IOSCO STATEMENT

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Statement on Communication and Outreach to Inform Relevant Stakeholders Regarding Benchmarks Transition

31 July 2019

Today, IOSCO is publishing this Statement setting out matters for market participants to consider if they have exposure to LIBOR, particularly USD LIBOR, in light of its expected cessation after the end of 2021 and USD LIBOR's widespread global use.

Objectives:

This Statement is important for all market participants who have significant exposure to the USD LIBOR benchmark, for example, through trading of financial instruments and other arrangements referencing the USD LIBOR benchmark directly. It is also relevant to participants with indirect exposure; for example, when referencing another rate which, in turn, uses USD LIBOR as an input for its calculation. This Statement should be of particular interest to participants based in jurisdictions which do not have an industry-led National Working Group (NWG) convened to identify and, where necessary, transition to alternative rates. This Statement aims to inform market participants and stakeholders of the impact of LIBOR's cessation and how the relevant risks can be mitigated through an early transition to Risk Free Rates (RFRs),[1] in particular, to the Secured Overnight Financing Rate (SOFR) - the US's preferred RFR.

Benchmarks play a key role in the financial system's core functions of pricing, allocating capital and risk. They impact enormous volumes of credit products (including loans, mortgages, structured products, short-term money market instruments and fixed income products) and derivatives, in addition to having other uses such as in trade finance, valuation, accounting and taxation. IOSCO wishes to raise awareness of the likely cessation of LIBOR and the need to transition from USD LIBOR to the new preferred RFR, SOFR. Raising awareness is important to facilitate prudent risk management across corporate and financial institutions, as well as for mitigating potential financial stability and conduct risks. Given the widespread use of the USD currency in markets (directly or indirectly), USD LIBOR has become the most used interest rate benchmark globally, both in sophisticated financial instruments and retail financial products.

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[1] RFRs are overnight rates, which can be used as alternative benchmarks for the existing key interbank offered rates (IBORs). Such rates are robust and are anchored in active, liquid underlying markets.

This Statement sets out a number of matters for users of the USD LIBOR benchmark to consider. These matters include RFRs, infrastructure, conventions, fallbacks, term rates, regulatory dependencies, communication and international engagement. For each of these, the Statement recognises that the use of USD LIBOR varies by jurisdiction. Therefore, the Statement aims to increase awareness of the need to move away from LIBOR and to allow for more detailed discussions on the transition to alternative RFRs where appropriate. In considering the information set out in this Statement, market participants should consider how this transition will affect their business and what steps are needed to mitigate related risks.

International initiatives:

In 2013, the G20 tasked the Financial Stability Board (FSB) to study LIBOR reforms, following a number of manipulation scandals. In response, the FSB set up its own Official Sector Steering Group (OSSG) comprised of regulatory authorities and central banks from around the world.[2] Since the creation of the OSSG, its focus has been on the development of recommendations for reforming major interest rate benchmarks. The OSSG recommendations, published in 2014,[3] put forward measures to strengthen existing benchmarks, and develop alternative RFRs. NWGs were set up in various jurisdictions to help implement these recommendations. Since then, the OSSG has focused on international coordination in an effort to resolve key issues with IBORs;[4] develop RFRs and to enhance contractual robustness.[5] The OSSG have also recently set up a new taskforce that aims to identify and, where possible, help overcome legal, accounting and tax barriers to the transition away from LIBOR.

Separately in 2013, IOSCO consulted on and published its Principles for Financial Benchmarks[6] (the IOSCO Principles) as its own response to the attempted manipulation of major interest rate benchmarks. The IOSCO Principles go beyond LIBOR and apply across a range of IBORs as well as other types of benchmarks. The IOSCO Principles, which were endorsed by the G20 Leaders, form the basis of various domestic and supranational regulations (e.g. European Benchmark Regulation) and continue to be recognised by the market and regulators as best practice.

