



# **CBOE EUROPE EQUITIES GUIDANCE NOTE**

## **2017 Q2 EXCHANGE RELEASE**

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VERSION 1.1

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### Version History

Version Number	Publication Date	Description
1.0	13 <sup>th</sup> February 2017	- Initial Version.
1.1	25 <sup>th</sup> May 2017	<ul style="list-style-type: none"> <li>- MMT v3: Further guidance for flagging of BENC, PRIC, NPFT and TNCP Trades.</li> <li>- MMT v3: Input/output guidance table separated into on-exchange and off-exchange tables. Clarified valid values supported on-exchange and off-exchange.</li> <li>- MMT v3: Updated inbound values for driving PRIC value for outbound market data on-exchange.</li> <li>- MMT v3: Updated TradePriceCondition to not drive RPRI value for outbound market data on-exchange.</li> <li>- MMT v3: Updated TradePriceCondition to not drive NPFT value for outbound market data off-exchange.</li> <li>- MMT v3: Clarified valid values TrdRegPublicationReasons.</li> <li>- MiFID II: Clarified valid values for OrderOrigination.</li> <li>- MiFID II: PartyRoleQualifier and BOE equivalents no longer mandatory for reserved short code IDs</li> <li>- MiFID II: Increased range of valid short code values.</li> <li>- MiFID II: Updated with API details for providing programmatic file upload and download of MiFID II identifiers.</li> </ul>

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# 1. Introduction

This guidance note is intended to provide context and detail and background to the changes contained within the Cboe Europe Equities (“Cboe”) 2017 Q2 Exchange Release going live in Production on **Friday 14th July 2017**. The 2017 Q2 release contains **mandatory protocol-level (FIX, BOE, PITCH) interface changes** to the Cboe BXE, CXE and TRF platforms. All FIX interfaces are subject to the changes ie. order entry, trade reporting and drop copy.

These changes constitute the main functional changes to real-time protocols for 2017, which are considered mandatory for MiFIR and MiFID II (collectively "[MiFID II](#)") compliance and MMT v3 adherence. They are in addition to [previous exchange releases](#) which included MiFID II-related content. Cboe’s MiFID II implementation milestones can be found [here](#). Participants are advised to check this resource regularly for Cboe’s upcoming MiFID II milestones.

Changes have been summarised in section 2, including guidance on MiFID II field usage and Waiver / Negotiation Indicators.

Full change details follow in the subsequent protocol specific sections.

New Cboe fee codes will appear in existing columns in Trade Data and Trade Detail files.

## 1.1 Intended Audience & Reason for changes

This guide is intended to be read by those with responsibility for implementing and supporting interfaces to Cboe (typically software engineers, support staff, business analysts and systems administrators).

These changes are being made in order to provide support for:

- further features related to MiFIR and MiFID II (collectively "MiFID II") compliance
- fields have been added and updated in order to align with the FIX Trading Community standard
- [MMT v3](#), as published by FIX Trading Community
- new Cboe fee codes which describe the category of fee applicable to trades on Cboe BXE, CXE and TRF platforms

## 2. Summary

### 2.1 MiFID II

To allow Participants to meet MiFID II obligations, Cboe will make the following changes:

