Response to Feedback Received on Proposed Roadmap for Transition from SOR to SORA

19 March 2020

Steering Committee for SOR Transition to SORA
1 BACKGROUND

1.1 On 30 August 2019, the Association of Banks in Singapore and the Singapore Foreign Exchange Markets Committee (“ABS-SFEMC”) issued a consultation report titled “Roadmap for Transition of Interest Rate Benchmarks: From SOR to SORA” (“the Consultation”). The Consultation recommended the adoption of the Singapore Overnight Rate Average (“SORA”) as the interest rate benchmark for Singapore Dollar (“SGD”) interest rate derivatives, while SGD cash markets (e.g. loans, bonds, retail products) could continue to use various reference rates (e.g. SORA, SIBOR, banks’ internal funding rates). The Consultation sought feedback on the proposed transition roadmap, and identified areas of work to facilitate the transition from the SGD Swap Offer Rate (“SOR”) to SORA. The Consultation closed on 31 October 2019, and 56 respondents provided feedback.

1.2 Concurrently, the Monetary Authority of Singapore (“MAS”) established an industry-led Steering Committee for SOR Transition to SORA (“SC-STS” or “the Committee”), comprising senior representatives from key banks, relevant industry associations, and MAS. SC-STS was tasked to provide strategic direction and to oversee the transition. This includes reviewing and responding to the feedback received on the Consultation, to guide its priorities in the transition from SOR.

1.3 SC-STS thanks all respondents for their feedback. This report sets out the Committee’s responses to key areas of feedback received.

2 FEEDBACK ON PROPOSED TRANSITION ROADMAP

2.1 There was broad agreement from respondents on the proposed transition roadmap and approach set out in the Consultation. Several respondents highlighted that the proposed transition to SORA was aligned with the global transition from LIBOR and other IBORs to overnight risk-free rates (“RFR”).

2.2 There was also broad support on the formation of SC-STS. Respondents recognised the importance of establishing a cross-industry platform to take into account different stakeholder perspectives, and expressed openness to contribute to industry initiatives.

SC-STS’ Response

2.3 SC-STS acknowledges the broad-based support for the proposed transition roadmap. This is important as the transition from SOR to SORA requires concerted industry-wide action. SC-STS will continue to work towards the smooth transition to SORA and coordinate the development of industry-wide standards and market conventions for new derivatives and cash market products referencing SORA, and recommend measures to facilitate the transition of legacy SOR-based contracts to SORA.

3 SUGGESTIONS ON FURTHER WORK AREAS TO FACILITATE TRANSITION

(a) Suggestions to Improve Adoption of SORA

3.1 Several respondents highlighted that it would be useful for SORA rates to be made easily accessible to all market participants, including less sophisticated customer segments (e.g. retail, small businesses etc). Other respondents suggested the need to facilitate broader understanding of the market that underpins the SORA benchmark, to support wider use of this rate.
3.2 One respondent suggested that MAS, besides publishing the daily SORA rate, could also publish other easy-to-use indices such as SORA averages\(^1\) for rolling 1-month, 3-month and 6-month periods, and a SORA index\(^2\) measuring the cumulative compounding of SORA on a unit of investment over time. Another respondent highlighted the need to include SORA in pricing calculators (e.g. basis swap computation) on commonly-used financial platforms, to facilitate the pricing of derivatives and cash products, especially for institutions that do not have their own in-house pricing calculators.

3.3 One respondent proposed for MAS, as the benchmark administrator, to consider issuing a statement of compliance with the IOSCO Principles for Financial Benchmarks (“IOSCO Principles”). This would be in line with statements by the Federal Reserve Bank of New York (“NY Fed”) and the Bank of England (“BOE”) in respect of their administration of the USD Secured Overnight Financing Rate (“SOFR”) and Sterling Overnight Index Average (“SONIA”).\(^3\)

**SC-STS’ Response**

3.4 SC-STS agrees with the suggestions. On data availability, the definition of SORA and the historical SORA benchmark rates data (since 1 July 2005) are freely available on the MAS website\(^4\) and can also be accessed on widely-used financial platforms such as Bloomberg and Refinitiv Eikon. To facilitate wider adoption of SORA, MAS is exploring the publication of SORA averages for various tenors and/or a SORA index by 2H 2020.

