

# **LIBOR transition and the derivatives trading obligation**

**Consultation Paper**

CP21/22\*\*

July 2021

## How to respond

We are asking for comments on this Consultation Paper (CP) by **25 August 2021**.

You can send them to us using the form on our website at: [www.fca.org.uk/cp21-22-response-form](http://www.fca.org.uk/cp21-22-response-form)

Or in writing to:

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# 1 Summary

- 1.1** We are consulting on the derivatives trading obligation (DTO) and we want to know what you think of our proposal to modify it and the liquidity analysis supporting it.
- 1.2** As specified in Article 28 of UK MiFIR (onshored Regulation (EU) No 600/2014 on Markets in Financial Instruments), the DTO requires that financial and certain non-financial counterparties conclude transactions in standardised and liquid over-the-counter (OTC) derivatives only on regulated trading venues. These trading venues include regulated markets (RMs), Multilateral Trading Facilities (MTFs) and Organised Trading Facilities (OTFs). Currently, the classes of derivatives that are subject to DTO are swaps referencing to USD LIBOR, GBP LIBOR and the Euro Interbank Offer Rate (EURIBOR) and index Credit Default Swaps (CDS) for contracts with standardised terms, such as payment frequency, trade start type, and notional amount type.
- 1.3** We are proposing to modify the list of derivatives subject to the DTO in line with Articles 28 and 32 of UK MiFIR as further specified under the UK regulatory technical standard (RTS) 4. See the onshored Delegated Regulation 2016/2020.
- 1.4** We need to review the DTO in light of the interest rate benchmark reform and the consequential changes that the Bank of England (Bank) has proposed to the derivatives clearing obligation (DCO) in line with Article 5 of UK EMIR (onshored Regulation (EU) No 648/2012 on OTC derivatives, central counterparties and trade repositories) in its consultation. OTC derivatives based on benchmark rates that are being discontinued or may continue on an unrepresentative basis and become subject to use restrictions under UK Benchmarks Regulation (UK BMR - onshored Benchmark Regulation (EU) 2016/1011) need to be excluded from the DTO to ensure its scope remains relevant. The DTO should extend to derivatives based on relevant risk-free rates (RFRs) that will replace them, provided they are sufficiently liquid or are likely to become sufficiently liquid as transition plans approach or reach completion.
- 1.5** Stakeholders are invited to provide feedback on our proposal to modify the DTO and on the liquidity analysis supporting it. We also invite comments on the draft RTS and the cost-benefit analysis (CBA) in the Annexes. We welcome the inclusion of supporting data and analysis in stakeholder responses.

We have set out our CP as follows:

- 1.** Section 2 provides an overview of the wider context and how this work links to our objectives.
- 2.** Section 3 sets out the approach taken, and the assumptions made to perform relevant liquidity assessments.
- 3.** Section 4 presents the liquidity analysis.
- 4.** Section 5 sets out the changes we propose making to the classes of derivatives subject to the DTO.

## Why we are consulting

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- 1.6** The proposals set out in this CP support our strategic objective of ensuring that relevant markets function well – in this instance the wholesale market for OTC derivatives and the other markets that depend on them. They also advance our operational objective of protecting financial markets, by ensuring that the most liquid derivatives are traded in a manner which supports market integrity and financial stability.
- 1.7** Our proposals also support the 2009 G20 commitment to move trading of standardised OTC derivatives on to trading venues where appropriate, thereby supporting improved transparency, reducing systemic risk and the threat posed to financial stability.
- 1.8** Our work relates to a desired key outcome in the 2020/21 FCA Business Plan of an orderly transition from LIBOR. With the shift away from legacy benchmark rates to relevant RFRs, there is a need to ensure that regulatory requirements impacted by this transition remain relevant and are brought up to date. The current scope of the DTO includes a number of products which reference benchmarks that are being discontinued or may continue on an unrepresentative basis and become subject to use restrictions under UK BMR.

## Who this applies to

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- 1.9** This document should be read by financial counterparties, like investment firms and banks, and non-financial counterparties (as defined in Article 28 of UK MiFIR) that are or could become subject to the DTO.
- 1.10** It is also of interest to regulated trading venues, including third country trading venues that are considered equivalent for the purposes of the DTO (in line with Article 28(1)(d) of UK MiFIR), and to central counterparties (CCPs).

## What we want to change

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- 1.11** A class of derivatives must be sufficiently liquid for the DTO to apply (in line with Article 32 of UK MiFIR). The interest rate benchmark reform and transition plans to relevant RFRs have contributed to the change in the liquidity profile of the derivatives market since the last review in 2017 by the European Securities and Markets Authority (ESMA). So there is a need to review and determine which classes of derivative are sufficiently liquid to be subject to the DTO.
- 1.12** We focus on the classes of swaps that are affected or likely to be affected by the LIBOR transition to decide where the DTO should apply.
- 1.13** An appropriately calibrated DTO may improve the functioning of OTC derivatives markets by increasing transparency and inducing greater competition between liquidity providers. It would enable market participants to trade more easily with multiple counterparties at a lower cost.

- 1.14** Greater use of regulated trading venues may also increase market resilience owing to the use of more robust post-trade market processes.
- 1.15** Changing the scope of derivatives subject to the DTO affects where market participants trade relevant derivatives. With legacy benchmarks ceasing and the process of transitioning away from these benchmarks already underway, the existing scope of derivatives subject to the DTO will become increasingly less relevant. Furthermore, derivatives referencing relevant RFRs may already be or become sufficiently liquid, but without a DTO such derivatives may be traded OTC and the risk that the 2009 G20 commitment intended to address will re-emerge.
- 1.16** Our liquidity analysis indicates that Overnight Indexed Swaps (OIS) referencing the Sterling Overnight Index Average (SONIA) as a class of OTC derivatives is sufficiently liquid to impose a DTO. We propose to remove derivatives referencing GBP LIBOR under the current DTO and replace them with OIS referencing SONIA.
- 1.17** Our analysis shows that OIS referencing the Euro short-term rate (€STR) do not yet display the same level of liquidity of EURIBOR or other products currently subject to the DTO. We intend to monitor market developments and liquidity in €STR OIS markets over the coming months. We would consider including them in the DTO once we are satisfied that the class of derivatives is sufficiently liquid. As relevant EURIBOR-based swaps continue to be sufficiently liquid at the current time we propose to maintain them as part of the DTO.
- 1.18** Liquidity in OIS referencing the Secured Overnight Financing Rate (SOFR) as a class of OTC derivatives is developing. It may well increase rapidly over coming months. But, at the time of this analysis may not yet meet relevant criteria to be sufficiently liquid for the purposes of the DTO. The Bank has not proposed any changes to the DCO for USD products and contract types referencing USD LIBOR continue to be subject to the DCO. In absence of a change to clearing mandates, we intend to monitor market developments and liquidity in USD LIBOR and SOFR products over the coming months as relevant deadlines and milestones are likely to impact liquidity.

## Measuring success

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- 1.19** Our proposals support a desired key outcome in the 2020/21 FCA Business Plan of an orderly transition from LIBOR to relevant RFRs. We will measure success against that objective, as well as that of the original G20 mandate. We will consider our policy to be successful where amending the DTO maintains or improves liquidity and transparency in the relevant derivatives included in our proposals. We will continue to review relevant market data on liquidity to ensure the success of our policy outcome.

## Next steps

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- 1.20** We are seeking views on the proposals in this paper. On the basis of the responses we receive to this CP by 25 August 2021, we will finalise the draft RTS and will publish a policy statement late Q3/early Q4 2021.

## 2 The wider context

- 2.1** Article 28 of UK MiFIR requires in-scope derivatives to be traded only on regulated trading venues (a RM, MTF, OTF or a third country trading venue that is considered to be equivalent for these purposes). Article 32 of UK MiFIR sets out the procedure for determining which derivatives are subject to the DTO. This requires establishing that the derivatives: (i) are subject to the DCO; (ii) must be admitted to trading on at least one of the aforementioned trading venues; and (iii) must be sufficiently liquid to trade only on those venues. If these conditions are satisfied, we can make rules specifying which of the class of derivatives should be subject also to the DTO, i.e. traded on trading venues.
- 2.2** This is conditional on whether the class of derivatives or a subset thereof are sufficiently liquid when assessed against the criteria specified in Article 32 of UK MiFIR and RTS 4. We are required to amend, suspend or revoke existing RTS if there is a material change in these criteria.
- 2.3** There have been changes to the liquidity profile of certain OTC derivatives since the previous review in 2017 by ESMA. One of the drivers to these changes originated from recommendations by the Financial Stability Board (FSB) to reform Interbank Offered Rates (IBORs). This was in response to cases of attempted manipulation and concerns about the robustness of IBORs in light of the decline in liquidity in key interbank unsecured funding markets.
- 2.4** As part of the benchmark reform, there are now various efforts internationally to transition away from legacy benchmarks, including for other currencies such as Swiss Franc and Japanese Yen. We focus below specifically on those transitional measures in the context of the DTO.
- 2.5** In 2017 the FCA announced that LIBOR was no longer sustainable, and its availability could not be guaranteed after end-2021. Authorities around the world and national working groups, including in the US, UK and EU, have worked to support the transition to alternative rates and help manage an orderly wind-down of LIBOR.
- 2.6** In April 2017, the Working Group on Sterling Risk-Free Reference Rates (Sterling RFR Working Group) recommended a reformed version of the SONIA benchmark as its preferred near RFR for sterling markets to replace GBP LIBOR. We and the Bank are working closely with market participants to support the transition away from LIBOR in sterling markets, particularly through the Sterling RFR Working Group. There is also a concurrent transition underway from USD LIBOR to SOFR as the chosen RFR in USD interest rate markets.
- 2.7** In March 2021, we and the ICE Benchmark Administration announced that the following LIBOR currencies and tenors, which are relevant for those products currently in scope of the DTO, will either cease to be provided by any administrator or no longer be representative:
- immediately after 31 December 2021, in the case of all GBP and the 1-week and 2-month USD tenors; and
  - immediately after 30 June 2023, in the case of the remaining USD tenors.

- 2.8** In the UK, the Sterling RFR Working Group established interim milestones for stopping new GBP LIBOR business that expire after end-2021. The milestone for linear derivatives was end Q1 2021, except for the risk management of existing positions. We and the Bank support these milestones fully.
- 2.9** Similar milestones have also been established by the national working group in the US, alongside supervisory guidance from US authorities that use of USD LIBOR in new contracts should stop by end-2021 at the latest (with some exceptions for risk management transactions). Additionally, the Commodity Futures Trading Commission's (CFTC) Interest Rate Benchmark Reform Subcommittee recently voted to recommend a market best practice for switching interdealer trading conventions from LIBOR to SOFR for USD linear interest rate swaps (IRS). This initiative is referred to as SOFR First. Specifically, the recommendation is that on 26 July 2021 and thereafter, interdealer brokers replace trading of LIBOR linear swaps with trading of SOFR linear swaps. This step is consistent with supervisory guidance that the use of USD LIBOR in new contracts should stop by end-2021.
- 2.10** There has already been significant work undertaken to ensure that legacy derivative contracts can transition away from LIBOR. For uncleared derivatives for all currencies, the International Swaps and Derivatives Association (ISDA) has implemented new fallback arrangements which will convert contracts from LIBOR to the relevant RFR at the point LIBOR ceases or becomes unrepresentative. In addition, CCPs and exchanges have set out their plans to convert outstanding LIBOR contracts to RFRs at or before the LIBOR panels end (see paragraph 2.7). We estimate that 97% of sterling interest rate derivatives (IRD) are covered by robust transition arrangements such as those just described.
- 2.11** The FCA is being given new powers to help ensure an orderly wind-down of LIBOR. It will soon consult on the use of its new powers to require continued publication of some GBP LIBOR tenors on a synthetic basis after end-2021. This is intended to help existing contracts that are particularly difficult to amend before the dates mentioned in paragraph 2.7. We will be consulting over the coming months on which legacy contracts will be permitted to use any synthetic GBP LIBOR rate under the terms of UK BMR with a view to confirming any decisions in Q4 this year. Any synthetic LIBOR is not for use in new contracts.
- 2.12** EURIBOR is also a benchmark of relevance since it is referenced in the current scope of the DTO. The European Money Markets Institute (EMMI) administers EURIBOR and has confirmed that following reform EURIBOR is compliant with EU Benchmark Regulation and can continue to be used after 1 January 2020 for existing and new contracts.
- 2.13** EMMI is also the administrator of the Euro Overnight Index Average (EONIA). As of October 2019, EONIA is calculated under a reformed methodology tracking the €STR, which is the recommended RFR for euro markets. However, EMMI has confirmed that EONIA will be discontinued on 3 January 2022, so market participants will need to transition their existing products to €STR. Conversion of cleared outstanding EONIA OIS into corresponding €STR OIS contracts is expected to take place in October 2021.
- 2.14** As part of broader transition efforts, a number of CCPs have announced that they intend to remove the contract types that reference the benchmarks being discontinued or that may continue on an unrepresentative basis and become subject to use restrictions under UK BMR from the list of contracts that they clear. Additionally, outstanding cleared contracts that reference such legacy benchmarks will be contractually converted to the relevant near RFR contracts, where applicable.

**2.15** As a result of these developments, trading and clearing activity of certain contracts currently subject to the DTO will soon significantly reduce or cease. Liquidity is expected to transfer to contracts referencing relevant near RFRs.

**2.16** The Bank published its consultation on 20 May 2021 with proposals to amend the DCO to reflect the interest rate benchmark reform. We have actively engaged with the Bank to ensure a coordinated and consistent approach and that the derivatives included in this CP are relevant. We will continue to engage with Bank and monitor developments on the DCO. The recently published HM Treasury (Treasury) Wholesale Markets Review [consultation](#) proposes a number of legislative changes to the DTO which are separate from the proposals in this CP.

**2.17** For a summary of the relevant changes scheduled to take place see Table 1 below.

**Table 1: Summary of transition plans and Bank proposals on the DCO:**

Benchmark rate	DTO	Transition plans	Bank proposals on DCO
GBP LIBOR	IRS that reference to GBP LIBOR with a tenor of 3 and 6 months	<ul style="list-style-type: none"> <li>• Cease to be provided by any administrator or no longer be representative immediately after 31 December 2021.</li> <li>• Milestone to stop new GBP LIBOR business that expires after end-2021 and for linear derivatives after end Q1 2021 (except for risk management of existing positions).</li> </ul>	The Bank proposes to remove, on Monday 20 December 2021, the contract type referencing GBP LIBOR from the interest rate OTC derivatives classes subject to the UK DCO and replace it with the contract type in the OIS class referencing SONIA with an amended original maturity range of 7 days to 50 years.
USD LIBOR	IRS that reference to USD LIBOR with a tenor of 3 and 6 months	<ul style="list-style-type: none"> <li>• Cease to be provided by any administrator or no longer representative immediately after 30 June 2023 in the case of the USD tenors included in the DTO.</li> <li>• Use of USD LIBOR in new contracts should stop by end-2021 at the latest (some exceptions for risk management transactions).</li> <li>• SOFR First initiative - recommendation that on 26 July 2021 and thereafter, interdealer brokers replace trading of LIBOR linear swaps with trading of SOFR linear swaps.</li> </ul>	The Bank does not propose changes to contract types referencing USD LIBOR at this time.



Benchmark rate	DTO	Transition plans	Bank proposals on DCO
EONIA	Currently not included in the DTO	<ul style="list-style-type: none"> <li>Administrator of EONIA has confirmed that EONIA will be discontinued on 3 January 2022.</li> <li>Conversion of cleared outstanding EONIA OIS into corresponding €STR OIS contracts is expected to take place in October 2021.</li> </ul>	The Bank proposes to remove, on Monday 18 October 2021, the contract type referencing EONIA from the OIS class subject to the UK DCO and replace it with the contract type in the OIS class referencing €STR with an original maturity of 7 days to 3 years.
EURIBOR	IRS that reference to EURIBOR with a tenor of 3 and 6 months	Reformed.	The Bank does not propose changes to contract types referencing EURIBOR.

Source: All sources included in the section above.

## How it links to our objectives

**2.18** The proposals set out in this CP support the FCA strategic objective of ensuring that the relevant markets function well, particularly in the wholesale market for derivatives.

### Consumer protection

**2.19** The proposals set out in the paper have a limited impact on our consumer protection objective. OTC derivatives markets are composed of professional counterparties with generally a good understanding of the risks involved. OTC markets also operate according to rules and practices that are generally well understood by users.

