

CME ClearPort® API CME Repository Services Trade Reporting API – OTC IRS

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1 Background

The Commodity Futures Trading Commission ("Commission or CFTC") is proposing rules to implement new statutory provisions enacted by Title VII of the Dodd-Frank Wall Street Reform and Consumer Protection Act. These proposed rules apply to swap data recordkeeping and reporting requirements for Swap Data Repositories (SDR), derivatives clearing organizations (DCO), designated contract markets (DCM), swap execution facilities (SEF), swap dealers (SD), major swap participants (MSP), and swap counterparties (SP) who are neither swap dealers nor major swap participants.

As part of these Dodd-Frank rulemakings, CFTC has mandated that all OTC swaps, whether cleared or not, be reported to a SDR. In order to facilitate such SDR reporting on behalf of market participants, CMEG will be launching its own Swaps Data Repository Service (hereafter referred to as "CME Repository Service" or CME RS).

2 Introduction

Reporting counterparties and SEFs can report to the CME RS to fulfill their reporting obligations. CME's SDR service will streamline the reporting process by allowing the market to leverage existing connectivity points and operational processes to facilitate regulatory reporting. In particular, reporting parties will be able to avoid multiple connections for clearing, reporting and instead leverage a single API (ClearPort API) for clearing and SDR Reporting through CME. Additionally, the CME RS will allow CME to seamlessly manage all ongoing SDR reporting obligations for CME cleared trades (valuation, continuation data, lifecycle events, etc.).

2.1 Prerequisites

This document assumes that users have a basic understanding of XML and some familiarity with trade reporting models.

3 Connectivity to CME Repository

This section describes the various connectivity options available to report to the CME Repository.

3.1 MQ Connectivity

Customers will have the option of connecting over a secure network connection via Websphere MQ Series. Customers can submit messages through a remote queue while having message responses pushed to their local queue. MQ Series clients do not require user authentication since MQ is a secure method of transport.

For more information on MQ connectivity, refer to: http://www.cmegroup.com/globex/files/connectivityoptions.pdf

3.2 Web Services Connectivity (HTTP)

Customers have the option of connecting using HTTPS via the Internet, Lease Line, and/or VPN. HTTP v.2.0 access supports both session-less and session-based user authentication. CME ClearPort® API supports

- Session-less HTTP Client
- Session-based HTTP Client

3.2.1 User Authentication (HTTP Only)

Session-less HTTP Client

HTTP users opting for session-less authentication must embed their CME ClearPort® API username and password in the Basic HTTP header of each message.

To do this, represent the username and password pair with a colon separating them (i.e.; Username:Password), then convert the string to base64.

For example:

Authorization: Basic QWxhZGRpbjpvcGVuIHNlc2FtZQ==

Session based HTTP Client

Session-based HTTP clients must use the FIXML Application-level User Request and User Response Messages. The API validates customer connections through session-based HTTP using a valid username and password. Responses are sent back to acknowledge a successful login or to convey a logon error. The User Request and User Response messages are used for the user connection messaging. Connections persist using cookies.

3.2.2 Password Changes

Password changes are also supported for HTTP users. Password changes use the FIXML Application-level User Request Message with an appropriate User Request Type.

Passwords expire every <u>45</u> days, so customers must implement the change password FIXML message.

Passwords must:

- Have a minimum of 8 characters and maximum of 20 characters,
- Not be a previously used password, and
- Contain at least 3 out of the following 4:
 - at least one UPPER CASE character;
 - at least one lower case character;
 - at least one numeric character;
 - at least one non-alphanumeric character.

4 Trade Reporting Flows

This section describes the flows associated with reporting creation data and Continuation data to CME RS.

4.1 Creation Data Reporting Flows

Creation Data Reporting

CFTC requires reporting of two types of data relating to the creation of a swap:

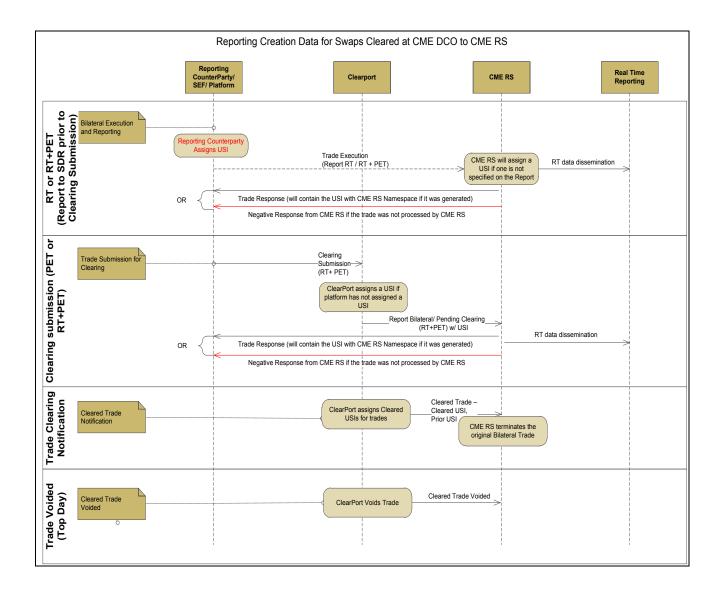
- the primary economic terms of the swap verified or matched by the counterparties at or shortly after the time of execution;
- and all of the terms of the swap included in the legal confirmation of the swap.

Universal Swap Identifier (USI)

The USI is a unique identifier assigned to all swap transactions which identifies the transaction (the swap and its counterparties) uniquely throughout its duration. The creation and use of the USI has been mandated by the CFTC and SEC as part of the Dodd-Frank Act.

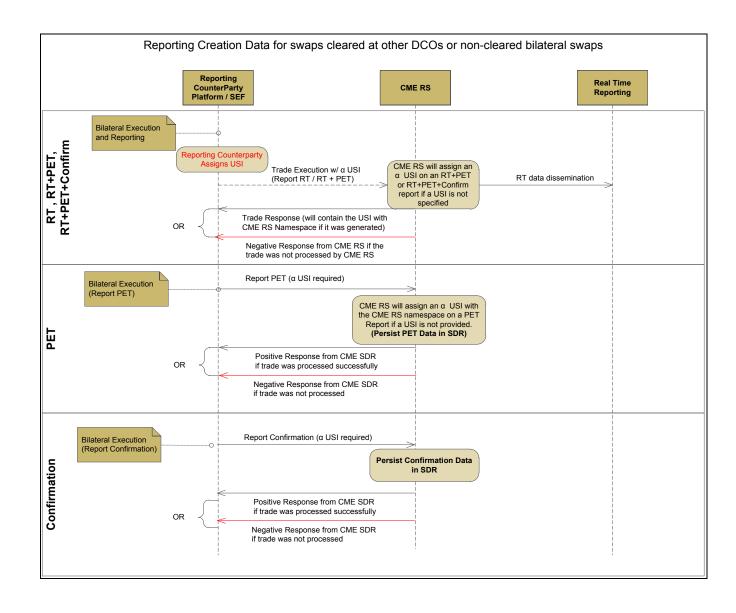
4.1.1 Reporting creation data for swaps cleared at CME

The following flow describes the reporting of RT (Realtime) and PET (Primary Economic Terms) for trades that are submitted to CME Clearing using the ClearPort API. Participants can leverage the ClearPort API to fulfill their reporting obligations certain additional attributes like the execution SDR and the regulatory report type. Clearport API will send appropriate messages to CME RS.



4.1.2 Reporting creation data for swaps cleared at other DCOs or noncleared bilateral swaps

While reporting creation data for a swap that is being cleared elsewhere, or a bilateral swap that will not be cleared, a USI is required. The only exception to this is a vanilla RT Report which does not require submission of a USI. If the submitter does not specify a USI while reporting the creation data, CME RS will assign a bilateral (α) USI with the CME RS namespace and echo is back to the submitter. The submitter will need to send the bilateral (α) USI assigned by CME RS on any subsequent report submitted for the swap to the CME RS.



I

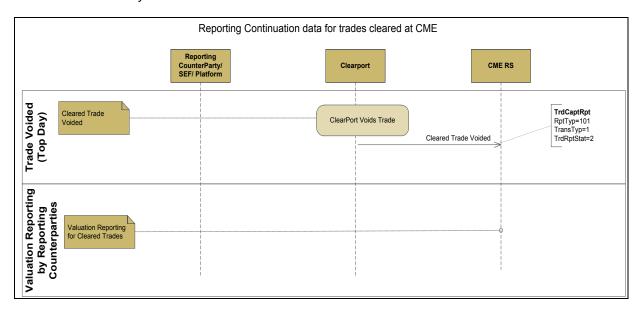
4.2 Continuation Data Reporting Flows

Continuation data reporting can be reported either using the life cycle approach, or using a snapshot approach.

- The life cycle approach involves reporting all life cycle events affecting the terms of a swap. This is reported only when the event occurs.
- The snapshot approach requires reporting of a daily snapshot of all primary economic terms of a swap including any changes to such terms occurring since the previous snapshot.
- The continuation data reporting also includes reporting valuations which should be done daily.

4.2.1 Reporting continuation data for trades cleared at CME

All post trade activity of trades cleared at CME will be reported by the DCO to the CME RS. These activities include voids, terminations, transfers and all other events mandated by the Commission. Reporting counterparties will have the option of reporting independent valuations of cleared trades directly to the DCO.

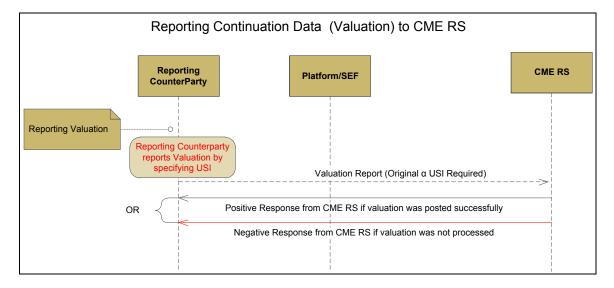


4.2.2 Reporting continuation data for all other trades (bilateral and cleared at other DCOs)

For trades that are not cleared at CME DCO, the Reporting counterparty will report all events that affect the swap and also provide daily valuation. The list of <u>events</u> supported by CME RS is defined below.

4.2.2.1 Reporting Valuations

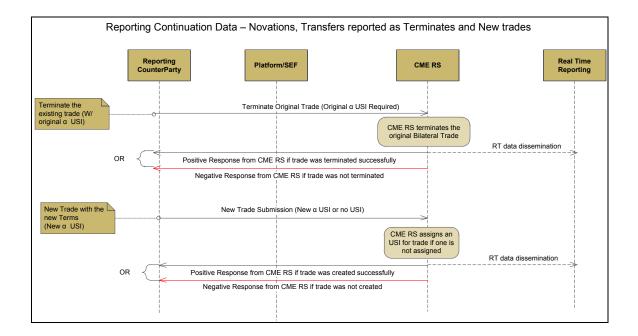
While reporting valuations, the original USI is required. Valuation Reports submitted without a USI will be rejected by CME RS.



4.2.2.2 Reporting Novations, Transfers as Terminates and New trades

Novations, Transfers can be reported by terminating the existing swap and reporting a new swap with the new counterparty. Participants may also choose to report amendments using this workflow where the original trade is terminated and a new trade is reported with the amended details.

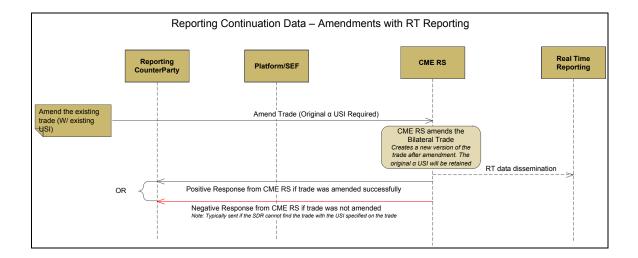
While reporting a termination, the original bilateral USI (α) is required. While reporting the new swap if a USI is not present, the CME RS will assign a USI with the CME RS namespace and echo it back on the confirm. The USI of the original swap that was terminated will be submitted as a prior USI in the new swap.



4.2.2.3 Reporting Amendments requiring RT

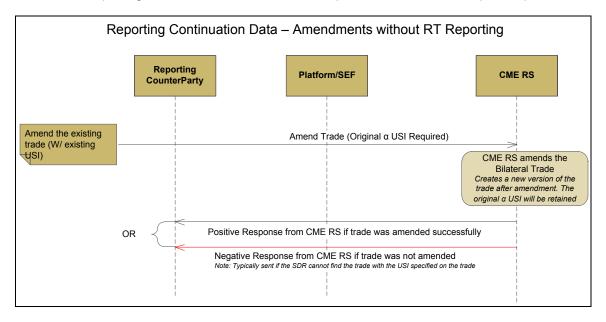
Participants can amend existing swaps. These amendments will needs to be reported as part of continuation reporting. The amendments will have to marked for RT reporting if the amendments affect the price forming data.

Additionally Novations and Transfers can be reported as amendments. While reporting any amendment, the original bilateral USI (α) is always required.



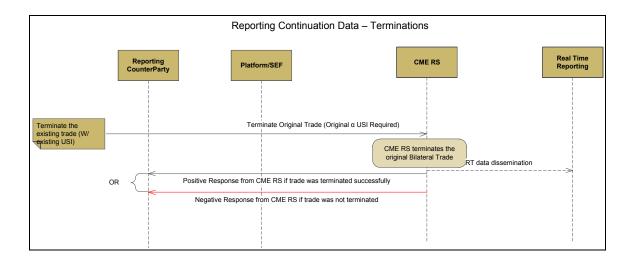
4.2.2.4 Reporting Amendments without RT

Participants can amend existing swaps. These amendments will needs to be reported as part of continuation reporting. Amendments that do not affect price will not need to be price reported.



4.2.2.5 Reporting Terminations

Terminations to existing swaps will need to be reported as part of continuation data reporting. All terminations will need to be price reported. Swaps may be terminated due to novations, transfers or options exercise. In all these cases, the terminations will need to be price reported.



5 Reporting Events

5.1 Creation data reporting

| Event | Submission(s) | TrdCaptRpt/ TransTyp | TrdCaptRpt/RegRptTy p | TrdCaptRpt/ TrdContntn |
|-----------|-----------------------------------------------------|-------------------------|-----------------------------------------------------------------------------------------|---------------------------|
| New Trade | One or more submissions of RT, PET and Confirm data | 0 = New | 0 = RT 1 = PET 3 = Confirm 4 = RT+PET 5 = PET+Confirm 6 = RT+PET+Confirm | None |

5.2 Life cycle events reporting

Event based reporting is reporting of all life cycle events that affect the swap. This table lists all the events supported by CME RS for reporting Continuation data. These values will be used if a participant will be using event based reporting for an asset class.

| Event | Submission(s) | TrdCaptRpt/ TransTyp | TrdCaptRpt/RegRptTy p | TrdCaptRpt/ TrdContntn |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------|-------------------------|-----------------------------------------------|---------------------------|
| Valuation | Submission per USI for valuation data | 0 = New | 7 = Post-Trade Valuation | None |
| Novation (as Amendments) | Submission updating the novated party/obligation (USI on the novated trade will stay the same) If the reporting | 2 = Replace | 9 = Post Trade Event 10 = Post Trade Event + | 0 = Novation |
| | counterparty does not change. | | RT | |
| Novation (as Terminates and Adds) | Terminate the trade with the current USI | 1 = Cancel | 10 = Post Trade Event+ RT | 0 = Novation |
| Adds) | Create a new trade with a new USI | 0 = New | 9 = Post Trade Event | 0 = Novation |
| | | | 10 = Post Trade Event + RT1 | |
| Partial Novation | Submission updating the original swap with the reduced notional | 2 = Replace | 10 = Post Trade Event + RT | 1 = Partial novation |
| | Submission for new trade with additional party | 0 = New | 10 = Post Trade Event + RT | 1 = Partial novation |
| Swap Unwind | Submission unwinding swap | 1 = Cancel | 10 = RT+Post Trade | 2 = Swap unwind |

¹ A Post Trade event of 10 is sent if there were some fees/payments associated with the novation.

Trade Reporting API for IRS - FIXML w/ embedded Fpml Message Specification

| Event | Submission(s) | TrdCaptRpt/ TransTyp | TrdCaptRpt/RegRptTy p | TrdCaptRpt/ TrdContntn |
|----------------------------------------|------------------------------------------------------------------|-------------------------|----------------------------------------------------------------------------------------------|-----------------------------------------------------|
| Partial Swap Unwind (Decrease) | Submission updating swap (amending the trade for a lower amount) | 2 = Replace | 10 = RT+Post Trade Event | 3 = Partial swap unwind |
| Exercise | Submission terminating option | 1 = Cancel | 10 = Post Trade Event + RT | 4 = Exercise |
| | Submission for new swap from exercise (New USI) | 0 = New | 9 = Post Trade Event | 4 = Exercise |
| Amendment | Submission updating amended swap | 2 = Replace | 9 = Post Trade Event (If not price affecting) 10 = RT+Post Trade Event (If price affecting) | 8 = Amendment |
| Increase | Submission updating increasing the Swap Notional | 2 = Replace | 10 = RT+Post Trade Event (If price affecting) | 9 = Increase |
| Withdrawal (Same as Swap Unwind) | Submission terminating swap | 1 = Cancel | 10 = RT+Post Trade Event (If price affecting) | 15 = Withdrawal (Prior to confirmation or clearing) |

5.3 Reporting Backloaded trades

Trades that have existed in the books of the participants and are still active can be backloaded swaps are reported to CME RS. The participant will need to send PET and Confirmation data for the backloaded trade.

Note: Price (RT – Realtime) will not need to be reported on historical Swaps by the CME RS.

| Event | Submission(s) | TrdCaptRpt/ TransTyp | TrdCaptRpt/RegRptTy p | TrdCaptRpt/ TrdContntn |
|-----------|-----------------------------------|-------------------------|-------------------------------------------|---------------------------|
| New Trade | Submission of Historical swaps | 0 = New | 1 = PET 3 = Confirm 5 = PET+Confirm | None |

6 FIXML Message Flows for Reporting Events

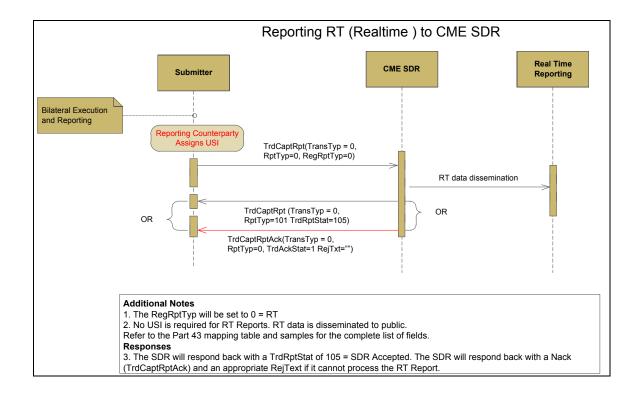
6.1 Reporting Creation Data Message Flow

Creation data is the data associated with the creation and execution of the swap. This includes all the terms of the swap verified or matched by the counterparties at or shortly after the execution of the swap. This section describes all the flows associated with reporting creation data to CME RS.

6.1.1 Reporting RT for all trades to SDR

In this scenario, the participant submits a Part 43 Report for Realtime Reporting upon execution of a trade.

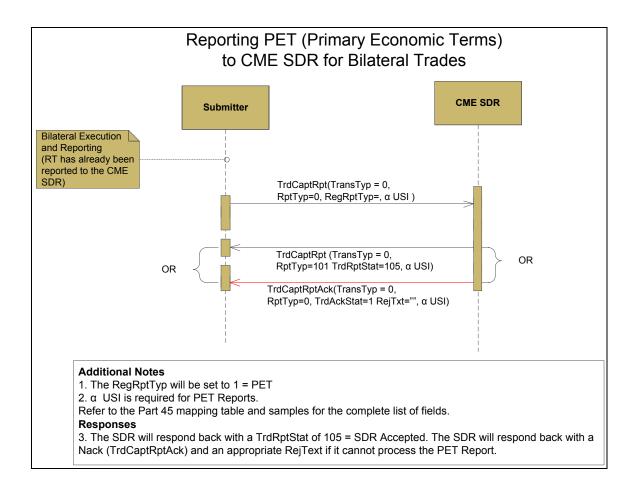
- 1. The participant sends a **TrdCaptRpt** Message with a **TransTyp** of **New** (0), a **RptTyp** of **Submit** (0) and a **RegRptTyp** of **RT** (0).
- 2. CME RS will record the report and disseminate the data to public.
- 3. If CME RS was able to process the message a confirmation is sent to the participant using a **TrdCaptRpt** message with a **TransTyp** of New (0), a **RptTyp** of **Notification** (101) and a **TrdRptStat** of **Accepted by SDR** (105).
- 4. If CME RS could not process the message, a negative Ack is send to the participant using a **TrdCaptRptAck** message with a **TransTyp** of **New** (0), a **RptTyp** of **Submit** (0), a **TrdAckStat** of **Reject** (1) and an appropriate RejTxt.



6.1.2 Reporting PET for all trades to CME RS

In this scenario, the participant submits a Part 45 Report for PET (Primary Economic Terms) Reporting. The Part 43 RT Report has already been submitted prior to this upon trade execution.

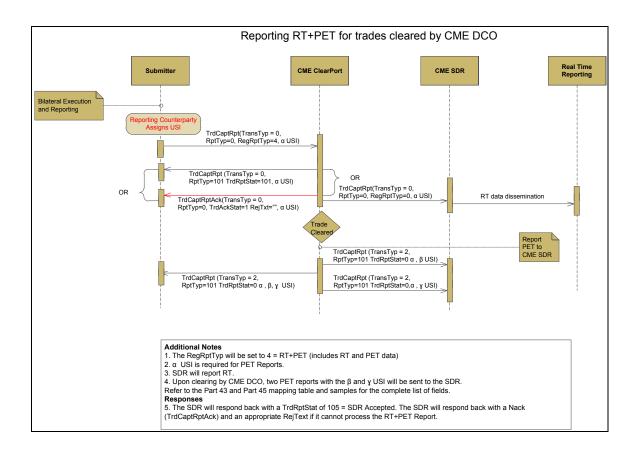
- The participant sends a TrdCaptRpt Message with a TransTyp of New (0), a RptTyp of Submit (0) and a RegRptTyp of RT (1). The participant includes the α USI in the RegTrdID block of the message.
 - Note: if an α USI has not been assigned to the report, CME RS will assign a USI using the CME RS namespace and echo it back on confirms to the participant.
- 2. CME RS will record the PET Report.
- 3. If CME RS was able to process the message a confirmation is sent to the participant using a **TrdCaptRpt** message with a **TransTyp** of New (0), a **RptTyp** of **Notification** (101) and a **TrdRptStat** of **Accepted by SDR** (105).
- 4. If CME RS could not process the message, a negative Ack is send to the participant using a **TrdCaptRptAck** message with a **TransTyp** of **New** (0), a **RptTyp** of **Submit** (0), a **TrdAckStat** of **Reject** (1) and an appropriate RejTxt.



6.1.3 Reporting RT + PET for trades cleared at CME DCO

In this scenario the participant submits the trade to be cleared at CME DCO marking it for Real time reporting as well. Upon submission, the ClearPort API will report the RT to the CME RS. The steps are

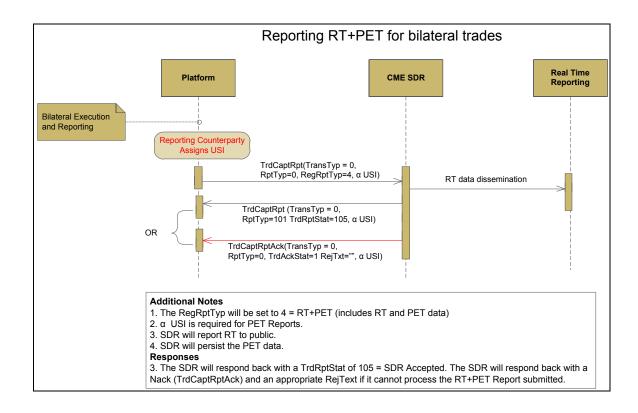
- 1. The participant sends a **TrdCaptRpt** Message with a **TransTyp** of **New** (0), a **RptTyp** of **Submit** (0) and a **RegRptTyp** of **RT** (4). The participant includes the α USI in the **RegTrdID** block of the message.
 - Note: if an α USI has not been assigned to the report, CME DCO will assign a USI using the CME DCO namespace and echo it back on confirms to the participant.
- 2. Upon Clearing, CME RS will record the PET Report for the two novated trades from clearing with a β and γ USI.
- 3. If CME RS was able to process the message a confirmation is sent to the participant using a **TrdCaptRpt** message with a **TransTyp** of New (0), a **RptTyp** of **Notification** (101) and a **TrdRptStat** of **Accepted by SDR** (105).
- 4. If CME RS could not process the message, a negative Ack is send to the participant using a **TrdCaptRptAck** message with a **TransTyp** of **New** (0), a **RptTyp** of **Submit** (0), a **TrdAckStat** of **Reject** (1) and an appropriate RejTxt.