#### FIX

- **OrderCapacity**(47) will be required on all orders into BXE and CXE.
- **OrderCapacity**(47) (orders) or **OrderCapacity**(528) (trade capture reports) will no longer be used to determine which Central Counterparty (CCP) Account Type prefix to use in Account(1) in BXE and CXE.
- **LastCapacity**(29) with values 1 = *Agent*, 3 = *Cross as principal* and 4 = *Principal* will be sent back by Cboe on all order executions in BXE and CXE. Details in section 3.1.
- **LiquidityProvision**(9215) will be replaced with **OrderAttributeTypes**(8015) value 2 (*Liquidity Provision activity order*) and will be required when orders are part of a liquidity provision activity on BXE and CXE
- **LastMkt**(30) will be sent back by Cboe on all order executions and trade capture reports in BXE and CXE
- **Algo**(20001) will be replaced with **OrderAttributeTypes**(8015) value 4 (*Algorithmic Order*)
- **Side**(54) values 5 (*Sell Short*), 6 (*Sell Short Exempt*) and H (*Sell Undisclosed*) will be supported on orders and trade capture reports in BXE and CXE
- **PartyID**(448) reserved value 3 (*CLIENT*) will be added and used for when time and venue of the order were instructed by the client of the Participant
- **PartyID** reserved values 0 = NONE, 1 = AGGR and 2 = PNAL will be applicable to PartyRole value 3. **PartyID** reserved value 3 = CLIENT will be applicable to PartyRole value 12
- **PartyRole**(452) value 5 will change to 122 (*Investor ID*)
- **PartyIDSource**(447) value D will be replaced with P to identify short code submission for RTS 24 Order Record Keeping for orders sent into BXE and CXE
- **PartyRoleQualifier**(2376) will be supported with the values 0 (*None*), 22 (*Algorithm*), 23 (*Firm or legal entity (LEI)*) and 24 (*Natural person*) for orders sent into BXE and CXE
- **BasisOfTrade**(7559) value 1 will be replaced with **OrderOrigination**(1724) value 5 on orders sent into BXE and CXE to signify an order as a result of DEA activity
- **BART** will be supported as an accepted MIC for trade capture reports submitted in Cboe' Regulated Market primary listed symbols using ISIN/CCY/MIC
- **Timestamps** in inbound and outbound messages in BXE, CXE and TRF environments that are specified to millisecond granularity will change to microsecond granularity

#### BOE

- **Capacity** will be required on all orders into BXE and CXE. Values are same as FIX tag OrderCapacity(47). Details in section 3.1.
- **Capacity** will no longer be used to determine which Central Counterparty (CCP) Account Type prefix to use in **Account** for orders and trade capture reports in BXE and CXE.
- **LiquidityProvision** will be required when orders are part of a liquidity provision activity in BXE and CXE
- **Side** values 5 (*Sell Short*), 6 (*Sell Short Exempt*) and H (*Sell Undisclosed*) will be supported on orders and trade capture reports in BXE and CXE
- **ClientID** reserved value 0 (*NONE*) will be added and used when there is no Client for the order, on orders in BXE and CXE
- **ExecutorID** will now support reserved value 3 = *CLIENT* to be used for when time and venue of the order were instructed by the client of the Participant, on orders in BXE and CXE

- **ClientQualifiedRole**, **ExecutorQualifiedRole** and **InvestorQualifiedRole** each with values 0 (*None*), 22 (*Algorithm*), 23 (*Firm or legal entity (LEI)*) and 24 (*Natural person*) will be supported on orders into BXE and CXE.
- **BasisOfTrade** value 1 (*DMA*) will be replaced with **OrderOrigination** value 5 (*DEA*) on orders sent into BXE and CXE to signify an order as a result of DEA activity
- **BART** will be supported as an accepted MIC for trade capture reports submitted in Cboe' Regulated Market primary listed symbols using ISIN/CCY/MIC

### TCP and Multicast PITCH

- **Trade Message – Unknown Symbol** will be added as a new message in TRF to allow trades in symbols outside of the TRF symbol universe to be submitted.

### Last Sale feed

- The existing Cboe Last Sale feed disseminates real-time, intraday trade data which includes price, volume and time while specifically excluding order information.
- It is in the proscribed MiFID II format and includes MiFID II-complaint flags for the purpose of post-trade transparency.

### Identifier Management Application

- The MiFID II Identifier Management application for uploading and downloading short to long code registrations replaces the web API based functionality previously announced.
- Each of the CSV files provided by the application have been reworked to provide the same level of features as the web API, as outlined in section 9.