LIBOR:

ICE LIBOR (formerly known as BBA LIBOR) is a widely used benchmark for short-term interest rates, which provide an indication of the average rates at which LIBOR panel banks could obtain unsecured, wholesale funding. The rate is currently produced in five currencies (USD, GBP, CHF, EUR and JPY) and seven tenors (Overnight/Spot Next, 1 Week, 1 Month, 2 Months, 3 Months, 6 Months and 12 Months) based on submissions from a reference panel of between 11 and 16 banks depending on currency, resulting in the publication of 35 rates every applicable London business day.[7]

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2 http://www.fsb.org/work-of-the-fsb/policy-development/additional-policy-areas/financial-benchmarks/

3 https://www.fsb.org/2014/07/r_140722/

4 IBORs are referred to as the major interest reference rates such as LIBOR, EURIBOR, TIBOR and other national IBORs, that are widely used in the global financial system as benchmarks for a large volume and broad range of financial products and contracts.

5 2018 progress report https://www.fsb.org/2018/11/reforming-major-interest-rate-benchmarks-progress-report/

6 https://www.iosco.org/library/pubdocs/pdf/IOSCOPD415.pdf

7 https://www.theice.com/iba/libor

LIBOR is used globally and often referenced in derivative, bond and loan documentation and, in some jurisdictions, is also used in consumer lending instruments such as mortgages and student loans. It is also used as a gauge of market expectation regarding central bank interest rates, liquidity premiums in the money markets and, during periods of stress, as an indicator of the health of the banking system.[8]

While other LIBOR currencies are widely used and linked to large numbers and volume of contracts, USD LIBOR is by far the most significant and widely used benchmark. Estimates show that, at the end of 2016, the total gross notional exposure to USD LIBOR was close to USD200 trillion, roughly equivalent to 10 times U.S. Gross Domestic Product.[9]

Risk-Free-Rates

In response to the OSSG recommendations,[10] regulatory authorities and central banks, including the central banks from the five LIBOR currency jurisdictions, decided to create NWGs to work through an effective and sustainable transition from their respective LIBOR currency to RFRs. In the US, for example, the Federal Reserve Board and Federal Reserve Bank of New York established the Alternative Reference Rates Committee (ARRC) to look at the transition from USD LIBOR.[11] For each LIBOR currency, the relevant NWG has selected an alternative RFR.[12] Some of the key factors that the NWGs considered, when choosing the RFR were the depth of liquidity in the underlying market, its volatility, any prior use of the rate and compliance with the IOSCO Principles. In its capacity as the NWG for the USD, the ARRC proposed that SOFR should be used as the RFR for the transition from USD LIBOR.[13]

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8 The LIBOR-OIS spread is commonly considered to be a measure of health of the banking system.

9 https://www.newyorkfed.org/medialibrary/Microsites/arrc/files/2018/ARRC-Second-report

10 https://www.fsb.org/2014/07/r_140722/

11 https://www.newyorkfed.org/arrc

12

Jurisdictions	Working Group	Alternative Ref Rate Name	Administrator	Collateralisations	Description
United States of America	Alternative Reference Rates Committee	Secured Overnight Financing Rate (SOFR)	Federal Reserve Bank of New York	Secured	Secured rate that covers multiple overnight repo market segments
United Kingdom	Working Group on Sterling Risk-Free Reference Rates	Sterling Overnight Index Average (SONIA)	Bank of England	Unsecured	Unsecured rate that covers overnight wholesale deposit transactions
Switzerland	The National Working Group on CHF Reference Rates	Swiss Average Rate Overnight (SARON)	SIX Exchange	Secured	Secured rate that reflects interest paid on interbank overnight repo rate
Japan	Study Group on Risk-Free Reference Rates	Tokyo Overnight Average Rate (TONAR)	Bank of Japan	Unsecured	Unsecured rate that captures overnight call rate market
Euro-zone	Working Group on Risk-Free Reference Rates for the Euro Area	Euro short-term rate (€STR)	European Central Bank	Unsecured	Unsecured rate that captures overnight wholesale deposit transactions

13 https://www.newyorkfed.org/medialibrary/microsites/arrc/files/2017/ARRC-press-release-Jun-22-2017.pdf

The structure of RFRs is different from LIBOR in that they are overnight rates and do not have term structures. This difference will generally mean that longer-term products need the applicable overnight rate for each day to be aggregated, i.e. as a compounded or simple average. An advantage to averaging an RFR rate is that any idiosyncratic, day-to-day fluctuations in market rates are smoothed out, so that the rate accurately reflects movements in interest rates over a given period. Therefore, in general, averaged RFRs are less volatile than forward looking LIBOR benchmarks.

