

# UBS Fx2B Liquidity API

## FIX Interface - Rules of Engagement

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# 1. Introduction

## 1.1 Revision

Version	Date	Remarks
1.0	22 March 2007	First draft, for internal review
1.1	26 March 2007	Updated section 4.9 after feedback from Daniel Bader.
1.2	30 May 2007	Updated section 4.5 with details of additional scenario for sending MarketDataRequestReject. Updated Section 7.4 clarified accepted values of tag 453 of NewOrderSingle message. Added Section 8, example message sequences.
1.3	07 June 2007	Fixed mistake in section 4.9.1. (OrdType field is tag 40, not tag 38 as previously stated.)
1.4	26 July 2007	Updated section 7.4: Definition of NewOrderSingle message now includes HandlInst field (tag 21), which is mandatory in FIX4.3 specification. Updated example messages in section 8.6 accordingly. Updated section 7.3. to add clarification that the value of field 271(MDEntrySize), may be zero. Updated section 7.5. Corrected mistake in description of field 151 (LeavesQty). This will additionally be zero when OrdStatus field has the value Cancelled(4).
1.5	27 August 2007.	Updated section 7.1: Allow new optional field: MDEntrySize 271 in Market Date Request message. Updated section 4.9.1 & 7.4 to clarify interpretation of Side(54) in New Order Single message.
1.6	8 October 2007	Updated section 7 to include additional fields to support streaming FX Forwards. Updated section 4.13 to clarify message resend handling.
1.7	2 November 2007	Updated sections 2.3, 4.8 and 7 to include additional messages to support Request-for-Quote for FX Forwards.
1.8	12 December 2007	Updated section 4.13 to document scheduled sequence number reset.
1.9	22 February 2008	Updated Section 7.8: field 64 (FutSettDate) is now provided in Execution Reports for FX Spot if the report is for a fill or partial fill.
1.9.1	15 April 2009	Corrected typo in section 8.5: Example unsubscription message should use same MDReqId 262, as original subscription request.
1.10	24-July-2009	Updated sections 2.1, 4.8, 7 to include support Request-for-Quote for FX Spot and FX Swap.
1.10.1	21 August 2009	Updated RFQ to reflect mandatory use of Parties group if using enhanced RFQ
1.10.2	3 September 2009	Updated Execution Report section to fix typo and add missing swaps related attributes
1.11	16 March 2010	Updated tenor code lists
1.12	23 August 2010	Added MDReqID(optional) to "New order – Single Message". "MarketDatarequestReject" as unsubscribe confirmation.
1.13	16 September 2010	Updated section 7.1 to include <Parties> block for stamm-based subscriptions
1.13.1	5 November 2010	Updated section 7.7 to state that MDReqID is required on the order if multiple amounts are subscribed for the same instrument.
1.14	1 December 2010	Added Volatility Quote messages to UBS.
1.15	5 January 2011	Updated for average limit price and strict limit plus minor correction (Quote ValidUntilTime).
1.16	21 January 2011	Updates to Volatility Quote messages to UBS.
1.17	26 <sup>th</sup> May 2011	Minor corrections

1.18	16 <sup>th</sup> Oct 2012	Corrected typographical in Section 8.4, error affecting order of tags in example message.
1.19	23 <sup>rd</sup> Nov 2012	Added USI fields to NewOrderSingle and Execution Report.
1.20	28 <sup>th</sup> May 2013	Clarify requirement to (not) have a market data subscription when trading market or limit orders in Section 4.10.2.
1.21	7 <sup>th</sup> Feb 2014	Corrected USI field ordering of tag name for Far Leg in NewOrderSingle specification.
1.22	6 <sup>th</sup> Jan 2015	Added Instrument block for PM, updated tenor and settlement date MD subscription. Add valid unit time to Quote.
1.23	10 Sep 2015	Removed Volatility Quote, added Currency 15 to Market data request, added Request for Stream.
1.24	29 <sup>th</sup> Dec 2015	Added pre-trade allocations
1.25	25 <sup>th</sup> Apr 2016	Additional tenor codes
1.26	13 <sup>th</sup> Jun 2016	NDF Fixing information (on request)
1.27	26 <sup>th</sup> Aug 2016	Additional fields for pre-trade allocations to support swaps
1.28	1 <sup>st</sup> Nov 2016	Additional fields in Instrument block to support onshore currencies
1.29	4 <sup>th</sup> Jan 2017	Extra detail around which business messages are supported on which FIX sessions
1.30	5 <sup>th</sup> Jun 2017	Support for Non-Deliverable Swap in quote and order requests.
1.31	15 <sup>th</sup> Sep 2017	Support for requesting fixing procedure in market data, quote and order requests (an option for ND crosses)
1.32	18 <sup>th</sup> Sep 2017	Added tags for MiFID II
1.33	15 <sup>th</sup> Oct 2017	Updated tags for MiFID II
1.34	16 <sup>th</sup> Nov 2017	Updated Execution Decision Maker (MiFID II tag), added QuoteType for RFS Quotes and support for Swaps Market Orders.
1.35	11 <sup>th</sup> Dec 2017	Updated comments around USITradeld and MiFID Transaction Reference Number and added Appendix 7.18
1.36	19 <sup>th</sup> March 2018	Added clarifications around FX swap pricing and execution in Appendix 7.18. Moved external references to Appendix 7.19.
1.37	8 <sup>th</sup> June 2018	Added optional "Number of Competitors" tag to QuoteRequest and NewOrderSingle messages
1.38	19 <sup>th</sup> November 2018	Accept "Customer Account" PartyRole on incoming orders, remove possibility of decimal partial fills and update INR fixing conditions from RBIB to FBIL
1.39	10 <sup>th</sup> January 2019	Added appropriate footnotes to clarify that Non Deliverable Swaps requests with allocations are not supported.
1.40	4 <sup>th</sup> February 2019	Added support for Execution Report Acknowledgments from venues. Added tag for overall swap TVTIC. Added tag for MIC code at RFQ level.
1.41	17 <sup>th</sup> February 2019	Updated order execution acknowledgement description and removed unwanted ExecType & OrdStatus from Execution Report Acknowledgement
1.42	26 <sup>th</sup> March 2019	Removed mic code from Quote Messages
1.43	5 <sup>th</sup> Dec 2019	Corrected specs for PartyRoleQualifier
1.44	11 <sup>th</sup> May 2020	Added UTC time zone clarification to TransactTime
1.45	25 <sup>th</sup> September 2020	General formatting updates Updated paragraph 4.7 Unsubscription Updated 268 NoMDEntries Block for Market Data – Snapshot/Full Refresh Message [Market Data session] Updated tag 448 for New Order – Single Message [Order Placement session] Removed footnote from New Order – Single Message [Order Placement session], [Component Block – <Allocations>] Updated description for Execution Report Message [Order Placement session], [Component Block – <Allocations>]
1.46	14 <sup>th</sup> March 2022	Updated Chapter 7 "Business Message Definitions" to include a note on standardization of reject codes.
1.47	28 <sup>th</sup> November 2022	Updated Section 7.4 Quote Request Message [Order Placement session], tag 452 accepts value 11 (Order Origination Trader)

## **1.2 Purpose**

This document is provided as a guide for clients, as to how the FIX Protocol may be used to establish connectivity with UBS for the purposes of Foreign Exchange trading.

It is intended as a supplement to the published FIX Protocol Specification, which may be found at <http://www.fixprotocol.org>.

## **1.3 Content**

Included in this document are the following:

- General definitions and specifications for clients using FIX to transmit orders to UBS
- FIX message formats to be used and details of their expected parameters.

## **1.4 Feedback**

Feedback and questions on any of the issues covered by this document are of course welcome.

If you have any queries or suggestions for improvement regarding any of the contents, then please discuss this with your UBS account manager.

## 2. Overview

### 2.1 Scope

The UBS Fx2B FIX Interface supports the following functionality:

1. Subscription to dealable streaming FX rates for multiple instruments.
2. FX Spot, Forward Outright, NDF and FX Swap order submission
3. Provision of order execution notifications.

### 2.2 FIX Protocol version

The UBS Fx2B FIX Interface is based upon the FIX version 4.3 protocol, with some minor extensions. These extensions (which take the form of some additional message fields and values) have been taken from the set defined in later FIX versions, typically the FIX Foreign Exchange Extension Pack in FIX 5.0, rather than using completely bespoke values. For clarity, such non-standard fields are displayed using a shaded background in the message definitions.

## 2.3 Supported Message Set

The supported message set is as follows:

### 2.3.1 Business Messages

Direction	Message Name	FIX Code	Purpose
In	Market Data Request	V	Subscription and unsubscription to/from FX Spot or Forward price streams
Out	Market Data Request Reject	Y	To reject a price subscription / unsubscription
Out	Market Data – Snapshot/Full Refresh	W	To provide streaming FX Spot or Forward price information
In	Quote Request	R	To request a quote for an FX Forward price
Out	Quote	S	To provide a quoted price for an FX Forward.
Out	Quote Request Reject	AG	To reject a quote request
In	New Order – Single	D	To submit orders to UBS
Out	Execution Report	8	To provide notification of: order acceptance, rejected orders, order fills & partial fills & order cancellations.
In	Execution Report Acknowledgement	BN	To provide notification that an electronically received execution on venue has either been accepted or rejected.
In	Don't Know Trade	Q	Used by the client to indicate a problem with an order fill notification.
Out	Business Message Reject	j	Used to reject an invalid Don't Know Trade message
In and Out	Quote Cancel	Z	Used by client to cancel RFS stream Used by UBS to indicate end of RFS stream

### 2.3.2 Session level Messages

Direction	Message Name	FIX Code	Purpose
In, Out	Logon	A	Establish connection, trigger message sequence number reset.
In, Out	Heartbeat	0	Monitor connection status
In, Out	TestRequest	1	Inquire connection status
In, Out	ResendRequest	2	Fill in message gaps
In, Out	Reject	3	Reject a single invalid message
In, Out	Sequence Reset	4	Resynchronize sequence numbers
In, Out	Logout	5	Disconnect

## 3. Connectivity

### 3.1 Secure Connectivity

The UBS Fx2B FIX Interface supports secure connectivity over the internet , co-located cross connects and leased line.

In order to simplify configuration, both client's and UBS' FIX engines communicate using plain, unencrypted TCP sockets.

Secure connectivity is achieved using a separate product running at both client's & UBS' sites to "tunnel" the plain TCP connection used by the FIX engines over a secure, encrypted SSL connection.

At the application level, the encrypted connection is transparent to the FIX engines; hence they require no special SSL configuration.

The SSL-tunneling functionality is provided by a freely-available open source product, for which UBS provides the necessary setup and configuration details.

This configuration is conceptually similar to using a simplified VPN (Virtual Private Network), but requires only minimal configuration and zero cost.

### 3.2 Failover

The UBS Fx2B FIX Interface is implemented upon a fault-tolerant cluster using a virtual external IP address. In the event of system failure within UBS, clients could be temporarily disconnected, but after a short interval will be able to reconnect using the same connection details; i.e. there is no requirement for clients to reconfigure before reconnecting in the event of a failover.

In accordance with the FIX specification, messages are persisted by the UBS FIX Server and are available for resend after an outage, using the standard FIX recovery procedures.

## 4. FIX Implementation

### 4.1 Message Formats

This document defines the set of supported messages, the expected fields to be contained in those messages and the range of accepted values which the fields may take.

The UBS Fx2B FIX Interface will ignore any messages that it receives which are not in the supported message set.

Messages not adhering to the specified format, containing fields with values outside the set defined here or containing any additional fields other than those defined in this document will be rejected.

### 4.2 FIX Message Encryption

Encryption of FIX messages themselves is not supported. Instead the secure network connection is used to guarantee data security.

### 4.3 Connection / Disconnection

#### 4.3.1 Connection

Connection to the system is initiated by the client issuing a FIX Logon message. The message must contain the password that has been issued to the client by UBS.

If the connection can be accepted, then UBS will send a Logon message as acknowledgement.

Any FIX messages received before the Logon is sent as acknowledgement will be ignored.

In the event of an incorrect password being specified, a Logout message containing an error message will be sent in response, and then the connection will be terminated immediately by UBS.

#### 4.3.2 Disconnection

Closing of a connection to the system is initiated by sending a Logout message to the other party. This should then be acknowledged by the other party by replying with a Logout message. Either the client or UBS may initiate disconnection.

### 4.4 Session Management

If agreed with UBS, support can be provided for a client to have multiple concurrent FIX connections to UBS. This may be used, for example to provide market data over a separate connection from order requests and notifications.

In this event, UBS will allocate the client a unique "SenderCompID" value for each concurrent connection that they wish to establish. This value must be included in the FIX message header of each FIX message sent.

Each connection will be designated as either for market data or order placement. The sections below detail which session type the various messages types can be sent/received on. Responses to any FIX request message will be sent over the same connection upon which the request was received.

#### **4.5 Streaming Price Subscription [Market Data session]**

Subscription to an instrument's price stream is achieved by the client issuing a Market Data Request message for the instrument, with the "SubscriptionRequestType" field set to 1 (subscribe).

For simplicity, UBS supports just a single instrument in each market data request, hence separate Market Data Requests should be sent in order to subscribe to multiple instruments.

Market Data Requests which contain more than one instrument will be rejected.

The number of liquidity bands to which the client wishes to subscribe must be specified in the Market Data Request message, using the "MarketDepth" field. If zero, or a number of bands exceeding that supported by UBS, is specified for the value of this field; then the maximum number of bands supported by UBS will be published.

If the subscription cannot be accepted for any reason, then UBS will reply with a Market Data Request Reject message, which will provide the reason for the subscription failure.

If the subscription is successful, then UBS will begin sending price data using Market Data Snapshot/Full Refresh messages. These will continue to be sent until unsubscription is requested, or the connection is closed.