6.1.4 Reporting RT, PET and Confirmation for bilateral trades that will not clear

In this scenario, the participant submits a combined RT, PET and Confirmation Report to the CME RS.

- The participant sends a TrdCaptRpt Message with a TransTyp of New (0), a RptTyp of Submit (0) and a RegRptTyp of RT+PET+Confirm (6). The participant includes the α USI in the RegTrdID block of the message.
- 2. Note: if an α USI has not been assigned to the report, CME RS will assign a USI using the CME RS namespace and echo it back on confirms to the participant.
- 3. CME RS will record the PET
- 4. If CME RS was able to process the message a confirmation is sent to the participant using a **TrdCaptRpt** message with a **TransTyp** of New (0), a **RptTyp** of **Notification** (101) and a **TrdRptStat** of **Accepted by SDR** (105).
- 5. If CME RS could not process the message, a negative Ack is send to the participant using a **TrdCaptRptAck** message with a **TransTyp** of **New** (0), a **RptTyp** of **Submit** (0), a **TrdAckStat** of **Reject** (1) and an appropriate RejTxt.



6.2 Reporting Continuation Events Message Flow

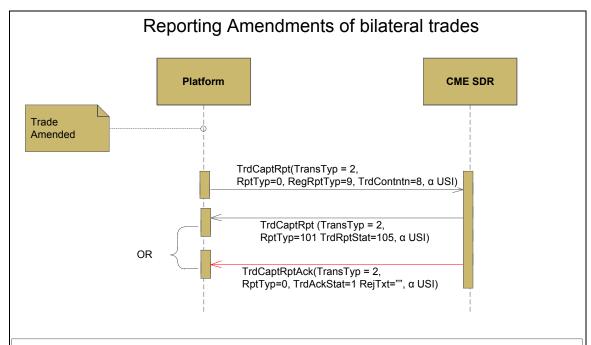
Continuation data is data associated with the continued existence of the swap until its final termination). This section describes the flows associated with reporting continuation data to CME RS.

6.2.1 Reporting Amendments

In this scenario, the participant submits an amendment to a previously reported Swap. Swap amendments will need to be reported. Amendments may affect price affecting terms in which case RT data will have to be reported to the public.

Reporting Amendments that are not Price Forming

- The participant sends a TrdCaptRpt Message with a TransTyp of Replace (2), a RptTyp of Submit (0) and a RegRptTyp of Post Trade Event (9). Additionally the TrdContntn (Trade Continuation flag) will be set to Amendment (8). The participant includes the α USI in the RegTrdID block of the message. Note: The trade will be rejected if a USI is not specified or the USI specified is not found.
- 2. CME RS will record the Amendment.
- 3. If CME RS was able to process the message a confirmation is sent to the participant using a **TrdCaptRpt** message with a **TransTyp** of **Replace** (2), a **RptTyp** of **Notification** (101) and a **TrdRptStat** of **Accepted by SDR** (105).
- 4. If CME RS could not process the message, a negative Ack is send to the participant using a **TrdCaptRptAck** message with a **TransTyp** of **Replace** (2), a **RptTyp** of **Submit** (0), a **TrdAckStat** of **Reject** (1) and an appropriate RejTxt.



Additional Notes

- 1. The RegRptTyp will be set to 9 = Post Trade Event
- 2. The Trade Continuation flag will be set to 8 = Amendment
- 3. α USI is required on continuation event (Post Trade event) reporting.

Responses

3. The SDR will respond back with a TrdRptStat of 105 = SDR Accepted. The SDR will respond back with a Nack (TrdCaptRptAck) and an appropriate RejText if it cannot process the termination report submitted.

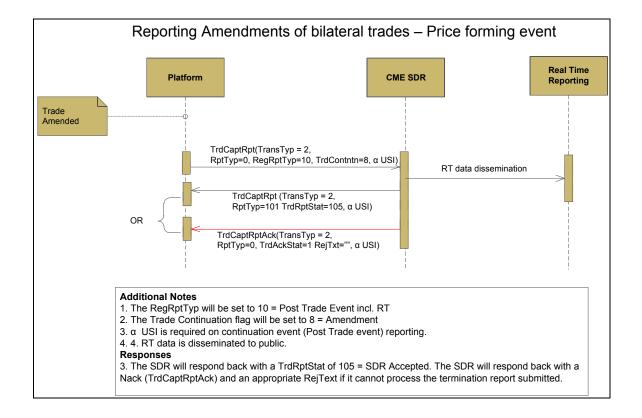
Reporting Amendments that are Price Forming

The steps are

- The participant sends a TrdCaptRpt Message with a TransTyp of Replace (2), a
 RptTyp of Submit (0) and a RegRptTyp of Post Trade Event including RT (10).
 Additionally the TrdContntn (Trade Continuation flag) will be set to Amendment (8). The
 participant includes the α USI in the RegTrdID block of the message.
 Note: The trade will be rejected if a USI is not specified or the USI specified is not found.
- 2. CME RS will report RT data to public and record the Amendment.
- 3. If CME RS was able to process the message a confirmation is sent to the participant using a **TrdCaptRpt** message with a **TransTyp** of **Replace** (2), a **RptTyp** of **Notification** (101) and a **TrdRptStat** of **Accepted by SDR** (105).
- 4. If CME RS could not process the message, a negative Ack is send to the participant using a **TrdCaptRptAck** message with a **TransTyp** of **Replace** (2), a **RptTyp** of **Submit** (0), a **TrdAckStat** of **Reject** (1) and an appropriate RejTxt.

Reporting Amendments that Increase notional

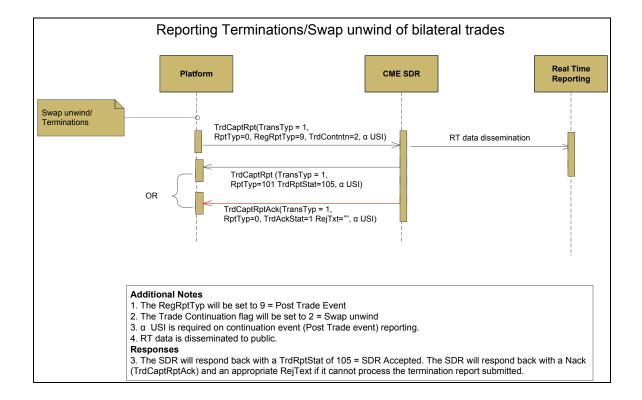
The flow is the same as reporting a Price forming amendment. The Submitters can use a **TrdContntn (**Trade Continuation flag) of **Increase** (9) instead of **Amendment** (8).



6.2.2 Reporting Swap Unwind/Termination

In this scenario, the participant submits a termination to a previously reported Swap. These are also referred to as Swap Unwinds. Swap terminations will need to be reported to public because these affect prices.

- The participant sends a TrdCaptRpt Message with a TransTyp of Cancel (1), a RptTyp of Submit (0) and a RegRptTyp of Post Trade Event including RT (10). Additionally the TrdContntn (Trade Continuation flag) will be set to Swap Unwind (2). The participant includes the α USI in the RegTrdID block of the message.
 Note: The trade will be rejected if a USI is not specified or the USI specified is not found.
- 2. CME RS will report RT data to public and record the Termination.
- 3. If CME RS was able to process the message a confirmation is sent to the participant using a **TrdCaptRpt** message with a **TransTyp** of **Cancel** (1), **RptTyp** of **Notification** (101) and TrdRptStat of **Accepted by SDR** (105).
- 4. If CME RS could not process the message, a negative Ack is send to the participant using a TrdCaptRptAck message with a TransTyp of Cancel (1), a RptTyp of Submit (0), a TrdAckStat of Rejected (1) and an appropriate RejTxt.



6.2.3 Reporting Partial Swap Unwind/Partial Terminates

In this scenario the swap is partially terminated. There is a decrease in notional. The TransTyp will be set to 2 (Replace), the regulatory report type will be set to 10 which is Post Trade event including RT. The Trade Continuation will be set to a 3 which is a partial swap unwind. Please refer to *Reporting Amendments* flow for the workflow details.

6.2.4 Reporting Novations to CME RS as Terminates and new trades

Novation is the act of replacing one of the counterparties in an OTC trade with counterparty after consent with all the parties involved in the deal. In this scenario a novation is reported by terminating the old trade with the existing counterparty and reporting a new trade with the new counterparty. The new trade will have a new USI. The terminated trade will be need to be real time reported. The new trade will need to be real time reported if it affects the price which includes payment of any upfront fees etc.

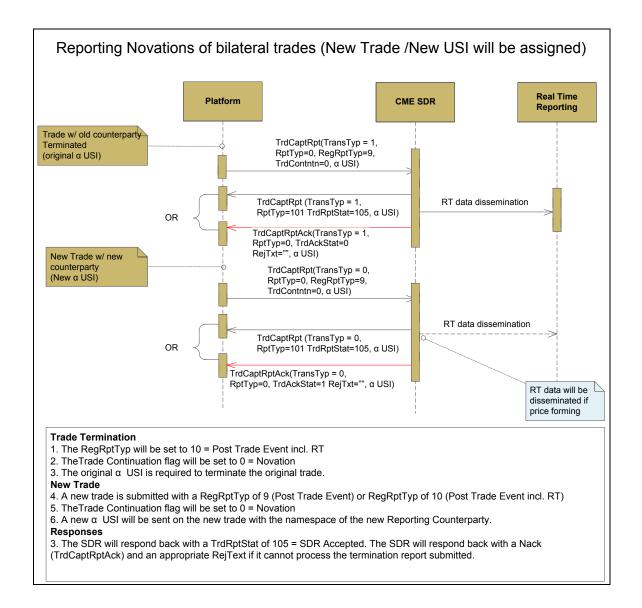
The steps are Reporting the Terminate

- 1. The participant sends a **TrdCaptRpt** Message with a **TransTyp** of **Cancel** (1), a **RptTyp** of **Submit** (0) and a **RegRptTyp** of **Post Trade Event including RT** (10). Additionally the **TrdContntn** (Trade Continuation flag) will be set to **Novation** (0). The participant includes the α USI in the **RegTrdID** block of the message.
 - Note: The trade will be rejected if a USI is not specified or the USI specified is not found.
- 2. CME RS will report RT data to public and record the Termination.

- 3. If CME RS was able to process the message a confirmation is sent to the participant using a **TrdCaptRpt** message with a **TransTyp** of **Cancel** (1), RptTyp of **Notification** (101) and a **TrdRptStat** of **Accepted by SDR** (105).
- 4. If CME RS could not process the message, a negative Ack is send to the participant using a **TrdCaptRptAck** message with a **TransTyp** of **Cancel** (1), a **RptTyp** of **Submit** (0), a **TrdAckStat** of **Reject** (1) and an appropriate RejTxt.

Reporting the New trade

- 1. The participant sends a TrdCaptRpt Message with a TransTyp of New (0), a RptTyp of Submit (0) and a RegRptTyp of Post Trade Event including RT (10). Additionally the TrdContntn (Trade Continuation flag) will be set to Novation (0). The participant includes a new α USI in the RegTrdID block of the message assigned by the Reporting Counterparty. Additionally the original USI will be specified as the prior USI. Note: If an α USI has not been assigned to the report, CME RS will assign a USI using the CME RS namespace and echo it back on confirms to the participant.
- 2. CME RS will report RT data to public.
- 3. If CME RS was able to process the message a confirmation is sent to the participant using a **TrdCaptRpt** message with a **TransTyp** of **New** (0), a **RptTyp** of **Notification** (101) and a **TrdRptStat** of **Accepted by SDR** (105).
- 4. If CME RS could not process the message, a negative Ack is send to the participant using a **TrdCaptRptAck** message with a **TransTyp** of **New** (0), a **RptTyp** of **Submit** (0), a **TrdAckStat** of **Reject** (1) and an appropriate RejTxt.

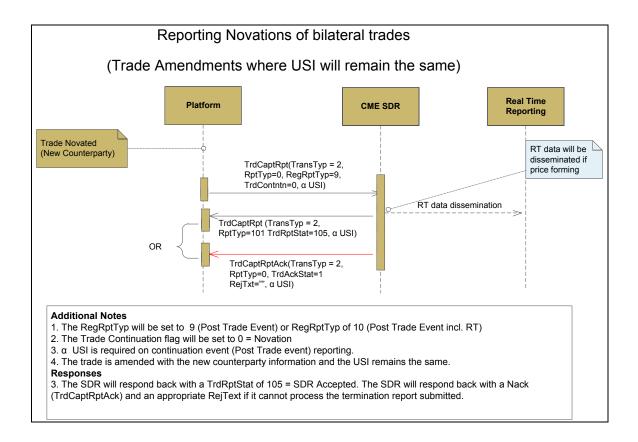


6.2.5 Reporting Novations as Amendments

While reporting a novation to the SDR, the novation can be sent in as an amendment if the USI is going to remain the same. An amendment can be used if the reporting counterparty does not change.

- 1. The participant sends a **TrdCaptRpt** Message with a **TransTyp** of **Replace** (2), a **RptTyp** of **Submit** (0) and a **RegRptTyp** of **Post Trade Event including RT** (10) or a **RegRptTyp** of **Post Trade Event** (9). Additionally the **TrdContntn** (Trade Continuation flag) will be set to **Novation** (0). The participant includes the α USI in the **RegTrdID** block of the message.
 - Note: The trade will be rejected if a USI is not specified or the USI specified is not found.
- 2. CME RS will report RT data to public and record the Termination.

- 3. If CME RS was able to process the message a confirmation is sent to the participant using a **TrdCaptRpt** message with a **TransTyp** of **Replace** (2), a **RptTyp** of **Notification** (101) and a **TrdRptStat** of **Accepted by SDR** (105).
- 4. If CME RS could not process the message, a negative Ack is send to the participant using a **TrdCaptRptAck** message with a **TransTyp** of **Replace** (2), a **RptTyp** of **Submit** (0), a **TrdAckStat** of **Rejected** (1) and an appropriate RejTxt.



6.2.6 Reporting Partial Novations

If part of a trade is novated to a different counterparty

- 1. The trade can be reported as two new trades after terminating the original trade.
- 2. Or the original trade can be amended with the reduced notional and reported as an amendment; and a new trade is reported with the new counterparty and a new USI.

6.2.7 Reporting Options Exercise

When options are exercised, the event will have to be reported to the SDR as a continuation event. The Option that was originally reported is terminated and the new created underlying swap is reported to the SDR as part of the continuation event. The new swap trade will have a new USI. The termination of the Option will be needed to be real time reported. The new Swap trade

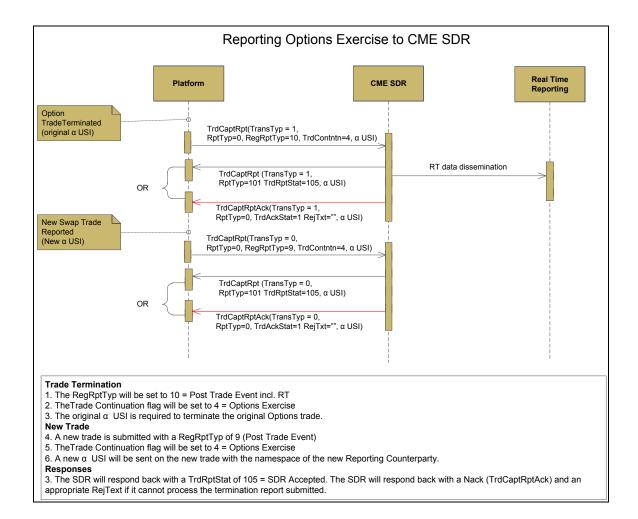
does not need to be real time reported.

The steps are Reporting the Terminate

- The participant sends a TrdCaptRpt Message with a TransTyp of Cancel (1), a RptTyp of Submit (0) and a RegRptTyp of Post Trade Event including RT (10). Additionally the TrdContntn (Trade Continuation flag) will be set to Exercise (4). The participant includes the α USI in the RegTrdID block of the message.
 Note: The trade will be rejected if a USI is not specified or the USI specified is not found.
- CME RS will report RT data to public and record the Termination.
- 3. If CME RS was able to process the message a confirmation is sent to the participant using a **TrdCaptRpt** message with a **TransTyp** of **Cancel** (1), a **RptTyp** of **Notification** (101) and a **TrdRptStat** of **Accepted by SDR** (105).
- 4. If CME RS could not process the message, a negative Ack is send to the participant using a **TrdCaptRptAck** message with a **TransTyp** of **Cancel** (1), a **RptTyp** of **Submit** (0), a **TrdAckStat** of **Rejected** (1) and an appropriate RejTxt.

Reporting the New trade

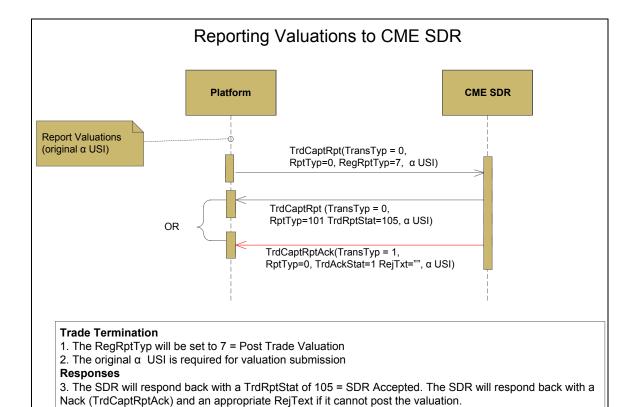
- 1. The participant sends a TrdCaptRpt Message with a TransTyp of New (0), a RptTyp of Submit (0) and a RegRptTyp of Post Trade Event (9). Additionally the TrdContntn (Trade Continuation flag) will be set to Exercise (4). The participant includes the α USI in the RegTrdID block of the message assigned by the Reporting Counterparty. Note: if an α USI has not been assigned to the report, CME RS will assign a USI using the CME RS namespace and echo it back on confirms to the participant..
- 2. CME RS will record the PET data for the newly created underlying Swap.
- 3. If CME RS was able to process the message a confirmation is sent to the participant using a **TrdCaptRpt** message with a **TransTyp** of **New** (0), **RptTyp** of **Notification** (101) and a **TrdRptStat** of **Accepted by SDR** (105).
- 4. If CME RS could not process the message, a negative Ack is send to the participant using a **TrdCaptRptAck** message with a **TransTyp** of **New** (0), a **RptTyp** of **Submit** (0), a **TrdAckStat** of **Rejected** (1) and an appropriate RejTxt.



6.2.8 Reporting Valuations

In this scenario, the participant submits valuations for a previously reported Swap to fulfill the continuation data reporting obligation.

- The participant sends a TrdCaptRpt Message with a TransTyp of New (0), a RptTyp of Submit (0) and a RegRptTyp of Post Trade Valuation (7). The participant includes the α USI in the RegTrdID block of the message.
 - Note: The trade will be rejected if a USI is not specified or the USI specified is not found.
- 2. CME RS will record the valuation data submitted by the participant.
- 3. If CME RS was able to process the message a confirmation is sent to the participant using a **TrdCaptRpt** message with a **TransTyp** of **New** (0), **RptTyp** of **Notification** (101) and a **TrdRptStat** of **Accepted by SDR** (105).
- 4. If CME RS could not process the message, a negative Ack is send to the participant using a **TrdCaptRptAck** message with a **TransTyp** of **Cancel** (1), **RptTyp** of **Submit** (0), a **TrdAckStat** of **Rejected** (1) and an appropriate RejTxt.



7 Trade Reporting Specification

7.1 Submitting Entity Information

While submitting trades, identifying the parties or entities involved in the trade is essential to the SDR. If the trades are intended for clearing at the CME DCO, the participants can submit the clearing account. The clearing system can identify the LEI associated with the account if the LEI is registered.

Details about retrieving entity information from CME ClearPort are available in the <u>CME ClearPort</u> Entity Reference API.

7.1.1 Submitting Legal Entity Identifier (LEI)

Each counterparty to a swap subject to the jurisdiction of the CFTC must be identified in all recordkeeping and swap data reporting under Part 45 by using a single legal entity identifier, known as LEI.

Until the FSB endorses the recommendations, the CFTC is referring to the identifier to be used in reporting under the CFTC rule as the **CFTC Interim Compliant Identifier (CICI)**.

The API will not make the distinction between LEI and CICI.

```
<Pty R="7" ID=" LET of the Trading Fixm" Src="N"/> N implies LET
```

7.1.2 Submitting Reporting Counterparty

The Reporting Counterparty (RCP) is the party to a swap with the responsibility to report a publicly reportable swap transaction as soon as technologically practicable to a SDR in accordance with the Dodd-Frank Act. Under this Act, one party must bear responsibility to ensure that the trade is reported.

In their rulemaking, the CFTC has created a hierarchy whereby:

- SDs always report when trading with MSPs and end users, and
- MSPs always report when trading with end users.

The Reporting counterparty can be specified along with the Customer Account if the trade is being submitted to be cleared at CME DCO or with the Trading firm. The Reporting counterparty is identified in the Sub tag.