USD LIBOR vs. SOFR:

There are a number of significant differences between the overnight RFRs and LIBORs, and in particular, between USD LIBOR and SOFR. The most fundamental of which is the makeup of the rates. USD LIBOR, as with all LIBOR benchmarks, is made up of several components: (1) an RFR (the theoretical rate to borrow without the risk of default), (2) Term (the expectation of rates movement over the period), and (3) Credit (the credit risk of submitter banks). SOFR, however, is made up of only the RFR component. Significant differences between the two rates also include:

- USD LIBOR is a forward-looking rate (i.e. set at the beginning of the interest period), whereas SOFR is an overnight rate;
- USD LIBOR includes a bank credit risk element, whereas SOFR is a nearly risk-free rate;
- USD LIBOR is derived from a small number of transactions and, at times, expert judgement, compared to SOFR which is derived from an active and liquid market. As a result, SOFR is a more robust and purely transaction-based rate;
- USD LIBOR is based on transactions which are unsecured, compared to SOFR which is based on secured transactions; and
- USD LIBOR benchmark is produced by Ice Benchmark Administration (IBA), a private market participant authorised by the Financial Conduct Authority in the UK, whereas SOFR is produced by the Federal Reserve Bank of New York.

Matters to consider in the transition of USD LIBOR to SOFR

Why the need to transition from LIBOR?

IBA has made significant improvements, working with the panel banks, to reform LIBOR by changing the quality of governance around submissions. IBA also worked to strengthen LIBOR as much as possible, implementing a new methodology[14] which ensures that the rate is linked to actual transactions, where available, but still allows for an element of expert judgement.[15]

The main issue with LIBOR is no longer the governance around submissions. The issue with LIBOR is that the underlying market LIBOR seeks to measure, i.e. the market for unsecured, wholesale funding, has dwindled substantially, as banks no longer tend to borrow on such a basis. For example, the Bank of England identified that, during 2017, the average daily 3-month deposit volume was only GBP187 million.[16] Meanwhile in the US, year-end 2016 data showed

[14] https://www.theice.com/publicdocs/ICE_LIBOR_Roadmap0316.pdf

[15] https://www.theice.com/iba/libor

[16] https://www.bankofengland.co.uk/-/media/boe/files/markets/benchmarks/what-you-need-to-know-about-libor-transition

the median daily volumes of three-month funding transactions were less than USD1 billion and, for many days, the volume was less than USD500 million.[17]

The scarcity of transactions in underlying markets raises a serious question about the sustainability of the LIBOR benchmarks that are based upon these markets. Additionally, there is a real risk that the LIBOR panel banks opt not to continue submitting after 2021. These are some of the reasons that the international community is working to transition away from LIBOR to alternative RFRs.

Practical use case scenario of using overnight rates (Floating Rate Notes)

When issuing debt, an issuer typically decides between a fixed or floating rate bond. If it chooses the latter, where the interest rate payable has historically been linked to an IBOR (such as 3-month USD LIBOR), the interest rate would be known at the start of each floating interest period. The issuer would then have notice of the interest payable and can make the appropriate arrangements to pay the amount due by the end of the interest period. By setting the rate and payment in advance, the issuer has cash flow certainty.

In contrast, where overnight RFRs are used for a term interest period, depending on the interest calculation methodology agreed to, the rate applicable to the interest period may not be known until the end of the term. As a practical matter, a short time may be needed after the end of the interest rate period to calculate and pay the applicable amounts. As a result, in addition to a change of rate, issuers and bondholders must make adjustments to the method of calculating and paying interest to allow for a sufficient period to facilitate timely payments.

Conventions

With the transition to RFRs, new market conventions are developing to help underpin the new product markets. Market conventions typically develop across products and jurisdictions and change over time according to market developments. Such conventions could, for example, reduce system difficulties and market fragmentation, and improve cost and pricing efficiency. As many RFRs are new (e.g. SOFR) and used for the first time in some products, it is key that conventions are developed to promote or increase the use of those benchmarks.

