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 recording 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 recording 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 recording 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 contractualDefinitions 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).
MarkitWire Contractual Definitions user preference enhancement

- One function of the contractual definitions system default setting is to set the initial MarkitWire system-wide 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 entering a new Direct Deal, Prime Broketed 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, 2021 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:
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.
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 product 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 setting 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.
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, and for a transitional period beyond, October 4th.
  > 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 recording 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 consciously and explicitly 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 recording 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 after the transition period beyond October 4th. 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 https://www.isda.org/book/supplements-to-the-2006-isda-definitions/)
  > 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.

- ISDA is updating certain component documents of the 2021 Definitions 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


- 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.

<table>
<thead>
<tr>
<th></th>
<th>Version</th>
<th>UAT release</th>
<th>PROD release</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current</td>
<td>18.2</td>
<td>11 Aug 2021</td>
<td>11 Sep 2021</td>
</tr>
<tr>
<td>Next</td>
<td>18.2.1</td>
<td>29 Sep 2021</td>
<td>23 Oct 2021</td>
</tr>
<tr>
<td>Next +1</td>
<td>18.2.2</td>
<td>3 Nov 2021</td>
<td>27 Nov 2021</td>
</tr>
<tr>
<td>Next +2</td>
<td>19.0</td>
<td>8 Dec 2021</td>
<td>22 Jan 2022</td>
</tr>
</tbody>
</table>
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.

- 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)
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 non-cleared workflows in MarkitWire

- For both 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 FpML 4.2 Trial Recommendation (build 10) publications
  
