FRO Naming Convention Proposal

Status of this document

This document is a draft, created to seek a consensus on how ISDA Floating Rate Options could be named in the future to increase consistency and understandability.

Contents

1. Summary

- Existing ISDA Floating Rate Option names have the appearance of consistency but do not follow any strict or defined naming convention or rules.
- As a consequence, it can be hard to know what a new FRO should be called, and to have any understanding of what type of rate an FRO is without consulting the ISDA Definitions.
- By defining a set of principles for naming ISDA FROs, we can improve understandability and predictability of FRO naming.
- It would be helpful to aid transition if new FRO names were similarly structured to existing names.
- The proposed naming convention combines the currency, a rate administrator-assigned name, and an ISDA designated "function", where applicable, in a specific, consistent pattern.
- The proposed naming convention also designates the legal character set and how delimiters are to be used.
- The convention is intended to be used as a guide but, given the complexity of the subject matter, it will not be possible to map out a bullet-proof set of rigidly applicable rules. There may be instances in which exceptions or divergences are required, some of which may rely on the exercise of subjective judgement. The convention may also need to evolve over time to reflect broader structural developments.

2. Background

- The ISDA 2021 Definitions work is introducing major changes to the FRO set.
- Many of the existing FROs will be renamed to eliminate the publication source and in certain cases the administrator name.
- Other FROs will be retired because they are no longer published or are not needed because of changes to the way FROs are defined.
- As a result of the changes, the existing 433 FpML floating-rate-index codes (see – [link]) will be translated to around 120-130 FROs under the 2021 Definitions, and a significant majority of them will have new names.
- This is an opportunity to define a set of naming conventions to make the FRO names more consistent going forward, without introducing much additional change.

3. Issues with the current FRO names

Some of the issues with the current FRO names include:

- It can be difficult to determine what type of rate each FRO is and how to use it (e.g. does it require a calculation, does it include an average, etc.).
- When adding a new FRO, it can be difficult to predict what exactly it will be called.
- Some FRO names include certain special characters (e.g. punctuation) that could cause processing difficulties, e.g. in matching or saving to a database.

4. Objectives for a new Naming Convention

- Uniqueness: Create a FRO name that is sufficiently unique and describes the function of the rate for rate identification.

- Readability:
  - The new FRO names should be readable and easy to distinguish from one another.
  - The FRO name should simplify selecting an index during trading and trade processing – the name needs to contain sufficient detail so that traders and trade support people know which index they are selecting to execute a transaction.

- Persistence:
  - Where possible, we would like the selected names to be robust if administrator-calculated rates or indexes have calculation logic changes.
  - Where possible, limit the impact of changes to administrators and publication sources, while not sacrificing understandability.

- Predictability: The naming convention should be detailed and specific enough to allow a rule-based determination of the name in most cases.

- Detailed: All detailed rate characteristics will be available through metadata associated with that particular rate, so the naming convention does not need to duplicate/explain calculation logic in detail.

- Simplified: Minimize the use of special characters, such as punctuation characters, to avoid technical processing difficulties. (For example, certain special characters have specific meanings in some technology environments, such as XML, and so must be quoted or escaped, and we would like to avoid that.)

5. Overview of the proposed naming convention

We propose to use the following pattern for defining FRO names:

CCY-Rate Name-[Function]

Where:

CCY is a 3-character ISO 4217 currency code (e.g. USD). Certain extensions to the ISO 4217 currency set (such as CNH/CNY) would be allowed, following market conventions.

Rate Name is an easily identifiable and sufficiently unique name for the rate. It is based on the name given to the rate by the rate sponsor or administrator. ISDA may enhance the name to achieve uniqueness and to meet other guidelines, as described below.

Function is optional and is a calculation function or modifier defined by ISDA according to a list described below. (At the moment all ISDA FROs can be described with a single Function, but it is possible that in the future multiple Function components might be required.).

