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## TECHNICAL NOTE

FINANCIAL STABILITY AND MANAGING INSTITUTIONAL,  
TECHNOLOGY, AND MARKET TRANSITIONS

Prepared By  
**Monetary and Capital Markets  
 Department**

This Note was prepared by IMF staff in the context of an IMF Financial Sector Assessment Program (FSAP) in the United Kingdom. The FSAP was led by Mr. Udaibir Das. The note contains technical analysis and detailed information underpinning the FSAP's findings and recommendations. Further information on the FSAP can be found at <http://www.imf.org/external/np/fsap/fssa.aspx>

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## Glossary

AIF	Alternative Investment Fund
AIFMD	Alternative Investment Fund Managers Directive
AML/CFT	Anti-Money Laundering/Combating the Financing of Terrorism
API	Application Programming Interface
BCBS	Basel Committee on Banking Supervision
BIS	Bank for International Settlements
BOE	Bank of England
BRRD	EU Bank Recovery and Resolution Directive
CBDC	Central Bank Digital Currency
CBIR	U.K. Cross-Border Insolvency Regulation
CCP	Central Counterparty
CDS	Credit Default Swaps
CFM	Capital Flow Measures
CFRF	Climate Financial Risk Forum
CMA	Competition and Market Authority
CPMI	Committee on Payments and Market Infrastructures
CRD	Capital Requirements Directive
CRR	Capital Requirements Regulation
CSD	Central Security Depository
DeFi	Decentralized Finance
DLT	Distributed Ledger Technologies
DTO	Derivatives Trading Obligation
EBA	European Banking Authority
ECB	European Central Bank
ECL	Expected Credit Losses
EMIR	European Market Infrastructure Regulation
ESG	Environment, Social and Governance
ESMA	European Securities and Markets Authority
ESRB	European Systemic Risk Board
ETD	Exchange Traded Derivatives
EU	European Union
EU27	EU Member States
FCA	the Financial Conduct Authority
FMI	Financial Market Infrastructures
FMSB	FICC Markets Standards Board
FPC	BoE Financial Policy Committee
FSAP	Financial Sector Assessment Program
FSB	Financial Stability Board
FSCR	Financial Services Contract Regime
FSMA	Financial Services and Markets Act 2020
FTA	Free Trade Agreement
GBP	UK Pound

GDPR	General Data Protection Regulation
GFC	Global Financial Crisis
G-SIB	Global Systemically Important Bank
HMRC	HM Revenue and Customs
HMT	HM Treasury
HQLA	High-Quality Liquid Assets
IBA	Indian Banks' Association
ICMA	International Capital Markets Association
ICO	Information Commissioner's Office
IMF	International Monetary Fund
IOSCO	International Organization of Securities Commissions
IPU	Intermediate Parent Undertaking
IRS	Interest Rate Swaps
ISDA	International Swaps and Derivatives Association
ISSB	International Sustainability Standards Board
JPY	Japanese Yen
KA	Key Attributes of Effective Resolution Regimes for Financial Institutions
LCH	London Clearing House Ltd.
LSEG	London Stock Exchange Group
MIFID	Markets in Financial Instruments Directive
MIFIR	Markets in Financial Instruments Regulation
MMF	Money Market Fund
MoU	Memorandum of Understanding
MREL	Minimum Requirement for Eligible Liabilities
MTF	Multilateral Trading Facility
NCA	National Competent Authorities of EU27
NFC	Nonfinancial Corporates
NPCI	National Payments Corporation of India
NRA	National Resolution Authority
OB	Open Banking
OBIE	Open Banking Implementation Entity
Ofcom	Office of Communications
OFR	Overseas Fund Regime
OPE	Overseas Person Exclusion
OSSG	FSB Official Sector Steering Group
OTC	Over the Counter instrument
PFMI	Principles for Financial Market Infrastructures
PRA	Prudential Regulation Authority
PSD2	Payment Services Directive
PSR	Payment Services Regulations
RBI	Reserve Bank of India
RFR	Risk Free Rate
RFRWG	The Working Group on Sterling Risk-Free Reference Rates
RoW	Rest of the World Jurisdictions (non-EU, non-U.K. jurisdictions)
SDR	Sustainability Disclosure Requirements

SEC	U.S. Securities and Exchange Commission
SEF	Swap Exchange Facility
SONIA	Sterling Overnight Index Average
SoR	Split of Responsibility
SPE	Single Point of Entry
SRB	Single Resolution Board
STO	Share Trading Obligation
TCA	Trade and Cooperation Agreement
TCFD	Task Force on Climate-Related Financial Disclosures
TPR	Temporary Permission Regime
TR	Trade Repository
TSC	Technical Screening Criteria
TTP	Temporary Transitional Powers
UCITS	Undertakings for the Collective Investment in Transferrable Securities
U.K.	United Kingdom
UPI	Unified Payment Interface
U.S.	United States of America
USD	US Dollar
WTO	World Trade Organization

# IMPLICATIONS OF BREXIT ON CROSS-BORDER FINANCIAL SERVICES

## A. Executive Summary

1. **There has been a very smooth post-Brexit transition, with no material disruption nor any crystalized financial stability risks.** This was the result of the U.K. authorities' (and in some cases the EU authorities) and firms' extensive preparations. The U.K. authorities have been proactively engaging with the industry, monitored risks, and consistently provided necessary legal certainty in a timely manner. This approach should continue, to the extent that any risks and uncertainties from Brexit remain.
2. **After a smooth transition, there may be further changes to the U.K. financial system because of Brexit.** The financial industry and U.K. authorities currently consider the expected changes to be manageable and note that Brexit's main impact has been an increase in operating costs. Various factors would define Brexit's longer-term impact on the U.K. financial industry. These include, *inter alia*: (i) the future EU and U.K. regulatory developments and the supervisory expectations of EU supervisory authorities including the ECB; (ii) how internationally active firms optimize their footprint across the EU and the United Kingdom as well as globally going forward; (iii) and whether the United Kingdom can offset the business lost to the EU with new business from other jurisdictions.
3. **Moreover, the post-Brexit UK/EU institutional framework continues to evolve.** The parties concluded a Trade and Cooperation Agreement (TCA), which is broadly in line with the WTO rules on financial services liberalization. In addition, a high-level Memorandum of Understanding (MoU) which will provide for a forum for structured regulatory cooperation, has been agreed at technical level, but not signed yet due to formal steps that remain to be taken by EU authorities. As agreed under a Joint Political Declaration, a structured regulatory cooperation for dialogue on issues around equivalence process, regulatory initiatives, and international policy development would contribute to a stable and durable U.K. and EU relationship, while both retain their regulatory autonomy. The U.K. authorities stressed that they have been and remain open to effective cooperation with the EU. The completion of the U.K./EU institutional framework for regulatory cooperation is not under the sole control of the U.K. authorities.
4. **Equivalence, as a form of deference, is an important tool to govern cross-border activity between the UK and EU, but it is unclear whether it constitutes a stable enough basis for markets that have been—and remain—deeply connected at so many levels.** Equivalence covers only specific elements of financial services, its granting and revocation is unilateral by the issuing party, can be conditional, and may involve political aspects. Following the good example of exemptions granted by the United Kingdom and EU to each other's central banks and public debt management offices, progress on the mutual equivalence front remains uneven. Aside from these exemptions, the UK granted a package of equivalence decisions to the EU, while the EU granted two

time-limited equivalence decisions to the UK, for CCPs and CSDs, the latter of which has since expired.

**5. Some market fragmentation has already occurred and remains a possibility for the future as well.** Overlapping and duplicative requirements in some areas affect trade between the United Kingdom and EU firms. The trading of EU shares (except denominated in sterling) taking place on U.K. venues moved to EU venues, and the trading of some OTC derivatives shifted from the United Kingdom to the EU and United States. The U.K. authorities have taken measures to mitigate the impact on U.K. firms, so that they can access EU liquidity pools where appropriate. Both the United Kingdom and EU are reviewing their regulatory frameworks for financial services, which may diverge without necessarily leading to market fragmentation. The U.K. authorities have repeatedly stressed that their regime will remain predicated on implementing international standards. Also, the TCA commits both parties to such standards on a best-efforts basis. This, along with cooperation, can play a role in avoiding market fragmentation. Still such risks cannot be fully excluded while U.K. and EU regulatory frameworks for financial services continue to evolve. The degree of this fragmentation could affect market access or lead to an increase in costs, inefficiencies, further optimization, and possibly a migration of some financial services businesses to other third-country financial centers.

**6. Brexit has fundamentally changed the framework for formal cross-border cooperation between the United Kingdom and EU in supervision and resolution matters.** Instead of intra-EU arrangements ensuring enhanced cooperation, the parties will cooperate as the United Kingdom does with other jurisdictions. The U.K. authorities' cross-border cooperation mandate on supervision and resolution matters is strong, and they have confirmed that cooperation, including in respect of information sharing, with the EU is effective and based on an extensive network of MoUs. However, the effectiveness of crisis-management arrangements has not been tested in times of stress. Also, the authorities should continue monitoring any areas where cooperation as a third country alone may not replicate the same extent and ease of access to information under intra-EU cooperation and take mitigating actions, where available, to address such potential residual information gaps where access is particularly important (e.g., some leverage data in relation to investment funds).

**7. The long-term status of U.K. CCPs in the EU remains open.** These CCPs currently serve EU clearing members based on temporary equivalence and recognition decisions, expiring in June 2022. There is a risk to EU clearing members and financial stability more broadly, if the EU were not to renew these equivalence/recognition decisions to U.K. CCPs, which would require these CCPs to off-board EU members, potentially leading to disorderly close out of these members' positions. The European Commission (EC) has, however, recently signaled that it would avoid cliff-edge risks through an extension of its equivalence decision but has not yet made a formal decision. Also, after a review of the "substantial systemic importance" of two U.K. CCPs, ESMA has not recommended to de-recognize them, while proposing mitigating measures to address financial stability risks for the EU. From a global financial stability perspective, it is prudent for the U.K. authorities to continue monitoring and, where appropriate, continue to stand ready to engage with the EU regarding the regulatory status of U.K. CCPs. A broader concern is that increased costs to clear derivatives in case

of market fragmentation—due to loss of multi-currency netting benefits, higher margin requirements, and concentrations in fragmented local markets—may create pressures globally to relax the clearing mandate, a key post-GFC reform that is important for financial stability.

**8. The impact of Brexit on rest of the world (RoW) financial firms has so far been modest.** The U.K. authorities took active steps to ensure there were no adverse effects for RoW jurisdictions, through a combination of onshoring EU equivalence decisions to such jurisdictions and putting in place temporary regimes. Brexit has resulted in an expansion of the U.K. authorities' cross-border cooperation arrangements with RoW jurisdictions. So far, there is limited evidence of any major relocation of financial transactions or financial firms to RoW jurisdictions, except for some IRS trading and some CDS clearing moving to the United States. However, in the event of further market fragmentation between the United Kingdom and EU, additional relocation cannot be excluded.

**9. Going forward, the United Kingdom's efforts to ensure a balance between openness and financial stability in certain aspects of its market access regime should continue.** The United Kingdom equivalence framework inherited from the EU could be reviewed at an opportune moment. HMT has published a welcome Guidance Document on the United Kingdom's approach to equivalence. However, the authorities could continue further enhancing transparency for overseas jurisdictions through cooperative dialogues to clarify the regulatory elements to be addressed as part of equivalence determinations. Also, the review of the Overseas Framework, including the Overseas Person Exclusion (OPE)—is welcome considering the balance between openness and financial stability.

## B. Introduction<sup>1</sup>

**10. The TCA concluded by the United Kingdom and the EU on December 24, 2020, marked the conclusion to negotiations on the United Kingdom's future trading relationship with the EU.**<sup>2</sup> This analysis takes Brexit as a given and does not pass judgement on it. Similarly, whilst there are different models for the regulation of cross-border financial services, the TCA and the Joint Declaration on Financial Services Regulatory Cooperation imply that national treatment and deference would govern the future relationship between the parties. This is taken as a given as well. Instead, this Technical Note (TN) starts by describing the context and institutional setting of the post-Brexit framework. The purpose of this technical analysis is to present an assessment of the situation a year on from the end of the transition period, as well the implications going forward for the U.K. financial sector, which is defined for the purpose of this TN to consist of financial firms (notably banks undertaking investment services, and investment firms), the financial markets and FMs (notably CCPs, but also CSDs and Trade Repositories). While the focus is on the United Kingdom's financial sector, where relevant, we will also consider the aspects of the EU financial sector, as well as pay attention to Brexit's impact on the RoW. A section at the end pulls together

<sup>1</sup> This chapter has been authored by Ender Emre and Hans Weenink (IMF)

<sup>2</sup> Note as a general point that the EEA Agreement extends the single market approach to the EEA jurisdictions. The conclusions of this TN therefore apply to the EEA as well. However, for ease of reference the TN uses "EU" as shorthand to include the EEA. Also, the term "EU27" in this text refers to EU member states.

findings on the post-Brexit cooperation and crisis management frameworks. Finally, the reader should consult this TN in conjunction with the other TNs prepared as part of the U.K. FSAP on prudential supervision, CCPs, crisis management and AML/CFT which also include aspects relevant for Brexit. Please note that the TN reflects the regulatory frameworks and the information available as per end-January 2022.

## C. Context and Institutional Setting

### The Status of the United Kingdom’s Legal and Regulatory Framework for the Financial Sector

**11. The United Kingdom is a central node for global finance and international capital flows.** It is home to three globally systemic banks (G-SIBs) and two systemically important CCPs. It is the largest host jurisdiction to foreign financial firms, including all G-SIBs and a key global marketplace—particularly for wholesale funding and derivatives trading. Financial and related professional services contribute to around 10% of the United Kingdom’s economic output and generates the largest surplus in U.K. cross-border trade. The safety of the U.K. financial sector and its integration into global markets are public goods, both from a domestic and global perspective. Also, U.K. and EU markets remain deeply interlinked, as further elaborated in the Financial System Stability Assessment. An ECB study has noted that large international investment banks operating out of London play an important role in euro area bilateral OTC derivatives markets.<sup>3</sup> It also highlighted that these global banks support EU non-financial institutions by playing an active role in debt and equity issuance, mergers and acquisitions, and syndicated loans.

**12. Brexit has changed the legal and regulatory frameworks under which U.K. and EU financial firms can provide regulated services and conduct regulated activities.** A first consequence of Brexit is that—as is discussed in more detail in the Immediate Impact of Brexit: Loss of Passporting Section—U.K. and EU financial firms no longer have their single market passport rights to access each other’s market under certain EU financial services directives.<sup>4</sup>

**13. In order to ensure that a fully functioning legal framework was in place post-Brexit, the United Kingdom transformed directly applicable EU law at the end of the transition period into retained EU law.**<sup>5</sup> The European Union (Withdrawal) Act 2018 (Section 8) gave Ministers temporary and limited powers (i.e., no policy changes, no taxation, no establishment of public authority) by way of Statutory Instruments, to prevent, remedy or mitigate any failure of retained EU law to operate effectively, or any other deficiency in retained EU law arising from the withdrawal by way of secondary legislation (known as onshoring). HMT has brought forward almost 70 Statutory Instruments. U.K. financial sector regulators also corrected deficiencies in Binding Technical

<sup>3</sup> ECB, Implications of Brexit for the EU financial landscape, published as part of [Financial Integration and Structure in the Euro Area, March 2020](#).

<sup>4</sup> Capital Requirements Directive (CRD), Solvency II Directive (Solvency II), Markets in Financial Instruments Directive (MiFID), UCITS Directive (UCITS), Alternative Investment Fund Managers Directive (AIFMD), Insurance Mediation Directive (IMD), Mortgage Credit Directive (MCD), Electronic Money Directive (EMD) Payment Services Directive (PSD).

<sup>5</sup> The EU (Withdrawal) Act 2018, as amended by the European Union (Withdrawal Agreement) Act 2020

Standards (BTSs) and their own rules, based on sub-delegation by HMT of its onshoring powers, where they were best placed to deal with the deficiencies.

<b>Recommendations</b>	<b>Immediate (Within one year) Near Term (1-3 years), Medium Term (3+ years)</b>	<b>Responsible Agencies</b>
<i>Maintain</i> the UK's commitment to mutual co-operation with the EU post Brexit, including promoting a regulatory dialogue that can support financial stability and mitigate market fragmentation risks.	I	HMT, BOE/PRA and FCA
<i>The UK authorities should</i> continue to stand ready to engage with the EU regarding the regulatory status of UK CCPs.	NT	BOE
<i>Continue</i> monitoring and identifying any legal uncertainties that may arise for UK financial firms post-Brexit and stand ready to provide legal and regulatory certainty as needed and where feasible.	NT	BOE/PRA, FCA and HMT
<i>Review</i> the UK equivalence framework inherited from the EU at an opportune moment and continue to enhance transparency for overseas jurisdictions through cooperative dialogues	MT	HMT, BOE/PRA and FCA
<i>Continue monitoring</i> any potential residual gaps to cross-border cooperation with the EU on supervision and resolution, and take mitigating actions, where available.	NT	BOE/PRA and FCA

**14. Responsibilities carried out previously at the EU level are now split between the HMT and U.K. financial regulators.** The United Kingdom has launched a Financial Services Future Regulatory Framework Review, which will result in proposals for redesigning the regulatory framework within which the U.K. financial services regulators will operate.

**15. Brexit has also had consequences for other important aspects of the broader legal and regulatory infrastructure within which U.K. firms operate.** This broader U.K. legal and regulatory infrastructure remains strong. This covers consistent and effective business laws and dispute resolution mechanisms, the accounting, auditing and legal professions, an effective and reliable judiciary, and efficient payment, clearing and settlement systems. However, U.K. firms can no longer benefit from some EU-level arrangements when providing cross-border services into the EU. For instance, U.K. CCPs previously benefited from EU-level settlement finality protections, whereas their

treatment as third country CCPs may differ across EU27 post-Brexit. Similarly, EU level instruments give effect to agreements, including in standard market documentation used by financial market participants, that attribute jurisdiction to a EU27's court if one of the parties is EU-domiciled, and provide for the mutual recognition and enforcement of judgments across the EU.<sup>6</sup> Post-Brexit, the U.K. authorities have taken actions to mitigate the impact of the loss of this arrangement, and industry associations have also developed contractual solutions.<sup>7</sup> In summary in certain cases, U.K. firms will need to assess and manage their risks separately for each EU27 as they navigate through this post-Brexit environment.

**16. The parties have ensured that the transfer of personal data, which facilitates the provision of some cross-border financial services, was not disrupted.** Prior to the end of the transition period, the United Kingdom legislated to allow the transfer of data from the United Kingdom to the EU on a transitional basis for 4 years. The TCA contained a four-month window (which could be extended by a further two months) during which the United Kingdom would not be treated as a third country for the purpose of the EU General Data Protection Regulation (GDPR). The EC used this “bridging mechanism” to assess the U.K. Data Protection Act and U.K. GDPR to be essentially equivalent to the EU GDPR, allowing it to conclude that the United Kingdom ensures an adequate level of protection within the meaning of the EU GDPR.<sup>8</sup> This Adequacy Decision applies for four years from its entry into force. The U.K. authorities have announced a review of the U.K. data protection rules. They clarified their intention not to dilute the rules, but stakeholders caution that any changes could have a negative impact on the EC's Adequacy Decision, potentially impairing the ability of some financial firms to provide cross-border services that involve the transfer of personal data—though other mechanisms for transferring personal data, such as the use of standard contractual clauses, would remain available. It is for that reason that a House of Lords Committee has recommended that the United Kingdom pursue a close dialogue with the EU to ensure that the implications for EU data adequacy are factored into any changes to the United Kingdom's domestic data protection regime.<sup>9</sup>

**17. The U.K. authorities should continue their proactive monitoring of legal uncertainties, which may arise going forward.** The authorities' measures to address exit risks, including the onshoring process and transitional regimes, constitute clear examples of how the U.K. authorities provided certainty to markets.<sup>10</sup> The above discussion indicates some pertinent examples of legal

<sup>6</sup> The Brussels I Regulation (recast) (2012/1215/EC).

<sup>7</sup> The United Kingdom has applied to accede to the Lugano Convention, which would replicate the effect of Brussels I Regulation. However, such accession is subject to consent by signatories. The EC has not given its consent so far. As a fallback solution, the UK has acceded to The Hague Convention on Choice of Court Agreements as of January 1, 2021. However, the scope of this Convention is narrower than that of the Lugano Convention and covers only contractual exclusive jurisdiction clauses and contracts in force after the accession to the Hague Convention. Moreover, it does not apply to interim measures of protection such as injunctions. Industry associations have proposed some changes in their standard contract documentations, in view of above discussions.

<sup>8</sup> Commission Implementing Decision June 28, 2021.

<sup>9</sup> Beyond Brexit; Trade in Services, House of Lords European Union Committee, 23<sup>rd</sup> Report Session 2019-2021, para. 173.

<sup>10</sup> As regards uncleared derivatives, an uncertainty existed as to whether certain lifecycle events could be performed on cross-border uncleared derivative contracts (without triggering an authorization requirement). The UK legislated to ensure that EU banks

(continued)

uncertainties (some of which have already been addressed) that have so far arisen as U.K. firms now navigate through a complex EU and EU27 framework as third country firms. Legal uncertainties may also arise because of the relatively complex U.K. legal framework that emerged after Brexit. It is recognized that the U.K. authorities are reviewing their overall regulatory framework through the Future Regulatory Framework Review, and selected financial services legislation, such as for example the wholesale markets regulatory framework.

## The United Kingdom & EU Institutional Framework

**18. The TCA is a preferential free trade agreement with similar financial sector liberalization to the EU's other trade agreements.** The TCA is structured on a WTO basis and its primary focus is on trade in goods. It contains minimal provisions on financial services and excludes financial services from a small number of provisions relevant for general services. The TCA commits both parties to maintain their markets open for operators from the other party seeking to supply services through establishments. Parties preserve their right to adopt or maintain measures for prudential reasons ('prudential carve-out'), *inter alia*, to preserve financial stability and the integrity of financial markets. The TCA Annexes list extensive financial services reservations for the United Kingdom, EU and EU27, which reserve their rights to apply specific restrictions (e.g., the most favored nation clause does not apply to financial services for commitments made in future trade agreements). The TCA includes a "best endeavors" commitment by both parties to implement international standards. While it also includes useful provisions on the movement of financial professionals and data as discussed above, all of this leads to the conclusion that the TCA's liberalization of the financial sector is less ambitious than in a single market or mutual recognition regime. The United Kingdom is seeking a deeper approach with other jurisdictions.<sup>11</sup>

**19. The MoU between HMT and the EC establishing structural regulatory cooperation is yet to be finalized.** A Joint Declaration accompanying the TCA mentions a MoU, that would establish a structured regulatory cooperation on financial services, with the aim of establishing a durable and stable relationship.<sup>12</sup> The MoU would allow for a structured (i) bilateral exchanges of views and analysis on regulatory initiatives and other issues of interest, (ii) transparency and appropriate dialogue regarding equivalence decisions (whilst noting that these are unilateral decisions) and (iii) enhanced cooperation and coordination including in international bodies as appropriate. This MoU has been agreed at a technical level (in March 2021) but has still not been signed due to formal steps that still need to be taken by EU authorities. The U.K. authorities stressed that they have been and remain open and committed to effective cooperation with the EU. This

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could continue to perform lifecycle events on contracts with UK firms. A Commission Delegated Regulation allowed the novation of OTC derivative contracts of UK and EU counterparties without triggering bilateral margin and clearing obligation requirements. Counterparties mitigated risk by repapering clients and making use of EU member states' national regimes.

<sup>11</sup> According to an HMT press release of January 27, 2021, the UK and Switzerland are moving forward on ambitious negotiations to deliver a comprehensive mutual recognition agreement.

<sup>12</sup> The House of Lords has stressed that a deep level of cooperation would "help manage future divergence"; see Beyond Brexit, Trade in Services, European Union Committee, 23<sup>rd</sup> Report Session 2019-2021, page 3.

approach should be maintained. The finalization of the U.K./EU institutional framework is not under the sole control of the U.K. authorities.

### Immediate Impact of Brexit: Loss of Passporting

**20. As has already been noted, a consequence of Brexit is that EU and U.K. financial firms no longer have single market passport rights to access each other's markets.** Passporting allows firms authorized in one Member State to provide financial services across the EEA, subject to requirements within each sectoral framework. In the following sections the TN describes the Brexit impact on market access regimes (including equivalence). It also discusses the transitional measures adopted by both the United Kingdom and EU before looking at how firms have reacted to the regulatory changes.

**21. The transition to the post-Brexit era was extensively prepared for by the United Kingdom as well as by targeted decisions by the EU and EU27.** HMT introduced a range of temporary permissions and transitional regimes to facilitate the transition for firms and their customers. Table 2 lists the various U.K. temporary regimes, and the Annex I list the various exit risks that had been identified prior to the transition and demonstrates how the United Kingdom and EU have successfully addressed them.

**Table 2. United Kingdom: Selected\* Post-Brexit Transitional Measures**

Transition Regime	Relevance	Timeline
<b>Temporary Permission Regime (TPR)</b>	EU firms providing services, into the United Kingdom unless covered by other temporary regimes	End-2023
<b>Temporary Recognition Regime</b>	EU and third country CCPs	
<b>Temporary Designation Regime</b>	EU payment and settlement systems	
<b>Temporary Marketing Permissions Regime</b>	EU investment funds	End-2025
<b>Temporary Transitional Powers (TTP)</b>	Delays or modifies firms' obligations where they have changed because of onshoring changes to EU financial services legislation	End-March 2022, except for the share and derivative trading obligation
<b>Financial Services Contracts Regime (FSCR)</b>	For the orderly run down of EU firms that have not entered the TPR and those that exit the TPR without U.K. authorization	Current

Source: IMF staff.

\* A separate transitional recognition regime for CSDs has no specified point at which it ends. There exists also a separate 'temporary registration and conversion regime' in relation to trade repositories.

**22. The U.K. authorities' preparations were complemented by U.K. financial firms' contingency planning that ensured they had the ability to continue their cross-border activities in the event of a no-deal outcome.** As discussed below in more detail this meant that they adapted their legal and operational structures to continue serving EU clients from within the EU and moved some assets and staff to the EU. The degree of restructuring differed across firms, depending on their business model and whether they had existing EU establishments. The size of the relocation was smaller than anticipated in the aftermath of the 2016 referendum. Box 1 presents preliminary reports on the impact of Brexit on U.K. based firms. Market parties report that so far Brexit has not had disruptive effects on capital markets. Some trading in EU shares and bonds has migrated to the EU, and certain derivatives to the EU and United States.<sup>13</sup>

**23. As a result of these extensive preparations the transition was very smooth without any material impact on financial stability.** This was more impressive as the transition coincided with the pandemic.

