting labour shortages. In the longer term, reduced immigration to the UK is likely to lower productivity which would negatively affect the UK economy's potential growth rate. While the common travel area between Ireland and the UK will be preserved, restrictions on the free movement of people between the UK and the EU27 could impact the adjustment of EU and UK economies to future shocks. For Ireland, the more restrictive migration regime in the UK could result in some diversion of labour from the UK and EU to Ireland. If this boost to inward migration materialised, it has the potential to increase labour supply and potential growth.

Previously we have modelled the impact on the Irish economy if the future EU-UK relationship takes the form of a comprehensive Free Trade Agreement (FTA) for goods. Relative to staying in the EU, a future relationship along these lines would reduce Irish output and employment, with the losses equivalent to roughly half those in a WTO scenario. Estimates suggest that long-run output would be reduced by 1.7 per cent and employment by 1 per cent. The impact of the FTA scenario is mainly transmitted to the Irish economy through the trade channel: an FTA reduces UK trade relative to EU membership which lowers external demand for Irish exports. There would be important differences across sectors with exports of time-sensitive products particularly affected by non-tariff checks. Overall, the impact on the Irish economy would be negative compared to a no-Brexit case but the output loss would be less than in a WTO scenario. In the context of the current central forecasts for the Irish economy, the long-run macro effects would not be too severe.

These are preliminary estimates of the impact of a type of future arrangement involving some provision for free trade in goods but with no allowance for services. They are subject to significant uncertainty. The current single customs territory proposal may be more comprehensive and beneficial to the UK economy than an FTA. In this case, the impact on the Irish economy would be more favourable than currently estimated. If an agreement is reached, this could also have a more favourable effect on the path of exchange rates compared to the assumptions in the model.

Financial Services

During the transition period, the status quo with respect to the provision of financial services would remain. For instance, Irish firms would continue to be able to passport into the UK, and UK firms would be able to passport into Ireland for the duration of the transition period.[32] A transition period would mitigate against (or at least defer) the identified cliff edge impacts (service continuity for insurance, loss of market access for CCPs and CSD[33], loss of passporting issues (particularly in terms of fund management)) of a hard Brexit in March 2019.

Specifically on financial services, the Outline Political Declaration on the Future Relationship between the EU and the UK establishes the following three key principles:

- Commitments to preserving financial stability, market integrity, investor protection and fair competition, while respecting the regulatory and decision-making autonomy of the EU and the UK (the "Parties"), and their ability to take equivalence decisions in their own interest. This is without prejudice to the Parties' ability to adopt or maintain any measure where necessary for prudential reasons.
- Commencement of equivalence assessments by both Parties as soon as possible after the United Kingdom's withdrawal from the Union, endeavouring to conclude these assessments before the end of June 2020.
- Close and structured cooperation on regulatory and supervisory matters, grounded in the economic partnership and based on the principles of regulatory autonomy, transparency and stability, recognising this is in the Parties' mutual interest.

The high-level nature of these principles makes it difficult to draw firm conclusions for the ultimate impact on the future relationship for financial services given that there is ample scope for divergence on what this means in practice. As expected, there is nothing in these statements

[32] In the absence of such a transition period provided for in the Withdrawal Agreement, Irish financial services firms could continue to operate in the UK for a limited period under the UK's temporary permissions regime.
[33] Separately, concerns re these risks materialising in March 2019 have been lessened by the recent EU Commission announcements for temporary transitional arrangements in these specific areas.

to indicate a commitment to developing a regime to replicate the scope of the current passporting regime for firms, nor is there any reference to the ‘enhanced equivalence’ (broader access and better safeguards) envisaged by the UK’s white paper. Significant uncertainty therefore remains on how and to what extent cross-border market access may be achieved.

The commitment to “close and structured cooperation on regulatory and supervisory matters” may mitigate some concerns re any risk of arbitrary or politicised equivalence decisions and suggests a framework for a constructive and transparent regulatory dialogue, particularly when read with the more general commitment to co-operation that extends “well beyond the parties’ WTO commitments”. The declaration also states that it will “facilitate electronic commerce and cross-border data flows”, and “enable free movement of capital and payments”, both important considerations for smooth operation of cross-border financial services.

12. Special Topic 4: Bank of England Estimates of the Impact of Disorderly Brexit Scenarios

Mark Cassidy and Thomas Conefrey

On 26/27 November, following a request from the House of Commons Treasury Committee, the Bank of England, NIESR and the British government released their impact assessments of a range of Brexit scenarios. A summary of the impact of all these scenarios on UK GDP is provided in Table 12.1.2 below. The findings for most scenarios that involve a Single Market, Customs Arrangement, Free Trade deal or Orderly No Deal are broadly in line with previously published estimates for the UK, and are consistent with the implications for Ireland previously modelled in the Central Bank and presented in Brexit Task Force Reports.