As described above, an RFR rate can be used for an interest period via either a compounded or simple average. From an economic perspective, a compounded average interest calculation more accurately reflects the time value of money, although the difference between the methodologies is generally small. As shown in a recent publication by the ARRC, the historical difference between compounded and simple average interest in SOFR[18] would have ranged between 0 – 10 basis points over the last two decades. The difference being larger when rates are higher or more volatile, or the payment frequency is longer.[19]

When using an RFR in a cash product (typically bonds and loans), there are various possible conventions to allow for calculation and payment of interest for a period of time. The options depend on the payment structure being either in advance or in arrears.[20] There are multiple conventions that could be used with an in arrears payment structure. For example, the most common approaches used in the bond market, are either a lockout or lookback (also referred to as 'lag') convention. US issuance initially used the lockout convention but has recently seen a growing number of deals using the lookback convention, which is common in the UK. The

17 https://www.newyorkfed.org/medialibrary/Microsites/arrc/files/2018/ARRC-Second-report

18 Calculated over monthly, quarterly and semi-annual periods.

19 A User's Guide to SOFR p. 5

20 Section 1B in the User's Guide to SOFR sets out more information on the different conventions

User's Guide to SOFR[21] sets out more information on the various conventions that may be used when calculating in arrears. The concept of calculation in advance is covered in more detail later in the 'Term Rate' section of this Statement.

Notwithstanding that adopting RFRs in cash markets involves some change in practices, there has been progress in issuance of new products referencing RFRs, which signal that the market is transitioning to the new RFRs. In the UK for example, there has been more than GBP28 billion of SONIA bond issuance, while the figure in the US is over USD135 billion for SOFR bonds.

The OSSG has also published a guide on the use of RFRs which can assist end-users in understanding the implications of different conventions.[22]

Infrastructure

The transition to RFRs will involve a number of large-scale changes to the way the cash and derivative markets currently function. Market infrastructure changes are required to assist transition. Infrastructure providers are developing and implementing new systems for the market, and this process is helped by the development of clear market conventions to scope and build changes required for transition.

In the US, the Federal Reserve Bank of New York is soliciting feedback on its plans to publish SOFR averages by the first half of 2020, with the objective to help market participants understand the use of SOFR in cash products.[23] In the UK, the NWG has issued a specification to infrastructure providers for a calculator to assist corporates and financial institutions with the calculation of compounded SONIA rates.[24]

Infrastructure providers are expected to develop or upgrade systems that are used by corporates and financial institutions to accommodate the use of RFRs. For this purpose, they will need to consider market conventions to set how the rates are provided, calculated and the obligations are paid by systems. Supporting the development of these systems has become a priority for different NWGs to ensure it takes place in a timely manner.

Robust fallbacks

Work is underway across numerous jurisdictions to develop fallback templates taking account of the uncertainty of LIBOR's existence post-2021, and the different events that may trigger the application of the fallback. The ARRC has consulted and published its final recommended language for bilateral and syndicated loans, securitisations and floating rate notes.[25] Following a request by the OSSG, ISDA has been leading the work globally regarding contractual fallbacks language for derivatives markets.[26] In 2018, ISDA announced the outcome of its consultation for GBP, JPY and CHF LIBOR, and recently launched a consultation for derivative contracts referencing USD LIBOR, Hong Kong's HIBOR and Canada's CDOR.[27]

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21 https://www.newyorkfed.org/medialibrary/Microsites/arrc/files/2019/Users_Guide_to_SOFR.pdf

22 https://www.fsb.org/2019/06/overnight-risk-free-rates-a-users-guide/

23 See reference to these plans in the January 2019 FOMC minutes.

24 https://www.bankofengland.co.uk/-/media/boe/files/markets/benchmarks/infrastructure-sub-group-calculator-specifications.pdf?la=en&hash=621A8AC51158BB9B3A195C4DB62A10C5305B2C3B

25 https://www.newyorkfed.org/arrc/fallbacks-contract-language

26 https://www.fsb.org/work-of-the-fsb/policy-development/additional-policy-areas/financial-benchmarks/

27 https://www.isda.org/2019/05/16/isda-publishes-two-consultations-on-benchmark-fallbacks/

On 30 July 2019, ISDA published the results of its supplemental consultation on adjustments to risk-free rates should a fallback for USD LIBOR, HIBOR and CDOR be triggered. The consultation also covered certain aspects of SOR fallbacks. ISDA will additionally publish the results of a consultation on pre-cessation issues at a later date. Further work by ISDA is expected with the aim to have the new IBOR fallbacks in place, for both new and existing derivatives.[28] Once agreed, the fallbacks will be included in the ISDA definitions for interest rate derivatives and will apply to new IBOR trades. ISDA will also publish a protocol to allow participants to incorporate the fallbacks into legacy IBOR contracts, if they choose to do so.