**24. Even so, as the EU and the U.K. relationship evolves, some challenges remain.** First, firms' adaptation to Brexit introduced some inefficiencies in financial firms' capital, operating, and business models, thus increasing their costs. The financial industry and U.K. authorities consider the challenges ahead to be manageable, but the longer-term impact would depend on factors such as the interplay between the United Kingdom's newfound regulatory sovereignty and the degree of the EU's openness.<sup>14</sup> U.K. authorities now have the necessary powers to make and implement rules independently to further their statutory objectives and reflect the specificities of the U.K. markets. Both the United Kingdom and EU are reviewing their regulatory frameworks for financial services, without necessarily leading to market fragmentation. The U.K. authorities have repeatedly stressed that their regime will remain predicated on implementing internationally agreed standards.<sup>15</sup> In addition the TCA commits both parties to implement international standards on a best-efforts basis. This, along with cooperation, can play a role in avoiding market fragmentation. However, market fragmentation risks still cannot be excluded while the U.K. and EU regulatory frameworks on financial services continue to evolve. The degree of this fragmentation could affect market access or lead to an increase in costs, inefficiencies, further optimization, and possibly a further migration of financial services businesses to other third-country financial centers. The costs of market fragmentation can particularly impact financial firms with comparatively lower profit margins.

**25. The U.K. authorities should continue their existing dialogue with EU counterparties including through existing international fora and cross-border supervision/resolution arrangements.** As part of their work on international market fragmentation, the FSB has noted, in general, that market fragmentation risks could be limited by (i) efforts to consider market fragmentation as part of implementation monitoring and reform evaluation and (ii) seeking dialogue

<sup>13</sup> The post Brexit impact on the international bond market, Paul Richards, ICMA, Q2 2021.

<sup>14</sup> The European economic and financial system: fostering openness, strength and resilience, Communication from the Commission, 1/19/2021, COM (2021) 32 Final.

<sup>15</sup> The FPC has said it "will remain committed to the implementation of robust prudential standards in the UK. This will require maintaining a level of resilience that is at least as great as that currently planned, which itself exceeds that required by international baseline standards." [See statement from policy meeting, 3 October 2018.](#)

with other regulatory authorities on planned measures that are likely to affect fragmentation (including the possible sequencing of reforms).<sup>16</sup>

## Equivalence United Kingdom/EU

**26. The United Kingdom has onshored the EU approach to equivalence and it is one of the regulatory instruments (i.e., amongst FTAs, Mutual Recognition Agreements, and Financial Dialogues with overseas jurisdictions) the United Kingdom can use which supports the openness of the U.K. financial sector.**<sup>17</sup> Equivalence, as a form of regulatory deference (see Box 2 for an overview of cross-border regulation approaches) facilitates market access and minimizes regulatory burden on firms, whilst supporting financial stability, market integrity and consumer protection. It involves a positive assessment of another country's framework, which enables reliance on that country's rules and the work of the relevant country's supervisor. Therefore, equivalence requires a measure of trust in the other country's rules and the supervisory actions of its supervisor.

### Box 1. Preliminary Reports on Relocation to the EU

Various reports suggest that the impact on U.K. based entities has so far been smaller than estimates made soon after the 2016 referendum on the United Kingdom's withdrawal from the EU. The timing and the scope of these reports vary.

A survey in April 2021 by New Financial reports<sup>1</sup> relocation by more than 440 U.K. based firms, with banks transferring more than £900bn (€1.05 trillion), and insurance firms and asset managers £100bn (€118n) in assets and funds. This survey estimated staff moves from the U.K. to the EU around 7400 or local hires in response to Brexit. In headcount terms, even the most significant relocations represent a maximum of 10% move into the EU.

A more recent survey by Ernst and Young<sup>2</sup> notes that since the United Kingdom's official departure from the EU and the Covid pandemic, there has been a significant fall in announcements of operational moves by financial firms. Between January 2020 and December 2021, the number of financial firms, including banks, insurers, and asset managers, announcing that they had moved, or planned to move staff and operations to the EU increased from 92 to 97 out of a total of 222 firms. The number of estimated staff relocations from the U.K. to the EU was revised downwards, i.e., to 7400. Ernst and Young adds that since the referendum a total of 24 firms have announced the transfer of assets totaling £1.3 trillion from the U.K. to the EU. It added that this figure remained flat in 2021.

Both studies confirm that Dublin and Luxembourg are the major destinations for investment funds and asset managers; Frankfurt and Paris appear to be the choice for many banks; and Amsterdam has attracted market infrastructure providers and trading firms. But overall, no location has emerged as the dominant EU financial center.

<sup>1</sup> *New Financial, Brexit & the City: The Impact So Far - An Updated Analysis of How the Banking & Finance Industry Has Responded to Brexit - And Who is Moving What to Where, April 2021*

<sup>2</sup> [EY Financial Services Brexit Tracker: UK Financial Services Firms continue to incrementally move assets and relocate jobs to the EU, but changes since the Brexit deal are small | EY UK](#)

<sup>16</sup> In addition to the House of Lords report mentioned in footnote 12, see the FSB Report on Market Fragmentation, June 4, 2019.

<sup>17</sup> While most equivalence determinations are made at the EU level, EU27 can also make equivalence assessment in limited areas defined in EU financial sector legislation.

**27. The United Kingdom and EU equivalence regimes are not general supervisory/regulatory regimes applicable to the entire overseas jurisdiction's (or jurisdictions) framework but are instead activity-based regimes.** Looking at the U.K. and EU banking and financial sector legislation, the concept of equivalence is currently used in 13 legal acts, while 21 legal instruments have no provision on equivalence (see Annex II for a list of current equivalence provisions in use under EU financial sector legislation). For instance, there is no equivalence regime for deposit taking and lending, and cross-border payments. Some equivalence provisions provide for market access (targeted to specific defined activities), whereas others provide regulatory relief to facilitate cross-border business (e.g., capital or reporting requirements).

**28. HMT's Guidance on the principles of U.K. equivalence determinations is welcome.** It notes that U.K. equivalence determinations, are evidence and outcome based. Equivalence determinations are unilateral but are taken in a transparent and cooperative manner including engagement with stakeholders. Determinations can be time limited, and withdrawn autonomously as a last resort measure, absent an agreement on appropriate solutions, and with possible measures to mitigate the disruptive effects of withdrawal. The process aims to provide stability (also with respect to the review and, as necessary, withdrawal of determinations).<sup>18</sup> This guidance resembles, but is somewhat different than the EU approach that - while also stressing the objectives of financial stability and open, fair and efficient financial markets - presents equivalence "*primarily as a risk management exercise*".<sup>19</sup> Nevertheless, the framework inherited from the EU should be reviewed at an opportune moment to ensure it is fit for the United Kingdom. Also, building on the Guidance Document that contains welcome information on the high-level principles informing U.K. equivalence determinations, and the procedure for equivalence determinations, the authorities could continue to further enhance the transparency and consistency of these decisions through cooperative dialogue with overseas jurisdictions, like the ones it currently has with the US, Singapore, Japan, and other priority jurisdictions. Whilst recognizing that the dialogue could differ according to jurisdiction and the activity/equivalence discussed, such dialogue could as appropriate clarify: how (i) the balance between market access and financial stability will be determined in the relevant equivalence discussed (i.e., what considerations and indicators will be taken into account) , (ii) the equivalent outcomes of supervisory approaches will be decided, (iii) resolution considerations will be integrated into equivalence assessments where applicable and (iv) the engagement with stakeholders highlighted in the Guidance Document will be given substance.

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<sup>18</sup> HMT Guidance Document for the Equivalence Framework for Financial Services, November 2020, para. 2.13.

<sup>19</sup> Equivalence in financial services, EC Communication, July 29, 2019, page 3. EU financial legal acts specify the conditions, criteria, and extent to which the EU may consider the regulatory and supervisory framework of a third country in deciding equivalence. Also, the recent Investment Firms Regulation (EU/2019/2033) introduces new assessment criteria as well as additional safeguards and reporting obligations for 3rd-country firms in equivalent jurisdictions. The Communication stresses the EC's discretion, which "may include further relevant criteria where necessary".

### Box 2. Overview of Cross-border Regulation Approaches

**To preserve financial stability while minimizing market fragmentation, international practice developed several approaches to cross-border regulation.** These approaches<sup>1</sup> involve a varying degree of regulatory control over inbound and outbound financial services. Jurisdictions may apply different models for different activities or apply these models in combination to certain aspects of a business.

- **National treatment:** While applying the domestic regime, this approach still allows jurisdictions to provide exemptions to foreign persons, entities and products from their regulatory framework or use substituted compliance for the purposes of mitigating duplicative requirements on foreign entities.
- **Regulatory deference:** This involves a jurisdiction's assessment of a foreign regime as equivalent or comparable to its own and therefore facilitating market access or minimizing duplicative regulations for firms doing cross-border business. Deference can take different forms. Different terminology may be used, such as "equivalence" in the EU and substituted compliance" in the US. Recognition is another form of regulatory deference that can take place on a mutual or unilateral basis.
- **Passporting:** This is a system based on a single authorization/registration which allows for the provision of services within the specified passporting area under the primary supervision of a single ("home") authority.
- **International agreements:** These involve mutual commitments of two or more jurisdictions to reduce overlaps and enhance regulatory and supervisory reliance (e.g., the EU-Switzerland Non-Life Insurance Agreement).

**The G-20 recommended deference, where appropriate.** The G-20 stated in its St. Petersburg Summit in 2013 that "jurisdictions and regulatory authorities should be able to defer to one another when it is justified by the quality of their respective regulatory and enforcement regimes, based on similar outcomes, in a non-discriminatory way and paying due regard to home country regulatory regimes." Although this was in relation to OTC reforms, it is generally applicable for cross-border regulation to manage trade-offs between fragmentation and financial stability.

<sup>1</sup> [IOSCO Report FR06/2020 Good Practices on Processes for Deference \(iosco.org\)](https://www.iosco.org/publications/iosco-report-2020-06-06-good-practices-on-processes-for-deference)

**29. So far, the United Kingdom has issued a package of equivalence decisions in favour of the EU, while the EU has been more restrained vis-à-vis the United Kingdom.** The United Kingdom has issued 28 equivalence determinations for EU jurisdictions (and onshored around 270 EU equivalence decisions). The EU has granted the U.K. two time-limited equivalence decisions, one for CCPs and one for CSDs (the latter of which has now expired), in addition to four exemptions covering central bank, monetary and public debt management activities. For now, the EC has indicated that there is no expectation of further equivalence decisions (see section that follows on the impact on CCPs on the planned extension of EU equivalence decisions for U.K. CCPs).

**30. Conceptually, it is unclear whether equivalence constitutes a stable enough basis for markets that have been—and remain—deeply connected at so many levels.** Although, in any case, various specific equivalence measures cannot fully replicate the EU passporting regime. Equivalence determinations can take time. U.K. firms have already restructured their business—and incurred costs—to adjust to the end of passporting and to remain able to service EU customers. As time passes, the absence of specific equivalence determinations becomes less of an operating constraint for them. Where issued, regulatory changes on the issuing or receiving side could add up until one authority considers the lack of alignment by the other jurisdiction to have surpassed a threshold, affected existing equivalence decisions, or made new ones less likely—though both sides'

commitment to adhere to international standards should help mitigate this risk. Further, where granted as a time-limited decision equivalence only provides temporary solutions, whereas markets seek longer term certainty. U.K. authorities have sought to provide certainty by ensuring its equivalence decisions for the EEA states are not time limited. Equivalence determinations can be withdrawn unilaterally. While their issuance and withdrawal should be evidence-based decisions, it is also noted that they may have political aspects, as ultimate decisions belong to the HMT in the United Kingdom, and the EC in the EU. Specifically, in both jurisdictions equivalence determinations must be compatible with their policy priorities; these *include* (i.e., are not limited to) those relating to the rule of law, international sanctions, human rights, and efforts to combat money laundering.<sup>20</sup> These conceptual limitations of equivalence demonstrate once again why structured regulatory cooperation between the United Kingdom and EU would be useful.

## D. Key Implications

**31. The following Section of the TN will discuss the implications of the changed legal and regulatory frameworks for financial firms, markets and FMIs.**

### Introduction

**32. Post-Brexit market access is more complex compared to passporting.** Both the U.K. and EU/EU27 market access rules consist of various regimes, depending on the type of service concerned, the mode of access (commercial presence or cross-border supply), the type of cross-border establishment and the identity of the counterparties, as well as the scope of access when granted. Even the preliminary question of when a regulated activity is carried on within the EU/U.K. or overseas, can be a complex one. Overall, compared to passporting, third country access regimes of the EU *“do not, even in aggregate, offer comprehensive access to the single market, i.e., across the full range of financial services business lines.”*<sup>21</sup> The impact on U.K. firms is significant as prior to Brexit they had developed an integrated business model relying on various passports (see Box 3 below). This discussion will address market access implications of Brexit for a range of banking and investment activities, while distinguishing between commercial presence and cross-border supply.

### Impact on Financial Firms

#### 1. Banks and Investment Firms

##### *Access to U.K. Markets*

**33. The impact of Brexit on EU firms’ access to the United Kingdom has been limited due to the United Kingdom’s transitional arrangements and its historically open market access framework, especially in relation to wholesale investment activities.** The United Kingdom’s

<sup>20</sup> A European Parliament Report qualifies EU equivalence decisions as political in nature. It gives the example of an EC equivalence decision of December 21, 2017, for Swiss stock exchanges; see European Parliament Report, July 18, 2018, on the relationships between the EU and third countries concerning financial services regulation and supervision; 2017/2253(INI).

<sup>21</sup> FMLC, *Issues of Legal Uncertainty Arising in the Context of the Withdrawal of the UK from the E.U.—the Provision and Application of Third Country Regimes in E.U. Legislation*, July 2017, page 6.

open market access approach, in turn, is reflected at three levels in its framework. First, the PRA is “equally tolerant of wholesale [corporate and investment banking] firms operating as interdependent subsidiaries or branches”, provided they meet its expectations.<sup>22</sup> This allows EU banks to continue their wholesale business through large branches in the United Kingdom. Second, some of the previously passported activities in the EU are not unilaterally regulated activities in the United Kingdom, e.g., lending to some corporates. Third, an overseas framework permits access to the U.K. market by overseas firms.<sup>23</sup> This framework includes: (i) exclusions, where the overseas firm is deemed not to carry on a regulated activity in the United Kingdom or is otherwise excluded from the U.K. perimeter; (ii) exemptions, such as recognized overseas investment exchanges regime, where the activity is regulated, but exempt from authorization, while allowing some supervisory control; and (iii) jurisdictional arrangements where cross-border access to the United Kingdom is available based on close cooperation with and/or deference to the home regulator (i.e., equivalence and other access regimes based on deference). The scope of financial services covered by various elements of this framework differ.

**34. The review of the overseas framework is welcome.**<sup>24</sup> The overseas person exclusion (OPE) is seen as a major contributor to the United Kingdom’s success as an international hub.<sup>25</sup> When a range of regulated activities, mostly investment services for wholesale purposes,<sup>26</sup> are carried out by an overseas person—lacking a permanent place of business maintained by it in the United Kingdom—with or through a U.K. authorized<sup>27</sup> or exempt person, or alternatively under a legitimate approach, the OPE allows this to be not a regulated activity. The OPE does not involve U.K. authorization or oversight, but some limited, indirect oversight might be possible when the activity is conducted with a U.K. authorized person. Following a review of the overseas regulatory perimeter, HM Treasury plans to consult on various issues, including possible measures to adjust the balance between openness and risks to the resilience and safety of financial markets. The FSAP team supports this work.

### **Access by U.K. Firms to the EU/EU27**

**35. In the absence of single market passports, U.K. banks mostly opted to have a commercial presence in the EU to serve their EU clients.** As noted, since equivalence is generally not available, many core banking and financial activities, especially retail activities, generally cannot be provided on a cross-border basis into the EU/EU27. Where available, equivalence is not yet

<sup>22</sup> See the TN on Bank Supervision for an assessment of the UK’s approach to the supervision of third country branches.

<sup>23</sup> [Overseas Framework CFE FINAL.pdf \(publishing.service.gov.uk\)](#)

<sup>24</sup> HM Treasury; Call for Evidence: Overseas Framework, December 2020. [Overseas Framework Summary of Responses.pdf \(publishing.service.gov.uk\)](#)

<sup>25</sup> [Overseas Framework Pro Forma 2.docx \(fia.org\)](#)). Also, [REPORT IRSG UK-OVERSEAS-FIRMS v05 links.pdf](#)

<sup>26</sup> (i) dealing in investments as principal; (ii) dealing in investments as agent; (iii) arranging deals in investments; (iv) operating a multilateral trading facility; (v) operating an organized trading facility; (vi) advising on investments; (vii) arranging, entering into and administering certain home finance transactions (specifically regulated mortgage contracts, regulated home reversion plans, regulated home purchase plans and regulated sale and rent back agreements) and (viii) (in specified circumstance) agreeing to carry on the regulated activities of: managing investments, arranging deals in investments, assisting in the administration and performance of a contract of insurance, safeguarding and administering investments and sending dematerialized instructions.

<sup>27</sup> Authorized person refers to who has a Part 4A permission under FSMA to carry one or more regulated activities.

activated in some areas, as is the case with investment services to eligible counterparties and to *per se* professional clients. As a result, market access for many core banking and financial activities largely requires cross-border establishments, i.e., authorized subsidiaries and branches (see also the related discussion below). On the other hand, the below routes offer some degree of cross-border access to member states, but these are not widely available or uniform, and their use by U.K. firms has been limited.

- (i) Transitional regimes: Some EU27 allowed<sup>28</sup> U.K. firms to mostly continue their wholesale investment services for legacy contracts (e.g., Portugal) or temporarily for new contracts (Cyprus), prior to obtaining authorizations;
- (ii) National exemptions: These exemptions are typically limited to wholesale activities,<sup>29</sup> and access requirements can vary from a notification to an equivalence determination made by the EU27. In any event, before Brexit U.K. banks developed an integrated business model combining various passports to offer a suite of services to the same customer. Many services and products also involved other firms with ancillary functions relying on passporting rights, such as custodians and security trustees holding bank accounts. These national exemptions would hardly enable U.K. banks to provide the whole suite of services as before on a cross-border basis; and
- (iii) Reverse solicitation: This allows the provision of services based on the exclusive initiative of the client. EU27's policies vary significantly as regards the availability and scope of reverse solicitation,<sup>30</sup> raising operational and legal risks for U.K. (and RoW) firms.<sup>31</sup>

**36. U.K. firms' legal and operational relocation to the EU has been also informed by regulatory considerations.** The choice between subsidiary and branch, and their location, was informed by various factors, including the bank's business model, tax implications, and regulatory considerations. Subsidiaries, as entities incorporated in the EU, will benefit from passporting within the EU, and can also serve as a depositary bank for UCITS and AIFs. Branches give an access limited to the relevant EU27 member state,<sup>32</sup> but they can offer, depending on local laws, a more favorable prudential regime (e.g., in terms of regulatory capital and large exposures) and they can benefit from the parent's rating when accessing institutional clients and capital markets.<sup>33</sup> Overall, the relocation and restructuring resulted in additional capital and operational costs across the entities in the region, but the PRA notes that the impact on a consolidated level was moderate.

**37. Going forward, the degree of U.K.-based banks' activity in the EU will continue to be influenced by EU supervisory developments.** For instance, following the EBA's recommendations

<sup>28</sup> For a summary of national approaches in EU27, please see: <https://www.cliffordchance.com/content/dam/cliffordchance/briefings/2020/11/the-post-brex-it-patchwork-eu-market-access-rules-for-uk-firms.pdf>

<sup>29</sup> E.g., Belgium, Finland, and Luxembourg permit third country investment firms' cross-border access, subject to conditions.

<sup>30</sup> See [IRSG-Full-report-The-EUs-third-country-regimes-and-alternatives-to-passporting.pdf](#), 2017.

<sup>31</sup> For instance, please see [ESMA statement \(35-43-2509\) on reverse solicitation.pdf \(europa.eu\)](#), January 13, 2021.

<sup>32</sup> As an exception a third country investment branch can provide wholesale services in the single market based on an equivalence determination, but no such determination has so far been made.

<sup>33</sup> [EBA - Report on third country branches.docx \(europa.eu\)](#) (see p. 44).

addressed to competent authorities,<sup>34</sup> the ECB has stated that an “empty shell” would not be acceptable, meaning that banks must be capable of managing, at the local level, all material risks potentially affecting them independently.<sup>35</sup> It expects that EU products and non-EU transactions with EU clients are booked, and risk management capabilities related to these products are also located onshore. ESMA has issued similar recommendations concerning substance to converge the NCAs approach to incoming U.K. investment firms.<sup>36</sup> Overall, while receiving their EU authorizations, U.K. banks (and investment firms) agreed with the ECB and their NCA on a timeline to reach their target operating model with products and transactions that have an EU nexus, as to be clarified during the supervisors’ desk mapping review.<sup>37</sup> It is yet to be seen whether and how the ECB’s ongoing review of options and discretions policies will affect intra-group exposures, currently exempt from large exposure limits under many EU27 banking laws, subject to certain conditions. Also, the U.K. authorities and banks expect that the new EU requirements on intermediate parent undertaking (IPU) for third country firms starting from end-2023 could lead to costs associated with this change (i.e., capital requirements at the level of new EU entities), but not a disruption. Finally, the EU has recently indicated that it is considering the need for more EU harmonization of the regulatory framework for third country branches.<sup>38</sup> If adopted, these regulatory changes could lead U.K. and international groups to reassess their use of branches in the EU.

## 2. Investment Funds and Asset Management

**38. The United Kingdom has been an important market for EU investment funds and is the largest asset management market in Europe.** Many EU-based retail funds were marketed into the U.K. based on passporting and some EU-based open-ended funds, investment trusts, ETFs, hedge funds and money market funds (MMFs) or their managers delegate the management of their portfolios to U.K. firms. U.K. asset managers manage around £3.7 trillion of investment fund assets as of end-2020,<sup>39</sup> and 63 percent of this figure sits with funds domiciled overseas, mainly in Ireland and Luxembourg, indicating an 11 percentage point increase since 2015 as U.K. asset managers transferred EU clients to overseas funds as part of their Brexit preparations.<sup>40</sup>

<sup>34</sup> [EBA Opinion on Brexit Issues \(EBA-Op-2017-12\).pdf \(europa.eu\)](#).

<sup>35</sup> See the speech by Edouard Fernandez-Bollo, member of the Supervisory Board of the ECB on September 28, 2021, in which he noted that the ECB had given entities time to adapt, and that the ECB was “now following up with the banks to see how they have adapted to European banking supervision and to ensure that they meet our supervisory expectations.”

<sup>36</sup> ESMA [Opinion to support supervisory convergence in the area of investment firms in the context of the United Kingdom withdrawing from the European Union \(europa.eu\)](#).

<sup>37</sup> ECB Annual Report on Supervisory Activities, March 2021, “Post-Brexit, ECB Banking Supervision will continue to monitor banks’ implementation of their TOMs and focus on key supervisory issues that may arise from the transition to the new regime”, par. 1.2.7.

<sup>38</sup> Commissioner McGuinness, Bank Regulation – Moving Beyond the Post-Financial Crisis Agenda, Keynote speech 2021 ECB Forum Banking Supervision, November 11, 2021

<sup>39</sup> The total size of managed assets within the wider industry is estimated to be around £11.0 trillion in 2020 according to the Investment Association’s Annual Survey for 2021 ([IMS report 2021.pdf \(theia.org\)](#)).

<sup>40</sup> See the Investment Association’s Annual Survey in footnote 34. According to [ESMA’s Annual Statistical Report 2021](#), UK firms manage 20% net assets of the EU’s AIFs, where in the specific category of hedge funds, this 76% of net hedge-fund assets originated from the United Kingdom.

**39. The U.K. authorities have taken measures to minimize any disruption to the marketing and management of EU-domiciled funds in the United Kingdom.** A temporary marketing permissions regime ensures the continuity of marketing of more than 8000 retail funds, including MMFs, in the United Kingdom until the end of 2025. EU alternative investment funds aimed at professional investors could also benefit from the temporary marketing permissions regime before registering under the National Private Placement Regime. As an alternative to the existing FSMA recognition gateway for non-U.K. funds (Section 272), the United Kingdom will introduce an Overseas Funds Regime (OFR) allowing overseas retail investment funds, including sub-funds and MMFs, to be marketed to retail and professional clients where HMT has made a jurisdictional equivalence decision. With this, the United Kingdom has expanded the scope of its equivalence framework to include a mechanism for assessing overseas jurisdictions for the purposes of allowing the inbound marketing of funds to retail clients, which is not the case in the EU. While the lack of equivalence from the EU has not had a material impact on U.K. asset management firms and markets following the work undertaken by U.K. authorities and industry to mitigate risks before the end of the transition period, there appears still some consequences absent such equivalence. For instance, it is more difficult for EU-based UCITS to comply with their national rules when investing in transferable securities dealt on U.K. markets, investing in U.K. UCITS, or depositing money with U.K. banks.<sup>41</sup> Moreover, U.K. asset managers acting on behalf of EU funds that are subject to the EU derivatives trading obligation (DTO) may have had difficulties when trading in-scope derivatives with U.K. firms that are subject to the U.K. DTO,<sup>42</sup> although the FCA has clarified that transactions concluded by an EEA UCITS fund or an EEA alternative investment fund (AIF) are currently outside the scope of the U.K. DTO.

**40. The asset management industry sees the continuity of the current delegation model as critically important for the asset management industry globally, and the investors they serve.** The largest U.K. firms have typically established EU-authorized companies to manage EU-based investment funds. The ability of such EU-based funds and their managers to continue to delegate portfolio management or risk management to a U.K. based manager is facilitated by a 2019 Multilateral Memorandum of Understanding between the FCA and National Competent Authorities (NCAs). The EC's proposal<sup>43</sup> of November 25, 2021, on amendments to the AIFMD and UCITS Directives, allows delegation to continue, and put forward some additional requirements in terms of supervision and administration.

## Impact on Markets

**41. Absent cooperative solutions, market fragmentation risks remain in some areas post-Brexit.** Market fragmentation can reduce the efficiency of global financial markets and increase

<sup>41</sup> [IRSG-Full-report-The-EUs-third-country-regimes-and-alternatives-to-passporting.pdf](#)

<sup>42</sup> [Impact-of-Brexit-on-the-Derivatives-Trading-Obligation.pdf \(isda.org\)](#)

<sup>43</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021PC0721>

costs. In other cases, such inefficiencies may also adversely affect global financial stability, for example if it significantly impairs market liquidity in periods of stress.

### Box 3. Passporting and Integrated Services

**The United Kingdom is a prominent market for corporate lending, such as syndicated loans.** Prior to the end of the transition period, a CRD passport enabled UK firms to lend to EU27 clients from the United Kingdom, regardless of whether corporate lending is a regulated activity in the relevant member state. This activity typically involves holding bank accounts as well, for payments or security purposes. Post-transition, deposit taking requires authorization in EU27 countries, and member state regulation may also apply to lending services. Prior to the end of the transition period U.K. firms also helped the EU27 borrower manage the currency or interest rate risk with derivatives transactions, and absent a MiFID passport, local laws now define if U.K. banks can provide such services.