**2.20** However, we also have a competition duty to promote effective competition when addressing our consumer protection objective. When considering our proposals set out in this paper, we had regard to achieving our desired outcomes in such a way as to promote competition.

**2.21** Our proposals intend to deliver greater and better transparency, which should allow users to make more informed decisions as to where and how to trade.

### Market integrity

**2.22** In general, trading on trading venues enhances transparency, operational efficiency and monitoring against market abuse, all contributing to market integrity. Moving transactions in standardised and liquid OTC derivatives onto regulated trading venues increases the scope for market surveillance to assist in identifying market abuse, and enhances trade transparency.

**2.23** It can contribute to the operational efficiency and resiliency of markets. Furthermore, transactions executed on trading venues usually benefit from a robust post-trade infrastructure.

**2.24** This CP also supports a desired key outcome in the 2020/21 FCA Business Plan of an orderly transition from LIBOR.

## Competition

- 2.25** Evidence suggests the view that well-calibrated requirements to trade on venue improve liquidity, because of an increase in competition between liquidity providers thereby lowering execution costs for end-users. A study conducted by Benos, Payne and Vasios (2020) found swaps that were subject to the US swap execution facility (SEF)-trading mandate saw significant improvements in liquidity, which lead to reduced daily execution costs for end-investors.
- 2.26** More on-venue trading for sufficiently standardised and liquid OTC derivatives can also encourage greater competition between trading venues and between liquidity providers. The study set out evidence that links improvement in liquidity to more intense competition between swap dealers (i.e. liquidity providers). Following the introduction of the SEF trading mandate, the number of active participants in swap trading rose and active US clients traded with a significantly larger number of swap dealers. There is no reason to believe that there would be a different outcome for relevant markets in the UK.

## Wider effects of this consultation

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- 2.27** Trading mandates may impose certain costs on market participants:
- Issues accessing relevant trading venues, including meeting the relevant organisational and fitness and propriety criteria for access;
  - Accessing the IT infrastructure and paying membership and trading fees;
  - The ability of market participants to negotiate transactions may be impacted depending on the trading protocols operated by relevant trading venues; and
  - On-venue trading creates transparency obligations.
- 2.28** These costs must be assessed against a number of benefits that are likely to result from the DTO as mentioned above. Also, the DTO is already in force and the information available to us indicates that there is a very large overlap between the firms that are currently subject to the trading obligation and those who would be subject to the trading obligation if we modified the scope of the DTO to include relevant RFRs. Hence, we expect initial compliance costs, such as membership costs, to be limited compared with when the DTO first took effect in 2018.
- 2.29** There may be views that a DTO could fragment liquidity into multiple trading venues that are not accessible by all market participants. However, we have not found evidence supporting this view.

## Equality and diversity considerations

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- 2.30** We have considered the equality and diversity issues that may arise from the proposals in this CP.
- 2.31** Overall, we do not consider that the proposals materially impact any of the groups with protected characteristics under the Equality Act 2010. But we will continue to consider the equality and diversity implications of the proposals during the consultation period and will revisit them when making the final rules.
- 2.32** We welcome comments on this as part of the consultation.

## 3 Approach and assumptions

- 3.1** The classes of derivatives currently included in the DTO include products referencing legacy benchmarks that will be discontinued or may continue on an unrepresentative basis and become subject to use restrictions under UK BMR. Further, once the transition to RFR has completed in those markets, the activity in OTC derivatives covered by the DTO currently will be significantly reduced and, probably, migrate to new derivative products. Taking no action would therefore undermine the G20 commitment and policy objective of the DTO.
- 3.2** Where possible, implementation dates for proposed changes to the DTO should be aligned with changes to the DCO and relevant dates that CCPs have announced as part of broader transition efforts.

### Which types of derivatives are being considered?

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- 3.3** The DCO establishes the set of instruments that can be considered for the DTO. Under the Bank's current consultation, the expectation is that the DCO will be modified to include a limited set of instruments denominated in sterling and euro. This is the starting point for our analysis.
- 3.4** Where the Bank confirms its proposal to remove a class of derivatives from the DCO or a subset thereof, we are required to consider under UK MIFIR whether also to remove the relevant derivatives from the DTO (where it applied). Where a contract type is being proposed to be added to the DCO, we have undertaken analysis below to determine if it is eligible for inclusion in the DTO. The Bank intends to remove contracts that reference benchmarks that are being discontinued and replace them with OIS, with the same range of maturities, which reference the replacement near RFR benchmarks selected for each currency.
- 3.5** To be clear, this means we have not considered inclusion of contract types referencing LIBOR in other currencies which are also subject to the LIBOR transition, for example, JPY and CHF LIBOR products, as these are not proposed to be included in the DCO.
- 3.6** However, we have also included in our analysis the effect of the LIBOR transition on the US dollar market. SOFR is the industry and official sector endorsed USD LIBOR replacement RFR.
- 3.7** While EONIA is not part of the DTO, it is part of the DCO. EMMI has confirmed it will be discontinued on 3 January 2022 and conversion of cleared outstanding EONIA OIS into corresponding €STR OIS contracts is expected to take place in October 2021. The Bank have included proposals to replace relevant EONIA contracts with €STR contracts in the DCO. So, as part of this analysis we will be assessing liquidity in €STR OIS contracts.
- 3.8** We have not looked at Forward Rate Agreements (FRAs), basis swaps or other IRD - which are currently not in the DTO - as the Bank have proposed in their consultation no longer to subject these instruments to the DCO where they reference relevant legacy benchmarks.

- 3.9** In order to consider the most standardised and liquid OIS contracts, we performed analysis on a subset of the relevant OIS class of derivatives using standardised contract specifications (trade start type, tenor, fixed leg payment frequency, fixed leg day count convention, floating leg payment frequency etc.). Many of the standardised specifications for OIS contracts were the same as those included for IRS contracts currently subject to the DTO, however we relied on market intelligence to identify other tenors and trade start types which may be or become liquid.
- 3.10** For example, for sterling IRS with a spot starting (T+0) trade start type, the current DTO does not cover tenors 1M, 3M, 6M, 1Y, 8Y, 9Y, 12Y, 18Y, 25Y, 35Y, 40Y, 45Y and 50Y. However, for OIS we extended our review to include such tenors and also looked at specific short-dated OIS from one Central Bank policy meeting date to the next (for example, for sterling OIS markets that is one Monetary Policy Committee meeting date to the next) and one standard futures roll date to the next (for example, June IMM to September IMM where the IMM dates are the four quarterly dates of each year which futures contracts and option contracts use as their scheduled maturity date or termination date).
- 3.11** Lastly, Article 32(4) of UK MiFIR requires the FCA to identify and notify the Treasury on its own initiative of the classes of derivatives or individual derivative contracts that should be subject to the DTO but for which no CCP has yet received authorisation under UK EMIR, or which are not admitted to trading or traded on a trading venue. Following the notification, the Treasury may publish a call for development of proposals for imposing the DTO on those derivatives. The FCA has not identified any classes of derivatives or individual derivatives contracts that meet such criteria.

## The regulatory framework

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- 3.12** We propose to amend UK RTS on the trading obligation for certain derivatives (onshored Commission Delegated Regulation (EU) 2017/2417) using the FCA's powers under Article 32(5) of UK MiFIR and section 138P of the Financial Services and Markets Act 2000 ("FSMA"). The draft changes are included in Appendix 1.
- 3.13** In considering what changes are required to the DTO and how they should be implemented, we had regard to the criteria mentioned below and the transition away from LIBOR to RFRs.
- 3.14** Article 32 of UK MiFIR sets out the procedure for determining the application of the DTO. Article 32(1) and (5) of UK MiFIR empower the FCA to make technical standards to specify which class of derivatives or subset thereof that is subject to the DCO is subject also to the DTO.
- 3.15** Article 32(2) of UK MiFIR specifies that in order for the DTO to take effect the class of derivatives must meet both of the following criteria:
- the venue test: it must be admitted to trading or traded on at least one relevant trading venue; and
  - the liquidity test: there must be sufficient third-party buying and selling interest in the class of derivatives so that it is considered sufficiently liquid to trade only on the relevant trading venues. Article 32(3) and (6) of UK MiFIR and UK RTS 4 list a set of

criteria and provide further detail respectively for determining whether a class of derivatives or a relevant subset thereof is sufficiently liquid as below:

- a. the average frequency and size of trades over a range of market conditions, having regard to the nature and lifecycle of products within the class of derivatives.

The average frequency of trades: the number of days on which trading took place and the number of trades.

The average size of trades:

- ii. the average daily turnover whereby the notional size of all trades combined shall be divided by the number of trading days;
- iii. the average value of trades whereby the notional size of all trades combined shall be divided by the number of trades.

The analysis of the average frequency of trades should take account of the distribution of trading executed on trading venues and OTC. Criteria should be assessed over a period of time of sufficient length to determine whether the liquidity of each class of derivatives or a relevant subset thereof is subject to seasonal or structural factors. Consideration should be given to whether trades are concentrated at certain points in time and over certain sizes over the period assessed and determined to what extent such concentration constitutes predictable patterns.

- b. the number and type of active market participants including the ratio of market participants to products/contracts traded in a given product market:
  - i. the total number of market participants trading in that class of derivatives or relevant subset thereof is not lower than two;
  - ii. the number of trading venues that have admitted to trading or are trading the class of derivatives or a relevant subset thereof;
  - iii. the number of market makers and other market participants under a binding written agreement or an obligation to provide liquidity.

The analysis should compare the ratio of market participants to the findings in the data obtained for the analyses of average size of trades and the average frequency of trades.

- c. The average size of the spreads:

- i. the size of weighted spreads, including volume weighted spreads, over different periods of time;
- ii. spreads at different points in time of trading sessions.

Where information on spreads is not available a proxy should be used for the assessment of this criterion.

**3.16** Article 32(5) of UK MiFIR requires the FCA to amend, suspend or revoke existing UK RTS on the DTO for certain derivatives if there is a material change in the criteria.

## Data sources

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- 3.17** We have collected information from a variety of sources, some quantitative and others qualitative. We used data from EMIR trade repositories and from UK trading venues operating in the inter-dealer and the dealer-to-client markets. We have also used data and analysis that are publicly available and spoken to various market participants to gather market intelligence on the effect of interest rate benchmark reforms and transition plans on the DTO. Gathering information and market intelligence from multiple sources allows us to evaluate the different dimensions of current and prospective liquidity and to ensure that analysis and conclusions are sufficiently robust.
- 3.18** The EMIR data we have used here cover the period from the beginning of January to the end of April 2021. We receive EMIR data only in relation to those trades that have a UK nexus.
- 3.19** In terms of the criteria to assess the number of market participants (not less than two) trading in that class of derivatives or a subset thereof, we asked trading venues to provide data on the number of market participants trading relevant derivatives between January and April 2021.
- 3.20** To obtain data on the number of market makers and liquidity providers under a binding agreement to provide liquidity, we requested data from trading venues. A larger number of market makers and liquidity providers may potentially encourage more intense competition leading to improved liquidity.
- 3.21** In relation to data on spreads we rely on publicly available information derived from ICE Swap Rate and qualitative information provided by trading venues.
- 3.22** Lastly, we have had regard to the ability of UK firms to have access to third country trading venues that are deemed equivalent for the purposes of the DTO, for example US SEFs or Singapore based trading venues.

## Approach

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- 3.23** In line with UK RTS 4 we have not set fixed thresholds for the relevant liquidity criteria (for example, the average frequency of trades) which would need to be met to determine whether a derivative should be subject to the DTO. However, we assessed liquidity against the derivatives which are currently in scope of the DTO and had regard to relevant thresholds set out in UK RTS 2 (onshored Commission Delegated Regulation (EU) 2017/583).
- 3.24** Our approach was to consider the totality of liquidity in the relevant swaps, i.e. the liquidity of existing DTO products together with the liquidity of swaps that are going to substitute them because of the benchmark reforms.
- 3.25** The criteria on the average frequency of trades required an assessment to be carried out over a period of time of sufficient length to determine whether the liquidity of each class of derivatives or a relevant subset thereof is subject to seasonal or structural factors. This has been challenging to do as the market may not have fully adapted since Brexit and the LIBOR transition is not yet complete.

## Impact

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**3.26** In preparing the UK RTS on the trading obligation for certain derivatives we are required to consider the anticipated impact that the DTO might have on the liquidity of a class of derivatives or a relevant subset thereof and the commercial activities of end users which are not financial entities. LIBOR transition plans are public, and arrangements are in place to help manage an orderly wind-down, where critical benchmarks are being discontinued or may continue on an unrepresentative basis and become subject to use restrictions under UK BMR. We expect fewer new long-dated derivatives currently subject to the DTO to be entered into particularly as we move closer to DTO changes taking effect. Also we do not expect changes to the classes of derivatives in DTO to slow, hinder or disrupt the LIBOR transition and benchmark reform plans. Inclusion of new classes of derivatives that benchmark to RFRs could instead support greater liquidity and the development of forward term rates based on OIS.

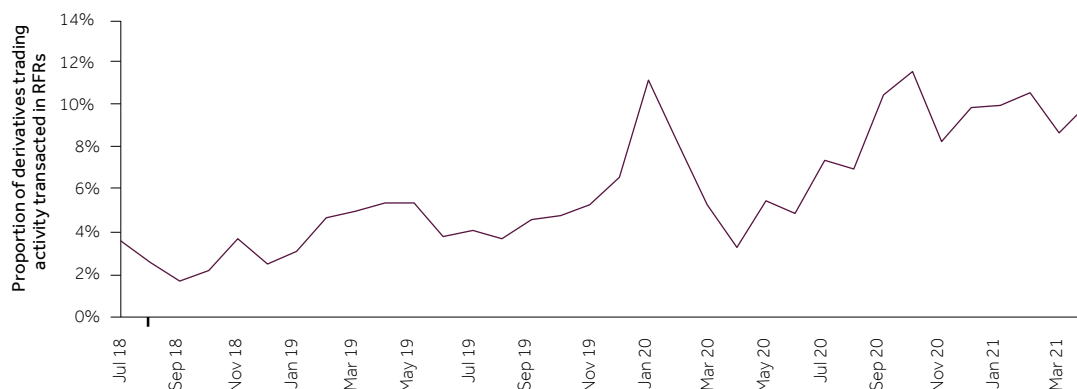
**3.27** Additionally, as mentioned above, a study conducted by Benos, Payne and Vasios (2020) found swaps that were subject to the US SEF-trading mandate saw significant improvements in liquidity in USD mandated swaps by 12% to 19% relative to EUR mandated contracts, translating to reduced daily execution costs for end-investors. This improvement in liquidity was driven by more intense competition between swap dealers (i.e. liquidity providers). In the US corporate bond market, [Hendershott and Madhavan \(2015\)](#) also found evidence that electronic auction trading was associated with greater liquidity. Electronic trading encouraged competition between dealers and mitigated information asymmetries, leading to improvements in prices equivalent to annual savings of \$2bn.

- Q1:** Do you agree with the approach and assumptions specified above? If not, please explain why.
- Q2:** Do you agree with the FCA that there do not appear to be any classes of derivatives or individual derivative contracts that should be subject to the DTO but for which no CCP has yet received authorisation under EMIR or which are not admitted to trading or traded on a trading venue? If not, please explain why.
- Q3:** Do you agree with the FCA's view on impact in paragraphs 3.26 and 3.27 above? If not, please explain why.

## 4 Liquidity analysis

- 4.1** UK MiFIR and UK RTS 4 provide a framework for assessing whether there is sufficient third-party buying and selling interest for a class of derivatives to be considered sufficiently liquid. The criteria and metrics include the frequency and number of trades, the average volume traded and the number and types of market participants. No single liquidity measure is determinative on its own but it should be considered together with all of the other ones. We are also required to have regard to the impact that the DTO may have on the liquidity of the class of derivatives and on end users that are not financial entities.
- 4.2** The transition related to interest rate benchmark reform, which is the main driver of this review, is at different stages for the currencies in scope of the DTO. The available evidence indicates that the adoption of RFRs is at an advanced stage for sterling markets. It is less advanced, but gaining momentum, for US dollar and euro markets.
- 4.3** We use the ISDA-Clarus RFR Adoption Indicator to summarise the state of adoption of RFRs in all major jurisdictions and currencies. An ISDA-Clarus [whitepaper](#) provides details of the scope of data used and how the indicators are constructed. To summarise, data are collected from all major CCPs that clear OTC and exchange traded derivatives (ETD) IRD in six currencies (AUD, CHF, EUR, GBP, JPY and USD). Only cleared transactions are captured. The data is standardised and collated to produce notional-equivalent volumes in six tenor buckets. The notional data are converted into a maturity agnostic measure of risk, DV01. Notional volumes are collected in millions of USD-equivalent and converted to DV01 on the USD curve. The measures of volumes are broad, covering many OTC IRD products (IRS, OIS, FRAs and basis swaps), as well as short-term interest rate futures contracts. RFR volumes are measured across both swaps and futures.
- 4.4** The indicator shows a trend consistent with greater adoption globally. Whilst with some volatility, the indicator shows an upward trend, increasing from a low base of c.2%-4% in mid-2018 to above 10% in the latest reading in March 2021 as shown in Figure 1 below.

