

MarkitServ 2021 ISDA Definitions Implementation Working Group

Session #5 September 15, 2021 with additional updates

October 1, 2021



Introduction

- The majority of this presentation starting from Slide 8 is based on materials MarkitServ presented on September 15, 2021 at its own 2021 ISDA Definitions Implementation Working Group with some updates in the Cash Settlement slides which were presented by MarkitServ to the ISDA 2021 Definitions subgroup meeting on September 16, 2021 for which a <u>recording</u> is available.
- Slides 3-7 are updates and additions which have been separately presented or distributed to MarkitWire customers since the September 15 meeting.

2021 ISDA Definitions: MarkitWire Contractual Definitions system default setting

- Following a consultation of its customers and having considered all of the views expressed, MarkitWire announced on September 1st that it would be keeping its contractual definitions system default setting unchanged as 2006 Definitions in both its UAT and Production environments up to, and for a transitional period after, October 4th.
- Feedback was split between those customers that preferred to maintain the default as the 2006 Definitions and those in favor of switching it to the 2021 Definitions.
 - You can hear a <u>recording</u> of the September 2nd ISDA implementation subgroup meeting where MarkitServ presented and discussed the decision and its implications.
- In recognition of the issues raised by respondents to the consultation on both sides, however, alongside the fact that ISDA does not intend to
 maintain the 2006 Definitions post-October 4th and widespread acknowledgement amongst respondents that the 2021 Definitions will be
 adopted as the new standard definitional booklet for cleared and non-cleared derivatives, we have formulated a revised proposal and solution
 on when to change the MarkitWire default and shared this within the MarkitWire working group and the ISDA implementation subgroup last
 week.
 - You can hear a <u>recording</u> of the September 13th ISDA implementation subgroup meeting where MarkitServ presented and discussed this proposal.
 - MarkitWire plans to move ahead with the proposal to switch the MarkitWire Contractual Definitions default to "2021 ISDA" (meaning the 2021 Interest Rate Derivatives Definitions) as part of its MarkitWire 18.2.2 Release.
 - The UAT default switch date will be November 3, 2021 and the Production default switch date will be November 27, 2021.
 - Firms who wish to incorporate the 2021 Definitions in a transaction must continue to explicitly send a contractual Definitions element in MarkitWire API messaging referencing 'ISDA2021' plus the corresponding 2021 FRO names (and 2021 compliant Cash Settlement Methods where applicable).
 - From the MarkitWire 18.2.2 Release date (from November 3rd in UAT and from November 27th in Production) omitting the contractualDefinitions will now be deemed to have specified the 2006 Definitions (whereas previously any such transaction would have been validated based upon the prevailing contractual definitions default).

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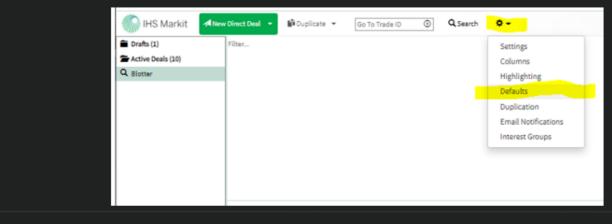
MarkitWire Contractual Definitions user preference enhancement

- One function of the contractual definitions system default setting is to set the initial MarkitWire systemwide default value for the ISDA Interest Rate Derivatives (IRD) definitional booklet that will be incorporated into each MarkitWire Rates transaction entered using the MarkitWire User Interface (UI).
- It is recognized that in the non-cleared market in particular a phased adoption approach is being taken to transitioning to the new 2021 Definitions. MarkitWire is therefore releasing an additional enhancement outlined on the following slides, as part of its 18.2.1 Release, aimed at improving operational efficiency and control when users are manually entering transactions using the UI and wish to incorporate the ISDA definitional booklet which is different to the 'then prevailing' MarkitWire system-wide default.
- The ability to configure user level Contractual Definitions preferences for each Rates product will go live in MarkitWire Production with the 18.2.1 Release on **October 23, 2021** and became available in UAT on **September 29, 2021**.



How to configure your Contractual Definitions preferences...

- MarkitWire UI users will be able to configure their own Rates product-level preference for the ISDA definitional booklet (whether the 2021 Definitions or 2006 Definitions) avoiding the need to have to override the system-wide default for each transaction. Once set, the user level preference will be automatically applied for the given product when <u>entering</u> a new Direct Deal, Prime Brokered Deal or Client Clearing Deal in the UI
 - This ability to configure user level preferences for each Rates product became available in the MarkitWire UAT on September 29th, <u>2021</u> and will be available in Production from October 23rd, 2021
- Step 1 Click on the cog in the MarkitWire UI menu bar and select 'Defaults' from the dropdown menu as shown below:



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How to configure your Contractual Definitions preferences... (2)

- Step 2 In the window that appears under the 'Product Values' section in the lower half of the window select the desired Rates product, e.g. 'OIS', and then select the desired IRD Contractual Definitions preference, e.g. 'ISDA2021'.
- Step 3 Repeat Step 2 to set a preference for each required Rates product.
- Step 4 Press the OK button to save the entered preferences.
- Step 5 Logout of the MarkitWire UI.
- Step 6 Login to the MarkitWire UI.

Product		Curren_	Currency 2		Book	
DIS .		All	All	AAA TEST1		
RS		All	All	AAA TEST2		
All other		All	All	BOOK1		
			move	Edit		4dd
			move	EDI		400
oduct Values:						
Product:	ois					•
Ny Entity:	AAA Bank					•
IRD Contractual Definition		-				
	E ISDA2021	-				•
Break Details:						

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Points to note about the preferences functionality

- An IRD Contractual Definitions preference can be set for the following Rates products:
 - Basis Swap
 - CapFloor
 - Cross Currency Basis Swap
 - Cross Currency IRS
 - Fixed Fixed Swap
 - FRA
 - IRS
 - OIS
 - Swaption
 - ZC Inflation Swap
- If a preference is not set for any given <u>product</u> then the system-wide default setting for Contractual Definitions will continue to apply when entering new deals for that product in MarkitWire.
- If a preference for a given product is set equal to the 'then prevailing' MarkitWire system-wide default <u>setting</u> then the behaviour will be as if no preference had been set (since the nominal override would be to the same value as the current default).
- A product preference can be set back to an empty value so that the 'then prevailing' MarkitWire system-side setting will apply.
- · The functionality is not applicable or available to a Broker MarkitWire UI user.

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Agenda for September 15 meeting

- Notable highlights since last meeting on August 17th
- Background and Implementation Timeline
- Cleared vs Non-Cleared Implementation Considerations
- · MarkitWire messaging and API considerations
- Phase 3 MarkitWire 18.2 (In UAT now)
 - > Key Product Considerations
 - > Clearing Eligibility in MarkitWire under 2021 Definitions
 - > JPY-LIBOR Swaption Example Change
 - > Cash Settlement Method Changes
 - > Early Termination Cash Settlement
 - Mid-market Valuation
 - Replacement Value
 - Collateralized Cash Price
 - > Swaption Cash Settlement
- Annex
 - > Additional ISDA Resources and Educational Materials
 - > Trade Manager (MTM) Platform Changes
 - > MarkitWire Floating Rate Option Mapping Table
 - > Key contacts



Notable highlights since last meeting on August 17th

- MarkitServ released its MarkitWire Phase 3 functionality into the MarkitWire Production environment on September 11th.
 - > This MarkitWire Release 18.2 contains all the functionality to support MarkitWire's enablement of support for the 2021 Definitions over the October 2/3 implementation weekend.
 - > This is also the same software currently running in the MarkitWire UAT environment. The only difference between the environments is you can specify a 2021 Definitions transaction in UAT but in Production that won't be possible until the October implementation weekend.
- MarkitServ released its Trade Manager (MTM) Release 21.5 functionality into UAT on September 8th
 - > Trade Manager (MTM) Release 21.5 will go into Production on September 24th
 - > Trade Manager (MTM) slide updates have been made in the Annex to this presentation
- Following a consultation of its customers and having considered all of the views expressed, MarkitServ announced on September 1st that it would be keeping its MarkitWire contractual definitions system default setting unchanged as 2006 Definitions in both the UAT and Production environments up to, <u>and for a transitional period beyond</u>, <u>October 4th</u>.
 - > Feedback was split between those customers that preferred to maintain the default as the 2006 Definitions and those in favour of switching it to the 2021 Definitions.
 - > You can hear a <u>recording</u> of the September 2nd ISDA implementation subgroup meeting where MarkitServ presented and discussed the decision and its implications.
 - > The decision should not be construed as a reflection on whether or not customers are expected to adopt the 2021 Definitions but an accommodation to ensure that those who are not yet ready to do so, have a period of time in which to make any necessary systems changes to allow them to specify the ISDA definitional booklet they want to apply to their transactions. Feedback MarkitWire received during its consultation suggested that many of those intending to adopt the 2021 Definitions from October 4th already had, or were planning for, system arrangements of this nature.



Notable highlights since last meeting on August 17th (2)

- The decision to leave the contractual definitions default unchanged in MarkitWire Production for a transitional period beyond October 4th is intended to help ensure an orderly and safe transition over the October 2/3 implementation weekend for market participants and minimize the number of potential trade rejections.
 - It broadly ensures users of the MarkitWire platform have to <u>consciously and explicitly</u> specify where they intend to incorporate the 2021 Definitions into a transaction from October 4th.
- In recognition of the issues raised by respondents to the consultation on both sides (those wanting to see the default changed and those wanting it to remain unchanged), however, alongside the fact that ISDA does not intend to maintain the 2006 Definitions post-October 4th and widespread acknowledgement amongst respondents to the consultation that the 2021 Definitions will be adopted as the new standard definitional booklet for cleared and non-cleared derivatives, MarkitServ remains committed to switching the default setting to 2021 Definitions as soon as technologically possible.
- On September 13 MarkitServ additionally followed up with a proposal that was presented at the ISDA implementation subgroup meeting for switching this default to the 2021 Definitions in MarkitWire Production on November 27.
 - > The <u>recording</u> of the September 13 ISDA meeting is available on the ISDA website and we encourage anybody that didn't attend that meeting to listen to the recording as there were other important agenda items discussed beyond the MarkitServ proposal.
 - > We will dedicate a later part of today's meeting to presenting this proposal again.
 - Note the proposal solely focuses on functionality that would change <u>after the transition period beyond October 4th</u>. The current functionality and behaviour in MarkitWire UAT today reflects the behaviour that will exist in MarkitWire Production on and immediately following October 4th.



Notable highlights since last meeting on August 17th (3)

- ISDA published Supplements 83 to 86 to the 2006 ISDA Definitions (see <u>https://www.isda.org/book/supplements-to-the-2006-isda-definitions/</u>)
- > Supplements 83, 84 and 85 added new Rate Option definitions. There are no current plans to add support for these on MarkitWire and their publication has no impact on MarkitServ's 2021 Definitions implementation
- > Supplement 86 updates a Rate Option which is not supported on MarkitWire.
 - Supplement 83 ("JPY-TORF QUICK", published August 25, 2021) (pdf)
 - Supplement 84 ("USD-SOFR CME Term", published September 8, 2021) (pdf)
 - Supplement 85 ("INR-Modified MIFOR", published September 9, 2021) (pdf)
 - Supplement 86 (Updated "SAR-SRIOR-SUAA" and "SAR-SRIOR-Reference Banks", published September 9, 2021) (pdf)
- ISDA is updating certain component documents of the 2021 Definitoins ahead of the October 4th implementation date. This is principally in order to maintain alignment with the 2006 Definitions.
 - > On September 9th ISDA circulated page pulls showing the changes being made to (1) the Main Book; (2) the Floating Rate Matrix; (3) the Consolidated Confirmation Template; (4) The Settlement Matrix; (5) the Currency/Business Day Matrix; (6) the MTM Matrix; and (7) the Form of Amendment Agreement to incorporate a more recent version of the 2021 Definitions.
- As discussed on the September 13th ISDA 2021 Definitions Implementation Subgroup call firms are asked to complete the high-level implementation survey sent to ISDA Working Group members and return it to ISDA as soon as possible and no later than close of business on Thursday, 16th September.



Background and Implementation Timeline

- Version 1 of the 2021 ISDA Interest Rate Derivatives Definitions was published June 11, 2021 on the ISDA MyLibrary Platform (<u>https://mylibrary.isda.org</u>).
- The 2021 Definitions are scheduled for implementation over the weekend of October 2/3, 2021 with an expected first business day of market adoption on October 4, 2021 (coordinated first day of trading under the new definitions for major CCPs and market infrastructures, including confirmation platforms such as MarkitWire). While firms can continue to use the 2006 ISDA Definitions, ISDA will stop updating them following implementation of the 2021 Definitions, except for any inflight supplements.
- MarkitWire will be enabling use of 2021 ISDA Definitions in Production over the weekend of October 2/3, 2021 but introduced functionality in the UAT environment in multiple phases:
- Phase 1 Early visibility build with limited product and Floating Rate Option (FRO) support (Release 18.1 became available in UAT from May 19, 2021)
- Phase 2 Early visibility build with new Early Termination Cash Settlement methods (both Optional and Mandatory Early Termination support) and new Swaption Cash and Physical Settlement native FpML 4.2 support (Release 18.1.1 became available in UAT from June 30, 2021)
- Phase 3 Final Build Full 2021 ISDA equivalent FROs implementation (where applicable) for those supported under 2006/2000 ISDA in MarkitWire (Release 18.2 became available in UAT from August 11, 2021 and went into Production on September 11, 2021)

> Production Go-Live – ability to enter a trade referencing the 2021 ISDA Definitions will be enabled over the weekend of October 2/3, 2021.

I.		Version	UAT release	PROD release
	Current	18.2	11 Aug 2021	11 Sep 2021
	Next	18.2.1	29 Sep 2021	23 Oct 2021
	Next +1	18.2.2	3 Nov 2021	27 Nov 2021
ved.	Next +2	19.0	8 Dec 2021	22 Jan 2022



2021 ISDA support added alongside existing 2000/2006 ISDA support

- As the MarkitWire platform provides legal confirmation for non-cleared transactions under the terms of bilateral master agreements executed between parties, legal confirmation for transactions under the new 2021 Definitions will be added alongside existing support for confirmations that are referencing the 2006 and 2000 ISDA Definitions.
- It will remain possible to enter and legally confirm non-cleared transactions on MarkitWire referencing the 2006 ISDA (or 2000 ISDA) Definitions on or after the 2021 Definitions implementation date.