In the scenario where there is no liquidity for a particular subscription, you can receive an indicative Market Data Snapshot/Full Refresh message with MDEntrySide set to 0 on one or both sides. There may also be cases where UBS is unable to generate a live price in which case you will not receive further price updates.

If, after a successful subscription, the supply of price data cannot be continued for any reason, UBS will send a Market Data Request Reject message, to notify the client that the subscription has terminated.

Note that under some circumstances, subscriptions to FX Forward prices may be allowed for limited durations. Should such a subscription's expire or become invalid; UBS will send a Market Data Request Reject message to indicate this. The client should clarify any such restrictions with their UBS Account Manager.

If the connection is closed for any reason, subscriptions need to be re-requested to start the sending of price updates after reconnecting to the system.

Note that, if multiple subscription requests are submitted in rapid succession, there is no guarantee that any reject responses to these requests will be sent back to the client in the same order.

#### **4.6 Streaming Price Updates [Market Data session]**

Price updates are sent using Market Data Snapshot/Full Refresh Messages, each containing the price information for a single instrument.

Each message typically contains a series of bid and ask rates for a range of liquidity bands as requested in the Market Data Request.

Since each update is a full refresh, the set of prices provided in a message should be considered to replace all previous prices supplied for the instrument.

#### **4.7 Unsubscription [Market Data session]**

To unsubscribe from a price stream, the client should send a further Market Data Request message for the instrument, with the "SubscriptionRequestType" field set to 2 (unsubscribe). The message should contain ccy pair, tenor, MDReqID and amount (if applicable).

If the message is successfully processed a confirmation in the form of a Market Data Request Reject with a text of "The unsubscription was requested by the client." is sent. Following that no further market data messages will be sent to the client for the specified instrument, until the client re-subscribes to that instrument.

If such a message is sent when the client is not currently subscribed, then the message will be rejected by issuing a Market Data Request Reject message.

#### **4.8 Request for Quote [Order Placement session]**

As an alternative to a streaming price subscription, a "Request for Quote" (RFQ) model is supported for FX Spot, FX Forward Outright, NDF & FX Swaps<sup>1</sup>.

To request a quote, the client may send a Quote Request message.

If the quote request cannot be accepted for any reason, then UBS will reply with a Quote Request Reject message, which will provide the reason for the failure.

If the request is accepted, then UBS will send a single Quote message containing dealable prices for the requested instrument.

#### **4.9 Request for Stream [Order Placement session]**

Request for Stream (RFS) allows clients to receive Quotes for a specified duration of time. This model is supported for FX Spot, FX forward Outright, NDF and FX Swaps<sup>1</sup>.

To request an RFS, the client can set Expire Time on Quote Request message.

If the request is accepted, then UBS will begin sending dealable prices using Quote messages. These will continue until the time Expire Time on the Quote messages. Note, Expire Time on Quote may not match the Expire Time on the Quote Request as UBS may choose a shorter duration for the stream as compared to the requested duration.

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<sup>1</sup> Non Deliverable Swaps requests with allocations are not supported.

The client can cancel an RFS session by using a Quote Cancel message with QuoteCancelType = 4.

At the end of the RFS stream UBS will send Quote Cancel message with QuoteCancelType = 4.

#### 4.10 Price Conventions

##### 4.10.1 "Quote Units"

Prices published over the FIX Interface are quoted in normalized form, in accordance with the FIX convention, rather than being scaled by a "quote unit" factor, as is often the case for market quoted prices.

For example a JPY/CHF rate is quoted in the form "0.010343", *not* as "1.0343" with an implied quote unit of 100.

Prices specified on orders placed by the client must follow the same convention.

##### 4.10.2 Decimal Places

The number of decimal places given in published prices and honoured upon prices on submitted orders will be configured by agreement between the client and UBS.

#### 4.11 Order Submission [Order Placement session]

In order to place an order the client should submit a New Order – Single message.

##### 4.11.1 Order Side

The side (buy/sell) of the order as specified by the "Side<54>" field is interpreted as being:

- a) from the client's (rather than UBS's) perspective
- b) relating to the currency in which the order quantity is specified (as defined by the Currency<15> field.)

e.g.

Symbol<55>=USD/JPY, Side<54>=1(buy), OrdQty<38>=113000000, Currency<15>=JPY  
 would be interpreted as an order for the client to buy 113M JPY for USD

whilst:

Symbol<55>=USD/JPY, Side<54>=1(buy), OrdQty<38>=1000000

or

Symbol<55>=USD/JPY, Side<54>=1(buy), OrdQty<38>=1000000, Currency<15>=USD  
 would be interpreted as orders for the client to buy 1M USD for JPY.

##### 4.11.2 Order Types & Execution Strategies

The order type and execution strategy to be used are specified using combinations of the "OrdType" and "TimelnForce" fields. The set of supported execution strategies, along with the restrictions that they impose on other fields, are summarized in the following table:

Execution Strategy	OrdType(40)	TimelnForce(59)	Notes.
FILL OR KILL (limit)	2 = Limit	4 = Fill or Kill	Price (44) must be set.
FILL AND KILL (limit)	2 = Limit	3 = Immediate or Cancel	

			This will be interpreted as the limit price of the Order.
FILL OR KILL (quote)	D = Previously Quoted	4 = Fill or Kill	Price (44) and QuoteID (117) must be specified. The quote id must be valid and the price must match that of the issued quote.
FILL AND KILL (quote)	D = Previously Quoted	3 = Immediate or Cancel	
FILL AT BEST OR KILL	1 = Market	4 = Fill or Kill	
FILL AT BEST AND KILL	1 = Market	3 = Immediate or Cancel	

Other combinations of the "OrdType" and "TimelnForce" fields are not supported and will result in rejection of the order.

It is not necessary to have a market data subscription in order to submit Limit or Market orders. However, market data subscriptions are useful in order to understand if, and at approximately what price, orders might be executed.

#### 4.11.3 Trader / Counterparty Identification

The "Parties" component/repeating block of the New Order – Single message is used to hold details of both counterparty and trader.

This block should *always* contain one party identifier indicating the counterparty, as below:

PartyID	PartySource	PartyRole
counterparty identifier	D = Proprietary/ Custom code	13 = Order Origination Firm

The appropriate counterparty identifier to be used will be determined by agreement with UBS:

If required, a second party identifier may be specified in order to indicate the trader, as follows:

PartyID	PartySource	PartyRole
trader id	D = Proprietary/ Custom code	11 = Order Origination Trader

Note that, at most one counterparty and one trader may be specified; otherwise the request will be rejected.

#### 4.11.4 Forward orders with spot value date

If an Order is sent as a Forward Outright (461=FFPNO) with a SPOT Settlement Date (64=<SpotDate>), this will be accepted and an Execution report message will be sent for a Forward Outright confirmation. UBS will book this order as SPOT.

### 4.12 Order Execution notifications [Order Placement session]

UBS will send a series of Execution Report messages to the client to provide notification regarding order execution.

Execution Report messages are used to indicate:

- order accepted
- order partially filled
- order filled
- order cancelled

- order rejected

The meaning of the execution report will be indicated by a combination of the “ExecType” and “OrdStatus” fields, as follows:

Meaning	ExecType (150)	OrdStatus (39)
Order Accepted	0= New	0 = New
Order Partially Filled	F = Trade	1 = Partially Filled
Order Filled	F = Trade	2 = Filled
Order Cancelled	4 = Cancelled	4 = Cancelled
Order Rejected	8 = Rejected	8 = Rejected

#### 4.13 Order Execution Acknowledgement [Order Placement session]

If execution took place on a regulated venue and tag 10178 OnVenueExecution is set to 'Y' on the Order submission message, UBS would then await for a new Order Execution Acknowledgement (35=BN) message coming from the relevant venue to consume the final confirmation details, including the venue execution timestamp (tag 60, TransactTime).

#### 4.14 “Don’t Know Trade” messages

If, upon receipt of an Execution Report indicating a fill or partial fill, a serious problem with the trade is identified by the client, then a “Don’t Know Trade” message may be sent to alert UBS to the problem.

The Don’t Know Trade message must indicate the execution report to which it relates, and the nature of the problem.

Note that that this doesn’t cancel the trade, it simply alerts UBS support staff that there is a potential issue, and will trigger a manual investigation. Depending upon the nature of the issue, this may result in the price feed being temporarily suspended.

#### 4.15 Message Sequence Number reset

Two modes of operation for the resetting of FIX message sequence numbers are now supported. These are “scheduled reset” and “client-initiated reset”. The preferred mode of operation should be discussed and agreed with UBS.

##### 4.15.1 Client-Initiated Sequence Number Reset

In client-initiated mode, the client is responsible for triggering the reset of FIX message sequence numbers. This should be performed at least once every 24 hours, unless otherwise agreed with UBS.

In general, sequence number reset should triggered whilst the client is already connected to the system. The FIX 4.3 specification, Volume 2, page 7 outlines the preferred approach (send Test Request message, await Heartbeat message, then send Logon message with the “ResetSeqNumFlag” set to 'Y').

It is also possible to trigger a sequence number reset by setting the `ResetSeqNumFlag` on the Logon message used to initially connect to the system. However, it is strongly recommended that this approach is not used unless the last disconnection from the system was client-initiated and happened cleanly (i.e. a Logout acknowledgement was received from UBS). Otherwise, triggering a sequence number reset whilst reconnecting to the system after an outage will cause any messages that were missed due to the outage to be discarded, and orders or order confirmations could well be lost.

Note that on the market data session, UBS will always reset the sequence number after a disconnection.

#### 4.15.2 Scheduled Sequence Number Reset

In scheduled mode, a time should be agreed with UBS at which the sequence number reset will take place each day. At the agreed time, the UBS FIX server will reset the sequence numbers of (each of) the client's FIX sessions. The client is expected to configure their FIX Server to do the same.

Note that if any sessions are active at the time of reset, then they will first be disconnected by UBS through sending a Logout message.

### 4.16 Message Resend Handling

#### 4.16.1 Possible Resend

Under certain (rare) circumstances the "PossResend" field of the FIX message header may be populated and set to 'Y'. This indicates that there is a chance that the message is a duplicate of another which was sent under a different sequence number. Client's systems should be designed to detect and handle such duplicates should they occur.

#### 4.16.2 Possible Duplicate

After a FIX session-level resend request, messages which are re-sent will be flagged as possible duplicates by populating the "PossDupFlag" of the FIX message header with 'Y'. Client's systems should be designed to detect and handle such duplicate notifications should they occur.

#### 4.16.3 Possible Duplicate or Resent Orders

For safety, any Order requests received from the client which are flagged as "possible duplicate" or "possible resend" will be automatically rejected by the UBS server.

#### 4.16.4 Filtering of Resent messages

In the event of a resend request being received from a client the UBS FIX engine will reply by resending either the original messages, or a SequenceReset (gap fill) message in accordance with the FIX Protocol. All messages resent will be flagged as "possible duplicates".

Note that the following message types will never be resent (will be "gap-filled"):

- Market Data – Snapshot/Full Refresh (W)

### 4.17 Client Order Identifiers

Order identifiers provided by the client when sending an order request, should be unique for at least the duration of the message reset interval, and a minimum of a 24 hour period.

## 5. Order Execution Scenarios

The following tables provide examples of the content of the execution reports that would be expected, for a range of different order execution scenarios, in response to an example order for quantity = 5000. (The “Notes” column is simply to explain the examples. It is not a message field.)

### 5.1 Order Filled in Single Execution

Exec Type	Ord Status	Ord Qty	Cum Qty	Leaves Qty	Last Qty	Notes
New	New	5000	0	5000	0	Accepted
Trade	Filled	5000	5000	0	5000	Filled in single execution

### 5.2 Fill and Kill Order with Partial Fill

Exec Type	Ord Status	Ord Qty	Cum Qty	Leaves Qty	Last Qty	Notes
New	New	5000	0	5000	0	Accepted...
Trade	Partially Filled	5000	2000	3000	2000	... partial fill (2000)
Cancelled	Cancelled	5000	2000	0	0	... remainder is cancelled

### 5.3 Order Rejected

Exec Type	Ord Status	Ord Qty	Cum Qty	Leaves Qty	Last Qty	Notes
Rejected	Rejected	5000	0	0	0	Order Rejected

### 5.4 Failed Execution

Exec Type	Ord Status	Ord Qty	Cum Qty	Leaves Qty	Last Qty	Notes
New	New	5000	0	5000	0	Accepted
Cancelled	Cancelled	5000	0	0	0	Execution failed

## 6. Session Level Message Definitions

### 6.1 Standard Message Header

This standard FIX 4.3 header will be present on all FIX messages

FIX Tag	Field Name	Reqd?	Value / Comments
8	BeginString	Y	FIX.4.3
9	BodyLength	Y	The message length in bytes
35	MsgType	Y	The message type code
49	SenderCompID	Y	Used to identify the message sender. Determined in agreement between client and UBS.
56	TargetCompID	Y	Used to identify the message recipient. Determined in agreement between client and UBS.
34	MsgSeqNum	Y	The message sequence number
43	PossDupFlag	N	Populated for retransmitted messages
97	PossResend	N	Populated when there is a chance that the message is a duplicate of a message sent under a different sequence number
52	Sending Time	Y	The time of message transmission, in UTC.

### 6.2 Trailer

This standard FIX 4.3 trailer will be present on all FIX messages

FIX Tag	Field Name	Reqd?	Value / Comments
10	Checksum	Y	3 byte checksum calculated in accordance with the FIX specification.

