RECOMMENDATIONS FOR TRANSITION OF LEGACY SOR CONTRACTS

29 July 2021

Steering Committee for SOR & SIBOR Transition to SORA

Preface and Disclaimer

This report is for informational purposes, and is not intended to be, and should not be taken as, a source of professional legal or financial advice specific to any transaction. It aims to provide readers with an overview of on-going developments in the transition from the Singapore Swap Offer Rate (**"SOR"**) to the Singapore Overnight Rate Average (**"SORA"**), as well as to inform and urge market participants to take active steps to transition out of legacy SOR exposures before 31 December 2021. It is intended that the information within will lead to better informed choices regarding the options available to market participants, as well as to highlight the risks of inaction.

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1 Background and Aim

1.1 **In August 2019, the Association of Banks in Singapore and the Singapore Foreign Exchange Market Committee (“ABS-SFEMC”) issued a consultation report, which identified the SORA as the alternative risk-free rate (“RFR”) to replace SOR in Singapore Dollar (“SGD”) interest rate market.** This was intended to address the impending problem that SOR, which relies on USD LIBOR in its computation methodology, would be discontinued when USD LIBOR is discontinued after end-2021. The UK Financial Conduct Authority subsequently confirmed in March 2021 that the overnight, 1-month, 3-month, 6-month and 12-month USD LIBOR settings, would cease to be provided by any administrator or be no longer representative immediately after 30 June 2023. Consequently, SOR will similarly be discontinued immediately after 30 June 2023 across all tenor settings.

Update on progress on SOR to SORA transition

1.2 **The financial industry made swift progress in 2020 to establish a strong foundation for the adoption of SORA in derivatives and cash market products.** SC-STS published market conventions for SORA usage across all key product classes – derivatives, bonds, corporate and retail loans. Central clearing by LCH of SORA derivatives for tenors up to 5.5 years was introduced in May 2020, and extended to tenors up to 21 years in February 2021[1]. MAS launched a daily SORA derivatives auction in June 2020 to facilitate price discovery, and started issuing floating rate notes (**“FRN”**) based on SORA in August 2020 to provide a market-based pricing reference for SORA cash products and spur hedging activities. On the back of these developments, SORA Overnight Index Swaps (**“OIS”**) and SOR-SORA basis swaps activity picked up in 2H 2020, allowing for progressive tightening of spreads in these markets. Price transparency was aided by the wide availability of SORA OIS and SOR-SORA basis swap pricing on broker pages and via information platforms (e.g. Bloomberg and Refinitiv). The industry also commenced SORA usage across a broad range of instruments - bonds, bilateral and syndicated corporate loans, and retail loans.

1.3 **With this foundation in place, the SC-STS proceeded to recommend timelines for the cessation of SOR and SIBOR usage in new contracts, to prepare the industry for eventual SOR and SIBOR discontinuation and support a coordinated shift towards a SORA-centered interest rate landscape**.[2] These timelines included:

(a) By 28 February 2021, Domestic Systemically Important Banks (**“D-SIBs”**) to offer a full-suite of SORA-based products to their customers, while non-DSIB banks were to follow suit by 30 April 2021.

(b) By 30 April 2021, all financial institutions and their customers to cease usage of SOR in new loans and securities that mature after 31 December 2021.

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[1] See SC-STS Media Release on Central Clearing of SORA Derivatives (22 February 2021) https://www.abs.org.sg/docs/library/central-clearing-of-sora-derivatives-extended-to-21-year-tenor.pdf

[2] See SC-STS Publication on Timelines to Cease Issuance of SOR and SIBOR-linked Financial Products (31 March 2021) https://www.abs.org.sg/docs/library/timelines-to-cease-issuance-of-sor-derivatives-and-sibor-linked-financial-products.pdf

(c) By 30 September 2021, all financial institutions and their customers to cease usage of SOR in new derivatives contracts.[3]

(d) By 30 September 2021, all financial institutions and customers to also cease usage of SIBOR in new contracts.

1.4 **These measures have supported a further pick-up in SORA adoption:**

(a) **The gross notional amount of outstanding SORA derivatives has increased by more than 15 times since the start of the year to around S$62 billion as of 30 June 2021, albeit from a low base.** SORA derivatives trading volumes picked up sharply, with the monthly SORA derivatives turnover volume touching a high of S$41 billion in June 2021, a fifty-fold increase from the end of last year. Meanwhile, bid-ask spreads narrowed significantly for tenors up to 10 years, from over 10bps in July 2020 to around 3-4bps and 2-3bps for SORA OIS and SOR-SORA basis swaps respectively by June 2021.

(b) **The D-SIBs' gross exposures of SORA cash market products grew to approximately S$4.2 billion as of 30 April 2021, across a range of retail and institutional products.** Notably, SORA retail loans have reached almost a third the volume of SOR retail loans. Several hundred bilateral corporate (including SMEs) loans and some syndicated SORA loans have also been originated. SORA cash market adoption is expected to benefit from the cessation of SOR usage in new cash market contracts after 30 April 2021.

Facilitating active transition of legacy SOR exposures

1.5 **Legacy transition from SOR to SORA is expected to accelerate in the quarters ahead, and the shift in liquidity will provide market participants with continued means to risk-manage and value their exposures in a post-LIBOR/SOR world.** To address the risks arising from SOR's impending discontinuation, and to coordinate the industry wide shift from SOR to SORA, the SC-STS had also recommended the following industry timelines for the wind-down of SOR exposures:

(a) Derivatives between financial institutions: Banks should reduce to 20% their gross SOR derivatives exposures with other financial institutions by 30 September 2021.[4] This takes into account that operational and contract-related risks are tied to gross rather than net exposures. Large gross exposures may also give rise to increasing net exposures as contracts in the portfolio mature, leaving an unbalanced portfolio that would be challenging to risk manage when SOR derivatives market have become illiquid.

(b) Corporate exposures: Banks should aim to substantially reduce their SOR exposures (both cash and derivative) to corporates to 20% by 31 December 2022[5]. All contracts that continue to reference SOR as at 31 December 2022 should minimally incorporate

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[3] Exemptions were granted for risk management and transition of legacy exposures as outstanding positions would still have to be risk managed regularly even after new demand has ceased.

[4] The numerator refers to all SOR derivatives exposures (including transactions that have had their last SOR fixing set on or before 30 September 2021). The denominator refers to a bank's outstanding SOR derivatives exposures as at 31 December 2019.

[5] For avoidance of doubt, the numerator for this 20% target refers to all SOR cash and derivatives exposures to corporates, including contracts where fallback language to Fallback Rate (SOR) has been incorporated. The denominator refers to all outstanding SOR cash and derivative exposures to corporates as at 31 December 2019, regardless of maturity dates.

appropriate contractual fallbacks. While there is recognition that transition would require agreement between both parties to the transaction, banks should play an active role to reach out and inform customers of their options as well as the risks of inaction.

1.6 **It is imperative for all market participants to take steps to manage their own exposures to SOR as liquidity shifts to SORA.**

(a) **While SOR remains available till 30 June 2023, the decline in SOR derivatives liquidity will accelerate in the coming quarters.** Declining liquidity in the SOR derivatives market will make it increasingly challenging for market participants to risk-manage and value their SOR exposures.

(b) **The transition from SOR to SORA enhances liquidity in the SOR-SORA basis swap market, which serves as a useful market reference for market participants to engage in discussions on converting their legacy SOR contracts to SORA.** The SC-STS expects that liquidity in this market will increase initially but will eventually decline when most of the market has transitioned to SORA. Hence, the SC-STS urges all market participants to commit resources to undertake a concerted shift from SOR to SORA from now till 31 December 2021, while this window of opportunity exists.

Aim of this report

1.7 **This report aims to review developments and recommend key approaches to address key SOR to SORA transition issues raised by the industry, and urges market participants to take active steps to transition out of legacy SOR exposures by 31 December 2021.** It is intended that the information in this report should lead to better informed choices regarding the options available to market participants, and the risks of inaction.

1.8 Section 2 sets out the key considerations for determining an appropriate adjustment spread for the conversion of legacy SOR contracts to SORA. Sections 3 to 6 set out, based on product types (derivatives, corporate loans, bonds and retail loans), the context and key recommendations to guide market participants transition. Section 7 summarises the key factors for market participants to take note of in the management of their legacy SOR exposures.

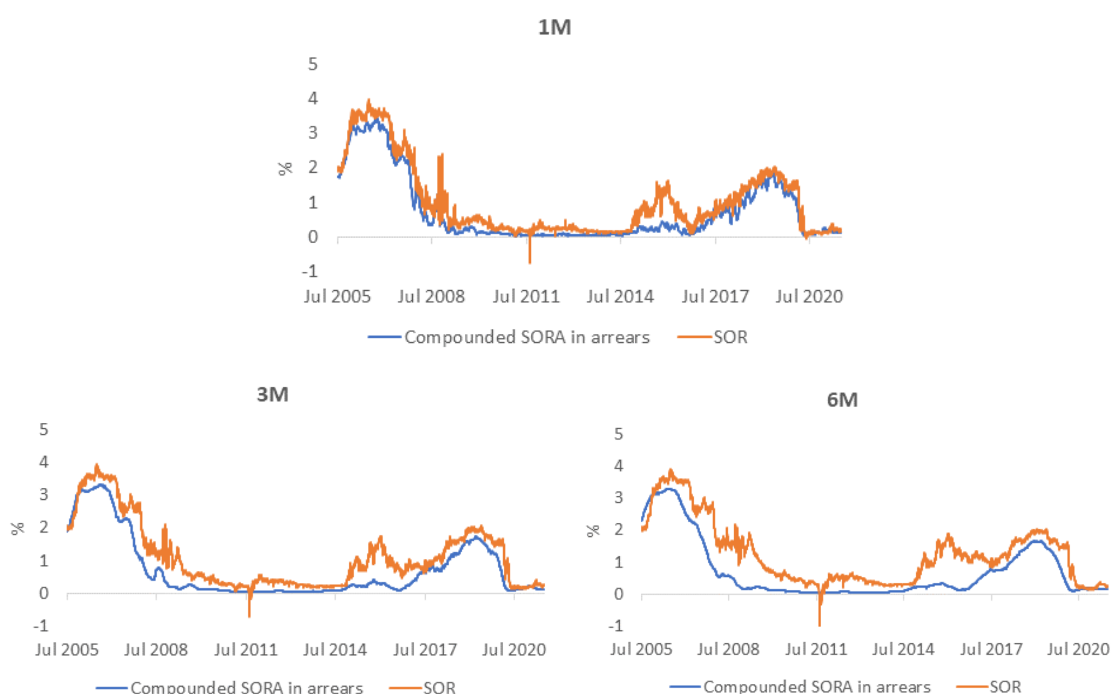
2 Key Considerations in Adjustment Spread Pricing

2.1 **SORA is a fundamentally different interest rate benchmark from SOR.** SORA is a measure of unsecured overnight interbank borrowing transactions, while SOR is the implied cost of borrowing SGD, by borrowing USD for periods such as 1-month, 3-months, or 6-months, and swapping the USD in the USDSGD FX swap market for SGD proceeds.

2.2 **Due to this fundamental difference, the two benchmarks display different characteristics.** SOR is more responsive to developments in the FX market and USD funding market and has a tendency to increase more when SGD FX is on a weakening trend (and decrease when SGD FX is on an appreciating bias). SOR incorporates term and credit risk premium through its use of USD LIBOR while SORA is nearly free of term and credit risk premium due to its overnight tenor of borrowing. Hence, SOR tends to be higher than SORA. Additionally, SOR may exhibit peculiar behavior owing to idiosyncratic conditions in USD funding in FX swap market, such as by turning negative for short periods.

2.3 **In relation to the conversion of legacy SOR contracts to SORA, this means that an adjustment spread would need to be added to SORA to allow for its use in replacement of SOR in existing contracts.** The difference is readily observed in the historical pricing of SOR and SORA. While the spread between SOR and SORA is volatile, SOR is nearly always higher than SORA (see Figure 1). Incorporating an adjustment spread allows the eventual interest exchanged on a contract to be broadly comparable over the tenor of the contract after the conversion.