**As part of their investment banking business, U.K. banks engage with EU firms (financial and non-financial) on their own account or as intermediaries on a cross-border basis.** This may include interdealer, as well as dealer to customer engagements. With a MiFID passport, U.K. firms could transact with the EU counterparties for the trading of equities and bonds, as well as exchange-traded or OTC derivatives, facilitating the risk management of counterparties; securities financing transactions (including repo and stock lending transactions); commodities trading (spot and derivatives trading); and sales of non-retail structure products. Portfolio management and investment advice are other activities falling under the MiFID passport. Post-transition and in the absence of a MiFIR Article 47 equivalence assessment, authorization in relevant member states is required where activities fall within the regulated sphere of that Member State

**Securities issuances typically involve multiple parties and passports.** Prospectuses approved by an EU27 NCA could be passported to another EU27 jurisdiction to issue securities. Post-Brexit, securities issuance in the United Kingdom would require FCA-approved prospectus, unless the issue targets institutional investors or benefit from prospectus exemptions. For asset-backed securitizations, a MiFID passport allowed U.K. banks or investment firms to arrange the transaction for EU clients and place securities with EU investors, investment, or collateral managers to manage the underlying assets, and swap counterparties to enhance the risk profile of the collateral assets. To rate a securitization's tranches, pre-Brexit rules allowed the use of ratings by EU CRA's freely, but this would require a certification of the EU CRA by the FCA (absent an endorsement by a U.K. CRA of the rating), an option made available because of the UK's unilateral equivalence decision to the EU.

**Post-Brexit, the ability of U.K. firms to engage with EU counterparts on a cross-border basis for the above purposes would depend on EU27 laws.** In general, member states can be more permissive in relation to corporate lending. They seem to be restrictive in relation to investment services, and even so, member states can differ from each other. Absent equivalence or a national exemption, reverse solicitation, or back-to-back transaction could be other options, but each presents separate regulatory questions (e.g., see ECB expectations about substance and booking models).

Source: Prepared by taking into account UK Finance, Serving Europe: "Navigating the legislative landscape from outside the single market" (Serving Europe: Navigating the legislative landscape from outside the single market | UK Finance) and Practical Law UK Practice Notes on Brexit and Structured Finance, and on Brexit and Corporate Lending.

**42. A good example is the impact of the U.K. and EU share trading obligation (STO) in their respective MiFID/MiFIR regulations.** The STO requires investment firms to trade locally listed or traded shares on domestic trading venues or trading venues in jurisdictions deemed equivalent. Before Brexit, EU-listed or traded securities were traded heavily at U.K. trading venues which offered deep liquidity pools for a range of securities traded by U.K. and EU firms. Absent an EU equivalence determination for U.K. venues, the EU STO does not permit EU trading firms post-Brexit to trade in EU shares on U.K. venues (unless—as clarified by ESMA—shares are denominated in sterling).<sup>44</sup> For the U.K. STO, a transitional relief by the FCA allows U.K. participants to continue trading all shares on

<sup>44</sup> The scope of EU STO was clarified by ESMA, Final Position on Share Trading Obligation, October 26, 2020.

EU venues with relevant permissions.<sup>45</sup> This has allowed U.K. firms to continue accessing EU liquidity pools. In parallel, the U.K. government has said it will seek to legislate to remove the U.K. STO. As regards the EU STO, the EC has proposed<sup>46</sup> legal amendments to streamline the STO—along the lines of the earlier ESMA clarification—so that it only applies to shares with a primary listing in the EU and not to EU shares traded on a third country venue with a local currency denomination. This difference in obligations for U.K. and EU firms led to a shift of trading in EU shares from U.K. venues to EU venues, mostly to Amsterdam, after the end of the transition period.<sup>47</sup>

**43. The DTO is another example.** Both U.K. and EU laws require certain counterparties to trade some classes of derivatives—typically the most liquid interest rate swaps and credit default swaps—on local venues, or equivalent third country trading venues. Without mutual equivalence, the EU DTO and U.K. DTO respectively would prevent firms using venues in the other’s jurisdiction and create conflicting obligations for some firms, for example branches of EU firms operating in the United Kingdom.<sup>48</sup> To minimize disruption and liquidity fragmentation, the FCA has granted a time-limited and targeted relief allowing U.K. firms to trade in-scope derivatives on EU trading venues to which they have access, albeit subject to conditions, including that the client has no access to an equivalent non-EU country venue to satisfy U.K. and EU DTO.<sup>49</sup> The United Kingdom is considering the introduction of standing powers allowing the suspension or modification of the DTO, if needed. Similarly, the EC has proposed amendments to enable the suspension of the DTO in cross border relationships, when necessary, i.e., when conflicting trading obligations in two jurisdictions prevent an EU counterparty to enter a derivatives contract with a non-EU counterparty.

**44. Market intelligence demonstrates that in-scope derivatives trading moved from U.K. trading venues to EU and US trading venues, which hold equivalence decisions from both parties.** Reports<sup>50</sup> indicate the market share of all EUR IRS trading on U.K. venues (MTF/OTF) declined from July 2020 to June 2021, while the share of EU and US venues increased (see Figure 1). Overall, across EUR, GBP and USD, more trading moved to US SEFs than EU venues. US SEFs also saw an increase in EUR CDSs trading.<sup>51</sup> The FCA has not observed, and market sources have not indicated, any significant deterioration in U.K. market participants’ ability to source liquidity in the United Kingdom or overseas.

<sup>45</sup> FCA Statement on the Share Trading Obligation, November 4, 2020.

<sup>46</sup> See [2021 Capital Markets Union package \(europa.eu\)](https://ec.europa.eu/economy_finance/2021-capital-markets-union-package_en).

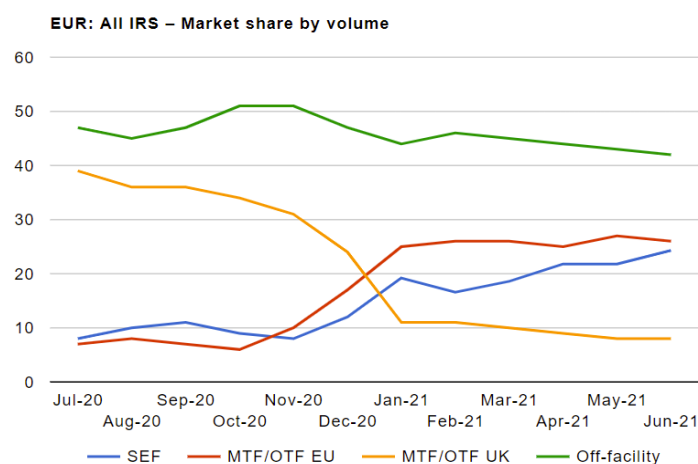
<sup>47</sup> The FCA clarified that “[s]hares of EU issuers who have sought admission to trading in the UK and whose shares are traded here in euro will also be regarded as illiquid and subject to the pre-trade and post-trade Large-in Scale thresholds associated with having an [Average Daily Turnover] of under 50,000 until further notice.” ([Supervisory Statement on the Operation of the MIFID Markets Regime after the end of the EU \(fca.org.uk\)](https://www.fca.org.uk/news/statements/supervisory-statement-on-the-operation-of-the-mifid-markets-regime-after-the-end-of-the-eu)).

<sup>48</sup> ISDA, Brexit: Impact on the derivatives trading obligation and the characterization of OTC derivatives in the EU and the UK, September 14, 2020, page 11. This could even affect in-scope trades between two UK firms trading on an EU venue or if one of them is managing an investment fund that is subject to the EU DTO (or vice versa).

<sup>49</sup> Statement on the review of the FCA approach to the UK’s derivatives trading obligation.

<sup>50</sup> OSTTRA, Brexit impact on trading location, Global OTC IRS markets Q2 2021 and Deloitte, IHS Markit, European Capital Markets, the regulatory considerations for BOEs as they move beyond Brexit, page 10.

<sup>51</sup> [Latest EUR Swaps market share for CCPs and SEFs | clarusft.com](https://www.clarusft.com/news/latest-eur-swaps-market-share-for-ccps-and-sefs/), indicating that the percentage of global EUR CDS trade taking place on US SEFs increased from less than 30% in 2020 to the bracket of 55-60% in August 2021.

**Figure 1. United Kingdom: Change in EUR IRS Market Share**

Source: OSTTRA Brexit Impact on Trading Location: Global OTC IRS Markets - Q2 Review 2021.

**45. Overlapping requirements applying to cross-border trades can also create inefficiencies post-Brexit.** For the effective oversight of markets and systemic risk, EMIR and SFTR require the reporting of derivatives and securities financing transactions to a trade repository (TR) or a recognized third country TR, based on equivalence. Following Brexit, U.K. counterparties are required to report to a FCA-registered or recognized TR and EU counterparties are required to report to an ESMA registered or recognized TR under the respective regimes. Given the scope of the different reporting regimes, this can lead to certain firms being subject to overlapping reporting requirements. A similar transaction reporting requirement exists under MiFIR with respect to financial instruments. The United Kingdom has introduced a temporary registration regime for EU trade repositories. Broad alignment of reporting requirements has limited the impact of Brexit on regulatory reporting, but markets appear cautious about the potential impact of possible future divergence between U.K. and EU regimes.

**46. There are other areas where the interaction between U.K. and EU rules presents some misalignments, although the impact is currently limited.** For instance, EMIR exempts, subject to equivalence, certain intragroup OTC derivatives transactions with a third country from the clearing and margin obligations. Currently, the United Kingdom has issued a unilateral equivalence decision, and the EU has provided a temporary exemption (until June 2022 for the present). Absent permanent solutions by both parties, the cost of risk management by cross-border groups may increase. As a separate matter, without equivalence, ETD derivatives concluded on U.K. venues would qualify as OTC derivatives under EU EMIR after Brexit. This might cause small financial firms and non-financial EU firms to exceed clearing thresholds and thus incur additional costs.

**47. The industry prepared for the implications of Brexit on bond markets.** EU27 typically consider EU banks for primary dealership to issue their sovereign debt and act as market-makers.

There has therefore been a relocation of some primary dealerships from U.K. banks to EU banks,<sup>52</sup> but U.K. banking groups continue this activity through their EU subsidiaries and branches, if so, designated by EU27. So far, the industry indicates no material change in U.K. banks' share of EU corporate bond bookrunning activity and any shift of listing, since institutional investors seem insensitive to the listing venues in international debt capital markets. Further, wholesale bond issuances typically benefit from various prospectus regulation exemptions. In secondary markets, bonds are not subject to a trading obligation like shares and derivatives. However, as part of the ECB expectations on EU products and clients, U.K. banks are moving some trading and risk management capabilities in relation to EU sovereign bond operations to the EU.

## Impact on CCPs

### **48. Third country CCPs' access to local clearing members and trading venues is subject to a recognition decision, based on equivalence, under both the United Kingdom and EU EMIR.**

Equivalence applies to the relevant jurisdiction, while recognition is granted to individual CCPs and covers all their services, including derivatives where applicable. Indeed, central clearing is mandatory for certain classes of OTC derivative contracts.<sup>53</sup> This is a key element of the G-20 post-financial crisis derivatives reform agenda, and increases market transparency, mitigates credit risks, and reduces the risks of contagion in the event of the default of one or more participants in a CCP.

**49. In the run up to Brexit the U.K. authorities identified and addressed the risks in relation to EU CCPs' access to the United Kingdom.** In November 2020, HMT granted CCP equivalence to the EU. The temporary recognition regime enables EU CCPs to continue providing services until December 31, 2023, to U.K. clearing members, while these CCPs apply for recognition.<sup>54</sup> Similarly, a temporary designation regime ensures that overseas FMIs (including CCPs) and any system that was previously covered by the EU's SFD continues to benefit from the United Kingdom's settlement finality protection, subject to their application for permanent designation.<sup>55</sup>

**50. For its part ESMA recognized three U.K. CCPs, conditional on an EC determination that the U.K. regulatory framework for CCPs is equivalent to the EU framework.** Two of these CCPs are classified as systemically important Tier 2 CCPs, and therefore subject to dual supervision by the BOE and ESMA. In its equivalence decision, the EC stated it was temporary because of the high concentration of the clearing of euro-denominated OTC interest rate derivatives in a single Tier 2 U.K. CCP.<sup>56</sup> The EC deems this concentration to entail financial stability risks and has a "clear

<sup>52</sup> While they do not routinely track for non-UK jurisdictions, the U.K. authorities note—based on ESMA and AFME lists—that the number of UK primary dealers for France reduced from 11 of 19 in 2015 to 8 of 19 in August 2021. For Germany, the number of UK primary dealers reduced from 14 of 37 in 2015 to 8 of 32 in August 2021.

<sup>53</sup> The UK has onshored EU Regulation, EU/2019/834, through eight Statutory Instruments including notably the OTC Derivatives, Central Counterparties and Trade Repositories (Amendment, etc., and Transitional Provision) (EU Exit) Regulations 2020 (UK EMIR REFIT).

<sup>54</sup> The Central Counterparties (Amendments, etc., and Transitional Provision) (EU Exit) Regulations 2018 as amended. HMT can extend the duration of the TRR in increments of up to twelve months each.

<sup>55</sup> Financial Markets and Insolvency (Amendment and Transitional Provision) (EU Exit) Regulations 2019; ending on December 31, 2023.

<sup>56</sup> Recital 3, Commission Implementing Decision, EU 2020/1308, of September 21, 2020.



**clearing.** The U.K. authorities note that the legal permission of U.K. CCPs to offer services in the EU is ultimately a decision for the EU authorities. From a global financial stability perspective, it is prudent for the U.K. authorities to continue monitoring and, where appropriate, continue to stand ready to engage with the EU regarding the regulatory status of U.K. CCPs. Beyond the U.K.-EU relationship, a broader concern is that increased costs to clear OTC derivatives in case of market fragmentation—due to loss of multi-currency netting benefits, higher margin requirements, and concentrations in fragmented local markets—may create pressures globally to relax the clearing mandate, a key post-GFC reform that is important for financial stability.

## **Impact on Cross-border Cooperation on Supervision and Resolution**

### ***Cross-border Cooperation Frameworks***

#### **54. Brexit has fundamentally changed the nature of cross-border cooperation arrangements on resolution and supervision between the United Kingdom and the EU/EU27.**

This change means that parties will now cooperate outside the EU's legal structure and hence on the basis the United Kingdom does with other jurisdictions. Given the existing interconnectedness, the U.K. authorities' cooperation with the EU/EU27 for the supervision and resolution of banks and CCPs is of global relevance.

**55. Cooperation between the United Kingdom and EU is no longer a mutually binding legal obligation.** The principle of "sincere cooperation" under Article 4(3) of the Treaty on the EU, as well as the multitude cooperation obligations in EU supervision and resolution frameworks regarding notification, consultation, information sharing, and recognition, all no longer apply legally between the United Kingdom and EU/EU27. Institutionally, the United Kingdom is withdrawn from the European System of Financial Supervision.

**56. The U.K. authorities note their commitment to strong cooperation with overseas jurisdictions, including the EU.** This is reflected in a mix of statutory requirements and provisions, and published approaches to supervision across different sectors. U.K. authorities also indicated their commitment to adhering to international principles and guidance on cooperation.

**57. In line with the U.K. authorities' statutory cross-border cooperation mandate on supervision and resolution, an extensive network of MoUs and institution-specific arrangements have been put in place to underpin the United Kingdom's current cooperation U.K.-EU/EU27.** To facilitate cooperation and information-sharing<sup>61</sup> for supervision and resolution, the BOE, PRA and FCA have agreed over 30 MoUs with EU institutions and agencies (ECB, SRB, and ESAs), and NCAs. With reference to institutions, the PRA has agreed Split of Responsibility (SoR) agreements with all EU authorities responsible for supervising firms with a branch in the United Kingdom. As home authorities, the PRA and BOE respectively chair supervisory colleges and CMGs for U.K. G-SIBs and CCPs, also involving EU/EU27 authorities, and participate in supervisory colleges

<sup>61</sup> As a less formal agreement, an "Exchange of Letter" facilitates cooperation, but falls short of sharing confidential information.

and CMGs set up for four EU-GSIBs and EU CCPs.<sup>62</sup> The BOE is additionally an observer in resolution colleges of some EU banks. Beyond the formal setting of colleges, U.K. regulators have regular bilateral calls, including at the level of senior officials, with their EU counterparts.

**58. Existing international fora provide further opportunities for cooperation.** This includes the work under international standard setting bodies, notably the BCBS, FSB, the IAIS, and IOSCO.<sup>63</sup> Supervisory colleges and CMGs for 14 G-SIBs from the RoW (namely, from the United States, Japan, and Switzerland), enable host-to-host cooperation between the U.K. and EU. A Trilateral Principal Level Exercise regularly brings together the authorities responsible for GSIB resolution from the EU, United Kingdom, and United States.

### ***Cross-border Supervision***

**59. Overall, the U.K. framework provides a strong legal basis for cooperation with all other jurisdictions, including the EU/EU27.** FSMA requires U.K. regulators to cooperate with other bodies, including in overseas jurisdictions, which have functions like those of the U.K. regulators, including functions in relation to market integrity and financial stability (Section 354A, 354B, and Section 23A of Schedule 17 of FSMA). As reflected in their supervisory approach,<sup>64</sup> the BOE, PRA, and FCA see effective cross-border cooperation as necessary for the advancement of their statutory objectives, given the United Kingdom's interconnectedness globally. If requested, the U.K. regulators can assist a foreign regulator by obtaining information or appointing an investigator. HMT Regulations provide legal gateways to exchange non-public information with overseas authorities, subject to certain confidentiality safeguards.

**60. Cross-border supervisory cooperation in relation to banks works well between the U.K. and EU/EU27 authorities.** The U.K. FSAP TN on Banking Supervision and Regulation assessed the U.K. authorities' cross-border cooperation with their EU counterparties as generally effective. It is also observed that supervisory cooperation in responding to the COVID-19 pandemic was effective. Going forward, the parties' continued willingness to cooperate will be key to ensure that exchange of information and cooperation is seamless given the change from earlier intra-EU cooperation to cooperation in line with their cooperation with other countries.<sup>65</sup>

**61. The BOE and ESMA have concluded an MoU on cooperation for the recognition and supervision of U.K. CCPs.** The MoU is a statement of intent to consult, cooperate and exchange

<sup>62</sup> For incoming CCPs, the BOE engages bilaterally with EU authorities, some of which have invited the BOE to join their planned global college meetings.

<sup>63</sup> The United Kingdom is also a signatory of the Multilateral Memorandum of Understanding Concerning Consultation and Cooperation and the Exchange of Information (MMoU) under IOSCO, which also enables cooperation with some EU27 on issues covered under the MMoU.

<sup>64</sup> See PRA's Supervisory Statement 5/21 "International banks: the PRA's approach to branch and subsidiary supervision" and FCA's February 2021 document "Approach to international firms".

<sup>65</sup> For instance, MoUs may involve procedural steps (e.g., most UK-EU supervisory MoUs envisage a written request process unless an urgent or material matter), or while permitting the onward sharing of information with an ex-post notification with some authorities, this may not be the case for some other usages (e.g., there is no explicit provision about sharing with clearing houses or with the Competition and Markets Authority).

information with respect to the three U.K. CCPs. The BOE and ESMA are committed to maintaining robust standards for the regulation and supervision of U.K. CCPs and the BOE has primary oversight over them. ESMA focuses on risks related to inter-linkages to the EU financial system, and risks to the EU financial system or a EU27. The MoU details the cooperation between the parties and contains provisions covering how the authorities will attempt to resolve disagreements should they arise. In extremis, it also allows either party to deny cooperation in limited and clearly specified cases (i.e., national interest or insofar as cooperation would run counter to legal/regulatory requirements or statutory objectives). In practice, so far, such provisions have not been needed.

**62. While MoUs with EU/EU27 authorities cover a wide range of areas, it is advisable to monitor any potential residual cooperation gaps, and take mitigating actions, where available.** For instance, NCAs are required to share with each other as well as ESMA and the ESRB certain data on alternative investment funds' activities, while the United Kingdom and EU are not required to share this information with each other<sup>66</sup> after Brexit.<sup>67</sup> These requirements are designed to facilitate information sharing between EU authorities and do not apply to third country authorities. The FCA considers that it has a range of mechanisms in place to mitigate this potential gap. These include notably regular engagement with EU counterparts and the ability to share relevant data by virtue of the various MoUs that have been agreed. Mitigating measures may also include, as mentioned in the U.K. FSAP TN on Managing Vulnerabilities in Market-Based Finance in the context of data gaps, further data sharing agreements with regulators in funds' domiciles, as appropriate. However, access to relevant data might not be as timely and comprehensive as before. Similarly, while PRA and the BOE have not witnessed significant changes after their member status turned into an observer in colleges, so far there have only been a limited number of colleges post-Brexit. The PRA and BOE are already monitoring and should continue to monitor how their new observer status will affect the authorities' involvement in various tasks and information exchange, which is subject to the agreement of college members.

### ***Cross-border Resolution***

**63. Since the GFC, both the United Kingdom and EU have taken steps to build their resolution frameworks, ensuring both jurisdictions have powers to resolve failing banks.**<sup>68</sup> A similar development is taking place in relation to CCP resolution, as the EU recently adopted its CCP Recovery and Resolution Regulation, while HMT published a Consultation Paper (Expanded Resolution Regime: Central Counterparties) in February 2021 on improvements to its existing CCP resolution regime. Both the U.K. and the EU regimes include a statutory framework allowing—under similar conditions—the recognition of foreign resolution actions and promotes contractual mechanism for the recognition of the bail-in and temporary stay of early termination rights governed by third country laws. At an operational level, there is progress in resolution planning, and

<sup>66</sup> See [ESMA Annual Statistical Report on EU Alternative Investment Funds, page 5](#).

<sup>67</sup> See FCA's [EU Withdrawal Impact Assessment, pages 17-18](#).

<sup>68</sup> For a detailed assessment and recommendations, please refer to UK FSAP TN on Financial Safety Net and Financial Crisis Preparedness (2022), and the Euro Area FSAP TN on Bank Resolution and Crisis Management (2018).

both U.K. and EU authorities are investing heavily in improving resolvability.<sup>69</sup> This should instill confidence in each other's legal capacity to deal with a failure, and thus supports cooperative approaches.

**64. While the automatic recognition of EU resolution actions in the United Kingdom (and vice versa) has ended, the BOE's mandate for cross-border cooperation with the EU remains strong.** The law requires the BOE to consider the impact of stabilization powers on the financial stability of overseas jurisdictions where a group operates. A corresponding EU level requirement exists only in relation to the recovery and resolution of CCPs. Insofar as a resolution action would be broadly comparable to the outcomes and objectives of a stabilisation option under the U.K. regime, the BOE will recognize an overseas jurisdiction's resolution action, subject to HMT approval, absent specified refusal grounds like those in the BRRD and in line with the FSB Key Attributes. It can further give effect to foreign resolution measures through supporting actions, including supervisory approvals, and the use of its resolution powers or inaction (i.e., no automatic trigger for resolution). Subsequent paragraphs discuss various issues that have become more relevant in United Kingdom's cooperation with EU on resolution matters. However, this TN does not make any specific recommendations as the underlying issues are of general nature going beyond U.K./EU cooperation. For the respective recommendations, please see the U.K. FSAP TN on Financial Safety Net and Financial Crisis Preparedness.

**65. Going forward, the BOE's use of its recognition powers will be key to give effect to EU actions.** This is relevant for instance: (i) to the recognition of the bail-in of EU banks' legacy liabilities subject to English law without a contractual recognition clause; (ii) to give effect to measures for operational continuity under contracts subject to English law, including maintaining access to U.K. FMs, or the provision of critical services; and (iii) for early termination of financial contracts not already covered by the ISDA Protocol (or similar). The BOE sees no impediment to deliver its recognition promptly, so long as it is approached in a timely manner. The BOE's planned guidance on the United Kingdom's recognition regime is welcome from that respect.

**66. Further guidance could be useful on the scope of overseas jurisdictions' resolution actions subject to the BOE's recognition powers.** Recently, U.K. courts confirmed that the Cross-Border Insolvency Regulations 2006 (CBIR 2006) can apply to recognize or assist EU bank insolvency proceedings.<sup>70</sup> Although the BOE does not have a statutory role in CBIR applications, it could be given a right to be heard in case of a risk to its resolution objectives and actions (including a possible pending statutory recognition). Further, while recognizing that foreign authorities will likely seek the BOE's recognition and engage with the BOE prior to any court application, the BOE could nevertheless clarify its interpretation of an overseas jurisdictions' resolution actions, since a foreign action could potentially qualify both as a foreign insolvency proceeding under the CBIR and be comparable to a U.K. stabilization option (e.g., when assets and liabilities are transferred under a

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<sup>69</sup> These operational aspects are not discussed in this note; see the Crisis Management TN for an in-depth discussion.

<sup>70</sup> In the Matter of Greensill Bank AG, [2021] EWHC 966 (Ch).

foreign insolvency proceeding), thereby creating potential legal uncertainty over which proceeding will apply. This uncertainty has not however been borne out in practice to date.

**67. The SRB and the PRA have clarified the treatment of liabilities issued under EU27 law and English law respectively for MREL purposes.** Given the BRRD's requirements on contractual recognition of bail in, Brexit raised a question whether EU banks' liabilities governed by English law would be eligible for MREL (absent a recognition clause). The SRB considers such liabilities to be eligible until June 2025, in case they have been issued on or before November 15, 2018.<sup>71</sup> This is not a substantive issue for U.K. banks, as their liabilities governed by EU27 laws are not sizable.<sup>72</sup> Still, the PRA has clarified that the contractual recognition clause requirement for MREL and (temporary stays) does not generally apply to liabilities governed by EU27 law and created before the end of the transition period (unless materially amended afterwards). The PRA also delayed the obligation to include a contractual recognition of a bail-in term in new or materially amended phase two liabilities (i.e., liabilities other than unsecured debt instruments and regulatory capital instruments) governed by EU law until the end of the TTP period.

**68. In line with good practices, the BOE (with the approval of HMT) can independently resolve the U.K. branch of an overseas jurisdiction's bank, if no co-operative solution exists to protect the United Kingdom's public interest.** While maintaining the current backstop approach (which relies on the home country resolution authority), it may be useful to develop further internal guidance on branch resolution, as several systemic EU branches will continue to engage in wholesale activities in the United Kingdom.

**69. There may still be cases where the EU and United Kingdom's incentives may be misaligned due to the possibility of divergent action that may arise in any cross-border resolution, and CMGs present a forum to discuss such issues.** After Brexit, both the U.K. and EU respectively treat deposits held with third country branches of their banks, consistently with other third countries. While the PRA and BOE consider such resolution-related issues during authorization, and the SPE strategy with adequate loss absorbency is designed to avoid imposing losses on depositors, particularly where powers are applied at holding company level, this ranking has a residual possibility of creating incentives for unilateral action, as already noted in the 2016 FSAP.