2021 ISDA support added alongside existing 2006/2000 ISDA support (2)

- While we expect most new transactions both cleared and non-cleared to start referencing the 2021 Definitions from October 4, 2021 the legal status of legacy non-cleared transactions will remain unchanged on the platform unless subject to any protocol or other form of bilateral agreement between parties to amend them to incorporate the 2021 Definitions.
- Every MarkitWire Rates trade today displays the applicable Contractual Definitions together with Floating Rate Option names consistent with the selected Contractual Definitions. This principle will be maintained with 2021 ISDA support.

Master Agreement: ISDA	Definitions:	2006 ISDA	Master Agreement:	ISDA	Definitions: 2021 ISDA 🚽
Main Futures Cross	Index/Bonds Roll Dates	*	8 Main Futures	s Cross Index/Bonds Roll	Dates
Add'l Payments 1-3 Add	d'l Payments 4-6 Cancellation Fee		Add'l Payments 1-3	Add'l Payments 4-6 Cancellati	on Fee
Regulatory Reporting C	Order Details Identifiers		Regulatory Reporting	Order Details Identifiers	
Floating Rate Index:	JR-EURIBOR-Reuters		Floating Rate Index:	EUR-EURIBOR	-
Spread Over Floating: 0.0	0000 Бр		Spread Over Floating:	0.0000 bp	
1st Fixing Rate:	96		1st Fixing Rate:	96	

• Note for Inflation Swap trades on MarkitWire two ISDA definitional booklets are referenced. The incorporated Inflation Derivatives Definitions (2006 or 2008) and the incorporated [Interest Rate Derivatives] Definitions (2000, 2006 or 2021)

Inflation Definitions:	2008 ISDA	-	Definitions:	2006 ISDA	-	Inflation Definitions:	2008 ISDA	-	Definitions:	2021 ISDA	-
docur Intern proviv othern any d respe- docu	Any or all of the following near by wording in the docu- nent is subject to the 2008 ISD ational Swaps and Derivativ ions so incorporated in a d vise provided in that documene efinition or provision that is is titve meanings set forth in near. Any capitalized term no in the 2006 ISDA Definition	definitions and pro sment indicating th A Inflation Derivat es Association, In ocument will be a t, and all terms defi incorporated by ref these Definitions of herein defined, s	IVES DEFINITIONS rovisions may be incorporated i that, or to the extent to which three Definitions (as published b nc. (TSDA")). All definitions applicable to that document u fined in these Definitions and us ference in a document will hav unless otherwise provided in shall have the meaning given to ant ISDA publication as the co	a, the y the and miless red in that that that				-			-



Auto-created new transactions on MarkitWire

- There are several workflows where MarkitWire automatically creates new MarkitWire transactions based on an existing transaction:
 - > New-Allocation trade(s) during a Block->Allocation workflow
 - > New-PrimeBrokered trades from a Prime Broker workflow
 - > New-Novated trade from a Novation
 - > New IRS/OIS trade from a Swaption physical exercise
- In all these scenarios:
- If the relevant transaction that is used to generate the new transaction has "2006 ISDA" specified as the Contractual Definitions then the new transaction will be generated under the 2006 Definitions and use corresponding 2006 FROs and terms
- If the relevant transaction that is used to generate the new transaction has "2021 ISDA" specified as the Contractual Definitions then the new transaction will be generated under the 2021 Definitions and use corresponding 2021 FROs and terms



Major implementation considerations for cleared and noncleared workflows in MarkitWire

- For <u>both</u> cleared and non-cleared workflows MarkitWire transactions booked under the 2021 Definitions will only be supported under SWML/SWDML/SWBML 4.2 messaging versions (based upon FpML Version 4.2). See next slide for further details
- The main implementation consideration on workflows where the transaction is intended to clear is the difference in Floating Rate Option (FRO) names under the 2021 Definitions versus the 2006 Definitions (see Annex to this presentation)
 - > Of the 7 CCPs that have presented or shared their 2021 Definitions plans with the ISDA Implementation subgroup 6 have indicated they will accept new eligible transactions for clearing referencing either 2006 or 2021 FRO names from the October 4 implementation date and 1 will accept 2021 FRO names beginning December 6 (and only 2006 FRO names prior to December 6)
- Where the transaction will remain a bilateral non-cleared transaction on MarkitWire the main implementation considerations are:
 - > Differences in FRO names under 2021 Definitions versus 2006 Definitions (see Annex to this presentation)
 - > New Cash Settlement Methods introduced in the 2021 Definitions which impact Optional and Mandatory Early Terminations (OET and MET).
 - Many of the Cash Settlement Methods supported under the 2006 Definitions are no longer supported under the 2021 Definitions, e.g. "Cash Price"
 - > Changes in applicable elections for Cash Settlement Method and Settlement Rate for some currencies in the '2021 Definitions Settlement Matrix for Settlement, Early Termination and Swaptions' which impacts OETs, METs and Swaptions, e.g. changes for JPY Swaptions which are outlined in later slides.



MarkitWire messaging support for 2021 ISDA trades

- A reminder that MarkitWire will not be supporting the 2021 Definitions under our older DTD-based (Document Type Definition) MarkitWire Rates messaging versions which are based upon FpML version 2.0.
 - > This will impact SWML 3.1, SWDML 3.0 and 3.1 and SWBML 3.0 for both cleared and non-cleared workflows.
 - > These versions can continue to be used to support legacy (non-2021 ISDA) trades only.
- FpML version 4.2 (on which MarkitWire XML schema-based SWML 4.2/SWBML 4.2/SWDML 4.2 messaging versions are based) has been updated with the necessary 2021 Definitions changes allowing MarkitWire to offer 2021 Definitions support **in these versions only**.
 - > Our previous FpML 4.2 schemas in 18.2 UAT were based^[1] upon the <u>FpML 4.2 Trial Recommendation (build 10)</u> publications
 - > On September 8 we updated our core MarkitWire platform in UAT to use the September 1 published <u>FpML 4.2 Recommendation</u>-<u>Draft (build 12)</u> and will retain this version for the 18.2 Production go-live and the October 2/3 implementation weekend.
 - We plan to have our corresponding MarkitWire API schema packages available for download from our documentation portal later today
 - Note as the FpML 4.2 <u>Recommendation</u> draft was made available sooner than anticipated we have decided to use this build 12 version rather than the build 11 version as we had previously communicated.
- Note an exception to the above was made to support the LCH and Eurex EUR EONIA/€STR dry runs which took place on June 5th, July 10th, August 18th and September 1st where MarkitWire provided support under SWML 3.1 for EUR OIS trades with 2021 Definitions and where a CCP was specified
 - > This special case support was removed in the MarkitWire UAT environment on September 8 and will not be available in the MarkitWire Production environment.

[1] An errata introduced in the FpML 4.2 build 10 schema (and subsequently corrected in builds 11 and 12) related to the mutuallyAgreedClearinghouse cardinality was not applied to the MarkitWire copy of the relevant schema file. See build 11 release notes on fpml.org via this link https://www.fpml.org/latest_news/isda-has-published-the-trial-recommendation-build-11-for-fpml-version-4-2/ for further details.



MarkitWire messaging support for 2021 ISDA trades (2)

- The recommended SWML version for certain Rates products in MarkitWire changed as part of the MarkitWire 18.0.2 release in Production from May 8, 2021
 - > Specifically, the recommended version for IRS, OIS, FRA, CapFloor and Swaption products changed from version 3.1 to 4.2 in order to align all Rates products on SWML 4.2. API requests retrieving trades in their 'recommended' SWML version will return SWML 4.2 for all Rates products. Analogously, when requesting the SWDML representation of Rates trades, SWDML 4.2 will be retrieved and not SWDML 3.0.
 - > A user-level permission UseLegacySWMLRecVersion was developed for use in UAT and Production to maintain pre-18.0.2 behaviour for API and Deal Extractor users who need additional time to modify their integration.



API Functionality

- API users today can submit **masterAgreementType** and **contractualDefinitions** elements in SWDML and SWBML input messaging
- .../FpML/trade/documentation

<documentation>

<masterAgreement>

<masterAgreementType masterAgreementTypeScheme="http://www.swapswire.com/spec/2001/master-agreement-type-1-

- 0">ISDA</masterAgreementType>
- </masterAgreement>

<contractualDefinitions>ISDA2021</contractualDefinitions>

</documentation>

- The contractualDefinitions element is optional and <u>currently</u> if omitted on an initial submission the prevailing MarkitWire environment default for the Contractual Definitions field will prevail (in other words, deemed to apply). In UAT and in Production, up to, and for a transitional period beyond, October 4th (the "2021 ISDA IRD Definitions implementation date"), MarkitWire's default will remain as '2006 ISDA' (meaning the 2006 ISDA Definitions).
- Note that even if contractualDefinitions is omitted on an initial submission MarkitWire immediately defaults a value and the trade viewed in the MarkitWire GUI, the SWML returned to the submitter and the trade received by the counterparty will <u>ALWAYS</u> contain an explicit contractualDefinitions value.
- FRO names (generally the FpML element **floatingRateIndex**) are mandatory and MarkitWire validates the FRO name (string) provided against the corresponding Contractual Definitions specified, or deemed to apply.
- While some firms today do not provide an explicit contractualDefinitions value in their dealer or broker API submissions we strongly recommend all firms consider changing this practice as part of their 2021 Definitions implementation changes in light of MarkitServ's new proposal on the timing for switching the contractual definitions default value. Moreover, contractualDefinitions must be provided in order to incorporate the 2021 Definitions in a MarkitWire transaction.



API Functionality (2)

Dealer and Broker API

- The table on this slide illustrates the <u>current</u> behaviour for a Dealer or Broker API SWDML/SWBML submission based on the prevailing default Contractual Definitions value in the relevant MarkitWire UAT or Production environment
 - > While the Contractual Definitions default value remains as "2006 ISDA" (meaning the 2006 ISDA Definitions):

Input	Output		
contractualDefinitions	floatingRateIndex	FRO Commentary	
ISDA2006	0,	FRO defined under 2006 definitions	ISDA2006 + Legacy FRO
ISDA2021	1	FRO defined under 2021 definitions	ISDA2021 + New FRO
[not specified]	0,	FRO defined under 2006 definitions	ISDA2006 + Legacy FRO
[not specified]	1	FRO defined under 2021 definitions	API rejects the submission.



API Functionality (3)

- Please note that there are certain cases where the FRO name remains unchanged in MarkitWire's implementation between 2006 and 2021 Definitions. Current MarkitWire supported examples of this are:
 - > BRL-CDI
 - > TWD-TAIBIR01
 - > TWD-TAIBIR02
 - > USD-BSBY
- In such scenarios while the Contractual Definitions default value remains as "2006 ISDA" (meaning the 2006 ISDA Definitions):
 - > MarkitWire will book under the specified contractual definitions ('2006 ISDA' or '2021 ISDA') when the *contractualDefinitions* element is provided with an explicit value
 - > MarkitWire will book under the default contractual definitions of '2006 ISDA' when the *contractualDefinitions* element is omitted in the original submission.



API Functionality (4) – Inflation Swaps

- Since Inflation Swap trades reference two ISDA definitional booklets the contractualDefinitions element occurs twice in SWML 4.2 messaging
 - > The 2006 and 2008 ISDA Inflation Derivatives Definitions are identified with the FpML code values of "ISDA2006Inflation" and "ISDA2008Inflation"
 - > The 2000, 2006 and 2021 [Interest Rate Derivatives] Definitions are identified with the FpML code values of "ISDA2000", "ISDA2006" and "ISDA2021"

```
<documentation>
<masterAgreement>
<masterAgreementType masterAgreementTypeScheme="http://www.swapswire.com/spec/2001/master-agreement-type-1-0">ISDA</masterAgreementType>
</masterAgreement>
</masterAgreement>
</contractualDefinitions>ISDA2006</contractualDefinitions>
</documentation>
```

- > For input submissions MarkitWire is insensitive to the ordering of the booklets in the contractualDefinitions element, i.e. the Inflation Definitions can be referenced in the contractualDefinitions[1] or contractualDefinitions[2] position. Additionally, if one or both elements are omitted then MarkitWire currently will use its prevailing default value(s):
 - The MarkitWire default value for the Inflation Derivatives Definitions is the 2008 Inflation Derivatives Definitions. This
 will continue to remain the default after the October 2/3 implementation weekend
 - The MarkitWire default value for the Interest Rate Derivatives Definitions is the 2006 Definitions. This will now
 continue to remain the default up to, and for a transitional period beyond, October 4th
- > On output SWML messaging both contractualDefinitions elements are always present and the Interest Rate Derivatives Definitions will always be in the contractualDefinitions[1] position as for other Rates products.The Inflation Derivatives Definitions will always be in the contractualDefinitions[2] position.