Figure 1: SOR vs. Compounded SORA (In-arrears)



2.4 **The SC-STS recognises that there are various possible approaches to determine the appropriate adjustment spread, each with benefits and challenges.**

(a) **Historical formula-based:** One approach that is simple to implement and has been adopted in other jurisdictions for the transition from LIBOR to alternative risk-free rates, is the use of a historical formula-based average. However, as illustrated in **Figure 1** above, in the SGD context, the spread between SOR and SORA varies significantly over time given the inherent differences between both benchmarks, which makes the historical average sensitive to the specific lookback period that would be used in computing that average.

(b) **Market-based approach**: Another approach would be to rely on current derivatives market pricing, specifically, SOR-SORA basis swaps which are traded daily. These swaps involve counterparties that exchange a stream of SOR payments for a stream of SORA payments plus a spread. The spread over SORA demanded by one party to enter into the swap contract, represents the risk-neutral, market-implied price of receiving SORA over a given period, in exchange for SOR. Therefore, it is a good representation of the price that a SOR borrower transitioning to SORA should pay over the SORA benchmark rate, for a given tenor. However, this approach would only be feasible while there is sufficient market depth and liquidity in both SOR and SORA derivatives markets, which therefore implies a limited time-window for using this approach.

2.5 **Having considered the benefits and drawbacks of the above approaches for the SOR to SORA transition, the SC-STS recommends that market participants should seek to actively convert legacy SOR contracts using SOR-SORA basis swap mid-rate pricing as a starting point for counterparty discussions:**

(a) **The use of SOR-SORA basis swap spreads should minimise value transfer risk and avoid distortions to the market pricing.** By construct, SOR-SORA basis swap spreads would offset the expected differences between SOR and SORA over the applicable tenor of the contracts, hence minimising value transfer and supporting active transition. In contrast, the historical formula-based approach applies a single spread adjustment figure to the conversion of SOR contracts, regardless of tenor, which may not be congruent with how the market might expect Singapore dollar FX and interest rates to evolve in the forward-looking period.

(b) **The mid-rate is a commercially reasonable starting reference for discussions between borrowers and lenders on converting legacy contracts from SOR to SORA.** This is the case especially where both banks and their customers are incentivised to shift away from a reference to SOR, which will be discontinued in a few years. This differs from the usual business dealings of a bank as market-maker or lender to clients, where a spread is charged for provision of a service, and warehousing of risk. The applicability of the mid-rate recommendation will be elaborated on in greater detail in subsequent chapters on the various instrument types.

(c) **This market is currently liquid to around the five-year tenor which would be sufficient to cover about 80% of outstanding legacy SOR exposures. SOR-SORA market liquidity is expected to improve in longer tenors as wholesale market participants convert their existing SOR exposures to SORA.** Overall, liquidity in the SOR-SORA basis swap market should continue to increase before it eventually declines as market participants complete transitioning out of SOR exposures, and cease transacting in SOR derivatives.

The SC-STS therefore expects that a window of opportunity of around 6 to 12 months from mid-2021 exists, when this market can serve as a useful reference point for banks and customers to engage in discussions in their SOR to SORA transition. The superiority of the market-based approach hinges on the SOR-SORA market liquidity. The SC-STS recognises that the use of historical averages as a guidepost for transition in the later phases may be necessary, when the SOR-SORA basis swap market dries up, but counterparties should understand that that when this happens, they may have to accept outcomes even if these are not favourable to them.

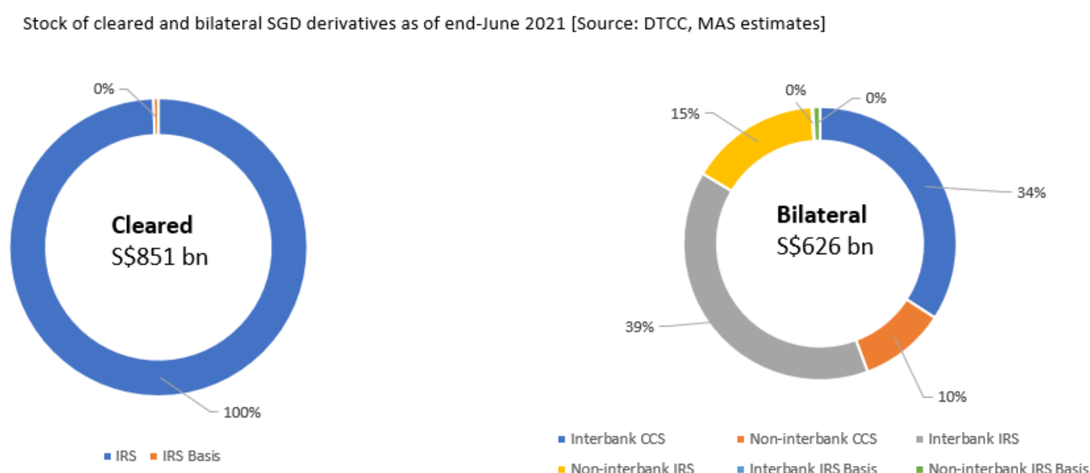
2.6 **Applicability to wholesale vs. retail markets:** For these reasons, the SC-STS recommends as a broad principle the use of market-based SOR-SORA basis swap pricing – and in particular, the mid-rate curve – as a starting point for discussions around the transition of legacy SOR contracts. The sections that follow detail how this principle may be applied to the various wholesale markets – derivatives, corporate loans and bonds. However, for the retail loan market, taking into account the specific market characteristics, the SC-STS recommends a simplified approach to facilitate conversion of a large number of smaller valued retail contracts, that would benefit both banks and customers in this segment.

3 Derivatives

Overview

3.1 **The transition of legacy SOR derivatives can be categorised broadly in two parts: (i) cleared derivatives, and (ii) bilateral derivatives.** Cleared derivatives form the bulk of SOR derivatives exposures and are relatively uniform in nature, comprising primarily interbank SOR interest rate swap exposures. In contrast, bilateral derivatives include non-interbank exposures, and exposures to cross-currency swaps, which are not clearable (see Figure 2).

Figure 2: Cleared and bilateral SOR derivative exposures

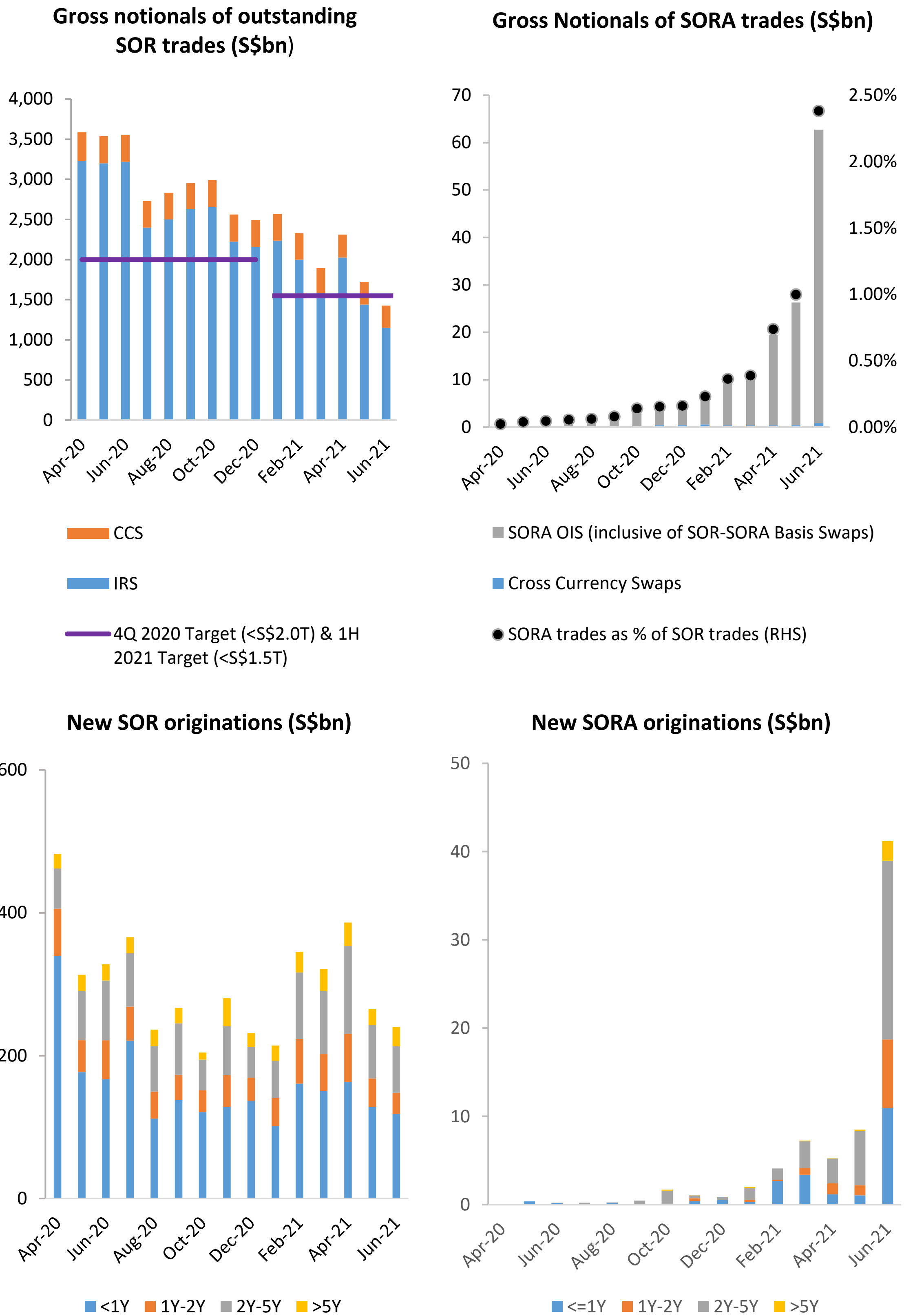


3.2 **On the whole, there has been good progress in the transition away from SOR derivatives to SORA derivatives.**

(a) As banks reduced their gross exposures in SOR derivatives to other financial institutions, there has been a 61% reduction in such exposures from about S$3.6 trillion in April 2020, to about S$1.4 trillion in June 2021. New use of SOR derivatives has also decreased over the same period.

(b) Activity in SORA derivatives market continues to increase, driven by greater interest in the use of SORA derivatives to hedge new SORA cash market exposures, and increased use of SOR-SORA basis swaps for transition of legacy exposures from SOR to SORA. In June 2021, turnover in SORA derivatives increased almost five times from May 2021 to a fresh high of S$41 billion, which amounted to 17% of SOR derivatives turnover (as compared to 3% in May 2021). The SC-STS expects this trend to accelerate in the coming months.

Figure 3: Gross notionals and new originations of SOR and SORA derivatives



Review and Recommendations on Transition of Cleared SOR Derivatives

3.3 **Looking ahead, the SC-STS envisages that the industry should successfully wind down most cleared SOR derivatives exposures in 2021, and the exit from cleared SOR derivatives should be fully completed well before SOR discontinuation in mid-2023.** The key developments and the SC-STS recommendations are outlined below.

Recommendation 1: Financial institutions should use the SOR-SORA basis swap market, and compression and conversion cycles, to facilitate their exit from SOR derivatives and transition to SORA.

3.4 **There has been significant progress in the use of vendor-provided compression cycles**. Compression cycles facilitate the multilateral netting of participants' SOR exposures, leading to a reduction of gross SOR derivatives exposures. Five such cycles were run in 1H 2021, with most termination ratios in the 40 to 60% range. Cycle outcomes have also improved as more participants have joined in, which has allowed for increased efficiencies in the multilateral netting process. These have helped financial institutions to reduce their gross notional exposures to cleared SOR derivatives, with a total of approximately S$1.7 trillion cleared SOR derivatives terminated in 1H 2021. (see **Table 1**). Several more compression cycles are expected to be conducted in 2H 2021[6].

Table 1: Completed SOR IRS compression cycles in 2021

Month	Vendor
February 2021	TriOptima
March 2021	TriOptima
May 2021	TriOptima
June 2021	Quantile
June 2021	TriOptima

3.5 **In addition, financial institutions have been able to use SOR-SORA basis swap transactions, in concert with the on-going SOR compression cycles, to increase exposures to SORA derivatives while decreasing their overall gross and net exposures to SOR derivatives.** Besides compression cycles, vendors have also commenced the use of conversion cycles for SOR derivatives. These provide a multilateral mechanism for counterparties to convert their SOR derivatives to a SORA reference. To date, conversion cycles have been run alongside compression cycles, with a heavier emphasis on compression rather than conversion outcomes. Nevertheless, conversion cycles are expected to become increasingly important in the coming quarters, as compression cycle efficiency decreases and the key objective shifts to conversion from SOR to SORA.