Previously published research from the Central Bank showed that a no-deal Brexit could reduce Irish output by around 2 ¾ per cent over a 5-year period with around 40,000 fewer jobs compared to a no-Brexit scenario. This implied an orderly transition to WTO trade arrangements, in line with estimates in other countries regarding no-deal outcomes. For the first time, the Bank of England publication includes also potential outcomes from disorderly no-deal scenarios. The report emphasises that these are scenarios not forecasts, and that they illustrate what could happen, not necessarily what is most likely to happen, under a range of key assumptions. These include a "disruptive" scenario, with tariff and non-tariff barriers and other disruptions to trade and investment coming into effect from end-March 2019, and an even more adverse "disorderly" scenario, which is very much a worst-case scenario. A full assessment of the implications of these very detailed analyses for Ireland will take some further time to complete. This Section provides an overview of the recently published scenarios and some *initial* indications of how Ireland might be affected.

Assumptions

Under the worst-case disorderly scenario, tariffs, customs checks and other non-tariff barriers to trade between the UK and EU are introduced suddenly from 2019 Q2.[34] Financial services lose passporting rights and there are increased costs for transport services as firms require EU license. The EU does not recognise UK product standards and the UK's border infrastructure is assumed to be unable to cope smoothly with customs requirements. [35] In addition, the UK loses existing trade arrangements that it currently has with non-EU countries through membership

[34] Footnote 37 below provides more details in the differences between the disruptive and disorderly scenarios.
[35] UK trade falls initially by an additional 15 per cent for this reason, until new border infrastructure and processes are established.

of the EU. There is a pronounced increase in the return investors demand for holding sterling assets – the term premium on UK government bond yields rises by 100 bps and sterling falls by a further 25 per cent - and there are spillovers across asset classes. The Bank rate rises sharply due to higher inflation, peaking at 5.5 per cent and averaging 4 per cent over the first three years of the scenario. Borrowing costs facing households and firms rise by 250 bps more than the Bank rate.

Methodology

There is no precedent of an advanced economy withdrawing from a trade agreement as deep and complex as that which the UK has had with the EU. This obviously means that any modelling of the effects of withdrawal is extremely challenging. Regarding methodology, the report makes a range of assumptions about key variables such as the extent of trade barriers and the level of preparedness of UK infrastructure and businesses. The scenarios then use empirical economic relationships to quantify the impact of these assumptions, and are constructed using the BoE's suite of macroeconomic models (DSGE, Structural, reduced form evidence, etc.) to ensure their coherence and plausibility. The key established empirical economic relationships used included:

- Barriers that result in economies becoming less open result in lower trade and FDI.
- Reductions in trade and FDI tend to reduce productivity.
- Less open and less productive economies tend to have lower real exchange rates.
- Depreciations in the exchange rate tend to have large and protracted pass through to consumer prices.
- Tariffs tend to be passed through to consumer prices more quickly.
- Slowdowns in the economy are often associated with tighter financial conditions and an increase in uncertainty. These in turn weigh on demand.
- Weaker demand tends to increase the natural rate of unemployment and significant structural adjustment can increase the natural rate of unemployment.
- Weaker economic conditions tend to reduce net inward migration.

Findings

The Bank of England results distinguish between the impact compared to (i) trend at just before the time of the referendum (i.e. May 2016) and (ii) the current situation (or as expected at March 2019). Table 12.1.1 outlines the outcomes for each of these. The results for the former are slightly worse because some of the decline compared to the pre-referendum trend has already taken place.

Notably, there are large, immediate reductions in UK output under these hard Brexit scenarios. Under the *disruptive* scenario, there could be a decline in UK GDP of up to 5.5 per cent in year 1 and 7.75 per cent over five years, relative to the May 2016 trend. Compared to the level in 2019 Q1, the peak drop in output would be 4.5 per cent, occurring in year one.

The *disorderly* scenario suggests there could be a large decline in UK GDP of up to 9 per cent in year 1 and 10.5 per cent over five years, relative to the May 2016 trend. Compared to the level in 2019 Q1, the peak drop in output would be 8 per cent, occurring in year one, which would exceed the 6.25 per cent contraction experienced during the global financial crisis. A decline of up to 30 per cent in house prices and up to 48 per cent in commercial property prices occurs in the disorderly scenario while inflation rises to 6 ½ per cent.