7.1.3 Submitting Other Party Roles

Use the following party roles (R) in the Party block when submitting a dual-sided trade. Refer to the validation rules when submitting Party roles.

| Field | XPath | Description |
|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| LEI of the Trading firm | /TrdCaptRpt/RptSide/Pty/@R="7" /TrdCaptRpt/RptSide/Pty/@ID /TrdCaptRpt/RptSide/Pty/@Src="N" | Legal Entity identifier of the trading firm to identify the side submitting the trade. Supported Value: R - 7 – Trading Firm Src – N – Legal Entity Identifier |
| Trader ID | /TrdCaptRpt/RptSide/Pty/@R="36" /TrdCaptRpt/RptSide/Pty/@ID | The UserID of the trader individual for a trading entity (typically a trading firm in this model) who is authorized to perform functions like submit trades into CME ClearPort, view trades etc Supported Value: 36 – Trader User ID or Asset Manager User ID |
| Broker Firm | /TrdCaptRpt/RptSide/Pty/@R="30" /TrdCaptRpt/RptSide/Pty/@ID | The Inter dealer Broker/Agent who brokered the deal. Supported Value: 30 – Inter Dealer Broker (IDB) |
| Reporting Counterparty | /TrdCaptRpt/RptSide/Pty/@R="7" /TrdCaptRpt/RptSide/Pty/@ID /TrdCaptRpt/RptSide/Pty/ @Src="N" /TrdCaptRpt/RptSide/Pty/ Sub/@Typ="49" /TrdCaptRpt/RptSide/Pty/ Sub/@ID="Y" | The Reporting Counterparty (RCP) is the party to a swap with the responsibility to report a publicly reportable swap transaction. |
| SEF (Swap Execution Facility) | /TrdCaptRpt /Pty/@R="73" /TrdCaptRpt/ Pty/@ID /TrdCaptRpt/ Pty/@Src="N" | The LEI of the Swap Execution facility. This is specified if the VenueTyp is a SEF or a DCM. |
| SDR (Swaps Data Repository) | /TrdCaptRpt/ Pty/@R="102" /TrdCaptRpt/ Pty/@ID /TrdCaptRpt/ Pty/@Src="N" | The LEI of the Swaps Data Repository to which the bilateral trade was reported. |

| Field | XPath | Description |
|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Swap Dealer Indicator | /TrdCaptRpt/RptSide/Pty/@R="7" /TrdCaptRpt/RptSide/Pty/@ID /TrdCaptRpt/RptSide/Pty/ @Src="N" /TrdCaptRpt/RptSide/Pty/ Sub/@Typ="45" /TrdCaptRpt/RptSide/Pty/ Sub/@ID="Y" | This indicates of a counterparty specified in is a Swap Dealer with respect to the Swap. |
| Swap Dealer Indicator | /TrdCaptRpt/RptSide/Pty/@R="7" /TrdCaptRpt/RptSide/Pty/@ID /TrdCaptRpt/RptSide/Pty/ @Src="N" /TrdCaptRpt/RptSide/Pty/ Sub/@Typ="45" /TrdCaptRpt/RptSide/Pty/ Sub/@ID="Y" | This indicates of a counterparty specified in is a Swap Dealer with respect to the Swap. |
| Major Swap Participant Indicator | /TrdCaptRpt/RptSide/Pty/@R="7" /TrdCaptRpt/RptSide/Pty/@ID /TrdCaptRpt/RptSide/Pty/ @Src="N" /TrdCaptRpt/RptSide/Pty/ Sub/@Typ="46" /TrdCaptRpt/RptSide/Pty/ Sub/@ID="Y" | This indicates of a counterparty specified in is a Major Swap participant with respect to the Swap. |
| Financial Entity Indicator | /TrdCaptRpt/RptSide/Pty/@R="7" /TrdCaptRpt/RptSide/Pty/@ID /TrdCaptRpt/RptSide/Pty/ @Src="N" /TrdCaptRpt/RptSide/Pty/ Sub/@Typ="47" /TrdCaptRpt/RptSide/Pty/ Sub/@ID="Y" | This indicates if the counterparty is not a swap dealer or a major swap participant with respect to the swap, an indication of whether the counterparty is a financial entity as defined in CEA § 2(h)(7)(C). |
| US Person Flag | /TrdCaptRpt/RptSide/Pty/@R="7" /TrdCaptRpt/RptSide/Pty/@ID /TrdCaptRpt/RptSide/Pty/ @Src="N" /TrdCaptRpt/RptSide/Pty/ Sub/@Typ="47" /TrdCaptRpt/RptSide/Pty/ Sub/@ID="Y" | This indicates if the counterparty is a US Person. |

7.1.4 Specifying counterparty LEI on Trades

Each counterparty to a swap subject to the jurisdiction of the CFTC must be identified in all recordkeeping and swap data reporting under Part 45 by using a single legal entity identifier, known as LEI.

Until the FSB endorses the recommendations, the CFTC is referring to the identifier to be used in reporting under the CFTC rule as the **CFTC Interim Compliant Identifier (CICI)**.

CME RS will not make the distinction between LEI and CICI.

| <pty id="LET of the Trading Firm" r="7" s<="" th=""><th>rc="N"/> N in</th><th>nplies LEI</th></pty> | rc="N"/> N in | nplies LEI |
|---------------------------------------------------------------------------------------------------------------|----------------------|------------|
| The Call of the Trading Fight | 14 11 | IPIICO LLI |

7.2 Submitting Trade/Swap Identifiers

7.2.1 Universal Swap Identifier (USI)

The USI is a unique identifier assigned to all swap transactions which identifies the transaction (the swap and its counterparties) uniquely throughout its duration. The creation and use of the USI has been mandated by the CFTC and SEC as part of the Dodd-Frank Act. The Part 45 rules under Dodd Frank Act prescribe USI creation using the "namespace" method. Under this method, the first characters of each USI will consist of a unique code that identifies the registered entity creating the USI given to the registered entity by the Commission during the registered entity that must be unique with respect to all other USI's created by that registered entity.

7.2.1.1 Terms and definitions

Namespace – A unique code that identifies the registered entity creating the USI Transaction Identifier – An identifier that uniquely identifies the swap transaction within the registered entity

Registered Entity – denotes an entity that facilitates swaps transactions

7.2.1.2 Structure of the USI

Conventions

The USI standard uses the following conventions for data element representations (based on ISO 8908:1993, 3.2).

Character representations:

n: Digits (numeric characters 0 to 9 only);

a : uppercase letters (alpha character A-Z only without "special" characters such as blanks, separators, punctuation, etc.);

The format of the USI shall be

Namespace: 10!n

Transaction Identifier: 32an

Namespace

The namespace is the first component of the USI. It is a ten-digit alphanumeric identifier that consists of a three-digit prefix followed by a seven-digit identifier unique to each three-character prefix. The range of 101-119 is reserved for CFTC use for the three digit prefix.

CFTC Reserved Namespace

CFTC will initially use 101 or 102 out of this range, followed by the seven-digit identifier assigned by the Commission.

NFA Reserved Namespace

The namespace of NFA-registered entities will use 103 or 104 followed by the seven-digit NFA ID assigned by the NFA.

Available Namespace Range

The range available for the prefix to other entities that could issue USIs in the future is 120-ZZZ.

Namespace Exclusions

The namespace has the following exclusions:

It may not start with the digit zero (0).

It may not start with or use the letter O.

It may not start with or use the letter I.

Transaction Identifier

Appended to the value of each namespace instance will be the unique identifier for the swap transaction as assigned by the entity reporting swap data to the Swap Data Repository (SDR). The appended value must be unique within each namespace value. The appended value can be of variable length upto 32 characters. The namespace together with the appended value make up the USI.

Transaction Identifier Exclusions

The transaction identifier has the following exclusions:

• All special characters other than "-", "|", ".", "_" (underscore), ":", and " "(a space) are excluded.

7.2.2 Other Trade Identifiers

The API allows submission of other identifiers in addition to the USI.

| Field | XPath | Description |
|-------------------------------------------------|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| Submitter Execution ID (Secondary Execution ID) | /TrdCaptRpt/@ExecID2 | Identifier assigned by the submitter to identify the execution. This can be used to link spread trades submitted as outrights to the SDR. |
| Client Order ID | | The Submitter provides a unique ID associated with the trade that is referred to as the Client Order ID. |

7.2.3 Specifying USI on trades

When a trade is reported for the SDR, a bilateral USI for the Swap is required. This is the initial USI that is assigned to the swap upon execution by the Reporting counterparty or the SEF. If the trade is submitted without a USI, CME RS will assign a USI for the Swap using the CME RS namespace. If the trade is submitted for clearing to CME DCO without a bilateral USI, the CME DCO will assign a USI for the swap using the CME DCO namespace. The USI will be communicated back to the submitter on subsequent acknowledgements and notifications by the CME DCO or CME RS.

Sample of a bilateral USI assigned by a Reporting counterparty.

```
<RegTrdID ID="777111" Typ="0" Src="RCP_Namespace" Typ=0 – Current USI Evnt="0"/> Evnt=0 – Trade Execution
```

Sample of a bilateral USI assigned by CME DCO

```
      <RegTrdID ID="777111" Typ="0" Src="1010000023"</td>
      Typ=0 – Current USI Src=1010000023 (CME DCO Namespace value) Evnt=0 – Trade Execution
```

Sample of a bilateral USI assigned by CME SDR

```
      <RegTrdID ID="777111" Typ="0" Src=" 1010000252"</td>
      Typ=0 – Current USI Src=1010000023 (CME DCO Namespace value)

      Evnt=0 – Trade Execution
```

7.3 Submitting Swap details

The traded instrument for Interest rate swaps will be specified in FPML. This section describes all the components needed for reporting varios Interest Rate Derivatives.

7.3.1 Swap Types

7.3.1.1 Interest rate Swaps (IRS)

An **interest rate swap (IRS)** is a financial derivative instrument in which two parties agree to exchange interest rate cash flows, based on a specified notional amount from a fixed rate to a floating rate (or vice versa) or from one floating rate to another. In an interest rate swap, each counterparty agrees to pay either a fixed or floating rate denominated in a particular currency to the other counterparty. The fixed or floating rate is multiplied by a notional principal amount and an accrual factor given by the appropriate day count convention. When both legs are in the same currency, this notional amount is typically not exchanged between counterparties, but is used only

for calculating the size of cashflows to be exchanged. When the legs are in different currencies, the respective notional amount are typically exchanged at the start and the end of the swap

7.3.1.2 Forward Rate Agreement (FRA)

A **forward rate agreement (FRA)** is a an OTC contract between parties that determines the rate of interest to be paid or received on an obligation (notional) beginning at a future start date. The contract will determine the rates to be used along with the termination date and notional value.

On this type of agreement, it is only the differential that is paid on the notional amount of the contract. It is paid on the effective date. The reference rate is fixed one or two days before the effective date, dependent on the market convention for the particular currency A FRA differs from a swap in that a payment is only made once at maturity.

7.3.2 Options on Swaps

7.3.2.1 Cap Floor

An **interest rate cap** is a derivative in which the buyer receives payments at the end of each period in which the interest rate exceeds the agreed strike price. Similarly an **interest rate floor** is a derivative contract in which the buyer receives payments at the end of each period in which the interest rate is below the agreed strike price.

7.3.2.2 Swaption

A **swaption** is an option granting its owner the right but not the obligation to enter into an underlying swap. Although options can be traded on a variety of swaps, the term "swaption" typically refers to options on interest rate swaps.

There are two types of swaption contracts:

- A **payer swaption** gives the owner of the swaption the right to enter into a swap where they pay the fixed leg and receive the floating leg.
- A **receiver swaption** gives the owner of the swaption the right to enter into a swap in which they will receive the fixed leg, and pay the floating leg.

In addition, a "straddle" refers to a combination of a receiver and a payer option on the same underlying swap.

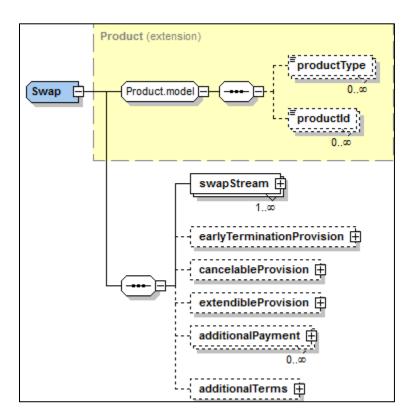
7.3.3 Components used to Report Swaps²

7.3.3.1 Swap (Interest Rate Swaps)

² This includes the details associated with the Underlying Swap

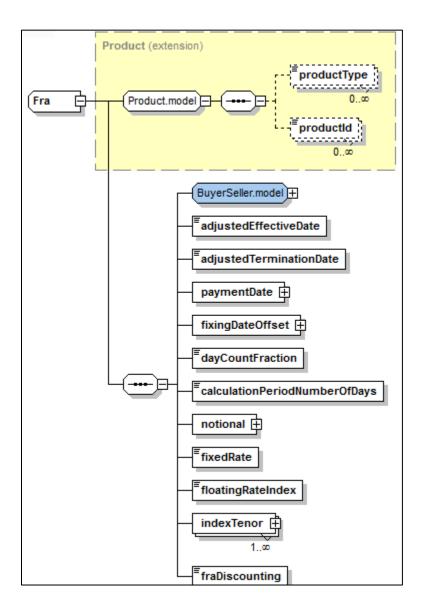
Trade Reporting API for IRS - FIXML w/ embedded Fpml Message Specification

This Swap component is used to report Interest rate swaps. This includes any fixed/float, float/float (Basis) or a fixed/fixed swap. The Swap is comprised of SwapSteams. The SwapStream component can be used to specify the payment streams associated with the swap. These can be fixed or float payment streams. This component is also used to specify the elements needed to specify calculations associated with each stream.



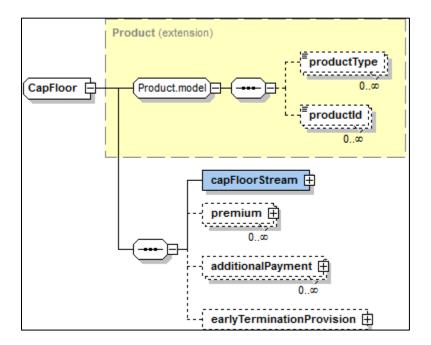
7.3.3.2 Fra (Forward Rate Agreement)

This component is used to report a Forward Rate agreement product. The Fra component is also used to specify the elements needed to specify calculations associated with the payment and maturity of the fra contract.

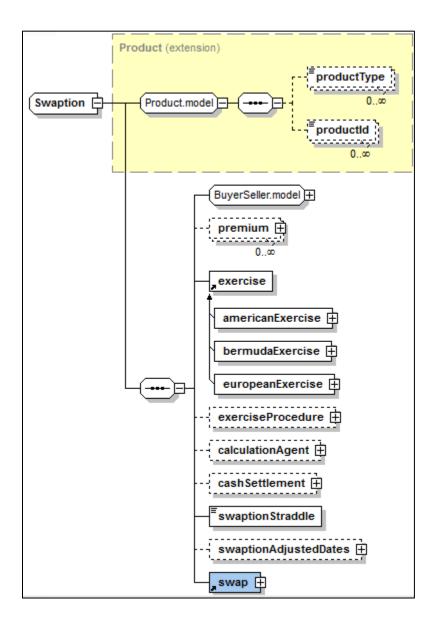


7.3.3.3 CapFloor

The CapFloor component is to report an interest rate cap, an interest rate floor contract or a cap/floor strategy product. The CapFloor component is comprised of a capfloorStream which is used to specify the calculation and payment details. There is only one stream associated with the Cap Floor. Additioanly the premium and any additional payments associated with the option can also be specified here.

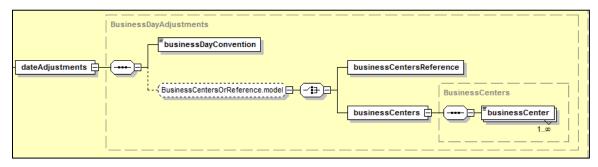


7.3.3.4 Swaption



7.3.4 Specifying Adjustment Parameters for Unadjusted dates

All dates in the SwapStream component can be specified as an Unadjusted date and the date adjustment parameters can be specified.

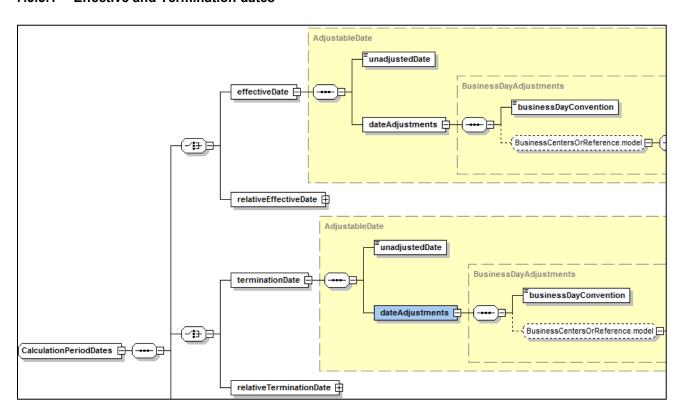


Trade Reporting API for IRS - FIXML w/ embedded Fpml Message Specification

7.3.5 Specifying Calculation Dates

This component is used to report parameters used to generate the calculation period dates schedule, including the specification of any initial or final stub calculation periods. The swap effective and termination dates are also specified here.

7.3.5.1 Effective and Termination dates

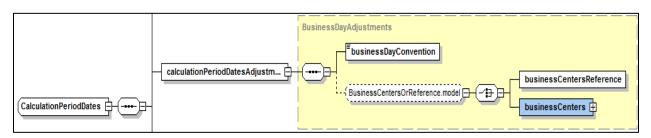


| Field | Description | Swap Type | XPath |
|-----------------|--------------------------------------------------------------------------------------------------------------------|-----------|-----------------------------------------------------------------------------------------|
| Effective Dates | Date when the floating accruals or fixed accruals on the swap or begin. This date is also known as the start date. | IRS | swap/ swapStream/calculationPeri odDates/effectiveDate/unadj ustedDate |
| | | FRA | fra/adjustedEffectiveDate |
| | | Cap Floor | capFloor/ capFloorStream/calculation PeriodDates/effectiveDate/u nadjustedDate |
| | | Swaption | swaption/swap/swapStream/ calculationPeriodDates/effec tiveDate/unadjustedDate |
| TerminationDate | Date when fixed accruals or floating accruals stop. This is also usually the | IRS | swap/ swapStream/calculationPeri |

| | <u> </u> | | odDates/terminationDate |
|--|----------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| | | FRA | fra/adjustedTerminationDate |
| | | Cap Floor | capFloor/ capFloorStream/calculation PeriodDates/effectiveDate |
| | Swaption | swaption/swap/swapStream/ calculationPeriodDates/termi nationDate/unadjustedDate | |

7.3.5.2 Calculation Period Date adjustments

The business day convention to apply to each calculation period end date if it would otherwise fall on a day that is not a business day in the specified financial business centers

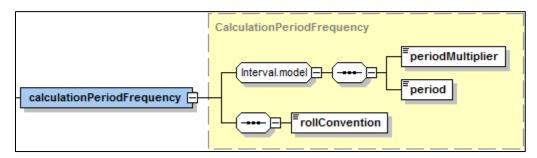


| Field | Description | Swap Type | XPath |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| Calculation Business Day Conventions | period end date if the day falls on a non-business day. Supported Enums: FOLLOWING MODFOIIOWING FRN PRECEDING | IRS | swap/swapStream/calculationP eriodDates/ businessDayAdjustments/busin essDayConvention |
| | | CapFloor | CapFloor/capFloorStream/ calculationPeriodDates/ businessDayAdjustments/busin essDayConvention |
| | | Swaption | swaption/swap/swapStream/cal culationPeriodDates/ businessDayAdjustments/busin essDayConvention |
| Calculation Business Center | ess Financial business centers used in determining whether a day is a business day or not. | IRS | swap/swapStream /calculationPeriodDates/ businessDayAdjustments/busin essCenters |
| | CapFloor | CapFloor/capFloorStream/ calculationPeriodDates/ businessDayAdjustments/ businessCenters | |
| | | Swaption | swaption/swap/swapStream/cal culationPeriodDates/ |

| | businessDayAdjustments/ |
|--|-------------------------|
| | businessCenters |

7.3.5.3 Calculation Period Frequency

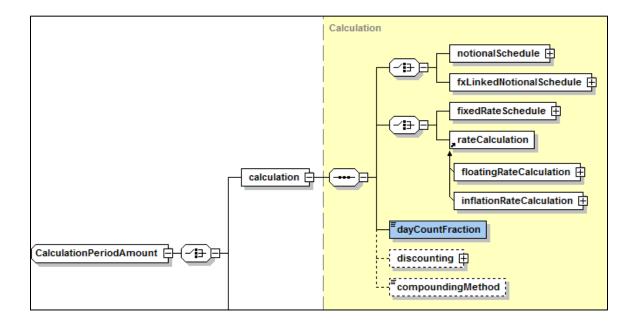
This element is used to specify the the frequency at which the calculation period ends for the regular part of the calculation period schedule and their date roll convention.



| Field | Description | Swap Type | XPath |
|-------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------------------------------------------------------------------------------------------------------------------|
| Fixed or Float calculation Frequency Period | Frequency at which the calculation period ends for the regular part of the calculation period schedule period. Supported Enums: D – Day W – Week M – Month Y – Year T – Term (staring on the effective date and ending on the termination date) | IRS | swapStream/calculationPeri odDates/ calculationPeriodDates/calc ulationPeriodFrequency/peri od |
| Fixed or Flaot calculation Frequency Period Multiplier | A time period multiplier, e.g. 1, 2 or 3 etc. A negative value can be used when specifying an offset relative to another date, e.g2 days. If the period value is T (Term) then periodMultiplier must contain the value 1 | | swapStream/calculationPeri odDates/ calculationPeriodDates/calc ulationPeriodFrequency/peri odMultiplier |
| Fixed or Float calculation Frequency Period Roll Convention | Determines each calculation period end date within the regular part of a calculation period schedule | | /calculationPeriodDates/ calculationPeriodDates/rollC onvention |

7.3.5.4 Day count Fraction

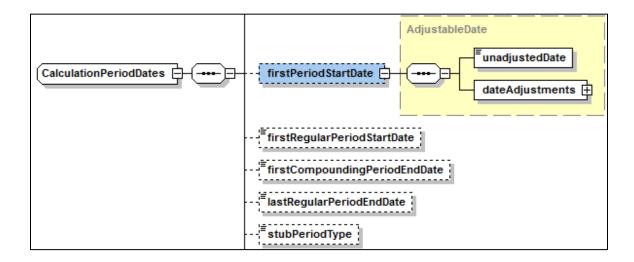
The day count convention used in the calculation of the the fixed or floating stream.



| Field | Description | Swap Type | XPath |
|-----------------------------------|--------------------|-------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| Fixed or Float Day count fraction | Day count Fraction | IRS | Swap/swapstream//calculati onPeriodAmount/ calculation/dayCountFractio n |
| | | FRA | Fra/dayCountFraction |
| | Cap Floor | capFloor/capFloorStream/ /calculationPeriodAmount/ calculation/dayCountFractio n | |
| | | Swaption ³ | swaption/swap/swapstream/ /calculationPeriodAmount/ calculation/dayCountFractio n |

7.3.5.5 Stub Calculation dates

³ For a Swaption the day count fraction is associated with the underlying Swap



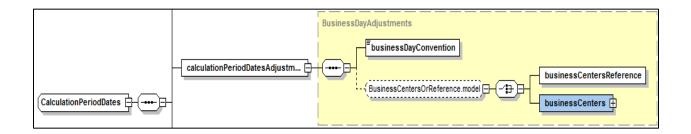
| Field | Description | Swap Type | XPath |
|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-------------------------------------------------------------------------------------|
| First Regular Period Start Date | Start Date This date marks the end of the stub period calculation and the date on which the regular period begins. This date has to be greater than the Swap effective date if specified. | IRS | /swap/swapStream/ calculationPeriodDates/ firstRegularPeriodStartDate |
| | | Cap Floor | /capFloor/capFloorStream/ calculationPeriodDates/ firstRegularPeriodStartDate |
| | | Swaption ⁴ | swaption/swap/swapStream/ calculationPeriodDates/ firstRegularPeriodStartDate |
| Last Regular Period End Date | · | IRS | /swap/swapStream/ calculationPeriodDates/ lastRegularPeriodEndDate |
| | | Cap Floor | /capFloor/capFloorStream/ calculationPeriodDates/ lastRegularPeriodEndDate |
| | | Swaption ⁵ | swaption/swap/swapStream/ calculationPeriodDates/ lastRegularPeriodEndDate |

7.3.5.6 Calculation Date adjustments

The business day convention to apply to each calculation period end date if it would otherwise fall on a day that is not a business day in the specified financial business centers

⁴ This will be used if the underlying swap has an initial stub associated with it.