[6] A forecast of compression cycles in the coming quarter is available under "Other Relevant Announcements" at this link: https://abs.org.sg/benchmark-rates/announcements.

Recommendation 2: Financial institutions should reduce their gross and net risk exposures to centrally cleared SOR derivatives across the entire curve, so as to minimize any unintended valuation effects when clearing houses convert SOR contracts to SORA.

3.6 **LCH, where an estimated 99% of cleared SOR derivatives are cleared, will undertake a Price Alignment Interest ("PAI")[7]/ discounting rate switch from SOR to SORA in August 2021.** The other clearing houses are expected to follow in subsequent quarters. The switch from SOR to SORA for PAI and discounting will further reduce reliance on SOR derivatives.

3.7 **Clearing houses are also expected subsequently to convert any remaining cleared SOR trades to SORA, before the discontinuation of SOR in mid-2023 or when SOR derivatives become illiquid. Some key developments include:**

(a) On 15 December 2020, LCH consulted market participants on a proposal to automatically convert or replace outstanding LIBOR derivatives contracts with corresponding RFR-referencing contracts, at or before the expected discontinuation of the relevant LIBOR benchmark. This was premised on the clearing house's specific risk management responsibilities, which requires all cleared contracts to remain liquid such that they can be unwound safely in the event of a member default. Other clearing houses (e.g. CME, EUREX for EONIA contracts) have also consulted on a broadly similar approach.

(b) On 16 February 2021, LCH confirmed its intentions to implement such an approach. Specifically, this would involve terminating and rebooking outstanding LIBOR contracts as corresponding RFR-based contracts at (or before) the discontinuation of the relevant LIBOR benchmark. LIBOR references (e.g. USD LIBOR) would be replaced by the relevant compounded RFR (e.g. compounded SOFR) plus a non-compounded credit spread adjustment in the LIBOR leg of contracts. Cash compensation would be applied to neutralise any small residual valuation difference.[8] LCH intends to charge fallback fees (from 30 June 2021) and a conversion fee for contracts which cannot otherwise be amended and remain outstanding at the conversion event.

(c) While the consultations applied only to LIBOR derivatives, the clearing houses' responsibilities to ensure that cleared contracts remain liquid and can be unwound safely in the event of a member default would also be relevant to centrally-cleared SOR derivatives contracts. Hence, the SC-STS expects that such an approach to converting or replacing centrally-cleared SOR derivatives contracts at or before the expected discontinuation of SOR could similarly be adopted.

3.8 **The clearing houses' conversion of SOR contracts to SORA will help to complete the industry's transition of cleared SOR derivatives to SORA. However, market participants should be mindful that this could result in valuation impact on banks' portfolio of cleared derivatives, and mismatches relating to bilateral derivatives contracts which remain on SOR or fallback on Fallback Rate (SOR).** Hence, SC-STS does not recommend reliance on the clearing houses' conversion processes as a primary mode of transition. Instead, market participants should seek to

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[7] PAI is the overnight cost of funding the variation margin debited from the receiver and transferred to the payer to cover the loss of interest on posted collateral.

[8] See Summary of LCH's Consultation on its Solution for Outstanding Cleared LIBOR Contracts (16 February 2021) https://www.lch.com/membership/ltd-membership/ltd-member-updates/summary-lchs-consultation-its-solution-outstanding-0

proactively transition SOR derivatives contracts to a SORA reference before such an event. This is the only way for market participants to take control of outcomes affecting their respective institution's balance sheet. Where it is not possible to fully exit from gross exposures to SOR derivatives, institutions should look to reduce their net risk exposures to centrally cleared SOR derivatives across the entire curve.

Review and Recommendations on Transition of Bilateral SOR Derivatives

3.9 **Market participants are expected to employ a variety of approaches to transition from their bilateral SOR derivatives exposures**. These take into account the diversity of such exposures. Bilateral interbank interest rate swaps ("IRS") (~39% of bilateral exposures) and interbank USDSGD cross-currency swaps ("CCS") transactions (~34%) account for the bulk of bilateral SOR derivatives, while non-interbank IRS and USDSGD CCS also comprise a non-negligible portion of remaining exposures (see Figure 2 above).

Recommendation 3: Banks should consider backloading their bilateral interbank IRS trades to clearing houses to facilitate subsequent reduction via compression cycles.

3.10 **Bilateral interbank SOR derivatives**. A substantial portion of bilateral interbank IRS exposures are intragroup exposures, where banks are expected to transition to SORA in a timely manner. Other bilateral interbank IRS transactions can be backloaded to clearing houses for efficient management and transition, including via compression cycles.

(a) Based on an SC-STS survey of major participants in the SOR derivatives market, these comprise primarily long-tenor SOR derivatives that were originated before clearing services were available in these tenors. Other transactions were entered into on behalf of non-bank financial institutions (**"NBFI"**), or with counterparties who were previously not enabled for clearing.

(b) The SC-STS expects that more than 95% of these exposures can be backloaded to clearing houses to be subsequently reduced via compression cycles. Valuation differences arising from differences in the discount curves for cleared and bilateral contracts will need to be carefully managed, but are expected to reduce after LCH switches its PAI discounting to SORA in August 2021.

(c) The SC-STS is also exploring the possibility of a coordinated timing for backloading of bilateral interbank contracts to the clearing house in August 2021, as the backloading of a portfolio of transactions, rather than in portions, will further reduce valuation impact for market participants.

Recommendation 4: Financial institutions should participate in vendor-provided compression cycles to reduce their exposures to USDSGD cross currency basis swaps.

3.11 **Interbank USDSGD CCS exposures.** A compression cycle for interbank USDSGD CCS exposures was successfully conducted in April 2021. This included participation from the highest number of participants for any USDSGD CCS compression cycle run to date. To further reduce the outstanding notional amount of interbank USDSGD CCS exposures, it is expected that there will

be at least another USDSGD CCS compression cycle conducted by vendors in 2021.[9] The SC-STS encourages market participants to participate in vendor-provided compression cycles to reduce their exposures to USDSGD CCS.

3.12 **The SC-STS is also exploring the possibility of other approaches to reduce the stock of USDSGD CCS exposures**. Possible approaches include breaking up existing CCS trades (USD vs SOR Basis) into CCS (USD vs SGD fixed) and SOR IRS transactions, or alternatively, converting existing CCS trades (USD LIBOR vs SOR basis) into CCS (USD LIBOR vs SORA basis) and SOR-SORA basis swaps. These approaches could allow for more efficient management of the legacy USDSGD CCS stock. The SC-STS will provide further information if such approaches prove feasible.

Recommendation 5: Market participants that have not planned for the transition of their SOR derivatives in the coming months should do so as soon as possible, as SOR liquidity is expected to decline with market participants shifting their activities to SORA.

3.13 **Non-interbank bilateral SOR derivatives – transactions with NBFIs.** NBFIs should look to transition their legacy SOR derivatives exposures to SORA in the coming months, in tandem with the industry timeline to cease usage of SOR in new derivatives contracts by 30 September 2021.[10] A key consideration is the expected shift in liquidity from SOR to SORA derivatives as banks and other market participants look to manage down their SOR derivatives exposures. NBFIs should be aware of these developments in the industry and should plan immediately while liquidity conditions remain conducive for the transition of their bilateral SOR derivatives transactions, to ensure a continued ability to enter and exit from large derivatives positions after the market liquidity has transitioned to SORA.

3.14 **Several different approaches may be used for the transition of such bilateral exposures.** Most NBFIs may wish to close out their existing SOR derivatives positions at market prices, and subsequently enter new SORA derivatives positions at the best prices available to them among the counterparties they may deal with. This could be undertaken as part of the usual portfolio rebalancing cycles that many asset managers regularly undertake. Alternatively, banks and their NBFIs counterparties may wish to refer to the prevailing SOR-SORA basis swap market pricing as the starting point for negotiations to close out legacy SOR positions and re-enter into new SORA positions with the same counterparty.

3.15 **Non-interbank bilateral SOR derivatives – transactions with non-financial corporates.** Where banks have entered SOR derivatives transaction with non-financial corporates for hedging of SOR floating rate loan exposures, the transition of these derivatives contracts will need to be coordinated with the transition of the underlying loans. This will be covered in greater detail in Section 4 on Corporate Loans.

[9] A forecast of compression cycles in the coming quarter is available under "Other Relevant Announcements" at this link: https://abs.org.sg/benchmark-rates/announcements.

[10] Except where the new SOR derivatives are undertaken for the purpose of risk management or transition of legacy SOR exposures.

Recommendation 6: Market participants should endeavour to amend their bilateral credit support annexes (CSAs) that use SOR as interest rate, to SORA, by 31 December 2021.

3.16 **SOR is not widely used as interest rate in bilateral CSAs.** Nevertheless, where SOR interest rate is used in CSAs, market participants should endeavour to amend such CSAs to SORA by 31 December 2021, to align with the SOR to SORA PAI/discounting rate switch at LCH in August 2021. This will reduce basis mismatches across both cleared and uncleared SOR derivatives.

4 Corporate Loans

Overview

4.1 **The corporate loan market is diverse with various types of borrowers and product structures**. With regard to the transition of legacy SOR corporate loans, these may be viewed as comprising three broad categories, each requiring a unique approach for its management:

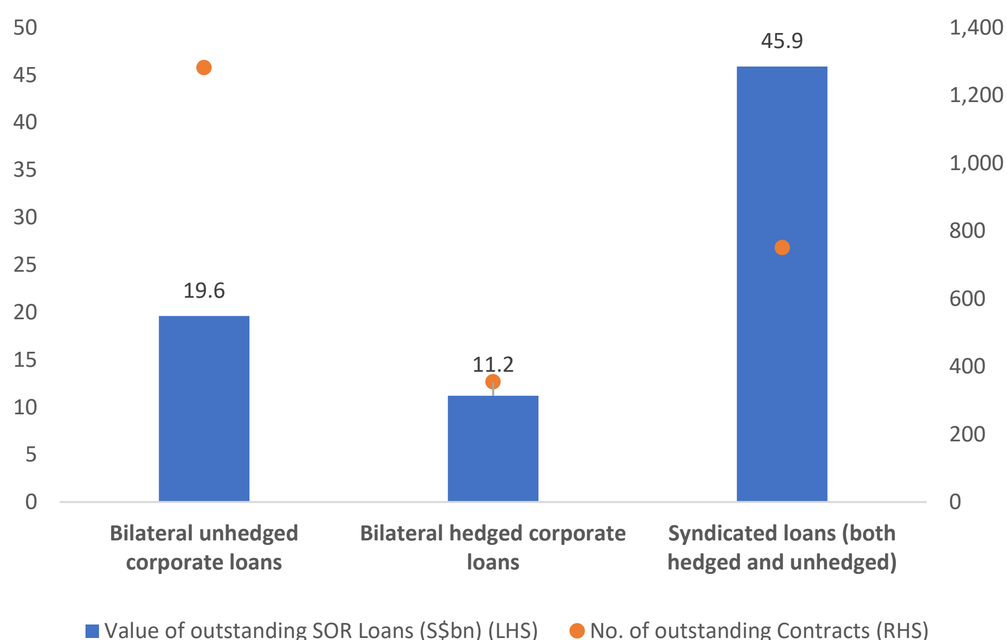
(a) Bilateral unhedged corporate loans

(b) Bilateral hedged corporate loans

(c) Syndicated (both hedged and unhedged) corporate loans

4.2 **SOR is widely used in corporate loans, given the availability of a derivatives market to risk manage and hedge interest rate risks in such loans.** As of 31 March 2021, banks in Singapore held about S$76.7 billion of legacy SOR corporate loans that mature after SOR discontinuation on 30 June 2023, of which about 60% by nominal exposure are syndicated loans (see Figure 4). These comprised a total of over 2,400 contracts, and amounted to over 12% of total loans and advances across banks in Singapore.