It should be noted that the best way to mitigate risks arising from the cessation of LIBOR is to move to using alternative RFRs in new contracts.[29] However, for those new contracts that continue to reference LIBOR, fallback language needs to be designed to specify what happens to a contract when the reference rate (in this case LIBOR) becomes permanently unavailable. This helps to provide certainty for all parties involved in the contract. New fallback language can also be used to update legacy contracts which do not have robust provisions in place to account for LIBOR cessation (or for other material changes in the benchmark).

LIBOR cessation will have important implications on the economics of affected contracts. How fallback language in legacy contracts is implemented will impact the ease of transition post-2021.[30] Making sure that, where possible, new and existing LIBOR linked contracts have robust fallback language is the only way to mitigate the risk of such contracts being frustrated in a LIBOR cessation scenario and is important to ensure a fair transition for all parties to such transactions.

The fallback language is intended to define an event that will trigger the transition away from LIBOR to an alternative RFR, with an appropriate spread adjustment to account for the difference between the alternative rate (which does not have a material credit element) and LIBOR (which does). This means that the contract has a prearranged transition process to mitigate confusion and potential legal disputes between related parties.

While important work has gone into developing robust and effective fallbacks that can be used in the event of a LIBOR cessation trigger being activated, the most effective transition from LIBOR linked contracts is to move directly and as soon as possible to RFR linked contracts without having to rely on fallbacks.

Forward-looking term rates

In 2018 the FSB published a note[31] stating that while regulatory authorities and central banks recognise that there may be a role for forward-looking term rates in aiding transition, this should be limited to a small segment of the cash market. The authorities view is that for the majority of products currently referencing LIBOR, the use of an overnight (averaged) rate is the most appropriate and a forward-looking term rate is not required. Authorities support the development of such a forward-looking term rate for limited use cases where it is relevant. There is regulatory consensus that the critical issue is the transition of most derivatives to more robust RFRs in order to ensure financial stability.

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28 https://www.isda.org/a/blKME/Timeline-for-Implementation-of-IBOR-Fallbacks-Updated-February-2019.pdf

29 https://www.fca.org.uk/news/speeches/interest-rate-benchmark-reform-transition-world-without-libor

30 https://www.fca.org.uk/news/speeches/libor-transition-and-contractual-fallbacks

31 https://www.fsb.org/wp-content/uploads/P120718.pdf

Certain jurisdictions are working to support forward-looking term rates based on RFR markets. However, the production of robust term rates cannot be guaranteed as this will depend on the underlying liquidity of the market that they will be derived from (for example, liquidity in the overnight swaps or futures market) and need to be compliant with the IOSCO Principles. Furthermore, in some currencies, it may not be practicable, desirable or even necessary to create such a term rate.

Authorities expect liquidity to concentrate in RFRs in the majority of the markets. For this reason, many jurisdictions have encouraged those who need to transition away from IBORs not to wait for the development of forward-looking term rates. Any robust term rate, where available, would need to be compliant with the IOSCO Principles[32] and any local applicable regulation.

The ARRC is of the view that currently, the SOFR derivatives market in the United States does not have enough depth to build a reliable, robust, transactions-based, forward-looking rate produced on a daily basis that would meet the criteria the ARRC set in choosing SOFR.[33] However, based upon the ARRC's Paced Transition Plan, it is expected that a forward-looking SOFR term rate would be available for use before the end of 2021, as long as there are liquid derivative markets in SOFR to draw from.

Regulatory dependencies

Given the wide use of LIBOR, there may be regulatory, accounting and tax implications that the official sector can address to support a smooth transition. Overall, market participants are seeking comfort that efforts to transition will lead to fair and transparent outcomes for counterparties (for example when renegotiating rates) which are consistent with applicable local regulation.