  > On September 8 we updated our core MarkitWire platform in UAT to use the September 1 published FpML 4.2 Recommendation - Draft (build 12) 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 Recommendation 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/](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

```xml
<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 currently 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 ALWAYS 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 current 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):

<table>
<thead>
<tr>
<th>Input</th>
<th>floatingRateIndex</th>
<th>FRO Commentary</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>contractualDefinitions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ISDA2006</td>
<td>Legacy FRO</td>
<td>FRO defined under 2006 definitions</td>
<td>ISDA2006 + Legacy FRO</td>
</tr>
<tr>
<td>ISDA2021</td>
<td>New FRO</td>
<td>FRO defined under 2021 definitions</td>
<td>ISDA2021 + New FRO</td>
</tr>
<tr>
<td>[not specified]</td>
<td>Legacy FRO</td>
<td>FRO defined under 2006 definitions</td>
<td>ISDA2006 + Legacy FRO</td>
</tr>
<tr>
<td>[not specified]</td>
<td>New FRO</td>
<td>FRO defined under 2021 definitions</td>
<td>API rejects the submission</td>
</tr>
</tbody>
</table>
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”.

- 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:
Full Product and Currency Support

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

<table>
<thead>
<tr>
<th>Rates Products</th>
<th>Contractual Definitions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2000</td>
</tr>
<tr>
<td>1. Basis Swap</td>
<td>✓</td>
</tr>
<tr>
<td>2. Cap/Floor</td>
<td>✓</td>
</tr>
<tr>
<td>3. Cross Currency Basis Swap</td>
<td>❌</td>
</tr>
<tr>
<td>4. Cross Currency IRS</td>
<td>❌</td>
</tr>
<tr>
<td>5. Fixed Fixed Swap (Single CCY and XCCY)</td>
<td>❌</td>
</tr>
<tr>
<td>6. FRA</td>
<td>✓</td>
</tr>
<tr>
<td>7. IRS</td>
<td>✓</td>
</tr>
<tr>
<td>8. OIS</td>
<td>✓</td>
</tr>
<tr>
<td>9. Swaption</td>
<td>✓</td>
</tr>
<tr>
<td>10. ZC Inflation Swap</td>
<td>✓</td>
</tr>
</tbody>
</table>
## 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.

<table>
<thead>
<tr>
<th>Product</th>
<th>FRO Name Changes</th>
<th>OET/MET Changes</th>
<th>Other Election (Mkt Practice) Changes</th>
<th>Other Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basis Swap</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cap/Floor</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cross Currency Basis Swap</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cross Currency IRS</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fixed Fixed Swap (Single and Cross-Currency)</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FRA</td>
<td>Yes</td>
<td>No [1]</td>
<td></td>
<td>[1] MarkitWire does not support OET or MET on the FRA product.</td>
</tr>
<tr>
<td>IRS</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OIS</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Swaption</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Exercise into Underlying Swap. Note some counterparties may clear the underlying swap via other platforms.</td>
</tr>
<tr>
<td>ZC Inflation Swap (these incorporate both Inflation and Rates Derivatives Definitions)</td>
<td>No</td>
<td>Yes</td>
<td></td>
<td>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.</td>
</tr>
</tbody>
</table>
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:

<table>
<thead>
<tr>
<th>CCP</th>
<th>Support of all applicable FROs under the 2021 Definitions in UAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>LCH</td>
<td>August 11&lt;sup&gt;th&lt;/sup&gt;</td>
</tr>
<tr>
<td>CME</td>
<td>August 25&lt;sup&gt;th&lt;/sup&gt;</td>
</tr>
<tr>
<td>BME</td>
<td>September 1&lt;sup&gt;st&lt;/sup&gt;</td>
</tr>
<tr>
<td>KDPW</td>
<td>September 1&lt;sup&gt;st&lt;/sup&gt;</td>
</tr>
<tr>
<td>KRX</td>
<td>September 8&lt;sup&gt;th&lt;/sup&gt;</td>
</tr>
<tr>
<td>Eurex</td>
<td>September 6&lt;sup&gt;th&lt;/sup&gt;</td>
</tr>
<tr>
<td>NASDAQ OMX</td>
<td>September 15&lt;sup&gt;th&lt;/sup&gt;</td>
</tr>
<tr>
<td>BBG VCON</td>
<td>September 22&lt;sup&gt;nd&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

- 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'.
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 new activity from the 18.2 Release date of September 13, 2021.

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:
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 https://www.isda.org/book/isda-definitions-settlement-matrix-for-early-termination-and-swaptions/)
JPY-LIBOR Swaption (under 2021 Definitions)

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

<table>
<thead>
<tr>
<th>Settlement Terms:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Settlement:</td>
</tr>
<tr>
<td>Cash Settlement Valuation Time:</td>
</tr>
<tr>
<td>Cash Settlement Valuation Date:</td>
</tr>
<tr>
<td>Cash Settlement Payment Date:</td>
</tr>
<tr>
<td>Cash Settlement Method:</td>
</tr>
<tr>
<td>Cash Settlement Currency:</td>
</tr>
<tr>
<td>Settlement Rate:</td>
</tr>
<tr>
<td>Quotation Rate:</td>
</tr>
</tbody>
</table>

Diagram showing settlement details:
- Settlement: Cash
- Valuation Time: 3pm, Tokyo
- Valley Date: 0 Days
- Payment Date: 2 Days
- Cash Method: Collateralized Cash Price
- Cash Settle Ccy: JPY
- Quotation Rate: Mid
- Settle Rate Source: Tokyo Swap Reference Rate
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 new code “TOKYOSWAP” has been defined as shown below.

  > This works similarly to the existing 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> FpML element.