**Figure 1: Level of adoption of RFR derivatives over time.**



Source: Clarus Financial Technology



**4.5** We can expect volumes of RFR-based products to increase during this year in anticipation of legacy benchmarks being discontinued or where they may continue on an unrepresentative basis and become subject to use restrictions under UK BMR.

**4.6** In this section we use the liquidity of the products already within scope of the DTO as a benchmark against which to assess OIS based on RFRs. With the data for the existing DTO products, we have then compared the trading activity between products that could potentially be deemed sufficiently liquid with those already deemed to have sufficient liquidity. For those types of contracts currently subject to the DTO, we performed our analysis on the IRS that reference LIBOR benchmarks which are spot starting and IMM (next 2 IMM dates) as set out in the FCA's register. For those OIS contracts referencing relevant RFRs, we performed analysis using standardised contract specifications as follows:

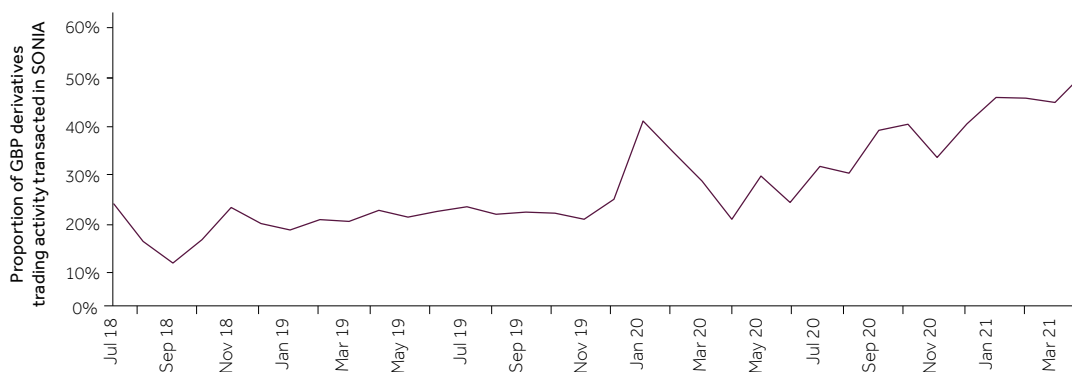
- for SONIA, €STR and SOFR OIS spot starting, we looked at tenors 1M, 3M, 6M, 1Y, 2Y, 3Y, 4Y, 5Y, 6Y, 7Y, 8Y, 9Y, 10Y, 12Y, 15Y, 18Y, 20Y, 25Y, 30Y, 35Y, 40Y, 45Y and 50Y.
- for SONIA, €STR and SOFR OIS with trade start type IMM (next 2 IMM dates), we looked at tenors 3M, 6M, 1Y, 2Y, 3Y, 4Y, 5Y, 6Y, 7Y, 8Y, 9Y, 10Y, 12Y, 15Y, 18Y, 20Y, 25Y, 30Y, 35Y, 40Y, 45Y and 50Y.
- for short-dated SONIA, €STR and SOFR OIS, we looked at trade start type and tenors one Central Bank policy meeting date to the next (for example, for sterling OIS markets that is one Monetary Policy Committee meeting date to the next) and one standard futures roll date to the next (for example, June IMM to September IMM).

**4.7** We set out our analysis, grouped by the currencies under consideration, and then assessing each currency by the criteria set out under UK RTS 4. The criteria are set out in paragraph 3.15 above.

## Analysis on GBP LIBOR and SONIA swaps

**4.8** The ISDA-Clarus RFR Adoption Indicator was at 41% at the end of 2020. It has continued to increase in the first 3 months of this year with the most recent monthly figure showing that at 51% the use of SONIA products has become the dominant IRD sterling product as shown in Figure 2 below.

**Figure 2: Proportion of GBP derivatives trading activity transacted in SONIA**



Source: Clarus Financial Technology

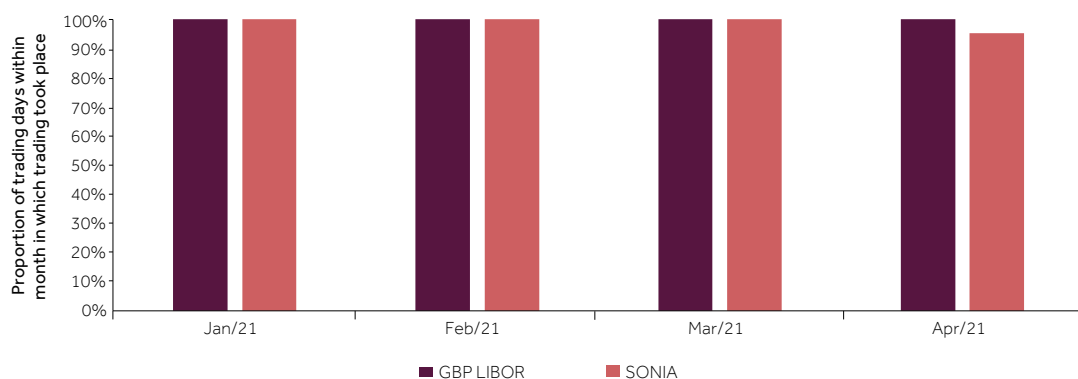
**4.9** To note that the increase in the percentage of adoption of SONIA has occurred in the context of an overall increase in the value traded: risk traded in SONIA products doubled from US\$8bn DV01 in 2019 to US\$16bn in 2020.

## Average frequency of trades

**4.10** We are required to consider the average frequency of trades as measured by the number of days in which trading takes place and by the number of transactions. We must also take into account the distribution of trading executed on trading venues compared with OTC and be satisfied that the assessment of liquidity is over a period of time sufficient enough to be robust to seasonal or episodic factors.

**4.11** Figure 3 shows the percentage of trading days on which trading took place. Figures represent the number of trading days on which trading took place for the most active specific sub-asset class (broken down by tenor and trade start type) on any single trading venue. Both GBP LIBOR and SONIA products are quite active, generally trading on a daily basis.

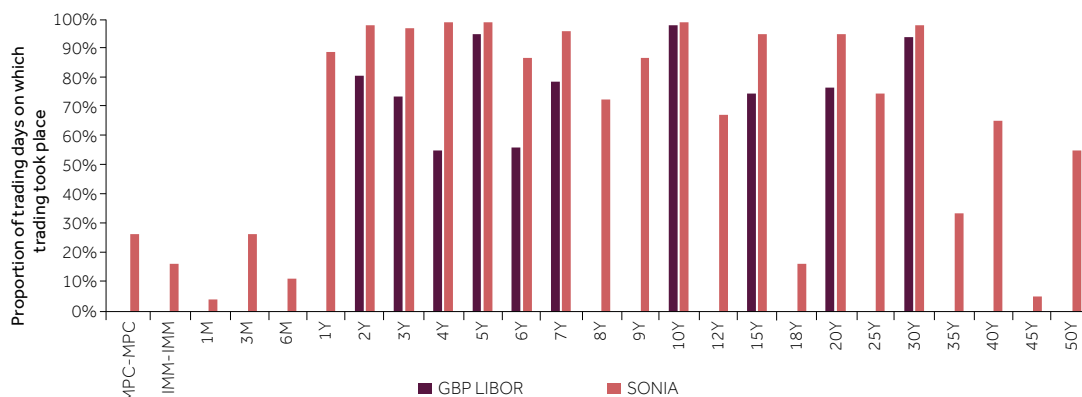
**Figure 3: Proportion of trading days in which GBP derivatives trading took place, over time**



Source: FCA on EMIR data, January – April 2021

**4.12** Whilst at a class level they are traded on a daily basis, we need to ascertain whether this is the case across all tenors of each product, or whether the majority of the activity is focused on certain tenors. Looking at the activity levels of each tenor individually, it appears that most tenors are generally active most trading days. Activity tails off in niche tenors and longer tenors. See Figure 4 below.

**Figure 4: proportion of trading days in which GBP derivatives trading took place, across tenors**

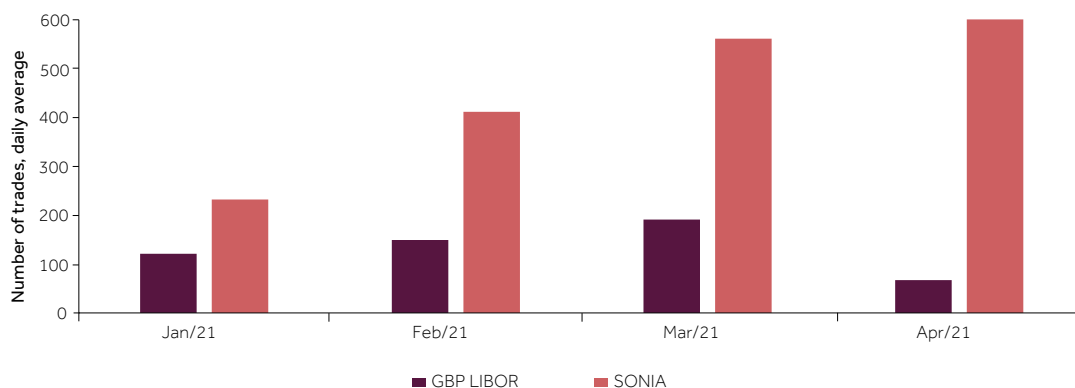


Source: FCA on EMIR data, January – April 2021

**4.13** The evidence from the daily average number of trades shows that liquidity in SONIA swaps is already higher than that of GBP LIBOR products and increasing strongly

during the first months of the year, from around 200 trades per day to well over 500 trades per day as seen in Figure 5.

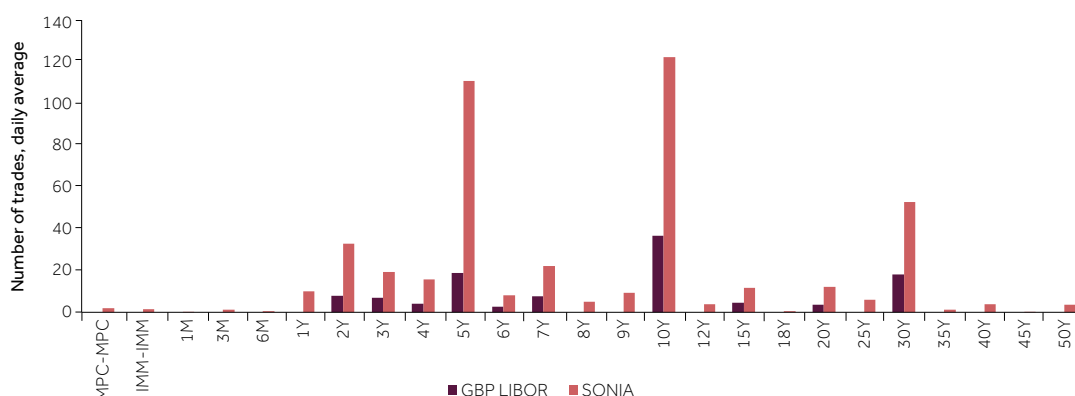
**Figure 5: Number of GBP derivatives trades, over time**



Source: FCA on EMIR data, January – April 2021

**4.14** Figure 6 shows that liquidity in SONIA swaps is robust across the whole maturity spectrum, albeit some benchmark tenors like 5, 10 and 30 years are, as expected, significantly more liquid than others.

**Figure 6: Number of GBP derivatives trades, across tenors**



Source: FCA on EMIR data, January – April 2021

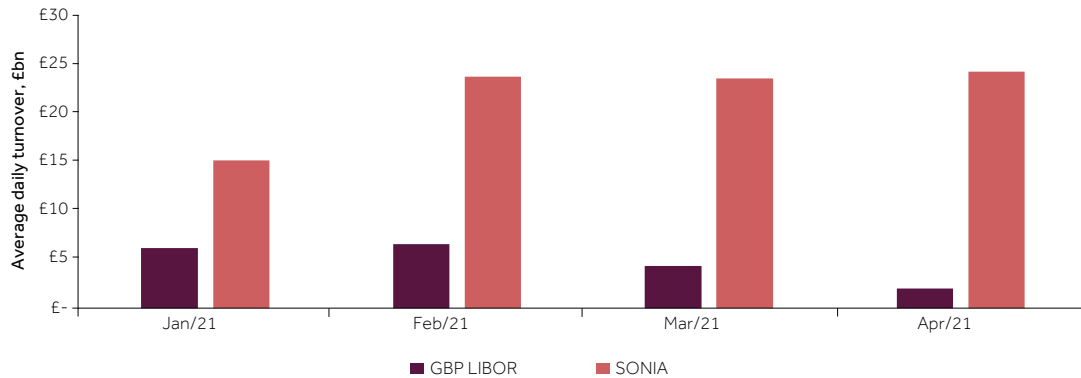
**4.15** In determining whether a class of derivatives is suitable for the DTO, we should have regard to the extent to which derivative transactions already take place either on regulated venues or are mainly executed bilaterally OTC. EMIR data shows that between January and May 2021 the on-venue to OTC ratio by number of trades is 43%:57% for SONIA swaps.

### Average size of trades

**4.16** We are required to consider metrics reflecting the volumes traded in the relevant market, such as the average daily turnover and average value of trades. While the daily turnover in a class of derivative is a relevant factor for assessing the liquidity, we think that the average traded size is relatively less relevant.

**4.17** Trading activity measured by the average daily turnover shows a somewhat similar picture as that for trade count. The average daily turnover has increased during the first few months of the year as shown in Figure 7 below.

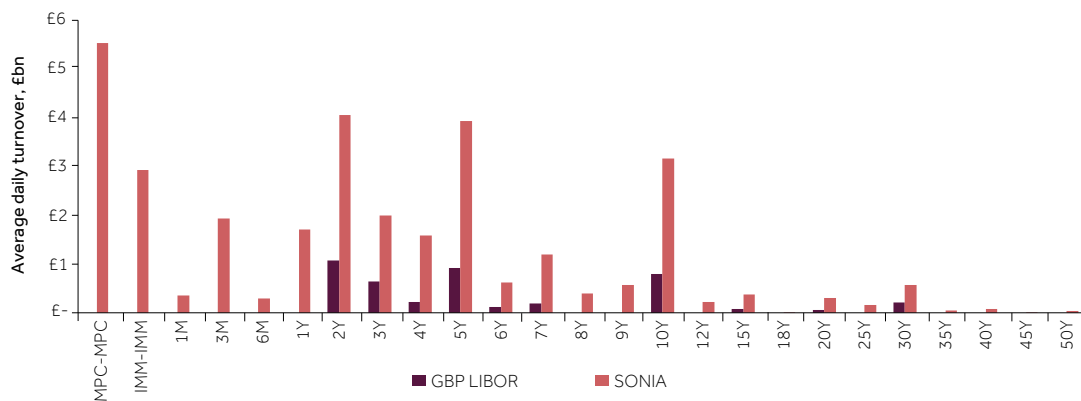
**Figure 7: GBP derivatives turnover**



Source: FCA on EMIR data, January – April 2021

**4.18** Similar to the average daily number of trades, Figure 8 shows liquidity is robust across the whole maturity spectrum with short-dated swaps with lower DV01 trading in larger volumes.