## 2.2 Note on MiFID II Mandatory Fields

Whilst *AlgorithmicIndicator* (for orders only), *Capacity*, *ClientID*, *ClientQualifiedRole*, *ExecutorID*, *ExecutorQualifiedRole*, *InvestorID*, *InvestorQualifiedRole*, *LiquidityProvision* and *OrderOrigination* are optional from a BOE bitfield perspective, correctly providing data associated with these fields may be mandatory from a MiFID II regulatory perspective. Participants should assess which of these fields are required on each order according to the Cboe Rulebook and their MiFID II obligations.

## 2.3 MiFID II Inbound Field Guidance

Field	Content of the order details to be maintained by Cboe at the disposal of the competent authority	FIX	BOE
Direct Electronic Access (DEA)	<p>'true' where the order was submitted to the trading venue using DEA as defined in Article 4(1) (41) of Directive (EU) 2014/65.</p> <p>'false' where the order was not submitted to the trading venue using DEA as defined in Article 4(1) (41) of Directive (EU) 2014/65.</p>	<p>OrderOrigination (1724) = 0 (Default). Indicates DEA activity (as deemed by MiFID II) <b>is not</b> involved in the order.</p> <p>OrderOrigination (1724) = 5 (DEA). Indicates DEA activity (as deemed by MiFID II) is involved in the order.</p>	<p>OrderOrigination = 0 (Default). Indicates DEA activity (as deemed by MiFID II) <b>is not</b> involved in the order.</p> <p>OrderOrigination = 5 (DEA). Indicates DEA activity (as deemed by MiFID II) is involved in the order.</p>
Client identification code	<p>Code used to identify the client of the member or participant of the trading venue. In case of DEA, the code of the DEA user should be provided.</p> <p>Where the client is a legal entity, the LEI code of the client shall be used.</p> <p>Where the client is not a legal entity, the {NATIONAL_ID} shall be used. In the case of aggregated orders, the flag AGGR shall be used.</p> <p>In case of pending allocations, the flag PNAL shall be used.</p> <p>This field shall be left blank only if the member or participant of the trading venue has no client.</p>	<p>Where the order is for a single client who is a legal entity:  PartyID (448) = Short Code ID / 0 (NONE) / 1 (AGGR) / 2 (PNAL)  PartyRole(452) = 3 (Client ID)  PartyIDSource(447) = P (Short code identifier)  PartyRoleQualifier(2376) = 0 (where PartyID is 0, 1 or 2) or 23 (Firm or Legal Entity)</p> <p>Where the order is for a single client who is not a legal entity:  PartyID (448) = Short Code ID / 0 (NONE) / 1 (AGGR) / 2 (PNAL)  PartyRole(452) = 3 (Client ID)  PartyIDSource(447) = P (Short code identifier)  PartyRoleQualifier(2376) = 0 (where PartyID is 0, 1 or 2) or 24 (Natural Person)</p>	<p>Where the order is for a single client who is a legal entity:  ClientID = Short Code ID / 0 (NONE) / 1 (AGGR) / 2 (PNAL)  ClientQualifiedRole = 0 (where ClientID is 0, 1 or 2) or 23 (Firm or LEI)</p> <p>Where the order is for a single client who is not a legal entity:  ClientID = Short Code ID / 0 (NONE) / 1 (AGGR) / 2 (PNAL)  ClientQualifiedRole = 0 (where ClientID is 0, 1 or 2) or 24 (Natural Person)</p>
Investment decision within firm	<p>Code used to identify the person or the algorithm within the member or participant of the trading venue who is responsible for the investment decision.</p> <p>Where a natural person(s) within the member or participant of the trading venue is responsible for the investment decision the person who is responsible or has primary responsibility for the investment decision shall be identified with the {NATIONAL_ID}</p> <p>Where an algorithm is responsible for the investment decision the field shall be populated in accordance with Article 8 of [RTS 22 on transaction reporting under Article 26 of Regulation (EU) No 600/2014.]</p> <p>This field shall be left blank when the investment decision was not made by a person or algorithm within the member or participant of the trading venue.</p>	<p>Where decision maker is a trader:  PartyID (448) = Short Code ID  PartyRole(452) = 122 (Investment decision maker)  PartyIDSource(447) = P (Short code identifier)  PartyRoleQualifier(2376) = 24 (Natural Person)</p> <p>Where decision maker is an algorithm:  PartyID (448) = Short Code ID  PartyRole(452) = 122 (Investment decision maker)  PartyIDSource(447) = P (Short code identifier)  PartyRoleQualifier(2376) = 22 (Algorithm)</p>	<p>Where decision maker is a trader:  InvestorID = Short Code ID  InvestorQualifiedRole = 24 (Natural Person)</p> <p>Where decision maker is an algorithm:  InvestorID = Short Code ID  InvestorQualifiedRole = 22 (Algorithm)</p>