```xml
<collateralizedCashPriceMethod>
  <cashSettlementCurrency>JPY</cashSettlementCurrency>
  <settlementRateSource>
    <informationSource>
      <rateSource>TOKYOSWAP</rateSource>
    </informationSource>
  </settlementRateSource>
  <settlementRateSource>
    <informationSource>
      <rateSource>ICE</rateSource>
    </informationSource>
  </settlementRateSource>
  <quoteType>Mid</quoteType>
</collateralizedCashPriceMethod>
```

**Settlement Terms:**

<table>
<thead>
<tr>
<th></th>
<th>Cash Settlement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash Settlement Valuation Time</td>
<td>03:00 pm Tokyo time</td>
</tr>
<tr>
<td>Cash Settlement Valuation Date</td>
<td>Exercise Date</td>
</tr>
<tr>
<td>Cash Settlement Payment Date</td>
<td>2 London, Tokyo Business Days following the Exercise Date</td>
</tr>
<tr>
<td>Cash Settlement Method</td>
<td>Collateralized Cash Price</td>
</tr>
<tr>
<td>Cash Settlement Currency</td>
<td>JPY</td>
</tr>
<tr>
<td>Settlement Rate</td>
<td>Other Price Source - Tokyo Swap Reference Rate</td>
</tr>
<tr>
<td>Quotation Rate</td>
<td>Mid</td>
</tr>
</tbody>
</table>
SWML 4.2 Messaging

- 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.
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 always 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 default SWML 4.2 generation for non-2021 ISDA trades will use the existing custom elements and API users will optionally 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)

- Either 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):

<table>
<thead>
<tr>
<th>Term</th>
<th>2006 ISDA Trade</th>
<th>2021 ISDA Trade</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Uses SWML <code>&lt;sw ExtendedTradeDetails, e.g.</code></td>
<td>Uses Native FpML, e.g.</td>
</tr>
<tr>
<td>Mutually Agreed Clearinghouse</td>
<td><code>&lt;sw PredeterminedClearer For UnderlyingSw ap&gt;</code></td>
<td><code>&lt;mutuallyAgreedClearinghouse&gt;</code></td>
</tr>
<tr>
<td>Collateralized Cash Price</td>
<td><code>&lt;sw CollateralizedCashPrice&gt;</code></td>
<td><code>&lt;collateralizedCashPrice Method&gt;</code></td>
</tr>
<tr>
<td>Agreed Discount Rate</td>
<td><code>&lt;sw AgreedDiscountRate&gt;</code></td>
<td><code>&lt;agreedDiscountRate&gt;</code></td>
</tr>
<tr>
<td>Etc.</td>
<td>Etc.</td>
<td>Etc.</td>
</tr>
</tbody>
</table>

- 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):

<table>
<thead>
<tr>
<th>Term</th>
<th>2006 ISDA Trade</th>
<th>2021 ISDA Trade</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Uses Native FpML, e.g.</td>
<td>Uses Native FpML, e.g.</td>
</tr>
<tr>
<td>Mutually Agreed Clearinghouse</td>
<td><code>&lt;mutuallyAgreedClearinghouse&gt;</code></td>
<td><code>&lt;mutuallyAgreedClearinghouse&gt;</code></td>
</tr>
<tr>
<td>Collateralized Cash Price</td>
<td><code>&lt;collateralizedCashPrice Method&gt;</code></td>
<td><code>&lt;collateralizedCashPrice Method&gt;</code></td>
</tr>
<tr>
<td>Agreed Discount Rate</td>
<td><code>&lt;agreedDiscountRate&gt;</code></td>
<td><code>&lt;agreedDiscountRate&gt;</code></td>
</tr>
<tr>
<td>Etc.</td>
<td>Etc.</td>
<td>Etc.</td>
</tr>
</tbody>
</table>
Example new native FpML 4.2 Swaption Cash Settlement:
//FpML/trade/swaption/cashSettlement/collateralizedCashPriceMethod

```xml
<collateralizedCashPriceMethod>
  <cashSettlementCurrency>EUR</cashSettlementCurrency>
  <settlementRateSource>
    <informationSource>
      <rateSource>ICESWAP</rateSource>
    </informationSource>
  </settlementRateSource>
  <quotationRateType>Mid</quotationRateType>
  <mutuallyAgreedClearinghouse>
    <identifier idScheme="http://www.fpml.org/coding-scheme/external/iso9362">XCMES4FXXX</identifier>
  </mutuallyAgreedClearinghouse>
  <agreedDiscountRate>EuroSTR</agreedDiscountRate>
</collateralizedCashPriceMethod>
```

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

```xml
<physicalSettlement>
  <clearedPhysicalSettlement>true</clearedPhysicalSettlement>
  <mutuallyAgreedClearinghouse>
    <identifier idScheme="http://www.fpml.org/coding-scheme/external/iso9362">XCMES4FXXX</identifier>
  </mutuallyAgreedClearinghouse>
  <agreedDiscountRate>EuroSTR</agreedDiscountRate>
  <settlementRateSource>
    <informationSource>
      <rateSource>ICESWAP</rateSource>
    </informationSource>
  </settlementRateSource>
  <quotationRateType>Mid</quotationRateType>
</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.
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.