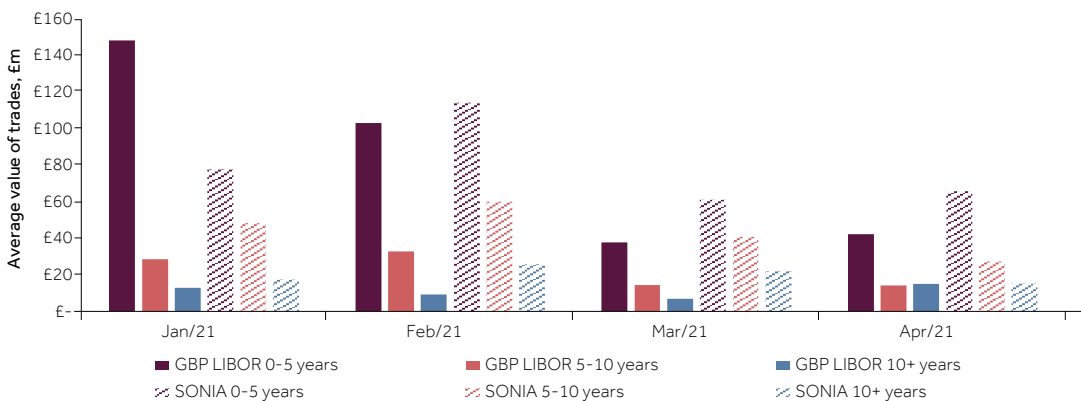
**Figure 8: GBP derivatives turnover, across tenors**



Source: FCA on EMIR data, January – April 2021

**4.19** Figure 9 shows the average value of trades appears to be fairly comparable between GBP LIBOR and SONIA products, comparing between their respective tenors.

**Figure 9: Average value of GBP derivatives trades**



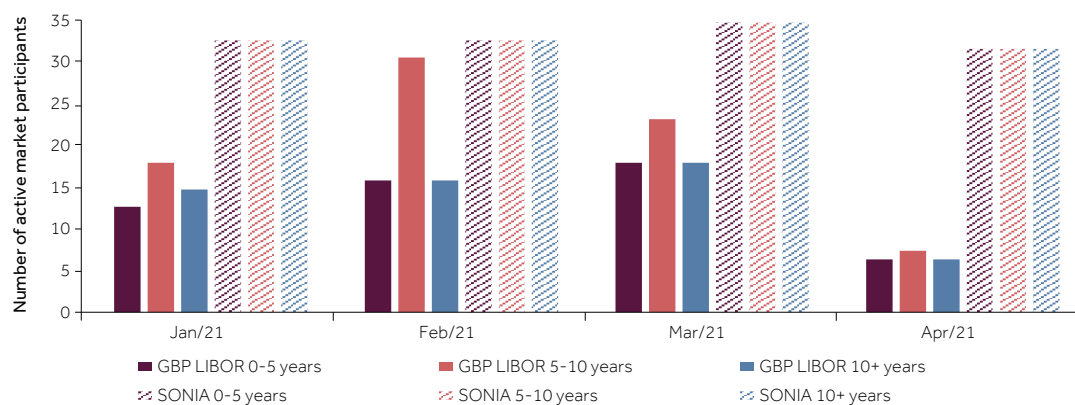
Source: FCA on EMIR data, January – April 2021

## Number and type of market participants

**4.20** We are required to consider the breadth of participation in the relevant market and the ability of market participants to source liquidity from multiple trading venues and liquidity providers. The relevant metrics are the number of active market participants, the number of trading venues that admit the relevant class of derivative and the number of market makers under a binding agreement or obligation to provide liquidity.

**4.21** The number of active market participants, defined as a member or participant of a trading venue, appears to be high for all products and greater than the minimum number of 2 as set out in UK RTS 4 as shown in Figure 10. Trading venue data show that there are in excess of 30 active market participants in SONIA swaps across the whole range of tenors, a number that is higher than that of GBP LIBOR swaps in scope of the DTO.

**4.22** *Figure 10: Number of active GBP derivatives market participants*



Source: trading venues

**4.23** SONIA swaps are available to trade on a number of UK trading venues. Depending on the specific sub-asset class (broken down by tenor and trade start type), market participants can access between 5 to 15 trading venues with the largest number of trading venues offering trading services in the most standardised and liquid spot starting SONIA swaps. In addition to UK trading venues, UK market participants also have access to a similar number of overseas trading venues that are deemed equivalent for the purposes of the DTO.

**4.24** Liquidity in OTC derivatives markets is mainly provided outside the market making obligations or binding agreements that are typical in equity markets. Incentive schemes are often used to increase liquidity provision. Trading venue data indicate that depending on the sub-asset class (broken down by tenor and trade start type) within the SONIA OIS class liquidity can be sourced from between 15 and 20 liquidity providers.

## Average size of spreads

**4.25** We collected some information from a trading venue on spreads, but this was not sufficient to enable us to assess this criterion. However, UK RTS 4 allows us to take into consideration a proxy where information on spreads is not available.

**4.26** We consider the daily publication of the GBP SONIA ICE Swap Rate settings by ICE Benchmark Administration as evidence that the SONIA swaps are characterised by a level of liquidity comparable to GBP LIBOR swaps. The ICE Swap Rate is based

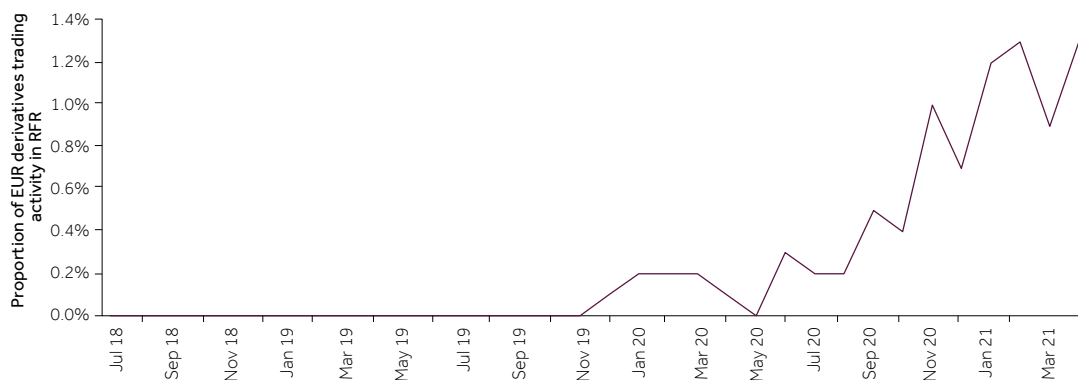
on a methodology that relies on pre-trade quotes in minimum standard sizes made available on the electronic order books of three large trading venues mainly operating in the interdealer market. GBP SONIA ICE Swap Rate settings are available for the same tenors, from 1 to 10 years and for 12, 15, 20, 25 and 30 years, and at the standard market sizes, between £10 and £50 million, applicable for the determination of GBP LIBOR ICE Swap Rate fixings.

- 4.27** In addition to spreads from electronic order books, the qualitative evidence provided by trading venues is that market participants have broad access across the whole maturity spectrum to multiple bid and offer prices that are streamed electronically on a continuous basis or on request by dealers.
- 4.28** Conclusion: SONIA OIS are traded on a frequent and regular basis. The number of daily trades and the volume traded indicate that the class as a whole is at least as liquid as GBP LIBOR swaps. Data on individual tenors support the conclusion that liquidity is available across most of the tenors of the maturity spectrum. While we were able to collect only limited information on spreads, the evidence from the ICE Swap Rate benchmark is consistent with the availability of executable bid and offer prices in standard market sizes. SONIA swaps are widely traded by a large number of market participants and benefit from the support of liquidity providers.

## Analysis on EURIBOR and €STR swaps

- 4.29** The RFR Adoption Indicator for €STR shows that transition to the new RFR is, compared with SONIA, in progress but at an earlier stage. Use of €STR products is at 1.3% of DV01 at the end of March as seen in Figure 11. This is the highest percentage recorded, there having been no market at all prior to 2020.
- 4.30** Differently from SONIA, there is no current plan to complete a transition to €STR of all current EURIBOR business. Current transition plans are instead limited to transition from EONIA to €STR. EONIA is not part of the DTO. Given that €STR will substitute EONIA and that EONIA is already calculated as €STR plus a spread, we aggregate the data on €STR with that of EONIA as it provides a better indication of future liquidity in €STR.

**Figure 11: Proportion of EUR derivatives trading activity transacted in RFR**

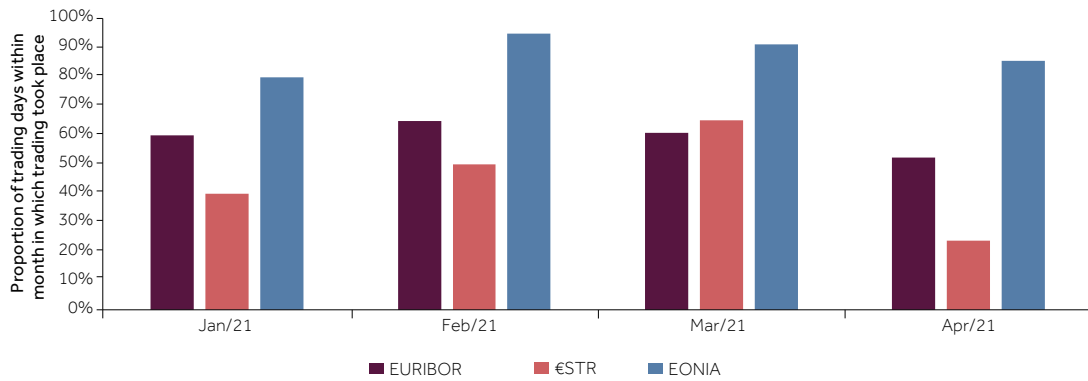


Source: Clarus Financial Technology

### Average frequency of trades

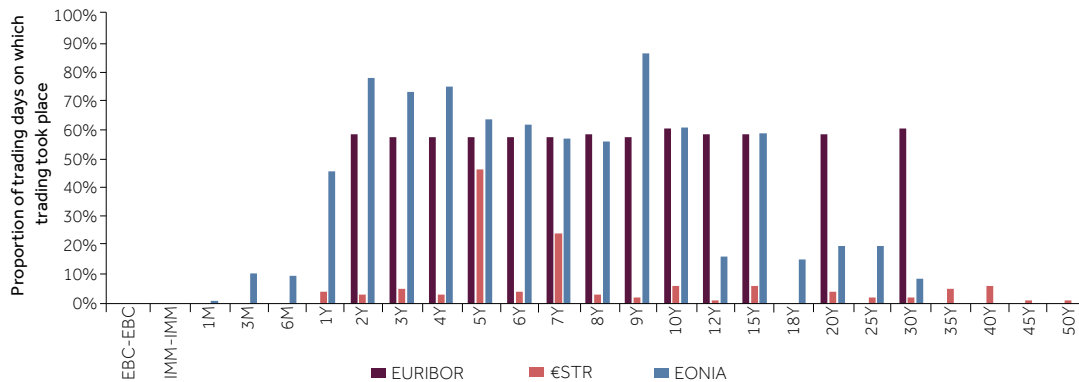
**4.31** Whereas trading of EURIBOR products take place at a near daily basis, the same cannot be said for €STR products. Typically, €STR activity takes place on half of the trading days, or fewer as shown in Figure 12. We can see in the tenor breakdown in Figure 13 the tenors in which occasional €STR activity exists – predominantly the 5 year and 7 year €STR products. EURIBOR on the other hand exhibits activity through all the tenors, being active in c.60% of the trading days. EONIA, however, is particularly active, active on most trading days and across many tenors between 1 and 15 years. On this measure EONIA is more active than EURIBOR.

**Figure 12: Proportion of trading days in which EUR derivatives trading took place**



Source: FCA on EMIR data, January – April 2021

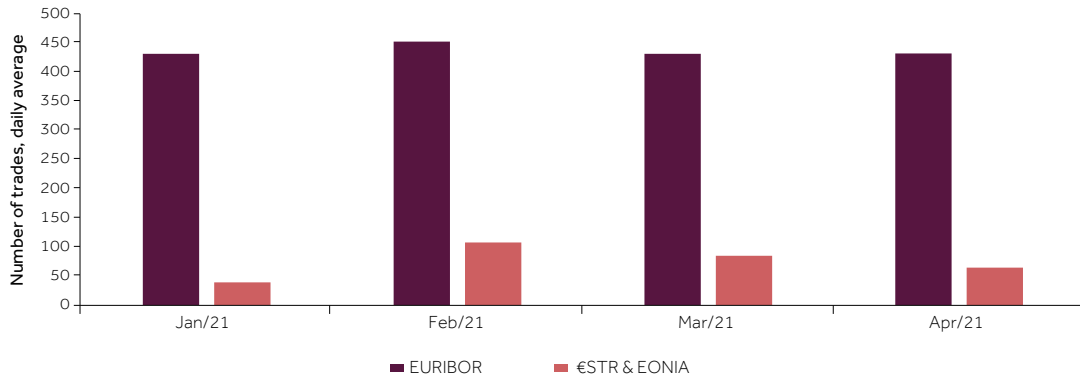
**Figure 13: Proportion of trading days in which EUR derivatives trading took place, across tenors.**



Source: FCA on EMIR data, January – April 2021

**4.32** As for trading activity, represented by number of trades, activity in €STR and EONIA swaps is very limited, especially if compared with EURIBOR swaps. €STR activity is emerging from a low base, as shown in Figure 14.

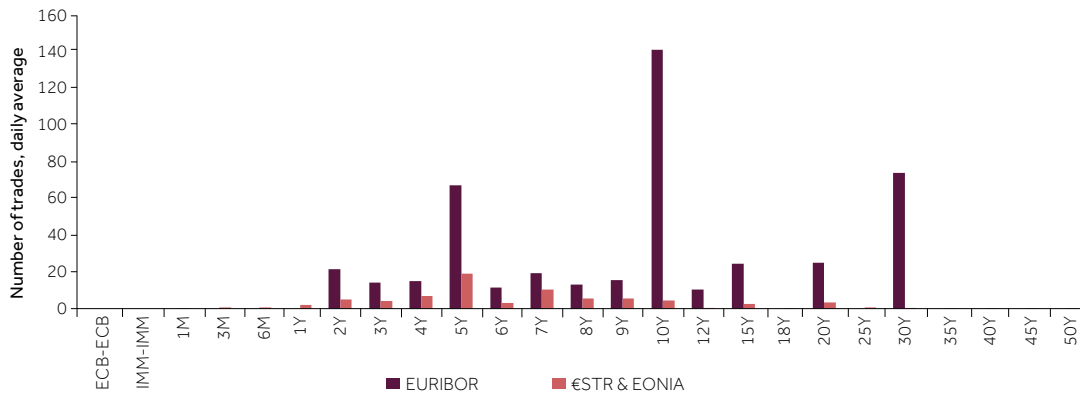
**Figure 14: Number of EUR derivatives trades**



Source: FCA on EMIR data, January – April 2021

**4.33** And in the breakdown of tenors shown in Figure 15, we can see that it is in the 5 year and 7 year products where €STR and EONIA activity is at the moment noticeable. The 5 year €STR and EONIA now exhibits trading levels comparable to those of some of the EURIBOR tenors whilst others within the 1-10 year tenor range are showing emerging activity.

**Figure 15: Number of EUR derivatives trades, across tenors**



Source: FCA on EMIR data, January – April 2021

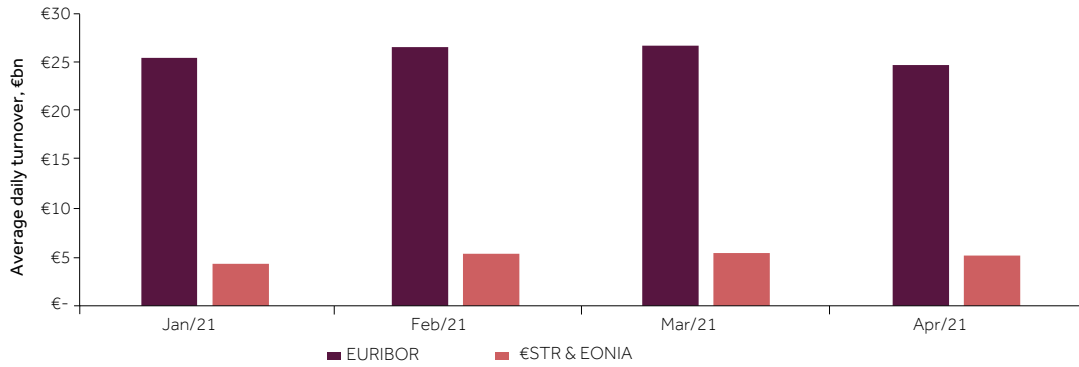
**4.34** The proportion of trading executed on-venue versus OTC varies between the products. EMIR data show that between January and May 2021 the on-venue / OTC ratio by number of trades is 75%:25%.