3.5 MAS is also reviewing the governance and administration of SORA to align it with the IOSCO Principles, and will be publishing the outcome of the review by mid-2020, together with further documentation providing more information on the administration of SORA, and the markets underpinning SORA.

(b) Suggestions to Develop SORA Derivatives Market

3.6 Market conventions and documentation: A number of respondents saw an urgent need to kick-start the trading of derivatives that reference SORA (“SORA derivatives”). They encouraged early work to establish market conventions including publication of International Swaps and Derivatives Association (“ISDA”) definitions for compounded SORA and fallback arrangements, as well as developing term sheets for various types of SORA derivatives (e.g. overnight indexed swaps (“OIS”), cross-currency swaps (“CCS”), SOR-SORA basis swaps).

3.7 Infrastructure, clearing, and systems readiness: To support trading and settlement of SORA derivatives, several respondents highlighted the need to engage market infrastructure players such as trading platforms, confirmation services, and inter-dealer brokers. Given the higher margining requirements for un-cleared derivatives, it was important to quickly initiate central clearing of SORA derivatives. Having central clearing arrangements in place would reduce the cost of trading such derivatives, and help build market liquidity and trading volumes. Respondents also asked for more clarity on the timelines for key market development initiatives, to allow firms to align their own

\(^1\) Compounded backward-looking averages of SORA over rolling 1-month, 3-month and 6-month periods, published daily.

\(^2\) For example, the index might start at “1” on a particular date (e.g. 1 September 2019) and be compounded by SORA every day thereafter.

\(^3\) See statements by the NY Fed and BOE in respect of their administration of the SOFR

<https://www.newyorkfed.org/markets/opolicy/operating_policy_180628> and SONIA


\(^4\) See MAS website <https://secure.mas.gov.sg/dir/domesticinterestrates.aspx>
internal roadmaps for trading, clearing, settlement and risk management of SORA derivatives. In particular, financial institutions would need time to secure new product approvals, and set up internal systems for handling SORA derivatives.

3.8 **Regulatory issues:** Respondents asked if SORA derivatives would be subject to the clearing and trading requirements in MAS’ regulations on derivatives. Respondents highlighted that the implementation of clearing or trading requirements on SORA derivatives at too early a stage in market development would affect the pace of market uptake.

3.9 **Encouraging demand:** To encourage demand for SORA derivatives, one respondent suggested the use of SORA as the industry-standardised cash rate in credit support annexes (“CSA”) for uncleared derivative transactions. This was in addition to the proposed use of SORA for price alignment interest (“PAI”) and discounting of cleared SORA derivatives. Respondents suggested that setting an industry deadline for financial institutions to stop offering new SOR transactions (with limited exceptions for unwinding legacy exposures) would help support the transition.

3.10 **Cross-currency basis markets:** Currently, short-end USD/SGD CCS range around zero and exhibit mean reverting behaviour, even during periods of USD funding stress. This arises as SOR itself will adjust to USD funding conditions, hence there is no need for short-end USD/SGD cross-currency basis swap spreads to widen in response. One respondent noted that the transition to SORA would alter this characteristic of USD/SGD CCS.

**SC-STS’ Response**

3.11 **Templates and conventions:** SC-STS has established the relevant derivatives market conventions, including ISDA definitions and term sheets for trading of various SORA derivatives. On 3 February 2020, ISDA published SGD-SORA-COMPOUND, as Supplement 62 to the 2006 ISDA Definition\(^5\). This was followed by the publication of SC-STS’ market templates for SGD SORA OIS, SORA-SORA basis swaps, and SGD SORA – USD SOFR CCS on 20 February 2020.\(^6\)

3.12 **Developing market infrastructure and systems:** SC-STS has been working with relevant industry players to establish essential market infrastructure for the trading and clearing of SORA-based derivatives, and expects central clearing of SORA derivatives to be available in 2Q 2020. SC-STS will explore the use of SORA in CSAs for un-cleared SGD derivatives, and as PAI and discount rate in cleared SGD derivatives. The Committee will also publish clear transition timelines to help financial institutions plan for necessary changes to their internal systems and processes.

