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Recommendations for Interdealer Cross-Currency Swap Market Conventions

Developed by the Market Structures Working Group of the Alternative Reference Rates Committee in Cooperation with other National Working Groups and Associations

Introduction

In August 2018, the Market Structures Working Group of the Alternative Reference Rates Committee (ARRC) formed a subgroup (the Group) of buy side, sell side, and intermediary market participants to discuss potential technical specifications for interdealer trading of cross-currency basis swaps that reference overnight risk-free rates (RFRs) recommended by the ARRC and similar National Working Groups (NWGs) in other jurisdictions. Members of several other NWGs participated in this work, including the Sterling Risk-Free Rates Working Group, the Swiss National Working Group, the working group on euro risk-free rates, the Cross-Industry Committee on Japanese Yen Interest Rate Benchmarks, and the Canadian Alternative Reference Rates Working Group. The Australian Financial Markets Association, the International Swaps and Derivatives Association (ISDA), representatives of a number of central banks, clearing and settlement infrastructure providers, and participants in other markets also joined in the subgroup's discussions.

In May 2019, the Group produced a [summary document](#) of its initial work and asked ISDA, SIFMA, and AFME to use the document to obtain a wider set of market views on the issues raised and potential market conventions in interdealer cross-currency basis swap transactions. These associations sought input from their members and relayed the responses received, which were largely favorable, to the group.

The Group has incorporated the feedback received and is now releasing its final recommendations for new issuance of cross-currency basis swaps using RFRs in interdealer transactions. These recommendations of the ARRC with respect to market conventions are for the market's consideration only; the counterparties to any given contract will ultimately determine for themselves the contract's specifications and whether or to what extent any recommended market conventions are adopted.

In addition, as discussed in the last section of this document, the Group has discussed with ISDA the potential benefits of a template that would allow market participants to ensure, if they desired to do so, that both legs of a legacy cross-currency swap basis referencing interbank offered rate (IBOR) benchmarks would move to successor rates at the same time. The Group recognizes that use of such a template would be voluntary and that its potential usefulness would depend on the specific circumstances faced by different counterparties.

As noted above, the conventions and options proposed below were developed in the context of dealer-to-dealer transactions. End users in the subgroup noted that they frequently negotiate bespoke terms for cross-currency and other swaps to meet their underlying needs, and that any conventions recommended or adopted for interdealer transactions may not be suitable for dealer-to-customer or customer-to-customer transactions. For that reason, the conventions described herein are intended for dealer-to-dealer transactions; they are not, however, intended to suggest that swaps traded pursuant to these conventions should trade on any particular platform or that customers could not directly trade swaps with these terms.

1. Potential conventions for an overnight RFR-RFR dealer-to-dealer cross currency basis swaps

Current conventions for cross-currency swap transactions are well established and typically based on LIBOR (or similar) interest rate benchmarks. As RFR single currency markets develop, structures for corresponding cross-currency transactions will need to develop as well to complement and support the use of RFRs. While there are pre-existing cross-currency swap structures based on overnight rates (for example, cross-currency swaps based on EONIA and the effective federal funds rate), these instruments are not widely traded or very liquid and tend to be used in dealer-to-customer trades rather than in interdealer transactions.

The conventions described in this document are aligned with underlying single-currency RFR market conventions for overnight index swaps (OIS) to minimize operational issues in conducting cross-currency transactions based on RFRs. Some of the suggested conventions are very similar to current Libor-based markets while others can differ. For example, principal (notional) exchanges would be very similar, but interest payment lags for compounded RFRs could differ. In the subgroup's opinion, it is important to emphasise that dealer-to-dealer transactions should be as uniform as possible across currencies where RFRs become widely-used benchmarks to avoid unnecessary operational complexities, allow for easier hedging, and avoid or limit to the extent possible unnecessary transaction costs. It is also preferable to keep the variants of dealer-to-dealer swaps across a given currency pair (e.g. SOFR/SONIA) to a minimum to limit to the extent possible market fragmentation that could compromise liquidity.

The interdealer transaction conventions could then be a basis for transaction structures for end users. This is common practice today in which many auxiliary structures are built on liquid, traded dealer-to-dealer transaction structures to accommodate and serve the needs of end users. This could potentially include bespoke trades referencing the forward-looking term rates that some NWGs have indicated may be produced based on derivatives markets referencing RFRs, although the scope of this current note is only on potential specifications for RFR-based cross-currency basis swaps and not on other structures.

The potential conventions and options for liquid, RFR-based interdealer transactions are described below, and end-user structures could be readily derived from the proposals.

Potential conventions

1) *Frequency of payments*

It was observed that quarterly payments on each leg would align well with current Libor-based markets and the likely structure of standard OIS swaps referencing RFRs. Participants in the Group's discussions felt this appeared to be well supported and recommended that transactions be based on quarterly payments for each leg of the swap.

2) *Exchange of notional principal cash flows*

Participants in the Group's discussions observed that it was appropriate to align with current principal exchange conventions and that therefore recommended that transactions be based on the exchange of notional principal cash flows at the start and maturity dates of the swap.

