

IBOR Transition

#2: Transitioning From SOR To SORA

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- MAS has recently announced the plan to transition from SOR (SGD Swap Offer Rate) to SORA (Singapore Overnight Rate Average).
- In this piece, we discuss the currently available details for SORA. For broader discussion on money market rates transition, please refer to our separate companion piece - [Rates Strategy: Interim Update On Money Market Rates Transition](#).
- Further details are still uncertain at this point and we can expect more announcements from the MAS steering committee in due course.

On Friday 30th August, MAS announced the establishment of a steering committee to spearhead an interest rate benchmark transition from SOR to SORA. SOR or the SGD Swap Offer Rate is the current benchmark floating rate reference used in various loan rates, over the counter (OTC) derivatives products as well as in the pricing for cash products such as SGD debt issuances.

SORA or the Singapore Overnight Rate Average has been proposed by the MAS as a replacement for SOR.

What is SORA?

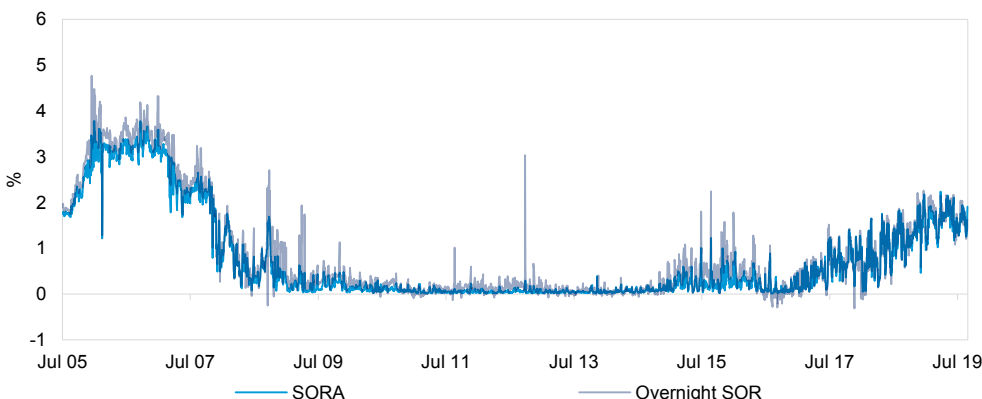
SORA is calculated based on the volume weighted average of all SGD overnight cash transactions that took place in the interbank market for the particular day. This average rate is published on the MAS website and has been available since 2005.

Being an overnight rate, day to day changes can be volatile as can be seen in chart 1, due to seasonal factors as well as short term fluctuations in demand for liquidity. The standard deviation of daily changes in SORA from July 2005 to 30th August 2019 is around 0.12%.

But, SORA has been relatively less volatile compared to the overnight SOR rate (itself also a volume weighted average based on overnight FX swap transactions) which had a standard deviation of around 0.20% over the same time period. Even though both cash and FX swap funding are driven by largely the same sources of liquidity demand, their long term correlation is around 0.64% which shows that divergences between cash and FX funding can occur regularly.

Chart 1: SORA And Overnight SOR

Source: Bloomberg, UOB Global Economics & Markets Research



Why SORA?

The journey towards SORA has been driven by benchmark fixing scandals that have surfaced since the 2008 Great Financial Crisis in many different jurisdictions. Policy makers have since recognized the importance for having robust financial benchmarks to safeguard the integrity of the financial system.

SORA is identified as a suitable replacement for SOR because of its sufficiently long history going back to July 2005, which is helpful in transition testing of systems. In addition, the overnight tenor for cash transactions is also the most liquid tenor thus offering a benchmark that is underpinned by a more robust price discovery process.

Another important consideration is for any new SGD interest rate benchmark to maintain consistency with developments that is already taking place in key global markets. To wit, SORA fits into the category of near risk-free rates currently being developed by US (Libor to SOFR), UK (SONIA), Europe (ESTER), Switzerland (SARON), and Japan (TONA) etc.