3.13 **Regulatory clarifications:** MAS has confirmed that SORA derivatives are currently not subject to clearing or trading requirements. MAS does not expect to subject the trading of SORA derivatives to clearing requirements in the near-term, and will continue to observe the build-up in liquidity and materiality of exposures. MAS also has no plans to extend the trading mandate to SGD-denominated derivatives. However, SGD interest rate derivatives including those that reference SORA are subject to reporting requirements. Un-cleared SORA derivatives are also subject to bilateral margining.

3.14 **Cessation of new SOR derivatives:** As market liquidity in SORA derivatives deepens, SC-STS will explore setting industry guidance for financial institutions to stop offering new SOR derivatives.

\(^5\) See ISDA’s webpage on Supplements to the 2006 ISDA Definitions [https://www.isda.org/book/supplements-to-the-2006-isda-definitions/]

\(^6\) See contract templates on SC-STS’ webpage [https://www.abs.org.sg/benchmark-rates/publication]
This would provide further clarity to market participants, and avoid growth in the stock of legacy SOR derivatives that would need to be managed.

3.15 **Cross-currency basis markets**: SC-STS agrees that the transition from SOR to SORA will alter the characteristics of USD/SGD CCS. Accordingly, changes in USD funding conditions relative to SGD funding conditions would be reflected in the widening of SORA-based CCS spreads, similar to other CCS markets globally. However, this change is a technicality and does not have any implications on USD funding conditions in Singapore.

(c) **Suggestions to develop SORA cash markets and interdependencies with derivatives**

3.16 **Proposals to develop SORA cash markets**: On the transition of cash markets that currently reference SOR, respondents put forth a number of suggestions:

(i) Provide early clarity on the viability and methodology of a forward-looking term-SORA benchmark. One respondent suggested that similar efforts, such as those by the Alternative Reference Rates Committee (“ARRC”) in the US, should be undertaken to identify and develop forward-looking term rates. Some respondents also asked for alternatives to term-SORA to be outlined early, if it was assessed subsequently that forward-looking term-SORA was not viable.

(ii) Provide clear and timely industry guidance on the types of products and market segments that would be suited to reference compounded SORA versus forward looking term-SORA or other rates.

(iii) Develop standard contract templates for various cash products (e.g. loans, bonds, securitisation) that could reference SORA or term-SORA, to facilitate development of new SORA based cash markets.

(iv) Issuance of compounded SORA floating-rate notes (“FRN”) by MAS or government agencies to help kick-start issuances by other issuers.

(v) Regulatory clarity from MAS on whether replacement loan packages would be treated as a refinancing of property loans, and whether this would consequently affect the computation of Total Debt Servicing Ratio (“TDSR”) for the refinancing of investment property loans.

3.17 **Interdependencies with derivatives developments**: Many respondents also recognised synergies between SORA derivatives and cash product markets, particularly in the use of SORA derivatives for hedging of cash market exposures.

**SC-STS’ Responses**

3.18 **Compounded SORA rates**: SC-STS is exploring SORA-based notes issuances with suitable issuers, and is developing market conventions for the use of compounded SORA in loans. While the market has been used to forward-looking term rates, SC-STS notes that there are several key benefits in the shift to a compounded rate in cash markets:

(i) Such rates are constructed from deep underlying overnight markets and are very robust and not susceptible to manipulation.

(ii) The averaging effect of compounded SORA rates would result in more stable rates, compared to forward-looking term rates which are exposed to idiosyncratic market factors on a single day’s fixing, such as quarter/year-end volatility.

(iii) With SORA derivatives market moving towards compounded rates (in line with derivatives markets globally), having cash products pegged to compounded rates allows
for more effective hedging as the basis risk between cash and derivatives markets is minimised.

SC-STS will publish guidance on the use of compounded SORA rates in various cash market products in 3Q 2020, as well as a customer segmentation study to identify the types of products and market segments that could benefit from the use of compounded SORA rates. SC-STS is also working to pilot suitable product structures that use such rates, particularly to partner with corporates that could be early adopters. In addition, on-going developments in the use of compounded RFRs in other jurisdictions can provide useful learning references for the SGD market. 7

3.19 **Term-SORA:** SC-STS will examine the feasibility of developing a forward-looking term-SORA benchmark by end-2020, taking reference from the approach to the development of term RFRs in other jurisdictions. However, the Committee recognises that the development of term-SORA benchmark is dependent on the underlying liquidity of the SORA derivatives market which will take time to build. Strong industry adoption of cash products referencing compounded SORA rates will support the development of a deep and liquid SORA derivatives market, which will in turn enhance the likelihood of term-SORA rates being feasible. This is consistent with the feedback from many respondents who highlighted synergies between the cash and derivatives markets.