Within the Rate Name and the Function, individual words are expressed in Mixed Case separated by single ASCII space characters, with Acronyms in UPPERCASE,

Some examples of FROs descriptions using this convention include:

- EUR-EONIA-OIS Compound
- EUR-EURIBOR Swap Rate-11:00
- USD-Federal Funds
- USD-Federal Funds-OIS Compound

Each of the components of the FRO name needs to follow the character set rules defined below, with some specific rules for delimiters. In particular, the "-"(hyphen or short-dash) character is reserved for separating the three components of the FRO name, and the " " (ASCIII space, code 32) character is reserved for separating different words within the "Rate Name" or "Function" description components of the FRO.

Acronyms should be all upper case. Non abbreviated words should be all lower case with the first letter capitalized to insure people can differentiate between words and abbreviations, e.g. AUD-AONIA-OIS Compound; USD-Federal Funds-OIS Compound.

6. "Rate Name" Definition Guidelines

The "Rate Name" is an identifier or name typically created by the rate administrator or rate sponsor to clearly identify the rate. It may consist of one or more words (separated by spaces). Frequently it includes an abbreviation (acronym), such as "LIBOR" (London Inter-Bank Offered Rate).

Administrator: The administrator name should not be included in the "Rate Name" unless (1) this is explicitly part of the branded rate name created by the administrator or (2) inclusion is required for unique identification. For example, for a rate such as LIBOR, which is clearly identifiable without the administrator name, the administrator is omitted. (In other words, we propose GBP-LIBOR rather than GBP-LIBOR ICE). For a rate where the administrator name is part of the branded name of the rate or is required for unique identification, we will retain or include the administrator name. (For example, for the "ICE Swap Rate" we could not omit "ICE" because otherwise the rate would not be clearly and uniquely identifiable, as there may be (current or future) multiple swap rates for a given currency.) For a rate where the administrator uses both its name and a rate brand name, we would use just the rate brand name. For example, if ICE published a rate they named the ICE Onyx Rate, we could use just "Onyx", which is sufficiently identifiable

A decision tree documented below describes the naming process in more detail. Where the outcome is not unambiguous, a decision about the final FRO name will be made by ISDA in consultation with members of its relevant working groups or committees at the time the FRO is defined. In addition, ISDA will reach out to administrators to promote the naming conventions set out in this paper and hopefully increase consistency and uniqueness over time in how administrators name rates.

If necessary, to follow the naming convention, ISDA will make changes as to how the name is recorded to meet the character set and other constraints. For example, separate words will be delimited using one space character, other symbols will be omitted or substituted as necessary, words may be reordered for clarity, etc. An example of a rate name that needs to be adjusted for character set is:

- EUR-EuroSTR-OIS Compound ["*The ECB published the **€STR** for the first time on 2 October 2019, reflecting trading activity on 1 October 2019.*" - source] – the **€** character is replaced by "***Euro***".

If the rate is published by a broker, the Rate Name will include the broker name.

If a word in the "Rate Name" includes the "-" (hyphen) character (e.g. "semi-annual"), that character is replaced by the " " space character.

When a rate published by an administrator includes a calculation, such as a compounding or averaging formula, the "Rate Name" should ideally include a word or words that denote this formula. And ideally published values that represent a calculated index (rather than a rate) would include the word "*Index*". For example,

- *GBP-SONIA Compounded Index* ["*To support the Risk-Free Rate transition in sterling markets we began publishing the **SONIA Compounded Index** from 3 August 2020.*" - source.]
- *USD-SOFR Compounded Index* ["*The SOFR Index will measure the cumulative impact of compounding the SOFR on a unit of investment over time, with the initial value set to 1.00000000 on April 2, 2018, the first value date of the SOFR*" - source.]

- *USD*-SOFR Average 30D, USD-SOFR Average 90D, USD-SOFR Average 180D ["*The SOFR Averages for a given publication date will incorporate all the SOFR values starting exactly 30-, 90-, and 180-calendar days before the publication date, regardless of whether or not that date is a weekend or holiday, and extend through the SOFR published that date.*" - source.]

If the Rate Name includes a number of calendar days / months / weeks / years in reference to an observation/calculation period, then suffix the number with a time period character using D for days, W for weeks, M for months and Y for years, e.g.