Field	Content of the order details to be maintained by Cboe at the disposal of the competent authority	FIX	BOE
Execution within firm	<p>Code used to identify the person or algorithm within the member or participant of the trading venue who is responsible for the execution of the transaction resulting from the order.</p> <p>Where a natural person is responsible for the execution of the transaction, the person shall be identified by {NATIONAL_ID}</p> <p>Where an algorithm is responsible for the execution of the transaction, this field shall be populated in accordance with Article 9 of [RTS 22 on transaction reporting under Article 26 of Regulation (EU) No 600/2014]</p> <p>Where more than one person or a combination of persons and algorithms are involved in the execution of the transaction, the member or participant or client of the trading venue shall determine the trader or algorithm primarily responsible as specified in Article 9(4) of [RTS on trading obligations under Article 26 of Regulation (EU) No 600/2014] and populate this field with the identity of that trader or algorithm.</p>	<p>Where decision maker is a trader: PartyID (448) = Short Code ID / 3 (CLIENT) PartyRole(452) = 12 (Executing trader) PartyIDSource(447) = P (Short code identifier) PartyRoleQualifier(2376) = 0 (where PartyID is 3) or 24 (Natural Person)</p> <p>Where decision maker is an algorithm: PartyID (448) = Short Code ID / 3 (CLIENT) PartyRole(452) = 12 (Executing trader) PartyIDSource(447) = P (Short code identifier) PartyRoleQualifier(2376) = 0 (where PartyID is 3) or 22 (Algorithm)</p>	<p>Where decision maker is a trader: ExecutorID = Short Code ID / 3 (CLIENT) ExecutorQualifiedRole = 0 (where ExecutorID is 3) or 24 (Natural Person)</p> <p>Where decision maker is an algorithm: ExecutorID = Short Code ID / 3 (CLIENT) ExecutorQualifiedRole = 0 (where ExecutorID is 3) or Algorithm (22)</p>
Trading capacity	<p>Indication of whether the order submission resulted from the member or participant of the trading venue carrying out matched principal trading under Article 4(38) of Directive 2014/65/EU or dealing on own account under Article 4(6) of Directive 2014/65/EU.</p> <p>Where the order submission did not result from the member or participants of the trading venue carrying out matched principal trading or dealing on own account, the field shall indicate that the transaction was carried out under any other capacity.</p>	<p>OrderCapacity (47) =</p> <p>A = Agency ('AOTC') P = Principal ('DEAL') R = Riskless ('MTCH')</p>	<p>Capacity =</p> <p>A = Agency ('AOTC') P = Principal ('DEAL') R = Riskless ('MTCH')</p>
Liquidity provision activity	<p>Indication as to whether an order is submitted to a trading venue as part of a market making strategy pursuant to Articles 17 and 48 of Directive 2014/65/EU or other activity in accordance with Article 3 of this Regulation.</p>	<p>OrderAttributeTypes (8015) =</p> <p>2 = Liquidity Provision activity order. This indicates the order is related to any sort of liquidity provision activity, as deemed by MiFID II. This flag is mandatory for orders which are part of a liquidity provision activity. Absence of this value indicates otherwise.</p>	<p>LiquidityProvision =</p> <p>N = Not Liquidity Provision (default) Y = Liquidity Provision</p>
Algorithmic order	<p>Indication the order submitted from the dealer/investment firm resulted from an algorithm.</p>	<p>OrderAttributeTypes (8015) =</p> <p>4 = Algorithmic order. This indicates that the order was placed as a result of an investment firm engaging in algorithmic trading. Absence of this value indicates otherwise.</p>	<p>AlgorithmicIndicator =</p> <p>N = No algorithm was involved (default) Y = Algorithm was involved</p>