### 6.3 Logon

FIX Tag	Field Name	Reqd?	Value / Comments
	<i>Standard Header</i>	Y	MsgType <35> = A
98	EncryptMethod	Y	Allowed value: 0 (None)
108	HeartBtInt	Y	The heartbeat interval. This will be set by agreement between the client and UBS.
141	ResetSeqNumFlag	N	Indicates both sides of the FIX session should reset sequence numbers. Should only be specified when this message is sent to instruct a sequence number reset.
553	Username	N	This should be set for messages sent by the client, to initiate a connection. This field should be populated with the username that has been allocated in agreement with UBS. Not needed for messages used only to reset sequence numbers for an existing connection.
554	Password	N	This should be set for messages sent by the client, to initiate a connection. This field should be populated with the password that has been allocated in agreement with UBS. Not needed for messages used only to reset sequence numbers for an existing connection.
	<i>Standard Trailer</i>	Y	

## 6.4 Logout

FIX Tag	Field Name	Reqd?	Value / Comments
	<i>Standard Header</i>	Y	MsgType <35> = 5
58	Text	N	Will be populated in the event of a UBS-initiated disconnection to provide a reason for the disconnection.
	<i>Standard Trailer</i>	Y	

## 6.5 Heartbeat

FIX Tag	Field Name	Reqd?	Value / Comments
	<i>Standard Header</i>	Y	MsgType <35> = 0
112	TestReqID	N	Must be populated when the heartbeat is a response to a TestRequest message.
	<i>Standard Trailer</i>	Y	

## 6.6 Test Request

FIX Tag	Field Name	Reqd?	Value / Comments
	<i>Standard Header</i>	Y	MsgType <35> = 1
112	TestReqID	Y	Test request id. Any string can be used.
	<i>Standard Trailer</i>	Y	

## 6.7 Resend Request

FIX Tag	Field Name	Reqd?	Value / Comments
	<i>Standard Header</i>	Y	MsgType <35> = 2
7	BeginSeqNo	Y	Sequence number of the first message requested to be resent
16	EndSeqNo	Y	Sequence number of the last message requested to be resent, or zero if all messages subsequent to BeginSeqNo are to be resent.
	<i>Standard Trailer</i>	Y	

## 6.8 Reject

FIX Tag	Field Name	Reqd?	Value / Comments
	<i>Standard Header</i>	Y	MsgType <35> = 3
45	RefSeqNo	Y	The sequence number of the rejected message
371	RefTagID	N	The tag number of the FIX field being referenced
372	RefMsgType	N	The type code for the message being referenced
373	SessionRejectReason	N	Code to identify the reason for a session level reject message, if appropriate
58	Text	N	Message to explain the reason for rejection, where possible
	<i>Standard Trailer</i>	Y	

## 6.9 Sequence Reset

FIX Tag	Field Name	Reqd?	Value / Comments
	<i>Standard Header</i>	Y	MsgType <35> = 4
123	GapFillFlag	N	Used to indicate that message is being used in gap-fill-mode
36	NewSeqNo	Y	The new next message sequence number to be used.
	<i>Standard Trailer</i>	Y	

## 7. Business Message Definitions

Note 1 : Message fields or values displayed with a shaded background are non-standard in FIX4.3. Where possible, non-standard tags and values have been chosen to correspond to those recommended in the Foreign Exchange Extension Pack of FIX 5.0.

Note 2 : UBS implements the "Standardisation of reject codes in FX trading February 2020" as proposed by The Investment Association in <https://www.theia.org/node/29320>. This is applicable to Quote Request Reject Message (35=AG) and Execution Report Message (35=8). The IA quote or trade request reject category mapping in round brackets are appended to the end of the text field (Tag 58). Please note, the mapping is intended to be in line with the IA definition, and different IA categories are part of the last look process.

Key: Y=Mandatory, N=Not Required (Optional), C=Conditional, X=Not Applicable

## 7.1 Market Data Request Message [Market Data session]

FIX Tag	Field Name	Reqd?	Value / Comments
	<i>Standard Header</i>	Y	MsgType <35> = V
262	MDReqID	Y	Must be unique, or the ID of previous Market Data Request to disable if SubscriptionRequestType <263> = 2 (Unsubscribe)
263	SubscriptionRequestType	Y	Accepted values: 1 = Subscribe 2 = Unsubscribe
264	MarketDepth	Y	Used to specify the number of bands to be requested. Accepted values: 0 = the maximum number of bands, as configured by UBS. > 0 the number of bands requested. Note that if the number of bands requested exceeds the maximum number of levels supported by UBS in this instrument, then all the levels supported by UBS will be published.
265	MDUpdateType	N	Required if SubscriptionRequestType <263> = 1 (subscribe). Accepted values: 0 = Full refresh
267	NoMDEntryTypes	Y	Number of MDEntryType <269> fields requested Accepted values: 2
=> 269	MDEntryType	Y	Must be the first field in this repeating group. This is a list of all the types of Market Data Entries that the firm requesting the Market Data is interested in receiving. Accepted values: Note that both: 0 = Bid , and 1 = Offer must be specified.
146	NoRelatedSym	Y	Number of symbols (instruments) requested Accepted values: 1 – Note: only one instrument will be accepted per Market Data Request message.
[ Component Block - <Instrument> ]			
=> 55	Symbol	Y	"CCY1/CCY2"  Rates are expressed as "currency1 in currency2" (or "currency2 per currency1") e.g. "GBP/USD" represents a rate expressed as USD per GBP, "USD/JPY" represents a rate expressed as JPY per USD, etc.). CCY1 and CCY2 are ISO currency codes
=> 461	CFICode	N	Must be provided if the product is a forward. Used to distinguish deliverable, versus non-deliverable forwards. Accepted values: FFCPNO = Forward Outright (deliverable) FFCNNO = Non-deliverable forward (NDF)
=> 48	SecurityID	N	Valor for Precious Metals Requires SecurityIDSource.  Needs to match the Symbol specified in Tag 55 If SecurityID not specified then PM will default to metal specified in 7.15.

			See 7.16 for list of valid SecurityID
=> 22	SecurityIDSource	N	Accepted Values D = Valoren
=> 9102	BaseCcyDeliveryLocationType	N	Accepted Values R = Default N = Onshore O = Offshore
=> 9103	CounterCcyDeliveryLocationType	N	Accepted Values R = Default N = Onshore O = Offshore
63	SettlmntTyp	N	Can be used to set a tenor for forwards instead of a date in field 64. See 7.13 for a list of valid tenor codes.
64	FutSettDate	N	Must be provided if the product is a forward and field 63 is not provided. Overrides field 63 if provided. See 7.14 for validation rules. Used to specify the value date of the forward, in the format YYYYMMDD.
271	MDEntrySize	N	The target amount for the price subscription, expressed in units of Currency<15>.  Note: if this field is present, then MarketDepth<264> field must have value "1".
15	Currency	N	Used to specify the currency for the amount in MDEntrySize field. If this is not specified, then CCY1 is assumed.  If Currency = CCY2 then MDEntrySize must be specified.
541	MaturityDate	N	NDF Fixing Date required  Only valid for NDF messages (CFICode=FFCNNO)
7075	FixingReference	Y <sup>(note 1)</sup>	Used to specify the required fixing procedure of an NDF.  See Appendix 7.17 for valid values  Only valid for NDF messages (CFICode=FFCNNO)  Note 1: Mandatory only for ND crosses.
10006	RequestFixingInfo	N	Request NDF fixing information (date and procedure) on response. Only valid for CFICode=FFCNNO; ignored otherwise.  Accepted Values Y = Yes
[ Component Block - <Parties> ]			
453	NoPartyIDs	N*	The number of repeating groups to follow. The repeating groups should contain unique combinations of PartyID <448>, PartyIDSource <447>, and PartyRole <452>
=> 448	PartyID	N*	The party id (counterparty.)
=> 447	PartdlDSource	N*	The type of party id. Accepted value: D = Proprietary / Custom Code
=> 452	PartyRole	N*	The type of party: Accepted values: 13 = Order Origination Firm (when counterparty id is given for field 448)

## 7.2 Market Data Request Reject Message [Market Data session]

FIX Tag	Field Name	Always Set?	Value / Comments
	<i>Standard Header</i>	Y	MsgType <35> = Y
262	MDReqID	Y	Will refer to the MDReqID <262> of the request.
281	MDReqRejReason	N	Where appropriate, contains a code representing the reason for the subscription or unsubscription failure.
58	Text	Y	Contains a textual description of the reason for the subscription/unsubscription failure.
	<i>Standard Trailer</i>	Y	

## 7.3 Market Data – Snapshot/Full Refresh Message [Market Data session]

FIX Tag	Field Name	Always Set?	Value / Comments
	<i>Standard Header</i>	Y	MsgType <35> = W
262	MDReqID	Y	The MDReqID of the Market Data Request that started this price subscription.
[ Component Block - <Instrument> ]			
=> 55	Symbol	Y	"CCY1/CCY2"
=> 461	CFICode	N	Will be provided if the product is a forward or if the Market Data Request contained this field for a Spot Used values: FFCPNO = Forward Outright (deliverable) FFCNNO = Non-deliverable forward (NDF) RCSXXX = Spot
=> 48	SecurityID	N	Valor for Precious Metals  If SecurityID not specified then PM will default to metal specified in 7.15 See 7.16 for list of valid SecurityID
=> 22	SecurityIDSource	N	Accepted Values D = Valoren
=> 9102	BaseCcyDeliveryLocationType	N	Accepted Values R = Default N = Onshore O = Offshore
=> 9103	CounterCcyDeliveryLocationType	N	Accepted Values R = Default N = Onshore O = Offshore
541	MaturityDate	N	NDF Fixing Date  Only sent for NDF messages (CFICode=FFCNNO) when requested on a Market Data Request Message with RequestFixingInfo=Y
7075	FixingReference	Y <sup>(note 1)</sup>	NDF Fixing Procedure.  See Appendix 7.17 for valid values  Only sent for NDF messages (CFICode=FFCNNO) when requested on a Market Data Request Message with RequestFixingInfo=Y  Note 1: Mandatory only for ND crosses.
268	NoMDEntries	Y	The number of entries following. The message will contain a number of entries, detailing bid and offer quotes for a range of size bands.

			UBS will publish 0 if we do not have a price.
=> 269	MDEntryType	C	Used to indicate the side of the quote. Will contain: 0 = Bid 1 = Offer  Not required if 268 - NoMDEntries is 0
=> 270	MDEntryPx	C	The price of the quote, in currency 2 per currency 1. Note that for forwards, this is the all-in rate. Not required if 268 - NoMDEntries is 0
=> 15	Currency	C	Indicates the denomination of the quantity fields. Typically currency1. Not required if 268 - NoMDEntries is 0
=> 271	MDEntrySize	C	Indicates the size/quantity associated with the quote. Note that this may be zero, indicating that no liquidity is available. Not required if 268 - NoMDEntries is 0
=> 272	MDEntryDate	C	Represents the value date of the quote. Not required if 268 - NoMDEntries is 0
=> 276	QuoteCondition	C	Used to indicate dealable versus indicative prices. Will contain: A =active (dealable) price I = non-Firm (indicative) price Not required if 268 - NoMDEntries is 0
=> 299	QuoteEntryId	C	Provides a unique reference id for this quote, which may be used to place an order against it, if it is active. Not required if 268 - NoMDEntries is 0
=> 1026	MDEntrySpotRate	N	Provided for forwards. This will contain the spot rate, in currency2 per currency1. Not required if 268 - NoMDEntries is 0
=> 1027	MDEntryForwardPoints	N	Provided for forwards. This will contain the forward points. Not required if 268 - NoMDEntries is 0
	<i>Standard Trailer</i>	Y	

## 7.4 Quote Request Message [Order Placement session]

FIX Tag	Field Name	Reqd?	Value / Comments
	<i>Standard Header</i>	Y	MsgType <35> = R
131	QuoteReqID	Y	Must be a unique client-provided identifier
146	NoRelatedSym	Y	Number of symbols (instruments) requested Accepted values: 1 – Note: only one instrument will be accepted per Quote Request message.
[ Component Block - <Parties> ]			
453	NoPartyIDs	Y*	The number of repeating groups to follow. The repeating groups should contain unique combinations of PartyID <448>, PartyIDSource <447>, and PartyRole <452>
=> 448	PartyID	Y* MiFID II relevant	The party id (counterparty.) *The MIC code of the venue should be provided here if 447=G
=> 447	PartyIDSource	Y* MiFID II relevant	The type of party id. Accepted value: D = Proprietary / Custom Code G* = MIC
=> 452	PartyRole	Y* MiFID II relevant	The type of party: Accepted values: 11 = Order Origination Trader (when 447=D and trader id is given for field 448) 13 = Order Origination Firm (when counterparty id is given for field 448) 73 = Execution Venue (when 447=G and venue MIC code is given for field 448)
[ Component Block - <Instrument> ]			
=> 55	Symbol	Y	"CCY1/CCY2"  Rates are expressed as "currency1 in currency2" (or "currency2 per currency1") e.g. "GBP/USD" represents a rate expressed as USD per GBP, "USD/JPY" represents a rate expressed as JPY per USD, etc.). CCY1 and CCY2 are ISO currency codes
=> 461	CFICode	N	Used to distinguish between asset types. Spot is assumed if not set. Accepted values: FFCPNO = Forward Outright (deliverable) FFCNNO = Non-deliverable forward (NDF) FFCPNW = Swap FFCNNW = Non-deliverable swap RCSXXX = Spot
=> 48	SecurityID	N	Valor for Precious Metals Requires SecurityIDSource.  Needs to match the Symbol specified in Tag 55 If SecurityID not specified then PM will default to metal specified in 7.15 See 7.16 for list of valid SecurityID
=> 22	SecurityIDSource	N	Accepted Values D = Valoren
=> 9102	BaseCcyDeliveryLocationType	N	Accepted Values R = Default N = Onshore O = Offshore