- NY Fed SOFR 30 day average: USD-SOFR Average **30D**
- NY Fed SOFR 90 day average: USD-SOFR Average **90D**
- NY Fed SOFR 180 day average: USD-SOFR Average **180D**

Rate Name Decision Tree Procedure:

1. Find the rate name as documented by the rate administrator.
2. If the rate name documented by the rate administrator includes a CCY, omit the CCY from the "Rate Name". The CCY is added separately, in the first part of the FRO name.
3. If the rate name documented by the rate administrator includes a screen or screen publisher name, omit the screen or screen publisher name from the "Rate Name."
4. Determine whether the rate name documented by the rate administrator includes a branded name and/or the administrator name.
5. If the rate name includes a branded name and/or administrator name, go to step 7.
6. Decide whether the rate name is sufficiently unique or identifiable that no additional qualifier is needed. For example, a rate called a "6-month swap rate" may not be sufficiently identifiable, because different administrators could compute a different value.
    a. If so (sufficiently unique), go to step 8.
    b. If not, add the administrator name (e.g. the broker name) at the end of the rate name and go to step 8.
7. If the branded rate name includes an administrator name, determine whether that administrator name is required to ensure the uniqueness of the rate. If the rate name also includes other branded terms beyond the administrator, the administrator name is probably not needed. For example, "ICELIBOR" would be unique without the "ICE" administrator name, so ICE can be removed.
    a. If the administrator name is required, leave the position of that administrator name where it is in the rate name and go to step 8
    b. Otherwise, remove the administrator name from the rate name, and go to step 8
8. Determine whether the rate is based on another underlying rate and that identifying the underlying rate is necessary to uniquely specify the rate. For example, a swap rate may be based on a LIBOR rate or a risk-free rate, and those might give different values, so the underlying rate must be specified.

   a. If so and the underlying rate is not included in the rate name, add in the underlying rate to the front of the rate name and continue to step 9.
   b. Otherwise, continue to step 9.
9. Step 9. If the rate name includes a number of calendar days / months / weeks / years in reference to an observation/calculation period, then suffix the number with a time period character using D for days, W for weeks, M for months and Y for years, e.g. 30D, 1W, 3M and 1Y, continue to step 10.
10. Check for other naming conventions and constraints, such as character set constraints, and adjust the name as required.

7. "Function" Values

- In the FRO name, "Function" is a calculation or modifier applied to the underlying base rate according to ISDA-defined rules.
- The "Function" covers only ISDA-defined calculations. The ISDA 2021 FRO definition will specify the exact calculation formula or observation rule to apply.
- Not all FROs will include "Function, e.g. most of the screen observed rates, like Term, or overnight rates will not have Function"

List of functions:

- We need to create a list of functions that will clearly articulate the different ways of using and calculating a rate.
- To create this, have reviewed the existing and proposed examples of ISDA FROs with the associated metadata to see what categories they fall into and to ensure all existing functions are captured well.
- Ideally, we would also anticipate new functions, such as variations on averaging or compounding that are developing in the market to support overnight rates.
- Adding a new function is something that should be called out to and reviewed by the relevant ISDA working group and committee members, to ensure that the selected approach is appropriate.

Proposed initial list of functions (for review/discussion):

- OIS Compound
- Average
- [hh:mm]
- Reference Banks

7.1. OIS Compound:

- "OIS Compound" is used if the self-compounding OIS formula is included inside the ISDA FROs definitions.

- The inclusion of the formula (or reference to the formula) in the ISDA FRO definition means that the Calculation Agent is responsible for performing a geometric average of the rates, applying the formula specified in the ISDA 2021 Definitions.

Examples:

- EUR-EONIA-OIS Compound

$$\left[\prod_{i=1}^{d_o}\left(1+\frac{EONIA_i \times n_i}{360}\right)-1\right]\times\frac{360}{d}$$

- USD-SOFR-OIS Compound

$$\left[\prod_{i=1}^{d_o}\left(1+\frac{SOFR_i \times n_i}{360}\right)-1\right]\times\frac{360}{d}$$

- EUR-EuroStar-OIS Compound

$$\left[\prod_{i=1}^{d_0}\left(1+\frac{\text{EuroSTR}_i \times n_i}{360}\right)-1\right]\times\frac{360}{d}$$

*

7.2. Average

- Average is used if the averaging formula is included inside the ISDA FROs' definitions
- This means that is the Calculation Agent responsible for performing an arithmetic average of the rates, applying the formula specified in the ISDA 2021 Definitions.