Figure 4: Breakdown of Legacy SOR Corporate Loans Maturing after 30 June 2023



4.3 **Given that the D-SIBs own the majority of corporate loans, the SC-STS and MAS will be closely tracking the D-SIBs' wind-down of legacy SOR loans exposures**, so as to ensure a smooth transition for banks and customers involved.

Review and Recommendations on Transition of Corporate Loans

> **Recommendation 7:** Banks should familiarise their customers with options that are available to them to convert legacy SOR loans, including the key considerations and risks associated with each approach.

4.4 **Active transition of SOR corporate loans/derivatives exposures.** The SC-STS strongly encourages banks to take active steps to work with their corporate customers to substantially reduce legacy SOR exposures in 2H 2021. Achieving an early transition is the best way for banks and customers to avoid potential disruption to their contracts, and consequent impact to their respective balance sheets.

4.5 **Banks should take into account customers' interests when engaging them on a suitable transition approach.** To facilitate bilateral negotiation between banks and customers, the SC-STS recommends that the banks should inform and educate customers on various transition options available to them, taking into account key considerations such as the maturity profile of the loan (see below), the type of loan, the level of customer sophistication, as well as highlighting the risks of adopting a 'wait-and-see' approach (e.g. less transparent and possibly higher rates).

> **Recommendation 8:** Banks and their customers should consider the maturity profile of their loans and assess the options for conversion, taking into account factors such as ongoing hedging requirements and risks of undertaking another benchmark transition when Fallback Rate (SOR) is discontinued immediately after 31 December 2024.

Bucket 1: Loans that mature before SOR discontinuation

4.6 **Loans maturing on or before the SOR discontinuation date of 30 June 2023 may be allowed to mature, provided that there are no further hedging requirements from banks and their customers.** As such loans will not be impacted by SOR discontinuation, there is no need for banks and customers to take action to convert these loans. This will minimize operational burden for banks and customers.

4.7 **For outstanding SOR loans hedged by a derivative, or where the customer wishes to undertake or adjust hedges, banks should advise these customers to consider converting such loans to SORA.** This is because SOR derivatives are likely to encounter valuation difficulties as trading volumes in SOR derivatives decline from 2022 onwards.

4.8 **If customers want to pro-actively convert their loan contract from SOR to SORA, banks should facilitate this based on the usual commercial terms.** Replacement financing, if any, after the outstanding SOR loan matures, should be pegged against an alternative rate, such as SORA, in alignment with the milestones set by the SC-STS.

Bucket 2: Loans that mature after SOR discontinuation, but before Fallback Rate (SOR) ceases

4.9 For outstanding SOR loans that mature after 30 June 2023, but on or before 31 December 2024, active transition to SORA by 31 December 2021 is strongly encouraged for the following three reasons:

(a) First, SORA is a transparent market-determined benchmark, and borrowers can be confident that they are borrowing based on a robust reference rate that reliably reflects interest rate conditions in the SGD market.

(b) Second, the SC-STS expects that it will become more difficult to price SOR-to-SORA loan conversions after the next 6 to 12 months. Liquidity in the SOR-SORA basis swap market, which provide relevant market reference points for transition pricing, will likely decline as more market participants use SORA, instead of SOR, for their financial transactions. With the expected decline in SOR-SORA basis swap liquidity, banks may have to use alternative approaches, rather than market-determined prices, to calculate the adjustment spread.

(c) Third, if borrowers use derivatives to manage their interest rate risk, they will be able to continue doing so by hedging using SORA swaps. There will be no liquid market to hedge using Fallback Rate (SOR) swaps, as it is an interim rate.

4.10 **Fallback Rate (SOR)**: Banks should be aware of the risks and systems requirements of relying on Fallback Rate (SOR) for loans, including the need to ensure that their loan systems can calculate interest accruals based on Fallback Rate (SOR). These include:

(a) **Loan systems need to apply logic to retrieve the correct Fallback Rate (SOR) observation for a given interest rate determination date.** Fallback Rate (SOR) for a given period is published with reference to the Original SOR Rate Record Day. Loan systems should be tested to ensure they can retrieve the correct Fallback Rate (SOR) for a given interest determination date.[11]

(b) **Interest accrual may be difficult to calculate.** Because Fallback Rate (SOR) is calculated by applying the USDSGD spot rate and USDSGD forward points as set out in the SOR methodology to Fallback Rate (SOFR), interest accrual for each loan should be calculated with reference to the start date of each loan's interest period. Loan systems should be tested to ensure they can perform this calculation.

4.11 **The SC-STS further recommends that banks should engage customers on the risks and features of relying on Fallback Rate (SOR).** Banks should clearly explain the risks of relying on Fallback Rate (SOR), as set out in Paragraph 4.9, and why converting to a loan that references SORA is the preferred option. These include:

(a) **Fallback Rate (SOR) loans may not be rolled over.** Customers should be aware they cannot roll-over loans referencing Fallback Rate (SOR) if the roll-over loan matures after

[11] Fallback Rate (SOR) is published by ABS Co., and distributed by data providers, such as Refinitiv and Bloomberg. The Original SOR Rate Record Day is defined as 1 interest period before the Fallback Rate (SOR) publication date. For example, 1-month Fallback Rate (SOR), for Original SOR Rate Record Day 28 January 2020 with the Period End Date 28 February 2020, is published on 26 February 2020.

end-2024, as Fallback Rate (SOR) will be discontinued immediately after 31 December 2024[12].

(b) **Hedging Fallback Rate (SOR) may be inefficient and costly.** Customers should be aware that risk management of Fallback Rate (SOR) exposures will be difficult as there would not be an active market for such products. Central clearing houses, such as LCH, would also not be able to clear Fallback Rate (SOR) swaps.

(c) **Customers relying on Fallback Rate (SOR) will still require associated systems and process changes.** Unlike SOR, which is fixed at the beginning of the interest period (i.e. "in-advance"), Fallback Rate (SOR)[13] is fixed at the end of the interest period (i.e. "in-arrears"). Relying on Fallback Rate (SOR) will therefore still require testing that finance systems and processes can handle such interest payments.[14]

4.12 **Incorporate Fallback Rate (SOR) as contractual fallback, only if unable to transition to SORA by 31 December 2022.** If agreement cannot be reached between banks and their customers on transition to SORA, these loans should incorporate Fallback Rate (SOR) as a contractual fallback, to avoid the risk of disruptions to their contracts. Incorporating such a contractual fallback means the loan will automatically switch to Fallback Rate (SOR) after SOR discontinues on 30 June 2023.

4.13 **Banks and their customers should not convert loans to Fallback Rate (SOR) while SOR is still being published.** Instead, SOR loans should incorporate the SC-STS recommended fallback provisions as published in the SORA Market Compendium[15]. This allows the loan to continue to reference SOR while it is still published. When SOR stops being published on 30 June 2023, the fallback provisions will trigger a switch in the loan reference rate from SOR to Fallback Rate (SOR). This approach makes clear that Fallback Rate (SOR) functions only as a contractual fallback, and is not intended to be a replacement benchmark for SOR.

Bucket 3: Loans that mature after Fallback Rate SOR ceases

4.14 **For outstanding SOR loans that mature after 31 December 2024, banks and customers are strongly encouraged to actively convert these loans to SORA by 31 December 2021.** Customers accepting Fallback Rate (SOR) as the contractual fallback for SOR should be aware that Fallback Rate (SOR) will be discontinued after 31 December 2024. Banks should highlight to customers that for loans that mature after end 2024, and which rely on Fallback Rate (SOR), customers will have to undergo a second benchmark transition after 31 December 2024 – to a

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[12] See SC-STS Publication on Timelines to Cease Issuance of SOR and SIBOR-linked Financial Products (31 March 2021) https://www.abs.org.sg/docs/library/timelines-to-cease-issuance-of-sor-derivatives-and-sibor-linked-financial-products.pdf

[13] This is because Fallback Rate (SOR) will use the fallback for USD LIBOR contracts (i.e. Fallback Rate (SOFR)) in its computation, in place of USD LIBOR. Fallback Rate (SOFR) is calculated by compounding SOFR in arrears and adding the relevant spread adjustment.

[14] A full discussion of the fixing mechanics of Fallback Rate (SOR) is beyond the scope of this document, but may be found in ABS Benchmarks Administration Co Pte Ltd (ABS Co.)'s Publication on Calculation Methodology for Fallback Rate (SOR) (7 August 2020) https://abs.org.sg/docs/library/fallback-sor-calculation-methodology.pdf

[15] See the SORA Market Compendium dated 27 October 2020 https://www.abs.org.sg/docs/library/sora-market-compendium-on-the-transition-from-sor-to-sora.pdf?sfvrsn=2.

rate that is not yet determined. To avoid this uncertain situation, borrowers with loans maturing after 31 December 2024 are strongly encouraged to transition to SORA as soon as possible.

4.15 **Banks and customers who plan to rely on Fallback Rate (SOR) beyond 31 December 2024 should be aware of the risks and issues arising from this approach.**

(a) **Commercial uncertainty.** Fallback Rate (SOR) discontinues immediately after 31 December 2024. Based on the SOR fallback provisions recommended by the SC-STS, the replacement rate for Fallback Rate (SOR) is "a rate recommended by the MAS, or a committee officially endorsed or convened by the MAS". Banks and customers should be aware that there is no assurance that such a rate will be similar to either Fallback Rate (SOR) or SORA. Therefore, loans that rely on Fallback Rate (SOR) beyond 31 December 2024 will face an uncertain commercial outlook.

(b) **Potential Legal costs.** Banks and customers could incur additional legal costs from amending loan and related security/operational agreements to use a different benchmark when Fallback Rate (SOR) discontinues.

(c) **Operational costs.** Banks and customers will incur additional operational costs from testing loan systems to use a different benchmark after Fallback Rate (SOR) discontinues.

Recommendation 9: Banks and their customers should use the SOR-SORA basis swap mid-rate as the starting basis for discussing the adjustment spread for converting loans from SOR to SORA.

4.16 __Scope__*:* This recommendation is relevant to outstanding bilateral or syndicated SOR loans that are being repapered or restructured[16] to SORA before SOR discontinues.

(a) It is not intended to cover outstanding bilateral or syndicated SOR loans that are being refinanced[17] to SORA, or newly issued SORA-referencing bilateral or syndicated loans. When a customer refinances an outstanding loan, or takes up a new loan, the customer can compare rates quoted by different banks, and hence the rate should be set by market competition. In contrast, in a contract repapering or restructuring situation, the customer may not be able to benefit from market pricing due to lock-in clauses – hence this should be covered by this recommendation.

(b) This recommendation focuses on loans with remaining tenors of five years or less, at the point of conversion, where the SOR-SORA market liquidity is currently conducive to facilitate such conversions. Indicative SOR-SORA basis swap prices are available in the tenors longer than five years, and as liquidity grows in the longer tenors, these rates may also be used subject to further discussions between lenders and borrowers that the rate is reasonable.

(c) This recommendation applies only insofar as the SOR-SORA basis swap market remains liquid and hence can provide representative pricing references. While the SC-STS expects that market liquidity should remain conducive in the next 6 to 12 months, liquidity in the

[16] Restructuring of a loan could entail material changes to the commercial terms of the original loan, while repapering typically does not alter the original commercial terms.

[17] Unlike a restructuring scenario, refinancing involves undertaking a new loan on different commercial terms, to pay off an existing loan.

SOR-SORA basis swap market will likely decline thereafter as more market participants migrate to SORA. Banks and customers should therefore be aware that taking a "wait and see" approach would run the risk of converting their loans later at a less transparent, and potentially higher price.

4.17 **The SOR-SORA basis swap mid-rate curve provides commercially reasonable reference points to start discussions on converting legacy SOR loans to SORA**. As stated in paragraph 2.5, the SC-STS recognises that the transition of legacy SOR positions differs from typical commercial transactions. Hence the mid-rate is a fair starting basis for discussions on converting SOR loans to SORA, given that it is in the interest of both parties to complete the transition. To facilitate negotiations, the SC-STS has also set out an explanatory note in **Annex A** on the operational considerations in respect of calibrating the adjustment spread for converting legacy SOR loans based on the SOR-SORA basis swaps mid-rate curve.