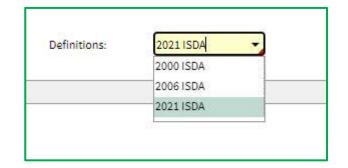


Phase 3 - MarkitWire 18.2 (In UAT now)



Early Visibility in UAT only

- MarkitWire has now implemented broad product and currency support for the 2021 Definitions in the UAT environment only.
- Setting Contractual Definitions to '2021 ISDA' on the Processing Tab makes Floating Rate Options defined under 2021 ISDA available for selection. An example is shown below for a GBP LIBOR vs. SONIA Basis Swap trade:



Main Index/Stub	Roll Dates	Break	Break(2)	Amortising/Ac	creting	Allocation	🖲 Holiday	s Independent Amount	
Add'l Payments 1-3	Cancella	ncellation Fee			1 Intern	Internal Data Settlement Agency			
Regulatory Reporting	Order Details	Identifier	s			and short			
	Pay					Rec]		
Floating Rate Index:	3m 👻 GBP-LIB	OR	-	Floating Ra	te Index:		GBP-SONIA-C	DIS Compound 👻	
Spread Over Floating:	0.0000 bp)		Spread Ove	r Floating:	0.0000	bp		
Floating Rate Multiplier:	%			Floating Ra	te Multiplier:		%		
1st Fixing Rate:	%	8		1st Fixing R	ate:		%		



Full Product and Currency Support

• The table below summarizes the list of MarkitWire Rates products where 2021 ISDA support is now available:

	Rates Products	Contra	ctual Defi	nitions
		2000	2006	2021
1.	Basis Swap	X	\checkmark	\checkmark
2.	Cap/Floor	\checkmark	\checkmark	\checkmark
3.	Cross Currency Basis Swap	X	\checkmark	\checkmark
4.	Cross Currency IRS	X	\checkmark	\checkmark
5.	Fixed Fixed Swap (Single CCY and XCCY)	X	\checkmark	\checkmark
6.	FRA	\checkmark	\checkmark	\checkmark
7.	IRS	\checkmark	\checkmark	\checkmark
8.	OIS	\checkmark	\checkmark	\checkmark
9.	Swaption	\checkmark	\checkmark	\checkmark
10.	ZC Inflation Swap	\checkmark	\checkmark	\checkmark



Key Product Considerations

 This table summarizes some of the key considerations for each MarkitWire Rates product. Note this is for guidance only and shouldn't be considered exhaustive. Firms are encouraged to consider their own specific implementations and which products are cleared (and at which CCP) and those which are non-cleared.

Product	FRO Name Changes	OET/MET Changes	Other Election (Mkt Practice) Changes	Other Considerations
Basis Swap	Yes	Yes		
Cap/Floor	Yes	Yes		
Cross Currency Basis Swap	Yes	Yes		
Cross Currency IRS	Yes	Yes		
Fixed Fixed Swap (Single and Cross-Currency)	Yes	Yes		
FRA	Yes	No [1]		[1] MarkitWire does not support OET or MET on the FRA product.
IRS	Yes	Yes		
OIS	Yes	Yes		
Swaption	Yes	Yes	Yes	Exercise into Underlying Swap. Note some counterparties may clear the underlying swap via other platforms.
ZC Inflation Swap (these incorporate both Inflation <u>and</u> Rates Derivatives Definitions)	No	Yes		While the Index Descriptions (analogous to FROs) remain unchanged if a bilateral transaction involved an OET or MET they would use the new cash settlement methods under 2021 Defs.



Clearing Eligibility in MarkitWire UAT under 2021 Definitions

 When CCPs support 2021 FROs in their test environments, MarkitWire clearing eligibility will be updated to enable new clearing trade registration. The current status and planned dates (as CCPs have permitted MarkitServ to communicate) are shown below:

ССР	Support of all applicable FROs under the 2021 Definitions in UAT	
LCH	August 11 th	
СМЕ	August 25 th	
ВМЕ	September 1 st	
KDPW	September 1 st	
KRX	September 8 th	
Eurex	September 6 th	
NASDAQ OMX	September 15 th	
BBG VCON	September 22 nd	

 In MarkitWire workflows where clearing eligibility rules are being applied, if the CCP is not yet able to accept new 2021 FRO names, e.g. "USD-LIBOR", then the trade will fail eligibility checks in MarkitWire and the selected 2021 FRO name will be referenced as illustrated in a USD example below:

Trade marked as a Clearing trade but fails eligibility rules.

The Floating Rate Index must be 'USD-LIBOR-BBA;USD-Federal Funds-H.15' for an IRS USD trade to be cleared. You selected 'USD-LIBOR'.



Contractual Definitions column in GUI blotter and exports

 The Contractual Definitions column in the TC Web Blotter view and Exports will now display the applicable "ISDA2006" or "ISDA2021" value based on what has been specified on the trade. Note this column will be populated in Production for <u>new</u> activity from the 18.2 Release date of September 13, 2021

 \mathbf{N}

		mins N	Markit 🖪 Ne	w Direct Deal	👻 🖬 Dupli	cate 👻 Go	o To Trade ID	Q Search	🔳 Browse Deal	I Show Fields	S 0-	💄 Guy G	iurden 1 - AAA Bank @ UAT
		Direct Deal	ls (16)	Fi	ilter					*			Update 🕶
		Active Deal	ls (92)		Trade ID	Version	Trade Date	Contract State	Booking State	▲ Contractual Definitions	F/Rate Index	Priv	Go To Active Deal
		Novations	(1)	62	2333269	1	01 Jun 2021	New-Clearing	Released	ISDA2006	GBP-SONIA-COMPOUND		Go To Active Deal
		Q Blotter (66)		2342869	1	17 Aug 2021	New-Clearing	Released	ISDA2006	JPY-TONA-OIS-COMPOUND		Display Ticket 💌
		★ Today 1			2344924	1	17 Aug 2021	New-Clearing	Released	ISDA2006	USD-SOFR-COMPOUND		Deal History
		★ Today 2			2344959	1	17 Aug 2021	New-Clearing	Released	ISDA2006	USD-SOFR-COMPOUND		
					2309555	1	04 Oct 2020	New-Novated	Released	ISDA2006	EUR-EuroSTR-COMPOUND		Deal Details
		🖈 Today 3			2328555	1	04 Oct 2020	New-Novated	Released	ISDA2006	EUR-EuroSTR-COMPOUND		Reporting History
		★ Today 4		•	2342593	1	04 Oct 2020	New-Novated	Released	ISDA2006	EUR-EuroSTR-COMPOUND		
		★ Today 5			326341	1	13 Aug 2021	New	Pending	ISDA2021	USD-SOFR-OIS Compound		Clearing 👻
					232,757 2326814	1	13 Aug 2021	New	Pending	ISDA2021	GBP-SONIA-OIS Compound		Settlement 🕶
					2326814	1	13 Aug 2021	New	Pending	ISDA2021	USD-SOFR-OIS Compound		
				62	2342915	1	17 Aug 2021	New	Released	ISDA2021	JPY-TONA-OIS Compound	-	Set Batch ID
A	В	C	D	E		F		G					Export -
			Contract State			al Definitions	F/Rate Index						
6233326			1 New-Clearing		ISDA2006		GBP-SONIA-CO						Reports 🕶
6234286 6234492			L New-Clearing		ISDA2006 ISDA2006		JPY-TONA-OIS USD-SOFR-COM						
6234492			L New-Clearing		ISDA2006		USD-SOFR-COM						
6230955			0 New-Novated		ISDA2000		EUR-EuroSTR-C						
6232855			0 New-Novated		ISDA2006		EUR-EuroSTR-0						
6234259			0 New-Novated		ISDA2006		EUR-EuroSTR-C						
6232634	1	1 13/08/2021	l New	Pending	ISDA2021		USD-SOFR-OIS	Compound					
6232675	7	1 13/08/2021	L New	Pending	ISDA2021		GBP-SONIA-OI	S Compound					
6232681	4	1 13/08/2021	l New	Pending	ISDA2021		USD-SOFR-OIS	Compound					
6234297	5	1 17/08/2021	New	Released	ISDA2021		JPY-TONA-OIS	Compound					

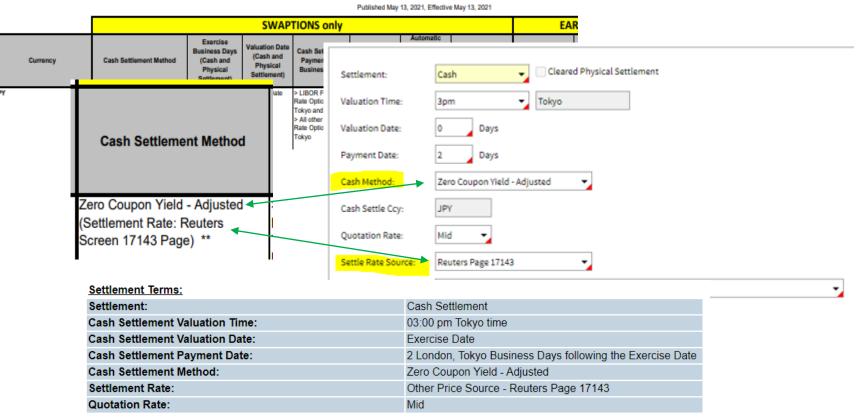
 To add the Contractual Definitions column into the TC Web list of displayed columns use the Options menu and select the Columns option to display the window where you can move the Contractual Definitions list item from the left-hand list of Available Columns to the right-hand list of Selected Columns:

_				dianalishine Colorene		Chur	Salacted Columns
-	1	3 0 - 1 Guy	Gurden 1 - AAA Bank @ UAT	and Perty	-	Trade IO	
-			dorden 1 - Wee bank @roki	Additional Bond Details		Version	
				Intelligenced Planet 3		Trade Date	
				Additional Field 2		Contract State	
ettin es			Update *	Adultional Field 3		Reaching State	
rungs			opuate -	indelitional Field 4		Contractual Definitions	
	F/Rate Index	Private Ver		Additional Heid 5 Idditional Payment J American		Private Index	
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			GD TD ACTIVE Deal	Additional Payment L Comercy		Wate Index 2	
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faults				additional Payment 2 Currency		End Date	
				additional Payment I Take		Traduct.	
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plication				Additional Payment 2 Reapon		Tenor	
				Adultional Terris		Instan Name	
nail Notifications			Deal Details	and)usted SA Fee Amount		Tradier	
				Adjusted SA Ree Currency		Currency	
terest Groups				Adjusted Sh Fee Date		Numberal	
terest Groups			Reporting History	Adjusted SA Fee Direction		Rate	
			Reporting history	Adjusted 3A Fee Type		Premium Pay Direction	
				datjustersant Hathaut		Pramium Amit	



JPY-LIBOR-BBA Swaption (under 2006 Definitions)

- Example of a Swaption change brought about by a Settlement Rate reference change between 2006 and 2021 Definitions
- Per the 2006 ISDA Definitions Settlement Matrix for Early Terminations and Swaptions (see <u>https://www.isda.org/book/isda-</u>definitions-settlement-matrix-for-early-termination-and-swaptions/)

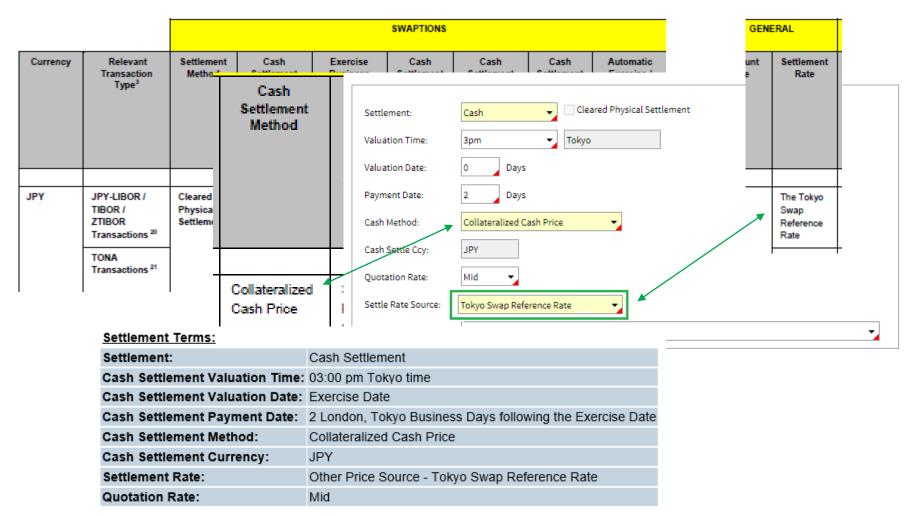


2006 ISDA Definitions Settlement Matrix for Early Termination and Swaptions (the "ISDA Settlement Matrix")



JPY-LIBOR Swaption (under 2021 Definitions)

• Per the 2021 ISDA Definitions Settlement Matrix for Settlement, Early Termination and Swaptions





JPY-LIBOR Swaption (under 2021 Definitions) (2)

- In order to represent the new 2021 Definitions-defined Settlement Rate of "Tokyo Swap Reference Rate" in FpML messaging a <u>new</u> code "TOKYOSWAP" has been defined as shown below.
 - > This works similarly to the <u>existing</u> code "ICESWAP" which represents the "ICE Swap Rate" and is relevant for EUR, GBP and USD Swaption currencies and both would appear within the <rateSource> FpMLelement.

```
<collateralizedCashPriceMethod>
<cashSettlementCurrency>JPY</cashSettlementCurrency>
<settlementRateSource>
<informationSource>
</arteSource>TOKYOSWAP</rateSource>
</informationSource>
</settlementRateSource>
<quotationRateType>Mid</quotationRateType>
</collateralizedCashPriceMethod>
```

Settlement Terms:

Settlement:	Cash Settlement
Cash Settlement Valuation Time:	03:00 pm Tokyo time
Cash Settlement Valuation Date:	Exercise Date
Cash Settlement Payment Date:	2 London, Tokyo Business Days following the Exercise Date
Cash Settlement Method:	Collateralized Cash Price
Cash Settlement Currency:	JPY
Settlement Rate:	Other Price Source - Tokyo Swap Reference Rate
Quotation Rate:	Mid



SWML 4.2 Messaging

Settlement Terms:

- As the market and ISDA language evolved through the publication of Supplements to the 2006 ISDA Definitions (e.g. Supplements 28, 48 and 64 affecting Swaption settlement), MarkitWire in some cases added elements in SWML outside of the core FpML to capture new confirmable fields which could not be captured within FpML 4.2 natively. Typically, these appear in the swExtendedTradeDetails container in the SWML.
- Examples of this can be found in the Swaption product with fields such as the Collateralized Cash Price cash settlement method, Cleared Physical Settlement, Mutually Agreed Clearinghouse and Agreed Discount Rate.

	settement terms.			
	Settlement:	Cash		
	Cash Settlement Valuation Time:		11:00 AM New York time	
	Cash Settlement Valuation Date:		Exercise Date	
	Cash Settlement Payment Date:	2 London, New York Business Days	following the Exercise Date	
	Cash Settlement Method:			
	Settlement Rate:			
	Quotation Rate:	Mid		
	Mutually Agreed Clearing House:	LCHLGBOBFCM		
	Agreed Discount Rate:	SOFR		
<pre>swExtendedTradeDetails false forUnderlyingSwap>LCHLGBOBFCM false false false false false false falsefal</pre>				
Confidential. © 2021 IHS Markit®. All rights reserve	G. · T I F I F I F I F I F I F I F I F I F I			



SWML 4.2 Messaging (2)

- With ISDA updating the FpML 4.2 Schemas to support the 2021 ISDA Definitions certain fields such as the Collateralized Cash Price cash settlement method, Cleared Physical Settlement, Mutually Agreed Clearinghouse and Agreed Discount Rate can now be represented within the FpML 4.2 native structures.
- SWML 4.2 for any trade where 2021 ISDA is specified as the applicable Contractual Definitions will <u>always</u> use these newly available FpML 4.2 native structures and elements.
- SWML 4.2 for any non-2021 ISDA trade will be available using:
 - > Either the existing legacy swExtendedTradeDetails elements (as illustrated on previous slide);
 - > Or the newly available FpML 4.2 native structures and elements (i.e. consistent with how a 2021 ISDA SWML 4.2 trade would be generated as illustrated on next but one slide)
 - > The <u>default</u> SWML 4.2 generation for non-2021 ISDA trades will use the existing custom elements and API users will <u>optionally</u> be able to set a configuration via an API call if they wish the 'legacy' trades (e.g. those referencing 2006 ISDA and 2000 ISDA Contractual Definitions) to be generated using the same FpML 4.2 structures as 2021 ISDA trades.
 - > This configuration control will be available in both MarkitWire UAT and Production.
- The API function SW_SetCapability has been provided with a new 'capability' 'Use2021SWML4.2ForNonISDA2021' parameter value to allow an API user to request being provided harmonized SWML 4.2 formats for both 2021 ISDA and legacy 2006/2000 ISDA trades.
- We feel providing implementors with this choice for 'legacy' trades may provide additional flexibility as firms plan their changes and rollout strategy.
- Note this choice is about messaging formats only. FRO names and any other data or features specific to a given set of Definitions will remain distinct regardless of the messaging format preference chosen.