Example:

- EUR-EONIA-Average.

$$\frac{100}{D}\times\left[\sum_{i=1}^{i=D}\text{EONIA}_i\right]$$

Open questions:

- Within "average" and "compound" calculations (respectively arithmetic and geometric averages), there are possibly some variations. For example the weighting of observations could follow either observation-based weighting ("observation period shift") or calculation-based weighting ("lookback"), or the observations could be unshifted and use a rate cut-off (the typical scenario for OIS). If more than one Compound or Average FRO is defined for the same underlying rate with different observation rules (e.g. one uses a rate cut-off and one uses an observation period shift), it might be necessary to create additional function names to distinguish these cases.

7.3. Time (hh:mm)

- In some cases we need a way to distinguish between different fixing times (e.g. 10:00 am vs. 11:00am), hence the time is included in the FRO name. The time is the local (clock) time in the fixing business center defined in the metadata.
- For time, we propose to use the 24 hour clock to avoid ambiguity.
- Note that some existing FRO names would change due to the use of the 24 hour clock.

Example:

- USD-ISDA-Swap Rate-3:00 would become USD-Swap Rate-15:00.
- EUR-ISDA-EURIBOR Swap Rate-11:00 would become EUR-EURIBOR Swap Rate-11:00

7.4. Reference Banks

- "Reference Banks" means that the rate is observed by polling a set of reference banks or reference dealers according to the ISDA Definitions.
  - Example TBD

8. Character Set

To minimize processing issues (such as matching issues or issues with various technology platforms) we propose to restrict the use of special characters to a small subset of the available character set.

The FpML Architecture Specification v.3-1-REC-5 Section: 3.4.2 Character Set already prohibits the use of any character set other than ASCII characters 32 to 126 (Hex 20 to 7E) for consistency and to avoid multiple representation for some of the characters and creating issues for some implementations.

We propose to tighten the rule (no spaces, no punctuation characters except as noted) and from the permissible character set, allow only ASCII characters 48 to 57 (0 - 9), 65 to 90, 97 to 122 (A - Z, a - z) and for delimiters character 45 (- hyphen/en-dash) as well as character 58 (colon, ":") only for delimiting hours from minutes in times, and character 46 (period, ".") where used in Rate Names (e.g. for "H.15").

Decimal	Hex	Char	Decimal	Hex	Char	Decimal	Hex	Char	Decimal	Hex	Char
0	0	[NULL]	32	20	[SPACE]	64	40	@	96	60	`
1	1	[START OF HEADING]	33	21	!	65	41	A	97	61	a
2	2	[START OF TEXT]	34	22	"	66	42	B	98	62	b
3	3	[END OF TEXT]	35	23	#	67	43	C	99	63	c
4	4	[END OF TRANSMISSION]	36	24	$	68	44	D	100	64	d
5	5	[ENQUIRY]	37	25	%	69	45	E	101	65	e
6	6	[ACKNOWLEDGE]	38	26	&	70	46	F	102	66	f
7	7	[BELL]	39	27	'	71	47	G	103	67	g
8	8	[BACKSPACE]	40	28	(	72	48	H	104	68	h
9	9	[HORIZONTAL TAB]	41	29	)	73	49	I	105	69	i
10	A	[LINE FEED]	42	2A	*	74	4A	J	106	6A	j
11	B	[VERTICAL TAB]	43	2B	+	75	4B	K	107	6B	k
12	C	[FORM FEED]	44	2C	,	76	4C	L	108	6C	l
13	D	[CARRIAGE RETURN]	45	2D	-	77	4D	M	109	6D	m
14	E	[SHIFT OUT]	46	2E	.	78	4E	N	110	6E	n
15	F	[SHIFT IN]	47	2F	/	79	4F	O	111	6F	o
16	10	[DATA LINK ESCAPE]	48	30	0	80	50	P	112	70	p
17	11	[DEVICE CONTROL 1]	49	31	1	81	51	Q	113	71	q
18	12	[DEVICE CONTROL 2]	50	32	2	82	52	R	114	72	r
19	13	[DEVICE CONTROL 3]	51	33	3	83	53	S	115	73	s
20	14	[DEVICE CONTROL 4]	52	34	4	84	54	T	116	74	t
21	15	[NEGATIVE ACKNOWLEDGE]	53	35	5	85	55	U	117	75	u
22	16	[SYNCHRONOUS IDLE]	54	36	6	86	56	V	118	76	v
23	17	[ENG OF TRANS. BLOCK]	55	37	7	87	57	W	119	77	w
24	18	[CANCEL]	56	38	8	88	58	X	120	78	x
25	19	[END OF MEDIUM]	57	39	9	89	59	Y	121	79	y
26	1A	[SUBSTITUTE]	58	3A	:	90	5A	Z	122	7A	z
27	1B	[ESCAPE]	59	3B	;	91	5B	[	123	7B	{
28	1C	[FILE SEPARATOR]	60	3C	<	92	5C	\	124	7C	|
29	1D	[GROUP SEPARATOR]	61	3D	=	93	5D	]	125	7D	}
30	1E	[RECORD SEPARATOR]	62	3E	>	94	5E	^	126	7E	~
31	1F	[UNIT SEPARATOR]	63	3F	?	95	5F	_	127	7F	[DEL]