**70. Overall, the existing cross-border arrangements constitute a good basis for cooperation with the EU on resolution and crisis management, but their true value will be tested during times of distress.** These arrangements can help cooperation during resolution planning (e.g., for the clear allocation of internal TLAC/MREL within a cross-border group as well as relevant triggers), resolution implementation, and while managing a crisis (e.g., communication arrangements between home and host authorities). Yet, experience suggests that MoUs work well

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<sup>71</sup> To ensure alignment with the prudential grandfathering of the requirement to introduce contractual recognition clauses in own funds instruments provided for in Article 494b CRR. See the SRB's communication on its approach to eligibility of U.K. law instruments without bail-in clauses after Brexit, March 22, 2021 ([files.europa.eu](https://www.europa.eu))

<sup>72</sup> Around 60% of MREL-eligible debt issued by UK banks is governed by U.S. law; issuance under other non-UK and non-US law contracts make up less than 5 percent.

during normal times, but challenges can arise during crisis times.<sup>73</sup> While communication lines between resolution authorities remain open during a crisis, ultimate decisions will likely involve political factors, informed by, *inter alia*, the distribution of losses to local creditors and fiscal risks. This demonstrate the need for mutual trust, which is key for cooperative cross-border resolutions. Moreover, some supervisory crisis management tools are new and untested in a cross-border context. For example,<sup>74</sup> the United Kingdom and EU EMIR Regulations allow the supervisor to suspend the clearing obligation for a specific class of OTC derivatives or a specific type of counterparty in well-defined situations (notably serious threats to financial stability or the orderly functioning of financial markets). The way this power could be used in a cross-border context (e.g., if the problems affect mostly clearing members in one jurisdiction and not in others, or only certain instruments denominated in a particular currency) is unclear. The effective implementation of such measures would require a high degree of trust and cooperation, and indeed also involving the relevant authorities globally (i.e., not only between the United Kingdom and EU).

## Impact on Rest of the World

**71. The impact of Brexit on RoW financial firms has so far been modest and there has not been a discernable risk to financial stability.** This was the result of the U.K. authorities' pro-active measures to minimize the impact on RoW firms by onshoring EU law and the existing EU equivalence determinations vis-à-vis RoW jurisdictions, and putting in place temporary regimes (e.g., the Temporary Recognition Regime). An overview of EU equivalence decisions in place demonstrates that RoW jurisdictions benefit from more EU equivalence decisions than the United Kingdom.<sup>75</sup> As a member of the EU, the United Kingdom had benefited from deference decisions for the EU made by third countries, and the authorities note that in many cases such countries have extended their deference arrangements to the United Kingdom after the United Kingdom's departure from the EU. Following Brexit, the United Kingdom has been pursuing its own deference decisions with overseas jurisdictions, notably the United States and Switzerland. The United Kingdom is actively pursuing free trade agreements with RoW jurisdictions and recently agreed a new FTA with Australia.<sup>76</sup> Brexit has not changed the formal status of the British Overseas Territories in terms of access to the EU and U.K. markets. Finally, while some RoW jurisdictions have been advertising their attractiveness having access to both U.K. and EU markets, so far there is limited evidence of major relocation of financial transactions or firms to RoW jurisdictions (except for some IRS trading and CDS clearing moving to the US, as discussed above). However, in the event of further market fragmentation between the United Kingdom and EU, additional relocation cannot be excluded.

**72. Brexit has resulted in an expansion of the U.K. authorities' cooperation with RoW jurisdictions.** The BOE, PRA and FCA already had well-established agreements and relationships with authorities outside the EU. These continue to be effective as they did not rely on cooperation

<sup>73</sup> See IMF Policy Paper, Cross-Border Resolution Recent Developments, February 6, 2016, Volume 2014, issue 011.

<sup>74</sup> Dermot Turing, "Clearing away after Brexit?", Journal of Financial Market Infrastructures, 2021, 9(3), pages 1-17.

<sup>75</sup> See [EC equivalence decisions overview table as per](#) February, 10, 2021.

<sup>76</sup> For example, New Zealand. The free trade agreement with Singapore includes a MoU which seeks to reduce burdens for firms operating in both markets through deference based on outcomes.

agreements between the EU and RoW jurisdictions. However, Brexit resulted in updating or establishing (or in the process of establishing) new agreements for various reasons, including: (i) to reflect the fact that EU law ceases to apply in the United Kingdom (see the MoU between the SEC and the FCA); (ii) in view of the U.K. authorities' new responsibilities assumed from the EU authorities (such as the supervision of credit rating agencies), and (iii) recognizing/registering overseas firms under the onshored EU law (e.g., overseas CCPs, CSDs, and trade repositories).

**73. Where existing agreements are not sufficient, it is important to establish new agreements in a timely manner with RoW jurisdictions to further strengthen cooperation.**

Establishing these agreements is not under the sole control of the U.K. authorities. For the recognition processes for overseas CCPs and CSDs, the BOE will need to agree new cooperation agreements with all applicant jurisdictions. See also the U.K. FSAP TN on Bank Supervision and Regulation for the recommendation to put in place arrangements with other home state supervisors as well.

## OPEN BANKING IN THE UNITED KINGDOM: PERSPECTIVES AND CHALLENGES<sup>77</sup>

### A. The Case for Open Banking

**74. Information sharing has always played an important role in finance.** Information about borrowers is essential for banks to gauge the risks they take when offering a loan. Obtaining this information thus represents a key challenge for banks that lack it, and a key opportunity for banks that have it. It also has implications for market structure and competition.<sup>78</sup> The core information needed for conducting these assessments has traditionally been captured in data that records an individual's financial transactions, deposit account and loan balances, and loan repayment performance. Since the late 1800s, information sharing in the financial sector has usually involved data being intermediated by credit bureaus (Jappelli and Pagano, 2002). In some countries, credit bureaus arose as a market-based solution to alleviate information asymmetries, with operating costs borne by financial institutions. In others, laws or regulations require banks to share their clients' data with the credit bureau. Underpinning these approaches is the recognition of the value of data in finance, and the importance of data sharing to enable accurate risk assessment.

**75. Open banking is emerging as a solution to improved information sharing in finance.**

Over the past three years, open banking frameworks have been adopted in jurisdictions including Australia, Brazil, the European Union, India, Mexico, Singapore, and the United Kingdom, changing how data and information flow in the financial system: who has it, who doesn't, and who decides. While there are variations across jurisdictions, a common aspect is that open banking grants

<sup>77</sup> This chapter was prepared by Vikram Haksar (IMF).

<sup>78</sup> Once firms have invested in the upfront costs to gather data, this provides them with a competitive advantage, and a disincentive to share this willingly with others impeding competition. The upfront costs also represent a 'barrier to entry' for new entrants wishing to compete with incumbents.

consumers the right to control who gets access to their financial data and provides an operational setting to exercise that right.

**76. Open banking can stimulate competition and innovation.** It is motivated by the recognition that enabling access to data across incumbents and new competitors can facilitate entry, competition, and innovation through new and better products and services.<sup>79</sup> Open banking involves many facets and approaches vary across jurisdictions, from public mandates for reciprocal data sharing among all regulated entities at the instigation of the consumer, to public encouragement by regulators, to private sector led initiatives with public neutrality. Often, data sharing is facilitated by the development of standards or common approaches for the design of application programming interfaces (APIs) that allow data to be transferred securely in standardized formats.

**77. Open banking is at its core data policy.** In economic terms, the data policy at the core of open banking involves two innovations with respect to information sharing that takes place through traditional credit bureaus. First, financial institutions exchange data about customers with each other directly, rather than doing so through an intermediary. This allows them in principle not only to obtain a pre-processed credit score, but also to use the granular data to do proprietary analysis and offer more customized products. Second, open banking moves control over data access away from financial institutions and credit bureaus, and towards the individual customers. While credit bureaus tend to authorize data transfer when the customer engages in certain pre-determined tasks—for instance, by applying to rent an apartment or to finance a vehicle—open banking envisages the user being able to initiate a data transfer at will, and for the user to be able to determine what is shared with whom. In short, open banking is a model of increased agency for consumers over their own financial data.

## B. Open Banking in the United Kingdom

**78. The United Kingdom is at the forefront of recognizing and adapting to technological progress in financial services.** In the context of a broad agenda, developed by the U.K. Government alongside the Competition and Markets Authority (CMA) and the Financial Conduct Authority (FCA), the U.K. authorities have put in place plans to modernize payments, financial services, and regulation and supervision.

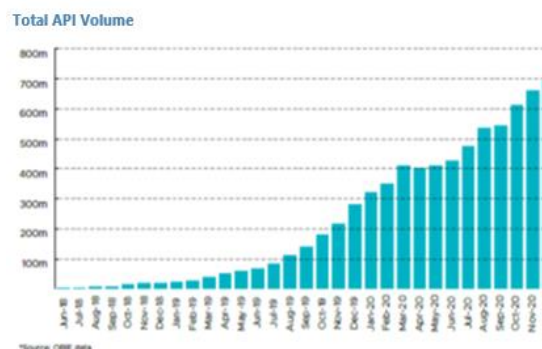
**79. The Open Banking (OB) initiative was launched in the United Kingdom in 2018 to improve customer choice and increase competition in the interest of consumers.** Action was taken by the CMA following its [Retail Banking Market Investigation](#) which found that customers did

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<sup>79</sup> The collection of personal data involves a trade-off between respecting the individual's desire for privacy—including from government—and reaping the commercial and social benefits that can be derived from its collection and dissemination. The sheer ubiquity of data generation—including very granular information on habits, relationships, locations, and tastes—has put into stark relief the issues of data privacy and security in the digital economy. In Carrière-Swallow and Haksar (2019), we discuss the many implications and trade-offs that arise due to data proliferation in the economy and call on governments to consider how data policies affect macroeconomic outcomes such as growth, equity, and stability. As Jones and Tonetti (2020) argue, giving the consumer the right to decide who gets access to their personal data leads to very different outcomes than if the data collector is allowed to make these decisions based on their private interests.

not switch between banks, that certain costs associated with current account services were high, and that overall quality of service could be improved. The CMA aimed to place competitive pressure on the larger, established banks who have accounted for over 80% of the current account market for many years, by requiring them to create and fund an open banking entity. In parallel, new payment services regulation required all payment account providers to provide access to customers' account to regulated third parties (service providers), provided they have the customer's explicit consent to do so. OB allows consumers and SMEs to share their bank account information securely with regulated third parties (service providers) who can then use this information to perform a regulated activity (account information services), helping consumers and businesses save time and money by finding better products to suit their needs. Consumers and businesses can also initiate payments using some regulated service providers (payment initiation service providers) from their payment accounts.<sup>80</sup> The operational implementation of OB was coordinated closely with the FCA.

**80. The system has gradually seen increased use, though the face value of transactions remains small.** OB was largely implemented through the European Union's second European Payment Services Directive (PSD2), transposed in the United Kingdom through the revised Payment Services Regulations (PSRs). The CMA mandated the nine largest current account providing banks in the United Kingdom (CMA9) to fund the creation of the Open Banking Implementation Entity (OBIE) at an average of £33 million annually over the first 3 years. The OBIE was tasked with working with the CMA9 to build a common set of API standards to facilitate regulated companies' safe and secure access to their accounts with the customer's permission,<sup>81</sup> and to support the technical implementation of the overall framework. Licensing of OB service providers is undertaken by the FCA and there has been a rapid growth of fintechs operating in this eco-system—however no large technology companies currently are part of the OB system in the United Kingdom. Take-up of the system has been gradual and largely focused on API calls to access financial information. As noted in CMA (2021), "Open banking now has around 4 million users. Perhaps as many as half the United Kingdom's SMEs now use tools



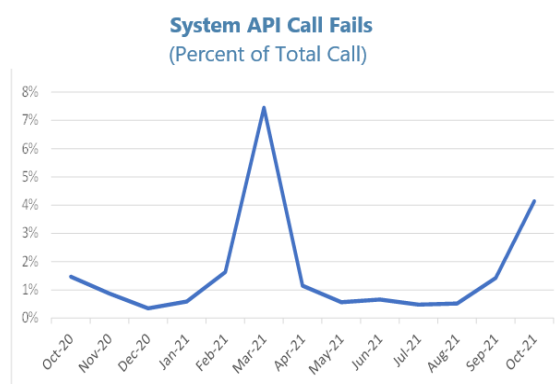
<sup>80</sup> There are two main types of Open Banking intermediary, those which customers approve to share account and credit card data with to perform a regulated activity, also known as Account Information Service Providers (AISPs), and those that are approved to initiate payments on behalf of the customer, also known as Payment Initiation Services (PISPs). HM Treasury: [Payments Landscape Review - Call for Evidence](#), July 2020. The Payment services regulations require all payment account providers to provide access to customers' payment accounts to initiate payments or extract data, with the customer's explicit consent. It also requires account providers and third-party providers to adhere to standards and requirements when doing so and the FCA is the competent authority supervising firms against those requirements.

<sup>81</sup> Development of common API standards was an important feature of the UK approach, by contrast with the approach taken in the EU's PSD2 that did not include such a mandate.

employing open banking functionality and this level of adoption is likely to be reinforced as HMRC begins using open banking for tax payments.”<sup>82</sup>

**81. The United Kingdom approach to open banking has much in common with other approaches.** Table 3 offers a comparison to several jurisdictions that have implemented or are in the final stages of preparing their open banking frameworks, including Australia, European Union, and the United Kingdom. Regulated data sharing subject to user consent exists in several of these jurisdictions. There is considerable variation across countries in terms of the data classes that must be shared, with some countries—including the United Kingdom—covering a very narrow set of traditional bank account data, whereas others have added information about other products such as mortgage loans and credit cards. In the case of Australia, the Competition Authority that is directing the open banking initiative plans to expand the perimeter of data classes to include energy and telecommunications accounts. Several jurisdictions have facilitated the development of common API infrastructures, including the United Kingdom. These have been crucial to facilitate the development of the eco-system though in the United Kingdom these are required to be common only for the 9 largest banks covered under the CMA order. Jurisdictions have taken also different approaches to the institutional framework for OB. In the United Kingdom, the CMA mandated the OBIE as a public-private partnership. In India for example, the central bank facilitated the creation of a public-private joint venture, the National Payments Corporation of India (NPCI) to manage the development of the open banking payments rails.<sup>83</sup>

**82. Enhancements to the OB framework could be considered.** While the reliability of the API infrastructure is high, some industry participants point to the still non-negligible rate of API call fails as an issue especially for smaller OBs seeking to establish trust with consumers and gain market share (any down time for payments apps to work induces a high rate of customers trying the app once and not again). There could also be opportunities for developing multiple infrastructure layers (such as digital ID linked to payments linked to privacy consent management—a synergistic stack) and exploring mechanisms to operationalize consent for user data sharing, for example by data fiduciaries in finance and, eventually, in other sectors. Indeed, a major issue for consideration is potential expansion of the perimeter of data and financial activities that must be shared, which is something the FCA is considering in the context of responses to the 2019 call for feedback on open finance (see [FCA FS21/7: Open finance – feedback statement](#)).



<sup>82</sup> “[The future oversight of the CMA’s open banking remedies](#),” CMA, Updated 17 May 2021

<sup>83</sup> The NPCI is an umbrella organization for operating retail payments and settlement systems in India and is an initiative of Reserve Bank of India (RBI) and Indian Banks’ Association (IBA) under the provisions of the Payment and Settlement Systems Act, 2007, for creating a robust Payment & Settlement Infrastructure in India.

**Table 3. United Kingdom: Open Banking Design Choices in Selected Jurisdictions**

Jurisdiction	Launch	National Digital ID	Perimeter of participants	Interoperable payment initiation ("write access")	Mandate	Data sharing ("read access")	
						Data classes	Features
Australia	2020	Yes	Accredited data recipients (ADRs), including banks and non-banks	Not included in initial design.	Regulated	Business and individual bank/credit card account balances and transactions; mortgages; retirement savings accounts. Future: energy and telecom account data.	Fully reciprocal for all ADRs
China	-	Yes	Banks and regulated fintechs	Yes, no mandate	Market-driven	Account information	n/a
European Union (PSD2 & GDPR)	2019	None across the EU; strong customer identification; national schemes exist in some member countries	Banks and payment service providers including regulated fintechs	Yes, mandate	Regulated	Payment account data	Asymmetric; banks and other account providers required to share. Others subject to GDPR portability requirement with 30-day delay.
India (UPI)	2016	Yes	Licensed banks (UPI)	Yes, no mandate	Mix of market-driven and regulated	Digital payments; later other sectors	Reciprocal
New Zealand	2017	No	Banks and regulated fintechs	Yes, no mandate	Market-driven	Payment accounts data	
United Kingdom	2018	No	Banks and payment service providers including regulated fintechs	Yes, mandate	Regulated	Payment account data - Account balances; Transactions	Asymmetric; banks and other account providers required to share. The non CMA9 account providers may voluntarily be part of the open banking entity

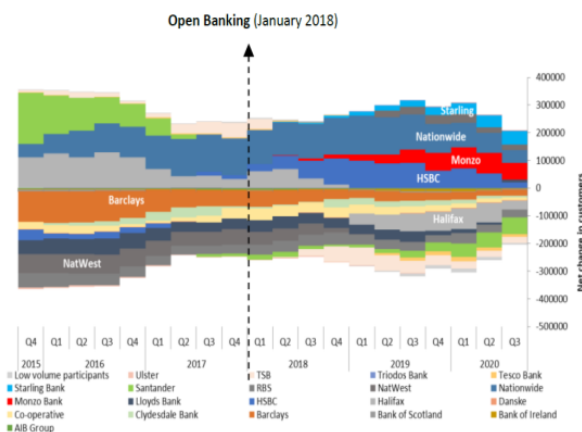
Source: Authors compilation based on information from BCBS (2019), Ehrentraud et al. (2020) and national authorities.

### ***Potential Risks and Issues for Consideration***

**83. The near-term financial stability risks arising from the OB initiative appear to be modest in the current configuration of the system.** Arguably, there are three principal channels for financial stability risks to arise in a context of OB—(i) liquidity, (ii) business model, and (iii) operational.

- Liquidity.** In principle deposit switching—by consumers across banks and from traditional banks to new banks (including potentially OB service providers that obtain deposit taking licenses to become new banks)—that was large and rapid could have an impact on the stability of banking deposits and generate liquidity risks for incumbent banks. But the gradual uptake of the OB system suggests that such risks are not imminent and indeed data on current account switching since the inception of OB does not point to OB generating substantial current account switching (though there has been some switching of deposits to neo-banks) in the last years.<sup>84</sup>

Current Account Switch Statistics



- Business model.** Increased competition in the provision of certain current account payment services (such as money management or payments initiation) by OB service providers could undermine bank income, capital generation, and hence stability. However, the share of bank income derived from pure payments services is small (less than 0.8 percentage points of bank return on equity) which mitigates near term risks. Were OB service providers to leverage use of data to provide additional financial services and compete with banks across lending and asset management, this could eventually have a more significant impact on the income of incumbent banks. Certain activities by OB service providers would require various permissions from regulators.<sup>85</sup> Assuming entry by OB service providers over the next 3–5 years into provision of such services is gradual, banks would have time to adjust business models containing stability risks.
- Operational risks** could arise as opening access to user data could increase the risk of data loss and fraud. A greater number of providers potentially entering the market, with customer data shared more widely may create a greater number of avenues for potential operational and cyber threats, and a greater number of potential points of importance within the system's infrastructure. Such risks are mitigated for example by the FCAs licensing of OB service providers and

<sup>84</sup> Neo-banks are digital only banks that have gained market share in the UK in recent years, but that remain small relative to the overall financial system.

<sup>85</sup> The Payment Services Regulations 2017 (PSRs) set out conduct provisions for OB service providers. Under the PSRs, OB service providers are not permitted to use, access, or store any account information for any purpose except for the provision of the account information service, or payment initiation service, explicitly requested by the customer. However, the PSRs do not specify the types of OB enabled services that firms may offer. Entities operating under the ambit of OB in the UK have provided a range of OB enabled services, with additional permissions, in addition to account aggregation. Examples include lending, saving, accounting/budgeting, personal finance advice, accountancy, credit scoring, and making charitable donations. Banks and non-banks can provide open banking services.

requirements, in coordination with the OBIE, on appropriate standards and safeguards for the API infrastructure underpinning OB.<sup>86</sup>

**84. Look ahead, the OB framework may develop further.** Some existing banks are seeking to use the open data aspect of OB to themselves compete on margins with other large banks. Many are rapidly developing their own OB platforms, and this could lead to increased competition amongst established banks going forward. Moreover, the gradual uptake of OB raises questions around how the framework might be developed to encourage further entry of OB's and greater use by the public of OB services. Changes to the governance framework of the OBIE in light of recent feedback have already been announced.<sup>87</sup> Going forward, U.K. Finance has proposed arrangements for the OBIE following completion of the Open Banking roadmap, which the CMA has consulted on,<sup>88</sup> noting that: "although the core elements of open banking are now in place, and the open banking ecosystem has developed a powerful forward momentum, it is not inevitable that it will continue on the same trajectory. While the largest banks have shown signs of embracing open banking, they may also have an incentive to slow the further development of the open banking ecosystem, where this conflicts with their own commercial objectives. Accordingly, while we welcome proposals from the financial services industry to take on the governance of open banking and acknowledge the considerable thought and resources that U.K. Finance has put into developing its proposals, we must ensure that future arrangements for the governance of open banking results in a framework that is: (i) independently-led and accountable, (ii) adequately resourced to perform the functions required, (iii) dedicated to serving the interests of consumers and SMEs, and (iv) sustainable and adaptable to future needs of the ecosystem." One element under consideration is an upgrade of the OBIE with a new entity less focused on compliance with the CMA order by the largest banks and more on expanding the ambit of data sharing and API development to a larger set of potential financial services deliverers. As the consultation on the future of the OB entity is still ongoing, the FSAP does not review the issue nor the features of this new "entity."<sup>89</sup>

**85. Entry of large platform-based technology companies into the provision of financial services could offer opportunities but also bring risks.** Bigtechs are offering payments services in the United Kingdom but are not currently active in the OB eco-system. Were they to enter OB to leverage customer financial data held by banks and gain permissions to offer a range of financial services, this could lead to more rapid technological changes in the overall financial system. These could offer improved service options and cheaper cost of delivery. They could also amplify the channels discussed previously leading to a more substantial and rapid erosion of incumbent banks' income and funding switching. Given the scale of such platforms and large network externalities,

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<sup>86</sup> Open Banking firms and payment account providers must comply with regulatory requirements, including conduct and security and operational requirements as described in detail under the Regulatory Technical Standards on Strong Customer Authentication. The FCA monitors firms' operational and security risk via a range of intelligence from firms and consumers, including an operational and security risk report (REP018) submitted by firms at least annually, and major incident reports submitted by firms in accordance with EBA reporting guidelines.

<sup>87</sup> "[Update on Open Banking](#)," CMA, October 1, 2021

<sup>88</sup> "[The future oversight of the CMA's open banking remedies](#)," CMA, Updated 17 May 2021

<sup>89</sup> The CMA in a [recent publication](#) set out clearly the future of that entity and oversight from the FCA and the PSR.

such massive and rapid scale of entry could take place with bigtechs by contrast with the existing fintech eco-system. An illustrative scenario analysis suggests that a 10 percent drop in market share in lending and deposit taking for U.K. banks—which would be very large by historical standards but that is used to illustrate potential impact of large scale market structure changes of a historic nature that could result from bigtech entry into financial services—could see an erosion in net income margins and capital over a short-term horizon based on historical relationships between net margins and market share, pointing to the potential relevance of such channels (see Systemic Stress, and Climate-Related Financial Risks: Implications for Balance Sheet Resilience TN). This is however a partial equilibrium analysis, and from a broader perspective of technological adaptation, banks could themselves benefit from new opportunities from OB offsetting pressure on their margins (for an interesting discussion of technological adaptation in financial services consider [Bessen](#) (2015) and [Pierri et al](#) (2020)).

**86. Overall, an acceleration of technological change in the financial sector suggests a need for continuation of close monitoring, reviewing policy coordination modalities, and considering learning from new approaches to regulating digital markets.**

- **Monitoring.** In principle, pressure on margins and funding brought about by transformation in the financial services sector could lead to structural change in the banking system (e.g., acquisitions of fintechs, mergers, orderly exits, etc.). However, the potential for scale and speed of technological change posed by possible changes (including potential permissioned bigtech entry) could give rise to financial stability risks such that the authorities' continued monitoring of developments in the sector is both called for and commendable.
- **Coordination.** Regulators with a focus on stability and consumer protection have a range of options by which to address issues that could arise in the context of potential entry and/or increased competition in the financial services sector. Dialogue between regulators on competition while protecting financial stability has been ongoing including in the context of the establishment of OB. Indeed, the FCA internalizes coordination as part of its objectives as it is required to consider consumer protection, work with the Bank of England on financial stability risks and promote competition. Moreover, United Kingdom has taken the lead on cooperation amongst different regulators with the creation of the Digital Regulation Cooperation Forum in 2020.<sup>90</sup> However, while the CMA's mandate for introducing competition remedies means that it may seek views from regulators with other mandates as part of normal consultation, there is no provision for formally having regard to these other objectives, e.g., on financial stability. In this respect, it would be useful to consider formal mechanisms to make sure that the views from regulators with a focus on stability are taken into consideration in deliberations on competition policy interventions in the financial services sector as the needs for coordination across public

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<sup>90</sup> The CMA, the Information Commissioner's Office (ICO) and the Office of Communications (Ofcom) formed the DRCF in July 2020. Building on the strong working relationships between these organizations, the forum was established to ensure a greater level of cooperation, given the unique challenges posed by regulation of online platforms.

policy interests in competition and stability—touching also on integrity, privacy, and fairness—continue to grow in the data-driven financial services sector.

- **Learning.** Leveraging the experience gained from OB, there could be eventual shifts to open finance or a fully open data economy, where individual consumers are given agency with privacy control over their individual data to authorize its use across a wide range of financial and other services, could substantially broaden the role of data in the economy.<sup>91</sup> This could lead to significant innovation and transformation in the U.K. services sector. Potential for rapid entry at scale by platform-based service providers could be another transformative feature. In this context, an innovative review of the policy framework for managing competition in digital markets is being undertaken currently in the United Kingdom considering the findings of the Furman review of digital markets regulation in the United Kingdom. The discussion points to the potential introduction of new tools that could address competition concerns raised by digital platforms, whether in financial or other services (for example designation as SMS, requirements on interoperability of platforms, data portability, etc.). While clearly recognizing the separation of mandates across regulators for competition and stability, it would be useful to consider further also studying the potential impact of such policy tools on financial stability risks arising from the delivery of financial services by platforms.

**87. The OB framework faces other important challenges to consider as it matures.** First, OB must ensure it creates a level playing field. Not all entrants enter the data economy with equal endowments: banks may have accumulated decades worth of very granular data about their customers, through relationships that may originally have involved substantial risk. New fintechs and bigtech competitors enter the provision of financial services with a dearth of traditional financial data, but in some cases with a massive set of alternative data that banks, or other payment service providers are unable to observe in conducting their traditional activities. Second, the design of OB frameworks will also need to be mindful of risks from the wider use of AI based on customer data harvested via OB for decisions on the granting of financial services (as discussed in Boukherouaa et al, 2021).

**88. The U.K. experience with OB may offer a steppingstone towards broader open data frameworks.** As noted, in some jurisdictions, the consumer data right is being applied to financial data first, but U.K. authorities have publicly stated that they plan to expand the right to other classes of structured data in the future, including those related to the energy and telecommunications sectors. If open banking's clear rules, focus on consumer rights, and tools for delivering effective control can be expanded to other classes of data, its legacy may end up being a nudge toward a more efficient and equitable digital economy. Going forward, an important challenge will be developing global policy frameworks for the management of data across sectors and borders, a topic which is taken up in Haksar and others (2021).