SWML 4.2 Messaging (3)

• <u>Either</u> legacy 2006 (and 2000) trades can be generated using current legacy messaging formats while new 2021 trades will use native FpML messaging formats (**non-harmonized**):

Term	2006 ISDA Trade	2021 ISDA Trade
	Uses SWML sw ExtendedTradeDetails, e.g.	Uses Native FpML, e.g.
Mutually Agreed Clearinghouse	<sw ap="" for="" predeterminedclearer="" underlyingsw=""></sw>	<mutuallyagreedclearinghouse></mutuallyagreedclearinghouse>
Collateralized Cash Price	<sw collateralizedcashprice=""></sw>	<collateralizedcashpricemethod></collateralizedcashpricemethod>
Agreed Discount Rate	<sw agreeddiscountrate=""></sw>	<agreeddiscountrate></agreeddiscountrate>
Etc.	Etc.	Etc.

• Or using the API function SW_SetCapability with a new 'capability' 'Use2021SWML4.2ForNonISDA2021 both legacy 2006 (and 2000) trades and new 2021 trades can be generated using native FpML messaging formats (harmonized):

Term	2006 ISDA Trade	2021 ISDA Trade
	Uses Native FpML, e.g.	Uses Native FpML, e.g.
Mutually Agreed Clearinghouse	<mutuallyagreedclearinghouse></mutuallyagreedclearinghouse>	<mutuallyagreedclearinghouse></mutuallyagreedclearinghouse>
Collateralized Cash Price	<collateralizedcashpricemethod></collateralizedcashpricemethod>	<collateralizedcashpricemethod></collateralizedcashpricemethod>
Agreed Discount Rate	<agreeddiscountrate></agreeddiscountrate>	<agreeddiscountrate></agreeddiscountrate>
Etc.	Etc.	Etc.

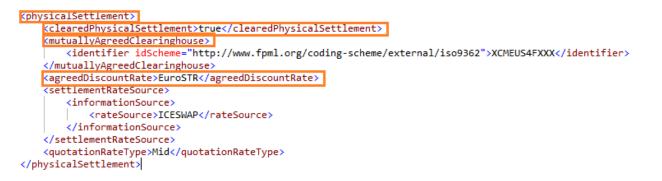


SWML 4.2 Messaging (4)

Example new native FpML 4.2 Swaption Cash Settlement: //FpML/trade/swaption/cashSettlement/collateralizedCashPriceMethod

<collateralizedcashpricemethod></collateralizedcashpricemethod>
<cashsettlementcurrency>EUR</cashsettlementcurrency>
<settlementratesource></settlementratesource>
<informationsource></informationsource>
<ratesource>ICESWAP</ratesource>
<quotationratetype>Mid</quotationratetype>
<pre>kmutuallyAgreedClearinghouse></pre>
<pre><identifier idscheme="http://www.fpml.org/coding-scheme/external/iso9362">XCMEUS4FXXX</identifier></pre>
<pre><agreeddiscountrate>EuroSTR</agreeddiscountrate></pre>

Example new native FpML 4.2 Swaption Cleared Physical Settlement: //FpML/trade/swaption/physicalSettlement



 Note the harmonized format would also apply for the collateralizedCashPriceMethod structure when used in the context of an Optional or Mandatory Early Termination on legacy 2006/2000 and 2021 trades.

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Cash Settlement Method Changes in the 2021 Definitions

- The Cash Settlement Provisions section of the ISDA Key Changes document https://www.isda.org/a/BNEgE/Key-Changes-in-the-2021-ISDA-Interest-Rate-Derivatives-Definitions-June-2021.pdf includes the following table which is a helpful reminder of the Cash Settlement Method which are supported under either the 2006 or 2021 Definitions. Refer to the Key Changes document for a description of the new methodologies introduced by the Mid-market Valuation and Replacement Value approaches.
- Note the Par Yield Curve Unadjusted and Collateralized Cash Price methods are the only two supported under both the 2006 and 2021 Definitions.

2006 Definitions - Cash Settlement Method	2021 Definitions – Cash Settlement Method
Cash Price	Mid-market Valuation (Indicative Quotations)
	Mid-market Valuation (Calculation Agent Determination)
	Replacement Value (Firm Quotations)
	Replacement Value (Calculation Agent Determination)
Cash Price - Alternate Method	Mid-market Valuation (Indicative Quotations) - Alternate Method
Par Yield Curve - Adjusted	Not included
Par Yield Curve - Unadjusted	Par Yield Curve - Unadjusted
Zero Coupon Yield - Adjusted	Not included
Cross Currency Method	Not included
Collateralized Cash Price	Collateralized Cash Price

Table 4: Comparison of Cash Settlement Methods

 The December 15, 2020 and December 17, 2020 recordings of ISDA WG discussions on the cash settlement provisions may be helpful to provide context to how some of the Mid-market Valuation final drafting was agreed upon. The links are http://assets.isda.org/media/b690fbed/93ab9322-mp3/ and http://assets.isda.org/media/b690fbed/93ab9322-mp3/ and http://assets.isda.org/media/b690fbed/93ab9322-mp3/ and http://assets.isda.org/media/b690fbed/93ab9322-mp3/ and http://assets.isda.org/media/b690fbed/93ab9322-mp3/ and http://assets.isda.org/media/b690fbed/93ab9322-mp3/ and http://assets.isda.org/media/b690fbed/941f5a68-mp3/

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Early Termination Cash Settlement

• MarkitWire will support the following Early Termination cash settlement methods under 2021 ISDA (see Section 18.2 Cash Settlement Methods in the 2021 Definitions):

Early Termination Cash Settlement Methods under 2021
Mid-market Valuation (Indicative Quotations)
Mid-market Valuation (Indicative Quotations) – Alternate Method
Mid-market Valuation (Calculation Agent Determination)
Replacement Value (Firm Quotations)
Replacement Value (Calculation Agent Determination)
Collateralized Cash Price



Early Termination Cash Settlement – Mid-market Valuation

- There are 3 "Mid-market Valuation" Cash Settlement Methods introduced in the 2021 Definitions (also referred to as the "MMV" methods):
- > Mid-market Valuation (Indicative Quotations)
- > Mid-market Valuation (Indicative Quotations) Alternate Method
- > Mid-market Valuation (Calculation Agent Determination)
- The MarkitWire default Cash Settlement Method is "Mid-market Valuation (Indicative Quotations)" for both Optional (OET) and Mandatory (MET) Early Termination under 2021 ISDA. This is consistent with the values defined in the "2021 ISDA Interest Rate Derivatives Definitions Settlement Matrix for Settlement, Early Termination and Swaptions". Version 2.0 of the matrix is illustrated below but there are no changes in this respect versus Version 1.0.
 - > For OET it's "Mid-market Valuation (Indicative Quotations)" with "Existing CSA" as the "MMV Applicable CSA"
 - > For MET it's "Mid-market Valuation (Indicative Quotations)" with "Reference VM CSA" as the "MMV Applicable CSA"

2021 ISDA Interest Rate Derivatives Definitions Settlement Matrix for Settlement, Early Termination and Swaptions

Published [•]June 11, 2021, Effective [•]June 11, 2021

Version 24.0

(III) if neither "No CSA" nor "Existing CSA" applies as the "MMV Applicable CSA", that Relevant Master Agreement shall have a bilateral VM Credit Support Annex (the "Reference VM CSA") under which the Relevant Transaction is the only transaction subject to that VM Credit Support Annex and providing for the following elections in respect of each party:

This Settlement Matrix applies in respect of a Transaction (a) to which either "Optional Early Termination" or "Mandatory Early Termination" is applicable or (b) that is a Swaption, if, in either case, the Tran involves either (a) one currency and that currency is, as the Trade Date of the Transaction, included in this Settlement Matrix, or (b) two currencies that are, as at the Trade Date of the Transaction, included in this

		SWAPTIONS			SWAPTIONS ¹ SINGLE CURRENCY TRANSACTIONS ¹ - OPTIONAL EARLY SINGLE CURRENC TERMINATION AND MANDATORY EARLY TERMINATION SWAPTIONS AND OPT				GENERAL T									
Currency	Relevant Transaction Type ⁴	Settlement Methodmet hod	Cash Settlement Method	Exercise Business Days (Cash Settlement and Physical Settlement)	Cash Settlement Valuation Date (Cash Settlement and Physical Settlement)	Cash Settlement Payment Date Business Days	Cash Settlement Payment Date ("CSPD")	Automatic Exercise / Fallback Exercise (Physical Settlement)	Cash Settlement Method - OET	Cash Settlement Method - MET	Exercise Business Days / Valuation Business Days	Expiration Date /Exercise Date ⁸	Cash Settlement Valuation Date	Earliest Exercise Time	Latest Exercise Time / Cash Settlement Valuation Time / Expiration Time	Discount Rate	Settlement Rate	Currency Pair
AMERICAS																		
CAD	CDOR Transactions ⁶	Cleared Physical Settlement	Collateralized Cash Price	Toronto	Exercise Date	Toronto	One Business Day	Fallback Exercise	Mid- <u>m</u> Market Valuation	Mid- mMarket Valuation	Toronto	Five Exercise Business	CSPD7	9:00 a.m. Toronto time	> Swaptions: 11:00 a.m. Toronto time	CORRA	Reference Banks	CAD / USD
	CORRA Transactions ⁸	Physical Settlement	Collateralized Cash Price				Exercise Date		(Indicative Quotations) with "Existing CSA" applicable	(Indicative Quotations)		Days prior to relevant CSPD			> OET/MET: 4:00 p.m. Toronto time		Reference Banks	



Early Termination Cash Settlement – Mid-market Valuation (2)

 See Version 1.0 of Exhibit II-F to 2021 Definitions (Confirmation template for "Additional Provisions for a Confirmation of a Transaction to which Optional Early Termination applies") for ISDA's sample confirmation. Note the below is taken from Version 1.0 of the Exhibit II-F and the next page Version 2.0. Note there are no differences:

[3b.

[Mid-market Valuation (Indicative Quotations): ²⁴		
[MMV Applicable CSA:] ²⁵	[No CSA]/	[Existing CSA]/[Reference VM CSA]
[Cash Collateral Currency:]	[] ²⁶
[Cash Collateral Interest Rate:]	[]27
[Agreed Discount Rate:]]	[]28

- ²⁴ Include this and the following applicable fields if Cash Settlement is applicable and Mid-market Valuation (Indicative Quotations) is the specified Cash Settlement Method.
- ²⁵ This field does not need to be included if the "MMV Applicable CSA" is Reference VM CSA as per the default position set out in Section 18.2.1(iv)(b)(III) (*Mid-market Valuation (Indicative Quotations)*). However, parties may prefer to include the field for transparency in that case.
- ²⁶ Include if Reference VM CSA applies, there are two Cash Settlement Currencies, and parties are not relying on the default Single Cash Settlement Currency for the currency of the Eligible Collateral (VM) or Eligible Credit Support (VM) as set out in Section 18.2.1(iv)(b)(III)(1) (*Mid-market Valuation (Indicative Quotations)*).
- ²⁷ Include if Reference VM CSA applies and the parties are not relying on the default position of the Discount Rate in the Settlement Matrix as the Interest Rate (VM), or the Settlement Matrix does not provide a default Discount Rate for the relevant currency and the parties do not want to rely on the default position of selection of the Discount Rate by the Calculation Agent. The Settlement Matrix will not provide a default Discount Rate for all currencies.
- ²⁸ Include if "No CSA" applies and the parties are not relying on the default position for the Discount Rate in the Settlement Matrix, or the Settlement Matrix does not provide a default Discount Rate for the relevant currency and the parties do not want to rely on the default position of selection of the Discount Rate by the Calculation Agent.