Recommendation 10: Borrowers with hedged loans should convert both loan and swap to the same interest rate on the same date in order to preserve hedge effectiveness.

4.18 **To minimise impact on hedge effectiveness, the SC-STS recommends that banks and their customers should convert both loan and swap to the same interest rate benchmark on the same date**. To facilitate this, SOR-SORA basis swap rates could similarly be used to convert the loan and swap to SORA using the same adjustment spread, so as to preserve hedge effectiveness.

4.19 **To facilitate further discussions between banks and customers, the SC-STS outlines below two possible scenarios for amending loans that are hedged with interest rate swaps, that may assist in preserving hedge effectiveness.** These two scenarios are not exhaustive, and banks and customers should consider other approaches that may work for their specific context.

(a) **Amend both SOR loan and interest rate swap from SOR to SORA plus adjustment spread on the same date.**

- Bank and customer agree to amend both the interest rate benchmark on the loan and the interest rate on the floating leg of the interest rate swap from SOR to SORA, plus an adjustment spread, on the same date.
- In this scenario, the customer's net fixed rate should not materially change. Mark to market of the swap (as of date of transition) will be settled over the swap's remaining tenor.
- This approach is preferable, particularly as it allows banks and customers the most flexibility in risk management via adjustment of derivative hedges after converting out of SOR.

(b) **Switch both SOR loan and interest rate swap to referencing Fallback Rate (SOR) on the same date, after SOR discontinues on 30 Jun 2023.**

- Bank and customer could agree to amend both the interest rate on the loan and the interest rate on the floating leg of the interest rate swap from SOR to Fallback Rate (SOR), at the next interest determination date after 30 June 2023, when SOR discontinues.

- In this scenario, the customer's net fixed rate should not materially change. Mark to market of the swap (as of date of transition) will be settled over the swap's remaining tenor.
- The SC-STS does not recommend this approach for loans maturing after 31 December 2024, as a second transition would be needed when Fallback Rate (SOR) discontinues immediately after 31 December 2024.
- Banks considering to use this approach for loans maturing on or before 31 December 2024, should be aware that retaining Fallback Rate (SOR) swaps could pose challenges for risk management. In addition to the risks and system requirements mentioned above (see paragraph 4.10, 4.11 and 4.15)
    - As a customer's Fallback Rate (SOR) swaps mature, the bank may hold a residual net Fallback Rate (SOR) position that cannot be hedged due to the lack of liquidity in in Fallback Rate (SOR) swaps – which may create P&L volatility.
    - As highlighted in paragraph 3.7, LCH may convert or replace centrally-cleared SOR derivative contracts at or before the expected discontinuation of SOR. This conversion could have implications for banks' plans to risk manage Fallback Rate (SOR) positions.

4.20 **As SOR to SORA loan conversions may give rise to hedge accounting implications, the SC-STS has set out in Annex B a set of FAQs on accounting matters in relation to hedged loans.** Broadly, contract amendments that are solely for the purpose of transitioning from SOR to SORA (i.e. excludes other changes to the contract such as relating to maturity and credit margin) would meet the "direct consequence of IBOR reform" accounting requirement. The adjustment spread being derived from the SOR–SORA basis swap rate also reflects the recommended industry transition approach and meets the "economic equivalence" requirement.

4.21 **Nonetheless, the SC-STS recognises that for hedged loans, banks should have discretion to negotiate appropriate commercial outcomes for lender and borrower. As SOR loans hedged with derivatives are a significantly more complex product than an unhedged SOR loan, banks and customers may also negotiate appropriate commercial outcomes on a case-by-case basis.** This is particularly important for hedged loans where the loan and the swap are held by two or more different banks, partially hedged loans and portfolio hedges. Further, as hedge accounting is determined by customer's accounting policy and auditor's judgement, customers may also wish to seek independent professional advice on accounting issues, such as the hedge ineffectiveness that could arise from benchmark transition. Recommendations provided by the SC-STS, including via any publications on the ABS website, including this document, are not meant to replace independent professional advice for specific transactions.

Recommendation 11: For syndicated loans, Agent Banks should lead the coordination among lenders, borrowers and all other parties to the syndicated loan in order to facilitate a smooth loan conversion to SORA.

4.22 **For syndicated loans, given the multiple parties involved, the SC-STS recommends that Agent Banks should play a coordinating role in informing lenders and borrowers of the need to**

convert such loans to SORA by the timelines laid out by the SC-STS. Given that syndicated loans form the bulk of legacy SOR corporate loans that mature after SOR discontinuation (see paragraph 4.20), Agent Banks play in crucial role in facilitating a smooth transition. In this regard, the SC-STS recommends that Agent Banks should:

(a) **Inform syndicate lenders and borrowers of SOR discontinuation and the need to convert their loans to SORA.** Agent Banks should make use of the Customer Engagement Letter template, to be released by the SC-STS, to perform this task.

(b) **Set out loan conversion options and timelines, as recommended by the SC-STS,** including the information on costs, benefits and risks of different conversion options, as presented in this document.

(c) **Facilitate discussions between lenders, borrowers and other parties, such as external advisors or legal counsel.**

4.23 **For the purposes of facilitating discussion between lenders and borrowers, the SC-STS has set out the following key points that would have to be agreed in order to convert a syndicated loan from SOR to SORA.**

(a) **Adjustment spread.** Lenders and borrowers will have to agree on the methodology and operational details of setting the adjustment spread. To this end, the SC-STS recommends that lenders and borrowers should adopt Recommendation 9 on using the SOR-SORA basis swap mid-rate as the starting point for discussions.

(b) **Conversion timing.** Lenders and borrowers will have to agree on the effective date of the contract amendment. For operational simplicity, the loan conversion could occur on each interest rate repricing date, so as to avoid having partial-period interest rate calculations.

(c) **Other consequential amendments.** In addition to amending the benchmark, lenders and borrowers will have to agree to other consequential amendments to loan documentation, such as benchmark fallback language, or the lookback mechanism. The SC-STS encourages lenders and borrowers to refer to the conventions published in the SORA Market Compendium[18] on the transition from SOR to SORA.

For avoidance of doubt, while Agent Banks should perform a coordinating role in facilitating loan conversion, lenders and borrowers should continue to make commercial decisions relating to the loan facility, in accordance with the loan documentation.

4.24 **Active conversion of the syndicated loan to SORA should be the first choice for parties to the syndicated loans.** However, should relevant parties fail to reach agreement on the points above in good time, lenders and borrowers should incorporate contractual fallbacks to Fallback Rate (SOR) by 31 December 2022, to prevent contract disruption after SOR discontinues.

(d) Lenders and borrowers that want to rely on contractual fallbacks to Fallback Rate (SOR) should be aware that Fallback Rate (SOR) discontinues immediately after 31 December 2024. Banks should also be aware of the issues associated with risk management of

[18] See the SORA Market Compendium dated 27 October 2020 https://www.abs.org.sg/docs/library/sora-market-compendium-on-the-transition-from-sor-to-sora.pdf?sfvrsn=2.

Fallback Rate (SOR) swaps detailed in paragraph 4.19b above, if the syndicated loan is hedged.

(e) For loans maturing after 31 December 2024 (i.e. after Fallback Rate (SOR) discontinues), the SC-STS strongly encourages lenders and borrowers to come to an agreement to convert the syndicated loan to SORA. Lenders and borrowers should weigh the costs involved in coming to an agreement for conversion to SORA, against the costs and risks associated having to convert to an unknown rate at uncertain terms when Fallback Rate (SOR) discontinues immediately after 31 December 2024.

Recommendation 12: For Small and Medium-size Enterprises (SMEs) that require advanced payment certainty, banks should provide an option to convert to referencing compounded-in-advance SORA in order to meet customer needs.

4.25 **SMEs may have different financial needs from larger corporates.** In 2020, the SC-STS surveyed corporate customers of various sizes to identify these needs. Further details of the survey results can be found in the Overview on the Usage of SORA in Loans.[19] The survey results found that SMEs may have a stronger preference for an interest rate that is set in advance, over an interest rate that can be efficiently hedged. Banks can refer to the Overview on the Usage of SORA in Loans for a decision tree showing customers key considerations on interest rate benchmark choice, as well as a list of suggested reference rates by Customer Segment. Banks may also take reference from the 1-Month, 3-Month and 6-Month Compounded SORA rates and SORA Index, published by MAS on its website[20], and assess if these published rates meet the needs of SME customers.

4.26 **This recommendation should be applied to any business entity fitting a bank's internal definition of SME.** The SC-STS recognizes that each bank has its own definition for customers that fall within the category of SMEs. Banks should also provide flexibility for corporate customers to request for its SOR loan conversion to be handled as though it is an SME, particularly where the customer may be treated as an SME by other banks. This will avoid SMEs potentially having to deal with different treatment across its various loan exposures.

4.27 **Banks should provide such SMEs an option to convert legacy SOR loans to referencing compounded-in-advanced SORA.** Where SME customers require advanced payment certainty banks should provide an option to convert such customers to compounded-in-advance SORA, or an internally administered rate. For such SMEs, banks may also consider adopting a transition approach that is similar to what is outlined in Section 6 on Retail Loans.

4.28 **Banks should not transition SME customers to SIBOR.** The SC-STS strongly discourages banks from transitioning SME borrowers from SOR to SIBOR. Although SIBOR is a rate familiar to many SME borrowers, it is not a suitable replacement for SOR because SIBOR will be discontinued immediately after 31 December 2024. This means that SMEs with loans maturing beyond 31 December 2024 that convert their loans from SOR to SIBOR will incur further operational and legal

[19] See the SC-STS Publication "Overview on the Usage of SORA in Loans: Customer Segments and Preferences" (27 October 2020) https://www.abs.org.sg/docs/library/overview-of-usage-of-sora-in-loans-customer-segments-and-preferences.pdf?sfvrsn=2

[20] https://eservices.mas.gov.sg/statistics/dir/DomesticInterestRates.aspx

costs later to amend their loan contracts from SIBOR to another benchmark when SIBOR is discontinued.

5 Bonds

Overview

5.1 **Bond market's exposure to SOR is relatively limited. As at 30 April 2021, there were about 86[21] SOR-referencing floating rate notes and resettable fixed rate securities (collectively, "Securities") outstanding.** These Securities comprise the following:

	Type 1	Type 2	Sub-Total
Floating Rate Notes maturing on or before 30 June 2023	1	2	3
Floating Rate Notes maturing **after** 30 June 2023	**2**	1	3
Resettable Fixed Rate Securities with reset date on or before 30 June 2023	28	0	28
Resettable Fixed Rate Securities with reset date **after** 30 June 2023	**25**	27	52
		TOTAL:	**86**

5.2 **"Type 1" refers to securities where the fallback provisions do not provide for the permanent cessation of SOR in the terms and conditions of the securities.** This format was typically used for securities issued in or prior to 2019. Although some of these securities may contain a final fallback provision where, absent any other intervention, the interest rate used for the last preceding interest period would be used for the determination of interest rate for that interest period, such a provision was designed to address a temporary unavailability of SOR. Regardless, for Type 1 securities, there is significant uncertainty as to how permanent cessation of SOR could be addressed. Further details can be found in Chapter 3 of the SORA Market Compendium[22] under the heading "3.1 Legacy Bonds".

5.3 **As Type 1 securities do not have any mechanism to transit from one benchmark into another benchmark,** it will be necessary to amend the terms and conditions of the Securities by way of a consent solicitation process. More details of a consent solicitation process are set out in paragraphs below.

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[21] The information relating to the number of Securities have been manually compiled from publicly available sources such as Bloomberg and SGXNET on a best effort basis. Such numbers may not be complete or accurate as information submission to Bloomberg is voluntary; and announcements via SGXNET are made for securities listed at SGX only. The information may not capture, including but not be limited to, unlisted Securities, Securities listed at venues other than SGX or Securities with no information submitted to Bloomberg.

[22] See the SORA Market Compendium dated 27 October 2020 https://www.abs.org.sg/docs/library/sora-market-compendium-on-the-transition-from-sor-to-sora.pdf?sfvrsn=2.