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<sup>91</sup> See for example "Open finance—Feedback Statement," FCA, FS21/7 March 2021

## FROM LIBOR TO SONIA: A STABLE TRANSITION<sup>92</sup>

### A. Executive Summary

*The analysis and data included in this assessment reflects information up to December 2021. Since then, further significant transition events have occurred which mean that the transition from Sterling LIBOR to SONIA is now complete.<sup>93</sup>*

**90. The transition from LIBOR to SONIA is well advanced in the United Kingdom reflecting a structured approach and strong leadership from the U.K. authorities and buy-in from markets.** The momentum has been maintained despite the challenges of COVID-19. Sterling markets seem well positioned to conduct new business in SONIA based instruments whose markets are well established and liquid.

**91. To continue to forge a successful and smooth transition, a few areas would benefit from continuing attention (see table 4):**

- (i) Conversion of existing legacy LIBOR-based instruments.** Although processes and backstops are in place to facilitate the transition, not all instruments have been converted. The U.K. authorities have regulatory and legal tools in place to encourage active transition of most outstanding LIBOR based contracts, and market participants are well engaged even though much work remains. For contracts which will not naturally run off, backstops are in place to help facilitate the maintenance of legacy instruments which cannot practicably be renegotiated or amended while also discouraging long-term reliance on these backstops.
- (ii) Progress with non-sterling instruments.** The transition from LIBOR in each jurisdiction remains the responsibility of domestic authorities and regulators. However, given the United Kingdom's unique position as regulator of LIBOR and the heavy use of non-sterling denominated foreign currency instruments in the United Kingdom and by U.K. domiciled firms, the U.K. authorities have an important role in supporting their transition and monitoring associated cross-market and cross-jurisdictional risks. Transition progress in U.S. dollar markets is somewhat less advanced. The U.K. authorities will need to continue to actively assist the efforts of foreign regulators, particularly in the United States, to prepare their markets for transition from end 2021. This would involve supporting these regulators in the development of new overnight RFR based markets, being mindful of the risks that might accrue to U.K. based users of less robust foreign currency benchmarks such as credit sensitive rates that are in development and considering what mitigation tools might be

<sup>92</sup> This chapter was authored by Kelly Eckhold (IMF).

<sup>93</sup> Key new developments include CCP conversion events, cessation of some GBP LIBOR settings, the transition of a proportion of legacy GBP LIBOR contracts to 'synthetic' GBP LIBOR settings published for the first time on 4 January 2022, and the effective implementation of the ISDA IBOR Fallbacks. As a result, the outstanding stock of legacy GBP LIBOR contracts has been significantly reduced. Further, a full set of SONIA-linked products is well established for use by market participants to fulfil their funding and hedging needs.

developed. The availability of a forward-looking Term SONIA rate can provide a temporary backstop to sterling instruments traded in the United Kingdom by foreign customers in emerging and developing markets, so they can continue to have access to funding and hedging markets if problems transitioning to compounded in arrears SONIA materialize.

**92. The U.K. authorities and markets should remain focused on the risks of the next “LIBOR”.** LIBOR may not be the last transition required. It will be less risky and costly if United Kingdom and global authorities and markets retain focus on developments in important financial benchmarks so that future non-representativeness problems can be more easily managed, at an earlier stage and at lower cost. A near-term example is the emergence of “Credit-Sensitive-Rates” in US dollar markets as a potential alternative to Risk Free Rates. Staff see the U.K. (and U.S.) authorities’ cautions on the use of these alternatives as appropriate as they seem to replicate many of the weaknesses of LIBOR and may not be robust to changes in the structure of money markets in the future. The United Kingdom could consider using a suitable domestic group of regulators and market participants to maintain a watching brief on financial benchmarks. There may also be value in the U.K. regulatory framework incorporating preemptive tools that could be used to manage emerging risks in the area. Globally, the United Kingdom plays a key role in international regulatory bodies and should advocate for an ongoing, globally consistent approach to benchmark risk management and managing the issues associated with the new “post-LIBOR world” where the provision and regulation of benchmarks will be more decentralized than was the case with LIBOR.

**Table 4. United Kingdom: 2021 Key Recommendations**

<b>Recommendation</b>	<b>Responsible authority</b>	<b>Time<sup>1</sup></b>
<i>LIBOR transition</i>		
Continue to encourage the active transition of legacy LIBOR exposures of U.K. regulated firms through ongoing monitoring and advocacy, supported with temporary use of synthetic LIBOR for specific currencies and tenors in legacy contracts only.	FCA, HMT, BoE	NT
Support an ongoing active domestic and global role for monitoring and regulation of systemic financial benchmarks.	BoE, FCA	NT
Explore updating U.K. regulatory tools to allow for pre-emptive action if new non-robust financial benchmarks emerge.	FCA, HMT	MT
Continue to support foreign authorities in encouraging the prompt migration of non-Sterling markets to instruments based on robust RFRs while mitigating risks to U.K. regulated firms and customers, mindful of the needs of emerging market users.	BoE/FCA	NT

<sup>1</sup> Immediate (within 1 year), NT Short term (within 1-3 years), MT Medium term (3+ years)

## B. Financial Stability and the Centrality of LIBOR

**93. LIBOR is a critical financial benchmark that links participants in interest rate markets globally.** Few benchmark interest rates play a more significant role than LIBOR in the pricing of funding, liquidity, and risk globally. LIBOR is either the predominant or one of the leading short-term interest rate benchmarks used in the five largest used currencies globally. For example, the 2019 BIS Triennial Survey of currency trading finds that derivatives trading in the LIBOR-5 currencies covers more than 85 percent of global turnover in Over the Counter (OTC) interest rate derivatives and almost 80 percent of trading in OTC FX instruments.<sup>94</sup>

**94. LIBOR is financial stability critical by virtue of its heavy use in derivatives, cash, and securities markets.** Turnover and outstanding volumes of derivatives contracts far outweigh that of other instruments and the bulk of interest rate derivatives are linked to LIBOR. This is as true in the United Kingdom as anywhere as around 85 percent of LIBOR based contracts were derivatives in September 2020 (figure 2, top left chart). The dominance of LIBOR extends beyond derivatives into cash and securities markets which, while smaller in absolute size, still heavily rely on LIBOR for payment calculations. LIBOR transition hence raises potential financial stability risks if there is disruption to the core of the credit intermediation process from a disorderly transition. The criticality of LIBOR was also the reason why the FSB recommended in 2014 significant reforms to major interest rate benchmarks including LIBOR.<sup>95</sup>

**95. The United Kingdom is a key global financial center and is hence home to many LIBOR based instruments beyond sterling.** LIBOR transition in the United Kingdom is not solely a U.K. or U.K. sterling problem. As the United Kingdom plays a dominant role in intermediating FX and credit globally in all currencies, this means that LIBOR based instruments in the United Kingdom outside of sterling exceeds those denominated in sterling (figure 2, top right panel). Financial market users globally rely heavily on U.K. financial markets to access funding and manage risks in all the LIBOR currencies (figure 2, middle left panel). As a result of the significant exposures of U.K. domiciled firms to non-sterling LIBOR currencies, specifically to U.S. dollar LIBOR, a disorderly transition in non-sterling LIBOR currencies could have a material impact on U.K. markets. This would also be of concern for users in Emerging and Developing jurisdictions who are important customers of U.K. regulated financial firms but perhaps have fewer alternative financing or risk management options.

**96. The challenge of LIBOR transition is heightened given the long maturity of LIBOR based instruments relative to the timeline for LIBOR cessation.** Most LIBOR based instruments mature beyond the dates when regulators have indicated that LIBOR will have ceased (December

<sup>94</sup> See BIS December 2019 - <https://www.bis.org/statistics/rpfx19.htm>

<sup>95</sup> In addition, the FSB cited attempted market manipulation as a factor in undermined confidence in interbank benchmark interest rates. For example, in June 2012 Barclays Bank was fined USD 200 million by the US CFTC, USD 160 million by the US Department of Justice, and GBP 59.5 million by the U.K. Financial Services Authority for attempted manipulation of both LIBOR and Euribor interest rates. UBS, Deutsche Bank, Rabobank, Royal Bank of Scotland, Citibank, JP Morgan, and Lloyds bank also received significant fines from US, European and U.K. regulators in December 2012. At least 13 Individual traders were charged by the U.K. Serious Fraud Office for LIBOR scandal related offences with 5 found or pled guilty.

2021 for most currencies, June 2023 for some important USD fixings). Half of all LIBOR based interest rate derivatives outstanding in U.K. domiciled firms mature beyond the end of 2021 and a greater proportion of other instruments mature beyond 2021 (figure 2, middle right and bottom panels respectively). These features imply the need for an active transition where existing exposures are transferred from LIBOR to a more robust benchmark prior to their maturity.

**97. A positive feature for the United Kingdom is that LIBOR is not heavily used in retail lending.** Historically other interest rate benchmarks such as the Bank of England base rate have served as the most used benchmarks for retail instruments. This is of benefit as the parties most directly involved in the transition from LIBOR are more sophisticated and better able to manage the associated complexities.

### C. Managing the Transition from LIBOR to SONIA

**98. The U.K. authorities have taken a structured and progressive approach to managing the transition from LIBOR in the United Kingdom (Figure 3).** Transitioning from LIBOR has been a significant, complex multi-year effort that required a carefully sequenced and structured approach. A key requirement for the transition was to minimize risks of financial system disruption that would have resulted from a sudden, disorderly cessation of LIBOR without adequate alternative options to support new business and legacy portfolios. The U.K.'s approach reflected these important financial stability concerns by firstly stabilizing the status quo and then moving on to creating a robust alternative benchmark for markets to transition to, supported by new liquid markets that could enable financial system participants to raise funding and hedge risks in the absence of LIBOR. Once this important groundwork was well underway, the focus shifted to managing the very large stock of existing legacy LIBOR based instruments through a combination of active transformation to RFR based instruments, development and implementation of fallbacks if LIBOR ceased to be sufficiently robust to support its continued use (potentially at any time), and then the development of tools to deal with remaining legacy instruments that could not be easily transitioned or amended to include robust fallbacks.

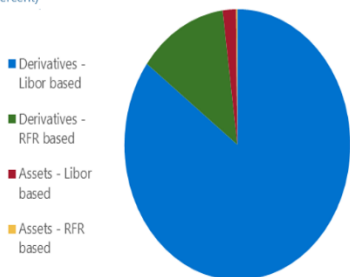
**99. Stabilizing LIBOR was an important initial focus to prevent disruption from a disorderly cessation.** The initial focus, in 2017, was to reduce risks of disruption to markets in the event a significant number of LIBOR panel banks decided to cease contributing the quotations required in its calculation. This was a significant risk given that the underlying market which LIBOR sought to measure—for unsecured interbank wholesale term lending—was not sufficiently active which may have reduced their appetite to continue to make contributions in the absence of robust data on which they might base contributions. The authorities secured support from panel banks to continue providing LIBOR inputs until end 2021 (later extended to June 2023 for some USD fixings).<sup>96</sup>

<sup>96</sup> The FCA confirmed on 5 March 2021 the cessation dates for LIBOR - see <https://www.fca.org.uk/news/press-releases/announcements-end-LIBOR>

**Figure 2. United Kingdom: Topology of LIBOR vs Risk Free Rate Based Exposures in the United Kingdom**

*The bulk of LIBOR based contracts are derivatives....*

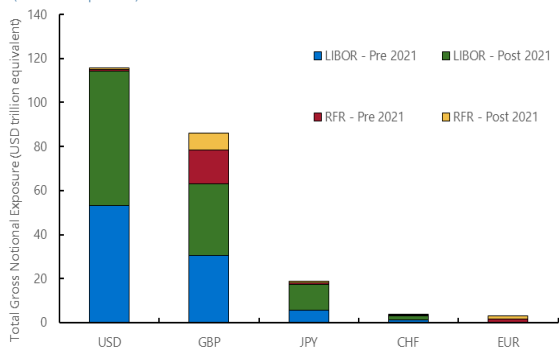
**Estimated Shares of Libor vs. RFR Based Instruments in the United Kingdom, September 2020**  
(Percent)



Sources: UK authorities and IMF Staff calculations.

*USD denominated instruments are as important as those in sterling ....*

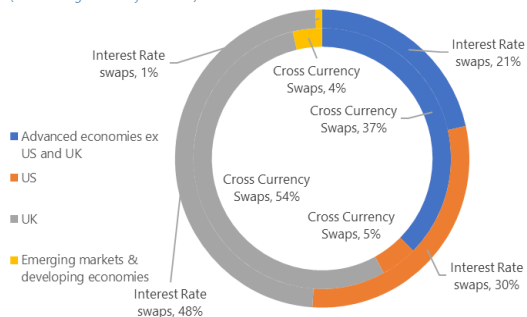
**Derivatives Exposures in the UK by Currency and Maturity, September 2020**  
(USD trillion equivalent)



Sources: UK authorities and IMF Staff calculations.

*The importance of non-sterling LIBOR exposures reflects the importance of the U.K. in intermediating credit globally*

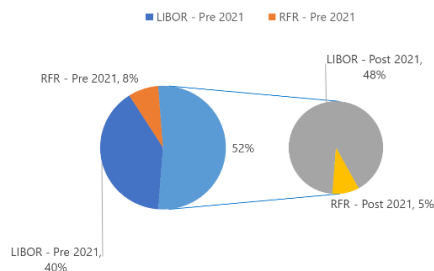
**Average Daily Turnover in FX and Interest Rate Hedging Markets by Jurisdiction, April 2019**  
(Percent of global daily turnover)



Sources: BIS Triennial FX Turnover Survey and IMF Staff Calculations.

*Half of interest rate derivatives mature beyond 2021 and are mainly LIBOR based...*

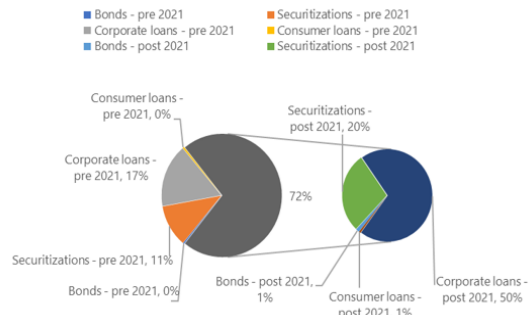
**Shares of Libor vs RFR Based Derivatives Exposures Pre/Post End 2021**  
(Percent of derivatives exposures, September 2020)



Sources: UK authorities and IMF Staff estimates.

*Most Sterling denominated LIBOR based assets expire post 2021 but are not retail instruments*

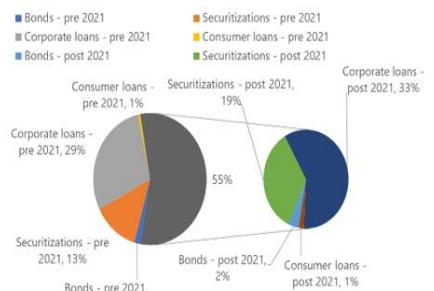
**Libor Based Sterling Denominated Assets, September 2020**  
(Percent of Libor Based GBP Assets)



Sources: UK authorities and IMF Staff calculations

*Like assets in USD*

**Libor Denominated USD Denominated Assets in the United Kingdom, September 2020**  
(Percent of USD Libor Denominated Assets)



Sources: UK authorities and IMF Staff calculations.

**100. U.K. efforts then shifted to recommending a reformed, robust Risk-Free Rate (RFR) for sterling denominated markets to transition to.** The U.K. efforts were in tandem with similar efforts in the other LIBOR-5 jurisdictions for their own currencies. The Bank of England convened the Working Group on Sterling Risk-Free Reference Rates (RFRWG) in 2015 to recommend the preferred RFR for sterling markets in the wake of the G20 sponsored FSB report in July 2014 which recommended reforms to major currency interest rate benchmarks.<sup>97</sup> This RFRWG recommended a reformed SONIA rate as the new sterling markets benchmark in April 2017.<sup>98</sup>

**101. Efforts then shifted to retooling and building markets based on SONIA for use in funding and hedging in sterling.** The United Kingdom leveraged a structural advantage in that it retained a reformed version of an existing benchmark in sterling interest rate markets—SONIA—as opposed to creating a new benchmark. This meant that many markets already existed that were based on the new RFR. The task here was to transition the other LIBOR based instruments to the SONIA markets and concentrate activity and liquidity there. As loan and bond markets were historically pegged to sterling LIBOR, more work was required. The RFRWG provided guidance to the market to help overcome identified barriers, including market conventions on use of SONIA in loans, bonds and derivatives, and the operational capacity and infrastructure required to facilitate use of overnight SONIA in various products. The U.K. authorities supported the expanded RFRWG to establish technical conventions and modalities for SONIA based loans and bonds from early 2018. Operational capacity and infrastructure required to enable SONIA based futures, Floating Rate Notes and loans were developed by market participants over 2019 supported by the RFRWG’s development and communication of best practices for referencing SONIA across bonds, loans, and derivatives from the second half of 2018.

**102. Sterling term benchmark rates were established for use in a minority of cases where use of compounded overnight SONIA was less feasible.** Work was advanced on developing a robust forward-looking term benchmark rate over 2018 and 2019 for use in the minority of instruments where use of an overnight compounded in arrears SONIA rate was less suitable.<sup>99</sup> In early 2020 the RFRWG identified a small set of instruments which might be suitable candidates for using Term SONIA. The FICC Markets Standards Board (FMSB) also produced a market standard further highlighting the limited use cases for Term SONIA, which include Trade and Working Capital products, Export finance, Emerging markets lending and Islamic finance-based facilities.<sup>100</sup> The

<sup>97</sup> See “Reforming major interest rate benchmarks” FSB 22 July 2014 [https://www.fsb.org/2014/07/r\\_140722/](https://www.fsb.org/2014/07/r_140722/)

<sup>98</sup> See the announcement from the RFRWG at <https://www.bankofengland.co.uk/news/2017/april/sonia-recommended-as-the-sterling-near-risk-free-interest-rate-benchmark>

<sup>99</sup> The term “Compounded in arrears” refers to constructing a term interest rate by calculating the compounded daily average rate of return over preceding periods to determine an interest rate suitable for use in contracts that require a longer-term periodic interest rate.

<sup>100</sup> See RFRWG January 2020 “Use Cases of Benchmark Rates: Compounded in Arrears, Term Rates and further alternatives <https://www.bankofengland.co.uk/-/media/boe/files/markets/benchmarks/rfr/use-cases-of-benchmark-rates-compounded-in-arrears-term-rate-and-further-alternatives.pdf> and the subsequent market standard published by the FMSB in early 2021 “Standard on use of Term SONIA reference rates” [https://fmsb.com/wp-content/uploads/2021/07/Standard-on-use-of-Term-SONIA-reference-rates\\_FINAL.pdf](https://fmsb.com/wp-content/uploads/2021/07/Standard-on-use-of-Term-SONIA-reference-rates_FINAL.pdf)

development of sterling denominated term rates was emphasized by the RFRWG and U.K. authorities as a limited use case given that almost all sterling denominated derivatives, bonds and the bulk of loans either had or could transition to the preferred compounded in arrears benchmark approach. Two providers of sterling Term SONIA have emerged for use by market participants (ICE Benchmark Administration and Refinitiv). The RFRWG published a summary of their key characteristics but has left market participants to decide which option to use.<sup>101</sup> The relatively limited use of Term RFRs is appropriate as it desirably encourages the concentration of the bulk of new business based on overnight SONIA compounded in arrears. This has a few important systemic risk advantages as most sterling interest rate contracts would be based on the most active and liquid markets (overnight SONIA) while also preserving the conditions necessary for a robust Term SONIA rate to remain available (as Term Sonia is based on SONIA swaps quotations which in turn rely on overnight SONIA).

**103. Firm milestones for the end of new LIBOR based lending and derivatives firmly pushed sterling markets toward their endgame.** 2021 saw industry recommended milestones for the cessation of new lending and derivatives based on sterling LIBOR, supported explicitly by the PRA and FCA in their March 2021 letter to responsible senior managers and CEOs of regulated firms. Milestones and the endgame for the transition of LIBOR based derivatives trading were further supported through sequential “SONIA first” initiatives coordinated by the FCA and Bank of England.” “SONIA first” was particularly impactful as it changed the fundamental quotation convention for LIBOR based derivatives by encouraging dealers to quote prices calculated based on SONIA rather than LIBOR—thus encouraging price discovery and hedging in the SONIA based markets. The RFRWG and authorities had also made clear that continued LIBOR trading in derivative products was permitted for the risk management of existing positions and to support active conversion of legacy LIBOR exposures.<sup>102</sup>

**104. The U.K. authorities have encouraged and facilitated transition through a multi-layered supervisory engagement.** The authorities have actively used their supervisory tools to increase awareness of the need to transition and support the transition efforts of regulated firms. “Dear CEO” letters were sent by the PRA and FCA in September 2018, February 2020 and March 2021 to a broad range of regulated firms advising them of the need to prepare transition plans and actively encourage customers to move to new RFR based instruments.<sup>103</sup> The PRA and FCA exercised a strong feature of the U.K. regulatory regime by asking regulated firms to identify and nominate a Senior Manager responsible for LIBOR transition, to ensure oversight for transition within firms was clearly defined and to hold specific individuals to account. These letters also re-affirmed clear expectations of regulated firms to meet the milestones of the RFRWG and targets of other working groups and relevant supervisory authorities. In 2019 the Financial Policy Committee (FPC) noted the

<sup>101</sup> See the RFRWG Term SONIA Reference Rate Publication Summary - <https://www.bankofengland.co.uk/-/media/boe/files/markets/benchmarks/rfr/rfrwg-term-sonia-reference-rate-summary.pdf>

<sup>102</sup> See <https://www.bankofengland.co.uk/-/media/boe/files/markets/benchmarks/rfr/the-path-for-derivatives-transition-including-exceptions-for-risk-management-purposes.pdf>

<sup>103</sup> See <https://www.bankofengland.co.uk/prudential-regulation/letter/2018/firms-preparations-for-transition-from-LIBOR-to-risk-free-rates>

importance of firms actively transitioning from LIBOR and pointed to supervisory tools which could be deployed to encourage transition.<sup>104</sup> These higher-level engagements were followed up with more detailed, granular bilateral supervisory engagement where supervisors looked at the transition plans of regulated firms, provided comments and collected regular information on transition progress. The intensity of supervisory engagement has varied with the size and complexity of the firm concerned—relatively heavier engagement has occurred with larger banks, investment and insurance firms reflecting their more significant transition task and more complex business.

**105. As alternative markets developed, efforts increased to convert existing legacy instruments from LIBOR to the new benchmark instruments where possible.** Appropriate fallback arrangements were developed for many legacy instruments, to ensure that these contracts could continue in the event of LIBOR’s cessation. A key element of this was the development of the ISDA IBOR Fallbacks Protocol and Supplement which, after extensive market consultation, settled on a structure where ISDA governed instruments (most derivatives and some cash and securities instruments) reset on the basis of the relevant currency RFR plus a fixed spread (which was set in March 2021).<sup>105</sup> These fallbacks have also been used in more recently issued contracts (for example derivative contracts) that are LIBOR based but are expected to transition to RFRs at the point when LIBOR ceases or becomes unrepresentative.

**106. The last plank of the transition strategy was to put in place options to manage outstanding legacy instruments via legislative tools.** The United Kingdom’s existing Benchmarks Regulation gave the United Kingdom only limited ability to manage legacy contracts that cannot be transitioned before the cessation of LIBOR.<sup>106</sup> In response, the U.K. authorities developed new legislation—the U.K. Financial Services Act 2021—which included provisions that gave the FCA enhanced powers by amending the Benchmarks Regulation to manage the wind down of LIBOR in an orderly fashion. Key aspects of the U.K. Financial Services Act 2021 were provisions that allowed for:

- Prohibition on new use of a critical benchmark that is known to be ceasing (Article 21A)
- Designation of a critical benchmark as permanently unrepresentative (Article 23A)
- Prohibition on the use of an Article 23A (i.e., permanently unrepresentative) designated benchmark (Article 23B)
- Possible exemption from the use prohibition above for some or all legacy use of an Article 23A designated benchmark (Article 23C)

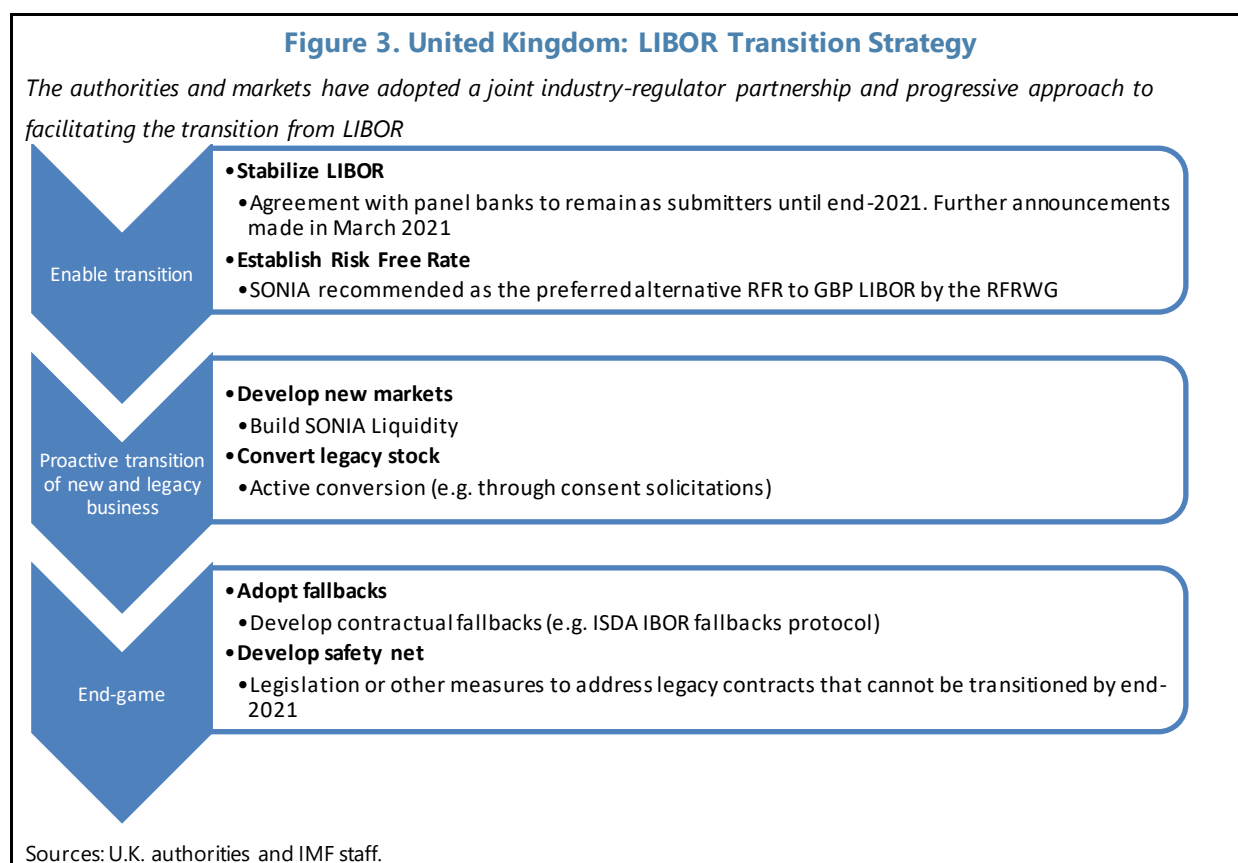
<sup>104</sup> See the December 2019 Financial Stability Report at <https://www.bankofengland.co.uk/-/media/boe/files/financial-stability-report/2019/december-2019.pdf>