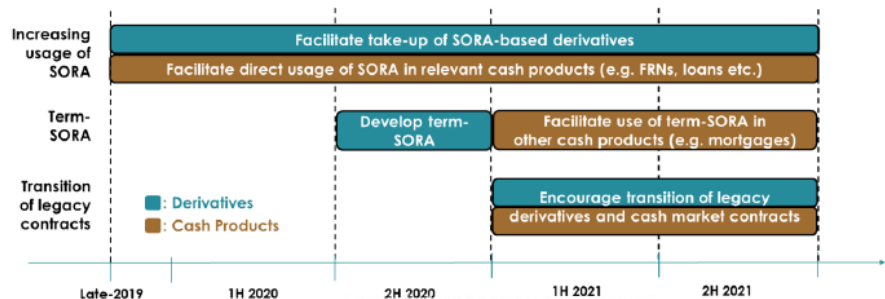
When Is SORA Transition Taking Place?

The MAS steering committee is targeting a transition time frame of around 2 years (i.e. end 2021). This will coincide with the expected time frame when the UK Financial Conduct Authority (FCA) will no longer compel banks to submit their daily LIBOR rates. From now into the first half of 2020, the main focus of the transition plan in Singapore is to encourage the broadening and deepening of SORA based products.

By the second half of 2020, we should be hearing more from the steering committee on proposals to address the term premium issue. All remaining cash products not addressed in the initial phase will receive attention by 2021. At the same time, plans will also be developed for transitioning legacy products onto SORA.

Table 1: Proposed Roadmap For SOR Transition

Source: ABS, Singapore Foreign Exchange Market Committee, UOB Global Economics & Markets Research

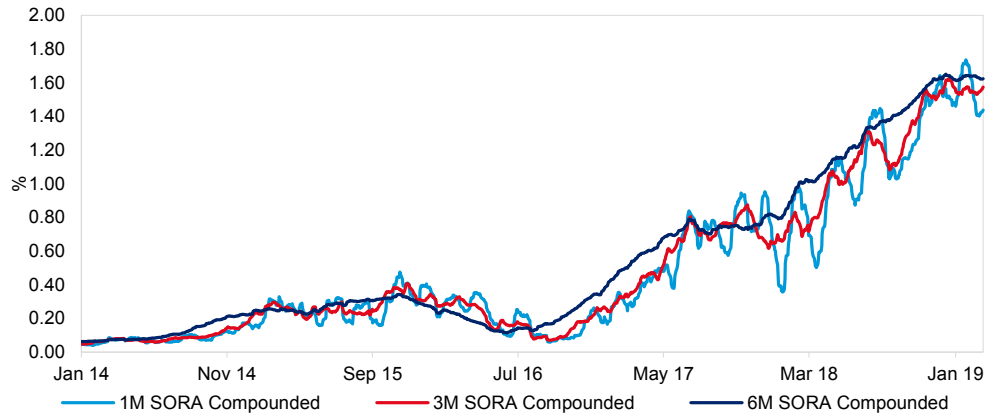


How Does SORA Compare To SOR And SIBOR?

When comparing between SORA and the current benchmarks, there are a few issues to bear in mind. First, SORA is an overnight rate while SORs and SIBORs are both term rates with established term structure. This is something that has already been identified by the MAS consultation paper and is slated to be addressed in 2H 2020. Applying a compounding calculation for SORA over a 1M, 3M, or 6M tenor does not build in any term premium by definition. Details on the averaging process has also not yet been revealed, and in our charts we have used daily compounding even though a simple average may also be an option.

Chart 2: Compounding Not Equal Term Structure

Source: Bloomberg, UOB Global Economics & Markets Research

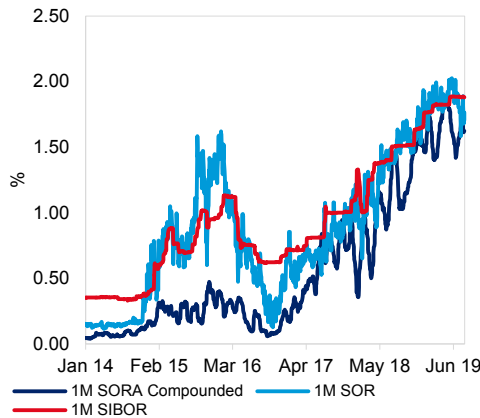


SORs and SIBORs are both forward looking rates, this means that today's rate applies for the duration of the specified tenor going forward. SORA is not forward looking and its average over any given period of time will only be known in arrears (i.e. at the end of the tenor). For comparison purpose, we have also adjusted for this difference in our charts.