## 2.4 FIX & BOE Waiver / Negotiation Indicators

Waiver/Negotiation Indicators		Mapping to FIX and BOE Protocols			Functional Support					
		FIX	BOE		BXE/CXE (Order Books)		BXE/CXE (On-exchange Trade Reports)		TRF/APA (Trade Reports)	
Description	MiFID II Value	TrdReg Publication Reasons(8013)	Waiver Type	Deferral Reason	Inbound Orders	Executions	Participant to Cboe	Cboe to Participant	Participant to Cboe	Cboe to Participant
Negotiated Trade in Liquid Instrument	NLIQ	0	0	-	-	-	-	Y	-	-
Negotiated Trade in Illiquid Instrument	OILQ	1	1	-	-	-	-	Y	-	-
Negotiated Trade Subject to Conditions Other Than the Current Market Price	PRIC	2	2	-	-	-	Y*	Y	-	-
Reference Price (Dark Book)	RFPT	3	3	-	-	Y	-	-	Y	Y
Pre-Trade Transparency Waiver for Illiquid Instrument (for SI only)	ILQD	4	4	-	-	-	-	-	Y	Y
Pre-Trade Transparency Waiver for Above Standard Market Size (for SI only)	SIZE	5	5	-	-	-	-	-	Y	Y
Deferral for Large in Scale	LRGS	6	-	6	-	-	-	Y	-	Y
Deferral for Illiquid Instrument (for RTS2 only)	ILQD	7	-	7	-	-	-	Y	Y	Y
Deferral for Size Specific (for RTS2 only)	SIZE	8	-	8	-	-	-	Y	Y	Y
Large In Scale (Pre-Trade Transparency Waiver)	n/a	9	9	-	-	Y	-	Y	-	-
Order Management Facility (Iceberg) (Pre-Trade Transparency Waiver)	n/a	10	A	-	-	Y	-	-	-	-

\* For the Q2 2017 release, 'PRIC' trades are flagged as per section 2.7.1. As part of the next release, it will be possible to flag 'PRIC' trades using the TrdRegPublicationReasons(8013) as per the table above.

## 2.5 MiFID II Identifier Management Application

### Register Identifiers Upload

The following table specifies the format of the CSV file for uploading short to long code registrations using the MiFID II Identifier Management Application.

Column Name	Data Type	Description
Short Code	Integer	Values between 4 to 4,294,967,295 are permitted. Values 0 to 3 are reserved. Attempting to register a long code against these values will result in the registration failing.
Long Code	String	Algorithm ID, Legal Entity Identifier (LEI) or Natural Person Identifier (PI).
Identifier Type	String	Used to specify which of the six unique short code is for. Any of the following string values are permitted: Client-Person Client-Entity InvestorDecisionMaker-Person InvestorDecisionMaker-Algo ExecutionDecisionMaker-Person ExecutionDecisionMaker-Algo
Effective Date	ISO Date	Date in the format of YYYY-MM-DD for when this registration is effective from.
End Date	ISO Date	Date in the format of YYYY-MM-DD if an end date for the registration is known, otherwise leave null (empty) if an end date for the registration is not known.