<sup>105</sup> See <https://assets.bbhub.io/professional/sites/10/IBOR-Fallbacks-LIBOR-Cessation-Announcement-20210305.pdf>

<sup>106</sup> The 2019 version of the UK Benchmarks Regulation is available at <https://www.legislation.gov.uk/uksi/2019/657/contents/made>

- Orderly cessation of an Article 23A designated benchmark including a change in methodology (Article 23D)

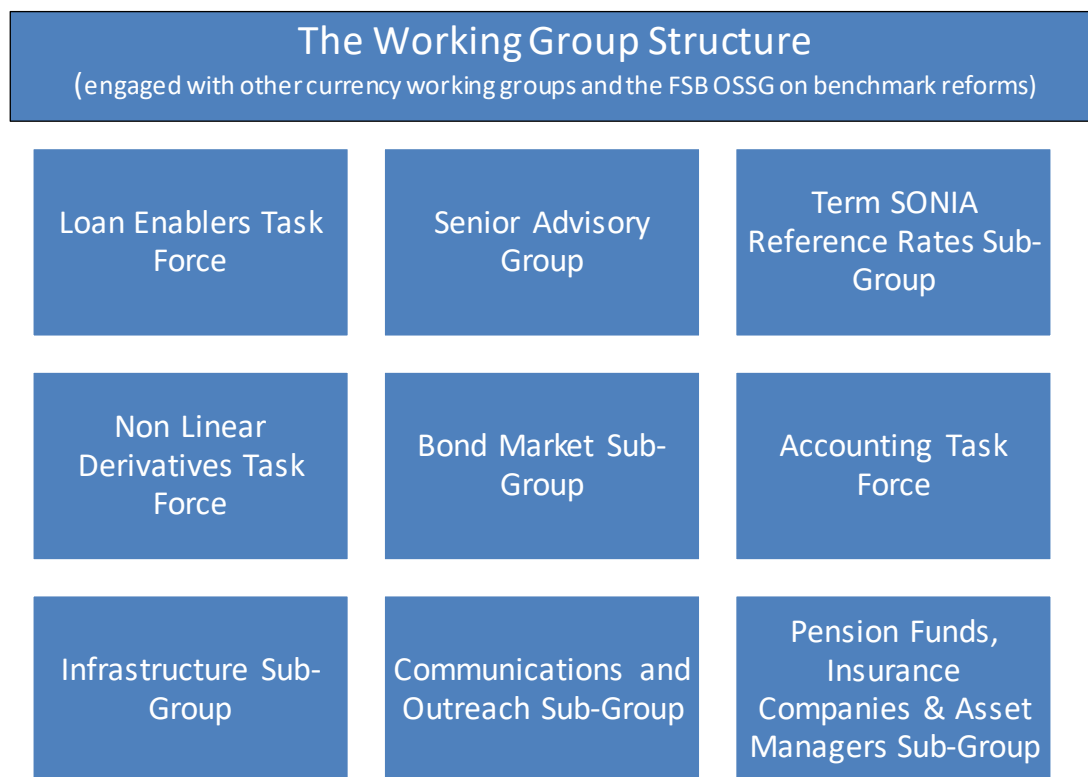
Together these provisions gave the FCA powers to facilitate the wind down of a critical benchmark known to be ceasing (i.e., LIBOR), stop new use of the benchmark as well as allow for the limited ongoing legacy use of an Article 23A designated benchmark (which may also be subject to changes in its underlying methodology e.g., a synthetic LIBOR) prescribed by the FCA. U.K. authorities consulted the market extensively on its proposed use of these powers. The U.K. Government also passed the Critical Benchmarks (References and Administrators' Liability) Act in December 2021 to clarify in U.K. law how references to synthetic LIBOR should be interpreted in contracts and arrangements, taking account of feedback from market participants. Industry was generally very supportive of the United Kingdom's approach.



**107. LIBOR transition has been a joint industry/regulator partnership.** The transition effort has been primarily implemented through the RFRWG from January 2018 when the RFRWG was reconstituted and expanded to include a much wider/diverse range of stakeholders including additional banks and dealers, investment managers, non-financial corporates, infrastructure providers, trade associations and professional services firms (figure 4). The broader constitution of the RFRWG was important in it realizing its objective to catalyze a broad-based transition to SONIA based markets by end 2021.

**Figure 4. United Kingdom: The Working Group on Sterling Risk-Free Reference Rates**

The RFRWG encompasses a broad range of stakeholders and was key in catalyzing a broad sterling transition.



Source: IMF Staff.

**108. The transition strategy has been implemented through engagement through three channels.** These key channels include through *market participants*, through *official sector regulatory groups* and *international Risk-Free Rates working groups* in the other LIBOR jurisdictions. Market engagement has been two-pronged in the form of initiatives targeted at regulated firms via supervisors and market-wide initiatives aimed at end users. Both sets of initiatives have been robust and broad based. Consistent and clear messaging has been a feature of the supervisory engagement with “Dear CEO” letters to executives drawing clear links to Senior Manager’s responsibilities under the United Kingdom’s Senior Managers and Certification Regime.<sup>107</sup> Market engagement to end users has also been broad based through the RFRWG and its technical subgroups, outreach to industry associations, and high-level speeches from the U.K. authorities. The FSAP team found broad based awareness of LIBOR transition issues and timeline in discussions with a range of market participants and end users. International engagement through the official sector and market groups has also been a key element of the transition approach given the cross-jurisdictional nature and multicurrency elements of LIBOR and its broad global use. As the former FCA CEO and current Bank of England Governor co-chaired the FSB’s Official Sector Steering Group

<sup>107</sup> See <https://www.bankofengland.co.uk/prudential-regulation/authorisations/senior-managers-regime-approvals> and <https://www.fca.org.uk/publication/corporate/applying-smr-to-fca.pdf> for a discussion of the PRA and FCA regimes.

(OSSG) until end-2021 and the FCA is chairing the IOSCO Benchmarks Taskforce, the U.K. authorities have been well placed to play a leading role in encouraging international efforts to transition from LIBOR. In addition, the Bank of England and FCA have maintained close engagement directly with the other LIBOR currency jurisdictions through bilateral regulator relationships, and with the other Risk-Free Rate Working Groups.

**109. The United Kingdom has led the transition effort globally through the regular setting of milestones with definitive timelines to guide markets.** Relatively early in the transition process, the United Kingdom injected a sense of accountability into the transition effort through the adoption of clear time-bound milestones. A key channel for such milestones has been the RFRWG which in 2018 agreed metrics of success to monitor transition developments. In 2020 and 2021 the RFRWG laid out clear milestones which made it clear the actions various groups were recommended to be taking as the transition proceeded.<sup>108</sup> These milestones were explicitly supported by the PRA and FCA, ensuring regulatory alignment between industry recommended milestones and supervisory expectations. Other jurisdictions increasingly adopted this relatively disciplined approach to milestone setting through 2020 and 2021 as the end of LIBOR drew closer and the need for progress became more pressing.

#### D. The Readiness of U.K. Markets for Transition

**110. SONIA has been proven to be a robust and resilient benchmark.** The Bank of England took responsibility for the calculation and production of SONIA in 2016 and reformed the rate in April 2018. Traded volumes have been significant and even increased in the post Covid-19 period and SONIA has consistently traded close to and moved with Bank Rate (figure 5, top left panel). The COVID-19 shock period in March 2020 showed the resiliency of SONIA compared to LIBOR—the value of transactions underpinning SONIA rose as market activity shifted to overnight maturities and already limited market transactions underpinning LIBOR fell away even further. SONIA only briefly spiked relative to Bank Rate (figure 5, top left panel) while the spread of LIBOR relative to equivalent Overnight Indexed Swap rates benchmarked to SONIA remained elevated for several weeks after the onset of volatility in March 2020.<sup>109</sup> As a result, LIBOR-linked borrowing costs rose while Bank Rate was reduced as a stimulus measure.

**111. Futures markets are gradually adopting SONIA supported by the “SONIA-first” initiative in 2021.** Historically, the bulk of activity in the short-term interest rate futures market has been in instruments tied to LIBOR. However, the market is gradually shifting to SONIA based futures over the last couple of years (figure 5, top right panel). Progress accelerated in 2021 with the “SONIA-first” initiative which encouraged market participants to shift the default traded instruments

<sup>108</sup> See RFRWG “Priorities and roadmap for transition by end -2021” <https://www.bankofengland.co.uk/-/media/boe/files/markets/benchmarks/rfr/rfr-working-group-roadmap.pdf> for summary of milestones and top level priorities through 2020 and 2021.

<sup>109</sup> See Box 1 in the May 2020 Bank of England Interim Financial Stability Report for a discussion of these trends and the implications for the weaknesses of LIBOR. <https://www.bankofengland.co.uk/-/media/boe/files/financial-stability-report/2020/may-2020.pdf>

to SONIA in exchange traded derivatives from June 17, 2021.<sup>110</sup> LIBOR based futures continued to be available, but market participants were encouraged to change standard trading conventions to make SONIA the default traded instrument. Trading in OTC short term interest rate derivatives has also transitioned to the use of SONIA (for example nonlinear instruments such as interest rate caps and floors) over 2021, supported by the “SONIA-first” quotation convention in sterling non-linear derivatives from May 11, 2021.<sup>111</sup>

**112. Markets used to hedge interest rates have largely adopted SONIA referencing**

**instruments.** Liquidity in longer term interest rate swaps based on SONIA has been well established for some time. Over half of traded volumes in shorter term sterling swaps have been in swaps tied to SONIA for some years and turnover in longer dated swaps has increased from the second half of 2020 (figure 5, middle left panel). The shift to SONIA based swaps trading has been in line with milestones set by the RFRWG and assisted by a successful sterling swaps “SONIA-first” initiative in Q4 2020. The liquidity of sterling swaps (and futures) based on SONIA has generally improved in recent years and compares favorably with liquidity metrics (such as traded volumes and the ratio of price volatility to traded volumes) of LIBOR based instruments (figure 5, bottom right panel).

**113. The sterling bond market transitioned to SONIA relatively quickly and early.** New issuance of sterling floating rate notes tied to LIBOR largely ceased by the first half of 2020 (figure 5, middle right panel) and now all sterling issuance occurs based on SONIA indicating a full transition.

**114. The ISDA protocols governing fallbacks in the case of LIBOR cessation have been broadly adopted in the United Kingdom by both intermediaries and end users.** The lion’s share (by far) of exposures to LIBOR instruments are in derivatives markets whose terms are generally governed by default conventions included in the ISDA Master Agreement signed by parties entering derivatives contracts. In October 2020, new protocols became available for market participants to use which would enable a smoother transition of new and legacy derivatives contracts governed by an ISDA Master Agreement in the event of LIBOR cessation or becoming unrepresentative.<sup>112</sup> Take-up of the protocol is voluntary but has been well supported in the United Kingdom (figure 5, bottom left panel), and over 85 percent of uncleared sterling LIBOR-referencing swaps now have effective fallbacks through dual-side adherence and over 99 percent have one-sided adherence. Adherence has encompassed all interdealer brokers/banks and a wide range of buy side end users (asset

<sup>110</sup> See the FCA and BoEs joint statement encouraging the switch to SONIA exchange traded derivatives at <https://www.fca.org.uk/news/statements/fca-bank-england-market-participants-switch-sonia-sterling-exchange-traded-derivatives> in line with the RFRWG’s milestone for the cessation of new business in LIBOR based sterling exchange traded derivatives from the end of Q2 2021 – see <https://www.bankofengland.co.uk/-/media/boe/files/markets/benchmarks/rfr/rfr-working-group-roadmap.pdf>

<sup>111</sup> See the BoE-FCA ‘SONIA first’ statement at <https://www.bankofengland.co.uk/news/2021/march/fca-and-boe-encourage-market-participants-in-sonia-switch-in-sterling-non-linear-derivatives-market>

<sup>112</sup> See the protocol and data on adherents to the protocol at <https://www.isda.org/protocol/isda-2020-ibor-fallbacks-protocol/>

managers, hedge funds, corporates, insurance companies etc.). The Bank of England has adhered to the protocol in its own operations. Clearing houses publicly outlined how they would convert contracts, mirroring the work done by ISDA, before cessation dates. The effects of clearing house conversion mechanisms mean that 97 percent of sterling derivatives are covered by fallbacks.

## E. Some Remaining Issues and Recommendations

### Managing Legacy LIBOR Contracts

**115. Actively converting legacy LIBOR based instruments to RFRs is an important area to focus on going forward, across all LIBOR jurisdictions.** This is important for instruments in all currencies since many legacy instruments mature beyond the end of LIBOR itself. The U.K. authorities should continue with their multi-level active supervisory engagement with U.K. firms to encourage continued transition both in the lead-up to and after end-2021, and other international authorities should encourage the industry to pursue the active transition of legacy contracts within their respective jurisdictions. The United Kingdom’s regulatory framework provides a sound basis to manage the legacy LIBOR problem in the United Kingdom and synthetic LIBOR provides a valuable temporary backstop that will give market participants the time to continue transition or for contracts to naturally run off.<sup>113</sup> The U.K. authorities appropriately clarified how references to LIBOR should be treated in legacy contracts that could reference LIBOR after the FCA imposes a synthetic methodology. These protections have balanced the need for existing contracts to continue to function without unduly impinging on end users’ rights of redress in the event their treatment falls short of expectations from a consumer protection perspective and reflecting U.K. legislative norms.

### Supporting the Prompt Migration from LIBOR Beyond Sterling

**116. While sterling markets are ready for the transition there is more work to do in other actively traded currencies—especially in the key USD market.** A full range of instruments are available to sterling market users and the majority are ready for transition of new business to SONIA based instruments or have substantially completed that transition. This is less true for some other currencies—particularly the USD.<sup>114</sup> USD instruments are very heavily used in the United Kingdom both by U.K. based entities and global users of financial markets. The U.K. authorities have an important role to play in supporting foreign authorities, particularly in the US, and National Working Groups in other jurisdictions in ensuring new business in all currencies traded in the United Kingdom can migrate to RFRs from end 2021. Also, the U.K. authorities should ensure no new risks

<sup>113</sup> Synthetic LIBOR has design features consistent with it being a temporary backstop. Requirement under Section 23 D of the UK Financial Services Act for a synthetic LIBOR will be made in conjunction with the FCA’s decision to compel IBA to continue publishing LIBOR. This compulsion can last for 12-month at a time and needs to be reviewed at the end of the compulsion period. The FCA could compel IBA up to 10 years maximum. In the case of Japanese Yen synthetic LIBOR, the FCA has indicated it will be available for one year only from end 2021—see <https://www.fca.org.uk/news/statements/fca-consults-proposed-decision-require-synthetic-LIBOR-6-sterling-and-japanese-yen-settings#:~:text=For%20the%203%20Japanese%20yen,after%20which%20they%20will%20cease.>

<sup>114</sup> The FCA and Bank of England supported the US-led ‘RFR First’ initiative on 21 September, by encouraging UK interdealer swap market participants to change quoting conventions for LIBOR cross-currency swaps to relevant Risk-Free Rates from 21 September 2021.

aggregate at U.K. based firms from the transition and that the needs of third country stakeholders are considered—particularly developing and emerging market users of the United Kingdom’s markets retain the ability to fund and manage risks.

**117. The U.K. authorities’ role is largely one of advocacy in support of the transition of non-sterling currencies.** The Bank of England and FCA have been vocal in supporting the U.S. authorities’ message that U.S. markets need to take urgent action to end most new use of U.S. dollar LIBOR by end-2021 and transition new business to more robust overnight risk-free rates (i.e., SOFR—the U.S. Alternative Reference Rate Committee’s recommended alternative to LIBOR).<sup>115</sup> They have also supported the U.S. CFTC’s ‘SOFR First’ initiatives at the global level and within U.K. markets, and have re-iterated U.S. authorities’ views that alternative credit sensitive benchmarks replicate the weaknesses of LIBOR and are unsuitable for widespread use in the post LIBOR world.<sup>116</sup> It’s appropriate that this support continues. The United Kingdom’s leadership at the FSB’s Official Sector Steering Group (FSB-OSSG) has been an important part of its international co-ordination and advocacy efforts.

**118. The United Kingdom has regulatory tools to help manage risks and provide backstops to the side-effects of transition which could be judiciously employed.** Provided the necessary component inputs for a synthetic LIBOR are available and that there is a risk to consumers or market integrity from a disorderly wind down, the FCA can decide to compel the LIBOR administrator to continue to publish certain LIBOR currency-tenor pairs under a synthetic methodology for one year at a time, up to a maximum duration of 10 years. The U.K. authorities have been strong proponents of recommended RFRs, including SOFR given its robustness and deep and liquid underlying markets. The U.K. authorities have also voiced their skepticism of newly created credit sensitive benchmarks that share the fundamental weaknesses of LIBOR. This seems appropriate as the credit sensitive rates that have emerged are based on thinly traded markets that could deteriorate further should future regulatory changes in money markets reduce activity in the referenced segments even further making those rates unrepresentative, in normal times but especially in times of market stress. It may be necessary to use regulatory/supervisory tools to ensure that the instruments replacing LIBOR do not themselves confer new risks to U.K. firms. The U.K. authorities are using their powers to stop U.K. based firms from writing new LIBOR based business in support of foreign authorities’ transition timelines—for example on 16 November 2021 the FCA published a notice confirming the

<sup>115</sup> See for example the PRA.FCA March 2021 “Dear CEO” letter indicating their expectation that UK firms to follow relevant local guidance on LIBOR transition - <https://www.bankofengland.co.uk/-/media/boe/files/prudential-regulation/letter/2021/march/transition-from-libor-to-risk-free-rates.pdf>. In addition, the UK has played a significant role in supporting the US CFTC’s SOFR First initiatives and international authorities & industry working groups’ efforts to implement a global ‘RFR First’ for cross-currency swaps.

<sup>116</sup> See for example speeches from the Bank of England Governor and the FCA advocating for a “strong finish” to the LIBOR transition process and arguing against the use of credit sensitive benchmark rates - <https://www.bankofengland.co.uk/speech/2021/may/andrew-bailey-a-moderated-discussion-with-john-williams-president-of-ny-fed> and <https://www.fca.org.uk/news/speeches/LIBOR-6-months-to-go> and from US Financial Stability Oversight Committee members Secretary Yellen - <https://home.treasury.gov/news/press-releases/jy0224> and Secretary Gensler of the Securities and Exchange Commission - <https://www.sec.gov/news/public-statement/gensler-fsoc-LIBOR-2021-06-11> and from IOSCO on the appropriateness of credit sensitive benchmarks <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD683.pdf>.

prohibition on new LIBOR use, under Article 21A of the Benchmarks Regulation, of the five continuing U.S. dollar LIBOR settings from the start of 2022, and the exceptions under which new use is allowed.

## **Monitoring and Regulation of Systemic Financial Benchmarks**

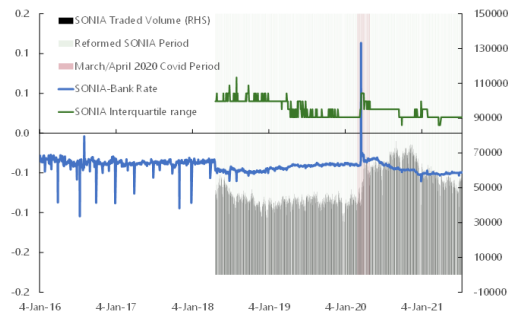
**119. It is important that both the U.K. and global authorities continue to actively monitor and regulate systemically important financial benchmarks.** Markets and authorities alike have expended significant resources in recent years transitioning from LIBOR. It will be important for some focus to remain on financial benchmarks to ensure new LIBOR-like problems do not emerge. The U.K. authorities can play an important role in encouraging ongoing global attention through their participation and leadership on the FSB-OSSG and IOSCO. Domestically, it would be appropriate for some domestic group of market participants and regulators to refocus their terms of reference to manage future benchmark representativeness and transition risks. In the United Kingdom, this could be in the form of a revamped ToR for the RFRWG or the SONIA oversight or Money Market Committees. However, international co-ordination will play a central role in the cross-jurisdictional and decentralized post-LIBOR world. It would be ideal for an oversight group to combine market participants and regulators as in the RFRWG.

**120. The U.K. regulatory framework might benefit from stronger preemptive tools for managing future transition risks.** The United Kingdom's regulatory framework provides the FCA with one of the most flexible toolkits for managing financial benchmarks globally. The existing framework, while catering well for the transition from LIBOR as it is specified as a critical benchmark that is known to be ceasing, includes fewer tools for the authorities to use earlier in the development of markets to preemptively manage the risks of emerging benchmarks. The U.K. authorities could explore options for updating the regulatory framework in this regard, alongside other possible policy interventions, over the medium term to ensure that the tools are in place for managing future transition risks.

### Figure 5. United Kingdom: Indicators of Transition Progress in Sterling Markets

The SONIA benchmark is robustly based and resilient ....

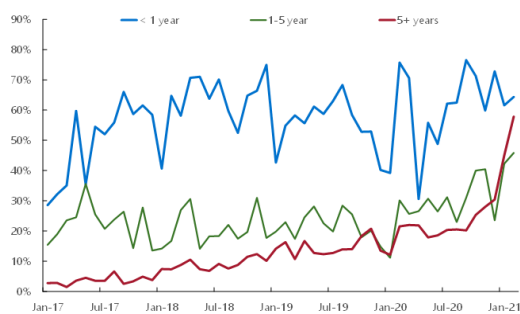
**SONIA Relative to Bank Rate, Intraday Traded Range and SONIA Traded Volumes**  
(Percent and Sterling millions, daily)



Sources: Bank of England and IMF Staff calculations.

But longer-term interest rate hedging instruments are well established for SONIA based instruments ....

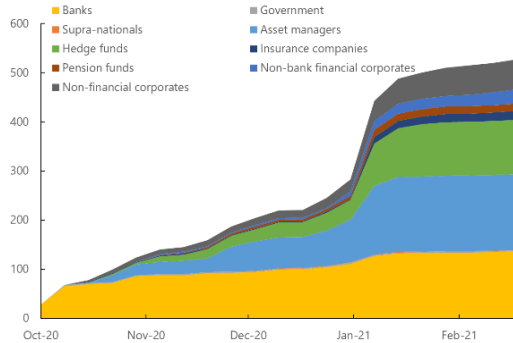
**Share of SONIA Based in Total Cleared Sterling Interest Rate Swaps Turnover**  
(Percent of total turnover by maturity)



Sources: LCH and Bank of England calculations.

There has been broad adoption of the ISDA fallbacks in the United Kingdom...

**Cumulative Adoption of the ISDA Fallback Protocols - U.K. Entities**  
(Number of entities)



Source: ISDA.

Short term futures trading has taken longer to move to SONIA....

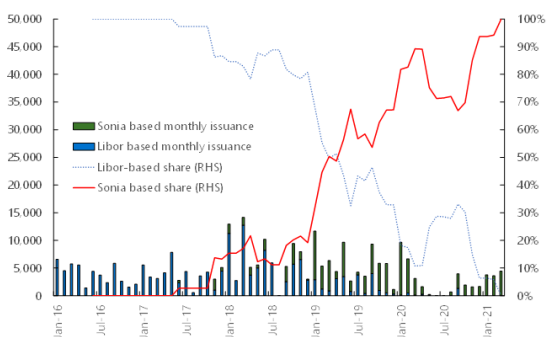
**Share of SONIA Based to Total Sterling Short Term Futures Volumes and Open Interest**  
(Percent of total traded volumes and open interest)



Sources: CME Group, ICE, LSE Group, UK authorities and IMF staff calculations.

The Sterling bond market has fully transitioned....

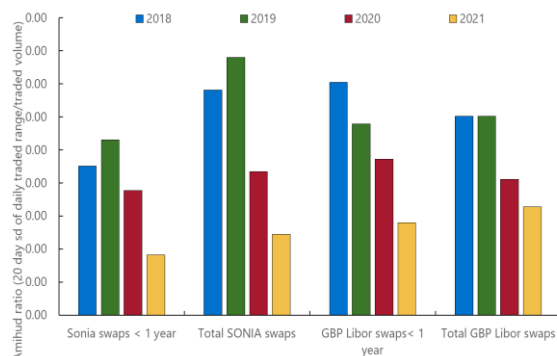
**Monthly Issuance of Sterling Floating Rates Notes-Libor vs. SONIA Based**  
(Sterling millions, percent of monthly issuance)



Sources: Bloomberg and IMF staff calculations.

Liquidity metrics in SONIA hedging markets suggest robust and improving levels of liquidity.

**SONIA and LIBOR Based Swaps Liquidity - 2018-2021**  
(Amihud ratios - 20 day standard deviation of daily yield volatility relative to daily average traded volumes)



Sources: Bloomberg, UK DMO, IMF Staff estimates.

## RISKS AND TRENDS IN DIGITAL MONEY<sup>117</sup>

### A. An Evolving Global Landscape

**121. Financial innovation and adoption of crypto assets has accelerated, while regulation and policies are catching up.** Globally, crypto assets total market capitalization has grown by a factor 10 since 2018 and is now comparable to some established asset classes such as US high-yield bonds. More recent innovations such as stablecoins and decentralized finance (DeFi) have been growing fast and have potential to grow their use cases and gain adoption. Financial services may evolve rapidly in the near and medium term. Financial stability risks are not yet systemic but should be closely monitored given the global implications and the inadequate existing operational and regulatory frameworks in most jurisdictions. Regulatory responses are being re-analyzed, while international standard setters have made progress on issuing recommendations and guidance.<sup>118</sup> Many Central Banks are also considering issuing Central Bank Digital Currencies (CBDCs), with policy objectives and design choices varying with their context.

**122. Crypto assets encompass a wide array of new private digital assets, many with risky but not yet systemic implications.** Original crypto assets (like Bitcoin and Ethereum) are denominated in their own unit of account and are unbacked. These have no intrinsic value and are highly volatile and risky investments. A large proportion of crypto assets are not regulated and could expose consumers and the financial system to risks. When investors build up leverage, interconnectedness grows, and participants increase their exposures without a commensurate rise in loss-absorbing capital, and more broadly if market participants do not properly price the risk inherent to crypto assets. So far, episodes of loss of confidence in crypto assets have had limited spillovers even with the high volatility they show (see IMF 2021a). Confidence effects from failures of crypto providers have been limited, but risks could be amplified using leverage offered on some crypto exchanges. Decentralized Finance (DeFi) products can also expose users to risks as their products are more complex and less transparent, with technological and governance risks potentially arising.