3) *Interest convention*

Because underlying, single currency OIS markets use compounded averages of daily rates settled in arrears, participants in the Group recommended that transactions be based on compound daily settled in arrears using the day count convention of the underlying OIS market of each currency (i.e. act/360 or act/365).

4) *Alignment of payment or rate fixing dates*

OIS transactions have differing payment lags (e.g. T + 2 for USD and T + 1 for EUR). This means, in practice, that alignment of dates for interest payments and daily rate sets is not possible for many currency pairs. Either the interest payment days would differ (based on the payment lags) or the rates set dates would differ (offset by the payment lags).¹ This rate-set date issue is also present in the current Libor markets, where some currencies rate set 2 days prior to the relevant period while others have a 1 or 0 day setting. In addition, while OIS transactions currently align the final interest payment date with the date that principal is repaid, the timing of these two payments could differ (for example, principal could be paid on date T and remaining interest on date T+2).

While any decision needs to weigh the importance of alignment of rate set dates against the operational and credit implications of differing payment dates, participants in the Group's discussions believed that it was important to avoid the credit risk that would be generated if payment dates of principal did not align if notional principal was exchanged. Therefore, the Group recommended moving payment lags where necessary in order to

¹ This issue could be addressed if there were standardized terms for payment lags across OIS contracts in different currencies, or conceivably, OIS conventions could set standardized dates for repayment of principal (for example, date T) while continuing to differ in conventions for interest payment dates. Some recent dollar FRN issuances have utilized a lockout period (freezing the last several days of compound interest at the published value of the overnight rate at the time the lockout period begins) rather than or in addition to a payment lag. Potentially market participants could consider this option as well.

achieve alignment of payment dates of principal. Although market participants may also choose to align interest payment dates or to align the final interest payment date with repayment of principal, the Group concluded that these decisions would potentially limit unnecessary credit risk and, thereby, promote more robust liquidity.

5) *Spot (2 business days) start*

Participants in the Group discussions observed that it was appropriate to align with current market conventions and, accordingly, recommended that transactions be based on a spot (2 business days) start.

6) *Reset of notional principals*

Resetting notional principals each quarter to current FX rates in order to keep mark-to-market valuations is often used in current cross-currency interdealer transactions. Many of the participants in the subgroup believed that this is a key tool in reducing counterparty credit exposures and that it would likely be typically adopted in interdealer RFR-RFR transactions. However, it was noted that other tools for reducing counterparty credit exposures develop over time, such as greater use of central clearing for cross-currency swaps or greater standardization of credit support annexes (CSAs), and also that in some circumstances cross-currency basis swaps were used to hedge cash instruments that did not have quarterly resets and that in such circumstances it could be reasonable to forgo this type of convention.

Participants noted that aligning the notional resetting payment dates with the interest payment date could minimize operational complexity and costs. Since the FX rate is currently set 2 days prior to the notional resetting payment date (for payments on the notional resetting date) which aligns with Libor payments, this would need to be reconsidered if payment dates are changed when using RFRs rather than Libor.

Participants discussed three options for the timing of notional resets:

- 1) offsetting the RFR dates by 2 days (which appears to align with proposed ISDA fallbacks) and set the FX rate as currently done; or
- 2) making payment dates for RFR interest resettlement 2 days after the notional resetting date and set the FX rate on the notional resetting date; or
- 3) resetting the FX rate 2 business days prior to the next interest calculation period and making the notional payment on the end of the interest calculation period. The interest payment will be made 2 business days after the end of the interest rate calculation period.

The markets will decide which is operationally easier.

While most participants in the Group observed that quarterly resetting of notional principals would likely be adopted for use in many transactions, the Group recognized that

other choices could be appropriate based on specific circumstances and the availability of other tools to manage counterparty credit exposures. Therefore, the Group recommended that transactions be based on a standard of reset of principal but also recognized that this choice depends on individual circumstances and that there are other potential options to mitigate credit exposures.

7) *Discounting and PAI*

There are currently no explicitly-stated market practices for discounting and price alignment interest (PAI) in cross-currency transactions. While in many instances dealers use the U.S. dollar (USD) effective federal funds rate (EFFR) as the basis for discounting in collateral calculations, this is not uniform and can depend on the terms of individual CSAs. Although there would be some benefit to a homogenous approach to discounting and PAI, the Group recognized that there are often sound reasons for heterogeneity and that ultimately these choices would need to be based on the needs of the counterparties involved. Therefore, although many in the Group believed that USD PAI and discounting would continue to be a standard convention and move from EFFR to the Secured Overnight Financing Rate (SOFR), the Group concluded that it was not necessary to recommend any one particular practice for discounting and PAI.

The Group also concluded that, as a matter of practice, there should be a recommended convention for *quoting* prices in these markets. Although the Group observed that it was likely that quoting prices based on USD discounting and PAI would remain the norm, other standards could potentially develop and be as efficient.