Between 2005 to 2019, the compounded SORA has averaged at around -0.30%, -0.40%, and -0.50% below the 1M, 3M, and 6M SOR/SIBOR respectively. This may be seen as the long run average estimate for the term premium, but we would also point out that term premiums are not static by nature. The compounded SORA also exhibits less day to day volatility compared to SOR and SIBOR. This is to be expected given that averaging is designed to smooth out daily fluctuations.

Chart 3: 1M SORA, SOR And SIBOR

Source: Bloomberg, UOB Global Economics & Markets Research

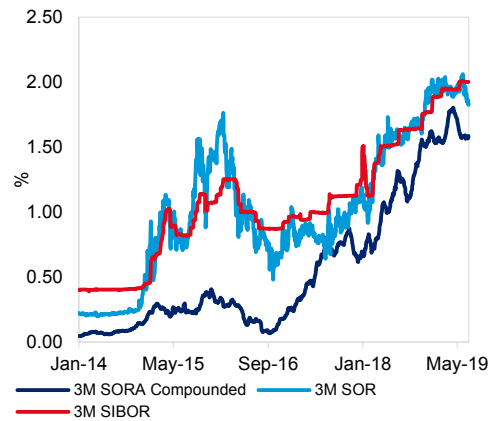


Sample Period	2005 to 2019		
	1M SORA - SOR	1M SORA - SIBOR	
Ave	-0.31	-0.33	
Median	-0.23	-0.28	
Max	0.78	0.23	
Min	-1.98	-1.56	
Daily Change (%)	1M SORA	1M SOR	1M SIBOR
Std Dev	0.01	0.07	0.03
Max	0.10	1.05	0.53
Min	-0.09	-0.93	-0.41

Source: Bloomberg, UOB Global Economics & Markets Research

Chart 4: 3M SORA, SOR, And SIBOR

Source: Bloomberg, UOB Global Economics & Markets Research

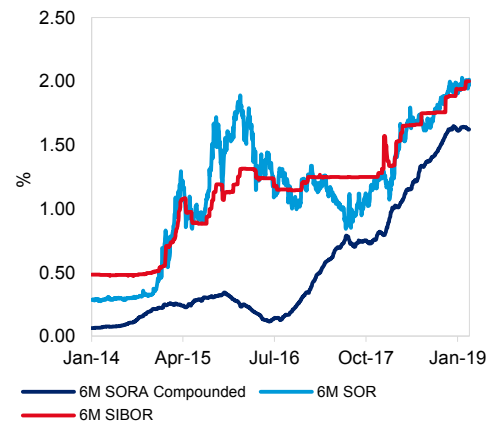


Sample Period	2005 to 2019		
%	<u>3M SORA - SOR</u>	<u>3M SORA - SIBOR</u>	
Ave	-0.43	-0.46	
Median	-0.36	-0.39	
Max	0.75	0.32	
Min	-1.72	-1.65	
Daily Change (%)	<u>3M SORA</u>	<u>3M SOR</u>	<u>3M SIBOR</u>
Std Dev	0.01	0.05	0.02
Max	0.05	0.58	0.47
Min	-0.06	-0.69	-0.31

Source: Bloomberg, UOB Global Economics & Markets Research

Chart 5: 6M SORA, SOR, And SIBOR

Source: Bloomberg, UOB Global Economics & Markets Research



Sample Period	2005 to 2019		
%	<u>6M SORA - SOR</u>	<u>6M SORA - SIBOR</u>	
Ave	-0.59	-0.56	
Median	-0.47	-0.51	
Max	1.05	0.68	
Min	-2.07	-1.86	
Daily Change (%)	<u>6M SORA</u>	<u>6M SOR</u>	<u>6M SIBOR</u>
Std Dev	0.00	0.04	0.02
Max	0.02	0.53	0.21
Min	-0.02	-0.93	-0.19

Source: Bloomberg, UOB Global Economics & Markets Research

We can expect to hear more on the transition process going forward from the MAS steering committee. Meanwhile, for more details on what has already announced, please refer to the document accompanying the news release; “Roadmap for Transition of Interest Rate Benchmarks: From SGD Swap Offer Rate (SOR) to Singapore Overnight Rate Average (SORA)”.

Appendix

“[Roadmap for Transition of Interest Rate Benchmarks: From SGD Swap Offer Rate \(SOR\) to Singapore Overnight Rate Average \(SORA\)](#)”, published 30 Sep 2019.

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