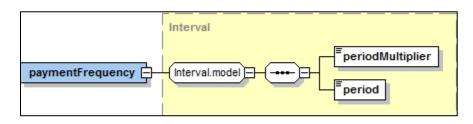
⁵ This will be used if the underlying swap has a final stub associated with it.



| Field | Description | Swap Type | XPath |
|--------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| Calculation Business Day Conventions Convention applied to each calculation period end date if the day falls on a non-business day. | IRS | swap/swapStream/calculationP eriodDates/ businessDayAdjustments/busin essDayConvention | |
| | Supported Enums: FOLLOWING MODFOllOWING FRN | CapFloor | CapFloor/capFloorStream/ calculationPeriodDates/ businessDayAdjustments/busin essDayConvention |
| PRECEDING MODPRECEDING NEAREST NONE | Swaption | swaption/swap/swapStream/cal culationPeriodDates/ businessDayAdjustments/busin essDayConvention | |
| Calculation Business Center Financial business centers used in determining whether a day is a business day or not. | determining whether a day is a | IRS | swap/swapStream /calculationPeriodDates/ businessDayAdjustments/busin essCenters |
| | | CapFloor | CapFloor/capFloorStream/ calculationPeriodDates/ businessDayAdjustments/ businessCenters |
| | Swaption | swaption/swap/swapStream/cal culationPeriodDates/ businessDayAdjustments/ businessCenters | |

7.3.6 Specifying Payment Dates

7.3.6.1 Payment Frequency



Trade Reporting API for IRS - FIXML w/ embedded Fpml Message Specification

| Field | Description | Swap Type | XPath |
|---------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Fixed or Float Payment The frequency at which regular payment dates occur. Supported Enums: | IRS | swap/swapStream/payment Dates/ paymentFrequency/period | |
| | W – Week M – Month Y – Year | Cap Floor | capFloor/capFloorStream/pa ymentDates/ paymentFrequency/period |
| | | Swaption | swaption/swap/swapStream/ paymentDates/ paymentFrequency/period |
| Fixed or Float Payment Frequency Period Multiplier | Frequency Period etc. A negative value can be used when specifying an offset relative to another | IRS | swap/swapStream/payment Dates/ paymentFrequency/ periodMultiplier |
| | | Cap Floor | capFloor/capFloorStream/pa ymentDates/ paymentFrequency/ periodMultiplier |
| | | Swaption | swaption/swap/swapStream/ paymentDates/ paymentFrequency/ periodMultiplier |

7.3.6.2 Unadjusted FRA Payment Date

| Field | Description | Swap Type | XPath |
|----------------|-----------------------------------|-----------|------------------|
| FRA unadjusted | Unadjusted payment date for a FRA | FRA | Fra/paymentDate/ |
| payment date | contract. | | unadjustedDate |

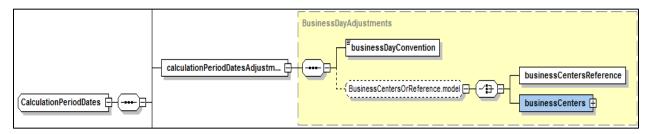
7.3.6.3 Stub Payment Dates

These elements are only specified while reporting payment Stubs associated with Stubs.

| Field | Description | Swap Type | XPath |
|-------------------------------------------|----------------------------------------------------------------|-----------|-------------------------------------------------------------|
| First Payment Date (Unadjusted) | Unadjusted first payment date associated with an initial stub. | | swap/swapStream/payment Dates/firstPaymentDate |
| Last Regular Payment Date (Unadjusted) | Unadjusted last payment date associated with a final stub. | | swap/swapStream/payment Dates/lastRegularPaymentD ate |

7.3.6.4 Payment Date adjustments

The business day convention to apply to the payment date if it would otherwise fall on a day that is not a business day in the specified financial business centers



| Field | Description | Swap Type | XPath |
|-------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Calculation Business Day Conventions Convention applied to each calculation period end date if the day falls on a non-business day. | IRS | swap/swapStream/paymentDat es/ paymentDateAdjustments/busi nessDayConvention | |
| | Supported Enums: FOLLOWING MODFOIIOWING FRN | CapFloor | capFloor/capFloorStream/pay mentDates/ paymentDateAdjustments/busi nessDayConvention |
| PRECEDING MODPRECEDING NEAREST NONE | Swaption | Swaption/swap/swapStream/pa ymentDates/ paymentDateAdjustments/busi nessDayConvention | |
| Calculation Business Center Financial business centers used in determining whether a day is a business day or not. | determining whether a day is a | IRS | swap/swapStream/paymentDat es/ paymentDateAdjustments/busi nessCenters |
| | CapFloor | capFloor/capFloorStream/pay mentDates/ paymentDateAdjustments/ businessCenters | |
| | Swaption | Swaption/swap/swapStream/pa ymentDates/ paymentDateAdjustments/ businessCenters | |

7.3.7 Specifying Reset Dates

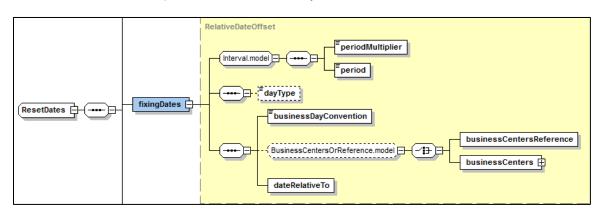
Reset dates are are used to specify the dates and schedules associated with the rate reset of the floating rate stream. The parameters used to generate the reset date schedule and the associated fixing datea are specified here.

7.3.7.1 Fixing Dates

The fixing date is the date on which the floating rate is fixed. This happens prior to the reset date.

This component is used to specify the fixing date relative to the reset date in terms of a business days offset and an associated set of financial business centers. Normally these offset calculation rules will be those specified in the ISDA definition for the relevant floating rate index (ISDA's Floating Rate Option). However, non-standard offset calculation rules may apply for a trade if mutually agreed by the principal parties to the transaction.

Note: The Offset can be specified as number of days or relative to a reset date.

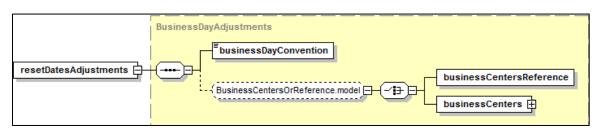


| Field | Description | Swap Type | XPath |
|----------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------------------------------------------------------|
| | The frequency at which the fixing occurs. Supported Enums: | IRS | swap/swapStream/fixingDates/ period |
| | D – Day W – Week M – Month | Cap Floor | capFloor/capFloorStream/fixing Dates/period |
| Y – Year T – Term (staring on the | | Swaption | swaption/swapStream/fixingDat es/period |
| Fixing Date Frequency Period Multiplier | A time period multiplier, e.g. 1, 2 or 3 etc. A negative value can be used when specifying an offset relative to another date, e.g2 days. If the period value is T (Term) then periodMultiplier must contain the value 1 | IRS | swap/swapStream/fixingDates/ periodMultiplier |
| | | Cap Floor | capFloor/capFloorStream/fixing Dates/ periodMultiplier |
| | | Swaption | swaption/swapStream/fixingDat es/ periodMultiplier |
| days it is specified here Supported Enum Business Calendar CommodityBusine | If Offset is specified in number of days, it is specified here. Supported Enums: | IRS | swap/swapStream/fixingDates/ dayType |
| | | Cap Floor | capFloor/capFloorStream/fixing Dates/ dayType |

| | ExchangeBusiness ScheduledTradingDay | Swaption | swaption/swapStream/fixingDat es/ dayType |
|-------------------------------------|----------------------------------------------------------------------------------------|-----------|-------------------------------------------------------------|
| Fixing Date Business day Convention | Convention to follow to adjust the fixing date if it falls on a holiday | IRS | swap/swapStream/fixingDates/ businessdayConvention |
| | | Cap Floor | capFloor/capFloorStream/fixing Dates/ businessdayConvention |
| | | Swaption | swaption/swapStream/fixingDat es/ businessdayConvention |
| Fixing Date Business Center | Financial business centers used in determining whether a day is a business day or not. | IRS | swap/swapStream/fixingDates/businessCenters |
| | | Cap Floor | capFloor/capFloorStream/fixing Dates/ businessCenters |
| | | Swaption | swaption/swapStream/fixingDat es/ businessCenters |

7.3.7.2 Reset Date Adjustments

The business day convention to apply to the reset payment date if it would otherwise fall on a day that is not a business day in the specified financial business centers.

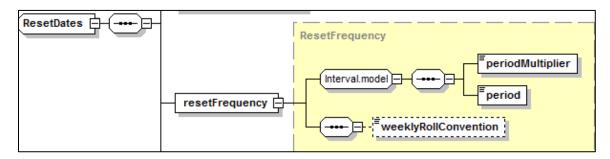


| Field | Description | Swap Type | XPath |
|----------------------------------------|----------------------------------------------------------------------------------------|-----------|----------------------------------------------------------------------------------------------------|
| Reset date Business Day Conventions | Convention to follow to adjust the payment dates if it falls on a holiday | IRS | swap/swapStream/ResetDates/ resetDateAdjustments/busines sDayConvention |
| | | Cap Floor | capFloor/capFloorStream/Rese tDates/ resetDateAdjustments/busines sDayConvention |
| | | Swaption | swaption/swap/swapStream/Re setDates/ resetDateAdjustments/busines sDayConvention |
| Reset Date Business Center | Financial business centers used in determining whether a day is a business day or not. | IRS | swap/swapStream/ResetDates/ resetDateAdjustments /businessDayAdjustments/busi nessCenters |
| | | Cap Floor | capFloor/capFloorStream/Rese tDates/ resetDateAdjustments/ |

| | | businessCenters |
|--|---|--------------------------------------------------------------------------------------|
| | · | swaption/swap/swapStream/Re setDates/ resetDateAdjustments/ businessCenters |

7.3.7.3 Reset Frequency

This element is used to specify the frequency at which resets occur. In the case of a weekly reset frequency, also specifies the day of the week that the reset occurs.

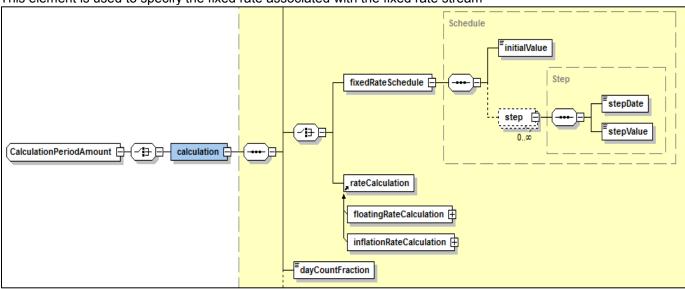


| Field | Description | Swap Type | XPath |
|--------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|-----------|------------------------------------------------------------------------------|
| Reset Frequency Period | The frequency at which resets occur. Supported Enums: D – Day | IRS | swap/swapStream/ResetDates/ resetFrequency/period |
| | W – Week M – Month Y – Year | Cap Floor | capFloor/capFloorStream/Rese tDates/ resetFrequency/period |
| | T – Term (staring on the effective date and ending on the termination date) | Swaption | swaption/swap/swapStream/Re setDates/ resetFrequency/period |
| Reset Frequency Period Multiplier | | IRS | swap/swapStream/ResetDates/ resetFrequency/periodMultiplie r |
| | | Cap Floor | capFloor/capFloorStream/Rese tDates/ resetFrequency/ periodMultiplier |
| | | Swaption | swaption/swap/swapStream/Re setDates/ resetFrequency/ periodMultiplier |
| Reset frequency Day | The day of the week on which a weekly reset date occurs. This element must be included if the reset frequency is defined as weekly. | IRS | swap/swapStream/ResetDates/ resetFrequency/weeklyRollCO nvention |

| Supported Enums: | Cap Floor | capFloor/capFloorStream/Rese |
|------------------|-----------|------------------------------|
| MON | | tDates/ resetFrequency/ |
| TUE | | weeklyRollCOnvention |
| WED | | |
| THU | Swaption | swaption/swap/swapStream/Re |
| FRI | | setDates/ resetFrequency/ |
| SAT | | weeklyRollCOnvention |
| SUN | | Weeklyrkonoonvention |

7.3.8 Specifying Fixed Rates

This element is used to specify the fixed rate associated with the fixed rate stream



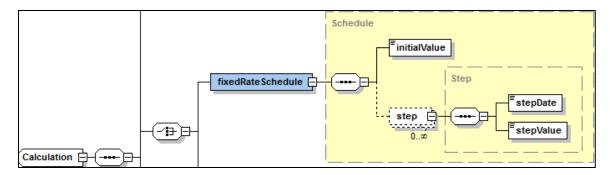
7.3.8.1 Fixed Rate

| Field | Description | Swap Type | XPath |
|------------|------------------------------------------------|-----------------------|-------------------------------------------------------------------------------------------------------------|
| Fixed Rate | The Fixed rate associated with the swap or the | IRS | /swap/ swapStream/calculationPeri odAmount/calculation/ flxedRateSchedule/initialVal ue |
| | | Fra | /trade/fra /fixedRate |
| | | Swaption ⁶ | swaption/swap/ swapStream/calculationPeri odAmount/calculation/ flxedRateSchedule/initialVal ue |

⁶ The fixed rate associated with the fixed leg of the underlying swap.

7.3.8.2 Fixed Rate Schedule

The fixed rate schedule is expressed as explicit fixed rates and dates. The step dates in the schedule may be subject to adjustment in accordance with any adjustments specified in calculationPeriodDatesAdjustments

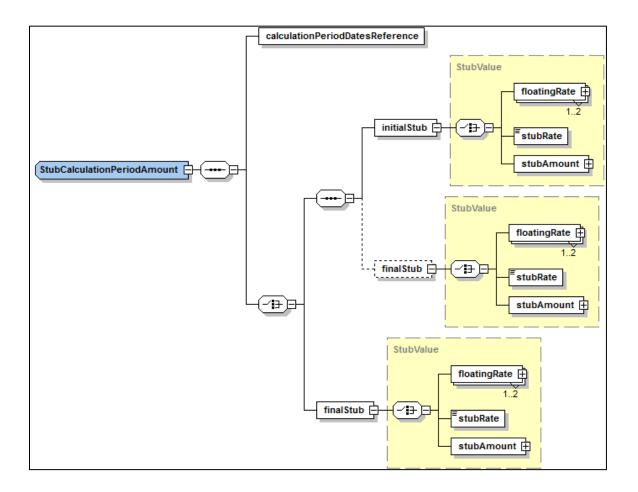


| Field | Description | Swap Type | XPath |
|-----------------------------------|--------------------------------------------------------------|-----------------------|--------------------------------------------------------------------------------------------------------------------------|
| Fixed Rate Schedule Step date | | IRS | /swap/ swapStream/calculationPeriodA mount/calculation/ flxedRateSchedule/step/stepDate |
| | CONVENIION. | Swaption | swaption/swap/ swapStream/calculationPeriodA mount/calculation/ flxedRateSchedule/step/stepDate |
| Fixed Rate Schedule Step Value | The rate which becomes effective on the associated stepDate. | IRS | swap/swapStream/ calculationPeriodAmount/calculat ion/notionalSchedule/notionalSte pSchedule/stepValue |
| | | Swaption ⁷ | Swaption/swap/swapStream/ calculationPeriodAmount/calculat ion/notionalSchedule/notionalSte pSchedule/stepValue |

7.3.8.3 Fixed Stub Rates

If the trade includes a stub, it can be specified as a fixed rate, an index or an amount.Refer to this section while reporting a fixed rate for a stub

⁷ This is applicable if the underlying swap is amortized.



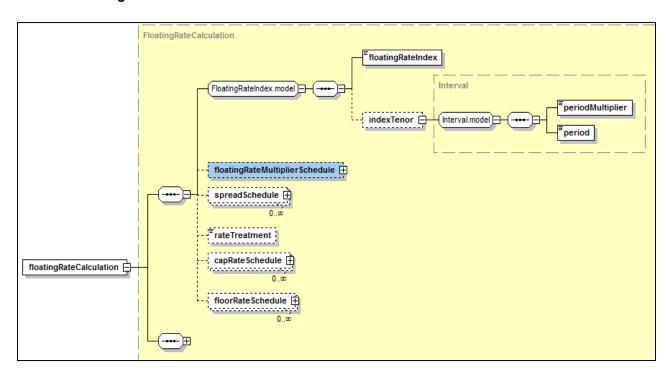
| Field | Description | Swap Type | XPath |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------|---------------------------------------------------------------------------------------|
| Initial Stub Fixed Rate | Used to specify the fixed rate to calculate the stub payment for an initial stub. | IRS | /swap/ swapStream/ stubCalculationPeriodAmou nt/initialStub/stubRate |
| | | Swaption ⁸ | swaption/swap/ swapStream/ stubCalculationPeriodAmou nt/initialStub/stubRate |
| Final Stub Fixed Rate | Used to specify the fixed rate to calculate the stub payment for a final stub. | IRS | /swap/ swapStream/ stubCalculationPeriodAmou nt/finalStub/ stubRate |
| | | Swaption ⁹ | swaption/swap/swapStream/ stubCalculationPeriodAmou nt/finalStub/ stubRate |

⁸ This is specified if an initial stub that has a fixed rate is present for the underlying swap.
9 This is specified if an final stub that has a fixed rate is present for the underlying swap

7.3.9 Specifying Floating Rate details

Floating Rate is required for specifying the details associated with the floating leg of the swap. The floating leg

7.3.9.1 Floating Rate



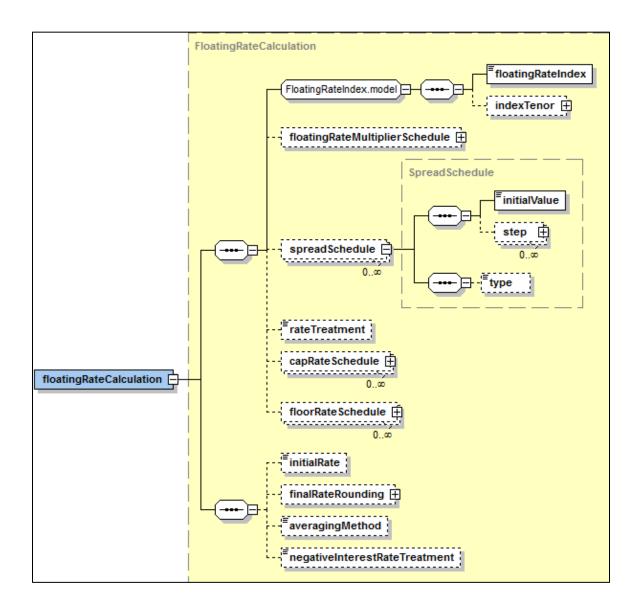
| Field | Description | Swap Type | XPath |
|---------------------|-------------------------------------|------------------------|------------------------------------------------------------------------------------------------------------------------|
| Floating Rate Index | The name of the floating rate Index | IRS | /swap/swapStream/ calculationPeriodAmount/cal culation/ floatingRateCalculation/floati ngRateIndex |
| | | FRA | fra/floatingRateIndex |
| | | Cap Floor | capFloor /capFloorStream/ calculationPeriodAmount/cal culation/ floatingRateCalculation/floati ngRateIndex |
| | | Swaption ¹⁰ | swaption/swap/swapStream/ calculationPeriodAmount/cal culation/ |

¹⁰ The floating rate Index of the underlying swap

| | | | floatingRateCalculation/floatingRateIndex |
|-----------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Floating Rate Index designated Maturity Period | The designated maturity or the tenor of the floating rate. Supported Enums: D – Day W – Week | IRS | swap/swapStream/ calculationPeriodAmount/cal culation/ floatingRateCalculation/inde xTenor/period |
| | M – Month Y – Year T – Term (staring on the effective date | FRA | fra/indexTenor/period |
| and ending on the termination date) | Cap Floor | capFloor /capFloorStream/ calculationPeriodAmount/cal culation/ floatingRateCalculation/inde xTenor/period | |
| | | Swaption ¹¹ | Swaption/swap/swapStream / calculationPeriodAmount/cal culation/ floatingRateCalculation/inde xTenor/period |
| Floating Rate Index designated Maturity Period Multiplier | A time period multiplier, e.g. 1, 2 or 3 etc. A negative value can be used when specifying an offset relative to another date, e.g2 days. If the period value is T (Term) then periodMultiplier must contain the value 1 | IRS | /trade/swap/swapStream/ calculationPeriodAmount/cal culation/ floatingRateCalculation/inde xTenor/periodMultiplier |
| | | FRA | fra/indexTenor/periodMultipli er |
| | | Cap Floor | capFloor /capFloorStream/ calculationPeriodAmount/cal culation/ floatingRateCalculation/inde xTenor/ periodMultiplier |
| | | Swaption | Swaption/swap/swapStream / calculationPeriodAmount/cal culation/ floatingRateCalculation/inde xTenor/ periodMultiplier |

7.3.9.2 Spread Schedule

Spreads or spread schedules can be specified as part of the floating rate index. If positive the spread will be added to the floating rate and if negative the spread will be subtracted from the floating rate.



| Field | Description | Swap Type | XPath |
|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|---------------------------------------------------------------------------------------------------------------|
| Floating Rate Spread | The name of the floating rate Index | IRS ¹² | /swap/swapStream/ calculationPeriodAmount/cal culation/ floatingRateCalculation/spre adSchedule/initialValue |
| Floating Rate Spread Step date | The date on which the associated with the spread when step becomes effective. This day may be subject to adjustment in accordance with a business day convention. | IRS | /swap/swapStream/ calculationPeriodAmount/cal culation/ floatingRateCalculation/spre adSchedule/step/stepDate |
| Notional Schedule | The spread value which becomes | IRS | /swap/swapStream/ |

¹² Particularly applicable to a Basis swap.

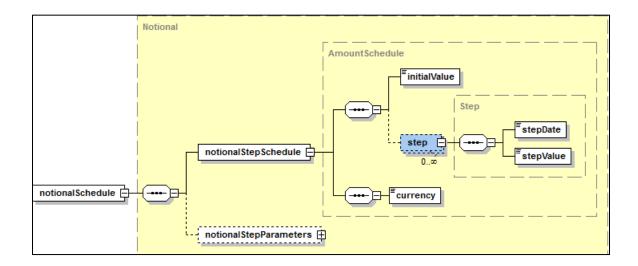
| Step Value | effective on the associated step Date. | calculationPeriodAmount/cal | |
|------------|----------------------------------------|------------------------------|--|
| | | culation/ | |
| | | floatingRateCalculation/spre | |
| | | adSchedule/step/stepValue | |

7.3.9.3 Stub Floating Rate

This element will be used to specify the Stub floating Rate Index.

| Field | Description | Swap Type | XPath |
|-----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------------------------------------------------------------------------------------------------------------|
| Floating Rate Index for Initial Stub | The name of the floating rate Index | IRS | /trade/swap/swapStream/ stubCalculationPeriodAmou nt/ floatingRateCalculation/floati ngRateIndex |
| Floating Rate Index designated Maturity Period for the initial Stub | The designated maturity or the tenor of the floating rate. Supported Enums: D – Day W – Week M – Month Y – Year T – Term (staring on the effective date and ending on the termination date) | | /trade/swap/swapStream/ calculationPeriodAmount/flo atingRateCalculation/indexT enor/period |
| Floating Rate Index designated Maturity Period Multiplier for the initial Stub | A time period multiplier, e.g. 1, 2 or 3 etc. A negative value can be used when specifying an offset relative to another date, e.g2 days. If the period value is T (Term) then periodMultiplier must contain the value 1 | | /trade/swap/swapStream/ calculationPeriodAmount/flo atingRateCalculation/indexT enor/periodMultiplier |

7.3.10 Specifying Notionals



7.3.10.1 Notional Amount

| Field | Description | Swap Type | XPath |
|----------------------------------------------|-----------------------------------------------|-----------|----------------------------------------------------------------------------------------------------------------------------|
| Notional Amount and notional Amount currency | The notional amount associated with the swap. | IRS | swap/swapStream/ calculationPeriodAmount/cal culation/notionalSchedule/n otionalStepSchedule/initialV alue |
| | | | swap/swapStream/ calculationPeriodAmount/cal culation/notionalSchedule/n otionalStepSchedule/curren cy |
| | | FRA | fra/notional/amount |
| | | | fra/notional/currency |
| | | Cap Floor | CapFloor/capFloorStream/calculationPeriodAmount/calculation/notionalSchedule/notionalStepSchedule/initialValue |
| | | | CapFloor/capFloorStream/ calculationPeriodAmount/cal culation/notionalSchedule/n otionalStepSchedule/curren cy |
| | | Swaption | swaption/swap/swapStream/calculationPeriodAmount/calculation/notionalSchedule/notionalStepSchedule/initialValue |
| | | | swaption/swap/swapStream/calculationPeriodAmount/calculation/notionalSchedule/n |

| | otionalStepSchedule/curren |
|--|----------------------------|
| | су |

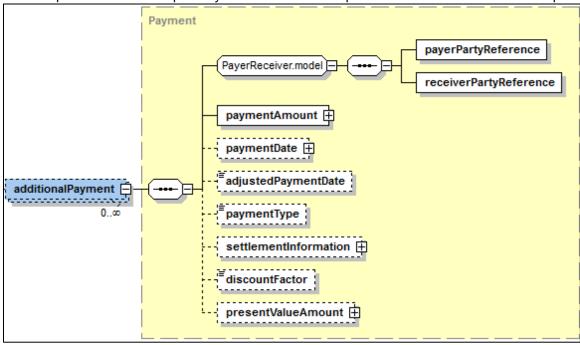
7.3.10.2 Notional Amount Schedule

Notional amount schedule expressed as explicit outstanding notional amounts and dates. In the case of a schedule, the step dates may be subject to adjustment in accordance with any adjustments specified in calculationPeriodDatesAdjustments

| Field | Description | Swap Type | XPath |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------------------------------------------------------------------------------------------------------------------------|
| Notional Schedule Step date | The date on which the associated notional amount in the step becomes effective. This day may be subject to adjustment in accordance with a business day convention. | IRS | /trade/swap/swapStream/ calculationPeriodAmount/calculat ion/notionalSchedule/notionalSte pSchedule/step/stepDate |
| Notional Schedule Step Value | The notional amount which becomes effective on the associated step Date. | IRS | /trade/swap/swapStream/ calculationPeriodAmount/calculat ion/notionalSchedule/notionalSte pSchedule/step/stepValue |

7.3.11 Specifying Upfront Fees

This component is used to report any additional fees like upfront fees associated with the swap.