=> 9103	CounterCcyDeliveryLocationType	N	Accepted Values R = Default N = Onshore O = Offshore
38	OrderQty	Y	The target amount for which the quote request. Expressed in units of the currency indicated by tag Currency<15>, where specified, otherwise assumed to be in units of CCY1. In case of a swap, it is the near leg amount.
192	OrderQty2	N	The amount of the far leg of a swap.
63	SettlmntTyp	N	Can be used to set a tenor for forwards or a swap near leg instead of a date in field 64. See 7.123 for a list of valid tenor codes.
64	FutSettDate	N	Used to specify the value date of a forward, or the near leg date of a swap, in the format YYYYMMDD. Overrides field 63.
6600	SettlmntTyp2	N	Can be used to set a tenor for a swap far leg instead of a date in field 193. This is a custom field. See 7.123 for a list of valid tenor codes.
193	FutSettDate2	N	Used to specify the far leg date of a swap, in the format YYYYMMDD.
15	Currency	N	Used to specify to denomination of the amount given by the OrderQty field. If this is not specified, then CCY1 is assumed.
541	MaturityDate	N	NDF Fixing Date required (option for ND crosses)  Only valid for NDF or ND Swap messages (CFICode=FFCNNO or FFCNNW)
7541	MaturityDate2	N	NDF Fixing Date (far leg) required (option for ND crosses)  Only valid for ND Swap messages (CFICode= FFCNNW)
7075	FixingReference	Y <sup>(note 1)</sup>	Used to specify the required fixing procedure of an NDF or ND Swap.  See Appendix 7.17 for valid values  Only valid for NDF (CFICode=FFCNNO) or ND Swap messages (CFICode= FFCNNW)  Note 1: Mandatory only for ND crosses.
10006	RequestFixingInfo	N	Request NDF fixing information (date and procedure) on response. Only valid for CFICode=FFCNNO or CFICode= FFCNNW; ignored otherwise.  Accepted Values Y = Yes
126	ExpireTime	N	Used to specify end time for Request for Stream (RFS). ExpireTime is in UTC. UBS can apply a cap to the end time of the stream that's earlier than the requested time.
7074	NumberOfCompetitors	N	Used to specify the total number of competitors in the quote request
	Standard Trailer	Y	

## 7.5 Quote Request Reject Message [Order Placement session]

FIX Tag	Field Name	Always Set?	Value / Comments
	Standard Header	Y	MsgType <35> = AG

131	QuoteReqID	Y	Will refer to the client-provided identifier supplied in the Quote Request message.
658	QuoteRequestRejectReason	Y	Will always contain: 99 = Other Note that the Text<58> field is used to give the reason for the rejection.
146	NoRelatedSym	Y	Number of symbols (instruments) requested in the Quote Request message. Will contain: 1
[ Component Block - <Instrument> ]			
=> 55	Symbol	Y	"CCY1/CCY2" This will match the symbol provided in the Quote Request
=> 461	CFICode	N	Will match the CFICode specified in the QuoteRequest Used values: FFCPNO = Forward Outright (deliverable) FFCNNO = Non-deliverable forward (NDF) FFCPNW = Swap FFCENNW = Non-deliverable swap RCSXXX = Spot
=> 48	SecurityID	N	Valor for Precious Metals If SecurityID not specified then PM will default to metal specified in 7.15 See 7.16 for list of valid SecurityID
=> 22	SecurityIDSource	N	D = Valoren
=> 9102	BaseCcyDeliveryLocationType	N	Accepted Values R = Default N = Onshore O = Offshore
=> 9103	CounterCcyDeliveryLocationType	N	Accepted Values R = Default N = Onshore O = Offshore
38	OrderQty	Y	The order quantity, as specified in the Quote Request.
192	OrderQty2	N	Far leg swap quantity, as specified in the Quote Request.
63	SettlmntTyp	N	Tenor code as specified in Quote Request.
64	FutSettDate	N	The value date of a forward or near leg of a swap, as specified in the Quote Request.
6600	SettlmntTyp2	N	Tenor code as specified in Quote Request.
193	FutSettDate2	N	The value date of a far leg of a swap, as specified in the Quote Request.
15	Currency	N	The currency specified in the Quote Request, if one was present.
58	Text	Y	This will contain a message indicating the reason for rejection of the Quote Request.
	<i>Standard Trailer</i>	Y	

## 7.6 Quote Message [Order Placement session]

FIX Tag	Field Name	Always Set?	Value / Comments
	<i>Standard Header</i>	Y	MsgType <35> = S
131	QuoteReqID	Y	Will refer to the client-provided identifier supplied in the Quote Request message.
117	QuoteID	Y	Unique reference for this quote message.
[ Component Block - <Instrument> ]			
=> 55	Symbol	Y	"CCY1/CCY2" This will match the symbol provided in the Quote Request
=> 461	CFICode	Y	Will match the CFICode specified in the QuoteRequest . Used values: FFCPNO = Forward Outright (deliverable) FFCNNO = Non-deliverable forward (NDF) FFCPNW = Swap

			FFCNNW = Non-deliverable swap RCSXXX = Spot
=> 48	SecurityID	N	Valor for Precious Metals  If SecurityID not specified then PM will default to metal specified in 7.15 See 7.16 for list of valid SecurityID
=> 22	SecurityIDSource	N	D = Valoren
=> 9102	BaseCcyDeliveryLocationType	N	Accepted Values R = Default N = Onshore O = Offshore
=> 9103	CounterCcyDeliveryLocationType	N	Accepted Values R = Default N = Onshore O = Offshore
541	MaturityDate	N	NDF Fixing Date or ND Swap near leg Fixing Date  Only sent for NDF messages (CFICode=FFCNNW) or ND Swap messages (CFICode= FFCNNW) when requested on a Quote Request Message with RequestFixingInfo=Y
7541	MaturityDate2	N	ND Swap far leg Fixing Date.  Only sent for ND Swap messages (CFICode= FFCNNW) when requested on a Quote Request Message with RequestFixingInfo=Y
7075	FixingReference	Y <sup>(note 1)</sup>	NDF or ND Swap Fixing Procedure.  See Appendix 7.17 for valid values  Only sent for NDF messages (CFICode=FFCNNW) or ND swap messages (CFICode= FFCNNW) when requested on a Quote Request Message with RequestFixingInfo=Y  Note 1: Mandatory only for ND crosses.
62	ValidUnilTime	Y	UTC Timestamp for validity of the quote
132	BidPx	Y	The bid "all-in" forward rate. For a swap, the BUY quote near leg rate. For spots, the BidSpotRate.
133	OfferPx	Y	The offer "all-in" forward rate. For a swap, the SELL quote near leg rate. For spots, the OfferSpotRate.
134	BidSize	Y	Indicates the bid size
135	OfferSize	Y	Indicates the offer size
188	BidSpotRate	Y	The bid spot rate. For a swap, the spot rate supporting the BUY quote
190	OfferSpotRate	Y	The offer spot rate. For a swap, the spot rate supporting the SELL quote
189	BidForwardPoints	N	The bid forward points
642	BidForwardPoints2	N	SELL quote forward points for swap far leg.
191	OfferForwardPoints	N	The offer forward points
643	OfferForwardPoints2	N	BUY quote forward points for swap far leg.
64	FutSettDate	N	The value date of a forward or near leg of a swap, as specified in the Quote Request. Tenors (SettlmntTyp) are converted to absolute dates.
193	FutSettDate2	N	The value date of the far leg of a swap, as specified in the Quote Request.
192	OrderQty2	N	The amount of a swap far leg
15	Currency	Y	Indicates the denomination of the BidSize and OfferSize fields
126	ExpireTime	N	Will be present on quotes for RFS. Used to indicate how long the RFS session will continue to send quotes. ExpireTime is in UTC.
537	QuoteType	N	Will be present on quotes for RFS. Used to indicate dealable versus indicative prices. Will contain: 0 = Indicative price 1 = Dealeable price
1065	BidSwapPoints	N	Swap points of a swap SELL quote

1066	OfferSwapPoints	N	Swap points of a swap BUY quote
421	BranchCountryCode	N	Will only be sent to clients configured to receive MiFID II fields
		MiFID II relevant	ISO two character code for the country of the UBS branch providing the quote
[ Component Block - <Parties> ]			
453	NoPartyIDs	N	This block will only be sent to client configured to receive MiFID II fields.
		MiFID II relevant	The number of repeating groups to follow. The repeating groups should contain unique combinations of PartyID <448>, PartyIDSource <447>, PartyRole <452> and PartyRoleQualifier <2376>
=> 448	PartyID	N	The party id
		MiFID II relevant	Used values: For 452=12 or 452=122, this will either be the Algo ID if electronically priced or the trader short code if manually priced
=> 447	PartyIDSource	N	The type of party id.
		MiFID II relevant	Used value: D = Proprietary / Custom Code
=> 452	PartyRole	N	The type of party:
		MiFID II relevant	Used values: 12 = Executing Trader (Execution Decision Maker) 122 = Investment Decision Maker
=> 2376	PartyRoleQualifier	N	Provides further qualification of PartyRole
		MiFID II relevant	Used Values: 22 = Algorithm 23 = Firm or legal entity (LEI) 24 = Natural Person
	<i>Standard Trailer</i>	Y	

## 7.7 New Order – Single Message [Order Placement session]

FIX Tag	Field Name	Reqd?	Value / Comments
	<i>Standard Header</i>	Y	MsgType <35> = D
11	ClOrdID	Y	Unique identifier of the order as assigned by the client
262	MDReqID	N	Required if multiple subscriptions are present for the same instrument. Will refer to the unique, client-provided, identifier supplied in the Market Data Request.
[ Component Block - <Parties> ]			
453	NoPartyIDs	Y  MiFID II relevant	The number of repeating groups to follow. Accepted values = 1, 2, 3 or 4. (2/3/4 if optional trader id or customer account is specified or if Order coming from a Venue) The repeating groups should contain unique combinations of PartyID <448>, PartyIDSource <447>, and PartyRole <452>.
=> 448	PartyID	Y  MiFID II relevant	The party id (counterparty, trader, account etc.) This must match the PartyId used on the Quote Request Message. *The MIC code of the venue should be provided here if 447=G
=> 447	PartyIDSource	Y  MiFID II relevant	The type of party id. Accepted value: D = Proprietary / Custom Code G* = MIC
=> 452	PartyRole	Y  MiFID II relevant	The type of party: Accepted values: 11 = Order Origination Trader (when 447=D and trader id is given for field 448) 13 = Order Origination Firm (when 447=D and counterparty id is given for field 448) (Mandatory) 24 = Customer Account (when 447=D and customer account is given for field 448) (Only to be sent by pre-agreed clients) 73 = Execution Venue (when 447=G and venue MIC code is given for field 448)
64	FutSettDate	N	If the product is a forward or swap, must be specified to indicate the (near leg) settlement date, in YYYYMMDD format.
193	FutSettDate2	N	Required for swaps. The far leg date.
21	HandlInst	Y	Instructions for order handling Accepted value: 1 = Automated execution order, private, no Broker intervention
10178	OnVenueExecution	N	Boolean flag to indicate whether execution has taken place on a regulated venue. If 10178 = Y a subsequent Execution Acknowledgement message is expected to contain the final execution confirmation details including time stamp Accepted values: Y = on venue N = off venue
[Component Block - <Instrument> ]			
=> 55	Symbol	Y	"CCY1/CCY2"
=> 461	CFICode	N	Used to distinguish between asset types. Spot is assumed if not set. Accepted values: FFCPNO = Forward Outright (deliverable) FFCNNO = Non-deliverable forward (NDF) FFCPNW = Swap FFCNW = Non-deliverable swap RCSXXX = Spot
=> 48	SecurityID	N	Valor for Precious Metals Requires SecurityIDSource.  Needs to match the Symbol specified in Tag 55 If SecurityID not specified then PM will default to metal specified in 7.15 See 7.16 for list of valid SecurityID
=> 22	SecurityIDSource	N	Accepted Values D = Valoren

=> 9102	BaseCcyDeliveryLocationType	N	Accepted Values R = Default N = Onshore O = Offshore
=> 9103	CounterCcyDeliveryLocationType	N	Accepted Values R = Default N = Onshore O = Offshore
541	MaturityDate	N	NDF Fixing Date required (option for ND crosses)  Only valid for NDF or ND Swap messages (CFICode=FFCNNO or FFCNNW)
7541	MaturityDate2	N	NDF Fixing Date (far leg) required (option for ND crosses)  Only valid for ND Swap messages (CFICode= FFCNNW)
7075	FixingReference	Y <sup>(note 1)</sup>	Used to specify the required fixing procedure of an NDF or ND Swap.  See Appendix 7.17 for valid values  Only valid for NDF (CFICode=FFCNNO) or ND Swap messages (CFICode=FFCNNW)  Note 1: Mandatory only for ND crosses.
10006	RequestFixingInfo	N	Request NDF fixing information (date and procedure) on response. Only valid for CFICode=FFCNNO or CFICode= FFCNNW; ignored otherwise.  Accepted Values Y = Yes
54	Side	Y	Buy or sell side. This is relative to the currency set by field 15, or currency 1 if field 15 not specified. For swaps this refers to the far leg.  Accepted values: 1 = Buy 2 = Sell
60	TransactTime	Y	The time that this order request was initiated in UTC to millisecond precision.
[Component Block – <OrderQtyData> ]			
=> 38	OrderQty	Y	The quantity of the order, in units of the denomination currency as set by field 15 (Currency)
192	OrderQty2	N	The swap far leg amount.
40	OrdType	Y	Accepted values: 1 = Market 2 = Limit D = Previously Quoted.  Note that for Swaps, only Market and Previously Quoted orders are supported.
44	Price	N	The rate, expressed as currency2 per currency1. This is required if OrdTyp <40> is 2 (Limit) or D (Previously Quoted) For forwards this should be the all-in rate.
640	Price2	N	All-in far leg swap rate if OrdTyp <40> is D (Previously Quoted)
15	Currency	N	The currency in which the OrderQty is specified. If not specified, then currency1 is assumed.
117	QuoteID	N	Required if OrdType <40> is D (previously quoted.) Accepted values: the value of a QuoteEntryId (field 299) received on an MDEntry item within a MarketData message.
59	TimeInForce	Y	The execution strategy to be used. Accepted values: 3 = Immediate or Cancel ("Fill and Kill") 4 = Fill or Kill  Swaps must have value 4.