5.4 **"Type 2" refers to securities which include benchmark fallback provisions that address the cessation of SOR.** The provisions provide for the appointment of an independent advisor, determination of events which will amount to cessation of SOR, determination of a replacement benchmark, determination of adjustment spread, determination of changes to the terms and conditions of securities and other details of benchmark discontinuation. Further details can be found in Chapter 3 of the SORA Market Compendium under the heading "3.2 Transition Period"; the recommended form of Type 2 language is set out in the same section.

5.5 **As Type 2 securities have incorporated the necessary fallback provisions,** issuers can follow the mechanism already set out in these Type 2 fallback provisions and need not carry out any consent solicitation process.

5.6 **Based on the summary table above, there are two floating rate notes and 25 resettable fixed rate securities of Type 1 that will mature after June 2023**. This report will focus on these Securities.

Review and Recommendation on Transition of Floating Rate Notes

5.7 **For smooth transition, the SC-STS strongly encourages banks to reach out to issuers to implement contractual amendments to SORA or an alternative reference rate.**

Recommendation 13: Issuers of FRNs that mature after 30 June 2023 should take action well before 31 December 2021 to prepare for SOR discontinuation, including where necessary to implement a consent solicitation process. As this process could take several months, issuers are recommended to commence action as soon as practicable.

5.8 **SOR will not be available for determination of coupon payments for FRNs that mature after 30 June 2023.** The SC-STS has informed the relevant issuers of the FRNs that mature after 30 June 2023 to take action where necessary to prepare for SOR discontinuation, including to implement a consent solicitation process (see below).

Review and Recommendation on Transition of Resettable Fixed Rate Securities

Recommendation 14: Issuers of resettable fixed rate securities that have a reset after 31 December 2021 relying on SOR IRS rates should consider their options carefully, including to consider undertaking a consent solicitation process well before 31 December 2021. As this process could take several months, issuers are recommended to commence action as soon as practicable.

5.9 **Resettable fixed rate notes typically provide options to the issuer on a reset date or call date, to (i) reset the relevant interest rate or (ii) call back the securities respectively.**

(a) With very few exceptions, the reset date and call date are the same date. The discussion below focuses on Securities with the reset date and the call date falling on the same date.

(b) On the reset date or call date, the issuer has one (not both) of the following options:

- the issuer may opt to reset the interest rate. This would usually be based on a SOR IRS rate (e.g. 5-year SOR IRS).
- the issuer may opt to redeem the Securities. In this case, the issuer will repay the holders the principal amount of the Securities and the Securities will be cancelled. Please note that an issuer is typically required to provide a written notice to the holders of the securities before such option may be exercised. The length of such notice period will be stated in the relevant terms and conditions; it typically ranges from 30 to 60 days.

5.10 **A key consideration in this regard is that the SOR IRS market will likely become less liquid after 31 December 2021, as derivatives market participants transition the bulk of their exposures to SORA.** Hence, there is increased risks that SOR IRS rates may no longer be underpinned by an active market after 31 December 2021, putting into question whether SOR IRS rates will continue to be representative of prevailing market conditions. This means that it may not be feasible for issuers of SOR-based resettable fixed rate securities to reset their interest rates, leaving them with only the option to redeem the securities.

5.11 **If an issuer wishes to preserve the optionality to reset the interest rate at the next reset date, the issuer may wish to consider amending the contractual terms of the securities to (A) incorporate fallback provisions (such as Type 2 fallback provision with (i) SOR discontinuation or (ii) SOR IRS market becoming less liquid[23] as trigger), or (B) amend the contractual terms of the securities to reset on a SORA OIS rate.** This should be undertaken before 31 December 2021, after which the SOR IRS market is expected to become less liquid.

5.12 **To amend the terms and conditions of Type 1 securities, the issuer will need to seek consent from the securities holders through a consent solicitation exercise**. Broadly, the exercise comprises the following steps:

(a) **Plan**: The issuer will work with its advisors to determine the structure of the exercise. Examples:

- **How consent can be given by holders of securities**. This is determined by the terms and conditions of the Securities. Typically, consent from holders holding at least 75% of the outstanding Securities who are voting will be required.
- **How to constitute a meeting to secure valid consent**. This is determined by the quorum requirement set out in the terms and conditions of the Securities. Typically, this requires holders holding at least 75% of the outstanding Securities.
- This step may normally take anytime between two to four weeks. A longer time period should be factored into planning stage if an issuer requires more time to do so.

(b) **Serve notice of the meeting**: Notice be given to the holders of securities. The notice requirement is set out in the terms and conditions of the Securities. Depending on the terms and conditions of the Securities, this step may vary between two weeks to three weeks or more.

(c) **Hold meeting**: Meeting to be held on the date and at a venue specified in the notice.

[23] For instance, when the bid-ask spreads of SOR IRS widen or where SOR IRS quotes are no longer available.

(d) **Outcome**:

- If the consent from holders is obtained, issuer may proceed to amend the terms and conditions of the securities.
- If the consent is not obtained, the issuer will have to discuss with its advisors on the next steps.
- If the quorum of the meeting is not achieved, the issuer may consider adjourning the meeting. In the case of lack of quorum, the issuer will typically need to serve another notice for organising an adjourned meeting. The details of holding an adjourned meeting are set out in the terms and conditions of the Securities. Typically, a period of two weeks is the minimum notice period.

5.13 **Legal considerations: It is important that the issuers seek advice from their professional advisors.** Other than terms and conditions of the Securities, the governing law of securities will have a direct impact on whether and, if so, how a consent solicitation exercise can be achieved. The above steps are intended to serve as an overview of the key components of a consent solicitation exercise. Issuers should work with their professional advisors to ascertain the specific procedures for their securities, taking into account the terms and conditions of those securities and the relevant governing law that they were issued under.

5.14 **Act early.** Issuers are encouraged to initiate contractual amendments in accordance with Recommendation 13 and Recommendation 14 above respectively, as the above processes may require several months to complete.

6 Retail Loans

Overview

6.1 **The SOR retail loan segment is smaller in nominal amount relative to the other product segments, but is sizeable in terms of the number of customers.** As at end March 2021, there were about S$4.2 billion of retail SOR loans outstanding, comprising about 7,200 loans. These loans are held by a relatively small number of banks.

6.2 **Despite the small nominal exposures, a large majority of these loans must be actively converted to reference SORA, ahead of SOR discontinuation.** Though the practice of using SOR in retail loans has become less common in recent years, a large majority (>90%) of these loans have maturity dates beyond 30 June 2023 as these are typically long-term mortgage loans with tenors exceeding 10 years.

6.3 **Applicability of market-based approaches to adjustment spread pricing in retail loans:** While the SOR-SORA basis swap market serves as a fair starting point for bilateral discussions in the wholesale markets, it may be less suitable for the transition of retail loan market for the following reasons:

(a) **Derivatives trading of SOR-SORA basis swaps are based on a SORA compounded-in-arrears convention[24], whereas retail loans are expected to transition to a SORA compounded-in-advance convention.[25]** Customer surveys have shown that most retail customers require advance notice of interest payments due. Hence, the SOR-SORA basis swap may not be directly applicable for use in loans which reference SORA compounded-in-advance rate.

(b) **The concept of a SOR-SORA basis swap curve is technically complex and is challenging to communicate to retail customers.** In addition, given the relatively large number of retail contracts but small nominal exposures, the SC-STS acknowledges that a more streamlined approach may be needed instead of bilateral negotiation for retail loans.

6.4 **The SC-STS therefore considered that the retail segment would benefit from the use of a simple and more efficient transition approach.** The SC-STS recommends that banks apply an adjustment spread that is computed based on the average difference between SOR and SORA compounded-in-advance over the past three-month period.[26]

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[24] **Compounded-in-arrears** means determining interest payments based on compounding interest using the daily SORA rates during the interest period *leading up* to the interest payment date. There is no certainty of interest payable at the start of the interest period.

[25] **Compounded-in-advance** means determining interest payments using the compounded average of daily SORA rates from a *prior* period. As such, borrowers will know the interest payment due in advance of payment. This is similar to the advance notice that borrowers are familiar with in SOR and SIBOR loans.

[26] The approach for SIBOR transition would be reviewed separately by the SC-STS, before SIBOR discontinues immediately after 31 December 2024.

Review and Recommendations on Transition of Retail Loans

6.5 **The SC-STS recommendations for determining an appropriate transition approach for retail customers are set out in the paragraphs below.**

Recommendation 15: Banks should inform and provide options to retail customers to voluntarily convert their legacy SOR loans as soon as possible and no later than 31 October 2022. Banks should explain clearly to customers the actions that will be taken to convert SOR loans to SORA if voluntary conversion is not undertaken, so as to ensure that loans are not disrupted by eventual SOR discontinuation after 30 June 2023.

6.6 **Banks should adopt a customer-centric engagement approach in assisting customers to convert out of their legacy SOR loans.** To this end, banks should:

(a) Offer customers appropriate replacement packages and clearly communicate to customers the key features and terms and conditions of the replacement package;

(b) Provide sufficient time for customer decision-making; and

(c) Manage customer queries and issues raised in a timely manner

6.7 **To ensure that customers have sufficient time to make informed choices, SC-STS recommends a phased approach in supporting coordinated customer transition across the industry.**

(a) **Phase 1**: A period of active voluntary conversion commencing as soon as possible and ending no later than 31 October 2022.

- During this period, customers should be offered the option to voluntarily convert their legacy SOR loans to an appropriate replacement package (see further details in the next paragraph).
- SIBOR packages should not be offered to customers, given the recommended cessation of new use of SIBOR after 30 September 2021.
- Customer acceptance should follow existing refinancing procedures – customers will have to sign a Supplementary Letter of Offer (**"SLO"**) – subject to waivers on regulatory treatment as outlined in paragraphs 6.11 to 6.13. Subsequent refinancing will be at prevailing terms and conditions, procedures, fees and charges.

(b) **Phase 2**: A bank-facilitated conversion for residual legacy SOR loans to an appropriate SORA-based package by no later than 31 October 2022.

- This step is necessary to prepare the industry for the eventual SOR discontinuation on 30 June 2023.
- Banks should give customers at least six months of notice of the intended cutover date to provide time for customers to review their choices.

Recommendation 16: Banks should make available to customers with legacy SOR exposures a SORA Conversion Package at no additional fee or lock-in.

6.8 **To support retail transition in a simple and efficient manner, the SC-STS recommends that banks' SORA Conversion Package should be broadly structured as: 3-month SORA compounded-in-advanced[27] + customer's original credit spread + Adjustment Spread (Retail).**

(a) The SORA Conversion Package switches a customer's existing SOR loan to a comparable SORA loan by applying an Adjustment Spread (Retail). This spread reflects the difference between SOR and 3-month SORA compounded-in-advance, and will be computed based on the average difference between the two benchmarks over the last three months[28].

(b) To facilitate industry transition efforts, ABS Co. will publish on the SC-STS website an Adjustment Spread (Retail) value on the first business day of each month, to be applied to legacy SOR loans converting to a SORA Conversion Package. This will be done from 1 September 2021 onwards, to facilitate banks' offering of the SORA Conversion Package from this date onwards.

   a. For active voluntary conversion in Phase 1, the Adjustment Spread (Retail) value will be applied to all legacy SOR loans converting to a SORA Conversion Package in that month[29].

   b. For the bank-facilitated conversion in Phase 2, the Adjustment Spread (Retail) value published as at 1 September 2022 will be applied for legacy SOR loans converting to SORA in the month of October 2022 so as to give customers 30 days' notice of the replacement rate in their SORA Conversion Packages.

   c. Upon the application of the Adjustment Spread (Retail) in both Phase 1 and Phase 2, the adjustment spread will apply for the remaining loan tenor without further adjustment. Given that the future interest payments would be based on the sum of the Adjustment Spread (Retail) determined at the point of transition and compounded SORA which is a floating rate benchmark, banks should explain clearly to customers that future interest payments will fluctuate depending on the path of SORA compounded-in-advance.

(c) The SORA Conversion Package should be offered at no additional fee or lock-in.

(d) Other accompanying restructuring requests will be subject to the bank's prevailing fees and charges, as applicable.

Recommendation 17: Banks should allow customers to reprice to any prevailing package offered by the bank if customers wish to do so. SIBOR loans should not be offered, given industry direction to stop new use of SIBOR after 30 September 2021.