7.3.11.1 Payment Dates associated with additional Payments

| Field | Description | Swap Type | XPath |
|----------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------|----------------------------------------------------------------------------------------------------------------|
| Additional Payment Payment Date (Adjusted) | Adjusted Payment Date associated with any additional payments (like fees) associated with the swap. | IRS | swap/swapStream/additionalP ayment/adjustedPaymentDate |
| Additional Payment Payment Date (Unadjusted) | Unadjusted Payment Date associated with any additional payments (like fees) associated with the swap. | IRS | swap/swapStream/additionalP ayment/paymentDate/unadjust edDate/ |
| Calculation Business Day Conventions | Convention applied to each calculation period end date if the day falls on a non-business day. | IRS | swap/swapStream/additionalP ayment/paymentDate/unadjust edDate/dateAdjustments/busin essDayConvention |
| | Supported Enums: FOLLOWING MODFOIIOWING FRN PRECEDING MODPRECEDING NEAREST NONE | | |
| Calculation Business Center | Financial business centers used in determining whether a day is a business day or not. | IRS | swap/swapStream/additionalP ayment/paymentDate/unadjust edDate/dateAdjustments /businessCenters |

7.3.11.2 Payment type and amount associated with additional Payments

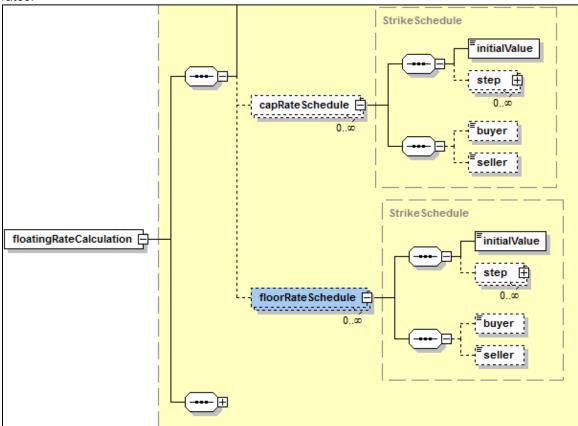
| Field | Description | Swap Type | XPath |
|--------------------------------|-----------------------------------------------------|-----------|---------------------------------------------------------------------|
| Additional Payment Type | Payment type associated with the additional payment | IRS | swap/swapStream/additional Payment/paymentAmount/p aymentType |
| Additional Payment Amount | Additional payment amount associated with the swap | IRS | swap/swapStream/additional Payment/paymentAmount/a mount |
| Additional Payment Currency | The currency associated with the additional payment | | swap/swapStream/additional Payment/ paymentAmount/currency |

7.4 Submitting Option Details (for Swaption and Cap Floors)

This section lists all the components used to report Options.

7.4.1 Specifing Cap and Floor Rates

The Cap and Floor rates can be specified as a single value or can be specified as a schedule of rates.

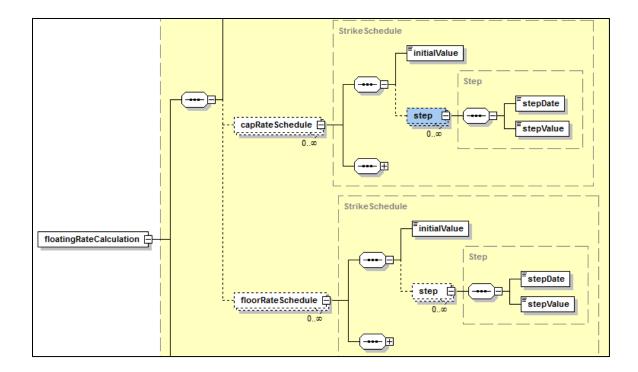


7.4.1.1 Cap/Floor Rate

| Field | Description | Swap Type | XPath |
|------------|-----------------------------------------------------------|-----------|------------------------------------------------------------------------------------------------------------------------------------|
| Cap Rate | The strike price associated with the Interest rate Cap. | Cap/Floor | capFloor/ capFloorStream/calculation PeriodAmount/calculation/ floatingRateCalculation/cap RateSchedule/initialValue |
| Floor rate | The strike price associated with the Interest rate Floor. | Cap/Floor | capFloor/ capFloorStream/calculation PeriodAmount/calculation/ floatingRateCalculation/floor RateSchedule/initialValue |

7.4.1.2 Cap/Floor Rate Schedule

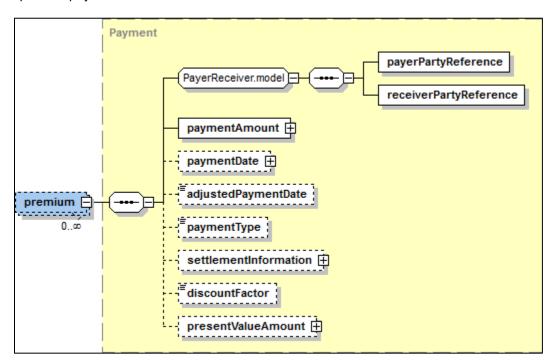
The fixed rate schedule is expressed as explicit fixed rates and dates. The step dates in the schedule may be subject to adjustment in accordance with any adjustments specified in calculationPeriodDatesAdjustments



| Field | Description | Swap Type | XPath |
|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------|
| Interest rate Cap/Floor Schedule Step date | The date on which the associated intetest rate cap or floor in the step becomes effective. This day may be subject to adjustment in accordance with a business day convention. | Cap Floor | capFloor/ capFloorStream/calculationPerio dAmount/calculation/ floatingRateCalculation/capRate Schedule/step/stepDate |
| | | | capFloor/ capFloorStream/calculationPerio dAmount/calculation/ floatingRateCalculation/floorRate Schedule/step/stepDate |
| Interest rate Cap/Floor Schedule Step Value | The interest rate cap or floor which becomes effective on the associated stepDate. | IRS | capFloor/ capFloorStream/calculationPerio dAmount/calculation/ floatingRateCalculation/capRate Schedule/step/stepValue |
| | | | capFloor/ capFloorStream/calculationPerio dAmount/calculation/ floatingRateCalculation/floorRate Schedule/step/stepValue |

7.4.2 Specifing Premium and Premium Payment Date

This component is used to report the option premium amount payable by buyer to seller on the specified payment date.



7.4.2.1 Specifying Premium

| Field | Description | Swap Type | XPath |
|------------------------------------|--------------------------------------------------------------------------|-----------|------------------------------------------------------|
| Premium Amount | The Option premium amount in the currency specified, payable by buyer to | Swaption | swaption/premium/paymentAmount/amount |
| | seller | | swaption/premium/paymentAmou nt/currency |
| | | Cap Floor | capFloor/premium |
| Premium Payment .A Date (Adjusted) | .Adjusted Premium payment date | Swaption | swaption/premium/paymentDate/ adjustedPaymentDate |
| | | Cap Floor | capFloor/premium/paymentDate/ adjustedPaymentDate |
| Payment Type | Type of Payment (Premium) | Swaption | swaption/premium/paymentDate/ paymentType |
| | | Cap Floor | capFloor/premium/paymentDate/ paymentType |

7.4.2.2 Unadjusted Premium Payment Dates (Unadjusted)

| Field | Description | Swap Type | XPath |
|--------------------|--------------------------------------------------------------------------------------------|-----------|-------------------------------------------------|
| unadjusted Payment | An unadjusted payment date for the premium on an interest rate cap or interest rate floor. | CapFloor | CapFloor/premium / paymentDate/unadjustedDate |
| | An unadjusted payment date for the premium on an option on a swap. | Swaption | swaption/premium/paymentDat e/unadjustedDate |

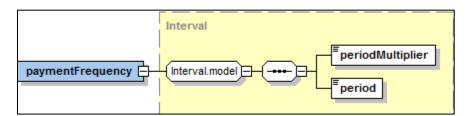
7.4.2.3 Premium Payment Date adjustments

The business day convention to apply to each adjusts payment date if it would otherwise fall on a day that is not a business day in the specified financial business centers.



| Field | Description | Swap Type | XPath |
|-------------------------------------|----------------------------------------------------------------------------------------|-----------|-----------------------------------------------------------------------------------------|
| Payment Business Day Conventions | Convention to follow to adjust the payment dates if it falls on a holiday | CapFloor | CapFloor/ premium/paymentDate/dateAdj ustments/businessDayConvent ion |
| | | Swaption | swaption/premium/paymentDat e/dateAdjustments/businessDa yConvention |
| Payment Business Center | Financial business centers used in determining whether a day is a business day or not. | CapFloor | CapFloor/capFloorStream/ paymentDates/ paymentDateAdjustments/ businessCenters |
| | | Swaption | swaption/premium/paymentDat e/dateAdjustments/ businessCenters |

7.4.2.4 Premium Payment Frequency



| Field | Description | Swap Type | XPath |
|----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------------------------------------------------------------------------|
| Fixed or Float Payment Frequency Period | The frequency at which regular payment dates occur. Supported Enums: D – Day W – Week M – Month Y – Year T – Term (staring on the effective date and ending on the termination date) | IRS | swap/swapStream/payment Dates/ paymentFrequency/periodM ultiplier |
| Fixed or Float Payment Frequency Period Multiplier | A time period multiplier, e.g. 1, 2 or 3 etc. A negative value can be used when specifying an offset relative to another date, e.g2 days. If the period value is T (Term) then periodMultiplier must contain the value 1 | | swap/swapStream/payment Dates/ paymentFrequency/period |

7.4.3 Specifing Option Exercise details

These elements are used to report all the elements associated with an exercise.

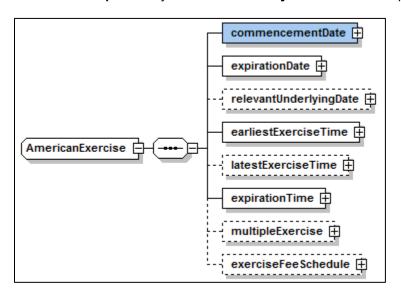
| Field | Description | Swap Type | XPath |
|--------------------------------------------|----------------------------------------------------------------------------------------------|-----------|---------------------------------------------------------------------------------|
| Exercise Type | Indicates the type of option American, Bermudan, European | Swaption | swaption/americanExercise |
| | | | swaption/bermudaExercise |
| | | | swaption/europeanExercise |
| Manual Exercise Procedure ¹³ | This indicated how the option can be exercised. It can be a manual or an automatic exercise. | Swaption | swaption/exerciseProcedure/Manu alExercise/exerciseNotice/ |
| Manual Exercise Party Reference | The Party to whom notice of exercise should be given | Swaption | swaption/exerciseProcedure/Manu alExercise/exerciseNotice/partyRe ference |

¹³ For Manual Exercise, the exerciseNotice and fallback Notice elements must be included.

| Fallback Exercise ¹⁴ | This is required if manual exercise procedure is selected. | , | swaption/exerciseProcedure/Manu alExercise/exerciseNotice/fallback Exercise |
|----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------|
| Automatic Exercise Threshold rate ¹⁵ | With automatic exercise the option is deemed to have exercised if it is in the money by more than the threshold amount on the exercise date. | Swaption | swaption/exerciseProcedure /automaticExercise |

7.4.3.1 American Exercise

This element is used to specify the elements needed to represent an American Option. An **American option** may be exercised at **any** time before the expiration date.



| Field | Description | Swap Type | XPath |
|--------|----------------------------------------------------------------------|-----------|-------------------------------------------------------------------------------------------------|
| . 10 . | The first day of the exercise period for the American style option. | Swaption | swaption/americanExercise/comm encementDate/adjustableDates/un adjustedDate ¹⁷ |
| | The last day within an exercise period for an American style option. | Swaption | swaption/americanExercise/expirat ionDate // /adjustableDates/unadjustedDate 18 |

¹⁴ This is a Boolean and if marked as true, the notional amount of the underlying swap, not previously exercised under the swaption, will be automatically exercised at the expiration time on the expiration date if at such time the buyer is in-the-money

¹⁵ This s required for Automatic Exercise

¹⁶ This is required for an American Exercise

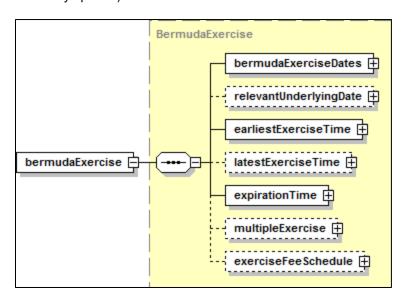
¹⁷ An unadjusted date can be specified with the date adjustments or a relative date can be specified

¹⁸ An unadjusted date can be specified with the date adjustments or a relative date can be specified

| Earliest Exercise Time ¹⁹ | The earliest time at which notice of exercise can be given by the buyer to the seller from the commencement date to, and including, the expiration date. | | swaption/americanExercise/earlies tExerciseTime |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------------------------------------------------|
| Expiration Time | The latest time for exercising the American option on the expiration Date | Swaption | swaption/americanExercise /expirationTime |

7.4.3.2 Bermudan Exercise

This element is used to specify the parameters defining the exercise period for a Bermuda style Option. A **Bermudan option** is where the buyer has the right to exercise at a set (always discretely spaced) number of times



| Field | Description | Swap Type | XPath |
|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|-----------|----------------------------------------------------------------------------------------------------|
| Exercise Dates ²⁰ (Unadjusted Date) | The unadjusted Exercise dates associated with a Bermudan erercise | Swaption | swaption/bermudaExercise/bermu daExerciseDates/adjustableDates/ unadjustedDate ²¹ |
| Earliest Exercise Time ²² | The earliest time at which notice of exercise can be given by the buyer to the seller, on each option exercise date | Swaptio | swaption/bermudaExercise/earlies tExerciseTime |

¹⁹ The earliest exercise time is required for a Bermudan style option.

²⁰ This is a required element for a Bermudan exercise style option

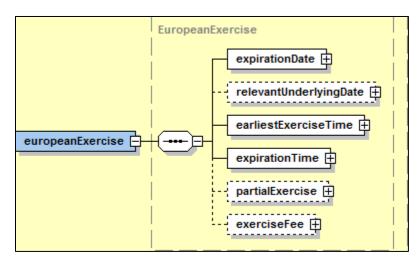
²¹ An unadjusted date can be specified with the date adjustments or a relative date can be specified. Multiple unadjusted dates can be specified here.

²² The earliest exercise time is required for a Bermudan style option.

| | and the expiration date | | |
|-----------------|------------------------------------------------------------------------|---|------------------------------------------|
| Expiration Time | The latest time for exercising a Bermuda option on the expiration Date | • | swaption/bermudaExercise/expirat ionTime |

7.4.3.3 European Exercise

This element is used to specify the elements needed to represent an European Option A **European option** may be exercised only at the **expiration date** of the option, i.e. at a single pre-defined point in time.



This element is used to specify the elements needed to represent an European Option A **European option** may be exercised only at the **expiration date** of the option, i.e. at a single pre-defined point in time.

| Field | Description | Swap Type | XPath |
|-----------------------------------------|---------------------------------------------------------------------------------------------------------------|-----------|-----------------------------------------------------------------------------------------|
| | The only day within an exercise period for tye EuropeanAmerican style option. | Swaption | swaption/europeanExercise/expira tionDate /adjustableDates/unadjustedDate ²³ |
| Earliest Exercise Time ²⁴ | The earliest time at which notice of exercise can be given by the buyer to the seller on the expiration date. | Swaption | swaption/ europeanExercise /earliestExerciseTime |

 $^{^{23}}$ An unadjusted date can be specified with the date adjustments or a relative date can be specified

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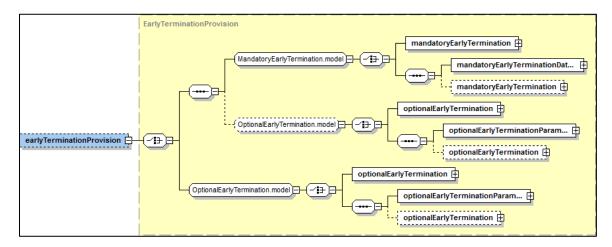
²⁴ The earliest exercise time is required for a Bermudan style option.

| Expiration Time | The latest time for exercising the European option on the expiration Date | · | swaption/europeanExercise /expirationTime |
|-----------------|---------------------------------------------------------------------------|---|----------------------------------------------|
| | | | |

7.4.4 Specifying Early Termination Provision

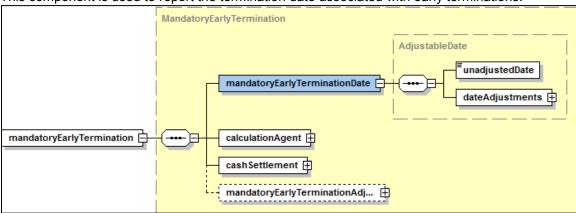
This provision gives the right for one or both parties to terminate the trade and settle the remaining term of the swap for fair value. In the case of a mandatory early termination the termination is mandatory.

This element is used to specify early termination details associated with the swap.



7.4.4.1 Mandatory Early Termination

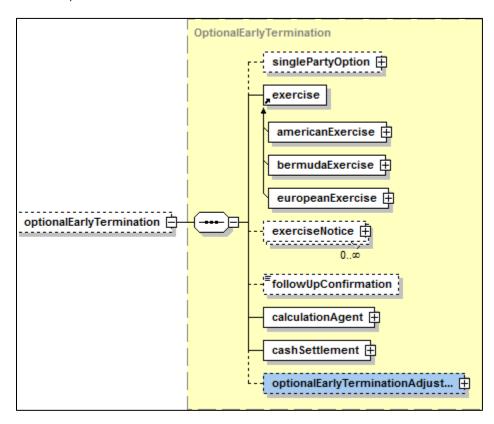
This component is used to report the termination date associated with early terminations.



| Mandatory Early Termination date | The date on which the swap will be terminated prior to the swap end date. | | swap/earlyTerminationProvi sion/mandatoryEarlyTermin ation/mandatoryEarlyTermin ationDate/unadjustedDate |
|-------------------------------------|---------------------------------------------------------------------------|---|--------------------------------------------------------------------------------------------------------------------------------|
| | | · | swaption/swap/earlyTermina tionProvision/mandatoryEarl yTermination/mandatoryEarl yTerminationDate/unadjuste dDate |

7.4.4.2 Optional Early Termination

This component is used to report the termination date associated with optional terminations where the termination dates are determined based on the type of option (America, European, Bermuda) and their characteristics.



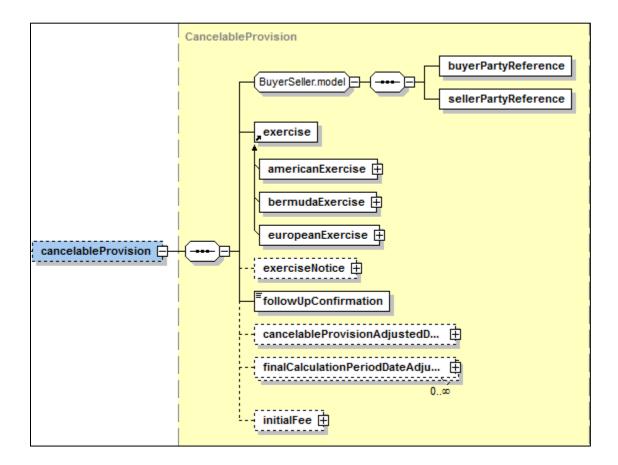
| Field | Description | Swap Type | XPath |
|-------------------------------------------------|-------------------------|------------------|-----------------------------------------------------------------------------------------------|
| Optional Early Termination Exercise Style | American Exercise Style | (embedded option | swaption/swap/earlyTermina tionProvision/optionalEarlyT ermination/americanExercis e |
| | | Swap (embedded | swap/earlyTerminationProvi |

| | | option) | sion/optionalEarlyTerminatio n/americanExercise |
|----|------------------------|------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| | | Cap Floor | capFloor/capFloorStream/ea rlyTerminationProvision/opti onalEarlyTermination/americ anExercise |
| Ве | | Swaption (embedded option in the underlying Swap) | swaption/swap/earlyTermina tionProvision/optionalEarlyT ermination/bermudaExercise |
| | | Swap (embedded Option) | swap/earlyTerminationProvi sion/optionalEarlyTerminatio n/bermudaExercise |
| | | Cap Floor | capFloor/capFloorStream/ea rlyTerminationProvision/opti onalEarlyTermination/ bermudaExercise |
| Eu | uropean Exercise Style | Swaption (embedded option in the underlying Swap) | swaption/swap/earlyTermina tionProvision/optionalEarlyT ermination/europeanExercis e |
| | | Swap (embedded Option) | swap/earlyTerminationProvi sion/optionalEarlyTerminatio n/ europeanExercise |
| | | Cap Floor | capFloor/capFloorStream/ea rlyTerminationProvision/opti onalEarlyTermination/ europeanExercise |

Refer to 7.4.3.1, 7.4.3.2, 7.4.3.3for details on specifying the Option details based on the exercise style.

7.4.5 Specifying Cancelable Provision

This provision the the buyer purchases the right, via a fee at the outset of the trade, to cancel the swap in the future. Alternatively, the provision gives the buyer has the right to cancel in the future (usually Bermudan style) for a specified fee.



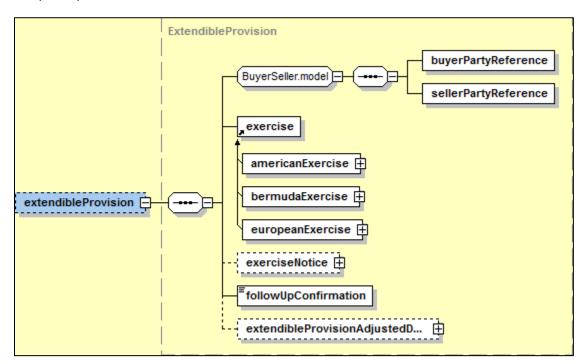
| Field | Description | Swap Type | XPath |
|----------------------------------------|-----------------------------------------------|------------------------------------------------------------|---------------------------------------------------------------------------|
| Cancelable Provision Exercise Style | American Exercise Style | Swaption (embedded option in the underlying swap) | swaption/swap/cancelablePr ovision/americanExercise |
| | | Swap (embedded option) | swap/cancelableProvision/a mericanExercise |
| | Bermuda Exercise Style | Swaption swap/can (embedded option in the underlying Swap) | |
| | | Swap (embedded Option) | swap/cancelableProvision/b ermudaExercise |
| | European Exercise Style | Swaption (embedded option in the underlying Swap) | swaption/swap/cancelablePr ovision/europeanExercise |
| | | Swap (embedded Option) | swaption/swap/cancelablePr ovision/europeanExercise |
| Cancelable Provision fee amount | Fee associated with the Cancelable provision. | Swaption (embedded option in the underlying | swaption/swap/cancelablePr ovision/initialFee/paymentA mount/amount |

| | | swap) | |
|--------------------------------------|---------------------------------------------------|------------------------------------------------------------|-----------------------------------------------------------------------------|
| | | | swaption/swap/cancelablePr ovision/initialFee/paymentA mount/currency |
| Cancelable Provision Fee Payer | Payer of the fee upon cancellation of the swap | Swaption (embedded option in the underlying swap) | swaption/swap/cancelablePr ovision/initialFee/payerParty Reference |
| Cancelable Provision Fee Receiver | Receiver of the fee upon cancellation of the swap | Swaption (embedded option in the underlying swap) | swaption/swap/cancelablePr ovision/initialFee/receiverPa rtyReference |

Refer to 7.4.3.1, 7.4.3.2, 7.4.3.3for details on specifying the Option details based on the exercise style.