			Note that for "Fill and Kill" orders, partial fills could include a fractional amount.
18	ExecInst	N	Instructions for order handling as per FIX 4.3. Additionally accepted values: b = Strict Limit
20001	USIIssuerId	N	Dodd-Frank USI field. Issuer, the first part of USI. Both the Issuer and Trade Id need to be present if set.
20002	USITradeId	N	Dodd-Frank USI field. Trade Id the second part of USI.  If set, the value of this field must meet ISDA USI formatting rules. If it also meets ESMA MiFID Transaction Reference Number formatting rules, it will be used in the MiFID Transaction Report as the Transaction Reference Number. Otherwise, UBS will generate a value that meets both ISDA USI and ESMA MiFID Transaction Reference Number formatting rules. Relevant third party documents are listed in Appendix 7.18.  Both the Issuer and Trade Id need to be present if set.
20003	FarUSIIssuerId	N	Dodd-Frank USI field for Swap far leg. Issuer, the first part of USI. Both the Issuer and Trade Id need to be present if set.
20004	FarUSITradeId	N	Dodd-Frank USI field for Swap far leg. Trade Id, the second part of USI.  If set, the value of this field must meet ISDA USI formatting rules. If it also meets ESMA MiFID Transaction Reference Number formatting rules, it will be used in the MiFID Transaction Report as the Transaction Reference Number. Otherwise, UBS will generate a value that meets both ISDA USI and ESMA MiFID Transaction Reference Number formatting rules. Relevant third party documents are listed in Appendix 7.18.  Both the Issuer and Trade Id need to be present if set.
9645	LimitPxType	N	Allows user to specify an average limit price. Accepted values: 2= Average Limit Price

[Component Block – <Allocations>]			
78	NoAllocs	N	The number of repeating groups to follow, one for each allocation leg  The repeating groups should contain unique combinations of AllocAccount <79>, AllocShares <80> and optional fields AlloclId <70>, USIIssuerId <20001> and USITradeId <20002>
=> 79	AllocAccount	N	Account for this allocation leg – this should be the counterparty id as populated in Tag 448 when Tag 452=13
=> 80	AllocQty	N	Quantity for this allocation leg – positive amount implies same side as Side <54>; negative implies opposite side
=> 70	AlloclId	N	Optional client id for this allocation leg
=> 5966	AllocQty2	N	Quantity for this swap allocation far leg – positive amount implies opposite of Side<54>; negative implies the same side
=> 20001	USIIssuerId	N	Optional field for this allocation leg Dodd-Frank USI field. Issuer, the first part of USI. Both the Issuer and Trade Id need to be present if set.
=> 20002	USITradeId	N	Optional field for this allocation leg Dodd-Frank USI field. Trade Id the second part of USI.  If set, the value of this field must meet ISDA USI formatting rules. If it also meets ESMA MiFID Transaction Reference Number formatting rules, it will be used in the MiFID Transaction Report as the Transaction Reference Number. Otherwise, UBS will generate a value that meets both ISDA USI and ESMA MiFID Transaction Reference Number formatting rules. Relevant third party documents are listed in Appendix 7.18.  Both the Issuer and Trade Id need to be present if set.
=> 1903	RegulatoryTradeId	N	Trading Venue to provide the Regulatory Trade ID (TVTIC) for this allocation leg

		MiFID II relevant	
=> 20003	FarUsIssuerId	N	Optional field for this swap allocation far leg Same as USIssuerId but for far leg
=> 20004	FarUsiTradeId	N	Optional field for this swap allocation far leg  If set, the value of this field must meet ISDA USI formatting rules. If it also meets ESMA MiFID Transaction Reference Number formatting rules, it will be used in the MiFID Transaction Report as the Transaction Reference Number. Otherwise, UBS will generate a value that meets both ISDA USI and ESMA MiFID Transaction Reference Number formatting rules. Relevant third party documents are listed in Appendix 7.18.  Same as USITradeId but for far leg
=> 20005	FarRegulatoryTradeID	N MiFID II relevant	Trading Venue to provide the Regulatory Trade ID (TVTIC) for this swap allocation far leg
=> 20006	OverallRegulatoryTradeID	N MiFID II relevant	Trading Venue to provide the overall Regulatory Trade ID (TVTIC) for this swap allocation that takes precedence over the near and far IDs
29	LastCapacity	N MiFID II relevant	Client Trading Capacity  Accepted values: 1 = Agent (maps to 'AOTC') 3 = Cross as Principal (maps to 'MTCH') 4 = Principal (maps to 'DEAL')
574	MatchType	N MiFID II relevant	Client to specify if they are acting as a Systematic Internaliser  Accepted Values:  9 = Trade Reporting (Systematic Internaliser)
1903	RegulatoryTradeID	N MiFID II relevant	Trading Venue to provide the Regulatory Trade ID (TVTIC)
20005	FarRegulatoryTradeID	N MiFID II relevant	Trading Venue to provide the Regulatory Trade ID (TVTIC) for the far leg of a swap
20006	OverallRegulatoryTradeID	N MiFID II relevant	Trading Venue to provide the overall Regulatory Trade ID (TVTIC) for this swap that takes precedence over the near and far IDs
[Component Block – <Waiver flag> and <Securities Financing Indicator>]			
2668	NoTrdRegPublication	N MiFID II relevant	The number of repeating groups to follow
=> 2669	TrdRegPublicationType	N MiFID II relevant	Accepted Values: 0 = Waiver Indicator - Pre-trade transparency waiver 2 = Securities Financing Indicator - Exempted from reporting
=>2670	TrdRegPublicationReason	N MiFID II relevant	Accepted Values Waiver Indicator (If 2669=0) 5 = 'SIZE' 4 = 'ILQD'

			Securities Financing Indicator (If 2669=2) 11= Exempted due to securities financing
7074	NumberOfCompetitors	N	Used to specify the total number of competitors in the related quote request
	<i>Standard Trailer</i>	Y	

## 7.8 Execution Report Message [Order Placement session]

FIX Tag	Field Name	Always Set?	Value / Comments
	<i>Standard Header</i>	Y	MsgType <35> = 8
37	OrderID	Y	Unique identifier of the order as assigned by UBS.
11	ClOrdID	Y	The identifier of the order as assigned by the client in the New Order – Single message.
17	ExecID	Y	Unique identifier of the execution report, as assigned by UBS.
150	ExecType	Y	Describes the purpose of the execution report. Values used will be: 0 = New (order accepted) 4 = Cancelled (order cancelled / failed) 8 = Rejected (order rejected) F = Trade (partial fill, or fill)
39	OrdStatus	Y	Describes the current status of the order Values used will be: 0 = New (order accepted) 1 = Partially Filled 2 = Filled 4 = Cancelled (order cancelled / failed) 8 = Rejected (order rejected)
103	OrdRejReason	N	May be supplied when ExecType = 8 (Rejected), to indicate the reason for the rejection, if the reason corresponds to one of the standard codes for this field.
64	FutSettDate	Y	Used to specify the value date in the format YYYYMMDD.
193	FutSettDate2	N	Used to specify the value date of a swap far leg in the format YYYYMMDD.  Only present for swaps.
[Component Block - <Instrument> ]			
=> 55	Symbol	Y	"CCY1/CCY2" This will match the symbol specified in the order request.
=> 461	CFICode	Y	Used to distinguish between asset types. Used values: FFCPNO = Forward Outright (deliverable) FFCNNO = Non-deliverable forward (NDF) FFCPNW = Swap FFCNNW = Non-deliverable swap RCSXXX = Spot
=> 48	SecurityID	N	Valor for Precious Metals  If SecurityID not specified then PM will default to metal specified in 7.15 See 7.16 for list of valid SecurityID
=> 22	SecurityIDSource	N	D = Valoren
=> 9102	BaseCcyDeliveryLocationType	N	Accepted Values R = Default N = Onshore O = Offshore
=> 9103	CounterCcyDeliveryLocationType	N	Accepted Values R = Default N = Onshore O = Offshore
541	MaturityDate	N	NDF Fixing Date or ND Swap near leg Fixing Date  Only sent for NDF messages (CFICode=FFCNNO) or ND Swap messages (CFICode=FFCNNW) when requested on a New Order Single Message with RequestFixingInfo=Y
7541	MaturityDate2	N	ND Swap far leg Fixing Date.

			Only sent for ND Swap messages (CFICode= FFCNNW) when requested on New Order Single Message with RequestFixingInfo=Y
7075	FixingReference	Y <sup>(note 1)</sup>	NDF or ND Swap Fixing Procedure.  See Appendix 7.17 for valid values  Only sent for NDF messages (CFICode=FFCNN0) or ND swap messages (CFICode=FFCNNW) when requested on a New Order Single Message with RequestFixingInfo=Y  Note 1: Mandatory only for ND crosses.
54	Side	Y	Specifies the side of the order. Values used will be 1 = Buy 2 = Sell This will match the side specified in the order request.
[Component Block - <OrderQtyData> ]			
=> 38	OrderQty	Y	The quantity, as specified in the order request
192	OrderQty2	N	The swap far leg amount.
40	OrdType	Y	The order type, as specified in the order request
44	Price	N	The price specified on the order request, if one was present
640	Price2	N	The all-in far leg swap rate specified on the order request, if one was present
15	Currency	N	The currency specified on the order request, if one was present
59	TimeInForce	Y	The time in force value as specified on the order request.
32	LastQty	Y	If ExecType(150) = Trade(F), then this will contain the quantity of the order fill being reported. Otherwise this field will contain zero.
31	LastPx	N	If ExecType(150) = Trade(F), then this will contain the rate at which the fill being reported was executed. Otherwise this field will not be specified For forwards, this will be the all-in rate. For swaps the near leg rate.
194	LastSpotRate	N	If ExecType(150) = Trade(F), then this will contain the spot rate used for the fill being reported. Otherwise this field will not be specified
195	LastForwardPoints	N	If ExecType(150) = Trade(F), and the product is a forward or swap, then this will contain the forward points used for the fill being reported (near leg). Otherwise this field will not be specified
641	LastForwardPoints2	N	If ExecType(150) = Trade(F), and the product is a swap, then this will contain the forward points used for the fill being reported (far leg). Otherwise this field will not be specified
151	LeavesQty	N	The quantity open for further execution. If OrdStatus(39) is Cancelled (4) or Rejected(8) then this will be zero. Otherwise it will take the value: OrderQty(38) – CumQty(14)
14	CumQty	N	The cumulative, currently executed quantity for the order. Swaps are fully filled only and this value will contain the near leg amount.
20001	USIIssuerId	N	Dodd-Frank USI field. Issuer, the first part of USI. Echoed back if present in the new order message or generated by UBS if configured.
20002	USITradeld	N	Dodd-Frank USI field. Trade Id, the second part of USI. Echoed back if present in the new order message or generated by UBS if configured.
20003	FarUSIIssuerId	N	Dodd-Frank USI field for Swap far leg. Issuer, the first part of USI. Echoed back if present in the new order message or generated by UBS if configured.
20004	FarUSITradeld	N	Dodd-Frank USI field for Swap far leg. Trade id, the second part of USI. Echoed back if present in the new order message or generated by UBS if configured.
6	AvgPx	N	The average price of all fills for this order. For swaps the near leg rate. If CumQty(14) is zero, i.e. no fills have occurred for the order, then this field will contain zero.
58	Text	N	May be used to return an error message if the ExecType = 8 (Rejected) or 4 (Cancelled).

[Component Block – <Allocations† ]			
124	NoExecs	N	The number of repeating groups to follow, one for each allocation leg  The repeating groups should contain unique combinations of AllocAccount <79>, ExecId <17>, LastQty<32> and optional fields AllocId <70>, USLIssuerId <20001> and USITradelId <20002>
=> 79	AllocAccount	N	Account for this allocation leg
=> 17	ExecId	N	Trade id for this allocation leg
=> 32	LastQty	N	Filled quantity for this allocation leg – positive amount implies same side as Side <54>; negative implies opposite side
=> 70	AllocId	C	Conditional field for this allocation leg. For NDFs and Swaps, it is required; For Forwards it depends on client profile configuration, please check with UBS.
=> 20001	USLIssuerId	C	Conditional field for this allocation leg. For NDFs and Swaps, it is required; For Forwards it depends on client profile configuration, please check with UBS. Dodd-Frank USI field. Issuer, the first part of USI. Both the Issuer and Trade Id need to be present if set.
=> 20002	USITradelId	C	Conditional field for this allocation leg. For NDFs and Swaps, it is required; For Forwards it depends on client profile configuration, please check with UBS. Dodd-Frank USI field. Trade Id the second part of USI. Both the Issuer and Trade Id need to be present if set.
=> 20003	FarUsIssuerId	C	Conditional field for this this swap allocation far leg. For Swaps it is required; Same as USLIssuerId but for far leg
=> 20004	FarUsITradelId	C	Conditional field for this this swap allocation far leg. For Swaps, it is required; Same as USITradelId but for far leg
60	TransactTime	N	Will only be sent to clients configured to receive MiFID II fields  MiFID II relevant UBS execution timestamp in UTC to millisecond precision
29	LastCapacity	N	Will only be sent to clients configured to receive MiFID II fields  MiFID II relevant UBS Trading Capacity Used values: 4 = Principal (maps to 'DEAL')
574	MatchType	N	UBS to specify if we are acting as a Systematic Internaliser  MiFID II relevant Accepted Values: 9 = Trade Reporting (Systematic Internaliser)
421	BranchCountryCode	N	Will only be sent to clients configured to receive MiFID II fields  MiFID II relevant ISO two character code for the country of the UBS branch executed against
[ Component Block - <Parties> ]			
453	NoPartyIDs	N	This block will only be sent to clients configured to receive MiFID II fields  MiFID II relevant The number of repeating groups to follow. The repeating groups should contain unique combinations of PartyID <448>, PartyIDSource <447>, PartyRole <452> and PartyRoleQualifier <2376>
=> 452	PartyRole	N	The type of party:  MiFID II relevant Used values: 12 = Executing Trader (Execution Decision Maker) 122 = Investment Decision Maker 1 = UBS LEI 73 = Execution Venue (when 447=G and venue MIC code is given for field 448)
=> 448	PartyID	N	The party id

† Non Deliverable Swaps requests with allocations are not supported.