The full specification for the MiFID II Identifier Management Application can be found [here](#), where additional details on the upload are provided, along with details for functions to download short codes with and without long codes registered. An outline of the changes are provided in section 9 of this document.

## 2.6 MMT v3

### FIX

- **TrdType**(828) values 30 (*Special Price*), 61 (*Give-up*), and 63 (*Technical Trade*) will no longer be supported for trade capture reports submitted into BXE, CXE and TRF
- **TradePriceCondition**(1839) will support the additional values 13 (*Special Dividend*), 14 (*Trade with price improvement*), 15 (*Non-price forming trade*) and 16 (*Trade not contributing to the Price Discovery Process*). 0 (*Cum Dividend*) and 2 (*Ex Dividend*) are deprecated for trade capture reports submitted into BXE, CXE and TRF
- **TrdRegPublicationReasons**(8013) will be supported to indicate the waiver type. It will be sent back by Cboe for execution reports and trade capture report confirmations in BXE and CXE. In TRF it will be supported for trade capture reports in- and outbound. For full details see section 2.4.
- **AlgorithmicTradeIndicator**(2667) will be added with values 0 (*No algorithm was involved (the default)*) or 1 (*The trade was an algorithmic trade*) for trade capture reports submitted into BXE, CXE and TRF. Note that for orders and executions, **OrderAttributeTypes**(8015) value 4 (*Algorithmic Order is used*).
- **OrderCategory**(1115) will be removed for trade capture reports submitted into TRF

### BOE

- **PriceFormation** will be supported for trade capture reports submitted into BXE, CXE and TRF with values P = *Plain Vanilla Trade (Default)*, T = *Non-Price Forming Trade*, J = *Trade not contributing to the Price Discovery Process* and 3 = *Negotiated Trade Subject to Conditions other than the Market Price*
- **TransactionCategory** values 'F' (*Special*), 'T' (*Technical*) or 'G' (*Give-up*) will no longer be supported on submission of trade capture reports on BXE, CXE and TRF
- **TransactionCategory** will support the additional value 'R' (*Trade with Price Improvement*) for trade capture reports submitted into BXE, CXE and TRF
- **TradePriceCondition** will now support 13 = *Special Dividend*. 0 = *Cum Dividend* and 2 = *Ex Dividend* are deprecated for trade capture reports submitted into BXE, CXE and TRF
- **DeferralReason** will be supported with values 6 (*Deferral for Large In Scale (LRGS)*), 7 (*Deferral for Illiquid Instrument (for RTS2 only) (ILQD)*) and 8 (*Deferral for Size Specific (for RTS2 only) (SIZE)*) for trade capture reports in BXE, CXE and TRF
- **WaiverType** will be sent back by Cboe on all order executions and trade capture report confirmations in BXE and CXE. In TRF, Cboe will send back the value submitted by the Participant. Valid values listed in 4.1.

### TCP and Multicast PITCH

- **Execution Flags** and **Trade Flags** field lengths will be increased and re-ordered. *Dividend Indicator*, previously always '-', will be replaced by *Benchmark Or Reference Price Indicator* and support will be extended for *Algorithmic Trade* in BXE, CXE and TRF.
- **Extended Trade Flags** field will be lengthened, re-ordered and add support for *Algorithmic Indicator*, *Deferral or Enrichment Type* and *Duplicative Indicator*
- *Cboe Trade Timing Indicator* will be removed from **Extended Trade Flags** and added as a field with the same name in **Trade Message – Extended Format**
- MMT value mappings have been updated for MMT v3.01

### Last Sale feed

- The existing Cboe Last Sale feed disseminates real-time, intraday trade data which includes price, volume and time while specifically excluding order information.
- It is in the proscribed MiFID II format and includes MiFID II-complaint flags for the purpose of post-trade transparency.