7.4.6 Specifying Extendible Provision

This provision allows the the buyer the right to extend all swapStreams, typically in exchange for an upfront premium.



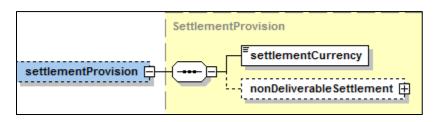
| Field | Description | Swap Type | XPath |
|-------------------------------------|-------------|-----------|--------------------------------------------------------|
| Extendible Provision Exercise Style | | • | swaption/swap/extendiblePr ovision/americanExercise |

| | | swap) | |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|----------------------------------------------------------------|
| | | Swap (embedded option) | swap/extendibleProvision /americanExercise |
| | Bermuda Exercise Style | Swaption (embedded option in the underlying Swap) | swaption/swap/ extendibleProvision /bermudaExercise |
| | | Swap (embedded Option) | swap/extendibleProvision /bermudaExercise |
| | European Exercise Style | Swaption (embedded option in the underlying Swap) | swaption/swap/ extendibleProvision /europeanExercise |
| | | Swap (embedded Option) | swap/extendibleProvision /europeanExercise |
| Follow-up Confirmation | A flag to indicate whether follow-up confirmation of exercise (written or electronic) is required following telephonic notice by the buyer to the | Swaption (embedded option in the underlying Swap) | swaption/swap/ extendibleProvision /followUpConfirmation |
| | seller or seller's agent. | Swap (embedded Option) | swap/extendibleProvision /followUpConfirmation |

Refer to 7.4.3.1, 7.4.3.2, 7.4.3.3for details on specifying the Option details based on the exercise style.

7.4.7 Specifying Settlement Provision

The settlement currency can be specified as part of the calculationPeriodAmount block. This element may optionally be used for Cross currency swaps to report the settlement Currency when it is different from the notional currency of the trade.



| Field | Description | Swap Type | XPath |
|---------------------|-------------|-----------|----------------------------------------------------------------|
| Settlement Currency | | Currency) | Swap/swapstream/settleme ntProvision/settlementCurre ncy |

7.5 Submitting additional Trade details on messages

R = Required

O = Optional

C = Conditional Required (See footnote for the condition)

| Field | Description | Valid Value | R/O | XPath |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------------------------|
| Message ID | This can also be considered to be as the unique message ld for the Trade being reported. The Trade Report ld may be echoed back on the Acks in the RptRefID. | | R | /TrdCaptRpt/@RptID |
| Transaction Type | Indicates the action being taken on a trade. The Acknowledgement echoes back the Trans Type from the inbound message. | 0 = New 1 = Cancel 2 = Replace | R | /TrdCaptRpt/@TransTyp |
| Trade Report Type | Indicates the purpose of the trade within the workflow and determines the action of the receiver of the trade. For SDR submissions it will always be set to Submit | 0 = Submit | R | /TrdCaptRpt/@RptTyp |
| Regulatory Report Type | Type of regulatory report being submitted. | 0 = RT 1 = PET 3 = Confirm 4 = RT+PET 5 = PET+Confirm 6 = RT+PET+Confirm 7 = Post trade valuation 8 = Verification 9 = Post Trade Event 10 = Post Trade Event + RT | R | /TrdCaptRpt/@RegRptTyp |
| Trade Type | Specifies the type of trade being submitted to CME Clearing or reported by CME Clearing. Used to distinguish a significant difference in the regulatory or economic requirements surrounding the trade. Sample values are Regular Trade, Block Trade, Privately Negotiated, Transfer, EFR, EFS, EFP, OTC | 58 = Large Notional Off Facility Swap 22 = OTC Privately negotiated Trade 12 = EFR/EFS/EOO | R | TrdCaptRpt/@TrdTyp |
| Trade Sub Type | This field further qualifies the Trade Type. Conditionally Required: Aged Deal (36) | 36 = Aged Deal | О | TrdCaptRpt/@TrdSubTyp |

| Trade Continuation | Specifies the post-execution trade continuation event. Additional price-forming continutation data values may be used by mutual agreement of the counterparties. | 0 = Novation 1 = Partial Novation 2 = Swap Unwind 3 = Partial Swap Unwind 4 = Exercise 8 = Amendment 9 = Increase 15 = Withdrawal 16 = Void | C ²⁵ | TrdCaptRpt/@TrdContntn |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|---------------------------|
| Trade Clearing Instruction | Specifies the eligibility of this trade for clearing and central counterparty processing. | 6 = Clear against CCP 7 = Exclude from CCP | 0 | TrdCaptRpt/@ClrngInstrctn |
| Back Loaded Trade Indicator | Indicates that the trade being reported occurred in the past. | Y N | C ²⁶ | TrdCaptRpt/@BackTrdInd |
| Trade Date | The trade date assigned to an execution on the trading platform. | | R | /TrdCaptRpt/@TrdDt |
| Multi Leg Type | Used to indicate how the multi-legged security. Will be used while reporting an FXSwap. | 3 -= Spread | 0 | TrdCaptRpt/MLegRptTyp |
| Confirmation Method | Indication of how a trade was confirmed. | 0 = Non Electronic 1 = Electronic | 0 | TrdCaptRpt/@ CnfmMeth |
| Verification Method | Indication of how a trade was verified. | 0 = Non Electronic 1 = Electronic | 0 | TrdCaptRpt/@VerfctnMeth |

7.6 Message Headers

7.6.1 Version Attributes for All Messages

The following attributes must be included on the FIXML element of each message sent to the API.

| Field | Description | Valid Value | XPath |
|----------------------------------|-------------------------------------------------------------------|-------------|------------|
| FIX Version Number | Indicates the version of FIX being used (including Service Pack). | 5.0 SP2 | /FIXML/@v |
| FIXML Extension Version | Indicates the FIX Extension version. | 162 | /FIXML/@xv |
| Custom Application Version | Indicates the Custom Application version. | CME.0001 | /FIXML/@cv |

²⁵ Conditionally required for some post trade event.

²⁶ Conditionally required while reporting historical Swaps

7.6.2 Standard Header for Request and Submissions

| Field | Description | Valid Value | XPath |
|------------------|--------------------------------------------------------------------------------------------------------------------|-------------|-----------------------------|
| Sender ID | This attribute identifies the party or the Submitter of the message. The value is assigned by CME. | SENDER | /FIXML/TrdCaptRpt/Hdr/@SID |
| Sender Qualifier | This attribute qualifies the Sender. The user ID assigned to the sender must be provided. | User123 | /FIXML/TrdCaptRpt/Hdr/@SSub |
| Target ID | This attribute identifies the receiver of the message. This must be set to CME. | CME | /FIXML/TrdCaptRpt/Hdr/@TID |
| Target Qualifier | This qualifies the receiver of the message. For submitting trades directly to CME RS T this must be set to CMESDR. | CMESDR | /FIXML/TrdCaptRpt/Hdr/@TSub |

7.6.3 Standard Header for Responses

| Field | Description | Example | XPath |
|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-----------------------------|
| Sender ID | This attribute identifies the party or the Submitter of the message. This is set to CME. | CME | /FIXML/TrdCaptRpt/Hdr/@SID |
| Sender Qualifier | This attribute qualifies the Sender. For messages sent by the CME ClearPort API this is set to CPAPI. | CMESDR | /FIXML/TrdCaptRpt/Hdr/@SSub |
| Target ID | This attribute identifies the receiver of the message. This could be a Broker or Platform or any other valid Trading entity. This value is preassigned by CME. | TARGET | /FIXML/TrdCaptRpt/Hdr/@TID |
| Target Qualifier | This qualifies the receiver of the message. This is set to the CME ClearPort UserID of the Sender. | User123 | /FIXML/TrdCaptRpt/Hdr/@TSub |

8 RT and PET field mapping

8.1 RT (Part 43) field Mapping to FIXML

R - Required for the

O – Optional

C – Conditionally required (Refer to the appropriate Footnote)

N/A – Not Applicable

IRS Swap includes Fixed/Float, Fixed/Fixed, Basis and Cross Currency

| # | Data Field | FIXML Mapping Fpml Mapping | Supported Enums | IRS | FRA | Cap/F loor | Swapt ion |
|----|--------------------------------------------------------------------------|-----------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|-----|-----|---------------|--------------|
| 1. | Message Type (Cancellation, Correction, Price-forming continuation data) | /TrdCaptRpt/ @TransTyp | 0 = New 1 = Cancel 2 = Replace | R | R | R | R |
| | | /TrdCaptRpt/ @RptTyp | 0 = Submit | R | R | R | R |
| | | /TrdCaptRpt/ @RegRptTyp | 0 = RT | R | R | R | R |
| 2. | Execution timestamp | TrdCaptRpt/ TrdRegTS/@TS TrdCaptRpt/ TrdRegTS/@Typ = 0 | 0 – Execution Time | R | R | R | R |
| 3. | SDR Submission Time | TrdCaptRpt/Hdr/@Sn t | | R | R | R | R |
| 4. | Clearing indicator | TrdCaptRpt/ClrIntn | 0 = Do not Intend to clear 1 = Intend to clear | R | R | R | R |
| 5. | Collateralization ²⁷ | TrdCaptRpt/ @TrdCollztn | 0 = Uncollateralized 1 = Partially Collateralized 2 = One-way Collateralization 3 = Fully collateralized | С | С | С | С |
| 6. | End-user Exception ²⁸ | TrdCaptRpt/ @ClrReqmtExcptn | 0 = No Execption 1 = Exception | С | С | С | С |
| 7. | Bespoke Swap Indicator | TrdCaptRpt/Instrmt/ @SubTyp | NS = Non Standardized Swap | 0 | 0 | 0 | 0 |

²⁷ Conditionally required for tardes that will not be cleared or trades cleared at a different DCO.

²⁸ Conditionally required for trades that will not be cleared

| # | Data Field | FIXML Mapping Fpml Mapping | Supported Enums | IRS | FRA | Cap/F loor | Swapt ion |
|----|---------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|-----|-----|---------------|--------------|
| 8. | Block/Off Facility | TrdCaptRpt/@TrdTyp | 58 = Large Notional Off Facility Swap 22 = OTC Privately negotiated Trade | R | R | R | R |
| 9. | Execution Venue ²⁹ | TrdCaptRpt/ @VenuTyp | O = Off Facility S = SEF | R | R | R | R |
| | | TrdCaptRpt/Pty/ @R | 73 = Swap Execution Facility (SEF) | С | С | С | С |
| 10 | Swap Effective or Start Date | TrdCaptRpt/Instrmt/S ecXML/FpML/trade/s wap/swapStream/cal culationPeriodDates/ effectiveDate | • • • • • • • • • • • • • • • • • • • • | R | N/A | N/A | N/A |
| | | TrdCaptRpt/Instrmt/S ecXML/FpML/trade /fra/adjustedEffective Date | | N/A | R | N/A | N/A |
| | | capFloor/ capFloorStream/calc ulationPeriodDates/ef fectiveDate/unadjuste dDate | | N/A | N/A | R | N/A |
| | | swaption/swap/swap Stream/calculationPe riodDates/effectiveDa te/unadjustedDate | | N/A | N/A | N/A | R |
| 11 | Swap Termination or End Date | TrdCaptRpt/Instrmt/S ecXML/FpML/trade/s wap/ swapStream/calculati onPeriodDates/ terminationDate | | R | N/A | N/A | N/A |
| | | TrdCaptRpt/Instrmt/S ecXML/FpML/trade/fr a/adjustedTerminatio nDate | | N/A | R | N/A | N/A |
| | | TrdCaptRpt/Instrmt/S ecXML/FpML/trade/c apFloor/ capFloorStream/calc ulationPeriodDates/ef fectiveDate | | N/A | N/A | R | N/A |
| | | TrdCaptRpt/Instrmt/S ecXML/FpML/trade/s waption/swap/swapSt ream/calculationPerio dDates/terminationDa | | N/A | N/A | N/A | R |

²⁹ Conditionally required if theVenueType is a SEF

| # | Data Field | FIXML Mapping Fpml Mapping | Supported Enums | IRS | FRA | Cap/F loor | Swapt ion |
|----|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----|-----|---------------|-----------|
| | | te/unadjustedDate | | | | | |
| 12 | Day count convention | TrdCaptRpt/Instrmt/S ecXML/FpML/trade swap/swapstream//ca lculationPeriodAmou nt/ calculation/dayCount Fraction | | R | N/A | N/A | N/A |
| | | TrdCaptRpt/Instrmt/S ecXML/FpML/trade fra/dayCountFraction | | N/A | R | N/A | N/A |
| | | TrdCaptRpt/Instrmt/S ecXML/FpML/trade /capFloor/capFloorStr eam/ /calculationPeriodAm ount/ calculation/dayCount Fraction | | N/A | N/A | R | N/A |
| | | TrdCaptRpt/Instrmt/S ecXML/FpML/trade /swaption/swap/swap stream//calculationPe riodAmount/ calculation/dayCount Fraction | | N/A | N/A | N/A | R |
| 13 | Settlement Currency ³⁰ | Swap/swapstream/se ttlementProvision/sett lementCurrency | | 0 | N/A | N/A | N/A |
| 14 | Asset class | TrdCaptRpt/Instrmt/ @AssetClss | 1 = Interest Rate | R | R | R | R |
| 15 | Sub-Asset class | TrdCaptRpt/Instrmt/ @AssetSubClss | 1 = Single Currency (Fixed Float) 2 = Cross Currency (Fixed Float) | R | N/A | N/A | N/A |
| 16 | Contract type | TrdCaptRpt/Instrmt/ @SecTyp | IRS=Interest Rate Swap SWAPTION = Option on a Swap FRA = Forward Rate Agreement CAP = Interest rate Cap FLR = Interest Rate Floor | R | R | R | R |

| # | Data Field | FIXML Mapping Fpml Mapping | Supported Enums | IRS | FRA | Cap/F loor | Swapt ion |
|----|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----------------|-----|---------------|-----------------|
| 17 | Contract Sub-Type | N/A | N/A | N/A | N/A | N/A | |
| 18 | Underlying Asset 1 ³¹ | TrdCaptRpt/Instrmt/S ecXML/FpML/trade /swaption/swap | | N/A | N/A | N/A | R |
| 19 | Underlying Asset 2 | N/A | N/A | N/A | N/A | N/A | |
| 20 | Price Notation ³² | l | | | | | |
| | Fixed Rate | TrdCaptRpt/Instrmt/S ecXML/FpML/trade /swap/ swapStream/calculati onPeriodAmount/calc ulation/ flxedRateSchedule/ini tialValue ³³ | | C ³⁴ | N/A | N/A | N/A |
| | | TrdCaptRpt/Instrmt/S ecXML/FpML/trade /fra /fixedRate ³⁵ | | N/A | R | N/A | N/A |
| | | TrdCaptRpt/Instrmt/S ecXML/FpML/trade /swaption/swap/ swapStream/calculati onPeriodAmount/calc ulation/ flxedRateSchedule/ini tialValue | | N/A | N/A | N/A | C ³⁶ |
| | Fixed Rate Schedule | TrdCaptRpt/Instrmt/S ecXML/FpML/trade /swap/ swapStream/calculati onPeriodAmount/calc ulation/ flxedRateSchedule/st ep/stepDate ³⁷ | | O ₃₈ | N/A | N/A | O ³⁹ |

 $^{^{31}}$ For swaptions the underlying swap aand all the details related to the swap are required. 32 Multiple fields constitute the price based on the type of Swap. 33 Fixed Rate for the Swap

³⁴ Conditionally required if there is a fixed rate leg in the swap

³⁵ Required for FRAs.

³⁶ Conditionally required for the underlying swap if there is a fixed leg.

³⁷ Notional Schedule for the swap.

³⁸ This is required only if it an amortization swap.

| # | Data Field | FIXML Mapping Fpml Mapping | Supported Enums | IRS | FRA | Cap/F loor | Swapt ion |
|----|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----------------|-----|---------------|-----------------|
| | | TrdCaptRpt/Instrmt/S ecXML/FpML/trade /swap/swapStream/ calculationPeriodAmo unt/calculation/notion alSchedule/notionalSt epSchedule/stepValu | | | | | |
| | | e TrdCaptRpt/Instrmt/S ecXML/FpML/trade /capFloor/ capFloorStream/calc ulationPeriodAmount/ calculation/ flxedRateSchedule/ini tialValue | | N/A | N/A | R | N/A |
| | Float Rate Index | TrdCaptRpt/Instrmt/S ecXML/FpML/trade /swap/swapStream/ calculationPeriodAmo unt/calculation/ floatingRateCalculati on/floatingRateIndex | | C ⁴⁰ | N/A | N/A | N/A |
| | | TrdCaptRpt/Instrmt/S ecXML/FpML/trade /fra/floatingRateIndex | | N/A | R | N/A | N/A |
| | | TrdCaptRpt/Instrmt/S ecXML/FpML/trade /capFloor /capFloorStream/ calculationPeriodAmo unt/calculation/ floatingRateCalculati on/floatingRateIndex | | N/A | N/A | R | N/A |
| | | TrdCaptRpt/Instrmt/S ecXML/FpML/trade /swaption/swap/swap Stream/ calculationPeriodAmo unt/calculation/ floatingRateCalculati on/floatingRateIndex | | N/A | N/A | N/A | C ⁴¹ |
| 2 | 1 Additional Price Notation | g. sales | | | | | |
| 22 | 2 UPI ⁴² | TrdCaptRpt/Instrmt/ @ID | N/A | N/A | N/A | N/A | N/A |

| # | Data Field | FIXML Mapping Fpml Mapping | Supported Enums | IRS | FRA | Cap/F loor | Swapt ion |
|----|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----------------|-----|---------------|--------------|
| 23 | Notional Currency 1 | TrdCaptRpt/Instrmt/S ecXML/FpML/trade /swap/swapStream/ calculationPeriodAmo unt/calculation/notion alSchedule/notionalSt epSchedule/currency | | R | N/A | N/A | N/A |
| | | TrdCaptRpt/Instrmt/S ecXML/FpML/trade Fra/notional/currency | | N/A | R | N/A | N/A |
| | | TrdCaptRpt/Instrmt/S ecXML/FpML/trade /capFloor/capFloorStr eam/ calculationPeriodAmo unt/calculation/notion alSchedule/notionalSt epSchedule/currency | | N/A | N/A | R | N/A |
| | | TrdCaptRpt/Instrmt/S ecXML/FpML/trade /swaption/swap/swap Stream/ calculationPeriodAmo unt/calculation/notion alSchedule/notionalSt epSchedule/currency | | N/A | N/A | N/A | R |
| 24 | Notional Currency 2 ⁴³ | TrdCaptRpt/Instrmt/S ecXML/FpML/trade /swap/swapStream/ calculationPeriodAmo unt/calculation/notion alSchedule/notionalSt epSchedule/currency | | C ⁴⁴ | N/A | N/A | N/A |
| | | TrdCaptRpt/Instrmt/S ecXML/FpML/trade /swaption/swap/swap Stream/ calculationPeriodAmo unt/calculation/notion alSchedule/notionalSt epSchedule/currency | | N/A | N/A | N/A | R |
| 25 | Notional amount 1 (for Currency1) | TrdCaptRpt/Instrmt/S ecXML/FpML/trade /swap/swapStream/ calculationPeriodAmo unt/calculation/notion alSchedule/notionalSt epSchedule/initialVal | | R | N/A | N/A | N/A |

| # | Data Field | FIXML Mapping Fpml Mapping | Supported Enums | IRS | FRA | Cap/F loor | Swapt ion |
|----|--------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----------------|-----|---------------|--------------|
| | | ue | | | | | |
| | | TrdCaptRpt/Instrmt/S ecXML/FpML/trade /fra/notional/amount | | N/A | R | N/A | N/A |
| | | TrdCaptRpt/Instrmt/S ecXML/FpML/trade /capFloor/capFloorStr eam/ calculationPeriodAmo unt/calculation/notion alSchedule/notionalSt epSchedule/initialVal | | N/A | N/A | R | N/A |
| | | ue TrdCaptRpt/Instrmt/S ecXML/FpML/trade /swaption/swap/swap Stream/ calculationPeriodAmo unt/calculation/notion alSchedule/notionalSt epSchedule/initialVal ue | | N/A | N/A | N/A | R |
| 26 | Notional amount 2 (for Currency 2) | TrdCaptRpt/Instrmt/S ecXML/FpML /trade/swap/swapStre am/ calculationPeriodAmo unt/calculation/notion alSchedule/notionalSt epSchedule/initialVal | | C ⁴⁵ | N/A | N/A | N/A |
| | | ue TrdCaptRpt/Instrmt/S ecXML/FpML/trade /swaption/swap/swap Stream/ calculationPeriodAmo unt/calculation/notion alSchedule/notionalSt epSchedule/initialVal ue | | N/A | N/A | N/A | R |
| 27 | Payment Frequency 1 (Leg 1) (Payment Frequency Period ⁴⁶) | TrdCaptRpt/Instrmt/S ecXML/FpML/trade /swap/swapStream/p aymentDates/ paymentFrequency/p eriod | | R | N/A | N/A | N/A |

⁴⁵ Conditionally required for Cross currency swaps.

| # | Data Field | FIXML Mapping Fpml Mapping | Supported Enums | IRS | FRA | Cap/F loor | Swapt ion |
|----|-------------------------------------------------------------|-----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-----------------|-----|---------------|-----------------|
| 28 | Payment Frequency (Leg 1) Multiplier ⁴⁷ | swap/swapStream/pa ymentDates/ paymentFrequency/p eriodMultiplier | | R | N/A | N/A | N/A |
| | | capFloor/capFloorStr eam/paymentDates/ paymentFrequency/p eriodMultiplier | | N/A | N/A | R | N/A |
| | | Swaption/swap/swap Stream/paymentDate s/ paymentFrequency/p eriodMultiplier | | N/A | N/A | N/A | R ⁴⁸ |
| 29 | Payment Frequency (Leg 2) | swap/swapStream/pa ymentDates/ paymentFrequency/p eriodMultiplier | | R | N/A | N/A | N/A |
| | | Swaption/swap/swap Stream/paymentDate s/ paymentFrequency/p eriodMultiplier | | N/A | N/A | N/A | R |
| 30 | Reset Frequency 1 (Reset Frequency Period) ⁴⁹ | swap/swapStream/R esetDates/ resetFrequency/perio d | D – Day W – Week M – Month Y – Year | R ⁵⁰ | N/A | N/A | N/A |
| | | capFloor/capFloorStr eam/ResetDates/ resetFrequency/perio d | T – Term (staring on the effective date and ending on the termination date) | N/A | N/A | R | N/A |
| | | swaption/swap/swap Stream/ResetDates/ resetFrequency/perio d | | N/A | N/A | N/A | R ⁵¹ |
| | Reset Frequency Multiplier ⁵² | swap/swapStream/R esetDates/ resetFrequency/perio dMultiplier | | R ⁵³ | N/A | N/A | N/A |
| | | capFloor/capFloorStr eam/ResetDates/ resetFrequency/ | | N/A | N/A | R | N/A |

⁴⁷ A time period multiplier, e.g. 1, 2 or 3 etc. A negative value can be used when specifying an offset relative to another date, e.g. -2 days. If the period value is T (Term) then periodMultiplier must contain the value 1 ⁴⁸ Payment Frequency associated with the underlying swap.

⁴⁹ The frequency at which resets occur.

⁵⁰ Required if there is a floating leg in the swap.

⁵¹ Conditionally required of the underlying swap has a floating leg.