6.9 **To provide flexibility and choice, banks should also allow customers to reprice to any other loan packages that the bank may be offering to new customers ("Prevailing Packages").** As all outstanding retail SOR loans are already past their initial lock-in period (commonly two to three years), there is an opportunity for many customers to actively reprice their loans with banks

[27] As published on the MAS website.

[28] Computed on the first day of each month as the average of SOR readings over the last three months minus the average of SORA compounded-in-advance readings over the last three months.

[29] Determination of the month of contract agreement is subject to the respective bank's internal processes. It may be the date of application (start or completion of documents submission), date of acceptance, date of supplementary letter of offer (SLO) issuance, etc. Borrowers are advised to check with their bank.

to enjoy more attractive rates. This could include fixed rate or floating rate packages tied to board rates or SORA compounded-in-advance. SIBOR loans should not be offered given the industry direction to stop new use of SIBOR after September 2021. Given that such Prevailing Packages are adopted by customers on an elective basis (e.g. some customer may choose to reprice to Prevailing Packages to benefit from lower all-in rates), and is no different than other instances of repricing, banks may subject customers to prevailing fees and terms and conditions for refinancing, including a lock-in period.

Regulatory Treatment to Facilitate Transition

6.10 **Total Debt Servicing Ratio ("TDSR").** As the need to transition or reprice the loan arises from SOR discontinuation, which is beyond the control of the individual borrower and institutions, MAS will not consider a financial institution's offering of replacement loan packages to affected borrowers within the same financial institution (SORA Conversion Package or other prevailing packages) under this industry-wide exercise as a case of refinancing under the property loan rules[30]. As such, the property loan rules under MAS Notice 645 for banks (and its equivalent for other financial institutions) for refinancing of property loans, such as the computation of TDSR for refinancing of investment property loans, will not apply.

6.11 **Property Loan Factsheets.** Where existing SOR retail loans are repriced to the SORA Conversion Package, which has been reviewed by the SC-STS and widely-publicised, the Property Loan Factsheet treatment specified in MAS Notice 632A for banks (and its equivalent for other financial institutions) need not apply. Instead, financial institutions can provide a generic Property Loan Factsheet (using the format in MAS Notice 632A) or an abridged version to disclose key features of the loan (including applicable fees and charges) to borrowers. For good measure and to meet the same disclosure objective, if the borrower chooses to reprice to other loan packages that the bank may have on offer, the Property Loan Factsheet as specified in MAS Notice 632A will apply.

6.12 **Elective or subsequent repricing.** Should the borrower choose to refinance the facility with another financial institution, or subsequently refinance his or her loan package, the borrower will be subject to the prevailing refinancing rules, e.g. computation of TDSR if the loan in question is an investment property loan, and other rules as applicable.

[30] See the SORA Market Compendium dated 27 October 2020 https://www.abs.org.sg/docs/library/sora-market-compendium-on-the-transition-from-sor-to-sora.pdf?sfvrsn=2.

7 Conclusion

7.1 **There has been a sharp increase in the take-up of SORA financial products across derivatives and cash markets in recent months, and this reflects the positive progress made by the industry in developing new SORA markets.** The SC-STS expects this trend to further accelerate in the coming quarters, following the cessation of SOR usage in new cash market products after 30 April 2021, and ahead of the upcoming 30 September 2021 timeline to stop the use of SOR in new derivatives[31].

7.2 **This report has laid out a set of key recommendations covering a wide spectrum of financial products, to address common issues faced by market participants in the SOR to SORA transition.** SC-STS had produced this report with the objective of providing the necessary clarity and guidance for market participants to engage in meaningful discussions towards a smooth transition from SOR to SORA.

7.3 **In this context, the SC-STS strongly encourages market participants to take active steps to convert their legacy SOR exposures to SORA by 31 December 2021.** There are early signs that momentum is building in the industry for transition from SOR to SORA, notwithstanding that SOR will remain available until 30 June 2023. All market participants should take the necessary steps to convert their SOR derivatives, loans and other contracts to SORA by 31 December 2021 while the SOR-SORA basis swap market remains available as a pricing reference for transition. Market participants that adopt a 'wait-and-see' approach run the risk of eventually having to convert their contracts at a less transparent, and potentially higher price, if liquidity in the SOR-SORA basis swap market has tapered by then.

[31] Except where the new SOR derivatives are undertaken for the purpose of risk management or transition of legacy SOR exposures.

Annex A:
Factors to Consider in Calibrating the Adjustment Spread using the SOR-SORA Basis Swap Curve

Description

The SOR-SORA basis curve approach involves calculating the adjustment spread based on the forward-looking SOR-SORA basis swap market. A SOR-SORA basis swap exchanges a stream of SOR payments for a stream of SORA payments plus a spread, over a fixed period. That spread can be applied to a transition a SOR loan, whose remaining maturity matches the fixed period, to SORA. An adjustment spread calibrated in this manner reflects the expected economic difference between SOR and SORA for the remaining maturity of the loan, subject to sufficient liquidity in the SOR-SORA basis market. This Annex describes considerations for banks and customers in converting SOR loans to SORA, taking reference from the SOR-SORA basis swaps curve as a starting reference point for bilateral discussions.

Operational considerations in respect of the SOR – SORA basis curve approach

a. Timing
- Applying a spread from the basis swap market as an adjustment spread assumes the loan is converted from SOR to SORA at the pricing date.
- Banks may want to consider how to manage differences between pricing and contract amendment effective dates, and what an acceptable time difference could be – as larger time differences between pricing and effective dates would mean the basis screen is less accurate.
- Banks may also want to consider using an interest payment date as a convenient time to transition, as choosing to transition on an interest payment date may, depending on the specific loan terms, help minimize any break costs. It should also minimize administrative burden by removing the need to calculate and settle intra-period accrued interest.

b. Volatility
- An adjustment spread can be taken from a single point-in-time observation of the basis swap spread. However, this has the disadvantage of potentially being volatile.
- Banks may want to consider applying methods to smooth volatility, such as by taking an average of rates over a historical period (for example, 5 business days).

c. Fair dealing
- Banks may be dealing with borrowers with different levels of financial sophistication.
- In engaging their customers, banks must adopt the prevailing regulatory guidance on conduct and fair dealing in the context of benchmark transition, tailoring their approach to each customer's profile.

d. Transparency:
- SOR-SORA basis screen pages can be found on various market information providers, such as Bloomberg and Refinitiv.

- These include composite rates or specific quotation pages provided by brokers.
- Banks should agree with customers on a common pricing source to refer to, taking into account operational and commercial considerations.

e. Remaining maturity of outstanding SOR loan:
   - The outstanding SOR loan to be transitioned to SORA may have a remaining maturity that does not match a quoted SOR-SORA basis swap tenor – for example, 3.5 years.
   - Banks should consider the appropriate method to use to adjust the SOR-SORA basis swap-derived adjustment spread to match the loan's remaining maturity – for example, linear interpolation, or taking the spread from the next highest quoted tenor, etc.

f. Tenor setting(s) of existing SOR:
   - Where there are multiple choices of loan tenor settings, a borrower and lender should agree which SOR tenor setting(s) (e.g. 1, 3, 6 months) should be assumed.
   - Choice of tenor setting may be taken into consideration in arriving at the agreed adjustment spread. Basis screens are available for the relevant SOR tenors to provide an indication on possible adjustments to be made.
   - In general, if the existing SOR loan references a shorter benchmark tenor setting (e.g. 1 or 3 months), the adjustment spread would be slightly lower, but this should be counterbalanced by the perspective that SOR-SORA basis spreads are currently at historical lows. Lenders and borrowers may wish to take this into account in their discussions around the final adjustment spread.

Annex B:

FAQs for Corporates – Accounting Considerations for Active Transition to SORA

Updated in July 2021

SOR to SORA transition is complex, and accounting considerations can take time to analyse. Given the pace of structural changes arising from the Interest Rate Benchmark Reform (**"IBOR reform"**), the SC-STS has communicated its recommendation for an 'active transition' (i.e. to replace SOR-based contracts with SORA-based ones) by 31 December 2021, for contracts maturing after 30 June 2023.

In the main text of this report, the SC-STS has indicated that the recommended method to calculate the 'spread' (difference between SOR and SORA) on corporate loans[32] for active transition is the SOR-SORA basis swap rate. Borrowers are recommended to convert their legacy SOR loans to reference SORA, while the SOR-SORA basis swap market remains liquid.

The International Accounting Standards Board (IASB) also amended IFRS standards (notably SFRS(I) 9 "*Financial Instruments*")[33] for IBOR reform, including introducing practical reliefs to aid transition.

What is the purpose of this FAQs and who is it intended for?
This document is intended to help corporate borrowers holding SOR-based contracts to more quickly analyse the accounting considerations arising from an active transition to SORA.

This FAQ is based on illustrative examples for the following common questions:

- 'I do not hedge and only have a SOR-based borrowing. What happens if I replace it with a SORA-based borrowing?' → ***'FAQ Q1'.***
- 'I am a borrower and I hedge my variable SOR-based borrowing with a matched SOR-based swap. What are the accounting considerations for different transition options that I may consider?' → ***'FAQ Q2'***

This document does not address tax outcomes which are currently being worked through with the Inland Revenue Authority of Singapore (IRAS).

Disclaimers and limitations
This set of FAQs is issued for guidance only and does not constitute professional or accounting advice. It is based on simplified examples; actual circumstances and facts may vary and could require consultation with auditors and advisors. SC-STS (including its various subgroups and members) do not accept or assume any liability or responsibility arising from you or anyone else acting or refraining to act on this set of FAQ.

The issues relating to the FAQs have been discussed with the Institute of Singapore Chartered Accountants (**"ISCA"**) IBOR Working Group. ISCA will be issuing more detailed accounting guidance on the wider aspects of IBOR Reform which will also be relevant to SOR to SORA transition.

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[32] A different approach would apply to retail loans and this document does not address retail loans.

[33] In this document, all references to SFRS(I) 9 mean references to SFRS(I) 9 and FRS 109.

FAQs

FAQ Q1: Can a corporate borrower apply the practical expedient of SFRS(I) 9 to account for the change to its borrowing in the following example, and what would be the outcome?

The borrower has a S$100m SOR-based borrowing maturing in June 2025 that is converted to a S$100m SORA-based borrowing, with the following key terms:

- **SORA is "compounded in arrears"[34]**
- **An adjustment spread (X%) is derived from the SOR-SORA basis swap spread[35] for a tenor that matches the remaining maturity of the SOR-based borrowing (i.e. June 2025)**
- **There are no changes to other key terms (maturity, collateral, credit margin etc)**

Answer

Based on the application of SFRS(I) 9's practical relief for IBOR reform:

- The existing borrowing **remains on balance sheet** (i.e. the borrowing is not 'de-recognised'); and
- There is **no immediate gain or loss** arising from the contract amendment. Post transition, the borrowing will continue to be accounted for at amortised cost, with the interest expense being accrued at the new effective interest rate (i.e. SORA + X%).

Accounting considerations (simplified)

The above accounting applies only when the two conditions needed to qualify for the practical relief for IBOR reform in SFRS(I) 9 are met. These require contract changes to be a **'direct consequence'** of IBOR reform, and for the contract to be '**economically equivalent'** before and after the change. In this case:[36]

(a) Contract amendments are solely for the purpose of transitioning from SOR to SORA (no other changes to the contract) and is a "direct consequence of IBOR reform" since SORA has been identified by the SC-STS as the replacement benchmark for SOR.

(b) The new interest rate benchmark (SORA + X%), with the X% spread being derived from the SOR–SORA basis swap rate, reflects the recommended industry transition approach and meets the "economic equivalence" requirement.

[34] Compounding in arrears means the calculation of interest using the daily SORA rate available during the interest period leading up to the interest payment date." Refer to Q10 of the SC STS FAQ for details.