These scenarios would have severe implications for the Irish economy. They clearly represent very much worse outcomes than previously modelled "no-deal" scenarios, which assume a reversion to WTO trade arrangement, without such disorderly effects.

First, previous research shows that a downturn in demand in the UK economy has significant adverse implications for Irish economic growth and trade through the export demand channel. The magnitude of the effects on UK growth and demand are much worse than previously modelled.

A second transmission channel for Ireland relates to the exchange rate. A further 25 per cent weakening of sterling, in addition to the 10 per cent depreciation that has occurred since the referendum, would represent a sudden and sharp adjustment of the exchange rate which would further reduce the competitiveness of Irish exports to the UK as well as Irish producers competing with UK imports – although barriers to UK imports would be a mitigating factor here. Exporting firms with low margins, including in parts of the food sector such as beef, would be particularly vulnerable. A disorderly Brexit might also spill over to other financial markets and result in higher borrowing costs for the sovereign and households and corporates.

As well as the usual tariff and NTBs associated with a WTO case, the scenario gives a flavour of what else could happen in a *disorderly* exit. Disruption at border infrastructure could severely impair Irish-UK trade flows, especially given the concentration of such trade in time-sensitive products. In addition to the higher costs for exporters, there could be very significant effects on imports, affecting both the supply chain for Irish producers and the availability of some consumer goods and raw materials.

Other elements of the UK scenario would not play out in Ireland. FDI inflows to the UK are estimated to be significantly affected in a negative way. The opposite effect might occur in

Ireland if the attractiveness of the economy as a gateway into Europe increases. Similarly, the impact on migration and productivity would also be different.

The Central Bank will engage with the Bank of England in the coming weeks in order to understand more fully the details underpinning this new analysis and with a view to exploring further the implications for Ireland of a disorderly no-deal Brexit from end-March 2019.

Table 12.1.1: Estimates of economic impacts relative to latest forecasts and May 2016 trend

	Relative to LATEST FORECAST			
	Economic Partnership (Close)	Economic Partnership (less close)	No-deal: disruptive Brexit	No-deal: disorderly Brexit
1-year impact	+0.25%	0.00%	-4.50%	-8.00%
5-year impact	+1.75%	-0.75%	-4.75%	-7.75%

	Relative to MAY 2016 TREND			
	Economic Partnership (Close)	Economic Partnership (less close)	No-deal: disruptive Brexit	No-deal: disorderly Brexit
1-year impact	-0.50%	-1.75%	-5.50%	-9.00%
5-year impact	-1.25%	-3.75%	-7.75%	-10.50%

Chart 12.1.1: Modelled scenarios based on different assumptions about Brexit

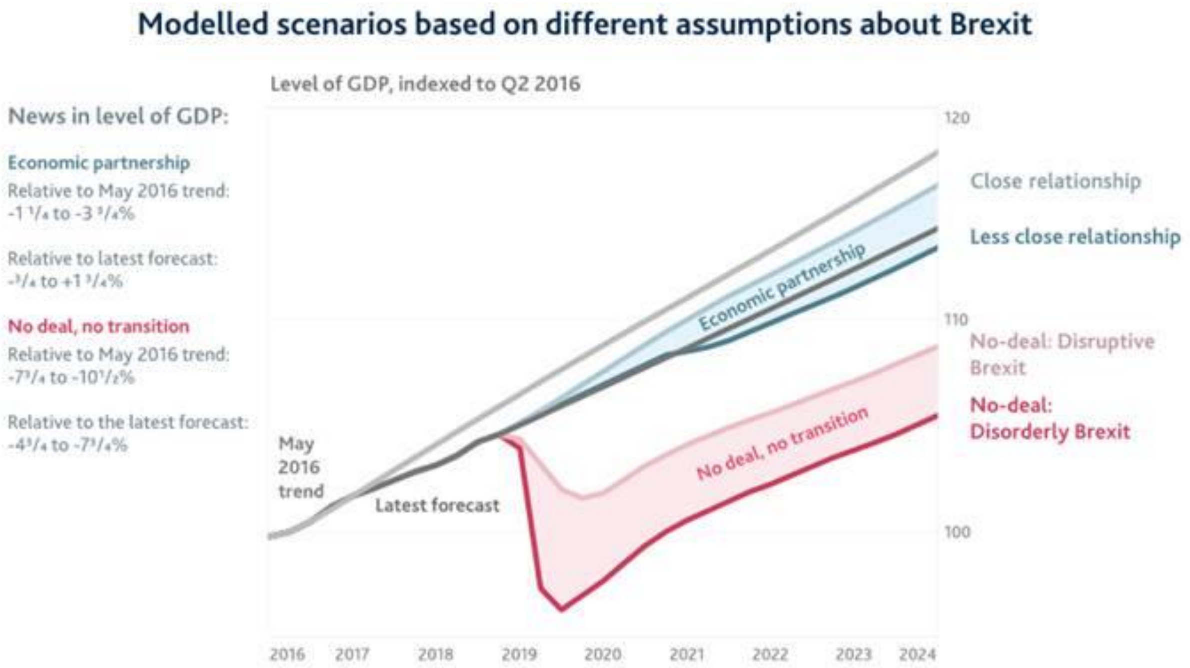

Table 12.1.2: Estimates of the Long-Run Impact of Brexit Scenarios (on UK GDP)