Early Termination Cash Settlement – Mid-market Valuation (2a)

Version 2.0 of Exhibit II-F to 2021 Definitions (Confirmation template for "Additional Provisions for a Confirmation of a Transaction to which Optional Early Termination applies") for ISDA's sample confirmation:

[Mid-market Valuation (Indicative Quotations): ²¹⁶²⁴						
[MMV Applicable CSA:] ²¹²²⁵	[No CS	[No CSA]/[Existing CSA]/[Reference VM CSA]				
[Cash Collateral Currency:]	[] 218<u>26</u>				
[Cash Collateral Interest Rate:]	[] 210<u>27</u>				
[Agreed Discount Rate:]]	[]22028				
[Mid-market Valuation (Indicative Quotations) – Alternate Method: ²²¹²⁹						
[MMV Applicable CSA:] ²²²³⁰	[No CS	SA]/[Existing CSA]/[Reference VM CSA]				

- Include this and the following applicable fields if Cash Settlement is applicable and Mid-market Valuation (Indicative Quotations) is the specified Cash Settlement Method.
- This field does not need to be included if the "MMV Applicable CSA" is Reference VM CSA as per the default position set out in Section 18.2.1(iv)(b)(III) (*Mid-market Valuation (Indicative Quotations*)). However, parties may prefer to include the field for transparency in that case.
- Include if Reference VM CSA applies, there are two Cash Settlement Currencies, and parties are not relying on the default Single Cash Settlement Currency for the currency of the Eligible Collateral (VM) or Eligible Credit Support (VM) as set out in Section 18.2.1(iv)(b)(III)(1) (Mid-market Valuation (Indicative Quotations)).
- Include if Reference VM CSA applies and the parties are not relying on the default position of the Discount Rate in the Settlement Matrix as the Interest Rate (VM), or the Settlement Matrix does not provide a default Discount Rate for the relevant currency and the parties do not want to rely on the default position of selection of the Discount Rate by the Calculation Agent. The Settlement Matrix will not provide a default Discount Rate for all currencies.
- Include if "No CSA" applies and the parties are not relying on the default position for the Discount Rate in the Settlement Matrix, or the Settlement Matrix does not provide a default Discount Rate for the relevant currency and the parties do not want to rely on the default position of selection of the Discount Rate by the Calculation Agent.



Cash Method:

Early Termination Cash Settlement – Mid-market Valuation (3)

Mid-market Valuation (Indicative Ouotations)

Break Style:	Optional - Mutual	
Calc Agent:	As Specified in Master Agreement	
Cash Method:	Mid-market Valuation (Indicative Quotations)	
Settlement Rate Source:	Reference Banks	
Reference Banks:	Agreed on exercise	
MMV Applicable CSA:	Existing CSA 🔹	
Cash Collateral Currency:	•	
Cash Collateral Interest Rate:		
Agreed Discount Rate:		

MMV Applicable CSA:	Existing CSA	No CSA	Reference VM CSA
Cash Collateral Currency:	0	-	[Note 2]
Cash Collateral Interest Rate:	•	-	[Note 2]
Agreed Discount Rate:	—	[Note1]	—

- > When "MMW Applicable CSA" is set to "Existing CSA" we propose to set the Cash Collateral Currency, Cash Collateral Interest Rate and Agreed Discount Rate fields to blank/null values and read-only. Their implied values would be derived from the "Existing CSA".
- > When "MMW Applicable CSA" is set to "**No CSA**" we propose to set the Cash Collateral Currency and Cash Collateral Interest Rate fields to blank/null values and read-only as by definition the transaction is considered not collateralized
 - [Note 1] The Agreed Discount Rate can be specified when "No CSA" is applicable. If no election is made in the Confirmation the Discount Rate specified in the ISDA Settlement Matrix for the relevant currency, or if not specified, determined by the Calculation Agent
- > [Note 2] When "MMW Applicable CSA" is set to "**Reference VM CSA**" we propose to allow the Cash Collateral Currency and Collateral Interest Rate to be specified (although the 2021 Definitions provide default positions if values are not specified in the Confirmation)
 - The Agreed Discount Rate should not be specified when "Reference VM CSA" is applicable and would be set to blank/null and read-only under this scenario.



Early Termination Cash Settlement – Mid-market Valuation (4)

• When any MMV method is selected the following new fields will be available on the Break(2) tab subject to the rules described on the previous slide:

Field Name	Optional/Mandatory	Field Type	Field Values
MMV Applicable CSA	Mandatory	List	No CSAExisting CSAReference VM CSA
Cash Collateral Currency	Optional	List	• CCY
Cash Collateral Interest Rate	Optional	List	 Discount Rates from 2021 ISDA Settlement Matrix (see "Discount Rate" column) and FpML benchmark-rate coding scheme
Agreed Discount Rate	Optional	List	 Discount Rates from 2021 ISDA Settlement Matrix (see "Discount Rate" column) and FpML benchmark-rate coding scheme
	Break Style: Optional - Mutual Calc Agent: As Specified in Master Agreem Cash Method: Mid-market Valuation (Indication) Settlement Rate Source: Reference Banks Reference Banks: Agreed on exercise MMV Applicable CSA: Existing CSA Cash Collateral Interest Rate: Agreed Discount Rate:		



Early Termination Cash Settlement – Mid-market Valuation (5)

- The below illustrates the 2021 Definitions <u>Optional</u> Early Termination (**OET**) default in the MarkitWire GUI, Deal Ticket and SWML/FpML message for a USD transaction
 - > For OET it's "Mid-market Valuation (Indicative Quotations)" with "Existing CSA" as the "MMV Applicable CSA"

• GUI:	Break Style:	Optional - Mutual
001.	Calc Agent:	As Specified in Master Agreement
	Cash Method:	Mid-market Valuation (Indicative Quotations)
	Settlement Rate Source:	Reference Banks
	Reference Banks:	Agreed on exercise
	MMV Applicable CSA:	Existing CSA
	Cash Collateral Currency:	
	Cash Collateral Interest Rate:	
	Agreed Discount Rate:	

Deal Ticket:
 EARLY TERMINATION PROVISION:

Early Termination Type:	Optional Early Termination
Cash Settlement Method:	Mid-market Valuation (Indicative Quotations)
Cash Settlement Currency:	USD
Settlement Rate:	Reference Banks
Cash Settlement Reference Banks:	To be agreed on the Exercise Date
MMV Applicable CSA:	Existing CSA

SWML/FpML:

<midMarketValuation> <indicativeQuotations> <cashSettlementCurrency>USD</cashSettlementCurrency> <applicableCsa>ExistingCSA</applicableCsa> </indicativeQuotations> </midMarketValuation> </cashSettlement> </optionalEarlyTermination> </earlyTerminationProvision>



Early Termination Cash Settlement – Mid-market Valuation (6)

- The below illustrates the 2021 Definitions <u>Mandatory</u> Early Termination (**MET**) default in the MarkitWire GUI, Deal Ticket and SWML/FpML message for a USD transaction
 - > For MET it's "Mid-market Valuation (Indicative Quotations)" with "Reference VM CSA" as the "MMV Applicable CSA"

Break Style:	Mandatory	-
Calc Agent:	As Specified in Master Agreement	-
Cash Method:	Mid-market Valuation (Indicative Quotations)	
Settlement Rate Source:	Reference Banks	-
Reference Banks:	Agreed on exercise	
MMV Applicable CSA:	Reference VM CSA	-
Cash Collateral Currency:	-	
Cash Collateral Interest Rate:		-
Agreed Discount Rate:		-

Note in this example transaction no explicit values for **Cash Collateral Interest Currency** or **Cash Collateral Interest Rate** were specified in the confirmation. See "[Note 2]" on earlier slide for further details

Deal Ticket:

• GUI

EARLY TERMINATION PROVISION:

Early Termination Type:	Mandatory Early Termination				
Cash Settlement Method:	Mid-market Valuation (Indicative Quotations)				
Cash Settlement Currency:	USD				
Settlement Rate:	Reference Banks				
Cash Settlement Reference Banks:	To be agreed on the Cash Settlement Valuation Date				
MMV Applicable CSA:	Reference VM CSA				

• SWML/FpML:



Early Termination Cash Settlement – Replacement Value

- There are 2 "Replacement Value" methods introduced in the 2021 Definitions:
 - > Replacement Value (Firm Quotations)
 - > Replacement Value (Calculation Agent Determination)



Early Termination Cash Settlement – Replacement Value (2)

 See Version 1.0 of Exhibit II-F to 2021 Definitions (Confirmation template for "Additional Provisions for a Confirmation of a Transaction to which Optional Early Termination applies") for ISDA's sample confirmation. Note the below is taken from Version 1.0 of the Exhibit II-F and the next page Version 2.0. Note there are no differences:

[Replacement Value (Firm Quotations) ³⁹		
[Protected Party:] ⁴⁰	[Specify]/	[Both parties]
[Cash Collateral Currency:]	[] ⁴¹
Prescribed Documentation Adjustment:]	[Applicab	le]/[Not applicable]
[Replacement Value (Calculation Agent Determina	tion)42	
[Protected Party:]43	[Specify]/[[Both parties]
[Cash Collateral Currency:]]	[]44

- ³⁹ Include this and the following applicable fields if Cash Settlement is applicable and Replacement Value (Firm Quotations) is the specified Cash Settlement Method.
- ⁴⁰ Include unless relying on the default position in Section 18.4.17 (Protected Party).
- ⁴¹ Only include if (a) the parties do not have an ISDA Master Agreement governing the relevant Transaction and (b) the parties are not relying on the default position for the currency of the Eligible Collateral (VM) or Eligible Credit Support (VM) under the deemed ISDA VM CSA as set out in Section 18.2.4(iv)(b) (*Replacement Value (Firm Quotations*)).
- ⁴² Include this and the following applicable fields if Cash Settlement is applicable and Replacement Value (Calculation Agent Determination) is the specified Cash Settlement Method.
- ⁴³ Include unless relying on the default position in Section 18.4.17 (Protected Party).
- ⁴⁴ Only include if the parties are not relying on the default position for the currency of the Eligible Collateral (VM) or Eligible Credit Support (VM) under the deemed ISDA VM CSA as set out in Section 18.2.5(i) (*Replacement Value (Calculation Agent Determination*)).



Early Termination Cash Settlement – Replacement Value (2a)

 Version 2.0 of Exhibit II-F to 2021 Definitions (Confirmation template for "Additional Provisions for a Confirmation of a Transaction to which Optional Early Termination applies") for ISDA's sample confirmation:

[Replacement Value (Firm Quotations) ²³¹³⁹	
[Protected Party:] ²³²⁴⁰	[Specify]/[Both parties]
[Cash Collateral Currency:]	[] ^{222<u>41</u>}
Prescribed Documentation Adjustment:]	[Applicable]/[Not applicable]
[Replacement Value (Calculation Agent Deter	rmination) ^{224<u>42</u>}
[Protected Party:] ²²⁵⁴³	[Specify]/[Both parties]
[Cash Collateral Currency:]]	[]44

- Include this and the following applicable fields if Cash Settlement is applicable and Replacement Value (Firm Quotations) is the specified Cash Settlement Method.
- J3240 Include unless relying on the default position in Section 18.4.17 (Protected Party).
- Only include if (a) the parties do not have an ISDA a Relevant Master Agreement governing the relevant Transaction and (b) the parties are not relying on the default position for the currency of the Eligible Collateral (VM) or Eligible Credit Support (VM) under the deemed ISDA VM CSA as set out in Section 18.2.4(iv)(b) (Replacement Value (Firm Quotations)).
- Include this and the following applicable fields if Cash Settlement is applicable and Replacement Value (Calculation Agent Determination) is the specified Cash Settlement Method.
- Include unless relying on the default position in Section 18.4.17 (Protected Party).
- ⁴⁴ Only include if the parties are not relying on the default position for the currency of the Eligible Collateral (VM) or Eligible Credit Support (VM) under the deemed ISDA VM CSA as set out in Section 18.2.5(i) (*Replacement Value (Calculation Agent Determination)*).



Early Termination Cash Settlement – Replacement Value (3)

•	Replacement Value (Firm Quotations)	[Replacement Value (Firm Quotations) ³⁹ [Protected Party:] ⁴⁰ [Specify]/[Both parties] [Cash Collateral Currency:] []] ⁴¹ Prescribed Documentation Adjustment:] [Applicable]/[Not applicable]	
	Break Style:	Optional - Mutual	
	Calc Agent:	As Specified in Master Agreement	
	Cash Method:	Replacement Value (Firm Quotations)	
	Settlement Rate Source:	Reference Banks	
	Reference Banks:	Agreed on exercise	
	Protected Party:	Non-Exercising Party 👻	
	Cash Collateral Currency:	-	
	Prescribed Documentation Adjustment:	Not Applicable	

- Protected Party will default to "Non-Exercising Party" if a Replacement Value method is selected for an OET and to "Both" in all other cases (including for a MET) per the position laid out in Section 18.4.17 of the 2021 Definitions (see this language on the next slide).
- Prescribed Documentation Adjustment will be read-only and always set to a value of "Not Applicable". This is on the basis
 that parties would not have any means to otherwise exchange or agree what these adjustments to the Prescribed
 Documentation would be during the Confirmation of a transaction on MarkitWire if Prescribed Document Adjustment were
 to be applicable.



Early Termination Cash Settlement - Replacement Value (4)

• Replacement Value (Calculation Agent Determination)

[Replacement Value (Calculation Agent Determination)⁴² [Protected Party:]⁴³ [Specify]/[Both parties]

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[Cash Collateral Currency:]]

Break Style:	Optional - Mutual
Calc Agent:	As Specified in Master Agreement
Cash Method:	Replacement Value (Calculation Agent Determination)
Settlement Rate Source:	Reference Banks
Reference Banks:	Agreed on exercise
Protected Party:	Non-Exercising Party -
Cash Collateral Currency:	▼

• Protected Party will default to "Non-Exercising Party" if a Replacement Value method is selected for an OET and to "Both" in all other cases (including for a MET) per the position laid out in Section 18.4.17 of the 2021 Definitions.

18.4.17 Protected Party.

"Protected Party" means the party specified as such in the Confirmation, or, if neither party is specified:

- (i) for the purpose of an Optional Early Termination Right, the Non-exercising Party; and
- (ii) for any other valuation using Replacement Value (Firm Quotations) or Replacement Value (Calculation Agent Determination), including for the purpose of a Mandatory Early Termination Date, both parties.