3.20 **Regulatory clarifications:** Financial institutions will need to transition some retail and SME loan contracts that reference SOR to contracts pegged to alternative benchmark rates. SC-STS understands from MAS that the offering of replacement loan packages by the same bank to affected borrowers will not be regarded as a refinancing of their property loans. Correspondingly, the property loan rules, such as the computation of TDSR for refinancing of investment property loans, will not be applicable. Nevertheless, the prevailing refinancing rules will apply to any subsequent refinancing undertaken by such borrowers. As good practice, the key features of the replacement loan packages offered to affected borrowers, including applicable fees and charges, should be highlighted. 8

3.21 **Issuance of FRNs by MAS or government agencies:** SC-STS agrees that the issuance of SORA-based FRNs by MAS or other government agencies could encourage the adoption of the SORA benchmark and spur further corporate SORA-based issuances. MAS is therefore studying the possibility of issuing a SORA-based FRN in 2020. SC-STS and MAS encourage financial institutions to also consider issuing their own SORA-based FRNs as well as encourage corporate customer issuances to spur the development of a deep and liquid SORA cash market.

(d) **Transition of legacy SOR contracts**

3.22 **Choice of fallback reference rate:** Many respondents called for greater clarity around fallback arrangements for legacy SOR contracts. One respondent highlighted urgency in deciding on a SOR fallback as system changes would be required and have to be completed ahead of end-2021. In addition, views on the choice of fallback reference rate were divided between:

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8 Financial institutions may use MAS Notice 632A Residential Property Loans Fact Sheet as a reference for the important features to highlight to borrowers
(ii) Adjusted SOR – a fallback reference rate based on actual transactions in the USD/SGD FX swap market and a USD interest rate pursuant to the fallback methodology for USD LIBOR in the updated 2006 ISDA Definitions (i.e. Adjusted SOFR plus a spread adjustment).9; and

(ii) Adjusted SORA – a SORA compounded setting-in-arrears plus a spread based on the historical mean or median of spreads between SORA compounded setting-in-arrears and SOR.

3.23 One proponent for Adjusted SOR noted that a significant majority of respondents to ISDA’s May 2019 consultation10 supported its use as the fallback reference rate in derivatives referencing SOR. Other respondents highlighted the risk of value transfer arising from the use of Adjusted SORA as a fallback reference rate. In contrast to this, a proponent for Adjusted SORA highlighted that using an alternative RFR as a fallback was more in line with the approach adopted in other jurisdictions. The use of Adjusted SOR might result in a bifurcated market to the extent that some legacy derivative transactions may fall back to Adjusted SOR, even as the broader SGD derivatives market transitions to referencing SORA.

3.24 Operationalisation of fallback arrangements: Respondents highlighted the importance of broad-based industry adoption of the ISDA protocol to incorporate fallbacks into legacy and new derivative transactions. This would prevent significant market disruption when SOR is discontinued. Some respondents said that the fallback rates should be easily accessible on multiple platforms such as Bloomberg and/or Refinitiv Eikon.

3.25 Implications for fallbacks in cash market products: Many respondents felt that fallback arrangements for legacy cash products could take reference from the fallback approach adopted by the derivatives market. To this end, one respondent suggested that industry-wide coordination on this issue for both derivatives and cash products would be helpful. Another respondent suggested that SC-STS could provide industry guidance on fallbacks for SOR cash market products, similar to work done by ARRC for several types of USD LIBOR cash market products.11

3.26 Measures to support transition away from the use of SOR in derivatives: One respondent suggested that the development of SOR-SORA basis swaps would help to facilitate the voluntary transition of legacy SOR contracts to SORA derivatives. Another respondent suggested the publication of market guidance (if possible and where relevant) on approaches to transition SOR contracts to other benchmarks.