Institution	Scenario		Impact	
NIESR[36]	Deal + FTA (Proposed Deal)		-3.90	
	Deal + Backstop		-2.80	
	Orderly No Deal		-5.50	
BOE[37]	Economic Partnership	*Close*	-1.25	
		Less Close	-3.75	
	No Deal, No Transition	*Disruptive*	-7.75	
		Disorderly	-10.50	
	WTO with Transition		-4.25 to -7.5	
			Impact (Central Estimate)	**Impact (Range)**
HM Government[38]	Modelled no deal		-7.7	(-9.0 to -6.3)
	Modelled average FTA		-4.9	(-6.4 to -3.4)
	Modelled EEA-type		-1.4	(-2.4 to -0.9)
	Modelled White Paper		-0.6	(-1.3 to -0.1)
	Modelled White Paper with 50 per cent NTB sensitivity		-2.1	
	Modelled no deal		-9.3	(-10.7 to -8.0)
	Modelled average FTA		-6.7	(-8.1 to -5.1)
	Modelled EEA-type		N/A	
	Modelled White Paper		-2.5	(-3.1 to -1.9)
	Modelled White Paper with 50 per cent NTB sensitivity		-3.9	

[36] Published 26 November 2018, available here. GDP per cent difference relative to Stay Scenario, long-run impact in 2030.

[37] Published 27 November 2018, available here. GDP per cent difference relative to May 2016 Trend, impact in 2024. Economic Partnership attempts to model a future relationship as envisaged in the Political Declaration. Two variants of the Economic Partnership, labelled as "Close Economic Partnership" and "Less Close Economic Partnership" are modelled. The "Less Close" variant has more extensive regulatory checks on goods and less extensive provisions for services trade than the "Close" scenario. Two versions of a No Deal, No Transition scenario are reported by the BoE: Disorderly and Disruptive. The Disorderly variant includes the following four severe assumptions not included in the Disruptive scenario: (1) The UK loses existing trade agreements that it has with non-EU countries through membership of the EU. (2) The UK's border infrastructure is assumed to be unable to cope smoothly with customs requirements. (3) There is a pronounced increase in the return investors demand for holding sterling assets. Sterling falls by 25 per cent in addition to the 9 per cent fall already observed since the May 2016 Inflation report (4) There are spillovers across asset classes. In the WTO with Transition scenario, the UK is assumed to leave the EU in March 2019 with a transition period that lasts until the end of 2020, and trades on WTO terms from 2021.

[38] Published 27 November 2018, available here. GDP per cent difference compared to today's arrangements (EU membership). Blue shaded cells show impact of different Brexit scenarios with no change to migration arrangements from the status quo. Green shaded cells show the results for the same scenarios but with zero net inflow of EEA workers. Modelled No Deal assumes that UK and EU trade on non-preferential WTO terms set at MFN rates. Tariff and non-tariff barriers apply. Modelled Average FTA represents a hypothetical Free Trade Agreement with zero tariffs. NTBs are assumed to apply based on average NTBs between relevant FTA partners. Modelled EEA-type agreement represents membership of the Single Market but not the EU Customs Union. Zero tariffs but NTBs apply. The Modelled White Paper assumes zero tariffs and lower NTBs than in the case of an FTA. Regarding services, all scenarios assume restrictions on EU-UK services trade compared to the status quo. The scenarios include negative effects on services trade due to the loss of EU "passporting", restrictions on the temporary mobility of people for business purposes and from restrictions on the exchange of personal data.

Glossary

ACPR	French Prudential Supervision and Resolution Authority
AIFM	Alternative Investment Fund Manager
AMAI	Asset Management: Authorisations and Inspections Division
AMSD	Asset Management Supervision Directorate
AUM	Assets Under Management
AVN67	The Airline Finance/Lease Contract Endorsement
BBVA	Banco Bilbao Vizcaya Argentaria
BoE	Bank of England
BoS	Board of Supervisors
BRRD	Banking Recovery and Resolution Directive
BTF	Brexit Task Force
BSSD	Banking Supervision Supervision Division
BSAD	Banking Supervision Analytics Division
CBI	Central Bank of Ireland
CCP	Central Counterparty Clearing House

Central counterparty clearing, also referred to as a central counterparty (CCP), is a financial institution that takes on counterparty credit risk between parties to a transaction and provides clearing and settlement services for trades in foreign exchange, securities, options and derivative contracts.