### Average size of trades

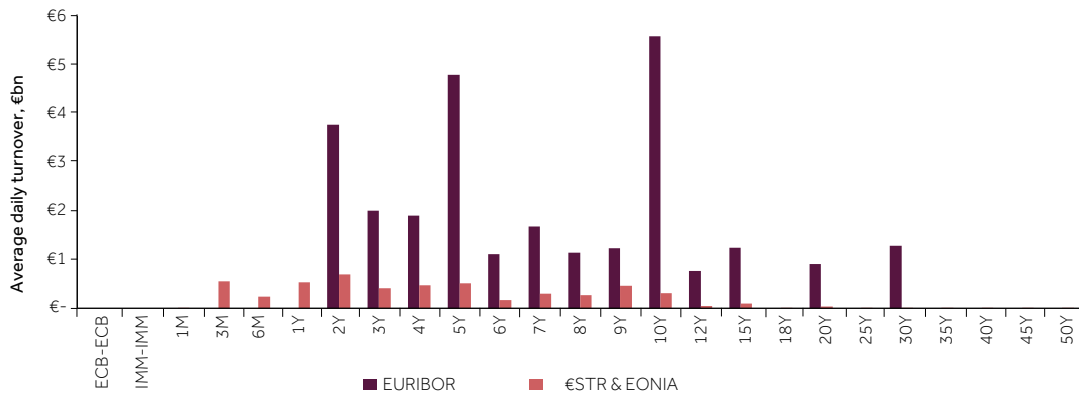
**4.35** The evidence for EUR derivative products trading activity is confirmed by the analysis on volumes as shows in Figures 16, 17 and 18 below.

**Figure 16: EUR derivatives turnover**



Source: FCA on EMIR data, January – April 2021

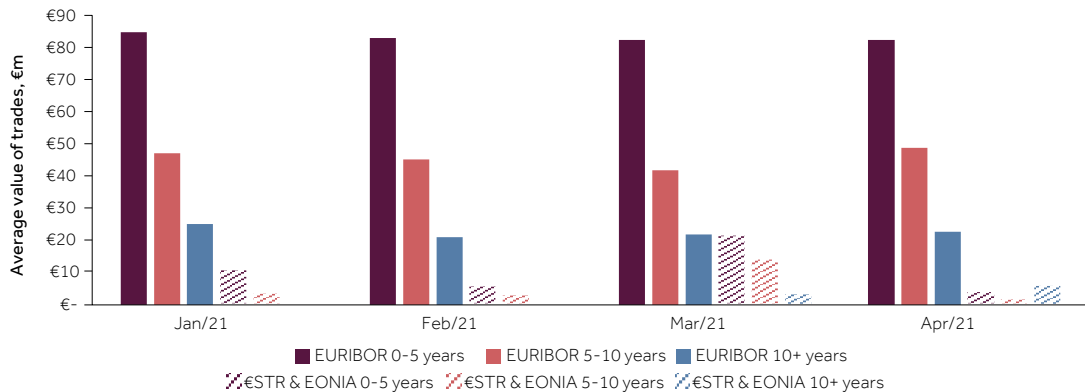
**Figure 17: EUR derivatives turnover, across tenors**



Source: FCA on EMIR data, January – April 2021

**4.36** The largest transactions appear to be conducted on EURIBOR products.

**Figure 18: Average value of EUR derivatives trades**

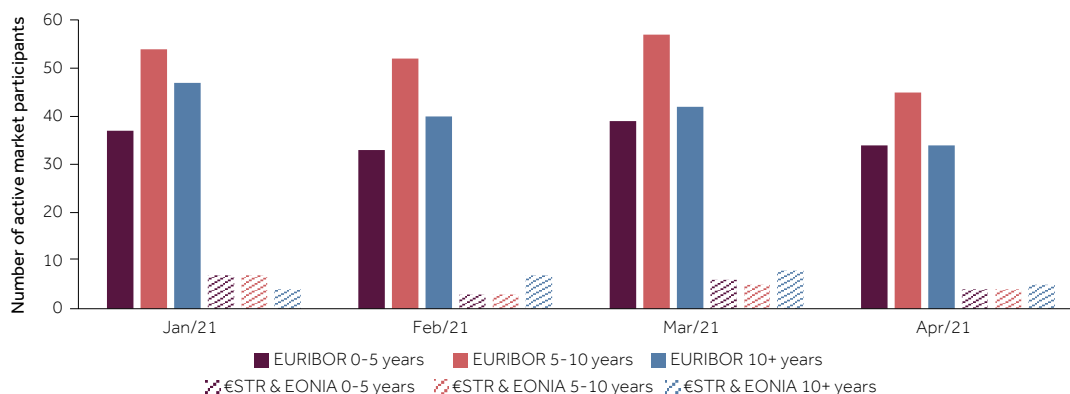


Source: FCA on EMIR data, January – April 2021

## Number of active market participants

**4.37** The number of active market participants remains high for EURIBOR products. Participation in EUR OIS products has remained steady during this time.

**Figure 19: Number of active EUR derivatives market participants**



Source: trading venues

**4.38** From EMIR data, whilst figures are lower than those for SONIA products, there are multiple trading venues that provide trading in €STR and EONIA products.

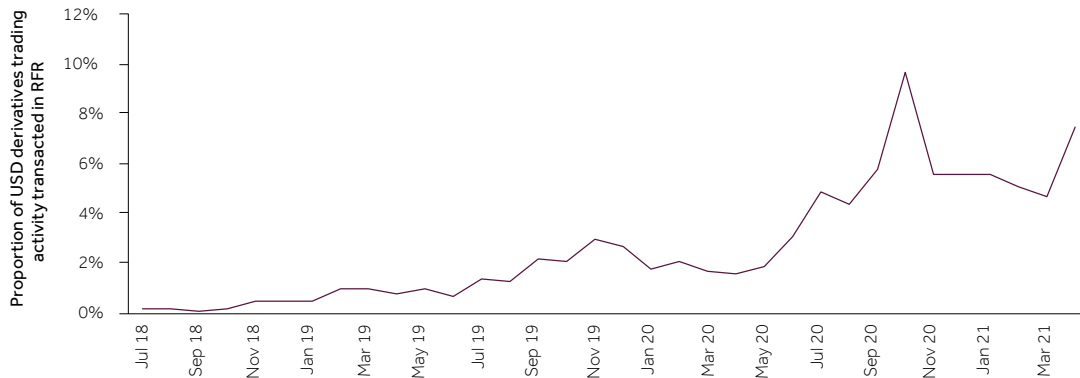
**4.39** In terms of EUR OIS products there appear to be numerous market makers or liquidity providers, for each of the OIS products. Trading venue data indicate that depending on the sub-asset class (broken down by tenor and trade start type) within the €STR and EONIA OIS class liquidity can be sourced from between 19 and 25 liquidity providers. In terms of liquidity provision, a DTO could be supported for these classes.

**4.40** Conclusion: overall we have not found €STR OIS to have traded on a frequent and regular basis. We can see certain individual tenors, for example the 5 year and 7 year €STR tenors, with emerging levels of activity. However, the remainder of the class has not yet shown the same levels of activity.

## Analysis on USD LIBOR and SOFR swaps

**4.41** The RFR Adoption Indicator for USD products was at 5.6% as at the end of 2020, within a range of 1.6% to 9.7%. The data for USD cleared derivatives markets, across both OTC and ETD asset classes, show trading in SOFR products doubled from 2019 to 2020. US\$3.2bn DV01 of SOFR IRD risk was traded in 2019 versus US\$6.4bn in 2020.

**Figure 20: Proportion of USD derivatives trading activity transacted in RFR**



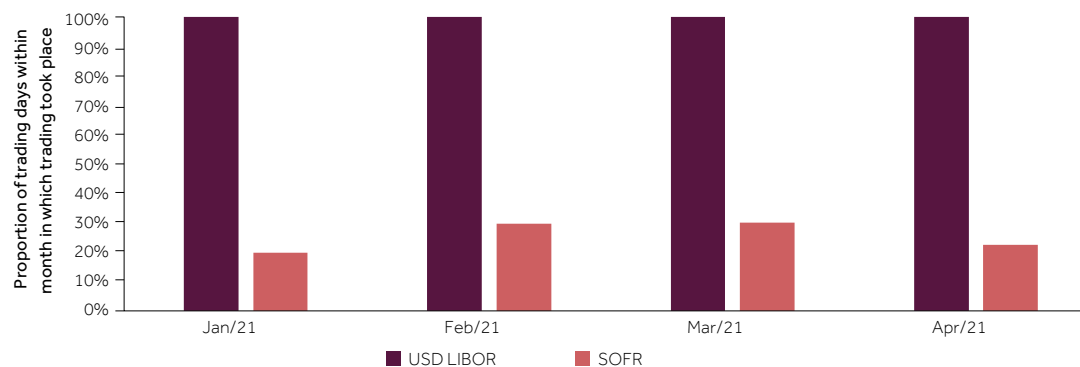
Source: Clarus Financial Technology

**4.42** Overall, SOFR adoption increased in the second half of 2020 and market participants have shown that risk management in SOFR can substantially scale-up when needed. Clarus Financial Technology said in their response to ICE Benchmark Administration’s consultation of December 2020 that 9.7% of total risk traded (over US\$1bn DV01) was transacted in October 2020 following the discounting switch at LCH and CME. Although the USD LIBOR settings currently in scope of the DTO (3 and 6-month tenors) will either cease to be provided by any administrator or no longer be representative from 30 June 2023, supervisory guidance by US authorities is that use of USD LIBOR in new contracts should stop by end-2021 at the latest (with some exceptions for risk management). So, we expect SOFR liquidity to increase further as we near this milestone, including as a result of the planned SOFR First initiative in July 2021 mentioned in paragraph 2.9.

**4.43 Average frequency of trades**

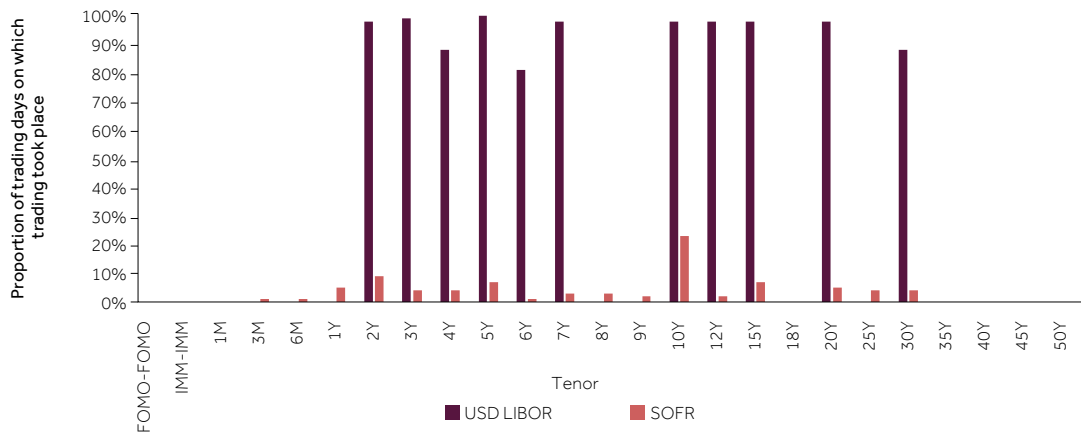
Relevant USD LIBOR products remain very active, whilst SOFR OIS exhibit a substantial, but relatively lower level of activity as shown in Figures 21 and 22.

**Figure 21: Proportion of trading days in which USD derivatives trading took place, over time.**



Source: FCA on EMIR data, January – April 2021

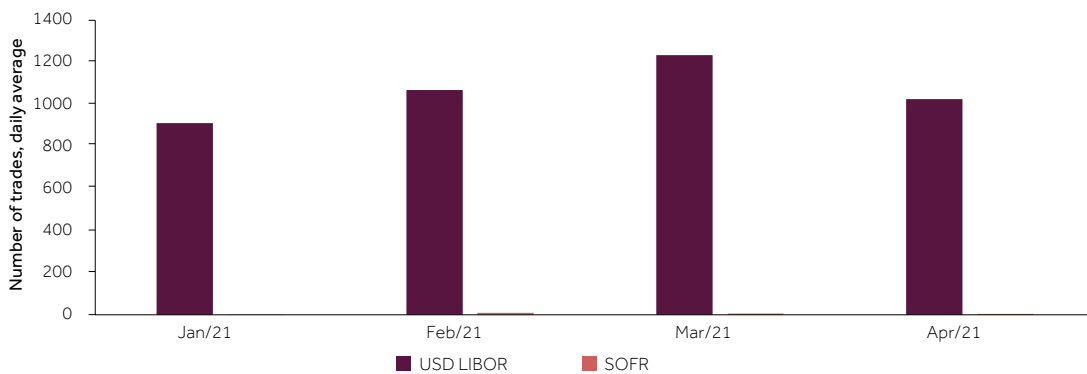
**Figure 22: Proportion of trading days in which USD derivatives trading took place, across tenors.**



Source: FCA on EMIR data, January – April 2021

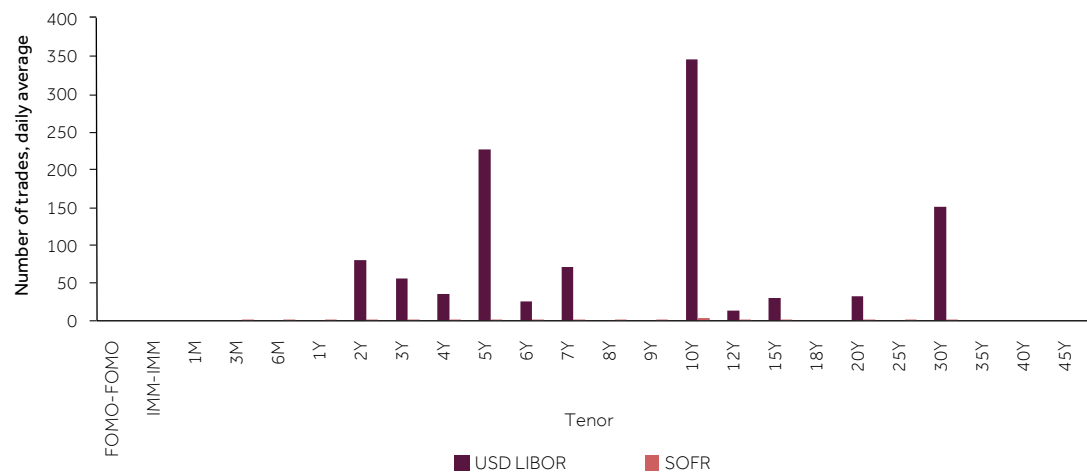
**4.44** This is also reflected in the trading activity analysis. The activity for SOFR OIS products remains substantially lower than that for USD LIBOR products, for now. We note the deadlines described in paragraph 4.42. It can be expected that activity for SOFR OIS products will increase as 2021 progresses.

**Figure 23: Number of USD derivatives trades, over time.**



Source: FCA on EMIR data, January – April 2021

**Figure 24: Number of USD derivatives trades, across tenors.**



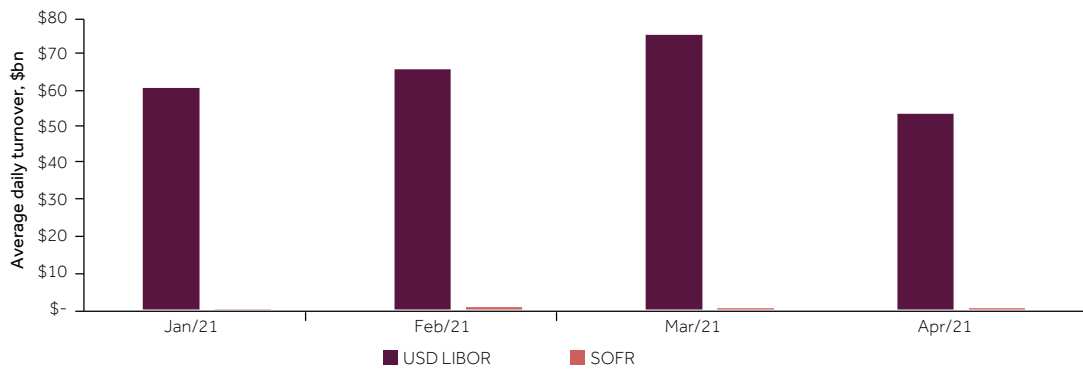
Source: FCA on EMIR data, January – April 2021

**4.45** The proportion of trading executed on-venue versus OTC varies between the products. EMIR data show that between January and May 2021 the on-venue / OTC ratio by number of trades is 67%:33% for SOFR swaps.