Early Termination Cash Settlement - Replacement Value (5)

• When "Replacement Value (Firm Quotations)" method is selected the following new fields will be available on the Break(2) tab:

Field Name	Optional or mandatory	Field Type	Field values
Protected Party	Mandatory	List	 Non-Exercising Party Both My Entity Other Entity
Cash Collateral Currency	Optional	List	• CCY
Prescribed Documentation Adjustment	Mandatory	List	 Not Applicable (this field value is not editable in MarkitWire and will alw ays specify "Not Applicable")

• Note when "Replacement Value (Calculation Agent Determination)" method is selected the Prescribed Documentation Adjustment field will not be available as its not applicable.



Early Termination Cash Settlement – Collateralized Cash Price

- **Collateralized Cash Price** is also available as an early termination cash settlement method for relevant products on MarkitWire per the ISDA sample confirmation template
- See Exhibit II-F to 2021 Definitions (Confirmation template for "Additional Provisions for a Confirmation of a Transaction to which Optional Early Termination applies") for ISDA's sample confirmation:

[Collateralized Cash Price ⁴⁵	
[Agreed Discount Rate:]	[Specify]
[Settlement Rate:]	[ICE Swap Rate]/[Other price source [plus details]]/[Reference Banks] ⁴⁶
Quotation Rate:]	[bid/mid/ask] ⁴⁷

- ⁴⁵ Include this and the following applicable fields if Cash Settlement is applicable and Collateralized Cash Price is the specified Cash Settlement Method.
- ⁴⁶ Where the Settlement Matrix applies to the relevant Transaction and provides an applicable election, parties need not include this field unless they wish to vary that election.
- ⁴⁷ Quotation Rate is relevant to the determination of the Settlement Rate when "Reference Banks" applies. Include unless relying on the default position of 'mid' in Section 17.2.2 (*Quotation Rate*).



Early Termination Cash Settlement – Collateralized Cash Price (2)

• When "Collateralized Cash Price" method is selected under 2021 ISDA the following new field will be available on the Break(2) tab:

Field Name	Optional/mandatory	Field Type	Field values
Agreed Discount Rate	Optional	List	 Discount Rates from 2021 ISDA Settlement Matrix (see "Discount Rate" column) and FpML benchmark-rate coding scheme
Break Style:	Optional - Mutual		
Calc Agent:	As Specified in Master Agre	ement	~
Cash Method:	Collateralized Cash Price		•
Quotation Rate:	Mid		-
Settlement Rate	Source: Reference Banks		~
Reference Banks	Agreed on exercise		•
Agreed Discount	Rate:		-



Swaption Cash Settlement

Swaption Cash Settlement Methods

- > The following two Swaption Cash Settlement Methods will be the <u>only available choices</u> under 2021 ISDA Definitions on MarkitWire for the October 4 implementation date.
 - Collateralized Cash Price
 - Par Yield Curve Unadjusted
- > This is consistent with the published Version 1.0 "2021 ISDA Interest Rate Derivatives Definitions Settlement Matrix for Settlement, Early Termination and Swaptions" where "Par Yield Curve – Unadjusted" is the election for legacy GBP LIBOR Swaptions and "Collateralized Cash Price" is the election for all other combinations of currency and transaction types.

Settlement:	Cash Cleared Physical Set	tlement	
Valuation Time:	11am 🗾 Brussels	Settlement Terms:	
		Settlement:	Cash Settlement
Valuation Date:	0 Days	Cash Settlement Valuation Time:	11:00 am New York time
		Cash Settlement Valuation Date:	Exercise Date
Payment Date:	2 Days	Cash Settlement Payment Date:	2 London, New York Business Days following the Exercise Date
		Cash Settlement Method:	Collateralized Cash Price
Cash Method:	Collateralized Cash Price	Settlement Rate:	ICESWAP (ICE Swap) Rate
	Collateralized Cash Price	Quotation Rate:	Mid
Cash Settle Ccy:		Mutually Agreed Clearing House:	LCHLGB22REF
	Par Yield Curve - Unadjusted	Agreed Discount Rate:	SOFR
Quotation Rate:	Mid		
Settle Rate Source:	ICESWAP Rate		
Reference Banks:	Agreed on exercise	•	



Swaption Cash Settlement (2)

 See Exhibit II-E to 2021 Definitions (Confirmation template for "Additional Provisions for a Confirmation of a Transaction that is a Swaption or Swaption Straddle") for ISDA's sample confirmation. Note the below is taken from Version 1.0:

[Collateralized Cash Price ⁴³	
[Mutually Agreed Clearinghouse:]	[Specify]
[Agreed Discount Rate:]	[Specify]
[Settlement Rate]:	[ICE Swap Rate]/[Other price source [<i>plus</i> <i>details</i>]]/[Reference Banks] ⁴⁴
[Quotation Rate:]]	[bid/mid/ask] ⁴⁵
[Par Yield Curve – Unadjusted ⁴⁶	
[Settlement Rate]:	[ICE Swap Rate]/[Other price source [<i>plus</i> <i>details</i>]]/[Reference Banks] ⁴⁷
[Quotation Rate:]]	[bid/mid/ask] ⁴⁸

- ⁴³ Include this and the following applicable fields if Cash Settlement is applicable and Collateralized Cash Price is the specified Cash Settlement Method.
- ⁴⁴ Where the Settlement Matrix applies to the relevant Transaction and provides an applicable election, parties need not include this field unless they wish to vary that election.
- ⁴⁵ Quotation Rate is relevant to the determination of the Settlement Rate when "Reference Banks" applies. Include unless relying on the default position of 'mid' in Section 17.2.2 (Quotation Rate).
- ⁴⁶ Include this and the following applicable fields if Cash Settlement is applicable and Par Yield Curve Unadjusted is the specified Cash Settlement Method.
- ⁴⁷ Where the Settlement Matrix applies to the relevant Transaction and provides an applicable election, parties need not include this field unless they wish to vary that election.
- ⁴⁸ Quotation Rate is relevant to the determination of the Settlement Rate when "Reference Banks" applies. Include unless relying on the default position of 'mid' in Section 17.2.2 (Quotation Rate).



Annex



Additional ISDA Resources and Educational Materials

- Resources available on the ISDA Website:
 - Main 2021 ISDA Interest Rate Derivatives Definitions resource page. Contains legal working group recordings, implementation working group recordings and links to other resources and educational materials. <u>https://www.isda.org/2021/05/01/2021-isda-interest-rate-derivatives-definitions/</u>
 - > Key Changes in the 2021 Definitions: <u>https://www.isda.org/a/BNEgE/Key-Changes-in-the-2021-ISDA-Interest-Rate-Derivatives-Definitions-June-2021.pdf</u>
 - Mapping Tables for FROs under the 2006 Definitions and FROs under the 2021 Definitions: <u>https://www.isda.org/a/JMMgE/2006-FRO-Mapping-to-2021-FROs-Version-1.docx</u>
 - > Video: Introduction to the 2021 ISDA Interest Rate Derivatives Definitions (May 10, 2021) <u>https://www.isda.org/2021/05/10/video-introduction-to-the-2021-isda-interest-rate-derivatives-definitions/</u>
 - Factsheet: Introduction to the 2021 ISDA Interest Rate Derivatives Definitions (April 19, 2021) https://www.isda.org/2021/04/19/introduction-to-the-2021-isda-interest-rate-derivatives-definitions/
 - > Video: Implementation of the 2021 ISDA Interest Rate Derivatives Definitions (April 26, 2021) <u>https://www.isda.org/2021/04/26/implementation-of-the-2021-isda-interest-rate-derivatives-definitions/</u>
 - Plan: 2021 ISDA Definitions Implementation Plan (April 13, 2021): <u>https://www.isda.org/a/6pFTE/Implementation-Plan-13042021.pdf</u>
- Sign up to the 2021 ISDA Definitions Implementation Subgroup on the https://www.isda.org/committees/ page. It's listed under Market Infrastructure and Technology | Working Group
 - > Recordings of recent ISDA Implementation Working Group calls are now available at <u>https://www.isda.org/2021/05/01/2021-isda-interest-rate-derivatives-definitions/</u>.



Trade Manager (MTM) Platform Changes



2021 ISDA on the Trade Manager (MTM) platform

- MTM Release 21.4
 - > UAT: July 21st, 2021
 - > Production: August 2nd, 2021
- MTM User Interface has been updated to display Master Agreement and Contractual Definitions fields
 - > On all interest rate trades from MarkitWire counterparties
 - > Across all lifecycle events
 - > Across all workflows (Bilateral, Client Clearing, SEF/MTF, Bunched Order and CCP Sync)
- CSV Trade File Submitters will be able to submit documentation definition fields using new column headers
 - > Master Document Type (ISDA, AFB/FBF, DERV, CMOF, etc.)
 - > Definitions Type (ISDA2021, ISDA2006, ISDA2000)
- MQ API FpML submitters will be able use the existing <documentation> tag to supply ISDA Definition details
- > Master Agreement: ..documentation/masterAgreement/masterAgreementType
- > Contractual Definitions: ..documentation/contractualDefinitions



2021 ISDA on the Trade Manager (MTM) platform (2)

• MTM Release 21.4 (UAT: July 21st, 2021, Production: August 2nd, 2021)

Back To Trade Blotter	CC_IRS_ 1 Broker: M.BANK	072321-1	1					Chat Actions	*
Main	Other Economics	Custom Fields	Allocations	Reg Reporting	Inte	ernal Data Audit			
		My Trade	Cpty Ti	rade				My Trade	Cpty Trade
Counterparty	~	MarkitWire Demo E	ank Markit	Wire Demo Bank		Deal ID		CC_IRS_072321-1	986217
We		MWMF-FUND1	MWM	F_FUND1		Trade ID		CC_IRS_072321-1	986217_1
Transaction Type	~	New	New			Trade Date	~	23-Jul-2021	23-Jul-2021
Product	~	Rates Interest Ra	Rates	Interest Ra		Effective Date	~	27-Jul-2021	27-Jul-2021
FIXED LEG						Maturity Date	~	27-Jul-2022	27-Jul-2022
Notional	✓	USD 12,000,000.00	USD	12,000,000.00		FLOATING LEG			
Direction	~	Recv Fixed	Pay F	ixed		Index	✓	USD-LIBOR-BBA	USD-LIBOR-BBA
Fixed Rate (%)	~	5.000000	5.000	000		Reset Freq	~	ЗМ	ЗМ
Day Count Fraction	~	ACT/360	ACT/3	360		Day Count Fraction	~	ACT/360	ACT/360
Payment Freq	~	1y	1Y			Payment Freq	~	ЗМ	ЗМ
Calc Period Freq	~	1у	1Y			Calc Period Freq	✓	3M	ЗМ
Roll Convention	~	27	27			Roll Convention	v	27	27
FEE 1						IA			
Amount 1	~	USD 0.00	USD	0.00		Direction		Pay	
Payment Date 1									
Direction 1						Trade Divided		No	No
FEE 2						Priced To Clear CCP			
Amount 2	~	USD 0.00	USD	0.00		EB's Prime Broker			
Payment Date 2						Originating Event			
Direction 2									
DOCUMENTATION						Cancellable Option			No
Master Agreement Ty	/pe	ISDA	ISDA						
Contractual Definitio	ns 🗖	ISDA2006	ISDA	2006					

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2021 ISDA on the Trade Manager (MTM) platform (3)

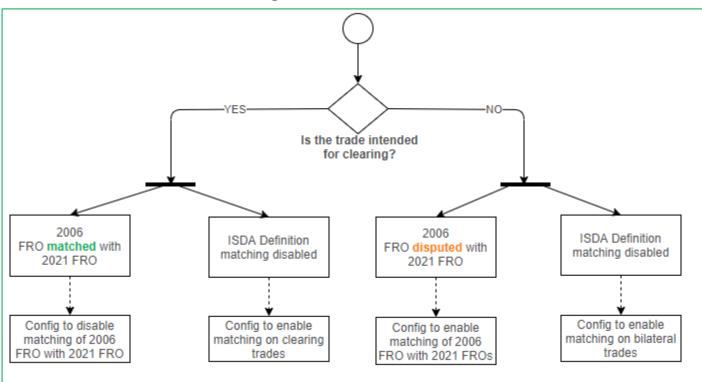
- MTM Release 21.5
 - > UAT: September 8th, 2021
 - > Production: September 24th, 2021
- Matching on 2006 and 2021 FRO Names
 - > MTM will maintain a list of all MarkitWire eligible 2006 FROs and their 2021 equivalent FRO names
 - > Cleared Trades*
 - 2006 FRO will by default be matched with equivalent 2021 FRO on counterparty allege and vice versa
 - Clients will have a config. option to update FRO matching so that 2006 FRO does not match with 2021 FRO
 - Master Agreement and Contractual Definitions will by default not be matching fields
 - Clients will have a config. option to match on Master Agreement and Contractual Definitions
 - > <u>Bilateral Trades</u> (New and Bilateral Amendments Only)
 - 2006 FRO will by default dispute with equivalent 2021 FRO on counterparty allege and vice versa
 - Clients will have a config. option to match 2006 FRO with 2021 FROs to mirror clearing behavior above
 - Master Agreement and Contractual Definitions will by default not be matching fields.
 - · Clients will have a config. option to match on Master Agreement and Contractual Definitions
 - > Unwinds will always match 2006 FRO with an equivalent 2021 FRO name.