SC-STS’ Response

3.27 Contractual fallback for derivatives: SC-STS has thoroughly reviewed the relative merits of using Adjusted SOR and Adjusted SORA as a fallback reference rate in SOR derivatives. The Committee has assessed that Adjusted SOR would be a more appropriate fallback rate. This took into account

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9 The definition of Adjusted SOR can be found in ISDA’s “Supplemental Consultation on Spread and Term Adjustments for Fallbacks in Derivatives Referencing USD LIBOR, CDOR and HIBOR and Certain Aspects of Fallbacks for Derivatives Referencing SOR” (16 May 2019) <https://www.isda.org/a/n6tME/Supplemental-Consultation-on-USD-LIBOR-CDOR-HIBOR-and-SOR.pdf>

10 See Summary of Responses to the ISDA Consultation on Final Parameters for the Spread and Term Adjustments, prepared by The Brattle Group for ISDA (15 November 2019) <http://assets.isda.org/media/04d213b6/db0b0fd7.pdf/>

11 See ARRC’s recommendations on fallback language for different cash product types (e.g. adjustable rate mortgages, bilateral business loans, FRNs, securitizations, syndicated loans) <https://www.newyorkfed.org/arrc/fallbacks-contract-language>.
responses to ISDA’s May 2019 consultation\(^\text{12}\), which indicated strong support for the use of Adjusted SOR as a fallback reference rate for SOR derivatives. 45 (~85%) out of the 52 respondents who provided feedback to ISDA’s question on SOR fallbacks had no concerns on using Adjusted SOR as the fallback reference rate. Furthermore, relative to Adjusted SORA, Adjusted SOR is more similar to and correlated with SOR. Accordingly, adopting Adjusted SOR as the fallback reference rate would reduce the risk of value transfer, and should allow for broader market support. SC-STS has formally communicated its views to ISDA.\(^\text{13}\) ISDA is expected to implement this fallback in 2H 2020, together with the contractual fallbacks for derivatives that reference LIBOR and other key interest rate benchmarks.

3.28 **Purpose of Adjusted SOR:** SC-STS views that Adjusted SOR should serve mainly as a fallback rate for a small residual of legacy contracts which are unable to transition by end-2021. Market participants should not retain a large legacy book of Adjusted SOR positions after end-2021 for the following reasons:

(i) Adjusted SOR is not expected to be liquid nor widely-traded. Hence, the risk management of Adjusted SOR positions will not be cost-efficient.

(ii) Adjusted SOR will likely not exist in perpetuity. SC-STS will consider by 2H 2020, the appropriate time period that Adjusted SOR should be published, taking into account the need for some time buffer for legacy contracts to run-off or transition, as well as the impact on the development of SORA markets.

3.29 **SOR-SORA basis swaps:** SC-STS agrees that an active SOR-SORA basis swaps market can facilitate the voluntary transition of legacy SOR contracts to a SORA reference. To support this, the Committee has published the market template for SOR-SORA basis swaps on the SC-STS’ website.\(^\text{14}\) SC-STS will look into further measures to encourage the development of this market.

3.30 **Contractual fallback for cash market products:** SC-STS is in the process of reviewing the appropriate fallback approaches for different cash market products that reference SOR. SC-STS plans to provide industry guidance on the appropriate approach for cash market fallbacks to market participants by mid-2020. This could include:

(i) **Bonds/Perpetual Securities.** SC-STS will develop industry guidance on the impact of discontinuation of SOR on SGD bonds, examine the adequacy of fallback/replacement language in existing floating rate bonds that reference SOR, and make recommendations as necessary.

(ii) **Business/Syndicated Loans.** SC-STS will develop industry guidance on fallback rates and the transition path for legacy SOR loans, drawing from developments in derivatives markets and bond/perpetual securities markets that reference SORA, as well as the experience of other jurisdictions.

\(^{12}\) See Summary of Responses to the ISDA Consultation on Final Parameters for the Spread and Term Adjustments, prepared by The Brattle Group for ISDA (15 November 2019) [http://assets.isda.org/media/04d213b6/db0b0fd7.pdf](http://assets.isda.org/media/04d213b6/db0b0fd7.pdf)

\(^{13}\) SC-STS letter to ISDA has been published on the ABS website at [https://abs.org.sg/docs/library/item-3---sc-STS-letter-to-isda.pdf](https://abs.org.sg/docs/library/item-3---sc-STS-letter-to-isda.pdf)

To encourage the transition, SC-STS will also consider whether to issue industry guidance on when market participants should cease origination of SOR-based cash market products.