9. Examples

Following is a set of example usages of the new naming convention, with some commentary

	Case	Example	Comments	Metadata
1.	Term rate	HKD-HIBOR	No Function; Designated maturity is a confirmable field;	Category= "Screen Rate"; Style = "Term Rate"; Method:
2.	Overnight rate	USD-Federal Funds, USD-SOFR, GBP-SONIA	No Function; Index tenor is 1D	Category= "Screen Rate"; Style = "Overnight Rate"; Method:
3.	Non-compounded Index published by the admin	TBD	No Function.	Category= "Calculated Rate"; Style= "Index"; Method:
4.	Compounded Index calculated by the administrator	GBP-SONIA Compounded Index USD-SOFR Compounded Index	No Function.[1]	Category= "Calculated Rate"; Style= "Index"; Method:
5.	FRO with ISDA embedded formula – average	EUR-EONIA-Average[2]	Function=Average	Category= Calculated Rate; Style= "Average FRO"; Method= "Straight Averaging"
6.	FRO with ISDA embedded formula – OIS self-compounding	AUD-AONIA-OIS Compound, EUR-EuroSTR-OIS Compound, HKD-HONIX-OIS Compound	Function=OIS Compound[3]	Category= "Calculated Rate"; Style="Compounded FRO"; Method="OIS Compounding"
7.	Swap rate published by Broker	CCY Rate Name NZD-ICAP Swap Rate	Broker name in Rate Name	Category= ; Style=; Method:=;

1 Note: This means that the administrator calculates an index value by applying the compounding formula, starting with a specified base date (e.g. April 2, 2018) defined as 1.000. The index value reported by the administrator will increase each day as compounding occurs. The interest rate used by the end user is computed by dividing the administrator-reported index value at the end of the calculation period by the value at the beginning of the period (and subtracting one), adjusting by any daycount conventions as required.

2 Note: There is only one example with this Averaging formula in 2021 Defs so far.

				Broker Rate=Yes
8.	Compound Average rate published by an admin	USD-SOFR Average 30D; USD-SOFR Average 90D; USD-SOFR- Average 180D	No Function; Note: Include the administrator-controlled embedded function in the rate name – see source.	Category= "Screen Rate"; Style = "Published Average Rate"; Method=;
9.	Swap rate with ISDA embedded time	EUR-EURIBOR Swap Rate-11:00 EUR-EURIBOR Swap Rate-12:00	Function=hh:mm "Swap rate" is embedded into the rate name portion; no embedded calculation is needed; but time is added as a function	
10	Repo Rates	CNY-CNREPOFIX		
11	Other	Various, e.g.: JPY-LTPR KRW-Bond UK Base Rate USD-CD USD-CMT USD-COF11 USD-CP USD-Prime USD-TBILL Secondary Market ZAR-Prime Average	Each will need to be described individually. No Function	