* - Client Clearing, SEF/MTF, Bunched Order, Post Clearing CCP Sync



2021 ISDA on the Trade Manager (MTM) platform (4)

• Release 21.5 (Contd.) UAT: September 8th, 2021, Production: September 24th, 2021



Matching on 2006 and 2021 FRO Names



2021 ISDA on the Trade Manager (MTM) platform (5)

- MTM Release 21.5
 - > UAT: September 8th, 2021
 - > Production: September 24th, 2021
- Default Change on Dealer Submitted Contractual Definition
 - > As per the latest proposal, MarkitWire default for Contractual Definitions will remain ISDA 2006
 - If client is not matching on Contractual Definition, MTM will show a default mismatch warning if dealer changes the Contractual Definition from ISDA 2006 to ISDA 2021
 - > We have made accommodations to reduce the impact of this default mismatch and increase STP
 - Cleared Trades*
 - · Default mismatch on Contractual Definitions will be suppressed for all clients
 - · Clients will have an option to enable default mismatch warning
 - Bilateral Trades
 - Default mismatch on Contractual Definitions will not be suppressed
 - · Clients will have an option to disable default mismatch warning

* - Client Clearing, SEF/MTF, Bunched Order, Post Clearing CCP Sync



2021 ISDA on the Trade Manager (MTM) platform (6)

• Release 21.5 (Contd.) UAT: September 8th, 2021, Production: September 24th, 2021

Bilateral Trades: Default Mismatch Warning on Contractual Definition

🔐 IHS Markit		*** DEMO F		<u>AWMF_FUND1</u>	
				Show Abbreviated Details	
Dashboard Trade Blotter	Reports Address Book	Search Admin	#TH	MarkitWire Swaption Deal Ticket	
	You	r counterparty has modified this trade fro	m MarkitWire's defaults. Go		
<- Back To Trade Blotter		I ticket for complete trade details. If the ifications List at the bottom of the deal tick		MarkitWire Trade Id:	991244 Ver 1 Contract State: N
				Trade Version Timestamp:	14-Sep-2021 2:50:16 PM (GMT -4.0 hrs)
Trade ID: RJ_S				Original Trade Date:	14-Sep-2021
Deal ID: RJ_SWO_2021 Broker: M	M.BANK Status: Disputed			Summary: Markit Wire Mega Fund 1 (Markit Wire Mega Fund EU Trader2) SELLS to Markit Wire Ba	nk
Main Other Econ	nomics Allocations Reg	Reporting Internal Data	Audit	GBP 12,000,000 1.200000% European Receiver Option expiring 14-Sep-2022 (Cash Set	ttlement)
	Allocations	internal Data	Addit	Underlying Swap effective 14-Sep-2022 through 14-Sep-2027	
	My Trade	Cpty Trade			
Counterparty	MarkitWire Demo Bank	MarkitWire Demo Bank	Deal ID	SWAPTION TERMS:	Mandal Marine Marine Trund & (Mandal Marine Marine
We	MWMF-FUND1	MWMF_FUND1	Trade ID	Seller: Buyer:	Markit Wire Mega Fund 1 (Markit Wire Mega Markit Wire Bank
Transaction Type	New New	New	Trade Date	Option Style:	European
Transaction Type	New New	INCIN		Option Type:	Receiver Option
Product	Swaptions	Swaptions	Effective Date	Premium:	GBP 1.440
			Maturity Date	Premium Payment Date:	15-Sep-2021
				Premium Pay Date Adjustment:	Following
SWAPTION	-		SWAPTION	Premium Pay Date Business Days:	London
Notional	GBP 12,000,000.00	GBP 12,000,000.00	Expiration Date	Calculation Agent:	Markit Wire Bank(Buyer)
Buy / Sell	Sell	Buy	Settlement Type	Procedure for Exercise:	
Straddle	v	No	Cash Settlement Me	Expiration Date:	14-Sep-2022
	-		Settle Rate Source	Expiration Date Adjustment:	Following
PREMIUM/FEES				Expiration Date Business Days:	London
Amount	GBP 1,440.00	GBP 1,440.00	Option Style	Earliest Exercise Time:	9:00 AM London time
Payment Date	15-Sep-2021	15-Sep-2021	Calculation Agent	Expiration Time:	11:00 AM London time
Direction	Receive	Pay	Mutually Agreed Cle	Automatic Exercise:	Applicable
				Threshold: Written Exercise Confirmation:	0.00000% No
FEE2			Agreed Discount Ra		NO
Amount	GBP 0.00	GBP 0.00	IA	Settlement Terms: Settlement:	Cash Settlement
Payment Date			Amount	Settlement:	tation AML and an time
Direction			Direction	MarkitWire Template Modifications List	
				· ···· ···	
DOCUMENTATION Client is n	not submitting and matching	on ISDA Definition fields		Field Name Default Value Submitted Value	
Master Agreement Type		ISDA	Trade Divided	Contractual Definitions ISDA2006 ISDA2021	
Contractual Definitions		ISDA2021	Priced To Clear CCP		
			EB's Prime Broker		



2021 ISDA on the Trade Manager (MTM) platform (7)

MTM Release 21.5 (Contd.)

Main 2 Othe	r Economics	Custom Fields Alloca	ations Clearing	Reg Reporting Internal Da	ta	Audit	
		My Trade	Cpty Trade			My Trade	Cpty Trade
Clearing Broker		AAA TEST	Not Revealed	Deal ID		TEST_711055	61546021
Executing Broker	~	MarkitWire Demo Bank	MarkitWire Demo Bank	Trade ID		TEST_711055	61546021_1
We		HY Account	MWMF_FUND1	Trade Date	~	01-Jul-2021	01-Jul-2021
Transaction Type	✓	New	New	Effective Date	~	06-Jul-2021	06-Jul-2021
Product	~	Rates Interest Ra	Rates Interest Ra	Maturity Date	~	06-Jul-2023	06-Jul-2023
FIXED LEG				FLOATING LEG		2021 FRO	2006 FRO
Notional	~	USD 10,000,000.00	USD 10,000,000.00	Index	~	USD-SOFR-OIS Compound	USD-SOFR-COMPOUND
Direction	~	Recv Fixed	Pay Fixed	Reset Freq	~	ЗМ	3M
Fixed Rate (%)	~	3.000000	3.000000	Day Count Fraction	~	ACT/360	ACT/360

Matching on 2006 and 2021 FRO Names

Main 2	Other Economics	Custom Fields A	Allocations
		My Trade	Cpty Trade
Clearing Broker		AAA TEST	Not Revealed
Executing Broker	✓	MarkitWire Demo Bank	MarkitWire Demo Bank
We		HY Account	MWMF_FUND1
Transaction Type	✓	New	New
Product	~	Rates Interest Ra	Rates Interest Ra
FIXED LEG			
Notional		USD 10,000,000.00	USD 10,000,000.00
Direction	 Image: A start of the start of	Recv Fixed	Pay Fixed
Fixed Rate (%)	✓	3.000000	3.000000



2021 ISDA on the Trade Manager (MTM) platform (8)

• MTM Release 21.5 (Contd.)

Main 2	Other Economics 2	Custom Fields Allo	ocations Reg Reporting	Internal Data Audit			
		My Trade	Cpty Trade			My Trade	Cpty Trade
Counterparty	✓	MarkitWire Demo Bank	MarkitWire Demo Bank	Deal ID		CC.BSWP.Newconfig	986070
We		MWMF-FUND1	MWMF_FUND1	Trade ID		CC.BSWP.Newconfig	986070_1
Transaction Type	✓	New	New	Trade Date	✓	19-Jul-2021	19-Jul-2021
Product	~	Basis Swap	Basis Swap	Effective Date	~	21-Jul-2021	21-Jul-2021
1ST LEG				Maturity Date	~	21-Jul-2022	21-Jul-2022
Notional	✓	USD 12,000,000.00	USD 12,000,000.00	2ND LEG			
Direction	~	Recv	Pay	Direction	~	Pay	Recv
Index		USD-LIBOR-BBA	USD-LIBOR	Index	!	USD-SOFR-COMPOUND	USD-SOFR-OIS Compound
Reset Freq	~	3m	3M	Reset Freq		3m	1D
Day Count Fraction	· 🗸	ACT/360	ACT/360	Day Count Fraction	✓	ACT/360	ACT/360

Bilateral Trades: Mismatch on 2006 and 2021 FRO Names



MTM Release 21.5 (Contd.)

IHS Markit®

- > UAT: September 8th, 2021
- > Production: September 24th, 2021
- Support for new 2021 FRO names via CSV and C-API (MQ API FpML) submissions
- Support for new cash settlement methods available under 2021 ISDA Definitions
- Changes to Swaption clearing physical settlement method under 2021 ISDA Definitions
- FpML 4-3 used by C-API will be updated to include 2021 ISDA related changes to swaption settlement and early termination clauses (OETs and METs)
- MarkitWire Deal Ticket view in MTM will be updated to reflect 2021 ISDA Definitions



Other key changes in the 2021 Definitions and their impact on MarkitWire transactions



Other key changes in the 2021 Definitions and their impact on MarkitWire transactions

- This section has been added to identify whether changes introduced in the 2021 Definitions will impact how a transaction is represented in MarkitWire or the SWML/FpMLmessaging.
- The layout of the section is intended to mirror section headings in ISDA's Key Changes document for ease of cross-referencing:
 - > ISDA: Key Changes in the 2021 Definitions: <u>https://www.isda.org/a/BNEgE/Key-Changes-in-the-</u> 2021-ISDA-Interest-Rate-Derivatives-Definitions-June-2021.pdf



Other key changes in the 2021 Definitions and their impact on MarkitWire transactions

• Days, Dates and Periods

- > Publication Calendar Day (Section 2.1.4 in the 2021 Definitions)
 - There have been occurrences in the past where the publication calendar of the relevant benchmark does not align with any ISDA Business or Banking Day definition. To address this, the concept of Publication Calendar Day has been included in the 2021 Definitions. This can be referenced in FROs (e.g. for Fixing Day definition) when the publication calendar of the relevant benchmark does not align with the calendar of the relevant financial center or any bespoke Business Day Definition included in the 2021 Definitions. Examples of its use can be seen on the 2021 Defs FRO Matrix for the ICE Swap Rate-based (e.g. USD-LIBOR ICE Swap Rate-11:00) and ILS-TELBOR FRO definitions under the Fixing Day column.
 - The FpML WG is considering how distinct Publication Calendar Days should be represented in any FpML coding scheme, for example whether new code values should be added into the FpML business center coding scheme.
 Based on the outcome of this FpML work we will consider any impact on MarkitWire transactions.
- Abu Dhabi Days (Section 2.1.9 in the 2021 Definitions)
 - > Two bespoke calendar day definitions Abu Dhabi Settlement Day and Abu Dhabi Business Day have been included in the 2021 Definitions to allow recognition for the fact that Saturdays are good days for making payments in UAE Dirham, but not being good fixing days under the EIBOR benchmark.
 - Session #4 Update The FpML WG has recommended using the existing FpML code of AEAD to represent Abu Dhabi Settlement Day and a new businessCenterScheme value of AEAB was published August 1 to represent Abu Dhabi Business Day under the 2021 Definitions. See <u>https://www.fpml.org/spec/coding-scheme/</u> - Section 5.16 businessCenterScheme. As MarkitWire only uses AEAD today under 2006 Definitions in the context of an additional business center for Payment and Period End Dates this remains consistent with that codes interpretation as Abu Dhabi Settlement Day under the 2021 Definitions.



Other key changes in the 2021 Definitions and their impact on MarkitWire transactions (2)

- Days, Dates and Periods (Cont.)
- No Adjustment Business Day Convention (Section 2.3.5 in the 2021 Definitions)
 - > No additional impact. MarkitWire and FpML representations have always explicitly allowed for a Business Day Convention of 'NONE' to be specified to indicate Period End Dates are 'unadjusted'.
- Period End Dates and the Actual/Actual (ICMA) Business Day Convention (Section 4.6.1 (iii) and Section 3.1.12 in the 2021 Definitions)
 - > No additional impact. MarkitWire and FpML representations already support a Day Count Fraction code of ACT/ACT.ICMA. MarkitWire does not plan to add any additional inter-field validation when this Day Count Fraction is selected.
- IMM Dates (Section 3.1.14 in the 2021 Definitions)
 - No additional impact. MarkitWire and FpML representations already support the different types of "IMM Settlement Dates", "IMM AUD", "IMM CAD" and "IMM NZD". In FpML these are represented by <rollConvention> element enumerated values of "IMM", "IMMAUD", "IMMCAD" and "IMMNZD".
- End of Month Convention (Section 3.1.15 in the 2021 Definitions)
 - > No additional impact. MarkitWire and FpML representations already support the EOM Convention. In FpML this is represented by <rollConvention> element enumerated value of "EOM".



Other key changes in the 2021 Definitions and their impact on MarkitWire transactions (3)

- Calculations of Fixed and Floating Amounts
- Day Count Fractions (Section 4.6 in the 2021 Definitions)
 - > A Calculation/252 Day Count Fraction has been included in the 2021 Definitions primarily to support BRL transactions. This corresponds to the existing MarkitWire and FpML Day Count Fraction code of BUS/252 and the FpML WG has agreed no additional new code value will be created. There will therefore be no additional impact.
- Compounding Methods (Section 4.9 in the 2021 Definitions)
 - > MarkitWire will continue to support the Straight Compounding, Flat Compounding and Spread Exclusive Compounding elections included in the 2006 Definitions.
 - > As stated elsewhere in the MarkitWire Rates WG Roadmap the new compounding and averaging provisions introduced in Supplement 75 to the 2006 ISDA Definitions (and carried forward into the 2021 Definitions) will not be supported on MarkitWire as part of the changes necessary to meet the initial October 4 implementation date
 - MarkitWire today supports the RFRs via the OIS self-compounding ISDA Floating Rate Option definitions only, e.g. USD-SOFR-COMPOUND. It is not possible under ISDA documentation to apply the new compounding and averaging provisions to a Floating Amount calculation which is calculated with reference to one of the self-compounding OIS FROs. ISDA have further clarified this in their recently published FAQ (see Question 9) https://www.isda.org/a/WIEgE/A44552375-v5.0-ISDA_FAQs-on-Compounding-Averaging-Supplement.pdf
- Negative Interest Rates (Section 5.5 and Section 6.8 in the 2021 Definitions)
 - > No additional impact. MarkitWire does not plan to support elections for different negative interest rate methods on a Confirmation for the October 4 implementation date. Rates transactions on MarkitWire will continue to apply the default Floating Negative Interest Rate Method per the 2006 and 2021 Definitions default which remains unchanged.