**Average size of trades**

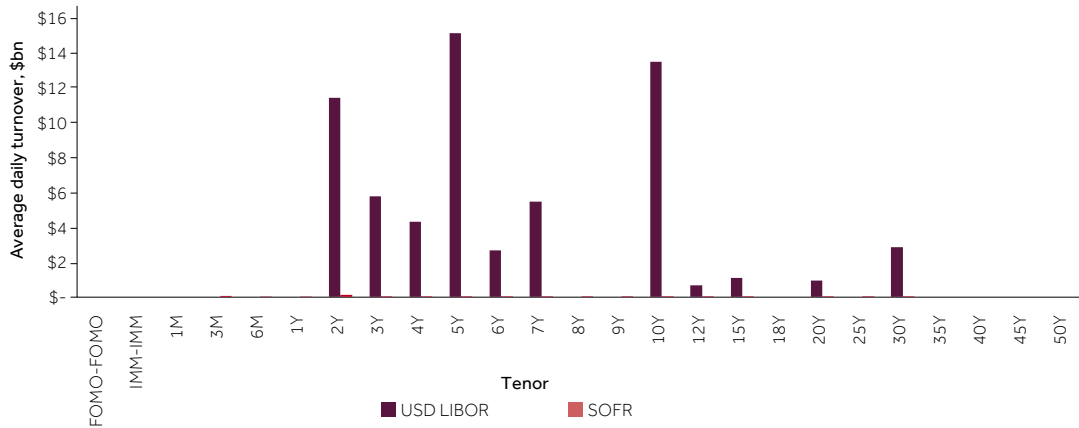
**4.46** The evidence is similar for volumes traded. Whilst in absolute terms, transaction activity for SOFR products are a fraction of that seen for USD LIBOR, we observe transaction numbers and volumes increasing. This is from a low base. C.US\$50m of SOFR products were traded on an average daily basis in January, increasing to c.US\$400m daily by April.

**Figure 25: USD derivatives turnover, over time.**



Source: FCA on EMIR data, January – April 2021

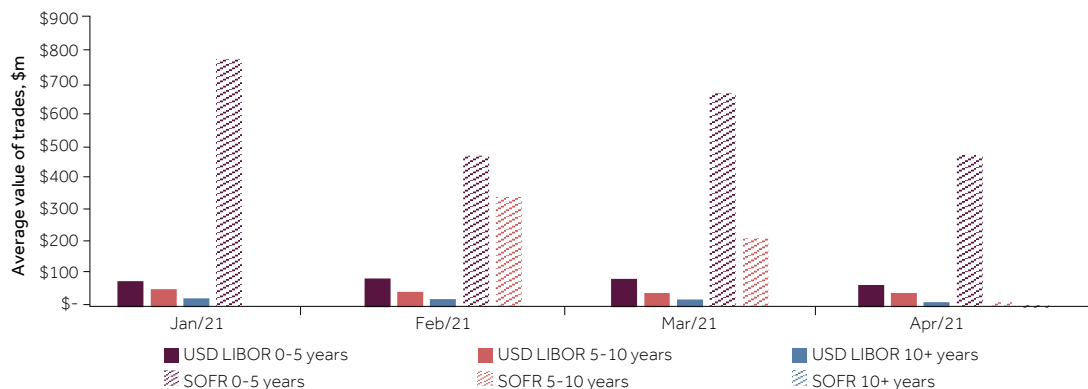
**Figure 26: USD derivatives turnover, across tenors.**



Source: FCA on EMIR data, January – April 2021

**4.47** The largest average value of trades occurs at the shorter tenors as shown in Figure 27. The average value of SOFR trades is notably larger than that of USD LIBOR trades.

**Figure 27: Average value of USD derivatives trades.**

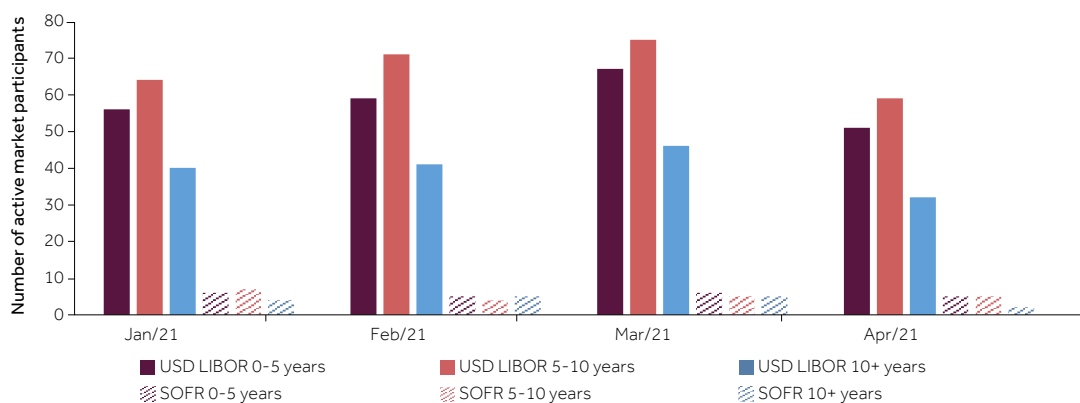


Source: FCA on EMIR data, January – April 2021

### Number of active market participants

**4.48** There is a very high level of active market participation for USD LIBOR products. Participation for SOFR OIS products is currently a fraction of that for USD LIBOR.

**Figure 28: Number of active USD derivatives market participants.**



Source: trading venues

**4.49** From EMIR data, whilst figures are lower than those for SONIA products, there are multiple trading venues that provide trading in SOFR products.

**4.50** Trading venue data indicate that depending on the sub-asset class (broken down by tenor and trade start type) within the SOFR OIS class liquidity can be sourced from approximately 20 liquidity providers. In terms of liquidity provision a DTO could be supported for these classes.

**4.51** Conclusion: whilst the adoption rates for USD RFRs have been increasing in the previous year, overall we have not yet found SOFR OIS to have traded on a frequent and regular basis. This is the case across the tenors of the maturity spectrum.

**Q4: Do you agree with the liquidity analysis set out above? If not, please provide explanations and data to support your response.**

## 5 Proposals

### Swaps based on GBP LIBOR and SONIA

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- 5.1** Our liquidity analysis indicates that SONIA OIS as a class of OTC derivatives is sufficiently liquid to impose a DTO. Further, given relevant dates planned for the end of 2021 where GBP LIBOR will no longer be available, we expect liquidity in SONIA swaps to increase further in the course of 2021.
- 5.2** Therefore, in line with the changes proposed by the Bank, we propose to remove derivatives referencing GBP LIBOR from the current DTO and replace them with OIS referencing SONIA. We propose to extend the DTO for SONIA OIS to trade start types spot-starting and IMM (next 2 IMM dates) with tenors of 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 15, 20, 25 and 30 years. According to our analysis, these are sufficiently liquid. Of these tenors and trade start types, the 1, 8, 9, 12 and 25 year are new tenors and the IMM (next 2 IMM dates) are a new trade start type that we propose to bring into scope of the DTO in addition to those currently covered by the DTO for GBP LIBOR IRS.

### Swaps based on EURIBOR and €STR

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- 5.3** Currently, no swaps referencing EONIA are subject to the DTO. Our analysis shows that €STR OIS do not yet seem to display the same level of liquidity of EURIBOR or other products currently subject to the DTO.
- 5.4** However, plans for conversion of cleared contracts from EONIA to €STR to take place in October 2021 and DCO changes proposed by the Bank in relation to €STR are likely to impact liquidity significantly. The Bank is proposing to remove, on Monday 18 October 2021, the contract type referencing EONIA from the OIS class and replace it with the contract type in the OIS class referencing €STR with an original maturity of 7 days to 3 years. Before transition from EONIA to €STR is completed, we expect swaps referencing €STR to have at least the same liquidity profile as currently displayed by EONIA swaps.
- 5.5** We intend to monitor market developments and liquidity in €STR OIS markets over the coming months. We would consider including the relevant €STR OIS products in the DTO in our standards instruments once we are satisfied that the class of derivatives is sufficiently liquid and that inclusion of €STR OIS would be appropriate. We invite market feedback on this and on when appropriate timing might be. We also note that derivatives referencing EONIA are not subject to the DTO in the EU, which has the same regulatory framework as the UK for determining whether they should be subject to the DTO.
- 5.6** Since there is no current plan to transition EURIBOR contracts to €STR, and EURIBOR-based swaps continue to be sufficiently liquid, we propose to maintain them as part of the DTO.

## Swaps based on USD LIBOR and SOFR

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- 5.7** Liquidity in SOFR OIS as a class of OTC derivatives is still developing and doesn't appear to be sufficiently liquid yet for the purposes of the DTO while USD LIBOR derivatives continue to be sufficiently liquid, for now.
- 5.8** USD LIBOR settings subject to the current DTO will cease or become unrepresentative at end-June 2023. As mentioned above, milestones have been established by the national working group in the US, alongside supervisory guidance from US authorities that use of USD LIBOR in new contracts should stop by end-2021 at the latest (with some exceptions for risk management transactions). Liquidity in SOFR referencing OIS products may currently be lower, however we expect that the deadlines above, together with the SOFR First initiative planned for July 2021, to impact liquidity in OIS referencing SOFR and see migration of liquidity from USD LIBOR to SOFR swaps.
- 5.9** We note that the Bank has not proposed any changes to the DCO with respect to USD products and USD LIBOR products continue to be subject to the DCO. In absence of a clearing mandate, we intend to monitor market developments and liquidity in USD LIBOR and SOFR products over the coming months as relevant deadlines and milestones are likely to impact liquidity. We would like to seek market feedback on this. We are also mindful that there is not currently a clearing mandate or platform trading mandate for SOFR products in the US. While the regulatory framework for establishing a platform trading mandate in the US differs in detail from MIFIR, the overall objective and outcome sought is the same.

## Implementation

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- 5.10** We propose to align the timelines for making changes with those of the broader RFR transition. Under this approach, implementation dates of the proposed changes to the DTO will align with changes to the DCO.
- 5.11** Specifically, the changes to the DTO proposed above with respect to GBP LIBOR and SONIA will coincide with those set by the Bank for the DCO, and by UK authorised and recognised CCPs for conversion of outstanding LIBOR contracts. The Bank propose to remove, on Monday 20 December 2021, the contract type referencing GBP LIBOR replacing it with the contract type in the OIS class referencing SONIA but with an amended original maturity range of 7 days to 50 years. All CCPs authorised or recognised in the UK to clear GBP LIBOR contracts subject to the DCO are due to convert contracts and remove GBP LIBOR from their eligible lists on the same date as described in the Bank's consultation paper.

**Q5:** Do you agree that LIBOR transition plans have provided market participants with sufficient time to prepare within the proposed timelines for the changes described above? If not, please explain what transition period is needed and why?

**Q6:** Do you agree with our proposal with respect to €STR products? If not, please explain why and please provide supporting data where possible.



- Q7:** When might be the right time to remove USD LIBOR products from the scope of the DTO? Please provide supporting data where possible.
- Q8:** Do you agree with our proposal with respect to SOFR products? If not, please explain why and please provide supporting data where possible.

## Annex 1

### Questions in this paper

- Q1:** Do you agree with the approach and assumptions specified above? If not, please explain why.
- Q2:** Do you agree with the FCA that there do not appear to be any classes of derivatives or individual derivative contracts that should be subject to the DTO but for which no CCP has yet received authorisation under EMIR or which are not admitted to trading or traded on a trading venue? If not, please explain why.
- Q3:** Do you agree with the FCA's view on impact in paragraphs 3.26 and 3.27 above? If not, please explain why.
- Q4:** Do you agree with the liquidity analysis set out above? If not, please provide explanations and data to support your response.
- Q5:** Do you agree that LIBOR transition plans have provided market participants with sufficient time to prepare within the proposed timelines for the changes described above? If not, please explain what transition period is needed and why?
- Q6:** Do you agree with our proposal with respect to €STR products? If not, please explain why and please provide supporting data where possible.
- Q7:** When might be the right time to remove USD LIBOR products from the scope of the DTO? Please provide supporting data where possible.
- Q8:** Do you agree with our proposal with respect to SOFR products? If not, please explain why and please provide supporting data where possible.

## Annex 2

# Cost benefit analysis

### Introduction

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1. FSMA, as amended by the Financial Services Act 2012, requires us to publish a cost benefit analysis (CBA) of our proposed rules. Specifically, section 138I requires us to publish a CBA of proposed rules, defined as 'an analysis of the costs, together with an analysis of the benefits that will arise if the proposed rules are made'. Under section 138S of FSMA, the requirement to publish a CBA also applies when the FCA makes or amends technical standards under section 138P of FSMA.
2. This analysis presents estimates of the significant impacts of our proposal. We provide monetary values for the impacts where we believe it is reasonably practicable to do so. Where it is not reasonably practicable to do so, we provide a qualitative assessment of outcomes, taking into account various factors. Our proposals are based on carefully weighing up these multiple factors and reaching a judgement about the appropriate level of consumer protection, considering all the other impacts we foresee.

### Problem and rationale for intervention

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3. Historically, trading of OTC derivatives carried risks arising from a lack of transparency and the complex inter-connecting relationships of participants. A rise in defaults of the counterparties within these transactions adversely impacted such markets, resulting in liquidity problems and created significant harmful side-effects on wider markets through the emergence of systemic risk and loss of financial stability.
4. Trading obligations were introduced following the 2009 G20 commitment to move trading of standardised and liquid OTC derivatives on to trading venues, hence supporting the reduction of systemic risk and the threat posed to financial stability. As part of this, the derivatives trading obligation (DTO), as specified under Article 28 of UK MiFIR, mandates relevant counterparties dealing in defined sufficiently liquid derivative contracts to be concluded only on regulated trading venues.
5. The liquidity assessments which determined the current classes of derivatives subject to the DTO were undertaken in 2017 and there have been changes to the liquidity profile of such derivatives since. One of the drivers to these changes originates from the LIBOR transition. The problem arising is that the classes of derivatives currently subject to the DTO include products that reference benchmarks (i.e. GBP and USD LIBOR) that as part of the LIBOR transition will be discontinued or may continue on an unrepresentative basis and become subject to use restrictions under Benchmarks Regulation. Also, products that are becoming more widely used as this transition process progresses, i.e. SONIA, are not defined as part of the scope of the DTO. Failure to reflect these market developments reduces the effectiveness of the DTO in moving the trading of standardised and liquid OTC transactions on to trading venues.