COSMO	Core Structural Model of the Irish Economy
CPD	Consumer Protection Directorate
CRE	Commercial Real Estate
CPD	Consumer Protection Directorate
CPI	Consumer Price Index
CSD	Central Securities Depository
CSO	Central Statistics Office
RPPI	Residential Property Price Index
DoF	Department of Finance

EBA European Banking Authority

ECB European Central Bank

EEA European Economic Area

EIOPA European Insurance and Occupational Pensions Authority

EMI Electronic Money Institutions

EMIR European Market Infrastructure Regulation

The European Market Infrastructure Regulation is a body of European legislation for the regulation of over-the-counter derivatives.

ESMA European Securities and Markets Authority

ESA European Supervisory Authority

ESRI Economic and Social Research Institute

[Omitted due to confidentiality].

EY Ernst & Young

FCA Financial Conduct Authority

FCA Framework Cooperation Agreement

FDI Foreign Direct Investment

FED The Federal Reserve

FMD Financial Markets Division

FMC Fund Management Companies

FMI Financial Market Infrastructures

FSC Financial Stability Committee

FSD Financial Stability Division

FTA Free Trade Agreement

GDP Gross Domestic Product

GDPR General Data Protection Regulation

GWP Gross Written Premiums

HPI House Price Index

HSE Health Service Executive

ICAAP Internal Capital Adequacy Assessment Process

IEA Irish Economic Analysis

INSA Insurance - Actuarial, Analytics & Advisory Services

IR International Relations

IPD Investment Property Databank

IRC International Relations Committee

The International Relations Committee of the ECB. The IRC is responsible for forming policy views and advising the ECB Governing Council or General Council on external issues to the EU (including the IMF). It meets in 28 NCB format.

KFD Key Facts Document

The Labour Force Survey is a large-scale, nationwide survey of households in Ireland. It is designed to produce quarterly labour force estimates that include the official measure of employment and unemployment. The LFS replaced the Quarterly National Household Survey (QNHS) in January 2017.

LSI Less significant institution

MiFID Markets in Financial Instruments Directive

The markets in financial instruments directive (MiFID) aims to increase the transparency across the European Union's financial markets and standardise the regulatory disclosures required for particular markets. MiFID implemented new measures, such as pre- and post-trade transparency requirements, and set out the conduct standards for financial firms. The directive has been in force across the European Union (EU) since 2008. MiFID has a defined scope that primarily focuses on over the counter (OTC) transactions.

MiFIR Markets in Financial Instruments Regulation

MIS Management Information Systems

MMoU Multilateral Memorandum of Understanding

MoU Memorandum of Understanding

MPC Monetary Policy Committee

MPD Markets Policy Division

MREL Minimum Requirement Eligible Liabilities

MS Member State

MSCI Morgan Stanley Capital International

NCA National Competent Authority

NRA National Resolution Authority

NSA National Supervisory Authority

NTMA National Treasury Management Agency

OPW The Office of Public Works

ORD Organisational Risk Division

P&I Protection and Indemnity

PRA Prudential Regulatory Authority

The Prudential Regulation Authority is responsible for the prudential regulation and supervision of banks, building societies, credit unions, insurers and major investment firms in the UK.

PSD2 Directive 2015/2366/EU on payment services

PSSD Payment and Securities Settlement Division

RI Retail Intermediary

RICS Royal Institute of Chartered Surveyors

RRE Residential Real Estate

RUK Rest of United Kingdom

RTS Regulatory Technical Standards

SI Significant Institution

SMSD Securities Markets Supervision Division

SCN Supervision Co-ordination Network

SME Small and Medium-sized Enterprises

SoR Split of Responsibilities

SPS Sanitary and Phytosanitary

SRD Supervisory Risk Division

SSM Single Supervisory Mechanism

TARGET Trans-European Automated Real-time Gross settlement Express Transfer system

TARGET2 is the real-time gross settlement (RTGS) system owned and operated by the Eurosystem

TCB Third Country Branch

UCITS Undertakings for Collective Investment in Transferable Securities

UCITS are open-ended investment funds and may be established as unit trusts, common contractual funds, variable or fixed capital companies or Irish Collective Asset-management Vehicles (ICAV).

WA Withdrawal Agreement

WTO World Trade Organization