MarkitWire Floating Rate Option Mapping Table



MarkitWire Floating Rate Option Mapping Table - Introduction

- There have been no changes to the mappings since Session #4 (August 17).
- Earlier changes and clarifying notes about the mapping table:
 - > Added clarifying note that MarkitWire published its own BRL-CDI Rate Option for use under 2006 Definitions. There was no ISDA-published BRL-CDI 2006 FRO. Therefore BRL-CDI won't be listed in the ISDA-published FRO mapping table.
 - > Added clarifying note that MarkitWire published its own CLP-TNA Rate Option for use under 2006 Definitions. There was no ISDA-published CLP-TNA 2006 FRO. Therefore CLP-ICP (2021 FRO equivalent) won't be listed in the ISDA-published FRO mapping table.
 - > USD-TBILL-H.15 is now shown as not being defined under the 2021 Definitions and no longer mapping to USD-TBILL Secondary Market-Bond Equivalent Yield. This aligns with the ISDA published mapping tables.
 - > USD-TBILL Secondary Market-Bond Equivalent Yield is shown as a newly introduced 2021 FRO. Note MarkitWire does not support its equivalent 2006 FRO USD-TBILL-Secondary Market
 - Moved USD-BSBY and THB-THOR-COMPOUND into the main table. These are new 2006 FROs introduced in the MarkitWire 18.1.1 Release.
 - > Corrected the mapping for 2021 FRO INR-MIBOR-OIS Compound. The 2006 FRO INR-FBIL-MIBOR-OIS-COMPOUND should map to this rather than INR-MIBOR-OIS-COMPOUND as previously indicated. The underlying benchmark is the overnight Mumbai Interbank <u>Outright</u> Rate (known as MIBOR).
 - > As 2006 FRO USD-ISDA-Swap Rate has a fixing time of 11am New York we are showing this mapping to the 11am fixing 2021 FRO USD-LIBOR ICE Swap Rate-11:00. Note there is a 2006 FRO USD-ISDA-Swap Rate-3:00 with a fixing time of 3pm New York which MarkitWire doesn't support.



MarkitWire – Floating Rate Option Mapping Table Introduction

- Changes made in the following mapping table since Session #2 (July 13)
 - > Added clarifying note that MarkitWire published its own BRL-CDI Rate Option for use under 2006 Definitions. There was no ISDA-published BRL-CDI 2006 FRO. Therefore BRL-CDI won't be listed in the ISDA-published FRO mapping table.
 - > Added clarifying note that MarkitWire published its own CLP-TNA Rate Option for use under 2006 Definitions. There was no ISDA-published CLP-TNA 2006 FRO. Therefore CLP-ICP (2021 FRO equivalent) won't be listed in the ISDA-published FRO mapping table.
 - > USD-TBILL-H.15 is now shown as not being defined under the 2021 Definitions and no longer mapping to USD-TBILL Secondary Market-Bond Equivalent Yield. This aligns with the ISDA published mapping tables.
 - > USD-TBILL Secondary Market-Bond Equivalent Yield is shown as a newly introduced 2021 FRO. Note MarkitWire does not support its equivalent 2006 FRO USD-TBILL-Secondary Market
- Changes made in the following mapping table since Session #1 (June 22)
 - > Moved USD-BSBY and THB-THOR-COMPOUND into the main table. These are new 2006 FROs being introduced in the MarkitWire 18.1.1 Release.
 - > Removed 2021 FRO mapping for 2000 FRO JPY-TIBOR-DTIBOR01. This FRO was not present in the 2006 Definitions and is not therefore applicable for 2021 Definitions.
 - > Corrected the mapping for 2021 FRO INR-MIBOR-OIS Compound. The 2006 FRO INR-FBIL-MIBOR-OIS-COMPOUND should map to this rather than INR-MIBOR-OIS-COMPOUND as previously indicated. The underlying benchmark is the overnight Mumbai Interbank <u>Outright</u> Rate (known as MIBOR).
 - > As 2006 FRO USD-ISDA-Swap Rate has a fixing time of 11am New York we are showing this mapping to the 11am fixing 2021 FRO USD-LIBOR ICE Swap Rate-11:00. Note there is a 2006 FRO USD-ISDA-Swap Rate-3:00 with a fixing time of 3pm New York which MarkitWire doesn't support.



MarkitWire Floating Rate Option Mapping Table (1)

FRO on MarkitWire under 2000/2006 Definitions	New Format of the FRO under 2021 Definitions	Commentary
AUD-AONIA-OIS-COMPOUND	AUD-AONIA-OIS Compound	
AUD-BBR-BBSW	AUD-BBSW	
AUD-BBR-BBSY (BID)	AUD-BBSY Bid	
BRL-CDI	BRL-CDI	Note MarkitWire published its own BRL-CDI Rate Option definition for use under the 2006 Defs. There was no ISDA- published BRL-CDI FRO
CAD-BA-CDOR	CAD-CDOR	
CAD-CORRA-OIS-COMPOUND	CAD-CORRA-OIS Compound	
CHF-LIBOR-BBA	CHF-LIBOR	
CHF-SARON-OIS-COMPOUND	CHF-SARON-OIS Compound	
CHF-TOIS-OIS-COMPOUND		No longer active
CLP-TNA	CLP-ICP	Note MarkitWire published its own CLP-TNA Rate Option definition for use under the 2006 Defs. There was no ISDA- published CLP-TNA FRO
CNH-HIBOR-TMA	CNH-HIBOR	
CNY-CNREPOFIX=CFXS-Reuters	CNY-Fixing Repo Rate	
CNY-DEPO-PBOC	CNY-Deposit Rate	
CNY-SHIBOR-Reuters	CNY-SHIBOR	
COP-IBR-OIS-COMPOUND	COP-IBR-OIS Compound	
CZK-PRIBOR-PRBO	CZK-PRIBOR	
DKK-CIBOR2-DKNA13	DKK-CIBOR2	
DKK-DKKOIS-OIS-COMPOUND	DKK-Tom Next-OIS Compound	
EUR-EONIA-OIS-COMPO UND	EUR-EONIA-OIS Compound	
EUR-EURIBOR-Reuters	EUR-EURIBOR	
EUR-EURIBOR-Telerate Confidential. © 2021 IHS Markit®, All rights reserved.		Not present in 2006 Defs and not applicable for 2021 Defs



MarkitWire Floating Rate Option Mapping Table (2)

FRO on Markit Wire under 2000/2006 Definitions	New Format of the FRO under 2021 Definitions	Commentary
EUR-EuroSTR-COMPOUND	EUR-EuroSTR-OIS Compound	
EUR-LIBOR-BBA	EUR-LIBOR	
GBP-LIBOR-BBA	GBP-LIBOR	
GBP-SONIA-COMPOUND	GBP-SONIA-OIS Compound	
GBP-WMBA-RONIA-COMPOUND	GBP-RONIA-OIS Compound	
GBP-WMBA-SONIA-COMPOUND		No longer active
HKD-HIBOR-HIBOR=		No longer active
HKD-HIBOR-HKAB	HKD-HIBOR	
HKD-HIBOR-ISDC		Not present in 2006 Defs and not applicable for 2021 Defs
HKD-HONIX-OIS-COMPOUND	HKD-HONIA-OIS Compound	
HUF-BUBOR-Reuters	HUF-BUBOR	
IDR-JIBOR-Reuters	IDR-JIBOR	
IDR-SOR-Reuters		No longer active
IDR-SOR-Telerate		Not present in 2006 Defs and not applicable for 2021 Defs
ILS-TELBOR01-Reuters	ILS-TELBOR	
INR-FBIL-MIBOR-OIS-COMPOUND	INR-MIBOR-OIS Compound	
INR-MIBOR-OIS-COMPOUND		Not defined under 2021 Defs
INR-MIFOR	INR-MIFOR	
INR-MITOR-OIS-COMPOUND		No longer active
ISK-REIBOR-Reuters	ISK-REIBOR	
JPY-LIBOR-BBA	JPY-LIBOR	
JPY-TIBOR-17097	JPY-TIBOR	



MarkitWire Floating Rate Option Mapping Table (3)

FRO on Markit Wire under 2000/2006 Definitions	New Format of the FRO under 2021 Definitions	Commentary
JPY-TIBOR-17097	JPY-TIBOR	
JPY-TIBOR-DTIBOR01		Not present in 2006 Defs and not applicable for 2021 Defs
JPY-TIBOR-TIBM (10 Banks)		No longer active
JPY-TIBOR-TIBM (5 Banks)		No longer active
JPY-TIBOR-ZTIBOR	JPY-Euroyen TIBOR	
JPY-TONA-OIS-COMPOUND	JPY-TONA-OIS Compound	
KRW-CD-3220	KRW-CD91D	
KRW-CD-KSDA-Bloomberg	KRW-CD 91D	
MXN-TIIE-Banxico	MXN-THE	
MYR-KLIBOR-BNM	MYR-KLIBOR	
NOK-NIBOR-NIBR		No longer active
NOK-NIBOR-OIBOR	NOK-NIBOR	
NZD-BBR-FRA	NZD-BKBM FRA	
NZD-BBR-Telerate		Not present in 2006 Defs and not applicable for 2021 Defs
NZD-NZIONA-OIS-COMPOUND	NZD-NZIONA-OIS Compound	
PHP-PHIREF-Reuters	PHP-PHIREF	
PLN-POLONIA-OIS-COMPOUND	PLN-POLONIA-OIS Compound	
PLN-WIBOR-WIBO	PLN-WIBOR	
PLZ-WIBOR-WIBO		Not present in 2006 Defs and not applicable for 2021 Defs
REPOFUNDS RATE-FRANCE-OIS-COMPOUND		Not defined under 2021 Defs
REPOFUNDS RATE-GERMANY-OIS-COMPOUND		Not defined under 2021 Defs
REPOFUNDS RATE-ITALY-OIS-COMPOUND		Not defined under 2021 Defs



MarkitWire Floating Rate Option Mapping Table (4)

FRO on MarkitWire under 2000/2006 Definitions	New Format of the FRO under 2021 Definitions	Commentary
RUB-MOSPRIME-NFEA	RUB-MosPrime	
SEK-SIOR-OIS-COMPOUND	SEK-STIBOR-OIS Compound	
SEK-STIBOR-SIDE	SEK-STIBOR	
SGD-SIBOR-Reuters	SGD-SIBOR	
SGD-SIBOR-Telerate		Not present in 2006 Defs and not applicable for 2021 Defs
SGD-SONAR-OIS-COMPOUND		No longer active. Renamed to SGD-SONAR-OIS-VWAP- COMPOUND.
SGD-SONAR-OIS-VWAP-COMPOUND		No longer active. Renamed to SGD-SORA-COMPOUND.
SGD-SORA-COMPOUND	SGD-SORA-OIS Compound	
SGD-SOR-Reuters		No longer active.
SGD-SOR-Telerate		Not present in 2006 Defs and not applicable for 2021 Defs
SGD-SOR-VWAP	SGD-SOR	
THB-SOR-Telerate		Not present in 2006 Defs and not applicable for 2021 Defs
THB-THBFIX-Reuters	THB-THBFIX	
THB-THOR-COMPOUND	THB-THOR-OISCompound	New index added in MarkitWire 18.1.1 Release
TRY-TLREF-OIS-COMPOUND	TRY-TLREF-OIS Compound	
TRY-TRYIBOR-Reuters	TRY-TRLIBOR	
TWD-Reuters-6165		Discontinued
TWD-TAIBIR01	TWD-TAIBIR01	
TWD-TAIBIR02	TWD-TAIBIR02	
TWD-TAIBOR-Bloomberg	TWD-TAIBOR	
TWD-TAIBOR-Reuters	TWD-TAIBOR	



MarkitWire Floating Rate Option Mapping Table (5)

FRO on MarkitWire under 2000/2006 Definitions	New Format of the FRO under 2021 Definitions	Commentary
TWD-Telerate-6165		Not present in 2006 Defs and not applicable for 2021 Defs
TWD-TWCPBA		Discontinued
USD-BSBY	USD-BSBY	New index added in MarkitWire 18.1.1 Release
USD-CMS-Reuters		No longer active
USD-CMS-Telerate		Not present in 2006 Defs and not applicable for 2021 Defs
USD-CMT-T7051	USD-CMT	
USD-CP-H.15	USD-CP-Money Market Yield	
USD-DTCC GCF Repo Index-Treasury-Bloomberg- COMPOUND		MarkitWire will discontinue under 2021 Defs
USD-Federal Funds-H.15	USD-Federal Funds	
USD-Federal Funds-H.15-OIS-COMPOUND	USD-Federal Funds-OIS Compound	
USD-LIBOR-BBA	USD-LIBOR	
USD-Prime-H.15	USD-Prime	
USD-SIFMA Municipal Swap Index	USD-Municipal SwapIndex	
USD-SOFR-COMPOUND	USD-SOFR-OIS Compound	
USD-TBILL-H.15		Not defined under 2021 Defs
	USD-TBILL Secondary Market-Bond Equivalent Yield	MarkitWire does not support the corresponding 2006 Defs FRO USD-TBILL-Secondary Market
ZAR-JIBAR-SAFEX	ZAR-JIBAR	·



MarkitWire Floating Rate Option Mapping Table (6)

FRO on Markit Wire under 2000/2006 Definitions	New Format of the FRO under 2021	Commentary
CMS Spread Option FROs		
USD-ISDA-Swap Rate	USD-LIBOR ICE Swap Rate-11:00	
EUR-ISDA-EURIBOR Swap Rate-11:00	EUR-EURIBOR ICE Swap Rate-11:00	
GBP-ISDA-Swap Rate	GBP-LIBOR ICE Swap Rate	
GBP-SONIA-Swap Rate	GBP-SONIAICE Swap Rate	
JPY-ISDA-Swap Rate-10:00		No longer active
JPY-TSR-Reuters-10:00	JPY-LIBOR TSR-10:00	
JPY-TSR-Reuters-15:00	JPY-LIBOR TSR-15:00	
Stub Floating Rate Index		
AUD-RBA Cash Rate	AUD-AONIA	
NZD-RBNZ OCR	NZD-NZIONA	



MarkitWire Floating Rate Option Mapping Table (7)

Inflation Indexes	
AUD-CPI	
CAD-CPI	—
DEK-CPI	
EUR-AI-CPI	
EUR-AI-R-CPI	
EUR-EXT-CPI	
JPY-CPI-EXF	— Inflation Indices will continue being supported under 2021 definitions. There is no name change under 20 Defs as the Index Descriptions are published in Annex A to the 2008 ISDA Inflation Derivatives Definitions
SEK-CPI	
UK-HICP	_
UK-RPI	
USA-CPI-U	
ZAR-CPI	



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