3.31 **Timelines and milestone:** Respondents generally agreed with the timelines and milestones outlined in the proposed roadmap. However, a few respondents highlighted that the proposed milestones for 2020 were ambitious. One respondent suggested setting key milestones to track progress and closely monitor the build-up of liquidity in SORA markets.

3.32 **Accelerating work on tax and accounting implications:** One respondent highlighted that tax and accounting considerations would affect the SOR to SORA transition. As an example, using the current fallback language set out by the ARRC for bilateral loans, corporates that engage in regular interest rate hedging might have a preference for the ‘hedged loan amendment’ approach, that matches loan interest settlement mechanisms on RFRs with that of derivatives. On the other hand, other corporates might prefer having interest settlement mechanisms that are ‘forward looking’, such as a term rates. Understanding accounting and tax implications early would inform decision making in relation to the transition.

3.33 **Alignment with international developments:** A number of respondents highlighted the benefits of aligning the transition timeline with that of the USD LIBOR transition and other such international developments to the extent possible. For example, alignment of such timelines would help support transition of the CCS basis curves, from SOR to SORA for the SGD leg, and from USD LIBOR to SOFR for the USD leg. Respondents generally encouraged SC-STS to actively engage with global market participants, relevant industry groups (e.g. ISDA and International Capital Market Association (“ICMA”)), and other national working groups.

**SC-STS’ Responses**

3.34 **Transition timeline and key work areas:** While SC-STS recognises that the proposed transition timeline is tight, this is driven by the need to proactively prepare for SOR cessation, which could happen any time after end-2021 with LIBOR’s expected discontinuation. To drive the transition process forward, the Committee has organised its work under the following key areas:

(i) Getting the market infrastructure and conventions ready;
(ii) Building liquidity and encouraging adoption in the new SORA market;
(iii) Managing transition from legacy products;
(iv) Ensuring systems readiness in financial institutions for new products and markets; and
(v) Engaging end-customers with solutions early.

SC-STS will continue to engage all relevant stakeholders, as it reviews progress in each work area against its targeted milestones.

3.35 **Accounting and tax issues:** SC-STS has set up a horizontal Sub-Group to study the accounting and tax implications arising from the SOR to SORA transition. Where required, SC-STS will work with accounting and tax bodies in Singapore, and issue guidance on the practical application of accounting standards (e.g. reliefs provided by International Accounting Standards Board (“IASB”) for IBOR transition), and tax rules in the context of existing SOR/SORA cash market exposures.

3.36 **International alignment:** SC-STS agrees with the need to coordinate with other jurisdictions, particularly in the transition of cross-currency products. Developments in USD/SGD CCS will take
reference to evolving global standards for such products, and the Committee is actively engaging with ISDA and other global industry associations where relevant.

(f) Public communication

3.37 Many respondents highlighted the need for targeted communication to address different groups of stakeholders – e.g. banks, non-banks and the general public. Some respondents encouraged coordinated engagement with industry and consumers to raise awareness on the urgency and impact of the potential SOR discontinuation. One respondent further highlighted the need for regular and periodic updates across the industry to reduce market uncertainty.

SC-STS’ Responses

3.38 SC-STS agrees that public communication and outreach is crucial given the wide-reaching implications of this transition. SC-STS has identified key stakeholders, and will develop relevant messages and use various channels of engagement to achieve its objectives. SC-STS will adopt a two-pronged approach (see Exhibit 1 below) – (i) public communications and education programme driven by SC-STS, and (ii) direct communications programme where banks would develop their own communications toolkits based on templates and market guidance developed by SC-STS. SC-STS will also create product-specific content and communications plans for the different market segments.

Exhibit 1: Two-pronged Approach for Communications and Public Education
4 CONCLUSION

4.1 SC-STS would like to thank respondents for the feedback, which has been helpful in validating the Committee’s priorities. SC-STS is fully committed to supporting the industry’s transition to SORA, and will progressively provide relevant industry guidance to support market participants’ transition work in the months ahead. The Committee will also work with relevant industry associations to directly engage market participants and provide regular updates on key developments and milestones.