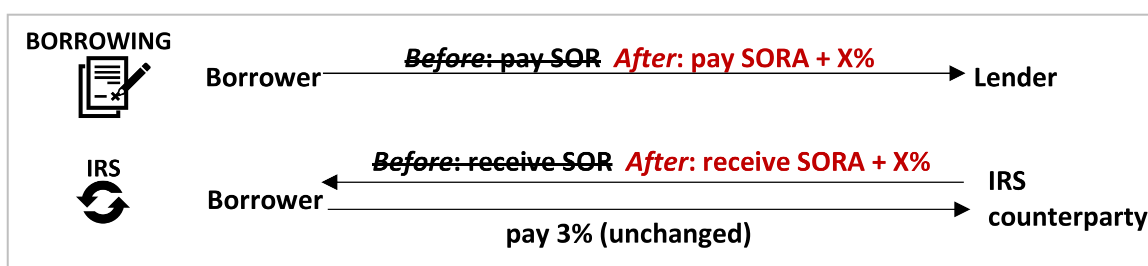
[35] The basis swap spread could be determined based on the observed rate at a specific date or based on an average market rate for a relevant period.

[36] SFRS(I) 9 paragraph 5.4.7.

Q2A: SC-STS has recommended that corporate borrowers with a hedged borrowing[37] converts the hedged borrowing together with its related Interest Rate Swap ("IRS") to SORA on the same date.

What is the hedge accounting treatment when a S$100m SOR-based borrowing (maturing June 2025) and a $100m SOR based-IRS (maturing June 2025) are both amended[38] to SORA on the same date, with the following key terms:

- **SORA is "compounded in arrears"**
- **An adjustment spread (X%) is derived from the SOR-SORA basis swap spread[39] for a tenor matching the remaining maturity of the SOR-based borrowing and SOR-based IRS (i.e. June 2025)**
- **There are no changes to other key terms (maturity, collateral, credit margin etc)**



Answer

If the cash flows of the SOR-based borrowing and SOR-based IRS are perfectly matched and both instruments transition to SORA on the same date with substantially the same adjustment spread, the amounts and timings of the cash flows will continue to be matched.

As such, the **cash flow hedge accounting** that was applied by the borrower will be **preserved following the transition to SORA**. There will also be **no or minimal impact on hedge effectiveness** arising from the transition.

Accounting considerations (simplified)

The reliefs in SFRS (I) 9 allows for the continued application of hedge accounting where (i) the contract amendments are a direct consequence of IBOR reform and (ii) the new interest rate benchmark is economically equivalent to the previous benchmark. Refer to the accounting considerations in Q1 for more information.

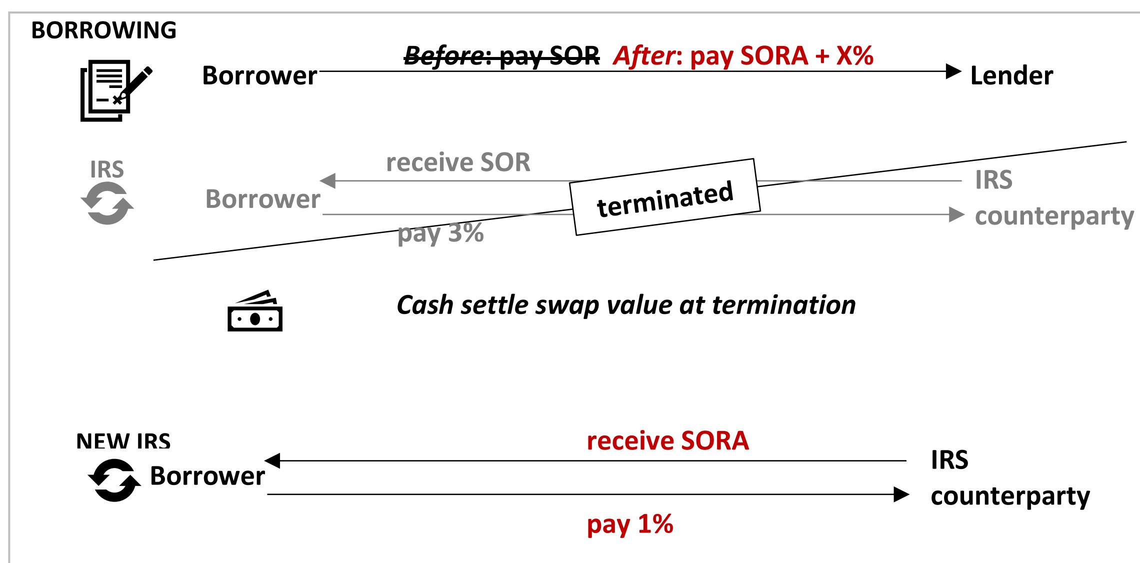
Q2B: What is the hedge accounting treatment if, at the point of the SOR-based borrowing's transition to SORA, the corporate borrower terminates the original SOR-based IRS, settles the

[37] This refers to the borrower having a SOR-based borrowing that is hedged with a receive SOR pay fixed rate Interest Rate Swap (IRS). The net result is the borrower would pay a fixed interest rate.

[38] For avoidance of doubt, the original IRS continues to exist (i.e. no derecognition) but has been amended such that the cash flows are based on SORA rather than SOR.

[39] The basis swap spread could be determined based on the observed rate at a specific date or based on an average market rate for a relevant period.

outstanding swap mark-to-market in cash, and enters into a new "on-market"[40] SORA-based IRS?



Answer

Hedge accounting is discontinued from the date of termination of the original SOR-based IRS as the derivative is derecognised. However, the **cumulative gain or loss on the SOR-based IRS that was previously recognised in the cash flow hedge (CFH) reserve would remain**. This means that there is no immediate impact to profit or loss statement (P&L) when the IRS is terminated.

The CFH reserve will be amortised to P&L over the remaining term of the SORA-based borrowing. Similar to the current accounting treatment, if the borrowing is prepaid or early terminated during its remaining term[41], the unamortised CFH reserve balance at that point will be immediately transferred to P&L.

The new "on-market" SORA-based IRS can be designated in a **new** hedge relationship to hedge the remaining cash flows of the amended borrowing provided that the SFRS(I) 9 requirements for hedge accounting are met[42].

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[40] The fair value of the SORA-based IRS is expected to be close to zero at the point of transaction.

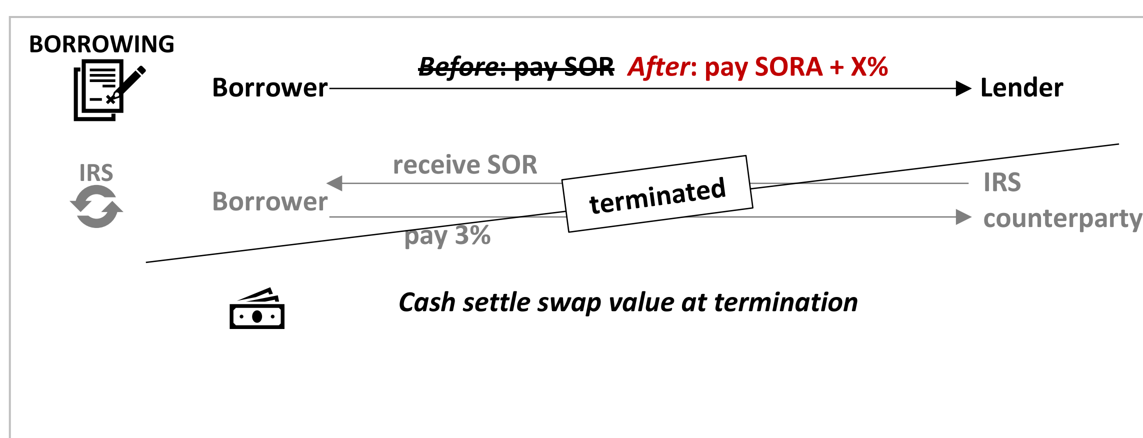
[41] SFRS(I) 9 paragraphs 6.9.8 and 6.5.12.

[42] Q2B is based on as simplified fact pattern where the SOR-based IRS is terminated on the date that the SOR loan transits to SORA. Additional accounting complexity could arise when the dates are not aligned.

Accounting considerations (simplified)

The International Accounting Standards Board (IASB) specifically rejected the approach of preserving the hedge accounting relationship when a terminated SOR-based IRS is replaced with a new SORA- based IRS[43]. In the IASB's view, the contractual terms of the new SORA-based IRS are substantially different from the original SOR-based IRS.

Q2C: What is the hedge accounting treatment if, at the point of the SOR-based borrowing's transition to SORA, the original SOR-based IRS is terminated and the outstanding swap mark-to-market settled in cash, , and no further hedging IRS is entered into?



Answer

Hedge accounting is discontinued from the date of termination of the original SOR-based IRS as the hedging derivative is derecognised.

However, the cumulative gain or loss on the SOR-based IRS that was previously recognised in the CFH reserve would remain. This means that there is no immediate impact to profit or loss statement (P&L) when the IRS is terminated.

The CFH reserve will be amortised to P&L over the remaining term of the SORA-based borrowing. Similar to the current accounting treatment, if the borrowing is prepaid or early terminated during its remaining term[44], the unamortised CFH reserve balance at that point will be immediately transferred to P&L.

[43] SFRS(I) 9 BC6.620(b).

[44] SFRS(I) 9 paragraphs 6.9.8 and 6.5.12.

Annex C:
Summary of Recommendations for Transition of Legacy SOR Contracts

Derivatives

Recommendation 1: Financial institutions should use the SOR-SORA basis swap market, and compression and conversion cycles, to facilitate their exit from SOR derivatives and transition to SORA.

Recommendation 2: Financial institutions should reduce their gross and net risk exposures to centrally cleared SOR derivatives across the entire curve, so as to minimize any unintended valuation effects when clearing houses convert SOR contracts to SORA.

Recommendation 3: Banks should consider backloading their bilateral interbank IRS trades to clearing houses to facilitate subsequent reduction via compression cycles.

Recommendation 4: Financial institutions should participate in vendor-provided compression cycles to reduce their exposures to USDSGD cross currency basis swaps.

Recommendation 5: Market participants that have not planned for the transition of their SOR derivatives in the coming months should do so as soon as possible, as SOR liquidity is expected to decline with market participants shifting their activities to SORA.

Recommendation 6: Market participants should endeavour to amend their bilateral credit support annexes (CSAs) that use SOR as interest rate, to SORA, by 31 December 2021.

Corporate loans

Recommendation 7: Banks should familiarise their customers with options that are available to them to convert legacy SOR loans, including the key considerations and risks associated with each approach.

Recommendation 8: Banks and their customers should consider the maturity profile of their loans and assess the options for conversion, taking into account factors such as ongoing hedging requirements and risks of undertaking another benchmark transition when Fallback Rate (SOR) is discontinued immediately after 31 December 2024.

Recommendation 9: Banks and their customers should use the SOR-SORA basis swap mid-rate as the starting basis for discussing the adjustment spread for converting loans from SOR to SORA.

Recommendation 10: Borrowers with hedged loans should convert both loan and swap to the same interest rate on the same date in order to preserve hedge effectiveness.

Recommendation 11: For syndicated loans, Agent Banks should lead the coordination among lenders, borrowers and all other parties to the syndicated loan in order to facilitate a smooth loan conversion to SORA.

Recommendation 12: For Small and Medium-size Enterprises (SMEs) that require advanced payment certainty, banks should provide an option to convert to referencing compounded-in-advance SORA in order to meet customer needs.

Bonds

Recommendation 13: Issuers of FRNs that mature after 30 June 2023 should take action well before 31 December 2021 to prepare for SOR discontinuation, including where necessary to implement a consent solicitation process. As this process could take several months, issuers are recommended to commence action as soon as practicable.

Recommendation 14: Issuers of resettable fixed rate securities that have a reset after 31 December 2021 relying on SOR IRS rates should consider their options carefully, including to consider undertaking a consent solicitation process well before 31 December 2021. As this process could take several months, issuers are recommended to commence action as soon as practicable.

Retail Loans

Recommendation 15: Banks should inform and provide options to retail customers to voluntarily convert their legacy SOR loans as soon as possible and no later than 31 October 2022. Banks should explain clearly to customers the actions that will be taken to convert SOR loans to SORA if voluntary conversion is not undertaken, so as to ensure that loans are not disrupted by eventual SOR discontinuation after 30 June 2023.

Recommendation 16: Banks should make available to customers with legacy SOR exposures a SORA Conversion Package at no additional fee or lock-in.

Recommendation 17: Banks should allow customers to reprice to any prevailing package offered by the bank if customers wish to do so. SIBOR loans should not be offered, given industry direction to stop new use of SIBOR after 30 September 2021.