		MiFID II relevant	For 452=12 or 452=122, this will either be the Algo ID if electronically priced or the trader short code if manually priced For 452=1, this will be the UBS Legal Entity Identifier (LEI) For 452=73, this will be the MIC Code (either as provided on the NewOrder or the UBS MIC Code if relevant)
=> 447	PartyIDSource	N  MiFID II relevant	The type of party id.  Used values: D = Proprietary / Custom Code G* = MIC
=> 2376	PartyRoleQualifier	N  MiFID II relevant	Provides further qualification of PartyRole  Used values: 22 = Algorithm (applicable for PartyRole values 12 or 122) 23 = Firm or legal entity (LEI) (applicable for PartyRole values 1 or 73) 24 = Natural Person (applicable for PartyRole values 12 or 122)
	<i>Standard Trailer</i>	Y	

## 7.9 Execution Report Acknowledgement [Order Placement session]

FIX Tag	Field Name	Always Set?	Value / Comments
	<i>Standard Header</i>	Y	MsgType <35> = BN
37	OrderID	Y	Unique identifier of the order as assigned by UBS.
11	ClOrdID	Y	The identifier of the order as assigned by the client in the New Order – Single message.
17	ExecID	Y	Unique identifier of the execution report, as assigned by UBS.
150	ExecType	Y	Describes the purpose of the execution report. Values used will be: F = Trade (partial fill, or fill)
39	OrdStatus	Y	Describes the current status of the order Values used will be: 1 = Partially Filled 2 = Filled
103	OrdRejReason	N	May be supplied when ExecType = 8 (Rejected), to indicate the reason for the rejection, if the reason corresponds to one of the standard codes for this field.
64	FutSettDate	Y	Used to specify the value date in the format YYYYMMDD.
193	FutSettDate2	N	Used to specify the value date of a swap far leg in the format YYYYMMDD.  Only present for swaps.
1036	ExecAckStatus	Y	Indicates the status of the execution acknowledgement.  Accepted values: '1' - Accepted '2' - Don't Know / Rejected
127	DKReason	C	Conditionally required when ExecAckStatus (1036) = 2 (Don't know / Rejected).  Accepted values: 'A' - Unknown Symbol 'B' - Wrong Side 'C' - Quantity Exceeds Order 'D' - No Matching Order 'E' - Price Exceeds Limit 'F' - Calculation Difference

			'Z' - Other
[Component Block - <Instrument> ]			
=> 55	Symbol	Y	"CCY1/CCY2" This will match the symbol specified in the order request.
=> 461	CFICode	Y	Used to distinguish between asset types. Used values: FFCPNO = Forward Outright (deliverable) FFCNNO = Non-deliverable forward (NDF) FFCPNW = Swap FFCNNW = Non-deliverable swap RCSXXX = Spot
=> 48	SecurityID	N	Valor for Precious Metals  If SecurityID not specified then PM will default to metal specified in 7.15 See 7.16 for list of valid SecurityID
=> 22	SecurityIDSource	N	D = Valoren
=> 9102	BaseCcyDeliveryLocationType	N	Accepted Values R = Default N = Onshore O = Offshore
=> 9103	CounterCcyDeliveryLocationType	N	Accepted Values R = Default N = Onshore O = Offshore
541	MaturityDate	N	NDF Fixing Date or ND Swap near leg Fixing Date  Only sent for NDF messages (CFICode=FFCNNO) or ND Swap messages (CFICode=FFCNNW) when requested on a New Order Single Message with RequestFixingInfo=Y
7541	MaturityDate2	N	ND Swap far leg Fixing Date.  Only sent for ND Swap messages (CFICode= FFCNNW) when requested on New Order Single Message with RequestFixingInfo=Y
7075	FixingReference	Y <sup>(note 1)</sup>	NDF or ND Swap Fixing Procedure.  See Appendix 7.17 for valid values  Only sent for NDF messages (CFICode=FFCNNO) or ND swap messages (CFICode=FFCNNW) when requested on a New Order Single Message with RequestFixingInfo=Y  Note 1: Mandatory only for ND crosses.
54	Side	Y	Specifies the side of the order. Values used will be 1 = Buy 2 = Sell This will match the side specified in the order request.
[Component Block - <OrderQtyData> ]			
=> 38	OrderQty	Y	The quantity, as specified in the order request
192	OrderQty2	N	The swap far leg amount.
40	OrdType	Y	The order type, as specified in the order request
44	Price	N	The price specified on the order request, if one was present
640	Price2	N	The all-in far leg swap rate specified on the order request, if one was present
15	Currency	N	The currency specified on the order request, if one was present
59	TimelnForce	Y	The time in force value as specified on the order request.
32	LastQty	Y	If ExecType(150) = Trade(F), then this will contain the quantity of the order fill being reported. Otherwise this field will contain zero.

31	LastPx	N	If ExecType(150) = Trade(F), then this will contain the rate at which the fill being reported was executed. Otherwise this field will not be specified For forwards, this will be the all-in rate. For swaps the near leg rate.
194	LastSpotRate	N	If ExecType(150) = Trade(F), then this will contain the spot rate used for the fill being reported. Otherwise this field will not be specified
195	LastForwardPoints	N	If ExecType(150) = Trade(F), and the product is a forward or swap, then this will contain the forward points used for the fill being reported (near leg). Otherwise this field will not be specified
641	LastForwardPoints2	N	If ExecType(150) = Trade(F), and the product is a swap, then this will contain the forward points used for the fill being reported (far leg). Otherwise this field will not be specified
151	LeavesQty	N	The quantity open for further execution. If OrdStatus(39) is Cancelled (4) or Rejected(8) then this will be zero. Otherwise it will take the value: OrderQty(38) – CumQty(14)
14	CumQty	N	The cumulative, currently executed quantity for the order. Swaps are fully filled only and this value will contain the near leg amount.
20001	USIIssuerId	N	Dodd-Frank USI field. Issuer, the first part of USI. Echoed back if present in the new order message or generated by UBS if configured.
20002	USITradeId	N	Dodd-Frank USI field. Trade Id, the second part of USI. Echoed back if present in the new order message or generated by UBS if configured.
20003	FarUSIIssuerId	N	Dodd-Frank USI field for Swap far leg. Issuer, the first part of USI. Echoed back if present in the new order message or generated by UBS if configured.
20004	FarUSITradeId	N	Dodd-Frank USI field for Swap far leg. Trade id, the second part of USI. Echoed back if present in the new order message or generated by UBS if configured.
6	AvgPx	N	The average price of all fills for this order. For swaps the near leg rate. If CumQty(14) is zero, i.e. no fills have occurred for the order, then this field will contain zero.
58	Text	N	May be used to return an error message if the ExecType = 8 (Rejected) or 4 (Cancelled).
[Component Block – <Allocations ]			
124	NoExecs	N	The number of repeating groups to follow, one for each allocation leg  The repeating groups should contain unique combinations of AllocAccount <79>, ExecId <17>, LastQty<32> and optional fields AlloclId <70>, USIIssuerId <20001> and USITradeId <20002>
=> 79	AllocAccount	N	Account for this allocation leg
=> 17	ExecId	N	Trade id for this allocation leg
=> 32	LastQty	N	Filled quantity for this allocation leg – positive amount implies same side as Side <54>; negative implies opposite side
=> 70	AlloclId	N	Optional client id for this allocation leg
=> 20001	USIIssuerId	N	Optional field for this allocation leg Dodd-Frank USI field. Issuer, the first part of USI. Both the Issuer and Trade Id need to be present if set.
=> 20002	USITradeId	N	Optional field for this allocation leg Dodd-Frank USI field. Trade Id the second part of USI. Both the Issuer and Trade Id need to be present if set.
=> 20003	FarUSIIssuerId	N	Optional field for this swap allocation far leg Same as USIIssuerId but for far leg
=> 20004	FarUSITradeId	N	Optional field for this swap allocation far leg Same as USITradeId but for far leg
60	TransactTime	Y	This is the final execution timestamp supplied by the venue in UTC to millisecond precision
		MiFID II relevant	
29	LastCapacity	N	UBS Trading Capacity

		MiFID II relevant	Used values: 4 = Principal (maps to 'DEAL')
574	MatchType	N  MiFID II relevant	UBS to specify if we are acting as a Systematic Internaliser  Accepted Values: 9 = Trade Reporting (Systematic Internaliser)
421	BranchCountryCode	N  MiFID II relevant	ISO two character code for the country of the UBS branch executed against
[ Component Block - <Parties> ]			
453	NoPartyIDs	N  MiFID II relevant	The number of repeating groups to follow. The repeating groups should contain unique combinations of PartyID <448>, PartyIDSource <447>, PartyRole <452> and PartyRoleQualifier <2376>
=> 452	PartyRole	N  MiFID II relevant	The type of party:  Used values: 12 = Executing Trader (Execution Decision Maker) 122 = Investment Decision Maker 1 = UBS LEI 73 = Execution Venue (when 447=G and venue MIC code is given for field 448)
=> 448	PartyID	N  MiFID II relevant	The party id  For 452=12 or 452=122, this will either be the Algo ID if electronically priced or the trader short code if manually priced For 452=1, this will be the UBS Legal Entity Identifier (LEI) For 452=73, this will be the MIC Code (either as provided on the NewOrder or the UBS MIC Code if relevant)
=> 447	PartyIDSource	N  MiFID II relevant	The type of party id.  Used values: D = Proprietary / Custom Code G* = MIC
=> 2376	PartyRoleQualifier	N  MiFID II relevant	Provides further qualification of PartyRole  Used values: 22 = Algorithm (applicable for PartyRole values 12 or 122) 23 = Firm or legal entity (LEI) (applicable for PartyRole values 3 or 73) 24 = Natural Person (applicable for PartyRole values 12 or 122)
	<i>Standard Trailer</i>	Y	

## 7.10 Don't Know Trade Message

FIX Tag	Field Name	Reqd?	Value / Comments
	<i>Standard Header</i>	Y	MsgType <35> = Q
37	OrderID	Y	The OrderID corresponding to the problem execution.
17	ExecID	Y	The Execution ID of the problem execution.
127	DKReason	Y	The reason code corresponding to the problem. (If appropriate; use Z=other if not).
[Component Block – <Instrument> ]			
=> 55	Symbol	Y	"CCY1/CCY2"

			This should correspond to the execution report.
=> 461	CFIcode	N	Must be provided if the product is a forward. This should correspond to the execution report.
=> 9102	BaseCcyDeliveryLocationType	N	Accepted Values R = Default N = Onshore O = Offshore
=> 9103	CounterCcyDeliveryLocationType	N	Accepted Values R = Default N = Onshore O = Offshore
54	Side	Y	This should correspond to the execution report.
[Component Block – <OrderQtyData> ]			
=> 38	OrderQty	Y	This should correspond to the execution report.
32	LastQty	N	Required if specified on the execution report
31	LastPx	N	Required if specified on the execution report
58	Text	Y	This should contain an error message indicating the nature of the problem.
	<i>Standard Trailer</i>	Y	

## 7.11 Business Message Reject

FIX Tag	Field Name	Reqd?	Value / Comments
	<i>Standard Header</i>	Y	MsgType <35> = j
45	RefSeqNum	N	The sequence number of the rejected message
372	RefMsgType	Y	The type code for the message being rejected
379	BusinessRejectRefID	N	The "business-level" ID field for the message being rejected. For a Don't Know Trade message, this will be the ExecID field.
380	BusinessRejectReason	Y	Code to identify the reason for the rejection.
58	Text	N	This will contain an error message indicating the nature of the problem.
	<i>Standard Trailer</i>	Y	

## 7.12 Quote Cancel Message [Order Placement or Market Data session]

FIX Tag	Field Name	Always Set?	Value / Comments
	<i>Standard Header</i>	Y	MsgType <35> = Z
131	QuoteReqID	Y	Will refer to the client-provided identifier supplied in the Quote Request message.
298	QuoteCancelType	Y	Values 4 = Cancel All Quotes
[ Component Block - <Instrument> ]			
=> 55	Symbol	Y	"CCY1/CCY2" This will match the symbol provided in the Quote Request
=> 9102	BaseCcyDeliveryLocationType	N	Accepted Values R = Default N = Onshore O = Offshore
=> 9103	CounterCcyDeliveryLocationType	N	Accepted Values R = Default N = Onshore O = Offshore
	<i>Standard Trailer</i>	Y	

### 7.13 Appendix: Tenor Codes

Tenor Code	Description	Range	Example
ON	Overnight	Not applicable	
TOD	Today (T)	Not applicable	
2	Tomorrow (T+1)	Not applicable	
0	Spot	Not applicable	
C	Spot Next (Spot +1)	Not applicable	
Dx	Spot + x business days	1 to 365 business days inclusive	D1
Sx	Spot + x business days	1 to 365 business days inclusive	S1
Wx	Spot + x weeks	1 to 52 weeks inclusive	W1
Mx	Spot + x months	1 to 132 months inclusive	M1
Yx	Spot + x years	1 to 30 years inclusive	Y1
Ix	The next (x)IMM date	0 to 4 inclusive	I0

### 7.14 Appendix: Cuts

Cut	Local Time
BEIJING	09:15
BOGOTA	17:00
BUCHAREST	13:00
BUDAPEST	12:00
BUENOSAIRES	17:00
ISTANBUL	14:00
JAKARTA	12:30
KAZAKHSTAN	12:00
KUALALUMPUR	11:00
LIMA	17:00
LONDON	12:00
MANILA	11:30
MOSCOW	16:30
MUMBAI	12:00
NYORK	10:00
NYORK_BULLION	09:30
NYORK_EM	12:30
SANTIAGO	16:30
SAOPAOLO	18:00
SEOUL	15:30
SINGAPORE	14:00
SINGAPORE_11	11:00
TAIPEI	11:00
TELAVIV	15:00
TELAVIV_FRIDAY	12:00
TOKYO	15:00
WARZAWA	11:00

## 7.15 Appendix: MD subscription for Forwards

A Client can subscribe to MD for Forwards using Tenor (field 63) or Settlement Date (field 64) or both. If both field 63 and field 64 are provided then they must match else the subscription will be rejected.