<table>
<thead>
<tr>
<th>2006 Definitions – Cash Settlement Method</th>
<th>2021 Definitions – Cash Settlement Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash Price</td>
<td>Mid-market Valuation (Indicative Quotations)</td>
</tr>
<tr>
<td>Mid-market Valuation (Calculation Agent Determination)</td>
<td></td>
</tr>
<tr>
<td>Replacement Value (Firm Quotations)</td>
<td>Mid-market Valuation (Calculation Agent Determination) – Alternate Method</td>
</tr>
<tr>
<td>Replacement Value (Calculation Agent Determination)</td>
<td></td>
</tr>
<tr>
<td>Cash Price – Alternate Method</td>
<td>Not included</td>
</tr>
<tr>
<td>Par Yield Curve - Adjusted</td>
<td>Not included</td>
</tr>
<tr>
<td>Par Yield Curve - Unadjusted</td>
<td>Par Yield Curve - Unadjusted</td>
</tr>
<tr>
<td>Zero Coupon Yield - Adjusted</td>
<td>Not included</td>
</tr>
<tr>
<td>Cross Currency Method</td>
<td>Not included</td>
</tr>
<tr>
<td>Collateralized Cash Price</td>
<td>Collateralized Cash Price</td>
</tr>
</tbody>
</table>

- 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/65eb5606/941f5a68-mp3/
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):

<table>
<thead>
<tr>
<th>Early Termination Cash Settlement Methods under 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mid-market Valuation (Indicative Quotations)</td>
</tr>
<tr>
<td>Mid-market Valuation (Indicative Quotations) – Alternate Method</td>
</tr>
<tr>
<td>Mid-market Valuation (Calculation Agent Determination)</td>
</tr>
<tr>
<td>Replacement Value (Firm Quotations)</td>
</tr>
<tr>
<td>Replacement Value (Calculation Agent Determination)</td>
</tr>
<tr>
<td>Collateralized Cash Price</td>
</tr>
</tbody>
</table>
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”

(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:
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.

<table>
<thead>
<tr>
<th>[Mid-market Valuation (Indicative Quotations):]²⁴</th>
<th>[MMV Applicable CSA:]²⁵</th>
<th>[No CSA]/[Existing CSA]/[Reference VM CSA]</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Cash Collateral Currency:]</td>
<td>[ ]²⁶</td>
<td></td>
</tr>
<tr>
<td>[Cash Collateral Interest Rate:]</td>
<td>[ ]²⁷</td>
<td></td>
</tr>
<tr>
<td>[Agreed Discount Rate:]</td>
<td>[ ]²⁸</td>
<td></td>
</tr>
</tbody>
</table>

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:

  [3b.]  
  
  [Mid-market Valuation (Indicative Quotations)₃⁴₅₆₇₈₉]  
  [MMV Applicable CSA ]₃⁴₅₆₇₈₉ [No CSA][Existing CSA][Reference VM CSA]  
  [Cash Collateral Currency: ]₃⁴₅₆₇₈₉ [ ]₃⁴₅₆₇₈₉  
  [Cash Collateral Interest Rate: ]₃⁴₅₆₇₈₉ [ ]₃⁴₅₆₇₈₉  
  [Agreed Discount Rate: ]₃⁴₅₆₇₈₉ [ ]₃⁴₅₆₇₈₉  
  [Mid-market Valuation (Indicative Quotations) – Alternate Method ₃⁴₅₆₇₈₉]  
  [MMV Applicable CSA ]₃⁴₅₆₇₈₉ [No CSA][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)(I) (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.


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

<table>
<thead>
<tr>
<th>MMW Applicable CSA:</th>
<th>Existing CSA</th>
<th>No CSA</th>
<th>Reference VM CSA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash Collateral Currency:</td>
<td>—</td>
<td>—</td>
<td>[ Note 2 ]</td>
</tr>
<tr>
<td>Cash Collateral Interest Rate:</td>
<td>—</td>
<td>—</td>
<td>[ Note 2 ]</td>
</tr>
<tr>
<td>Agreed Discount Rate:</td>
<td>—</td>
<td>[ Note 1 ]</td>
<td>—</td>
</tr>
</tbody>
</table>

> 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:

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Optional/Mandatory</th>
<th>Field Type</th>
<th>Field Values</th>
</tr>
</thead>
</table>
| MMV Applicable CSA        | Mandatory          | List       | • No CSA  
• Existing CSA  
• Reference 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                       |
Early Termination Cash Settlement – Mid-market Valuation (5)

- The below illustrates the 2021 Definitions Optional 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:**

- **Deal Ticket:**

- **SWML/FpML:**
Early Termination Cash Settlement – Mid-market Valuation (6)

- The below illustrates the 2021 Definitions Mandatory 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”