⁵² A time period multiplier, e.g. 1, 2 or 3 etc. A negative value can be used when specifying an offset relative to another date, e.g. -2 days. If the period value is T (Term) then periodMultiplier must contain the value 1

⁵³ Required if there is a floating leg in the swap.

| # | Data Field | FIXML Mapping Fpml Mapping | Supported Enums | IRS | FRA | Cap/F loor | Swapt ion |
|----|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-----------------|-----|-----------------|-----------------|
| | | periodMultiplier | | | | | |
| | | swaption/swap/swap Stream/ResetDates/ resetFrequency/ periodMultiplier | | N/A | N/A | N/A | R ⁵⁴ |
| | Reset Frequency Day ⁵⁵ | swap/swapStream/R esetDates/ resetFrequency/week lyRollCOnvention | MON TUE WED THU | C ⁵⁶ | N/A | N/A | N/A |
| | | capFloor/capFloorStr eam/ResetDates/ resetFrequency/ weeklyRollCOnventio n | FRI SAT SUN | N/A | N/A | R | N/A |
| | | swaption/swap/swap Stream/ResetDates/ resetFrequency/ weeklyRollCOnventio n | | N/A | N/A | N/A | R ⁵⁷ |
| 31 | Reset Frequency 2 | | | | | | |
| 32 | Event Time | TrdCaptRpt/@TxnTm | N/A | R | R | R | |
| 33 | Option Strike | TrdCaptRpt/Instrmt/S ecXML/FpML/trade /capFloor/ capFloorStream/calc ulationPeriodAmount/ calculation/ floatingRateCalculati on/capRateSchedule/ initialValue TrdCaptRpt/Instrmt/S ecXML/FpML/trade /capFloor/ capFloorStream/calc ulationPeriodAmount/ calculation/ floatingRateCalculati | | N/A | N/A | R | N/A |
| 24 | Ontion Strike Schodule ⁵⁸ | on/floorRateSchedule /initialValue | | NI/A | N/A | C ⁵⁹ | NI/A |
| 34 | Option Strike Schedule ⁵⁸ | TrdCaptRpt/Instrmt/S | J | N/A | N/A | C | N/A |

⁵⁴ Conditionally required of the underlying swap has a floating leg.

⁵⁵ The day of the week on which a weekly reset date occurs. This element must be included if the reset frequency is defined as weekly.

⁵⁶ Conditionally required if the reset frequency period is a week.

⁵⁷ Conditionally required of thereset frequency period is a week for the underlying swap.

⁵⁸ This is required if the schedule was part of the Cap floor trade.

⁵⁹ The schedule will need to be reported if the swpa contained one.

| # | Data Field | FIXML Mapping Fpml Mapping | Supported Enums | IRS | FRA | Cap/F loor | Swapt ion |
|----|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|-----|-----|---------------|--------------|
| | | ecXML/FpML/trade /capFloor/ capFloorStream/calc ulationPeriodAmount/ calculation/ floatingRateCalculati on/capRateSchedule/ step/stepDate TrdCaptRpt/Instrmt/S ecXML/FpML/trade /capFloor/ capFloorStream/calc ulationPeriodAmount/ calculation/ floatingRateCalculati on/floorRateSchedule /step/stepDate | | | | | |
| 35 | Option type | TrdCaptRpt/Instrmt/S ecXML/FpML/trade /swaption/optionType swaptionStraddle | Put Call Payer Receiver Straddle | | | | |
| 36 | Option Exercise Style | TrdCaptRpt/Instrmt/S ecXML/FpML/trade /swaption/americanE xercise TrdCaptRpt/Instrmt/S ecXML/FpML/trade /swaption/EuropeanE xercise TrdCaptRpt/Instrmt/S ecXML/FpML/trade /swaption/bermudaEx ercise | | N/A | N/A | N/A | R |
| 37 | Option premium | TrdCaptRpt/Instrmt/S ecXML/FpML/trade /swaption/premium/p aymentAmount/amou nt | | N/A | N/A | N/A | R |
| | | TrdCaptRpt/Instrmt/S ecXML/FpML/trade /capFloor/premium/p aymentAmount/amou nt | | N/A | N/A | R | N/A |
| 38 | Option Premium currency | TrdCaptRpt/Instrmt/S ecXML/FpML/trade /swaption/premium/p aymentAmount/curre ncy | | N/A | N/A | N/A | R |
| | | TrdCaptRpt/Instrmt/S | | N/A | N/A | R | N/A |

| # | Data Field | FIXML Mapping Fpml Mapping | Supported Enums | IRS | FRA | Cap/F loor | Swapt ion |
|----|-------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|--------------------------|----------------|---------------|---------------|-----------------|
| | | ecXML/FpML/trade /capFloor/premium/p aymentAmount/curre ncy | | | | | |
| 39 | Option expiration date (Option Expiration Start Date) | TrdCaptRpt/Instrmt/S ecXML/FpML/trade /swaption/americanE xercise/commencem entDate/adjustableDa tes/unadjustedDate | | N/A | N/A | N/A | C ⁶⁰ |
| 40 | Option Expiration date | TrdCaptRpt/Instrmt/S ecXML/FpML/trade /swaption/americanE xercise/expirationDat e /adjustableDates/una djustedDate | | N/A | N/A | N/A | C ⁶¹ |
| | | TrdCaptRpt/Instrmt/S ecXML/FpML/trade /swaption/europeanE xercise/expirationDat e /adjustableDates/una djustedDate ⁶² | | N/A | N/A | N/A | C ₆₃ |
| | | TrdCaptRpt/Instrmt/S ecXML/FpML/trade /swaption/bermudaEx ercise/bermudaExerci seDates/adjustableD ates/unadjustedDate | | N/A | N/A | N/A | C ⁶⁵ |
| 41 | ' | | main sking Dravinian | a a la bla Dua | | | |
| 42 | Embedded Option can be r Provision | eported by specifying a Te | erminationProvision, car | iceiablePro | ovision or ar | ı extensibi | е |
| | Embedded Option (Early Termination provision) | TrdCaptRpt/Instrmt/S ecXML/FpML/trade /swap/earlyTerminati onProvision ⁶⁶ | | 0 | N/A | N/A | 0 |
| | Cancelable Provision | TrdCaptRpt/Instrmt/S ecXML/FpML/trade | | 0 | N/A | N/A | 0 |

 ⁶⁰ Conditionally required for American Style Option
 ⁶¹ Conditionally required for American Style Option

⁶² An unadjusted date can be specified with the date adjustments or a relative date can be specified

⁶³ Conditionally required for European Style Option

⁶⁴ An unadjusted date can be specified with the date adjustments or a relative date can be specified. Multiple unadjusted dates can be specified here.

⁶⁵ Conditionally required for Bermuda Style Option

⁶⁶ The presence of an earlyTerminationProvision in a Swap indicates embedded option.

| # | Data Field | FIXML Mapping Fpml Mapping | Supported Enums | IRS | FRA | Cap/F loor | Swapt ion |
|---|----------------------|-----------------------------------------------------------------------------------------|-----------------|-----|-----|---------------|--------------|
| | | /swap/cancelablePro vision ⁶⁷ | | | | | |
| | Extensible Provision | TrdCaptRpt/Instrmt/S ecXML/FpML/trade /swap/extendibleProv ision ⁶⁸ | | 0 | N/A | N/A | 0 |

8.2 PET (Part 45) field Mapping to FIXML

| # | Data Field | FIXML Mapping Fpml Mapping | Supported Enums | IRS | FRA | Cap/ Floor | Swapti on |
|----|------------------------------------------------------------------------------|-------------------------------|--------------------------------------------------------------|-----|-----|---------------|--------------|
| 1. | Message Type (Cancellation, Correction, Price- forming continuation | TrdCaptRpt/ @TransTyp | 0 = New 1 = Cancel 2 = Replace | R | R | R | R |
| | data) | TrdCaptRpt/ @RptTyp | 0 = Submit | R | R | R | R |
| | | TrdCaptRpt/ @RegRptTyp | 4 = RT ⁶⁹ + PET 1 = PET | R | R | R | R |
| 2. | Universal Swap Identifier (The USI will have to include the Type of | TrdCaptRpt/RegTrdID/@ Typ | 0 = Current USI | R | R | R | R |
| | USI and a Source which identifies the assigner (namespace) of the USI) | TrdCaptRpt/RegTrdID/@I D | | R | R | R | R |
| | or and don't | TrdCaptRpt/RegTrdID/@ Src | | R | R | R | R |
| | | TrdCaptRpt/RegTrdID/@ Evnt | 0 = Initial Block Trade 1 = Allocation 2 = Clearing | 0 | 0 | 0 | 0 |

⁶⁷ The presence of a cancelableProvision in a Swap indicates embedded option.

⁶⁸ The presence of a extendibleProvision in a Swap indicates embedded option.

| # | Data Field | FIXML Mapping Fpml Mapping | Supported Enums | IRS | FRA | Cap/ Floor | Swapti on |
|----|----------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------------------------------|-----------------|-----|---------------|--------------|
| 3. | LEI of the Counterparty | TrdCaptRpt/RptSide/Pty/ @Src | N = LEI (Legal Entity Identifier) | R | R | R | R |
| | | TrdCaptRpt/RptSide/Pty/ @R | R = 7 | R | R | R | R |
| | | TrdCaptRpt/RptSide/Pty/ @ID | | R | R | R | R |
| 4. | Reporting Counterparty Indicator (The Reporting counterparty identifier | TrdCaptRpt/RptSide/Pty/ Sub/@Typ | Typ= 49 – Counterparty is a Reporting Counterparty | R ⁷⁰ | R | R | R |
| | | TrdCaptRpt/RptSide/Pty/ Sub/@ID | Y | R | R | R | R |
| 5. | Swap Dealer Indicator for the Reporting counterparty ⁷¹ | TrdCaptRpt/RptSide/Pty/ Sub/@Typ | Typ= 45 – Swap Dealer | С | С | С | С |
| | | TrdCaptRpt/RptSide/Pty/ Sub/@ID | Y | С | С | С | С |
| 6. | Major Swap Participant Indicator for the reporting counterparty ⁷² | TrdCaptRpt/RptSide/Pty/ Sub/@Typ | Typ= 46 – Major Swap Participant | С | С | С | С |
| | Counterparty | TrdCaptRpt/RptSide/Pty/ Sub/@ID | Y | С | С | С | С |
| 7. | Financial Entity Indicator for the reporting counterparty ⁷³ | TrdCaptRpt/RptSide/Pty/ Sub/@Typ | Typ= 47 – Financial Entity | С | С | С | С |
| | Counterparty | TrdCaptRpt/RptSide/Pty/ Sub/@ID | Y | С | С | С | С |

⁷⁰ The Reporting counterparty is specified as a sub tag of the counterparty to the trade.

⁷¹ This is conditionally required if the reporting counterparty is a Swap Dealer.

⁷² This is conditionally required if the reporting counterparty is an MSP.

⁷³ This is conditionally required if the reporting counterparty is not a swap dealer or a major swap participant with respect to the swap, an indication of whether the reporting counterparty is a financial entity as defined in CEA § 2(h)(7)(C).

Trade Reporting API for IRS - FIXML w/ embedded FpmI Message Specification

| # | Data Field | FIXML Mapping Fpml Mapping | Supported Enums | IRS | FRA | Cap/ Floor | Swapti on |
|-----|-------------------------------------------------------------|-----------------------------------------|----------------------------------------------|-----------------|-----|---------------|--------------|
| 8. | US Person Flag for the reporting counterparty ⁷⁴ | TrdCaptRpt/RptSide/Pty/ Sub/@Typ | Typ= 48 – US Domicile | С | С | С | С |
| | | TrdCaptRpt/RptSide/Pty/ Sub/@ID | Y | С | С | С | С |
| 9. | Indication that the block will be allocated ⁷⁵ | TrdCaptRpt/RptSide/@Bl ckTrdAllocInd | 0 = Block to be allocated | С | С | С | С |
| 10. | LEI of the Allocation agent ⁷⁶ | TrdCaptRpt/RptSide/Pty/ @Src | N = LEI (Legal Entity Identifier) | С | С | С | С |
| | | TrdCaptRpt/RptSide/Pty/ @R | R = 30 – Broker R = 49 – Asset manager | С | С | С | С |
| | | TrdCaptRpt/RptSide/Pty/ @R | | С | С | С | С |
| 11. | Post allocation Swap Indicator ⁷⁷ | TrdCaptRpt/RptSide/@Bl ckTrdAllocInd | 2 = Allocated Block trade | С | С | С | С |
| 12. | Block USI ⁷⁸ | TrdCaptRpt/RegTrdID/@ Typ | 2 = Block USI | C ⁷⁹ | С | С | С |
| | | TrdCaptRpt/RegTrdID/@I D | | С | С | С | С |
| | | TrdCaptRpt/RegTrdID/@ Src | | С | С | С | С |
| | | TrdCaptRpt/RegTrdID/@ Evnt | 0 = Initial Block Trade | 0 | 0 | 0 | 0 |

⁷⁴ This is conditionally required if the reporting counterparty is a U.S. person.

⁷⁵ Conditionally required if the side will be allocated

⁷⁶ The Agent/Asset mamager is conditionally required for allocated swaps.

⁷⁷ Conditionally required if the swap is an allocated swap

⁷⁸ If the swap is a post-allocation swap, the unique swap identifier of the original transaction between the reporting counterparty and the agent

⁷⁹ Conditionally required if the swap is an allocated swap

| # | Data Field | FIXML Mapping Fpml Mapping | Supported Enums | IRS | FRA | Cap/ Floor | Swapti on |
|-----|----------------------------------------------------------------------------|-------------------------------------|--------------------------------------|-----------------|-----|---------------|--------------|
| 13. | Non Reporting Counterparty LEI ⁸⁰ | TrdCaptRpt/RptSide/Pty/ @Src | N = LEI (Legal Entity Identifier) | R | R | R | R |
| | | TrdCaptRpt/RptSide/Pty/ @R | R = 7 | R | R | R | R |
| | | TrdCaptRpt/RptSide/Pty/ @ID | | R | R | R | R |
| 14. | Swap Dealer Indicator for the non-Reporting counterparty | TrdCaptRpt/RptSide/Pty/ Sub/@Typ | Typ= 45 – Swap Dealer | C ⁸¹ | С | С | С |
| | | TrdCaptRpt/RptSide/Pty/ Sub/@ID | Y | С | С | С | С |
| 15. | Major Swap Participant Indicator for the non- reporting counterparty | TrdCaptRpt/RptSide/Pty/ Sub/@Typ | Typ= 46 – Major Swap Participant | C ⁸² | С | С | С |
| | | TrdCaptRpt/RptSide/Pty/ Sub/@ID | Y | С | С | С | С |
| 16. | Financial Entity Indicator for the reporting counterparty | TrdCaptRpt/RptSide/Pty/ Sub/@Typ | Typ= 47 – Major Swap Participant | C ⁸³ | С | С | С |
| | | TrdCaptRpt/RptSide/Pty/ Sub/@ID | Y | С | С | С | С |
| 17. | US Person Flag for the non-reporting counterparty | TrdCaptRpt/RptSide/Pty/ Sub/@Typ | Typ= 48 – US Domicile | C ⁸⁴ | С | С | С |
| | | TrdCaptRpt/RptSide/Pty/ Sub/@ID | Y | С | С | С | С |

⁸⁰ If the Reporting counterparty indicator is not present, the counterparty is treated as the non-reporting counterparty.

⁸¹ This is conditionally required if the non-reporting counterparty is a Swap Dealer.

⁸² This is conditionally required if the non-reporting counterparty is an MSP.

⁸³ This is conditionally required if the non-reporting counterparty is not a swap dealer or a major swap participant with respect to the swap, an indication of whether the reporting counterparty is a financial entity as defined in CEA § 2(h)(7)(C).
84 This is conditionally required if the reporting counterparty is a U.S. person.

| # | Data Field | FIXML Mapping Fpml Mapping | Supported Enums | IRS | FRA | Cap/ Floor | Swapti on |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|--------------------------------------------------------------------------------|-----------------|-----|---------------|--------------|
| 18. | UPI | TrdCaptRpt/Instrmt/@ID | | C ⁸⁵ | С | С | С |
| | | TrdCaptRpt/Instrmt/@Src | H = Clearing House | C ₈₆ | С | С | С |
| 19. | If no Unique Product Identifier is available for the swap because the swap is not sufficiently standardized, the taxonomic description of the swap pursuant to the CFTC-approved product classification system | N/A ⁸⁷ | | | | | |
| 20. | If no CFTC-approved UPI and product classification system is yet available, the internal product identifier or product description used by the swap data repository | N/A ⁸⁸ | | | | | |
| 21. | Multi Asset Swap Indicator | Presence of a Secondary Asset class. | | | | | |
| 22. | Primary Asset Class for a multi asset | /Instrmt/@AssetClss | 1 = Interest Rate 2 = Currency 3 = Credit 4 = Equity 5 = Commodity | C ₈₉ | С | С | С |
| 23. | Secondary Asset Class for a multi asset | TrdCaptRpt/Instrmt/ ScndryAsset/@Clss | 1 = Interest Rate 2 = Currency 3 = Credit 4 = Equity 5 = Commodity | C ⁹⁰ | С | С | С |

⁸⁵ This is conditionally required for exchange listed instruments

⁸⁶ Conditionally required the security ID is specified

⁸⁷ This is not required Day 1 because this maps to the /Instrmt/@ID and /Instrmt/@Src for exchange listed products.

⁸⁸ This is not required Day 1 because this maps to the /Instrmt/@ID and /Instrmt/@Src for exchange listed products.

⁸⁹ Conditionally required for a multi Asset class Swap

⁹⁰ Conditionally required if a multi asset swap is being reported

| # | Data Field | FIXML Mapping Fpml Mapping | Supported Enums | IRS | FRA | Cap/ Floor | Swapti on |
|-----|---------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|-----------------|-----|---------------|--------------|
| 24. | Mixed Swap Indicator | TrdCaptRpt/@MixedSwa plnd | 0 = not a mixed swap 1 = a mixed swap | C ⁹¹ | С | С | С |
| 25. | Contract Type | TrdCaptRpt/Instrmt/@Se cTyp | IRS = Interest Rate Swap FRA = Forward Rate Agreement CAP = Interest Rate Cap FLR = Interest Rate Floor SWAPTION = Swaption | R | R | R | R |
| 26. | Swap Classification | TrdCaptRpt/Instrmt/Swap Clss | BS =- Basis Swap IX = Index Swap | R | N/A | N/A | N/A |
| 27. | Block/Off Facility | TrdCaptRpt/@TrdTyp | 58 = Large Notional Off Facility Swap 22 = OTC Privately negotiated Trade 12 = EFR/EFS/EOO | R | R | R | R |
| 28. | Execution timestamp | TrdCaptRpt/ TrdRegTS/@TS TrdCaptRpt/ TrdRegTS/@Typ = 0 | 0 – Execution Time | R | R | R | R |
| 29. | Execution Venue | TrdCaptRpt/ @VenuTyp | O = Off Facility S = SEF | R | R | R | R |
| | | TrdCaptRpt/Pty/ @R | 73 = Swap Execution Facility (SEF) | C ⁹² | С | С | С |
| 30. | SDR Submission Time | TrdCaptRpt/Hdr/@Snt | | R | R | R | R |
| 31. | Swap Effective or Start Date | TrdCaptRpt/Instrmt/SecX ML/FpML/trade/swap/sw apStream/calculationPeri odDates/effectiveDate | | R | N/A | N/A | N/A |
| | | TrdCaptRpt/Instrmt/SecX ML/FpML/trade /fra/adjustedEffectiveDat e | | N/A | R | N/A | N/A |
| | | capFloor/ capFloorStream/calculati onPeriodDates/effectiveD ate/unadjustedDate | | N/A | N/A | R | N/A |

| ‡ | Data Field | FIXML Mapping Fpml Mapping | Supported Enums | IRS | FRA | Cap/ Floor | Swapti on |
|----------|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|-----|-----|---------------|--------------|
| | | swaption/swap/swapStre am/calculationPeriodDate s/effectiveDate/unadjuste dDate | | N/A | N/A | N/A | R |
| 32. | Swap Termination or End Date | TrdCaptRpt/Instrmt/SecX ML/FpML/trade/swap/ swapStream/calculationP eriodDates/ terminationDate | | R | N/A | N/A | N/A |
| | | TrdCaptRpt/Instrmt/SecX ML/FpML/trade/fra/adjust edTerminationDate | | N/A | R | N/A | N/A |
| | | TrdCaptRpt/Instrmt/SecX ML/FpML/trade/capFloor/ capFloorStream/calculati onPeriodDates/effectiveD ate | | N/A | N/A | R | N/A |
| | | TrdCaptRpt/Instrmt/SecX ML/FpML/trade/swaption/ swap/swapStream/calcul ationPeriodDates/termina tionDate/unadjustedDate | | N/A | N/A | N/A | R |
| 33. | Buyer ⁹³ | TrdCaptRpt/RptSide/@Si de | 1 = Buyer | R | R | R | R |
| | | TrdCaptRpt/RptSide/Pty/ @Src | N = LEI (Legal Entity Identifier) | R | R | R | R |
| | | TrdCaptRpt/RptSide/Pty/ @R | R = 7 | R | R | R | R |
| | | TrdCaptRpt/RptSide/Pty/ @ID | | R | R | R | R |
| 34. | Seller ⁹⁴ | TrdCaptRpt/RptSide/@Si de | 2 = Seller | R | R | R | R |
| | | TrdCaptRpt/RptSide/Pty/ @Src | N = LEI (Legal Entity Identifier) | R | R | R | R |
| | | TrdCaptRpt/RptSide/Pty/ @R | R = 7 | R | R | R | R |
| | | TrdCaptRpt/RptSide/Pty/ @ID | | R | R | R | R |
| 35. | Payer (Floating Rate Leg 1) | Swap/swapstrea/payerPa rtyReference trade/party/partyId trade/party/partyName | | R | N/A | N/A | N/A |
| | | Trade/fra/buyerPartyRefe | | N/A | R | N/A | N/A |

⁹³ The counterparty purchasing the product: e.g. the payer of the fixed price (for a swap), or the payer of the flowing price on the underlying swap (for a put swaption), or the payer of the fixed price on the underlying swap (for a call swaption). Each RptSide will need to have the LEI of the Counterparty in Party Role 7.