**123. Stablecoins may become a new form of digital money and systemic risks may arise.** Stablecoins are a newer form of crypto assets that aim to maintain stable value—usually, relative to a fiat currency. Currently, stablecoins are mostly used as a medium of exchange on cryptocurrency networks but have the potential to become means of payment. Stablecoins' collateral backing and price stabilization mechanisms may differ—some existing stable coin arrangements may not be able to guarantee redemption at face value into commercial bank or central bank money on demand in every state of the world. Thus, depending on their perceived safety and backstops, as well as their future uses and adoption, these could create consumer, market integrity, and financial stability risks

<sup>117</sup> This chapter was authored by Federico Grinberg (IMF). It is based on public information and reports published by the BOE. It focusses only a select set of issues that appear relevant for the financial stability framework of the United Kingdom.

<sup>118</sup> See BCBS (2021) consultation on the treatment for crypto assets on bank balance sheets; CPMI-IOSCO (2021) consultation on the regulatory response for stablecoins for regulatory responses

just as traditional payment systems. Importantly, the possible entry of new players with large digital use bases may help accelerate adoption and create systemic risks quickly.

**124. Leveraging the opportunities from financial innovation while containing risks will challenge policy makers in all countries.** Technological innovation is ushering in a new era that makes payments and other financial services possibly cheaper, faster, more accessible, and allows them to flow across borders swiftly. Stablecoins could allow instant access to a vast array of financial products from digital platforms and may reduce currency conversion frictions and costs in cross-border payments<sup>119</sup> These opportunities can be sizable especially for jurisdictions with large and internationalized financial sectors, but systemic risks from cross-border activity may also grow fast. The U.K. hosts the largest global financial center and authorities are committed both to innovation to maintain its global competitiveness and to ensure robust regulatory standards so that innovations take place safely. Allowing for an arena for new financial services will require special focus in containing and managing new systemic risks: accelerated innovation and fast adoption of stable coins and other financial innovations could result in large changes in the structure and functioning of the payments and financial system and may challenge policymakers and regulators' resources and competencies, and coordination.<sup>120</sup>

## B. Trends, Challenges, and Policy Approach

**125. As of November 2021, the size of the United Kingdom's crypto asset market (including stablecoins) is still relatively small but growing.** Monitoring the activity of crypto asset service providers is complicated by the global and largely unregulated nature of the market.<sup>121</sup> It is difficult to precisely quantify the U.K.'s domestic crypto adoption because of limited, fragmented and, in some cases, unreliable data. However, available evidence suggests a growing uptake of crypto assets. Chain analysis (2021)'s methodology ranks the U.K. first in Europe and 12th globally in terms of value received per country, while it ranks 5th in terms of DeFi transaction volumes. The Financial Conduct Authority (FCA) has been conducting yearly user surveys since 2019. Latest survey results estimate that about 2.3 million adults hold crypto assets and show that main retail case is speculative investment, but more are seeing these assets as part of an investment portfolio and plan to invest more (see FCA 2021). Exposures by hedge funds and other institutional investors seems to

<sup>119</sup> Stablecoins are popular on decentralized crypto networks where they can be borrowed in exchange for cryptocurrency-based collateral or used as payment in self-executing "smart contracts" that resemble loans or other financial products.

<sup>120</sup> Collaboration by different U.K. institutions in the context of the Cryptoassets Taskforce and the CBDC Taskforce shows important efforts to bridge potential coordination challenges. The Cryptoassets Taskforce was announced in March 2018 by the Chancellor of the Exchequer as part of the government's FinTech Sector Strategy. The Taskforce consists of HM Treasury, the Financial Conduct Authority, and the Bank of England, and is working to develop a response to cryptoassets, stablecoins and distributed ledger technology. In April 2021, the Bank and HM Treasury announced the joint creation of a CBDC Taskforce. This is to ensure a strategic approach is adopted between the UK authorities as they explore CBDC. The Bank also announced the creation of a CBDC Engagement Forum and a CBDC Technology Forum. These will engage stakeholders and gather input on CBDC.

<sup>121</sup> Monitoring the activity of crypto asset service providers is complicated by limited, fragmented, and, in some cases, unreliable data. Public data sharing by crypto asset providers is currently mostly voluntary and lacking standardization. Analyzing on-chain transactions is challenging as well and techniques are at an early stage.

be growing as well, while core financial institutions are starting to offer custody services (see Cunliffe 2021).

**126. The U.K. authorities have taken a proactive approach by monitoring and issuing consumer protection regulations.** The FCA has taken important steps to protect consumers by setting realistic consumer expectations: it clarified that most crypto assets fall outside its regulatory perimeter, issued consumer warnings, banned derivative trading for retail users, and it became the anti-money laundering and counter-terrorist financing supervisor of U.K. businesses carrying out specific crypto asset activities.<sup>122</sup> In October 2020, a consultation on bringing more crypto assets within FCA financial promotions regime was published. In January 2021, HM Treasury (HMT) issued a consultation on the broader regulatory approach to crypto assets, including stablecoins.

**127. Regulations for stablecoins used as means of payment are being developed under the principle of “same activity, same risks, same regulatory outcomes (as per HMT 2021 consultation)”.** Since stablecoins have the potential to offer both a new means of payment and a new way of storing wealth, a proposed regulatory framework is being designed to support these two functions (see BOE 2021).<sup>123</sup> The Financial Policy Committee’s regulatory expectations are that (1) payment chains that use stablecoins should be regulated to standards equivalent to those applied to traditional payment chains and firms in stablecoin-based systemic payment chains that are critical to their functioning should be regulated accordingly and (2) systemic stablecoins should meet standards equivalent to those provided by commercial bank money in relation to stability of value, robustness of legal claim and the ability to redeem at par in fiat.<sup>124, 125</sup> Thresholds for new participants of stablecoin arrangements to be classified as systemically important have already been proposed by HM Treasury at consultation.<sup>126</sup> Important challenges for authorities will be to provide a regulatory framework that can be flexible to be applied to the introduction of new propositions for

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<sup>122</sup> See guidance given by FCA (2019).

<sup>123</sup> HM Treasury (2021) public consultation is the first phase of a legislative process to crypto-assets and stablecoins. It proposes that stablecoins to be used in retail or wholesale payments should be subject to minimum requirements and protections as part of the authorization process under the Financial Conduct Authority. When systemic thresholds are met, the Bank of England (BOE) would apply enhanced requirements and regulation grounded in the Principles for Financial Market Infrastructures (PFMI).

<sup>124</sup> These expectations are consistent with CPMI-IOSCO’s guidance on how to apply the Principles of Financial Market Infrastructures to stablecoins. This report also clarifies that, even when stablecoins allow for different functions of payments may be carried by different entities, the one responsible for transfer is responsible for managing the risks to a safe operation.

<sup>125</sup> For example, stablecoin issuers could be regulated like banks that back their liabilities with non-liquid assets like loans; liquid assets such as government bonds and certain corporate securities; and/or reserves held with a central bank. Alternatively, they could be required to back their tokens with high-quality liquid assets (HQLA); with central bank liabilities equivalent to reserves; or with deposits placed at commercial banks acting as custodians.

<sup>126</sup> Criteria for recognizing payment systems as systemic are included in Part 5 of the Banking Act 2009 and would apply to recognizing systemic stablecoins under the Treasury’s proposed regime. See 3.30 to 3.37 in [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/950206/HM\\_Treasury\\_Cryptoasset\\_and\\_Stablecoin\\_consultation.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/950206/HM_Treasury_Cryptoasset_and_Stablecoin_consultation.pdf)

means of payments as well to ensure having the correct skills to understand new business models and links between them.

**128. The U.K. authorities are also exploring design and policy issues relating to a CBDC for a safe publicly issued digital asset.**

- Though a decision to issue a CBDC has not been taken, authorities have made good progress in analyzing different models, design options, and trade-offs. Authorities announced a consultation to take place in 2022 as part of a “research and exploration” phase and that would inform a decision to advance to a “development” phase. The earliest possible date for a U.K. CBDC would be in the second half of the decade.
- BOE (2020) proposes a “platform” model, where the public sector would issue a CBDC and provide an infrastructure with basic functionality, leaving private payment providers to serve customers directly and innovate to add value through additional functionalities and services (see Box 4 for details). Such model of CBDC based on a public-private partnership could help limit market power of large private payment providers by offering a new public alternative digital form of money. Nevertheless, CBDC comes with many new challenges for central bank including design choices, building capacity and operational risks alongside containing any adverse effect on the ability of the existing financial system to provide credit to the economy.

### C. Evolving Financial Stability Issues

**129. Changing structure of financial system could result in banks’ business models coming under pressure.** CBDC but also new private digital money may compete with deposits at commercial banks if they are perceived as convenient and safe as those: to avoid a shrinking deposit base, banks may increase deposits’ remuneration. Commercial banks are key in maturity transformation and credit allocation—functions that the central bank cannot provide efficiently—because they are better at alleviating information frictions and monitoring debtors. Although stronger competition has advantages for consumers and can increase the returns and options available for depositors, it may also raise funding costs for banks, lower banks’ margins, and lead to a loss of consumer relations and data on transactions that would undermine banks’ profits. This could result in depressed bank lending and lower bank-funded investment. The BOE analyzed the potential macro financial impact of digital money and found that, while these effects may be manageable, there is a large range of uncertainty around the potential demand for new forms of digital money.<sup>127</sup> The BOE is thus considering the use of limits of digital money during any transition period as one option to contain financial stability risks and help achieve its policy objectives, though no decision has been made. A CBDC can be designed to mitigate these risks.<sup>128</sup> However, policy

<sup>127</sup> See BOE (2021).

<sup>128</sup> Some design options for a retail CBDC could be a non-remunerated CBDC, a penalized remuneration (negative rates), a tiered remuneration or putting caps to holdings and/or transactions. See Bindseil (2020) and BOE (2020, 2021).

makers may find more challenging to influence the design of privately issued digital money, which could then result in a larger impact on banks.

**130. Threats to the sustainability of the existing financial system may require the development of new toolkits.** How to analyze banks' profitability and liquidity risks if cryptoassets or CBDCs gain adoption? An array of new methods may be needed where general equilibrium analysis should play a key role by incorporating different agents' strategic responses to these innovations. This could include modifications to stress tests and sensitivity analysis. For example, BOE (2021) provides a good example of how to construct such an illustrative scenario. Exercises where banks can respond dynamically to a shift in deposit demand should also be considered. While quantitative methods should be developed and refined, the challenges and uncertainty of not having historical precedents for calibration should not be underestimated.

**131. With safer stablecoins, new asset classes and new ways to intermediate may emerge, together with newer (systemic) risks.** Stablecoins may gain adoption outside the existing crypto ecosystem once these are regulated, and their failure risks are better managed. Stablecoins may then become "mainstream" thanks to their convenience in being used as both for settlement and as collateral. Some stablecoins may be backed by fiat money if it is made available to them—a model in which Central Banks may support the development of safe and efficient stablecoins.<sup>129</sup> At the same time, tokenization of traditional assets may become more common", increasing their liquidity and making them easier to be transacted. This can result in accelerated financial innovation and the creation of new markets. Better ways to provide financial services may be developed, thanks to lower settlement risks, programmability, and cryptography. But financial stability risks can grow rapidly due to poor understanding of these new securities and markets. Depending on the interconnectedness with core financial institutions, the ability to leverage opaque positions, and potential risks underestimation, these risks can grow under the surface and become systemic.<sup>130</sup> The potential for stablecoins to scale rapidly raises additional issues related to systemic risk and concentration of economic power. Going forward, policy and regulatory frameworks will need to be nimble to clearly answer what could be the legal basis for a new activity or product, who should regulate and supervise it, and which regulation should apply. For instance, concerns about the growth of systemic risk and concentration of economic power of new entities may require implementing interoperability standards and possibly restricting affiliation with other commercial activities. Such frameworks effectiveness will require sufficient resources in terms of budget, staffing, and skill sets.

**132. Rapid adoption of digital money could reshape the international monetary and financial systems with wide-ranging implications for financial stability.** The digital nature of these new forms of public and private money makes seamless provision of payment and financial services across borders possible. Adoption could be rapid, giving policy makers little time to adapt.

<sup>129</sup> See Adrian et al (2021) and BOE (2021).

<sup>130</sup> Cyber security risks can also grow as crypto asset adoption could increase the attack surface on users as well as the financial system, to the extent that it becomes more connected with the crypto ecosystem.

Lower transaction costs and frictions are likely to increase gross capital flows and capital flows' volatility. This poses challenges to financial stability and monetary policy effectiveness. Higher gross capital flows may result in greater international contagion in the event of a crisis and flows outside the traditional payment system may be more difficult to monitor and forecast. This could also sharpen the "policy trilemma" complicating the conduct of monetary policy and the management of exchange rates (IMF 2020). These challenges are likely to be high for countries with relatively weaker policy frameworks. But countries with financial centers that intermediate capital flows into these countries will also increase their exposure to higher volatility and contagion.

**133. International cooperation on design, regulation, and interoperability should be central. Capital flow measures (CFMs) are part of the macroprudential tools used by some countries to manage capital flows volatility.** The design of CBDCs or private stablecoins issued by regulated entities that could accommodate CFMs when digital monies may cross borders—and may even provide opportunity to make CFMs more targeted and efficient. Even countries with sluggish adoption of digital money may still experience spillover effects from shifts in the international monetary and financial system—highlighting the pressing need for international collaboration to leverage the benefits of new technology without compromising global financial stability. The United Kingdom's authorities recognize the need of ensuring that CBDCs do not harm and for the need of continued cooperation to minimize spillovers.<sup>131</sup> More generally, establishing international standards for regulation of private digital money will help to better manage risks, both domestically and across borders. Ensuring interoperability of cross-border payment systems and broad agreement on legal and regulatory principles for these new forms of digital money may also help avoid fragmentation of the international monetary system. Finally, liquidity backstops and prudential regulation for systemic players in the digital ecosystem will be crucial to safeguard global financial stability and limit contagion.

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<sup>131</sup> Under the U.K.'s Presidency, the G7 published a report on Principles for CBDC that stresses the issuer countries should design their CBDC to avoid risks to the international monetary and financial system, should collaborate to enhance cross-border payments with CBDC, and preserve international and recipient countries' monetary sovereignty and financial stability.

### Box 4. A Digital Pound Sterling?

On 19 April 2021 the Bank of England and HM Treasury announced the joint creation of a retail Central Bank Digital Currency (CBDC) Taskforce to coordinate the exploration of a potential CBDC. A decision has not been yet made and the Taskforce is engaging widely with stakeholders to gather input on pros, cons, and practicalities of CBDC. The Taskforce aims to ensure a strategic approach is adopted between the U.K. authorities as they explore CBDC, in line with their statutory objectives, and to promote close coordination between them. Responsibilities include:

- Coordinating exploration of the objectives, use cases, opportunities, and risks of a potential retail CBDC.
- Guiding evaluation of the design features a CBDC must display to achieve U.K. goals.
- Supporting a rigorous, coherent, and comprehensive assessment of the overall case for a CBDC.
- Monitoring international CBDC developments to ensure the U.K. remains at the forefront of global innovation.

The BOE has sought to identify opportunities and challenges of CBDC and analyzes how those stacks against BOE's objectives to extract principles. What CBDC design alternatives would be most appropriate and what the infrastructure that may support it: in terms of functionality may be needed to provide benefits to users and in the roles for the public and private sector in CBDC provision and management. The BOE has been agnostic about technology choices and is evaluating the pros and cons of traditional centralized technologies alongside distributed ledger technologies (DLT).

To meet BOE's objectives of maintaining monetary and financial stability, payments must be reliable and resilient, and users should benefit from payments that are fast and efficient. This requires payment systems to be innovative and open to competition. CBDC could increase the availability and usability of central bank money, helping to support monetary policy and financial stability, and could help to avoid the risks of new forms of private money (like stablecoins). It could support a resilient, innovative, and competitive payments landscape, helping to meet future payments needs. A CBDC would increase the availability and usability of central bank money. The BOE currently provides the public with access to central bank money in the form of physical cash. It is committed to providing cash as long as consumers demand it. CBDCs could however help to address some of the consequences of a decline in the use of cash. And a domestic CBDC may also enable better cross-border payments in the future (see IMF 2021a).

A CBDC may introduce policy and operational challenges. If commercial banks' deposit balances are moved from commercial banks to CBDC, it could have implications for financial system's balance sheets, and credit provided by banks to the wider economy. Design features could be added to contain this. A CBDC could be non-remunerated CBDC, could have a penalized remuneration (negative rates), a tiered remuneration (see Bindseil (2020)), or caps to holdings and/or transactions could be put in place. Also, a CBDC could also change the demand for base money, potentially impacting the implementation of monetary policy. Digital money could also give authorities access to user identity and transaction data that could provide financial integrity oversight benefits but could also raise concerns about digital surveillance and privacy. Operational considerations and risk management are important as well. For example, cybersecurity risks of a potential U.K. CBDC should be identified and assessed, with focus on system resilience and integrity, infrastructure security, and identity and access management of participants, including privileged roles and credential recovery mechanisms.

BOE (2020) presented for discussion an innovative "platform" model of CBDC designed to enable households and firms to make payments and store value. The BOE would provide a fast, highly secure, and resilient technology infrastructure that would provide minimum necessary functionality of CBDC payments. Payment Interface Providers would connect and provide customer facing CBDC payment services and could provide value-added services to their users that could harness programmability, smart contracts, and micro payments. Based on its comparative advantage of building services for large number of consumers, the role of the private sector would be running the "front-end".

In 2022, HMT and the BOE will launch a consultation which will set out their assessment of the case for a U.K. CBDC, including the merits of further work to develop an operational and technology model for a U.K. CBDC. The consultation will inform a decision on whether the authorities want to advance into a 'development' phase which would span several years. A technical specification would follow the consultation explaining the proposed conceptual architecture for any CBDC. This could involve in-depth testing of the optimal design for, and feasibility of, a U.K. CBDC. If the results of this 'development' phase were to be satisfactory, then the earliest date for launch of a U.K. CBDC would be in the second half of the decade.

## CLIMATE-RELATED DISCLOSURES<sup>132</sup>

### A. Executive Summary and Key Recommendations

**134. A wide range of initiatives on climate-related disclosures have been taken by the U.K. authorities that play in a leading role in the pursuit of global sustainable development.** It is recognized that the “*greening the financial system*” strategy involves three phases (informing investors and consumers, acting on information and shifting financial flows to align with the U.K. net zero commitment). Sustainability-related disclosures are a key component of the U.K. strategy to deliver phase 1. Overall, the transition towards mandatory-aligned TCFD disclosure is well under way in the United Kingdom.<sup>133</sup> Notably, an integrated framework for disclosures on sustainability across the U.K. economy has been announced.

**135. While there has been significant progress, banks’ climate disclosures remain incomplete across the TCFD’s four pillars.** The planned introduction of mandatory TCFD-aligned disclosures and detailed supervisory expectations for all banks have produced positive and tangible progress in the United Kingdom. Compared with their peers, U.K. banks are certainly well positioned. Most large banks have formally endorsed the TCFD framework and there has been a significant increase in the disclosure of TCFD-aligned information in the banks’ annual reports and/or in dedicated TCFD reports. That said, despite extensive efforts to better manage climate-related risks, banks are facing several challenges: data gaps, lack of widely accepted methodologies (e.g., scenario analysis is still a new and evolving area), and difficulty associated with developing forward-looking metrics that can help translate climate developments into financial impacts. As banks’ first TCFD-aligned disclosures under recently introduced requirements have yet to be published, it is not surprising to observe a wide range of practices across the banking industry in the United Kingdom, with clear differences between large banks and smaller firms.

**136. Considering these challenges, promoting more consistent, comparable, and higher-quality disclosures based on more detailed binding standard will be desirable.** Moving towards mandatory disclosures is essential but is unlikely to be sufficient. Changing gears and moving to the next stage of implementation of climate-related disclosures may require at some point increased standardization and more detailed expectations around the content of public disclosures to ensure comparability of disclosures across firms, support the pricing of climate-related risks and facilitate the monitoring of financial stability risks arising from climate change. As they continue to advance their proposals, it will therefore be very important for the U.K. authorities to specify regulatory standards and guidance with sufficiently detailed requirements and expectations (e.g., specific reporting requirements, practical content of transition plans, harmonization of key metrics, etc.),

<sup>132</sup> This chapter was authored by Luc Riedweg (IMF) and Thomas Curry (IMF Expert).

<sup>133</sup> In 2017, the Financial Stability Board’s (FSB’s) Task Force on Climate-related Financial Disclosures (TCFD) provided overarching recommendations around four thematic areas representing core elements of how organizations operate (governance, strategy, risk management, and metrics and targets).

building on existing work and in accordance with international standards that are currently being developed (see Table 5).

Table 5. United Kingdom: Main Recommendations		
Recommendation	Priority	Timeline
1. Continue enhancing sustainability disclosure and reporting requirements to improve consistency, comparability, and quality of climate-related information, including quantification of financed emissions, in accordance with emerging best practices and internationally agreed standards	High	MT
NT = Near Term (now to one year); MT = Medium Term (within 1 to 3 years)		

## B. Climate-Related Disclosures of U.K. Banks

**137. Improving financial firms' disclosures of climate-related financial disclosures is an imperative necessity.**<sup>134</sup> High-quality disclosures about how firms and assets will be impacted by—and impact—environmental change will improve transparency and enhance access to information for investors, other market participants, and policy makers. It will enable the monitoring of financial stability risks arising from climate change, such as concentration of carbon-related-assets in the financial system, while facilitating better informed pricing of climate-related risks, as well as better informed business, risk, and capital allocation decisions by individual financial firms. By providing market participants with the information, they need to manage risks, and seize opportunities, this should drive investment in more sustainable projects and activities. This should also help ensure that issuers and borrowers can access funding at a cost of capital that appropriately reflects how they manage climate-related risks and opportunities.

**138. Global initiatives to address climate-related disclosures have been launched.** In 2017, the Financial Stability Board's (FSB's) Task Force on Climate-related Financial Disclosures (TCFD) provided overarching recommendations around four thematic areas representing core elements of how organizations operate (governance, strategy, risk management, and metrics and targets) that are supported by recommended disclosures regarding climate-related metrics and targets.<sup>135</sup> The TCFD's recommendations promote transparency but are not a corporate reporting standard. Reporting standards for sustainability will be developed by the International Sustainability Standards Board (ISSB) established by the IFRS Foundation, building on the work of the TCFD. Without relevant disclosures, financial sector stakeholders would not be able to properly price and manage climate-related risks.

**139. In this context, a wide range of initiatives on disclosures have been taken by the U.K. authorities that play in a leading role in the pursuit of global sustainable development.** In 2019, the United Kingdom committed in law to net zero greenhouse gas emissions by 2050 and the U.K. government published the Green Finance Strategy. The Chancellor announced in October 2021

<sup>134</sup> See "Strengthening the Climate Information Architecture", IMF Staff Climate Note, September 2021.

<sup>135</sup> In 2020, the TCFD also published a consultation on Forward-Looking Financial Sector Metrics. The guidance on metrics, targets and transition planning was published by the TCFD issued in October 2021.

that “the U.K. plans to become the world’s first net zero aligned financial centre”.<sup>136</sup> It is recognized that “greening the financial system” involves three phases (informing investors and consumers, acting on information and shifting financial flows to align with the U.K. net zero commitment).<sup>137</sup> Sustainability-related disclosures are a key component of the U.K. strategy to deliver phase 1. Overall, the transition towards mandatory-aligned TCFD disclosure is well under way in the United Kingdom:

- In April 2019, the Prudential Regulation Authority (PRA) issued a supervisory expectation (SS3/19) that PRA-regulated firms should consider engaging with the TCFD framework and wider initiatives on climate-related financial disclosures to promote the benefits of disclosures that are comparable across firms. In a July 2020 Dear CEO letter, the PRA emphasized that all banks and insurers should continue to develop their capability for producing robust, decision-useful disclosures. The Dear CEO letter set a deadline of year-end 2021 for firms to have fully embedded the PRA’s supervisory expectations on climate. Climate change related financial risk is embedded in the PRA’s supervisory approach.<sup>138</sup> Heightened attention to climate disclosures took place in 2021 and is ongoing. The PRA intends to pay particular attention to how firms quantify climate-related risks and how they incorporate those risks into business and risk management strategies and has pledged to keep a range of supervisory tools available where progress is deemed to be insufficient at individual firms.<sup>139</sup>
- The United Kingdom was one of the first jurisdictions to publicly endorse the TCFD’s recommendations. The U.K. joint Government-Regulator TCFD Taskforce introduced in November 2020 a Roadmap towards mandatory TCFD-aligned disclosures across financial and non-financial sectors that sets out an indicative path, over the next five years. The roadmap presents a coordinated strategy for seven categories of organizations.<sup>140</sup> For each category, the details of implementation will be determined by the relevant regulator or Government department. In December 2020, the Financial Conduct Authority (FCA) issued final rules to introduce a rule for premium-listed companies to include a statement in their annual financial report setting out whether they have made disclosures consistent with the TCFD’s recommendations on a comply or explain basis.<sup>141</sup> Companies that are unable to produce a statement evidencing compliance will have to set out why this is the case. The FCA also published additional guidance to clarify the level of expected alignment of disclosures with

<sup>136</sup> [Chancellor: UK will be the world’s first net zero financial centre - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/news/chancellor-uk-will-be-the-worlds-first-net-zero-financial-centre) (October 2021).

<sup>137</sup> See “Greening Finance: A Roadmap to Sustainable Investing”, HM Government, October 2021.

<sup>138</sup> As detailed in the TN on banking supervision and regulation. See also: Supervisory Statement (SS 3/19); Dear CEO Letter from Sam Woods “Managing climate-related financial risk—thematic feedback from the PRA’s review of firm’s SS3/109 plans and clarifications of expectations (July 2020).

<sup>139</sup> E.g., PRA Dear CEO Letter “Deposit Takers Supervision: 2022 priorities”, January 2022.

<sup>140</sup> Listed commercial companies; UK-registered companies; banks and building societies; insurance companies; asset managers; life insurers and FCA-regulated pension schemes; and occupational pension schemes.

<sup>141</sup> The new rule will apply for accounting periods beginning on or after January 1, 2021. The first annual financial reports including disclosures subject to the rule will be published in Spring 2022.

TCFD guidance materials. Disclosure obligations are detailed in the FCA Handbook guidance provisions. Importantly, the FCA has included in the Handbook references to the TCFD's recent updates to the TCFD Annex and the TCFD's standalone guidance document on metrics, targets, and transition planning. The FCA has also extended climate-related disclosure requirements to issuers of [standard listed companies](#), as well as [asset managers, life insurers and pension providers](#), in line with the recommendations of the TCFD. In November 2021, the FCA published a Primary Market Bulletin ([PMB36](#)) with details of its supervisory strategy in respect of the new disclosure requirements—including a consultation on a new Technical Note to provide more guidance on the regulator's disclosure expectations.