## Harm and drivers of harm

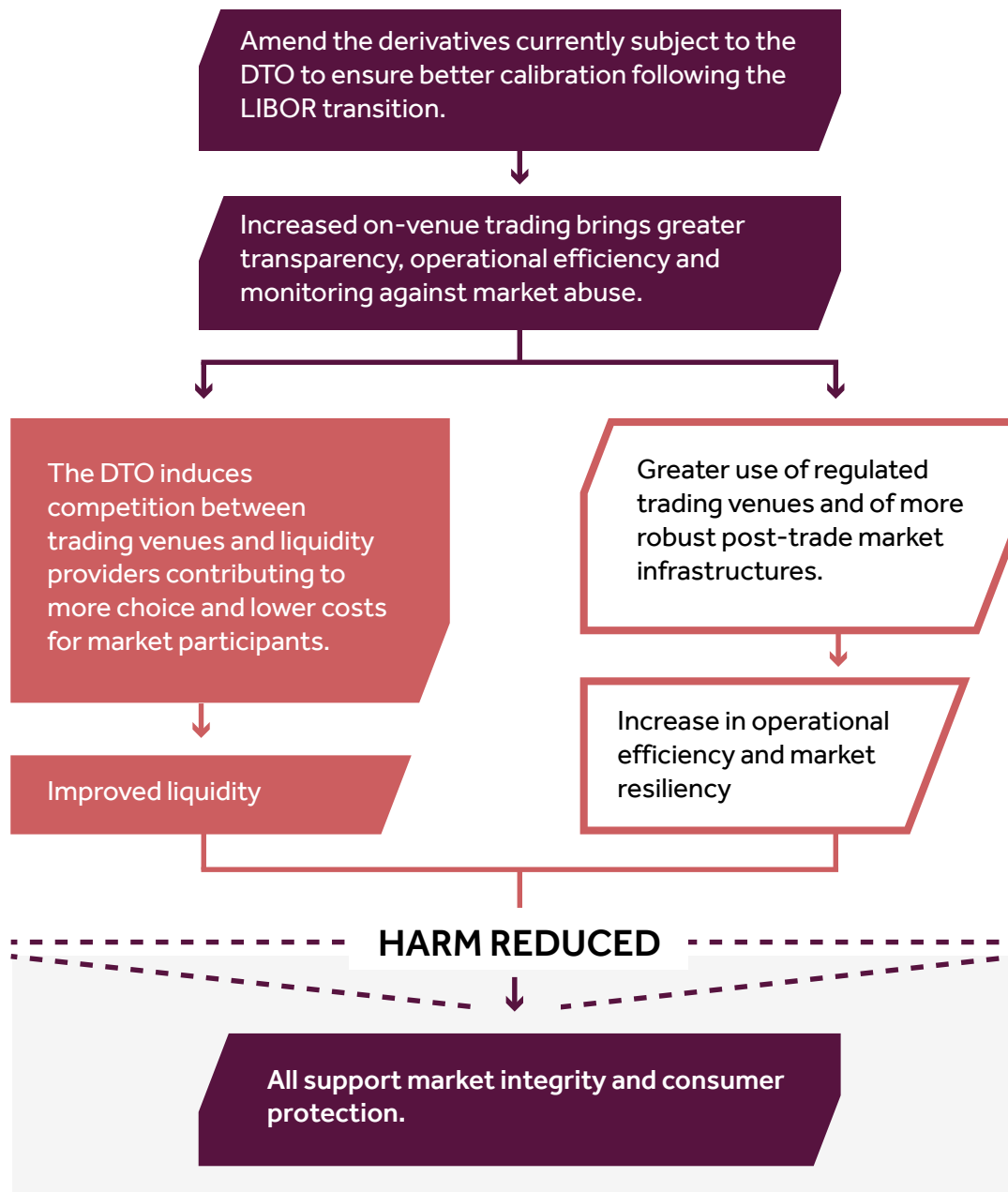
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6. Without intervention, the DTO will include derivatives that will eventually no longer be tradeable. Further, there will be derivatives referencing relevant replacement near risk-free rates (RFR) for which liquidity is developing or already sufficient to apply the DTO. However, these derivatives may continue to be traded bilaterally exposing such markets to some of the risks that lead to the build-up of systemic risk which the 2009 G20 commitment was introduced to address. This could pose a risk to financial stability.

## Summary of our proposed intervention

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7. Our proposals, set out in Chapter 5 of the consultation paper, would make incremental changes to the scope of the DTO (as distinct from a new obligation) to ensure that the DTO continues to apply to the most liquid derivatives. At the same time, the changes will mean that the DTO no longer include products referencing benchmarks that are being discontinued or may continue on an unrepresentative basis and become subject to use restrictions under Benchmarks Regulation. This change supports a desired key outcome in the 2020/21 FCA Business Plan of an orderly transition from LIBOR to relevant RFR. By maintaining an appropriate scope of the DTO that reflects derivatives that are deemed to be sufficiently liquid or are likely to become sufficiently liquid as transition plans reach completion, we are maintaining the benefits of the DTO.
8. We have performed liquidity analysis using a variety of data sources and market intelligence to review derivatives which are affected by the interest rate benchmark reform. This includes derivatives that are subject to the DTO and those which are currently not subject to the DTO for which inclusion in the DTO might be appropriate in light of the transition plans.
9. In turn, we are consulting on removing GBP LIBOR derivatives from the DTO and replacing it with the OIS derivatives class referencing SONIA but with amended tenors for which the data identified sufficient liquidity. For relevant USD and EUR products we are not proposing changes at this time, but we intend to monitor market developments and liquidity over the coming months as relevant deadlines and milestones are likely to impact liquidity. We are also seeking market feedback on this and on when liquidity for USD and EUR OIS products, i.e. SOFR and €STR respectively, is likely to develop given the importance of supporting the broader LIBOR transition.
10. The causal chain below outlines how we envisage the proposal will reduce harm:



## Baseline and key assumptions

11. The baseline assumption that we have used in the CBA is that without intervention the DTO will continue to include LIBOR derivative products therefore undermining the LIBOR transition, the G20 commitment and policy objective of the DTO.
12. While currently there is still liquidity in some of LIBOR derivative products subject to the DTO, we expect this volume to continue to decrease as we get closer to the dates and milestones set out in Chapter 2 of this consultation. Absent any action, the DTO will reference an increasingly obsolete set, thereby losing its relevance and the benefits it confers.
13. The benefits and costs of the changes we propose will depend on the degree of overlap between the market participants that are currently subject to the DTO and those who would be subject to the DTO if we amended it to include relevant RFRs. The information available to us indicates that there is a very large overlap between such

market participants which would be expected to mitigate the scale of cost impacts. Also, since the DTO initially took effect in 2018, the impact will be much more limited than when it was introduced at that time. Furthermore, the changes proposed are much more specific and we are not proposing a complete overhaul to the derivatives subject to the DTO. Lastly, the LIBOR transition is public and there has been significant work by national working groups and authorities internationally to help manage an orderly wind-down and prepare market participants.

14. It will be difficult to account for the above in our assumptions so our estimated costs below are likely to be higher than the actual costs of our proposals. In addition, in this CBA all estimates are in nominal terms.

### Number of relevant market participants

15. Our proposals will impact financial counterparties and non-financial counterparties as defined in Article 28 of UK MiFIR that are or could become subject to the DTO, such as investment firms and banks.
16. Additionally, it may affect regulated trading venues, including third country trading venues that are considered equivalent for the purposes of the DTO, as per Article 28(1) (d) of UK MiFIR and central counterparties.
17. As of May 2021, based on EMIR trade repository data we have estimated that there are around 473 relevant trading venues and market participants potentially affected by this consultation. However, it must be noted this is likely to be an overestimate as this is based on all of the market participants trading derivatives subject to the DTO as well as those derivatives we considered in our analysis for the purposes of the DTO i.e. sterling, US dollar and euro OIS contracts on the relevant replacement near RFR. The proposals in Chapter 5, however, only concern GBP LIBOR and SONIA contracts. Furthermore, the list of market participants included counterparties who would not be subject to the DTO as they do not fall within the definitions of financial counterparties and non-financial counterparties as defined in Article 28 of UK MiFIR.
18. We anticipate that market participants of different sizes will incur different costs. We determine a market participant's size to be based on the fees it pays. Of all the market participants identified, 45 of them paying the highest fees are classed as large, 29 are classified as medium, and all the rest as small. In our sample, where fee information is not available, we assume the market participant is small in size.

**Table 2: Assumptions on participant numbers by sizes used for our estimates**

Category	Number of market participants
Large participant	45
Medium-sized participant	29
Small participant	399

## Summary of costs and benefits

- 19.** We have estimated some of the costs and benefits of our proposals. However, in some cases, it was not reasonably practicable to quantify the costs and benefits of amending the DTO to ensure better calibration. For example, it would be challenging to quantify all potential costs that might arise from any restrictions on the ability of individual market participants to negotiate transactions on behalf of customers since this will vary depending on the trading protocols operated by relevant trading venues. This would also be the case for quantifying benefits such as greater choice for market participants, market resiliency and reduction of systemic risk. Where it has not been reasonably practicable to quantify benefits and costs, we have set out our qualitative assessment of the likely impact of the proposals and a quantitative assessment to the extent possible.
- 20.** Through our engagement with industry, we received data that allowed us to estimate some of the benefits quantitatively. Based on our calculations of liquidity benefits as well as our qualitative assessment of other costs and benefits, we consider the benefits of these proposals will likely outweigh the costs.
- 21.** The table below summarises the total estimated costs and benefits to market participants.

**Table 3: Total estimated costs and benefits**

Stakeholder	One-off/ ongoing	Costs	Benefits
Market participants	One-off	<ol style="list-style-type: none"> <li><b>1.</b> Familiarisation and legal costs - £288k</li> <li><b>2.</b> Project change costs - £1.2m</li> <li><b>3.</b> Issues accessing relevant trading venues, such as meeting relevant organisational requirements, for those participants not already connected. Expect limited overall cost due to the overlap of market participants.</li> </ol>	N/A
Market participants	Ongoing	<ol style="list-style-type: none"> <li><b>4.</b> Fees to be paid for those participants not already connected to relevant trading venues. Expect limited overall cost due to the overlap of market participants.</li> <li><b>5.</b> Higher execution costs for large trades - consider against available waivers and deferrals.</li> <li><b>6.</b> Cost arising from the lack of ability to negotiate on behalf of customers depending on trading protocols adopted by trading venues.</li> </ol>	<ol style="list-style-type: none"> <li><b>1.</b> Liquidity benefits - £19.0m-£30.1m per annum</li> <li><b>2.</b> Greater and better transparency</li> <li><b>3.</b> Improved tradability with multiple counterparties</li> <li><b>4.</b> Competition between dealers and possibly trading venues - greater choice, lower costs, improved liquidity therefore supports market resiliency.</li> </ol>

Stakeholder	One-off/ ongoing	Costs	Benefits
Wider economy			<p><b>5.</b> More transparent markets, increased financial stability and decreased systemic risk.</p> <p><b>6.</b> Increased transparency, operational efficiency and monitoring against market abuse - market integrity.</p>
Total	One-off	£1.5m	N/A
	Ongoing	See points 4 to 6 above - expected to be outweighed by benefits.	£19.0m-£30.1m per annum See points 2 to 6 above, challenging to quantify, but expect benefits to outweigh costs.

## Costs

### Costs to market participants

- 22.** The DTO is already in force and the information available to us indicates that there is a very large overlap between the market participants that are currently subject to the DTO and those that would be subject to the DTO if we included not only SONIA products, but all of the OIS contracts considered as part of this consultation. Accordingly, we expect access issues and initial compliance costs, such as membership costs, to be limited compared with when the DTO first took effect in 2018.
- 23.** We recognise that there is some evidence as described by [Bessembinder, Maxwell and Venkataramanc \(2006\)](#) that on-exchange trading results in higher execution costs for large trades. However, these costs should be considered against available waivers and deferrals which provide exemptions from pre-trade transparency requirements and the ability to delay post-trade transparency requirements.
- 24.** There may be an impact on the ability of market participants to negotiate transactions on behalf of customers depending on the trading protocols operated by relevant trading venues. However, the LIBOR transition is public, and a broad range of transition efforts have been made and arrangements are already in place to help manage an orderly wind-down and prepare market participants.
- 25.** It has not been reasonably practicable to quantify the costs mentioned above, particularly because it is challenging to quantify costs such as the inability of market participants to negotiate transactions on behalf of customers. We have therefore provided our qualitative assessment but expect these to be outweighed by the benefits below.



### **Familiarisation and legal costs**

- 26.** We use our Standardised Cost Model (SCM) to estimate the familiarisation and legal costs market participants may incur as a result of our proposed changes.
- 27.** We expect market participants affected by our intervention will read relevant changes put forward as part of the proposals in this consultation and will familiarise themselves with the requirements of the proposed rules.
- 28.** We estimate the familiarisation costs for market participants based on assumptions on the time required to read the 51 pages-long consultation excluding the legal instruments. We assume 300 words per page and a reading speed of 100 words per minute and estimate that it would take around 2.70 hours to read the document. We convert this into a monetary value by applying an estimate of the cost of time to market participants, based on the Willis Towers Watson 2016 Financial Services Report, adjusted for subsequent annual wage inflation and including 30% overheads.
- 29.** Total familiarisation costs by participant size and the corresponding assumptions are set out in table 4. In total, we estimate that the one-off familiarisation costs for the industry would be £252k.

**Table 4: Familiarisation costs and assumptions**

Category	Number of staff required to read the consultation	Hourly compliance staff salary	Total familiarisation costs
Large participants	20	£59	£137k
Medium-sized participants	5	£63	£23k
Small participants	2	£45	£93k
Total industry one-off familiarisation costs			£252k

Source: FCA approach to CBA, Willis Towers Watson 2016 Financial Services Report

- 30.** Following familiarisation with the proposals put forward, we expect market participants to conduct a legal review of the proposals and a gap analysis to check their current practices against expectations.
- 31.** We estimate the legal costs for market participants based on assumptions on the time required to read the 3 pages-long legal instrument. We convert this into a monetary value by applying an estimate of the cost of time to firms as described above.
- 32.** Total legal costs by market participants size and the corresponding assumptions are set out in table 5. In total, we estimate that the one-off legal costs for the industry would be £35k.

**Table 5: Legal review costs and assumptions**

Category	Number of legal staff required to read the legal instrument	Hourly legal staff salary	Total legal costs
Large participant	4	69	£21k
Medium-sized participant	2	69	£5k
Small participant	1	55	£9k
Total one-off industry legal costs			£35k

Source: FCA approach to CBA, Willis Towers Watson 2016 Financial Services Report

- 33.** We estimate the total one-off familiarisation and legal costs would be £288k. To note, as mentioned above, the proposals in Chapter 5 only concern GBP LIBOR and SONIA contracts. The list of market participants in table 2, on which these familiarisation and legal costs were calculated, include the participants transacting in broad range of derivatives we considered in our analysis for the purposes of the DTO, i.e. counterparties active in USD LIBOR, EURIBOR, SOFR and €STR. Table 2 also includes counterparties who would not be subject to the DTO as they do not fall within the definitions of financial counterparties and non-financial counterparties as defined in Article 28 of UK MiFIR. We therefore expect these estimates to be higher than the actual costs of our proposals.

**Project change costs**

- 34.** We expect market participants to incur one-off small project costs to implement the changes above. We estimate these costs based on assumptions on the number of person days required to set up dedicated project management teams and implement the changes. We convert this into a monetary value by applying an estimate of the cost of time to market participants as described above.

**Table 6: Project change costs and assumptions**

Category	Number of person days required to implement change projects	Total project change costs
Large participants	45	£739k
Medium-sized participants	14	£153k
Small participants	3	£343k
Total one-off industry project change costs		£1.2m

Source: FCA approach to CBA, Willis Towers Watson 2016 Financial Services Report

- 35.** Total project change costs by firm size and the corresponding assumptions are set out in table 6. In total, we estimate the one-off change project costs to be £1.2m for the industry. In line with paragraph 33, we expect these estimates to be higher than the actual costs of our proposals.

## Benefits

### *Transparency, choice and cost benefits*

36. An appropriately calibrated DTO can improve the functioning of OTC derivatives markets by increasing transparency and inducing greater competition between liquidity providers by enabling market participants to trade more easily with multiple counterparties at a lower cost. Evidence suggests the view that well-calibrated trading mandates improve liquidity, through an increase in competition between liquidity providers thereby lowering execution costs for end-users. A study conducted by [Benos, Payne and Vasios \(2020\)](#) found swaps that were subject to the US swap execution facility (SEF)-trading mandate saw significant improvements in liquidity, which lead to reduced daily execution costs for end-investors. These improvements in liquidity were also found to result in more intense competition between swap dealers with a rise in the number of active participants in swap trading. To note, we have estimated the liquidity benefits for market participants quantitatively below.
37. We expect similar benefits from a better calibration of the DTO. Reasons for this include creating a centralised market for participants to interact for those products which are not currently within scope yet which demonstrate active trading volumes, relevant pre-trade information to enable more informed trading decisions and benefits from greater certainty of execution from electronic venues in hedging or closing out exposures. The proposed changes to the DTO may also increase opportunities for those market participants that voluntarily trade on-venue by realising benefits in pricing, liquidity and transparency. We expect other benefits likely to include processing cost savings from the automation of trades and a reduction in search costs associated with sourcing suitable counterparties to trade with.

### *Market integrity, consumer protection and market resiliency benefits*

38. Similar to paragraph 36, we expect increased trading on relevant trading venues of sufficiently standardised and liquid OTC derivatives which are not currently subject to the trading mandate to encourage greater competition between trading venues and between liquidity providers. In turn, this will likely result in similar benefits with more choice, lower costs and improved liquidity to support market resiliency.
39. We anticipate the move of transactions in such standardised and liquid OTC derivatives to also increase scope for market surveillance. This will assist in identifying market abuse and enhance trade transparency, supporting market integrity and consumer protection. Greater and better transparency will also allow participants to make more informed decisions as to where and how to trade.
40. Furthermore, greater use of regulated trading venues may also increase operational efficiency and market resiliency through use of more robust post-trade market infrastructures (for example, clearing houses that help manage counterparty risk and reduce systemic risk).
41. The proposed recalibrated DTO also supports the move away from legacy benchmarks to relevant RFR and a desired key outcome in the 2020/21 FCA Business Plan of an orderly transition from LIBOR contributing to financial stability and more transparent markets.