2. Potential conventions for an RFR-IBOR dealer-to-dealer cross currency basis swaps

If there is a liquid base RFR in both currencies, then dealers would be more likely to enter in to a RFR-RFR cross-currency basis swap and then a RFR-IBOR basis swap, rather than to engage directly in a cross-currency basis swap between an RFR and an IBOR. However, in some currencies, there may be no liquid RFR or for other reasons a term IBOR may remain as the base liquid interest rate benchmark. Use of a RFR-IBOR cross currency swap in interdealer transactions would therefore likely only be in such circumstances, where an RFR was the base liquid benchmark in one currency and the IBOR remained the base benchmark in the other. This may be the case for cross-currency swaps between many of the LIBOR currencies, where RFRs are expected to become widely-used and liquid base rates, and some EMEs, which may only have IBORs available.

Group participants went through the exercise of booking hypothetical trade confirmations based on one currency expected to rely fully on an overnight RFR and an EME currency with only an IBOR. Going through the exercise made it clear that using the conventions suggested above for an RFR-RFR swap in the RFR leg and what is currently used for an IBOR-IBOR swap for the IBOR leg could work consistent with existing market practices.²

Going through the exercise also pointed to some of the problems cash products have been grappling with in terms of how many days in advance of payment are needed to be sure that counterparties could make the required payments (both the cross-currency swap and any related hedge payments). Although some RFR floating-rate debt issuances in the United States are using a lockout (defined as freezing the daily rate for the last several days of an interest period at the last rate published), most issuances in other jurisdictions are using a lookback (defined as using the RFR rate published a pre-determined number of days ago for the current day's interest) and it was observed that this was easier to incorporate in cross-currency swap transactions. A lockout is not consistent with the current ISDA definitions of compound RFRs. While ISDA could create different definitions that allow for options like this or for use of daily rates with a daily reset period in a simple averaging framework, using the most commonly-used structure was seen as having the greatest chance of fostering liquidity in interdealer transactions.

Based on this, the Group developed the following recommendations for wider consultation. As above, any recommendations are intended for interdealer transactions, recognizing that dealer-to-customer arrangements may be varied and depend on the needs of the customer:

² For certain EME currencies, cross-currency swaps that involve exchanging a fixed rate for a floating rate in another currency may also be used. Using the same principle, the recommendations for RFR legs discussed in this document could also be used for the floating-rate legs in these fixed-floating cross currency swaps.

Potential conventions

1) Conventions for the RFR leg

As a standard, the RFR conventions in the RFR-IBOR cross currency basis swap market should match RFR accrual conventions which develop in the RFR-RFR cross currency market and which are discussed in the previous section.

2) Conventions for the IBOR leg

As a standard, the IBOR leg of the RFR-IBOR cross currency basis swap market should match the conventions developed in the related IBOR currency swap market.

3) Alignment of settlement dates

Although in general the Group believed that standard OIS or RFR conventions could be used for each respective leg, respondents to the consultation noted that it may be useful to align settlement conventions if, for example the standard IBOR settlement date (T) diverged from the standard OIS settlement date (T+2). Recognizing the importance of aligning principal payment dates in mitigating credit risk, the group agreed that alignment of payment dates of principal could be recommended as a standard

4) Aligning Accrual Conventions with Cash Products

In certain circumstances, RFR accrual conventions may develop to include lookback periods or lockout periods. Such conventions would facilitate alignment of principal and interest and alignment with conventions in cash markets. As a matter of convenience, these may also be adopted in cross-currency swap conventions, although there currently is insufficient information upon which to assess how this will develop. Note, however, that because IBOR is a forward looking rate and overnight RFRs are based upon realized rates, incorporating certain current conventions in the RFR leg might lead to additional basis or convexity.

3. Potential fallbacks for cross-currency basis swaps currently referencing IBORs

Current cross-currency basis swap markets will be impacted as the use of LIBOR is expected to decline prior to 2021. If counterparties transition from Libor to RFRs (because fallbacks are triggered or they otherwise agree to change the reference rate in their contracts), they will need to decide whether to move both benchmarks (i.e. both legs of the swap) or just the impacted leg only. This will likely be a matter for the counterparties to agree on an individual basis depending on the circumstances involved. Under the definition changes contemplated by ISDA, a given leg of a cross-currency basis swap referencing two IBORs would trigger and fallback to the designated RFR successor rate if that given IBOR permanently or indefinitely stopped publication, but the other leg would remain referencing its IBOR for as long as that rate remained in production.

There were mixed views in the consultation outreach as to whether respondents would want both legs of an IBOR-IBOR cross-currency basis swap to trigger at the same time if one IBOR stopped, or if they would prefer that only the impacted leg trigger and move to an RFR. Participants in the Group believed that either choice could be appropriate, depending on the specific circumstances faced by the counterparties to a swap. Recognizing that the option of moving both legs of a cross-currency basis swap could be valuable to some market participants, ISDA has agreed to consider offering templates that would allow counterparties to agree that both legs of the cross-currency basis swap would trigger in these circumstances or in other circumstances that the counterparties agree to.