- GUI:

  - 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:

- 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:

\[
\begin{align*}
\text{Replacement Value (Firm Quotations)}^{39} & \\
\text{[Protected Party:]}^{40} & \quad \text{[Specify]/[Both parties]} \\
\text{[Cash Collateral Currency:]} & \quad [ ]^{41} \\
\text{Prescribed Documentation Adjustment:} & \quad \text{[Applicable]/[Not applicable]} \\
\text{Replacement Value (Calculation Agent Determination)}^{42} & \\
\text{[Protected Party:]}^{43} & \quad \text{[Specify]/[Both parties]} \\
\text{[Cash Collateral Currency:]} & \quad [ ]^{44}
\end{align*}
\]

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)]
[Protected Party:] [Specify]/[Both parties]
[Cash Collateral Currency:] [ ]
Prescribed Documentation Adjustment:] [Applicable]/[Not applicable]
[Replacement Value (Calculation Agent Determination)]
[Protected Party:] [ ]
[Cash Collateral Currency:] [ ]
```

---

33339 Include this and the following applicable fields if Cash Settlement is applicable and Replacement Value (Firm Quotations) is the specified Cash Settlement Method.

33340 Include unless relying on the default position in Section 18.4.17 (Protected Party).

33341 Only include if (a) the parties do not have an ISDA-Related 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)).

33342 Include this and the following applicable fields if Cash Settlement is applicable and Replacement Value (Calculation Agent Determination) is the specified Cash Settlement Method.

33343 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)**

  - 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)**

  - **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:

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Optional or mandatory</th>
<th>Field Type</th>
<th>Field values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protected Party</td>
<td>Mandatory</td>
<td>List</td>
<td>• Non-Exercising Party</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Both</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• My Entity</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Other Entity</td>
</tr>
<tr>
<td>Cash Collateral Currency</td>
<td>Optional</td>
<td>List</td>
<td>• CCY</td>
</tr>
<tr>
<td>Prescribed Documentation Adjustment</td>
<td>Mandatory</td>
<td>List</td>
<td>• Not Applicable (this field value is not editable in MarkitWire and will always specify “Not Applicable”)</td>
</tr>
</tbody>
</table>

- 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:

  ```markdown
  [Collateralized Cash Price^45
  [Agreed Discount Rate:]
  [Settlement Rate:]
  Quotation Rate:]
  [Specify]
  [ICE Swap Rate]/[Other price source [plus details]]/[Reference Banks]^46
  [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:

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Optional/mandatory</th>
<th>Field Type</th>
<th>Field values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agreed Discount Rate</td>
<td>Optional</td>
<td>List</td>
<td>Discount Rates from 2021 ISDA Settlement Matrix (see “Discount Rate” column) and FpML benchmark-rate coding scheme</td>
</tr>
</tbody>
</table>

![Field names and values](attachment:image-url)
Swaption Cash Settlement

- **Swaption Cash Settlement Methods**
  > The following two Swaption Cash Settlement Methods will be the *only available choices* 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.

![Swaption Cash Settlement Diagram](attachment:image.png)
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 [plus details]]/[Reference Banks]^{44}
- [Quotation Rate:] [bid/mid/ask]^{45}
- [Par Yield Curve – Unadjusted]^{46}
- [Settlement Rate]: [ICE Swap Rate]/[Other price source [plus details]]/[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. [https://www.isda.org/2021/05/01/2021-isda-interest-rate-derivatives-definitions/](https://www.isda.org/2021/05/01/2021-isda-interest-rate-derivatives-definitions/)
  - **Key Changes in the 2021 Definitions:** [https://www.isda.org/a/BNEgE/Key-Changes-in-the-2021-ISDA-Interest-Rate-Derivatives-Definitions-June-2021.pdf](https://www.isda.org/a/BNEgE/Key-Changes-in-the-2021-ISDA-Interest-Rate-Derivatives-Definitions-June-2021.pdf)
  - **Mapping Tables for FROs under the 2006 Definitions and FROs under the 2021 Definitions:** [https://www.isda.org/a/JMMgE/2006-FRO-Mapping-to-2021-FROs-Version-1.docx](https://www.isda.org/a/JMMgE/2006-FRO-Mapping-to-2021-FROs-Version-1.docx)
  - **Video:** Introduction to the 2021 ISDA Interest Rate Derivatives Definitions (May 10, 2021) [https://www.isda.org/2021/05/10/video-introduction-to-the-2021-isda-interest-rate-derivatives-definitions/](https://www.isda.org/2021/05/10/video-introduction-to-the-2021-isda-interest-rate-derivatives-definitions/)
  - **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/](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) [https://www.isda.org/2021/04/26/implementation-of-the-2021-isda-interest-rate-derivatives-definitions/](https://www.isda.org/2021/04/26/implementation-of-the-2021-isda-interest-rate-derivatives-definitions/)