As set out in the 2018 progress report[34] the OSSG has started work on investigating how the regulatory framework across jurisdictions can be used to best support the transition. In the US, the ARRC has written to US regulators to bring to their attention certain issues in the regulatory framework that may hinder a smooth transition.[35]

In December 2018, the International Accounting Standards Board (IASB) decided to add IBOR reform to its standard-setting programme.[36] Since then, it has been consulting on accounting issues regarding IBOR transition, specifically looking at hedge accounting requirements with a view to provide relief to market participants.[37]

The transition may also result in market participants being exposed to potential tax issues, which the ARRC has been engaging with authorities on.[38] The ARRC has since published proposed guidance with respect to tax issues relating to LIBOR transition.[39] This will be a

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32 https://www.iosco.org/library/pubdocs/pdf/IOSCOPD415.pdf

33 https://www.newyorkfed.org/medialibrary/Microsites/arrc/files/2019/Users_Guide_to_SOFR.pdf

34 Reforming major interest rate benchmarks, 2018 FSB Progress Report, Section 1.4

35 July 2018 Title VII Letter and the May 2019 Follow-Up Letter to U.S, Regulators

36 https://www.ifrs.org/news-and-events/updates/iasb-updates/december-2018/#9

37 https://www.ifrs.org/projects/work-plan/ibor-reform-and-the-effects-on-financial-reporting/

38 https://www.newyorkfed.org/medialibrary/Microsites/arrc/files/2019/ARRC-Tax-Whitepaper-April2019.pdf

39 https://www.newyorkfed.org/medialibrary/Microsites/arrc/files/2019/ARRC_Proposed_Transition_Guidance.pdf

jurisdictional issue and as such, we encourage market participants to engage with their local tax authority on potential issues.

Communication

Increasing awareness among market participants of the need to transition away from LIBOR is a priority for both the jurisdictions that are heavily reliant on LIBOR and international bodies such as the OSSG and IOSCO. In the US, the ARRC created the Outreach/Communications Working Group[40] to lead its efforts to improve market understanding of what the LIBOR transition means for market participants and the associated risks to transition.

The aim of the ARRC engagement is to allow market participants to be proactive in their preparation and help understand what has to be done to allow them to ensure a smooth transition.

International

As LIBOR transition is a global and systemic issue, authorities and market participants are starting to explore how to align conventions at an international level to allow for the greatest consistency possible. This issue is important in part to help the cross-currency market develop in RFRs. For example, many loans are multi-currency and inconsistency in conventions can cause potential complications.

The transition from LIBOR will affect jurisdictions in different ways given the varying use cases of the different LIBORs and exposure to such rates. For example, the Norwegian NIBOR has seen the majority of panel banks use USD LIBOR as a determinant for its calculations even though this is not required in the methodology.[41] In comparison, the Thai THBFIX has prescribed the use of USD LIBOR into its methodology for calculating the rate.[42] The Singapore SOR[43] also utilises the USD LIBOR and, a fallback to address the risk of discontinuation has been proposed in the ISDA consultation.[44] These different approaches show that jurisdictions will need to find tailored solutions to their transition rather than there being a general fix to benchmark reform.

Conclusion

Market participants should view this Statement as part of the broader IOSCO efforts on communication and outreach to increase the global awareness and understanding of the transition from LIBOR, with a particular focus on USD LIBOR.

The key messages to take from the Statement are:

- RFRs provide a robust alternative to IBORs and can be used in the majority of products.
- In both new and existing IBOR contacts, the inclusion of robust fallbacks should be considered a priority.
- The best risk mitigation to a LIBOR cessation event is moving to RFRs now.
- It is prudent risk management for market participants to engage early in the LIBOR transition process in preparation for the cessation of LIBOR post-2021.

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40 https://www.newyorkfed.org/arrc/about#workinggroups

41 Page 9 from Norges Bank Staff Memo

42 Thai Baht Interest Rate Fixing (THBFIX) and components

43 https://www.abs.org.sg/rates-sibor

44 https://www.isda.org/a/w0tME/ISDA-Publishes-Two-Consultations-on-Benchmark-Fallbacks.pdf