If the subscription is made using both field 63 and field 64 then it will be valid as long as Tenor matches the Settlement Date provided i.e. at date roll the subscription will become invalid.

## 7.16 Appendix: Default Precious Metals

Metal	Base Currency	Valor (SecurityID)	Valor Description	Location	Grade	Mass Unit	Delivery Code
Gold	XAU	288052	AU MTK LOND	London	995	Oz	Metal Account
Silver	XAG	288051	AG MTK LOND	London	999	Oz	Metal Account
Platinum	XPT	288090	PT MTK OZ	Zurich	9995	Oz	Metal Account
Palladium	XPD	288095	PD MTK OZ	Zurich	9995	Oz	Metal Account

## 7.17 Appendix: List of SecurityID

Metal	Base Currency	Valor (SecurityID)	Valor Description	Location	Grade	Mass Unit	Delivery Code
Gold	XAU	288052	AU MTK LOND	London	995	Oz	Metal Account
	XAU	288055	AU MTK OZ ZH	Zurich	995	Oz	Metal Account
	XAU	289538	AU MTK KG ZH	Zurich	995	KG	Metal Account
	XAU	288029	AU OZ SD 995	Zurich	995	Oz	Collective Custody
	XAU	288024	AU KG SD 995	Zurich	995	KG	Collective Custody
Silver	XAG	288051	AG MTK LOND	London	999	Oz	Metal Account
	XAG	288080	AG MTK OZ ZH	Zurich	999	Oz	Metal Account
	XAG	289511	AG MTK KG ZH	Zurich	999	KG	Metal Account
Platinum	XPT	288090	PT MTK OZ	Zurich	9995	Oz	Metal Account
	XPT	289774	PT MKT LDN OZ	London	9995	Oz	Metal Account
	XPT	287652	PT MTK KG	Zurich	9995	KG	Metal Account
Palladium	XPD	288095	PD MTK OZ	Zurich	9995	Oz	Metal Account
	XPD	289773	PD MTK LONDON	London	9995	Oz	Metal Account
	XPD	288096	PD MTK KG	Zurich	9995	KG	Metal Account

Clients require enablement for each PM valor they wish to price/trade.

## 7.18 Appendix: List of NDF FixingReference

Note that fixing reference must be specified for an ND cross in tag 7075 but may be omitted for USD.

Non-Deliverable Ccy	Deliverable Ccy	FixingReference
ARS	AUD,CAD,CHF,DKK,EUR,GBP,HKD,JPY,MXN,NOK,NZD,SEK,SGD	ARSMaEWAP-UBSFX
ARS	AUD,CAD,CHF,DKK,EUR,GBP,HKD,JPY,MXN,NOK,NZD,SEK,SGD	ARSMaEWAP-WMCO-16LDN
ARS	AUD,CAD,CHF,DKK,EUR,GBP,JPY,NOK,NZD,SEK	ARSMaEWAP-WMCO-8LDN
ARS	USD	ARSMaEWAP
BRL	AUD,CAD,CHF,DKK,EUR,GBP,HKD,JPY,MXN,NOK,NZD,SEK,SGD	PTAX-UBSFX
BRL	AUD,CAD,CHF,DKK,EUR,GBP,HKD,JPY,MXN,NOK,NZD,SEK,SGD	PTAX-WMCO-16LDN
BRL	AUD,CAD,CHF,DKK,EUR,GBP,JPY,NOK,NZD,SEK	PTAX-WMCO-8LDN
BRL	EUR	PTAX-WMCO-16GMT
BRL	USD	PTAX
CLP	AUD,CAD,CHF,DKK,EUR,GBP,HKD,JPY,MXN,NOK,NZD,SEK,SGD	CLP10-UBSFX
CLP	AUD,CAD,CHF,DKK,EUR,GBP,HKD,JPY,MXN,NOK,NZD,SEK,SGD	CLP10-WMCO-16LDN
CLP	AUD,CAD,CHF,DKK,EUR,GBP,JPY,NOK,NZD,SEK	CLP10-WMCO-8LDN
CLP	USD	CLP10
CNY	AUD,CAD,CHF,DKK,EUR,GBP,HKD,JPY,NOK,NZD,SEK,SGD	SAEC-UBSFX
CNY	AUD,CAD,CHF,DKK,EUR,GBP,HKD,JPY,NOK,NZD,SEK,SGD	SAEC-WMCO-16LDN
CNY	AUD,CAD,CHF,DKK,EUR,GBP,JPY,NOK,NZD,SEK	SAEC-WMCO-8LDN
CNY	AUD,CAD,CHF,EUR,GBP,JPY	SAEC-TKFE2
CNY	EUR	SAEC-TKFENS
CNY	SGD	SAEC-ABS VWAP
CNY	USD	SAEC
COP	AUD,CAD,CHF,DKK,EUR,GBP,HKD,JPY,MXN,NOK,NZD,SEK,SGD	COPTRM-UBSFX
COP	AUD,CAD,CHF,DKK,EUR,GBP,HKD,JPY,MXN,NOK,NZD,SEK,SGD	COPTRM-WMCO-16LDN
COP	AUD,CAD,CHF,DKK,EUR,GBP,JPY,NOK,NZD,SEK	COPTRM-WMCO-8LDN
COP	USD	COPTRM
EGP	AUD,CAD,CHF,DKK,EUR,GBP,HKD,JPY,NOK,NZD,SEK,SGD	FEMF-UBSFX
EGP	AUD,CAD,CHF,DKK,EUR,GBP,HKD,JPY,NOK,NZD,SEK,SGD	FEMF-WMCO-16LDN
EGP	AUD,CAD,CHF,DKK,EUR,GBP,JPY,NOK,NZD,SEK	FEMF-WMCO-8LDN
EGP	USD	FEMF
IDR	AUD,CAD,CHF,DKK,EUR,GBP,HKD,JPY,NOK,NZD,SEK,SGD	IDRISDOR-UBSFX
IDR	AUD,CAD,CHF,DKK,EUR,GBP,HKD,JPY,NOK,NZD,SEK,SGD	IDRISDOR-WMCO-16LDN
IDR	AUD,CAD,CHF,DKK,EUR,GBP,JPY,NOK,NZD,SEK	IDRISDOR-WMCO-8LDN
IDR	AUD	IDRISDOR-TKFE2
IDR	CAD,CHF,EUR,GBP,JPY	IDRISDOR-TKFE
IDR	SGD	IDRISDOR-ABS VWAP
IDR	USD	IDRISDOR
INR	AUD,CAD,CHF,DKK,EUR,GBP,HKD,JPY,NOK,NZD,SEK,SGD	FBIL-UBSFX
INR	AUD,CAD,CHF,DKK,EUR,GBP,HKD,JPY,NOK,NZD,SEK,SGD	FBIL-WMCO-16LDN
INR	AUD,CAD,CHF,DKK,EUR,GBP,JPY,NOK,NZD,SEK	FBIL-WMCO-8LDN
INR	AUD,CAD,CHF,EUR,GBP,JPY	FBIL-TKFE2
INR	EUR	FBIL-TKFENS
INR	SGD	FBIL-ABS VWAP
INR	USD	FBIL
KRW	AUD,CAD,CHF,DKK,EUR,GBP,HKD,JPY,NOK,NZD,SEK,SGD	KFTC 18-UBSFX
KRW	AUD,CAD,CHF,DKK,EUR,GBP,HKD,JPY,NOK,NZD,SEK,SGD	KFTC 18-WMCO-16LDN
KRW	AUD,CAD,CHF,DKK,EUR,GBP,JPY,NOK,NZD,SEK	KFTC 18-WMCO-8LDN
KRW	AUD	KFTC 18-TKFE2
KRW	AUD	KFTC 30-TKFE2

KRW	CAD,CHF,EUR,GBP,JPY,NZD	KFTC30-TKFE
KRW	CHF,EUR,GBP,JPY	KFTC18-TKFE
KRW	JPY	KFTC18-TKFE2NS-3.30
KRW	JPY	KFTC18-TKFENS3
KRW	JPY	KFTC18-TKFENS4
KRW	SGD	KFTC18-ABS VWAP
KRW	USD	KFTC18
KZT	AUD,CAD,CHF,DKK,EUR,GBP,HKD,JPY,NOK,NZD,SEK,SGD	KASE-UBSFIX
KZT	AUD,CAD,CHF,DKK,EUR,GBP,HKD,JPY,NOK,NZD,SEK,SGD	KASE-WMCO-16LDN
KZT	AUD,CAD,CHF,DKK,EUR,GBP,JPY,NOK,NZD,SEK	KASE-WMCO-8LDN
KZT	USD	KASE
MYR	AUD,CAD,CHF,DKK,EUR,GBP,HKD,JPY,NOK,NZD,SEK,SGD	MYRKLREF-WMCO-16LDN
MYR	AUD,CAD,CHF,DKK,EUR,GBP,JPY,NOK,NZD,SEK	MYRKLREF-WMCO-8LDN
MYR	AUD,CAD,CHF,DKK,GBP,HKD,JPY,NOK,NZD,SEK,SGD	MYRKLREF-UBSFIX
MYR	AUD	MYRPPKM-TKFE2
MYR	CAD	MYRFIX01-TKFE2
MYR	CHF,EUR,GBP,JPY	MYRKLREF-TKFE2
MYR	EUR	MYRPPKM-UBSFIX
MYR	SGD	MYRKLREF-ABS VWAP
MYR	SGD	PPKM-ABS VWAP
MYR	USD	MYRKLREF
NGN	AUD,CAD,CHF,DKK,EUR,GBP,JPY,NOK,NZD,SEK	FMDA-WMCO-8LDN
NGN	CHF,EUR,GBP,JPY	FMDA-UBSFIX
NGN	CHF,EUR,GBP,JPY	FMDA-WMCO-16LDN
NGN	USD	FMDA
PEN	AUD,CAD,CHF,DKK,EUR,GBP,HKD,JPY,NOK,NZD,SEK,SGD	PENAVE-UBSFIX
PEN	AUD,CAD,CHF,DKK,EUR,GBP,HKD,JPY,NOK,NZD,SEK,SGD	PENAVE-WMCO-16LDN
PEN	AUD,CAD,CHF,DKK,EUR,GBP,JPY,NOK,NZD,SEK	PENAVE-WMCO-8LDN
PEN	USD	PENAVE
PHP	AUD,CAD,CHF,DKK,EUR,GBP,HKD,JPY,NOK,NZD,SEK,SGD	PDSPESO-WMCO-16LDN
PHP	AUD,CAD,CHF,DKK,EUR,GBP,HKD,JPY,NOK,NZD,SEK,SGD	PHPEUSD-UBSFIX
PHP	AUD,CAD,CHF,DKK,EUR,GBP,JPY,NOK,NZD,SEK	PDSPESO-WMCO-8LDN
PHP	AUD,CAD,CHF,EUR,GBP,JPY	PDSPESO-TKFE2
PHP	EUR	PDSPESO-TKFENS
PHP	SGD	PDSPESO-ABS VWAP
PHP	USD	PDSPESO
RUB	AUD,CAD,CHF,DKK,EUR,GBP,HKD,JPY,NOK,NZD,SEK,SGD,TRY,ZAR	RUBMOEX-UBSFIX
RUB	AUD,CAD,CHF,DKK,EUR,GBP,HKD,JPY,NOK,NZD,SEK,SGD,TRY,ZAR	RUBMOEX-WMCO-16LDN
RUB	AUD,CAD,CHF,DKK,EUR,GBP,JPY,NOK,NZD,SEK	RUBMOEX-WMCO-8LDN
RUB	SGD	RUBMOEX-ABS VWAP
RUB	USD	RUBMOEX
TWD	AUD,CAD,CHF,DKK,EUR,GBP,HKD,JPY,NOK,NZD,SEK,SGD	TAIFX1-UBSFIX
TWD	AUD,CAD,CHF,DKK,EUR,GBP,HKD,JPY,NOK,NZD,SEK,SGD	TAIFX1-WMCO-16LDN
TWD	AUD,CAD,CHF,DKK,EUR,GBP,JPY,NOK,NZD,SEK	TAIFX1-WMCO-8LDN
TWD	AUD	TAIFX1-TKFE2
TWD	CAD,CHF,EUR,GBP,JPY	TAIFX1-TKFE
TWD	SGD	TAIFX1-ABS VWAP
TWD	USD	TAIFX1
UAH	AUD,CAD,CHF,DKK,EUR,GBP,HKD,JPY,NOK,NZD,SEK,SGD	UAHEMTA-UBSFIX
UAH	AUD,CAD,CHF,DKK,EUR,GBP,HKD,JPY,NOK,NZD,SEK,SGD	UAHEMTA-WMCO-16LDN
UAH	AUD,CAD,CHF,DKK,EUR,GBP,JPY,NOK,NZD,SEK	UAHEMTA-WMCO-8LDN
UAH	USD	UAHEMTA

## 7.19 Appendix: FX Swap Pricing and Execution

Further information on trading workflow and price calculations for FX swaps.