- Sign up to the **2021 ISDA Definitions Implementation Subgroup** on the [https://www.isda.org/committees/](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 [https://www.isda.org/2021/05/01/2021-isda-interest-rate-derivatives-definitions/](https://www.isda.org/2021/05/01/2021-isda-interest-rate-derivatives-definitions/).
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)

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
  > Bilateral Trades (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**

![Trade Manager Interface](image)

**MarkitWire Swaption Deal Ticket**

- **MarkitWire Trade Id:** 901244 Ver 1
- **Contract State:**
- **Trade Version Timestamp:** 14-Sep-2021 2:50 AM (GMT -4.0 hrs)
- **Original Trade Date:** 14-Sep-2021

**Summary:**
- Market Wire Mega Fund 1 (Market Wire Mega Fund EU Trader2) SELLS to Market Wire Bank GBP 12,000,000 1.20000% European Receiver Option expiring 14-Sep-2022 (Cash Settlement) Underlying Swap effective 14-Sep-2022 through 14-Sep-2027

**Swaption Terms:**
- **Seller:** Market Wire Mega
- **Buyer:** Market Wire Bank
- **Option Style:** European
- **Option Type:** Receiver Option
- **Premium:** GBP 1,440
- **Premium Payment Date:** 15-Sep-2021
- **Premium Pay Date Adjustment:** Following
- **Premium Pay Date Business Days:** London
- **Calculation Agent:** Market Wire Bank (Buyer)

**Procedure for Exercise:**
- **Expiration Date:** 14-Sep-2022
- **Expiration Date Adjustment:** Following
- **Expiration Date Business Days:** London
- **Earliest Exercise Time:** 9:00 AM London time
- **Expiration Time:** 11:00 AM London time
- **Automatic Exercise:** Applicable
- **Threshold:** 0.0000%
- **Written Exercise Confirmation:** No

**Settlement Terms:**
- **Settlement:** Cash Settlement
- **Cash Settlement Date:** 14-Sep-2022

**MarkitWire Template Modifications List**

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Default Value</th>
<th>Submitted Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master Agreement Type</td>
<td>ISDA</td>
<td>ISDA2021</td>
</tr>
<tr>
<td>Contractual Definitions</td>
<td>ISDA</td>
<td>ISDA2021</td>
</tr>
</tbody>
</table>
MTM Release 21.5 (Contd.)

Matching on 2006 and 2021 FRO Names

- Fixed Leg:
  - Notional: USD 10,000,000.00
  - Direction: Recv Fixed
  - Fixed Rate (%): 3.000000

- Floating Leg:
  - Index: USD-SOFR-OIS Compound
  - Reset Freq: 3M
  - Day Count Fraction: ACT/360

- Fixed Leg:
  - Notional: USD 10,000,000.00
  - Direction: Pay Fixed
  - Fixed Rate (%): 3.000000

- Floating Leg:
  - Index: USD-LIBOR
  - Reset Freq: 3M
  - Day Count Fraction: ACT/360
Bilateral Trades: Mismatch on 2006 and 2021 FRO Names
2021 ISDA on the Trade Manager (MTM) platform (9)

- **MTM Release 21.5 (Contd.)**
  - 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/FpML messaging.