- As a large proportion of banks, building societies and insurance companies are also listed commercial companies or U.K.-registered companies and will fall within the scope of one or both of those categories subject to FCA rules, no additional regulatory requirements have been proposed for the time being.<sup>142</sup> The PRA will perform a review of firms' published disclosures after the deadline of year-end 2021 set by the Dear CEO letter and determine whether additional measures are required to improve quantity, quality or consistency of disclosures. It is also worthwhile noting that the PRA sent in September 2021 a Dear CFO letter to firms and auditors. The letter provides thematic feedback from the PRA's review of written auditor reports received in 2021. As part of next year's round of written auditor reporting that will also explore risks related to climate change, the PRA has asked for auditor's views on how robust firms' risk assessments are regarding the impact of climate change on balance sheets, and the quality of the underlying data, models, and processes to support these assessments.
- Continued close engagement with industry has been observed. The FCA and the PRA jointly established and co-chair the Climate Financial Risk Forum (CFRF), which brings together senior industry representatives and financial regulators to advance financial sector responses to the financial risks and opportunities presented by climate change. It produced in June 2020 a detailed guide ("*written for industry by industry*") on how to approach climate disclosure, risk management, scenario analysis and innovation. In October 2021, the CFRF published its second round of guides, including on risk appetite statements and managing legal risk, as well as a climate data and metrics dashboard and disclosure case studies. Those guides provide extremely valuable and practical information.

**140. An integrated framework for disclosures on sustainability across the U.K. economy has been announced.** Building on previous initiatives, the U.K. government published in October 2021 its Roadmap to Sustainable Investing, setting out details on new Sustainability Disclosure Requirements (SDR) and on the U.K. Green Taxonomy. An indicative path towards "*integrated economy-wide disclosure*" under the SDR framework has been proposed. One of the objectives is to require the most "economically significant" U.K.-registered and U.K.-listed companies to incorporate

<sup>142</sup> 57 percent of assets are owned by banks that are subject to the FCA rule in 2021. The coverage will reach 94 percent of banking assets in 2022 (source: Final TCFD Roadmap).

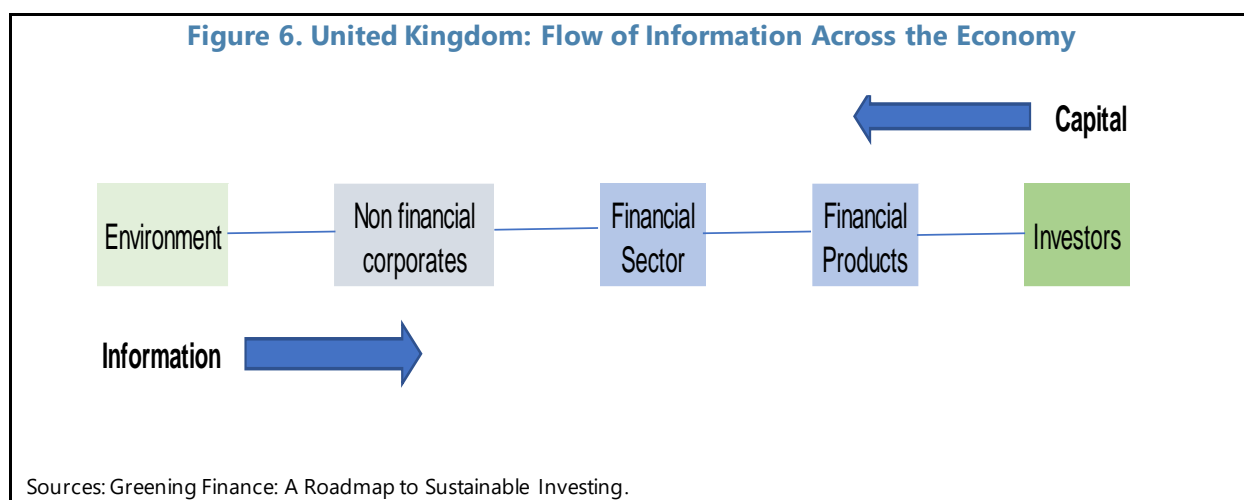
Green Taxonomy and ISSB disclosures in their company annual reports within one to two years of the Royal Assent of primary legislation (see Appendix I for more details):

- The new integrated disclosure regime is intended to cover corporates, asset managers, asset owners, and investment products and bring together existing climate reporting requirements and initiatives—such as the U.K.’s commitment to implement mandatory reporting aligned with the TCFD via FCA rules (subject to consultation) and obligations under the Companies Act – while requiring wider information. Similar disclosures would be required from entities in scope to ensure consistency in the metrics that are reported through the chain of investment to end investors. It is expected that U.K. registered, and U.K. listed companies will have to make sustainability disclosures in their annual reports, using global baseline reporting standards and metrics, which are to be developed by the ISSB.<sup>143</sup> Initially, asset managers, regulated asset owners and listed companies would also have to disclose transition plans to net zero. It has been announced that a ‘gold standard’ for transition plans will be developed by a new Transition Plan Task Force. Specific reporting requirements, including scope, timing and details are not yet developed. The framework is expected to be implemented through legislation while financial regulators as well as relevant government departments will set out sector-specific requirements through their usual rule-making processes.
- The U.K. Green Taxonomy will set out the criteria that specific economic activities must meet to be considered environmentally sustainable. Firms in scope will be required to disclose the proportion of their activities which are Taxonomy-aligned, and providers of investment funds and products will have to do the same for the assets in which they invest. The structure of the Taxonomy in the United Kingdom draws on the EU approach. It follows a similar structure to the EU Taxonomy, using the same six environmental objectives, to be underpinned by Technical Screening Criteria (TSC), which are to be introduced in a sequenced manner.<sup>144</sup>
- This comprehensive approach focusing both on financial institutions and nonfinancial corporates (NFC) is well articulated. It reflects the fact that financial firms need information from corporate clients to be able to produce relevant sustainability-related information, as depicted in Figure 6. Therefore, the quality of disclosures made by financial institutions is also driven by the

<sup>143</sup> Some Environment, Social and Governance (ESG) factors will not be covered by the U.K. Green Taxonomy or ISSB standards. The UK authorities recognize there is a clear need for an effective sustainability disclosures regime on how companies and financial flows impact and are impacted by climate, the environment and broader sustainability factors. The authorities expect that over time the ISSB standards will expand beyond climate to cover broader environmental and sustainability. In the meantime, the government and regulators encourage disclosure against established voluntary standards.

<sup>144</sup> The six objectives comprise climate change adaptation, climate change mitigation, water use and marine resources, circular economy, pollution, and biodiversity. The Green Technical Advisory Group (GTAG) has been established to provide independent, non-binding advice to the Government on developing and implementing a green taxonomy in the UK context, comprised of TSC on economic activities. HMT, the FCA, the BOE and other relevant Government departments and regulators are observers to GTAG. The U.K. Government expects to consult on UK draft TSCs on the climate change mitigation, and climate change adaptation objectives in the first quarter of 2022. The expectation is to consult for the remaining four environmental objectives (sustainable use and protection of water and marine resources, transition to a circular economy, pollution prevention and control, and protection and restoration of biodiversity and ecosystems) during the first quarter of 2023.

granularity of data shared by their corporate clients. The more disclosures NFC provide, the more financial institutions can disclose.



**141. The planned introduction of mandatory TCFD-aligned disclosures and detailed supervisory expectations for all banks have produced positive and tangible progress in the United Kingdom.** Compared with their peers, U.K. banks are certainly well positioned. Most large banks have already formally endorsed the TCFD framework on a voluntary basis and there has been a significant increase in disclosure of TCFD-aligned information in the banks' annual reports and/or in dedicated TCFD reports:

- Building governance around climate-related risks was a prerequisite for successfully developing the other pillars (strategy, risk management, and metrics and targets). As described in their disclosures, banks have embedded their climate risks in their governance structures. The quality of disclosures on board oversight, governance and management's role has improved. The large banks are identifying the main risks while processes are being introduced to manage and mitigate those risks.
- Most large banks have agreed to achieve reductions in greenhouse gas emissions and set a net zero target for 2050, which includes their financed emissions. A growing number of banks have also identified and disclosed various metrics and targets used to measure and manage climate-related risks and opportunities (with a focus on sustainable financing, operational emissions and financed emissions).
- More detailed information is disclosed (e.g., firms' exposures to physical climate risks with the identification of high-risk sectors and geographies, such as for example exposures to flood risk in certain geographical areas). As more detailed information on the composition of banks' credit portfolios is becoming available, including exposures to specific sectors such as fossil fuel-based industries that are highly exposed to transition risks, market participants and research analysts can conduct more in-depth analysis comparing banks' exposures (something that was largely impossible two years ago).

**142. While there has been significant progress, U.K. banks' climate disclosures remain**

**incomplete across the TCFD's four pillars to varying extents.** As banks' first TCFD-aligned disclosures under recently introduced requirements have yet to be published, it is not surprising to observe a wide range of practices across the banking industry in the United Kingdom, with clear differences between large banks and smaller firms. Therefore, there is a need for further improvement in the quality of disclosures:

- The PRA observed in July 2020 that *"best practice continues to evolve"* and highlighted several gaps between firms' intentions and the PRA's supervisory expectations. As emphasized by the CFRF in June 2020, financial institutions are still at an early stage in meeting the expectations set by the seven principles for effective climate-related financial disclosures included in the TCFD recommendations, *"in part due to limitations imposed by lack of/poor quality data, limited availability of tools/methodologies and lack of capacity"*. The Climate Change Adaptation Report published by the PRA noted in October 2021 that many of the largest firms are now producing some form of climate-related disclosures in line with the TCFD framework, but this is mainly only on a qualitative basis.
- The FSAP team met with banks and market participants and reviewed several TCFD disclosures published by banks, which confirmed certain limitations in the quality, completeness and level of disclosures that have also been noted in several reports prepared by industry observers. Even when banks disclose exposures to specific sectors (oil and gas, chemicals, etc.) and report on the proportion of carbon-related assets at portfolio and entity level, they rarely explain how credit portfolios will be adjusted over the short, medium and long term to achieve a net zero target by 2050 (which portfolios will be exited and when?).<sup>145</sup> Moreover, while key metrics are disclosed on sustainable financing and operational emissions, most banks are still in the process of quantifying their financed emissions. Banks are facing several challenges in this regard: there are different methodologies for calculating intensity based financed emissions, widely accepted methodologies are not already available for all activities (lending, capital market, advisory), and forward-looking portfolio adjustment metrics are at an early stage of development. Most banks also are still in the process of designing their scenario analysis to assess their resilience. There is limited information on the type of scenario that have been used and little disclosure of the outcome. Lastly, while more information is included in the management commentary in the annual reports, there is little detail in the financial statements on how climate change may impact certain key metrics such as Expected Credit Losses (ECLs) for example. Overall, more contextual information alongside the data disclosed and additional information on the scope as well as on the limitations of existing approaches could be provided in TCFD reports.
- Despite extensive efforts to better manage climate-related risks, banks are facing several challenges: data gaps, lack of widely accepted methodologies (e.g., scenario analysis is still a new and evolving area), and difficulty associated with developing forward-looking metrics that

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<sup>145</sup> There are exceptions of course, and one very large bank has published portfolio alignment targets indicating how financed emissions would evolve over time.

can help translate climate developments into financial impacts. Some banks have limited knowledge and experience. Model risk should not be underestimated as banks are often likely to use data and models built by third parties. Additionally, it may be challenging to achieve consistency between all metrics as different methodologies are used to produce them. There is also a tradeoff between the accuracy of data and the comprehensiveness of coverage (i.e., all exposures and all banking activities vs. a subset with good data). During the meeting with the FSAP team, banks have emphasized that more granular and comprehensive data would be helpful in assessing the impact of climate change on financial institutions from physical risk and transition risk faced by their clients, including corporate clients:

- *Physical risk.*<sup>146</sup> To assess physical risk profile of corporate clients with assets in different locations, banks have made progress and know more precisely where the assets are located (databases are proposed by third party providers).<sup>147</sup> However, banks are still struggling to (i) map asset location with relevant physical risk information that are needed to assess client preparedness to deal with natural disasters (physical risk hazards) and ensure insurance coverage, and (ii) capture risks arising from disruptions to supply chain of corporate clients.
- *Transition risk.* Assessing transition risks needs to consider the exposure of banks' corporate clients to carbon prices and other policies as well as corporates' planned strategies to respond to transition risks. In the absence of forward-looking metrics, financed emissions are commonly being used as a proxy for transition risk, as noted by the CFRF. However, the relationship between financed emissions and transition risk is not linear.<sup>148</sup> Also, precisely measuring the exposure to carbon-related assets and the risks arising from these activities may be challenging when non-financial groups are combining different types of businesses (production of fossil fuel-based energy, distribution, renewable energy). Granular activity-level data, which would be extremely useful are currently not widely available. Additionally, more clarity is needed on actual corporate transition plans to support the forward-looking assessment of risks taken by the NFC and consequently by their lenders. Transition methodologies have been proposed<sup>149</sup>, but the willingness of NFC to disclose detailed transition plans may be lacking. As emphasized during the meetings with the private sector,

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<sup>146</sup> According to Standard and Poor's, almost 60% of companies in the S&P 500 (total market capitalization of \$18.0 trillion) and more than 40% of companies in the S&P Global 1200 (market capitalization \$27.3 trillion) hold assets at high risk because of the physical hazards created by climate change.

<sup>147</sup> Unlike transition risk, which can be measured using metrics relating to financed emissions, physical risk is not linked to specific sectors. NFCs are vulnerable depending on where they operate, where assets are located, the geographic distribution of the key parts of their supply chain, and whether there is dependence on specific parts of infrastructures, such as ports or internet cables. Therefore, granular information is needed.

<sup>148</sup> As noted by the CFRF, in some industries the impact of carbon prices can be passed through directly via higher prices, with little impact on asset valuation and in others, where margins are low or low-carbon alternatives are readily available, relatively small carbon prices could have a significant impact.

<sup>149</sup> Methodologies aiming at determining science-based decarbonization targets for companies have been proposed. For example, the Science Based Targets initiative (SBTi) supports companies, including those in the oil and gas sector, when setting science-based targets, helping them to define a clear pathway to be in line with a 1.5° C or a 2° C decarbonization pathway.

several NFC do not disclose transitions plans while others do not provide sufficient details (assumptions may be lacking, etc.). In such instances, it is challenging to understand what NFC (for example in the oil and gas sector) are committed to and how transition plans will translate into a carbon path. Also, in the NFCs' disclosure, there is sometimes a confusion between transition plans and diversifications of activities. Similarly, while the most advanced NFC do conduct scenario analysis, their results are usually not disclosed. Introducing more standardized framework for the plans to be communicated (defining the scope, clarifying a base year and a target year, imposing units) would certainly enhance comparability.

**143. Considering these challenges, promoting more consistent, comparable, and higher-quality disclosures based on more detailed binding standard will be desirable.** Moving towards mandatory disclosures is essential but is unlikely to be sufficient. Changing gears and moving to the next stage of implementation of climate-related disclosures may require at some point increased standardization and setting more detailed expectations around the content of public disclosures to ensure comparability of disclosures across firms (both financial and non-financial), support the pricing of climate-related risks and facilitate the monitoring of financial stability risks arising from climate change. As they advance their proposals, it will therefore be very important for the U.K. authorities to specify regulatory standards and guidance with sufficiently detailed requirements and expectations (e.g., specific reporting requirements, practical content of transition plans, harmonization of key metrics, etc.), building on existing work and in accordance with international standards that are currently being developed. The U.K. joint Government-Regulator TCFD Task Force *"expects that it may be necessary, in due course, to consider setting more detailed expectations for disclosures to supplement the TCFD recommendations"*. The Task Force considers that achieving a high level of comparability across U.K. firms and across jurisdictions *"if arrived at sufficiently quickly"* would optimally be achieved through international standards for climate-related and other sustainability disclosures. Overall, the United Kingdom has been promoting actively internationally coordinated efforts, including the establishment of the ISSB.<sup>150</sup>

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<sup>150</sup> The FCA has been co-chairing IOSCO's workstream on sustainability related disclosures. Early in the process, the U.K. Government and regulators issued a joint statement of support for the IFRS Foundation's planned direction of travel. Under the UK's G7 presidency, G7 finance ministers and central banks welcomed the IFRS Foundation's initiative. In successive consultative papers, the FCA has been clear that "The TCFD's recommendations provide for a robust framework under which to make climate-related financial disclosures. The Government's Roadmap is clear that it expects "ISSB standards will form a core component of the SDR framework, and the backbone of its corporate reporting element". In its most recent Policy Statement [PS21/23](#) from December 2021, the FCA stated that "...once the ISSB's future standards are endorsed for use in the UK, [FCA] expects, subject to consultation that both the Companies Act and Listing Rules will reference the endorsed international standards..."

## Appendix I. United Kingdom Roadmap for Sustainable Finance Regulation

	<b>Corporates</b>	<b>Asset Managers and Asset Owners</b>	<b>Investment Products</b>
<b>Governance</b>	Governance around sustainability-related risks, opportunities, and impacts	Governance around sustainability-related risks, opportunities and impacts, and the implications for investment policies, strategies and outcomes	Governance around sustainability-related risks, opportunities and impacts, and the implications for investment products
<b>Strategy</b>	Actual and potential implications of sustainability-related risks, opportunities and impacts for the organisation's businesses, strategy, and financial planning	Actual and potential implications of sustainability-related risks, opportunities and impacts for the organisation's investment policies, strategies, and outcomes	Actual and potential implications of sustainability-related risks, opportunities and impacts for investment outcomes
<b>Risk Management</b>	Processes used to identify, assess, and manage sustainability-related risks, opportunities, and impacts	Processes used to identify, assess, and manage sustainability-related risks, opportunities and impacts, and the implications for the organisation's investment policies, strategies, and outcomes	Processes used to identify, assess, and manage sustainability-related risks, opportunities and impacts at product level
<b>Metrics and Targets</b>	Metrics and targets used to assess and manage relevant sustainability-related risks, opportunities, and impacts Performance against targets Taxonomy alignment and relevant supporting information	Metrics and targets used to assess and manage relevant sustainability-related risks, opportunities and impacts, and implications for the organisation's investment policies, strategies, and outcomes Performance against targets (where relevant) Taxonomy alignment and relevant supporting information based on underlying investments	Product-level metrics and performance indicators on sustainability-related risks, opportunities, and impacts Performance against targets (where relevant) Product-level Taxonomy alignment and relevant supporting information based on underlying investments

Source: Greening Finance: "A Roadmap to Sustainable Investing", HM Government, October 2021.

Requirements in place by 2022		
	Scope	Requirements in place by 2022
<b>1. Corporate Disclosure</b>	a) UK-registered companies, including relevant financial services firms (banks and insurance companies)	TCFD for certain companies (subject to Parliamentary approval) Consultation on SDR Framework for companies
	b) UK-listed companies	TCFD for premium-listed issuers TCFD for certain standard-listed issuers
<b>2. Asset Manager and Asset Owner Disclosure</b>	a) Asset managers, life insurers providing investment products and FCA-regulated pension schemes	TCFD via FCA Rules Discussion paper on SDR disclosure to be launched in November 2021
	b) Occupational pension schemes	TCFD via DWP regulations
<b>3. Investment Product Disclosure</b>	a) Investment products	TCFD via FCA rules Discussion paper on consumer-facing product-level SDR disclosures in November 2021
	b) Sustainable Investment labels	Discussion paper seeking feedback on the sustainable investment labelling regime in November 2021
<b>4. Financial Advisors</b>	a) Financial advisors	

Source: Greening Finance: "A Roadmap to Sustainable Investing", HM Government, October 2021.

Plan for implementing new requirements after Royal Assent of primary legislation				
		+ 1 - 2 years	+ 2 - 3 years	+ 3 Years
1.	a)	Mandatory disclosure requirements in Annual Reports incorporating UK Green Taxonomy and ISSB-issued standards for most economically significant companies  Voluntary disclosure for other companies	Mandatory disclosure requirements in Annual Reports incorporating Taxonomy and ISSB-issued standards for other companies subject to consultation	
	b)	Consultation on mandatory disclosure requirements in Annual Reports incorporating UK Green Taxonomy and ISSB- issued standards		
2.	a)	Consultation on potential mandatory sustainability-related disclosures	Subject to 2022 consultation, potential mandatory sustainability-related disclosures	
	b)		Mandatory disclosure requirements incorporating taxonomy disclosures to be presented in a sustainability report referenced within the Annual Report.  For: funds ≥ £5 billion      For: funds ≥ £1 billion	
3.	a)	Consultation on potential mandatory consumer-facing and more detailed product-level sustainability-related disclosure	Subject to consultation in 2022, potential mandatory consumer-facing and more detailed product-level sustainability-related disclosures	
	b)	Consultation on potential mandatory sustainability-related labels for investment products	Subject to consultation, potential mandatory sustainable product labels for investment products	
4.		Subject to consultation, potential requirements including on how sustainability matters are taken into account in investment advice.		

Source: Greening Finance: "A Roadmap to Sustainable Investing", HM Government, October 2021.

## Annex I. High-Priority Exit Risks and Other Selected Exits Risks

	<b>Risk Description</b>	<b>United Kingdom Actions</b>	<b>EU Actions</b>
<b>Legal framework</b>	The absence of a functioning legal and regulatory framework for financial services.	An “onshoring” process to convert the operative EU law into domestic law, with only minor adjustments.	Not relevant to the EU.
<b>Cooperation</b>	A breakdown of cross-border cooperation in supervision and resolution.	An extensive network of MoUs agreed with EU authorities. Ongoing authority level cooperation in a range of forums.	Idem U.K. actions.
<b>Banking services</b>	Inability of U.K. and EU banks to access EU and U.K. markets, respectively.	A temporary permission regime for the continuity of the provision of EU firms’ services, while they seek permanent authorization in the United Kingdom.	No EU level action. Some member states have introduced temporary regimes. As a result, major U.K.-based banks transferred their EU clients to subsidiaries in the EU to continue to service them.
<b>Insurance</b>	Inability of U.K. and EU insurance companies to service cross-border insurance contracts.	Legislation to allow EU companies to service policies held by U.K. households and firms. Equivalence decisions for the EU.	Some member states introduced run-off regimes. EIOPA guidance issued to facilitate servicing of existing contracts.
<b>Uncleared derivatives</b>	Certain lifecycle events may no longer have been able to be performed.	Legislation to ensure EU banks can perform life-cycle events on contracts with U.K. firms. U.K. firms repapered EU clients. ISDA advice. Equivalence decision for the EU covering intragroup transactions.	Temporary exemptions to facilitate novation of contracts with EU counterparties without triggering clearing and bilateral margin obligations. The EU has provided a general temporary exemption (until June 2022) for clearing and margining obligations for intragroup transactions.
<b>CCPs</b>	U.K. CCPs may have been unable to provide clearing services to EU clearing members and vice-versa.	Temporary recognition regime allows EU CCPs to provide services to U.K. clearing members, while they apply for permanent recognition. Equivalence decision for EU CCPs.	Equivalence and recognition for U.K. CCPs until June 2022. The EC recently announced they will propose an extension of the equivalence decision (details still unknown). ESMA’s finalized review of systemically important CCPs has not resulted in a derecognition recommendation, but recommended mitigating measures.
<b>Asset management</b>	Inability to market/operate cross-border and to delegate portfolio management to the U.K. (vice-versa).	A temporary permission regime for the marketing of EU UCITS and AIFs. Cooperation agreements between the FCA and EU National Competent Authorities enabling portfolio management delegation and access to the U.K. National Private Placement Regime.	Cooperation agreement between National Competent Authorities and FCA. Some member states adopted temporary regimes for the marketing of U.K. UCITS and AIFs. U.K. AIFs may access National Private Placement Regimes, where provided for. Recent EC proposal to continue allowing delegation of portfolio management, subject to further conditions.

UNITED KINGDOM

	<b>Risk Description</b>	<b>United Kingdom Actions</b>	<b>EU Actions</b>
<b>Personal data</b>	The transfers of personal data would have been disrupted.	Legislation to allow U.K. to EU transfers and firms put contractual clauses in place to allow transfers from the EU to United Kingdom. U.K. FCA signed IOSCO-ESMA Administrative Arrangement.	Following the “bridging mechanism” included in the TCA, the EC adopted adequacy decisions for EU to U.K. transfers until 2025.
<b>Central Securities Depositories (CSDs)</b>	CSD cross-border services may have been disrupted.	Equivalence decision for EU CSDs. Transitional regime allows CSDs outside the U.K. to continue providing services in the U.K.	After a temporary equivalence decision, the U.K. CSD completed its migration of Irish securities to Euroclear Bank in March 2021.

Source: HMT, BOE, FCA and IMF staff.

## Annex II. Equivalence Provisions Currently in Use Under EU Financial Services Legislation as of 10/02/2021

<b>Directive 2013/34/EU - Accounting Directive</b>
Art.47 - Country-by-country reporting
<b>Directive 2009/138/EC on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II) as amended</b>
Art.172 - Title I-for third country reinsurers in the EU: equivalent treatment of their activities
Art.227 - Chapter VI of Title I-for EU insurers in third countries: solvency rules for calculation of Capital Requirements and Own Funds
Art.260 - Title III-for third country insurers in the EU: equivalence of group supervision by third country supervisory authorities
<b>Regulation (EU) N° 600/2014 on markets in financial instruments (MIFIR)</b>
Art.1(9) - Exemption central banks
Art.28(4) - Trading venues for the purposes of trading obligation for derivatives
<b>Directive 2014/65 on markets in financial instruments and amending Directive 2002/92/EC and Directive 2011/61/EU (MiFID 2 - recast)</b>
Art.25(4)[a] - Trading venues for the purposes of trading obligation for shares, in conjunction with Art. 23 of Regulation (EU) N° 600/2014 on markets in financial instruments (MIFIR)
<b>Directive 2006/43/EC on statutory audits of annual accounts and consolidated accounts (Statutory Audit)</b>
Art.46(2) - Equivalence of audit framework (5)
Art.47(3) - Adequacy of competent authorities (5bis)
<b>Directive 2003/71/EC on the prospectus to be published when securities are issued (PD - Prospectus Directive)</b>
Art.7(1) - Third country GAAP with IFRS
<b>Regulation (EC) n° 1060/2009 on credit rating agencies, as amended by Regulation (EU) n° 462/2013 (CRAs)</b>
Art.5(6) - Legal and supervisory framework
<b>Regulation (EU) No 575/2013 on prudential requirements for credit institutions and investment firms (CRR) as amended</b>
Art.107(4) - Credit Institutions
Art.107(4) – Exchanges
Art.107(4) - Investment firms
Art.114(7) - Exposures-Credit institutions
Art.115(4) - Exposures-Credit institutions
Art.116(5) - Exposures-Credit institutions
Art.142(2) - Credit institutions
Art.142(2) - Investment firms

<b>Regulation (EU) No 648/2012 on OTC derivatives, central counterparties, and trade repositories (EMIR), as amended</b>
Art.13(2) – Transaction Requirements
Art.25(6) – CCPs
Art.2a - Regulated markets
<b>Regulation (EU) No 909/2014 of the European Parliament and of the Council of 23 July 2014 on improving securities settlement in the European Union and on central securities depositories, as amended</b>
Art. 25(9) – CSDs
<b>Regulation (EU) No 596/2014 on insider dealing and market manipulation (MAR Market Abuse Regulation)</b>
Art.6(5) - Exemption public bodies and central banks
<b>Directive 2004/109/EC - Transparency Directive</b>
Art.23(4) [third] - Third country GAAP/Transitory regime
Art.23(4) [third] - Third country GAAP with IFRS
<b>Regulation (EU) 2016/1011 on indices used as benchmarks in financial instruments and financial contracts</b>
Art.30(3) - Specific administrators or benchmarks
Source: European Commission Equivalence Decisions Overview Table - February 2021.

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