42. It has not been reasonably practicable to quantify the benefits mentioned above, particularly because it is challenging to quantify benefits such as greater transparency, more choice and wider economic benefits such as market integrity. We have therefore provided our qualitative assessment.

### ***Liquidity benefits***

43. In addition to the benefits mentioned above, we believe that our policy proposals will result in benefits relating to liquidity. This would manifest through more market participants interacting on trading venues, leading to reductions in trading costs through the greater liquidity. We have calculated an estimated quantitative benefit to market participants based on:

- the volume traded of derivative products that will be within scope of the DTO – which in our current proposals will apply to SONIA derivatives;
- the bid-ask spread of those derivative products; and
- a figure attributable to liquidity improvement brought about by the trading obligation and the consequent reduction in execution costs.

44. For the volume traded, we use the figures based on FCA EMIR reporting data discussed in paragraph 4.18 and Figure 8 above. These figures include both trading that is conducted on-venue and OTC. We comment in paragraph 4.15 that approximately 43% of SONIA trades are conducted on venue. We expect that the SONIA trades that are currently OTC will transact on-venue by the time the revised DTO will enter into force. The LIBOR transition process will be well advanced, with GBP LIBOR to be phased out of use for derivatives trading. This figure is similar to the average adoption rate of SONIA between January and April 2021 of 46.9%. We incorporate this into our volume estimate.

45. We received data on the bid-ask spread from a trading venue, for each of the tenors being traded on SONIA products, between October 2020 and April 2021. Whilst these figures varied from month to month, they were generally constant. The bid-ask spread during this time ranged from 0.5bp-1.3bp. We adjust these figures to account for the bid-ask spread related to SONIA transactions, which currently are not subject to a trading mandate.

46. Regarding an amount that can be attributed to liquidity improvement which is due to the DTO, we reference the aforementioned Benos, Payne and Vasios (2020) study. The study found that the improvement in liquidity from the trading mandate was in the range of 12%-19%. There are limited studies available on this topic, however there is no evidence to suggest a different outcome for relevant markets in the UK, with characteristics between the markets analysed within the study and relevant markets in the UK being similar.

47. Finally, we estimate the benefit per annum that the DTO would confer on the relevant trades that are conducted based on these data and assumptions. This is the product of: (i) SONIA trading volume; (ii) bid-ask spread on SONIA products; and (iii) the liquidity improvement benefit.

**Table 7: Liquidity benefits**

Metric	Amount
SONIA trading volumes, monthly average, January – April 2021	£461bn
Estimated annual SONIA trading volume	£5.5trn pa
Bid-ask spread, SONIA products, average, October 2020 – April 2021, Source: trading venue	0.5bp – 1.3bp
Estimated annual spreads paid from trading SONIA products Calculations have been made on spreads and volume on a tenor-by-tenor basis. They are therefore not replicable with figures within this table alone.	£158m pa
Estimated liquidity improvement benefit	12% - 19%
Estimated benefit	£19.0m - £30.1m pa

- 48.** In total, we estimate that the annual benefit of the amended DTO for the industry would be in the range of £19.0m-£30.1m.

## Annex 3

# Compatibility statement

### Compliance with legal requirements

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1. This Annex records the FCA's compliance with a number of legal requirements applicable to the proposals in this consultation, including an explanation of the FCA's reasons for concluding that our proposals in this consultation are compatible with certain requirements under the Financial Services and Markets Act 2000 (FSMA).
2. When consulting on new technical standards, the FCA is required by section 138I(2) (d) FSMA to include an explanation of why it believes making the proposed technical standards is (a) compatible with its general duty, under s. 1B(1) FSMA, so far as reasonably possible, to act in a way which is compatible with its strategic objective and advances one or more of its operational objectives, and (b) its general duty under s. 1B(5)(a) FSMA to have regard to the regulatory principles in s. 3B FSMA. The FCA is also required by s. 138K(2) FSMA to state its opinion on whether the proposed technical standards will have a significantly different impact on mutual societies as opposed to other authorised persons.
3. This Annex also sets out the FCA's view of how the proposed technical standards are compatible with the duty on the FCA to discharge its general functions (which include rule-making) in a way which promotes effective competition in the interests of consumers (s. 1B(4)). This duty applies in so far as promoting competition is compatible with advancing the FCA's consumer protection and/or integrity objectives.
4. In addition, this Annex explains how we have considered the recommendations made by the Treasury under s. 1JA FSMA about aspects of the economic policy of Her Majesty's Government to which we should have regard in connection with our general duties.
5. This Annex includes our assessment of the equality and diversity implications of these proposals.
6. Under the Legislative and Regulatory Reform Act 2006 (LRRRA) the FCA is subject to requirements to have regard to a number of high-level 'Principles' in the exercise of some of our regulatory functions and to have regard to a 'Regulators' Code' when determining general policies and principles and giving general guidance (but not when exercising other legislative functions like making technical standards). This Annex sets out how we have complied with requirements under the LRRRA.

## The FCA's objectives and regulatory principles: Compatibility statement

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7. We consider the proposals in this consultation are compatible with the FCA's strategic objective of ensuring that the relevant markets – in this instance the wholesale market for OTC derivatives and the other markets that depend on them. They also advance our operational objective of protecting financial markets, by ensuring that the most liquid derivatives are traded in a manner which supports market integrity and financial stability. This enhances transparency, operational efficiency and monitoring against market abuse. For the purposes of the FCA's strategic objective, "relevant markets" are defined by s.1F of FSMA.
8. We also have a competition duty to promote effective competition when addressing our consumer protection objective. When considering our proposals, we had regard to achieving our desired outcomes in such a way to promote competition. Our proposals intend to deliver greater and better transparency, which should allow users to make more informed decisions as to where and how to trade. Further, more on-venue trading of sufficiently standardised and liquid OTC derivatives encourages competition between trading venues and liquidity providers contributing to greater choice and lower costs for market participants.
9. In preparing the proposals set out in this consultation, the FCA has had regard to the regulatory principles set out in s. 3B FSMA.

### **The need to use our resources in the most efficient and economic way**

10. The proposals set out in this consultation are consistent with an efficient and economic use of our resources. Our supervisory resources will be used efficiently as our approach seeks to ensure a clear approach for the most liquid traded derivatives to be traded on trading venues.

### **The principle that a burden or restriction should be proportionate to the benefits**

11. The CBA in Annex 2 sets out the costs and benefits of the proposals in this consultation. We consider that the benefits of these proposals outweigh the costs.

### **The desirability of sustainable growth in the economy of the United Kingdom in the medium or long term**

12. The proposals have regard to this principle including the desirability of sustainable growth in the medium and long term. They address which derivatives should be subject to the DTO and in so doing, increase derivatives trading on trading venues, improving liquidity, choice for market participants and encouraging growth in UK markets.

### **The general principle that consumers should take responsibility for their decisions**

13. Our proposals are expected to enhance the environment in which in-scope derivatives are traded by providing a central place to interact and increasing the likelihood of participants finding a willing counterparty on these swaps. The proposals do not detract from the general principle that consumers take responsibility for their decisions.

### **The principle that we should exercise our functions as transparently as possible**

14. We consider that our functions in relation to the operation of the DTO for derivatives is exercised transparently.
15. In formulating these proposals, the FCA has had regard to the importance of taking action intended to minimise the extent to which it is possible for a business carried on (i) by an authorised person or a recognised investment exchange; or (ii) in contravention of the general prohibition, to be used for a purpose connected with financial crime (as required by s. 1B(5)(b) FSMA). We do not expect our proposals to have a direct bearing on financial crime.

### **Expected effect on mutual societies**

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16. The FCA does not expect the proposals in this paper to have a significantly different impact on mutual societies. These proposals have no direct impact on mutual societies.

### **Equality and diversity**

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17. We are required under the Equality Act 2010 in exercising our functions to 'have due regard' to the need to eliminate discrimination, harassment, victimisation and any other conduct prohibited by or under the Act, advance equality of opportunity between persons who share a relevant protected characteristic and those who do not, to and foster good relations between people who share a protected characteristic and those who do not.
18. As part of this, we ensure the equality and diversity implications of any new policy proposals are considered. The outcome of our consideration in relation to these matters in this case is stated in paragraphs 2.30-2.32 of this consultation.

### **Legislative and Regulatory Reform Act 2006 (LRRRA)**

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19. We have had regard to the principles in the LRRRA for the parts of the proposals that consist of general policies, principles or guidance and consider that they are proportionate and consistent with the need for increased transparency
20. We have had regard to the Regulators' Code for the parts of the proposals that consist of general policies, principles or guidance and consider that the proposals are proportionate to the potential market failures identified.



## Annex 4

### Abbreviations in this document

Abbreviation	Description
<b>Bank</b>	the Bank of England
<b>CBA</b>	cost-benefit analysis
<b>CCP</b>	central counterparty
<b>CFTC</b>	Commodity Futures Trading Commission
<b>CP</b>	consultation paper
<b>DCO</b>	Derivatives Clearing Obligation
<b>DTO</b>	Derivatives Trading Obligation
<b>EMMI</b>	European Money Markets Institute
<b>EONIA</b>	Euro Overnight Index Average
<b>ESMA</b>	European Securities & Markets Authority
<b>€STR</b>	Euro short-term rate
<b>EURIBOR</b>	Euro Interbank Offer Rate
<b>FCA</b>	the Financial Conduct Authority
<b>FRA</b>	Forward Rate Agreement
<b>FSB</b>	Financial Stability Board
<b>FSMA</b>	Financial Services and Markets Act 2000
<b>G20</b>	Group of Twenty
<b>HM Treasury</b>	Treasury
<b>IBOR</b>	Interbank Offered Rate
<b>IRD</b>	interest rate derivative
<b>IRS</b>	Interest Rate Swaps

<b>Abbreviation</b>	<b>Description</b>
<b>ISDA</b>	International swaps and derivatives association
<b>MTF</b>	multilateral trading facility
<b>OIS</b>	Overnight Indexed Swaps
<b>OTC</b>	over-the-counter
<b>OTF</b>	organised trading facility
<b>RFR</b>	risk-free rate
<b>RM</b>	regulated market
<b>RTS</b>	Regulatory Technical Standards
<b>SEF</b>	swap execution facility
<b>SOFR</b>	Secured Overnight Financing Rate
<b>SONIA</b>	Sterling Overnight Index Average
<b>Sterling RFR Working Group</b>	Working Group on Sterling Risk-Free Reference Rates
<b>UK BMR</b>	onshored Benchmark Regulation (EU) 2016/1011
<b>UK EMIR</b>	onshored Regulation (EU) No 648/2012 on OTC derivatives, central counterparties and trade repositories
<b>UK MiFIR</b>	onshored Regulation (EU) No 600/2014 on Markets in Financial Instruments
<b>UK RTS 2</b>	onshored Commission Delegated Regulation (EU) 2017/583
<b>UK RTS 4</b>	onshored Commission Delegated Regulation (EU) 2016/2020
<b>UK RTS on the trading obligation for certain derivatives</b>	onshored Commission Delegated Regulation (EU) 2017/2417

We make all responses to formal consultation available for public inspection unless the respondent requests otherwise. We will not regard a standard confidentiality statement in an email message as a request for non-disclosure.

Despite this, we may be asked to disclose a confidential response under the Freedom of Information Act 2000. We may consult you if we receive such a request. Any decision we make not to disclose the response is reviewable by the Information Commissioner and the Information Rights Tribunal.

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# Appendix 1

## Draft Handbook text

**TECHNICAL STANDARDS (MARKETS IN FINANCIAL INSTRUMENTS  
REGULATION) (DERIVATIVES TRADING OBLIGATION) INSTRUMENT 2021**

**Powers exercised**

- A. The Financial Conduct Authority (“the FCA”) makes this instrument in the exercise of the powers and related provisions in or under:
- (1) article 32(1) of Regulation (EU) No 600/2014 of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Regulation (EU) No 648/2012; and
  - (2) the following sections of the Financial Services and Markets Act 2000 (“the Act”) as amended by the Financial Regulators’ Powers (Technical Standards etc.) (Amendment etc.) (EU Exit) Regulations 2018:
    - (a) section 137T (General supplementary powers);
    - (b) section 138P (Technical standards);
    - (c) section 138Q (Standards instruments); and
    - (d) section 138S (Application of Chapters 1 and 2).
- B. The rule-making powers listed above are specified for the purposes of section 138Q(2) (Standards instruments) of the Act.

**Pre-conditions to making**

- C. The FCA has consulted the Prudential Regulation Authority and the Bank of England as appropriate in accordance with section 138P of the Act.
- D. A draft of this instrument has been approved by the Treasury in accordance with section 138R of the Act.

**Modification**

- E. Commission Delegated Regulation (EU) 2017/2417 of 17 November 2017 supplementing Regulation (EU) No 600/2014 of the European Parliament and of the Council on markets in financial instruments with regard to regulatory technical standards on the trading obligation for certain derivatives, which is part of UK law by virtue of the European Union (Withdrawal) Act 2018, is amended in accordance with the Annex to this instrument.

**Commencement**

- F. This instrument comes into force on [20 December 2021].

**Citation**

- G. This instrument may be cited as the Technical Standards (Markets in Financial Instruments Regulation) (Derivatives Trading Obligation) Instrument 2021.

By order of the Board  
[*date*]

In this Annex, underlining indicates new text and striking through indicates deleted text.

## Annex

**Commission Delegated Regulation (EU) 2017/2417 of 17 November 2017 supplementing Regulation (EU) 600/2014 of the European Parliament and of the Council on markets in financial instruments with regard to regulatory technical standards on the trading obligation for certain derivatives**

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## ANNEX

### Derivatives subject to the trading obligation

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**~~Table 3 Fixed to float interest rate swaps denominated in GBP~~**

<b><del>Fixed to Float single currency interest rate swaps — GBP LIBOR 3 and 6M</del></b>		
<b><del>Fixed leg</del></b>		
<b><del>Floating leg</del></b>		
<b><del>Settlement currency</del></b>	<b><del>GBP</del></b>	<b><del>GBP</del></b>
<b><del>Trade start type</del></b>	<b><del>Spot (T+0)</del></b>	<b><del>Spot (T+0)</del></b>
<b><del>Optionality</del></b>	<b><del>No</del></b>	<b><del>No</del></b>
<b><del>Tenor</del></b>	<b><del>2,3,4,5,6,7,10,15,20,30Y</del></b>	<b><del>2,3,4,5,6,7,10,15,20,30Y</del></b>
<b><del>Notional type</del></b>	<b><del>Constant Notional</del></b>	<b><del>Constant Notional</del></b>
<b><del>Payment frequency</del></b>	<b><del>Quarterly or semi-annual</del></b>	<b><del>Quarterly or semi-annual</del></b>
<b><del>Day count convention</del></b>	<b><del>Actual/365F</del></b>	<b><del>Actual/365F</del></b>

Reference index	GBP LIBOR 6M	GBP LIBOR 3M
Reset frequency	Semi-annual or quarterly	Quarterly
Day count convention	Actual/365F	Actual/365F

[Deleted]

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**Table 5 Overnight indexed swaps denominated in GBP**

<b><u>Overnight indexed swaps – GPB SONIA</u></b>		
<b><u>Floating leg</u></b>		
<u>Settlement currency</u>	<b><u>GBP</u></b>	<b><u>GBP</u></b>
<u>Trade start type</u>	<u>Spot (T+0)</u>	<u>IMM (next 2 IMM dates)</u>
<u>Optionality</u>	<u>No</u>	<u>No</u>
<u>Tenor</u>	<u>1,2,3,4,5,6,7,8,9,10,12,15,20,25,30Y</u>	<u>1,2,3,4,5,6,7,8,9,10,12,15,20,25,30Y</u>
<u>Notional type</u>	<u>Constant Notional</u>	<u>Constant Notional</u>
<b><u>Fixed leg</u></b>		
<u>Payment frequency</u>	<u>Annual or semi-annual</u>	<u>Annual or semi-annual</u>
<u>Day count convention</u>	<u>Actual/365F</u>	<u>Actual/365F</u>
<b><u>Floating leg</u></b>		
<u>Reset frequency</u>	<u>Annual, semi-annual or quarterly</u>	<u>Annual, semi-annual or quarterly</u>



<u>Day count convention</u>	<u>Actual/365F</u>	<u>Actual/365F</u>
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