• 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: https://www.isda.org/a/BNEgE/Key-Changes-in-the-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 [https://www.fpml.org/spec/coding-scheme/](https://www.fpml.org/spec/coding-scheme/) - 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 Outright 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 Outright 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)

<table>
<thead>
<tr>
<th>FRO on MarkitWire under 2000/2006 Definitions</th>
<th>New Format of the FRO under 2021 Definitions</th>
<th>Commentary</th>
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<tbody>
<tr>
<td>AUD-AONIA-OIS-COMPOUND</td>
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<td>AUD-BBR-BBSW</td>
<td>AUD-BBSW</td>
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<tr>
<td>AUD-BBR-BBSY (BID)</td>
<td>AUD-BBSY Bid</td>
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<td>BRL-CDI</td>
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<td>CHF-SARON-OIS-COMPOUND</td>
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<td>CLP-TNA</td>
<td>CLP-ICP</td>
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<td>CNH-HIBOR-TMA</td>
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<td>CNY-DEPO-PBOC</td>
<td>CNY-Deposit Rate</td>
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<td>CNY-SHIBOR-Reuters</td>
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<td>EUR-EURIBOR-Reuters</td>
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<td>EUR-EURIBOR-Telerate</td>
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<td>FRO on MarkitWire under 2000/2006 Definitions</td>
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<td>EUR-EuroSTR-COMPOUND</td>
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<td>EUR-LIBOR-BBA</td>
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<td>GBP-SONIA-COMPounder</td>
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## MarkitWire Floating Rate Option Mapping Table (3)

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<th>New Format of the FRO under 2021 Definitions</th>
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<td>JPY-TIBOR-TBM (10 Banks)</td>
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<td>JPY-TIBOR-TBM (5 Banks)</td>
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<td>JPY-TIBOR-ZTIBOR</td>
<td>JPY-Euroyen TIBOR</td>
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<td>KRW-CD-KSDA-Bloomberg</td>
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<td>MXN-TIIE-Banxico</td>
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<td>REPOFUNDS RATE-GERMANY-OIS-COMPOUND</td>
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<td>REPOFUNDS RATE-ITALY-OIS-COMPOUND</td>
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## MarkitWire Floating Rate Option Mapping Table (4)

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<td>SGD-SONAR-OIS-COMPOUND</td>
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<td>SGD-SONAR-OIS-VWAP-COMPOUND</td>
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<td>SGD-SORA-COMPOUND</td>
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<td>TWD-TAIBOR-Reuters</td>
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Not present in 2006Defs and not applicable for 2021Defs

No longer active. Renamed to SGD-SONAR-OIS-VWAP-COMPOUND.

No longer active. Renamed to SGD-SORA-COMPOUND.

No longer active.

Not present in 2006Defs and not applicable for 2021Defs

New index added in MarkitWire 18.1.1 Release

Disconnected
### MarkitWire Floating Rate Option Mapping Table (5)

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<th>FRO on MarkitWire under 2000/2006 Definitions</th>
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<td>USD-BSBY</td>
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<tr>
<td>USD-CMT-T7051</td>
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<tr>
<td>USD-CP-H.15</td>
<td>USD-CP-Money Market Yield</td>
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<td>USD-DTCC GCF Repo Index-Treasury-Bloomberg-COMPOUND</td>
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<td>USD-Federal Funds-H.15</td>
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<td>USD-Federal Funds-H.15-OIS-COMPOUND</td>
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<td>USD-Prime-H.15</td>
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<td>USD-SOFR-COMPOUND</td>
<td>USD-SOFR-OIS Compound</td>
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<td>USD-TBILL Secondary Market-Bond Equivalent Yield</td>
<td>MarkitWire does not support the corresponding 2006Defs FRO USD-TBILL-SecondaryMarket</td>
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## MarkitWire Floating Rate Option Mapping Table (6)

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<td>USD-ISDA-Swap Rate</td>
<td>USD-LIBOR ICE Swap Rate-11:00</td>
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<tr>
<td>EUR-ISDA-EURIBOR Swap Rate-11:00</td>
<td>EUR-EURIBOR ICE Swap Rate-11:00</td>
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<td><strong>Stub Floating Rate Index</strong></td>
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<td>AUD-RBA Cash Rate</td>
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# MarkitWire Floating Rate Option Mapping Table (7)

## Inflation Indexes

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<td>AUD-CPI</td>
<td>Inflation Indices will continue being supported under 2021 definitions.</td>
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<tr>
<td>CAD-CPI</td>
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<tr>
<td>DEK-CPI</td>
<td>as the Index Descriptions are published in Annex A to the 2008 ISDA</td>
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<td>EUR-AI-CPI</td>
<td>Inflation Derivatives Definitions.</td>
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<td>UK-HICP</td>
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<td>ZAR-CPI</td>
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