⁹⁴ The counterparty offering the product: e.g. the payer of the floating price (for a swap), or the payer of the fixed price on the underlying swap (for a put swaption), or the payer of the floating price on the underlying swap (for a call swaption).

| # | Data Field | FIXML Mapping Fpml Mapping | Supported Enums | IRS | FRA | Cap/ Floor | Swapti on |
|-----|----------------------|--------------------------------|-----------------|-----|-----|---------------|--------------|
| | | rence | | | | | |
| | | trade/party/partyld | | | | | |
| | | trdae/party/partyName | | | | | |
| | | capFloor/capFloorStream | | N/A | N/A | R | N/A |
| | | /payerPartyReference | | | | | |
| | | trade/party/partyld | | | | | |
| | | trade/party/partyName | | | | | |
| | | Trade/swaption/swap/sw | | N/A | N/A | N/A | R |
| | | apstream/payerPartyRefe | | | | | |
| | | rence | | | | | |
| | | trade/party/partyld | | | | | |
| | | trade/party/partyName | | | | | |
| 36. | Payer Leg 2 95 | Swap/swapstrea/payerPa | | R | N/A | N/A | N/A |
| | | rtyReference | | | | | |
| | | trade/party/partyld | | | | | |
| | | trade/party/partyName | | | | | |
| | | Trade/fra/buyerPartyRefe | | N/A | R | N/A | N/A |
| | | rence | | | | | |
| | | trade/party/partyld | | | | | |
| | | trdae/party/partyName | | | | | |
| | | capFloor/capFloorStream | | N/A | N/A | R | N/A |
| | | /payerPartyReference | | | | | |
| | | trade/party/partyld | | | | | |
| | | trade/party/partyName | | | | | |
| | | Trade/swaption/swap/sw | | N/A | N/A | N/A | R |
| | | apstream/payerPartyRefe | | | | | |
| | | rence | | | | | |
| | | trade/party/partyld | | | | | |
| | | trade/party/partyName | | | | | |
| 37. | Day Count Convention | TrdCaptRpt/Instrmt/SecX | | R | N/A | N/A | N/A |
| | | ML/FpML/trade | | | | | |
| | | swap/swapstream//calcul | | | | | |
| | | ationPeriodAmount/ | | | | | |
| | | calculation/dayCountFrac | | | | | |
| | | tion | | | | | 1 |
| | | TrdCaptRpt/Instrmt/SecX | | N/A | R | N/A | N/A |
| | | ML/FpML/trade | | | | | |
| | | fra/dayCountFraction | | | | | 1 |
| | | TrdCaptRpt/Instrmt/SecX | | N/A | N/A | R | N/A |
| | | ML/FpML/trade | | | | | |
| | | /capFloor/capFloorStrea | | | | | |
| | | m/ /calculationPeriodAmount | | | | | |
| | | / | | | | | |
| | | calculation/dayCountFrac tion | | | | | |
| | | TrdCaptRpt/Instrmt/SecX | | N/A | N/A | N/A | R |

⁹⁵ This is the payer associated with the second leg. While Part 45 only needs the payer associated with the floating leg, the message structure requires a payer be associated with both legs.
Trade Reporting API for IRS - FIXML w/ embedded FpmI Message Specification

| # | Data Field | FIXML Mapping Fpml Mapping | Supported Enums | IRS | FRA | Cap/ Floor | Swapti on |
|-----|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----|-----|---------------|--------------|
| | | ML/FpML/trade /swaption/swap/swapstre am//calculationPeriodAm ount/ calculation/dayCountFrac tion | | | | | |
| 38. | Settlement Currency ⁹⁶ | Swap/swapstream/settle mentProvision/settlement Currency | | 0 | N/A | N/A | N/A |
| 39. | Notional amount 1 (for Currency1) | TrdCaptRpt/Instrmt/SecX ML/FpML/trade /swap/swapStream/ calculationPeriodAmount/ calculation/notionalSched ule/notionalStepSchedule /initialValue | | R | N/A | N/A | N/A |
| | | TrdCaptRpt/Instrmt/SecX ML/FpML/trade /fra/notional/amount | | N/A | R | N/A | N/A |
| | | TrdCaptRpt/Instrmt/SecX ML/FpML/trade /capFloor/capFloorStrea m/ calculationPeriodAmount/ calculation/notionalSched ule/notionalStepSchedule /initialValue | | N/A | N/A | R | N/A |
| | | TrdCaptRpt/Instrmt/SecX ML/FpML/trade /swaption/swap/swapStre am/ calculationPeriodAmount/ calculation/notionalSched ule/notionalStepSchedule /initialValue | | N/A | N/A | N/A | R |
| 40. | Notional Currency 1 | TrdCaptRpt/Instrmt/SecX ML/FpML/trade /swap/swapStream/ calculationPeriodAmount/ calculation/notionalSched ule/notionalStepSchedule /currency | | R | N/A | N/A | N/A |
| | | TrdCaptRpt/Instrmt/SecX ML/FpML/trade Fra/notional/currency | | N/A | R | N/A | N/A |
| | | TrdCaptRpt/Instrmt/SecX ML/FpML/trade /capFloor/capFloorStrea | | N/A | N/A | R | N/A |

| # | Data Field | FIXML Mapping Fpml Mapping | Supported Enums | IRS | FRA | Cap/ Floor | Swapti on |
|-----|------------------------------------|----------------------------------------------------------------------------------------------------|-----------------|------------------|-----|---------------|--------------|
| | | m/ calculationPeriodAmount/ calculation/notionalSched | | | | | |
| | | ule/notionalStepSchedule /currency | | | | | |
| | | TrdCaptRpt/Instrmt/SecX ML/FpML/trade | | N/A | N/A | N/A | R |
| | | /swaption/swap/swapStre am/ | | | | | |
| | | calculationPeriodAmount/ calculation/notionalSched ule/notionalStepSchedule /currency | | | | | |
| 41. | Notional amount 2 (for Currency 2) | TrdCaptRpt/Instrmt/SecX ML/FpML /trade/swap/swapStream/ | | C ⁹⁷ | N/A | N/A | N/A |
| | | calculationPeriodAmount/ calculation/notionalSched ule/notionalStepSchedule /initialValue | | | | | |
| | | TrdCaptRpt/Instrmt/SecX ML/FpML/trade /swaption/swap/swapStre am/ | | N/A | N/A | N/A | R |
| | | calculationPeriodAmount/ calculation/notionalSched ule/notionalStepSchedule /initialValue | | | | | |
| 42. | Notional Currency 2 ⁹⁸ | TrdCaptRpt/Instrmt/SecX ML/FpML/trade /swap/swapStream/ | | C _{aa} | N/A | N/A | N/A |
| | | calculationPeriodAmount/ calculation/notionalSched ule/notionalStepSchedule /currency | | | | | |
| | | TrdCaptRpt/Instrmt/SecX ML/FpML/trade /swaption/swap/swapStre | | N/A | N/A | N/A | R |
| | | am/ calculationPeriodAmount/ calculation/notionalSched ule/notionalStepSchedule | | | | | |
| 43. | Fixed Rate | /currency TrdCaptRpt/Instrmt/SecX ML/FpML/trade /swap/ | | C ¹⁰¹ | N/A | N/A | N/A |
| | | swapStream/calculationP eriodAmount/calculation/ | | | | | |

| # | Data Field | FIXML Mapping Fpml Mapping | Supported Enums | IRS | FRA | Cap/ Floor | Swapti on |
|-----|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|------------------|-----|---------------|------------------|
| | | flxedRateSchedule/initial Value ¹⁰⁰ | | | | | |
| | | TrdCaptRpt/Instrmt/SecX ML/FpML/trade /fra /fixedRate ¹⁰² | | N/A | R | N/A | N/A |
| | | TrdCaptRpt/Instrmt/SecX ML/FpML/trade /swaption/swap/ swapStream/calculationP eriodAmount/calculation/ flxedRateSchedule/initial Value | | N/A | N/A | N/A | C ¹⁰³ |
| 44. | Fixed Rate Schedule | TrdCaptRpt/Instrmt/SecX ML/FpML/trade /swap/ swapStream/calculationP eriodAmount/calculation/ flxedRateSchedule/step/s tepDate ¹⁰⁴ | | O ¹⁰⁵ | N/A | N/A | O ¹⁰⁶ |
| | | TrdCaptRpt/Instrmt/SecX ML/FpML/trade /swap/swapStream/ calculationPeriodAmount/ calculation/notionalSched ule/notionalStepSchedule /stepValue | | | | | |
| | | TrdCaptRpt/Instrmt/SecX ML/FpML/trade /capFloor/ capFloorStream/calculati onPeriodAmount/calculati on/ flxedRateSchedule/initial Value | | N/A | N/A | R | N/A |
| 45. | Float Rate Index | TrdCaptRpt/Instrmt/SecX ML/FpML/trade /swap/swapStream/ calculationPeriodAmount/ calculation/ floatingRateCalculation/fl oatingRateIndex | | C ¹⁰⁷ | N/A | N/A | N/A |
| | | TrdCaptRpt/Instrmt/SecX ML/FpML/trade | | N/A | R | N/A | N/A |

 $^{^{101}}$ Conditionally required if there is a fixed rate leg in the swap 100 Fixed Rate for the Swap

¹⁰² Required for FRAs.

¹⁰³ Conditionally required for the underlying swap if there is a fixed leg.

¹⁰⁴ Notional Schedule for the swap.

¹⁰⁵ This is required only if it an amortization swap.

¹⁰⁶ Will be specified if present in the underlying swap.

| # | Data Field | FIXML Mapping Fpml Mapping | Supported Enums | IRS | FRA | Cap/ Floor | Swapti on |
|-----|----------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----|-----|---------------|------------------|
| | | /fra/floatingRateIndex | | | | | |
| | | TrdCaptRpt/Instrmt/SecX ML/FpML/trade /capFloor /capFloorStream/ calculationPeriodAmount/ calculation/ floatingRateCalculation/fl oatingRateIndex | | N/A | N/A | R | N/A |
| | | TrdCaptRpt/Instrmt/SecX ML/FpML/trade /swaption/swap/swapStre am/ calculationPeriodAmount/ calculation/ floatingRateCalculation/fl oatingRateIndex | | N/A | N/A | N/A | C ¹⁰⁸ |
| 46. | Payment Frequency 1 (Payment Frequency Period ¹⁰⁹) | TrdCaptRpt/Instrmt/SecX ML/FpML/trade /swap/swapStream/paym entDates/ paymentFrequency/perio d | | R | N/A | N/A | N/A |
| 47. | (Payment Frequency Multiplier ¹¹⁰) | TrdCaptRpt/Instrmt/SecX ML/FpML/trade /swap/swapStream/paym entDates/ paymentFrequency/perio dMultiplier | | R | N/A | N/A | N/A |
| | | TrdCaptRpt/Instrmt/SecX ML/FpML/trade /capFloor/capFloorStrea m/paymentDates/ paymentFrequency/perio dMultiplier | | N/A | N/A | R | N/A |
| | | TrdCaptRpt/Instrmt/SecX ML/FpML/trade /swaption/swap/swapStre am/paymentDates/ paymentFrequency/perio dMultiplier | | N/A | N/A | N/A | R ¹¹¹ |
| 48. | Payment Frequency 2 | TrdCaptRpt/Instrmt/SecX ML/FpML/trade /swap/swapStream/paym | | R | N/A | N/A | N/A |

¹⁰⁸ Conditionally required if the underlying swap has a float leg.

¹⁰⁹ The frequency at which regular payment dates occur.

¹¹⁰ A time period multiplier, e.g. 1, 2 or 3 etc. A negative value can be used when specifying an offset relative to another date, e.g. -2 days. If the period value is T (Term) then periodMultiplier must contain the value 1
111 Payment Frequency associated with the underlying swap.

Trade Reporting API for IRS - FIXML w/ embedded Fpml Message Specification 101

| # | Data Field | FIXML Mapping Fpml Mapping | Supported Enums | IRS | FRA | Cap/ Floor | Swapti on |
|-----|-------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|------------------------|------------------|-------------|---------------|------------------|
| | | entDates/ paymentFrequency/perio dMultiplier | | | | | |
| | | TrdCaptRpt/Instrmt/SecX ML/FpML/trade /swaption/swap/swapStre am/paymentDates/ paymentFrequency/perio dMultiplier | | N/A | N/A | N/A | R |
| 49. | Reset Frequency for the | ne 1st Leg of the swap nere is a floating rate index a | esociated with the swa | n Not proc | ont of Eive | od/Eivad S | van) |
| | Reset Frequency 1 (Leg 1) (Reset Frequency Period) ¹¹² | TrdCaptRpt/Instrmt/SecX ML/FpML/trade /swap/swapStream/Reset Dates/ resetFrequency/period | D – Day W – Week | R ¹¹³ | N/A | N/A | N/A |
| | | TrdCaptRpt/Instrmt/SecX ML/FpML/trade /capFloor/capFloorStrea m/ResetDates/ resetFrequency/period | | N/A | N/A | R | N/A |
| | | TrdCaptRpt/Instrmt/SecX ML/FpML/trade /swaption/swap/swapStre am/ResetDates/ resetFrequency/period | | N/A | N/A | N/A | R ¹¹⁴ |
| | Reset Frequency Multiplier (Leg 1) 115 | TrdCaptRpt/Instrmt/SecX ML/FpML/trade /swap/swapStream/Reset Dates/ resetFrequency/periodMu Itiplier | | R ¹¹⁶ | N/A | N/A | N/A |
| | | TrdCaptRpt/Instrmt/SecX ML/FpML/trade /capFloor/capFloorStrea m/ResetDates/ resetFrequency/ periodMultiplier | | N/A | N/A | R | N/A |
| | | TrdCaptRpt/Instrmt/SecX | | N/A | N/A | N/A | R ¹¹⁷ |

¹¹² The frequency at which resets occur.

¹¹³ Required if there is a floating leg in the swap.

114 Conditionally required of the underlying swap has a floating leg.

¹¹⁵ A time period multiplier, e.g. 1, 2 or 3 etc. A negative value can be used when specifying an offset relative to another date, e.g. -2 days. If the period value is T (Term) then periodMultiplier must contain the value 1

¹¹⁶ Required if there is a floating leg in the swap.

| # | Data Field | FIXML Mapping Fpml Mapping | Supported Enums | IRS | FRA | Cap/ Floor | Swapti on | | |
|-----|------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|------------------|-----|---------------|------------------|--|--|
| | | ML/FpML/trade /swaption/swap/swapStre am/ResetDates/ resetFrequency/ periodMultiplier | | | | | | | |
| | Reset Frequency Day (Leg 1) ¹¹⁸ | TrdCaptRpt/Instrmt/SecX ML/FpML/trade /swap/swapStream/Reset Dates/ resetFrequency/weeklyR ollCOnvention | MON TUE WED THU FRI SAT SUN | C ¹¹⁹ | N/A | N/A | N/A | | |
| | | TrdCaptRpt/Instrmt/SecX ML/FpML/trade /capFloor/capFloorStrea m/ResetDates/ resetFrequency/ weeklyRollCOnvention | | N/A | N/A | R | N/A | | |
| | | TrdCaptRpt/Instrmt/SecX ML/FpML/trade /swaption/swap/swapStre am/ResetDates/ resetFrequency/ weeklyRollCOnvention | | N/A | N/A | N/A | R ¹²⁰ | | |
| 50. | Reset Frequency for the 2 nd Leg of the swap (This is only present if the 2 nd leg laso has a floating rate index) | | | | | | | | |
| | (This is only present if the Reset Frequency (leg 2) (Reset Frequency Period) 121 | TrdCaptRpt/Instrmt/SecX ML/FpML/trade /swap/swapStream/Reset Dates/ resetFrequency/period | rate index) D - Day W - Week M - Month Y - Year T - Term (staring on the effective date and ending on the termination date) | R ¹²² | N/A | N/A | N/A | | |
| | | TrdCaptRpt/Instrmt/SecX ML/FpML/trade /capFloor/capFloorStrea m/ResetDates/ resetFrequency/period | , | N/A | N/A | R | N/A | | |
| | | TrdCaptRpt/Instrmt/SecX ML/FpML/trade /swaption/swap/swapStre | | N/A | N/A | N/A | R ¹²³ | | |

¹¹⁸ The day of the week on which a weekly reset date occurs. This element must be included if the reset frequency is defined as

¹¹⁹ Conditionally required if the reset frequency period is a week.

¹²⁰ Conditionally required of thereset frequency period is a week for the underlying swap.

¹²¹ The frequency at which resets occur.

¹²² Required if there is a floating leg in the swap.

| | FIXML Mapping Fpml Mapping | Supported Enums | IRS | FRA | Cap/ Floor | Swapti on |
|------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| | am/ResetDates/ resetFrequency/period | | | | | |
| Reset Frequency Multiplier (Leg2) 124 | TrdCaptRpt/Instrmt/SecX ML/FpML/trade /swap/swapStream/Reset Dates/ resetFrequency/periodMu Itiplier | | R ¹²⁵ | N/A | N/A | N/A |
| | capFloor/capFloorStream /ResetDates/ resetFrequency/ periodMultiplier | | N/A | N/A | R | N/A |
| | swaption/swap/swapStre am/ResetDates/ resetFrequency/ periodMultiplier | | N/A | N/A | N/A | R ¹²⁶ |
| Reset Frequency Day (Leg 2) 127 | swap/swapStream/Reset Dates/ resetFrequency/weeklyR ollCOnvention | MON TUE WED THU FRI SAT SUN | C ¹²⁸ | N/A | N/A | N/A |
| | capFloor/capFloorStream /ResetDates/ resetFrequency/ weeklyRollCOnvention | | N/A | N/A | R | N/A |
| | swaption/swap/swapStre am/ResetDates/ resetFrequency/ | | N/A | N/A | N/A | R ¹²⁹ |
| Options Strike | TrdCaptRpt/Instrmt/SecX ML/FpML/trade /capFloor/ capFloorStream/calculati onPeriodAmount/calculati on/ floatingRateCalculation/c apRateSchedule/initialVal ue TrdCaptRpt/Instrmt/SecX | | N/A | N/A | R | N/A |
| | Reset Frequency Day (Leg 2) 127 | Reset Frequency Multiplier (Leg2) 124 Reset Frequency Multiplier (Leg2) 124 Multiplier (Leg2) 124 Reset Frequency Multiplier (Leg2) 124 Reset Frequency/periodMultiplier capFloor/capFloorStream /ResetDates/ resetFrequency/ periodMultiplier swaption/swap/swapStre am/ResetDates/ resetFrequency/ periodMultiplier Reset Frequency Day (Leg 2) 127 CapFloor/capFloorStream /ResetDates/ resetFrequency/ weeklyRollCOnvention swaption/swap/swapStre am/ResetDates/ resetFrequency/ weeklyRollCOnvention TrdCaptRpt/Instrmt/SecX ML/FpML/trade /capFloor/ capFloorStream/calculati on/PeriodAmount/calculati on/ floatingRateCalculation/c apRateSchedule/initialVal ue | Reset Frequency, Multiplier (Leg2) 124 Multiplier (Leg2) 125 Reset Frequency/periodMultiplier (application) Reset Frequency Dates/ resetFrequency/periodMultiplier swaption/swap/swapStre am/ResetDates/ resetFrequency/periodMultiplier swaption/swap/swapStre am/ResetDates/ resetFrequency/periodMultiplier swap/swapStream/Reset Dates/ resetFrequency/weeklyR ollCOnvention TUE WED THU FRI SAT SUN CapFloor/capFloorStream /ResetDates/ resetFrequency/ weeklyRollCOnvention swaption/swap/swapStre am/ResetDates/ resetFrequency/ weeklyRollCOnvention TrdCaptRpt/Instrmt/SecX ML/FpML/trade /capFloor/ capFloorStream/calculation/floatingRateCalculation/c apRateSchedule/initialVal ue TrdCaptRpt/Instrmt/SecX | Reset Frequency Multiplier (Leg2) 124 Multiplier (Leg2) 124 ML/FpML/trade /swap/swapStream/Reset Dates/ resetFrequency/periodMultiplier capFloor/capFloorStream /ResetDates/ resetFrequency/ periodMultiplier Reset Frequency Day (Leg 2) 127 Reset Frequency Day (Leg 2) 127 CapFloor/capFloorStream/Reset Dates/ resetFrequency/ periodMultiplier swap/swapStream/Reset Dates/ resetFrequency/ periodMultiplier Swap/swapStream/Reset Dates/ resetFrequency/weeklyR ollCOnvention MON TUE WED THU FRI SAT SUN CapFloor/capFloorStream /ResetDates/ resetFrequency/ weeklyRollCOnvention swaption/swap/swapStre am/ResetDates/ resetFrequency/ weeklyRollCOnvention Options Strike TrdCaptRpt/Instrmt/SecX ML/FpML/trade /capFloor/ capFloor/stream/calculati on/ floatingRateCalculation/c apRateSchedule/initialVal ue TrdCaptRpt/Instrmt/SecX | Reset Frequency Multiplier (Leg2) 124 TrdCaptRpt/Instrmt/SecX MU/FpML/trade /swap/swapStream/Reset Dates/ resetFrequency/periodMultiplier CapFloor/capFloorStream /ResetDates/ resetFrequency/periodMultiplier swaption/swap/swapStre am/ResetDates/ resetFrequency/periodMultiplier swaption/swap/swapStre am/ResetDates/ resetFrequency/periodMultiplier swaps/swapStream/ResetDates/ resetFrequency/periodMultiplier Swaps/swapStream/ResetDates/ resetFrequency/weeklyR OlCOnvention ThU | Reset Frequency Multiplier (Leg2) 124 |

¹²⁴ A time period multiplier, e.g. 1, 2 or 3 etc. A negative value can be used when specifying an offset relative to another date, e.g. -2 days. If the period value is T (Term) then periodMultiplier must contain the value 1

¹²⁵ Required if there is a floating leg in the swap.

¹²⁶ Conditionally required of the underlying swap has a floating leg.

¹²⁷ The day of the week on which a weekly reset date occurs. This element must be included if the reset frequency is defined as weekly

¹²⁸ Conditionally required if the reset frequency period is a week.

¹²⁹ Conditionally required of thereset frequency period is a week for the underlying swap.

| ŧ | Data Field | FIXML Mapping Fpml Mapping | Supported Enums | IRS | FRA | Cap/ Floor | Swapti on |
|-----|---------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|-----|-----|-------------------------|--------------|
| | | /capFloor/ capFloorStream/calculati onPeriodAmount/calculati on/ floatingRateCalculation/fl oorRateSchedule/initialV alue | | | | | |
| 52. | Option type | Swaption/optionType swaptionStraddle | Put Call Payer Receiver Straddle | | | | |
| 53. | Option Exercise Style | Swaption/americanExerci se Swaption/EuropeanExerc | | N/A | N/A | N/A C ¹³⁰ | R |
| | | Swaption/bermudaExerci se | | | | | |
| 54. | Option premium | swaption/premium/payme ntAmount/amount | | N/A | N/A | N/A | R |
| | | capFloor/premium/payme ntAmount/amount | | N/A | N/A | R | N/A |
| | Option Premium currency | swaption/premium/payme ntAmount/currency | | N/A | N/A | N/A | R |
| | | capFloor/premium/payme ntAmount/currency | | N/A | N/A | R | N/A |
| 55. | Clearing indicator | TrdCaptRpt/@ClrIntntn | 0 = Do not Intend to clear 1 = Intend to clear | R | R | R | |
| 56. | Clearing Venue ¹³¹ | TrdCaptRpt/Pty/@R | 21 = Clearing Org | С | С | С | |
| | | TrdCaptRpt/Pty/@ID | | | | | |
| | | TrdCaptRpt/Pty/@Src | N = LEI | | | | |
| 57. | Clearing Exemption Indicator ¹³² | TrdCaptRpt/@ClrRegmtE xcptn | | С | С | С | |
| 58. | Clearing Exemption Counterparty ¹³³ | TrdCaptRpt/RptSide/Pty/ @Src | N = LEI (Legal Entity Identifier) | R | R | R | |
| | | TrdCaptRpt/RptSide/Pty/ @R | R = 7 | R | R | R | |
| | | TrdCaptRpt/RptSide/Pty/ @R | | R | R | R | |

¹³⁰ Conditionally required for embedded options

¹³¹ The clearing venue is conditionally required if the trade will be cleared at a different DCO. This will carry the identity of the DCO where the trade will be cleared

 $^{^{132}}$ If the swap will not be cleared, an indication of whether the clearing requirement exception in CEA § (2)(h)(7) was elected

¹³³ The identity of the counterparty electing the clearing requirement exception in CEA § (2)(h)(7)

| # | Data Field | FIXML Mapping Fpml Mapping | Supported Enums | IRS | FRA | Cap/ Floor | Swapti on |
|-----|--------------------------------|-------------------------------------|----------------------------------------------------------------------------------------------------------|------------------|-----|---------------|--------------|
| | | TrdCaptRpt/RptSide/Pty/ Sub/@Typ | Typ= 50 – Elected Clearing Exemption | C ¹³⁴ | С | С | |
| 59. | Collateralization Indicator | TrdCaptRpt/ @TrdCollzTn | 0 = Uncollateralized 1 = Partially Collateralized 2 = One-way Collateralization 3 = Fully collateralized | C ¹³⁵ | С | С | |

 $^{^{134}}$ Conditionally required if the clearing exemption is set to Y 135 Conditionally required for tardes that will not be cleared or trades cleared at a different DCO.

9 Appendix A

9.1 Component Definitions used in FIXML Messages

9.1.1 Instrument Component

| Field Name | FIXML Attribute Name | Data Type | Description | Supported Enums |
|----------------------------|-------------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Security Type | SecTyp | String | Indicates type of instrument or security being traded or defined. It is required on inbound trade submissions and is used as one of the identifiers of the instrument. This is required because the usage of CFI code is in the process of being deprecated | IRS = Interest Rate Swap FRA = Forward Rate Agreement CAP = Interest Rate Cap FLR = Interest Rate Floor SWAPTION = Swaption |
| Security Sub Type | SubTyp | String | | Straddle Strangle Collar Butterfly |
| Asset Class | AssetClss | Int | The broad asset category for assessing risk exposure. | 1 = Interest Rate 2 = Currency 3 = Credit 4 = Equity 5 = Commodity |
| Asset Sub Class | AssetSubClss | Int | The subcategory description of the asset class. | 1 = Single Currency Swap 2 = Cross Currency Swap |
| Swap Classification | SwapClss | String | The classification or type of swap | BB = Broad-based security swap BS = Basis Swap IX = Index Swap SK = Basket Swap |
| Swap Sub Classification | SwapSubClss | String | A sub classification of the Swap classification | AMTZ = Amortizing COMP = Compounding |
| Product Exchange | Exch | Exchange | The exchange where the Security is listed. | CME |