### 7.19.1 FX Swaps Pricing Workflow

FX swaps are priced using RFQ (request for quote) and RFS (request for stream) models. In order to execute a FX swap, a request for a single price or a stream must be made to obtain pricing, so that a quoted order may be constructed.

### 7.19.2 FX Swaps FIX Messaging

Please refer to section 7 for complete business message definitions; the following tables contain a swap-specific subset of the full business message definitions.

#### 7.19.2.1 Quote Request Message (35=R)

FIX Tag	Field Name	Reqd?	Value / Comments
461	CFIcode	Y	Set to FFCPNW for (deliverable) swaps or FFCNNW for non-deliverable swaps.
38	OrderQty	Y	The near leg target amount of a Swap denominated in the currency specified in Currency<15>.
192	OrderQty2	Y	The far leg target amount of a swap denominated in the currency specified in Currency<15>. For even swaps, set OrderQty2 equal to OrderQty.
63	SettlmntTyp	N	The tenor of the near leg of the swap.
64	FutSettDate	N	The value date of the near leg of a swap, in the format YYYYMMDD. If SettlmntTyp<63> is also set, the value date specified in FutSettDate<64> will be used regardless of whether the tenor specified in SettlmntTyp <63> falls on this date.
6600	SettlmntTyp2	N	The tenor of the far leg of the swap.
193	FutSettDate2	N	The value date of the far leg of a swap, in the format YYYYMMDD. If SettlmntTyp2<6600> is also set, the value date specified in FutSettDate2<193> will be used regardless of whether the tenor specified in SettlmntTyp2 <6600> falls on this date.

#### 7.19.3 Quote Message (35=S)

FIX Tag	Field Name	Reqd?	Value / Comments
132	BidPx	Y	The near leg bid rate for a BID quote supporting a BUY order from the client's perspective.
133	OfferPx	Y	The near leg offer rate for an OFFER quote supporting a SELL order from the client's perspective.
134	BidSize	Y	The bid (buy) amount.
135	OfferSize	Y	The offer (sell) amount.
188	BidSpotRate	Y	The SPOT rate supporting the BID quote for a BUY order from the client's perspective.
190	OfferSpotRate	Y	The SPOT Rate supporting the OFFER quote for a SELL order from the client's perspective.
189	BidForwardPoints	Y	The near leg bid pips.

642	BidForwardPoints2	Y	The far leg bid pips.
191	OfferForwardPoints	Y	The near leg offer pips.
643	OfferForwardPoints2	Y	The far leg offer pips.
64	FutSettDate	Y	The near leg value date.
193	FutSettDate2	Y	The far leg value date.
1065	BidSwapPoints	Y	Bid swap points. The difference between the far leg bid rate and the near leg offer rate.
1066	OfferSwapPoints	Y	Ask swap points. The difference between the far leg offer rate and the near leg bid rate.

#### 7.19.4 New Order Single Message (35=D)

- For a buy order (sell near, buy far), populate <640> with the far leg offer rate and <44> with the near leg bid rate.
- For a sell order (buy near, sell far), populate <640> with the far leg bid rate and <44> with the near leg offer rate.
- OfferSpotRate<190> is the spot rate supporting a sell order (buy near, sell far) from the client perspective.
- BidSpotRate<188> is the spot rate supporting a buy order (sell near, buy far) from the client perspective.
- When sending a buy order (sell near, buy far), pricing is calculated as follows:
  - Far leg offer rate (640) = BidSpotRate (188) + OfferForwardPoints2 (643)
  - Near leg bid rate (44) = BidSpotRate (188) + BidForwardPoints (189) = BidPx (132)
  - In this case, UBS' offer swap points (1066) = far leg offer rate - near leg bid rate.
- When sending a sell order (buy near, sell far), pricing is calculated as follows:
  - The far leg bid rate (640) = OfferSpotRate (190) + BidForwardPoints2 (642)
  - The near leg offer rate (44) = OfferSpotRate (190) + OfferForwardPoints (191) = OfferPx (133)
  - In this case, UBS' bid swap points (1065) = far leg bid rate - near leg offer rate.
- Side<54> refers to the far leg.
- TimelnForce<59> must always be set to 4 (FOK).

#### 7.19.5 Execution Report Message (35=8)

When a fill is reported (ExecType=F), price-related tags will be populated as follows:

- LastSpotRate<194> contains the near leg spot rate of the fill, either BidSpotRate<188> or OfferSpotRate<190>, depending on the side.
- LastForwardPoints<195> contains the near leg forward points, either BidForwardPoints<189> or OfferForwardPoints<191>, depending on the side.

- LastForwardPoints2<641> contains the far leg forward points, either BidForwardPoints2<642> or OfferForwardPoints2<643>, depending on the side.

## **7.20 Appendix: External References**

ISDA: Unique Swap Identifier (USI): An Overview Document

<https://www.isda.org/a/8yEDE/isda-usi-overview-paper-updated-2013-nov-18-v8-clean.pdf>

ESMA: MiFID Secondary Markets, Annex II – Data Validation Rules for Transaction Reporting (Ref 2015-1910)

<https://www.esma.europa.eu/document/annex-ii-data-validation-rules-transaction-reporting>

## 8. Example Message Sequences

### 8.1 Logon

Logon Request

Tag	Field Name	Value	Meaning
8	BeginString	FIX.4.3	
9	BodyLength	101	
35	MsgType	A	Logon
49	SenderCompID	Client1a	
56	TargetCompID	Fx2B	
34	MsgSeqNum	4	
52	SendingTime	20070530-06:57:54	
10	Checksum	049	
108	HeartBtInt	60	
553	Username	client1-user	
554	Password	client1-password	
98	EncryptMethod	0	NoneOther

Successful Logon Reply

Tag	Field Name	Value	Meaning
8	BeginString	FIX.4.3	
9	BodyLength	63	
35	MsgType	A	Logon
49	SenderCompID	Fx2B	
56	TargetCompID	Client1a	
34	MsgSeqNum	4	
52	SendingTime	20070530-06:57:55	
108	HeartBtInt	60	
98	EncryptMethod	0	NoneOther
10	Checksum	102	

### 8.2 Logon and Reset Sequence Numbers

Tag	Field Name	Value	Meaning
8	BeginString	FIX.4.3	
9	BodyLength	107	
35	MsgType	A	Logon
49	SenderCompID	Client1a	
56	TargetCompID	Fx2B	
34	MsgSeqNum	1	
52	SendingTime	20070530-07:00:17	
10	Checksum	085	
108	HeartBtInt	60	
553	Username	client1-user	

554	Password	client1-password	
141	ResetSeqNumFlag	Y	YesResetSequenceNumbers

### 8.3 Request Price Subscription

Request Subscription to EUR/USD stream with 2 liquidity bands

Tag	Field Name	Value	Meaning
8	BeginString	FIX.4.3	
9	BodyLength	118	
35	MsgType	V	MarketDataRequest
49	SenderCompID	Client1a	
56	TargetCompID	Fx2B	
34	MsgSeqNum	21	
52	SendingTime	20070530-07:12:27	
10	CheckSum	161	
262	MDReqID	MDREQ101	
263	SubscriptionRequestType	1	Snapshot+Updates
264	MarketDepth	2	
265	MDUpdateType	0	FullRefresh
267	NoMDEntryTypes	2	
269	MDEntryType	0	Bid
269	MDEntryType	1	Offer
146	NoRelatedSym	1	
55	Symbol	EUR/USD	

### 8.4 Price update

Price update for requested EUR/USD Price subscription

Tag	Field Name	Value	Meaning
8	BeginString	FIX.4.3	
9	BodyLength	463	
35	MsgType	W	MarketDataSnapshotFullRefresh
49	SenderCompID	Fx2B	
56	TargetCompID	Client1a	
34	MsgSeqNum	138	
52	SendingTime	20070530-07:15:26	
262	MDReqID	MDREQ101	
55	Symbol	EUR/USD	
268	NoMDEntries	4	
269	MDEntryType	0	Bid
270	MDEntryPx	1.3434	
15	Currency	EUR	
271	MDEntrySize	1000000.0	
272	MDEntryDate	20070601	
276	QuoteCondition	A	OpenActive
299	QuoteEntryID	EURUSD-29655000370530071431791-B0	
269	MDEntryType	0	Bid

270	MDEntryPx	1.3433	
15	Currency	EUR	
271	MDEntrySize	2000000.0	
272	MDEntryDate	20070601	
276	QuoteCondition	A	OpenActive
299	QuoteEntryID	EURUSD-29655000370530071431791-B1	
269	MDEntryType	1	Offer
270	MDEntryPx	1.3437	
15	Currency	EUR	
271	MDEntrySize	1000000.0	
272	MDEntryDate	20070601	
276	QuoteCondition	A	OpenActive
299	QuoteEntryID	EURUSD-29655000370530071431791-A0	
269	MDEntryType	1	Offer
270	MDEntryPx	1.3438	
15	Currency	EUR	
271	MDEntrySize	2000000.0	
272	MDEntryDate	20070601	
276	QuoteCondition	A	OpenActive
299	QuoteEntryID	EURUSD-29655000370530071431791-A1	
10	Checksum	247	

## 8.5 Unsubscribe

Unsubscribe from the EUR/USD price stream

Tag	Field Name	Value	Meaning
8	BeginString	FIX.4.3	
9	BodyLength	112	
35	MsgType	V	MarketDataRequest
49	SenderCompID	Client1a	
56	TargetCompID	Fx2B	
34	MsgSeqNum	31	
52	SendingTime	20070530-07:21:24	
10	Checksum	145	
262	MDReqID	MDREQ101	
263	SubscriptionRequestType	2	DisablePreviousSnapshot+UpdateRequest
264	MarketDepth	5	
267	NoMDEntryTypes	2	
269	MDEntryType	0	Bid
269	MDEntryType	1	Offer
146	NoRelatedSym	1	
55	Symbol	EUR/USD	

## 8.6 Order Request

“Immediate or Cancel” market order to buy 5M EUR of EUR/USD.

Tag	Field Name	Value	Meaning
8	BeginString	FIX.4.3	
9	BodyLength	184	
35	MsgType	D	OrderSingle
49	SenderCompID	Client1a	
56	TargetCompID	Fx2B	
34	MsgSeqNum	81	
52	SendingTime	20070530-07:57:00	
10	Checksum	121	
11	ClOrdID	fixorder2	
453	NoPartyIDs	2	
448	PartyID	Cpty1	
447	PartyIDSource	D	ProprietaryCustomCode
452	PartyRole	13	OrderOriginationFirm
448	PartyID	Joe Trader	
447	PartyIDSource	D	ProprietaryCustomCode
452	PartyRole	11	OrderOriginationTrader
21	HandlInst	1	Automated execution order, private, no Broker intervention
55	Symbol	EUR/USD	
54	Side	1	Buy
60	TransactTime	20070530-07:57:00.120	
38	OrderQty	5000000	
40	OrdType	1	Market
59	TimInForce	3	ImmediateOrCancel

## 8.7 Execution Reports

These are example reports for the above order, consisting of:  
 Order Accept, Partial Fill (1M), Cancel of remainder.

Order Accept:

Tag	Field Name	Value	Meaning
8	BeginString	FIX.4.3	
9	BodyLength	189	
35	MsgType	8	ExecutionReport
49	SenderCompID	Fx2B	
56	TargetCompID	Client1a	
34	MsgSeqNum	283	
52	SendingTime	20070530-07:57:00	
11	ClOrdID	fixorder2	
17	ExecID	ER12000170530075701069	
55	Symbol	EUR/USD	
54	Side	1	Buy
38	OrderQty	5000000	

40	OrdType	1	Market
59	TimeInForce	3	ImmediateOrCancel
32	LastQty	0	
37	OrderID	9000170530075701054	
150	ExecType	0	New
39	OrdStatus	0	New
151	LeavesQty	5000000	
14	CumQty	0	
6	AvgPx	0	
10	Checksum	057	

Trade Partial Fill, for 1000000@1.3439

Tag	Field Name	Value	Meaning
8	BeginString	FIX.4.3	
9	BodyLength	233	
35	MsgType	8	ExecutionReport
49	SenderCompID	Fx2B	
56	TargetCompID	Client1a	
34	MsgSeqNum	285	
52	SendingTime	20070530-07:57:00	
11	ClOrdID	fixorder2	
17	ExecID	ER13000170530075701179	
64	FutSettDate	20070601	
55	Symbol	EUR/USD	
54	Side	1	Buy
38	OrderQty	5000000	
40	OrdType	1	Market
59	TimeInForce	3	ImmediateOrCancel
32	LastQty	1000000.0	
37	OrderID	9000170530075701054	
150	ExecType	F	Trade
39	OrdStatus	1	PartiallyFilled
31	LastPx	1.3439	
194	LastSpotRate	1.3439	
151	LeavesQty	4000000.0	
14	CumQty	1000000.0	
6	AvgPx	1.3439	
10	Checksum	138	

Trade Cancel for remainder

Tag	Field Name	Value	Meaning
8	BeginString	FIX.4.3	
9	BodyLength	197	
35	MsgType	8	ExecutionReport
49	SenderCompID	Fx2B	
56	TargetCompID	Client1a	
34	MsgSeqNum	288	

52	SendingTime	20070530-07:57:00	
11	ClOrdID	fixorder2	
17	ExecID	ER15000170530075701210	
55	Symbol	EUR/USD	
54	Side	1	Buy
38	OrderQty	5000000	
40	OrdType	1	Market
59	TimeInForce	3	ImmediateOrCancel
32	LastQty	0	
37	OrderID	9000170530075701054	
150	ExecType	4	Canceled
39	OrdStatus	4	Canceled
151	LeavesQty	4000000.0	
14	CumQty	1000000.0	
6	AvgPx	1.3439	
10	Checksum	209	