### Trade Data File

- Columns **Price Formation** (Equivalent to MMT Level 3.8) and **Algorithmic Trade** (Equivalent to MMT Level 3.9) will be added
- The following columns will be re-defined:
  - Negotiated Trade** *an indication of which Negotiated Trade or Pre-Trade Waiver the trade was conducted under (equivalent to MMT Level 3.2)*
  - Publication Mode** *(an indication whether the trade was published immediately or the deferral reason (equivalent to MMT Level 4.1)*
  - Benchmark Indicator** *(an indication whether the price of the trade was determined referencing an external benchmark or was a Reference Price trade (equivalent to MMT Level 3.5)*

## 2.7 MMT Input / Output Value Guidance

### On-Exchange

MMTv3 - OUT		MMTv2 - IN				MMTv3 - IN			
Level	Value	FIX		BOE		FIX		BOE	
		Tag	Value	Field	Value	Tag	Value	Field	Value
L3.2	1 (NLIQ)	Use a liquid symbol		Use a liquid symbol		Use a liquid symbol		Use a liquid symbol	
L3.2	2 (OILQ)	Use a non-liquid symbol		Use a non-liquid symbol		Use a non-liquid symbol		Use a non-liquid symbol	
L3.2	3 (PRIC)	TrdType (828)	61 (Give-up)	TransactionCategory	G (Give-up / Give-in Trade)	N/A	N/A	N/A	N/A
			63 (Technical Trade)	TransactionCategory	T (Technical Trade)	N/A	N/A	N/A	N/A
			30 (Special Price)	TransactionCategory	F (Special price, w/Conds)	N/A	N/A	N/A	N/A
L3.2	3 (PRIC)	N/A	N/A	N/A	N/A	TradePriceCondition (1839)	16 (Subj. to conditions other than curr. mkt price)	PriceFormation	3 (Subj. to conditions other than curr. mkt price)
						SecondaryTrdType (855)	64 (Benchmark)	SecondaryTradeType	64 (Benchmark)
						TradePriceCondition (1839)	15 (Non Price Forming)	PriceFormation	T (Non Price Forming)
L3.3	X (ACTX)	TrdSubType (829)	37 (Agency Cross)	TrdSubType	37 (Agency Cross)	TrdSubType (829)	37 (Agency Cross)	TrdSubType	37 (Agency Cross)
L3.5	B (BENC)	SecondaryTrdType (855)	64 (Benchmark)	SecondaryTradeType	64 (Benchmark)	SecondaryTrdType (855)	64 (Benchmark)	SecondaryTradeType	64 (Benchmark)
L3.5	S (RFPT)	Perform a dark execution		Perform a dark execution		Perform a dark execution		Perform a dark execution	
L3.6	E (SDIV)	TradePriceCondition (1839)	0 (Cum Dividend)	TradePriceCondition	0 (Cum Dividend)	TradePriceCondition (1839)	0 (Cum Dividend)	TradePriceCondition	0 (Cum Dividend)
			2 (Ex Dividend)		2 (Ex Dividend)		2 (Ex Dividend)		
			N/A		N/A		13 (Special Dividend)		13 (Special Dividend)
L3.7	-	ExecMethod (2405)	0 (Unspecified)	ExecutionMethod	U (Unspecified)	ExecMethod (2405)	0 (Unspecified)	Execution Method	U (Unspecified)
L3.7	M (M)		1 (Manual)		M (Manual)		1 (Manual)		M (Manual)
L3.7	Q (Q)		2 (Automated)		A (Automated)		2 (Automated)		A (Automated)
L3.8	T (NPFT)	TrdType (828)	61 (Give-up)	TransactionCategory	G (Give-up / Give-in Trade)	N/A	N/A	N/A	N/A
		N/A	N/A	N/A	N/A	TradePriceCondition (1839)	15 (Non Price Forming)	PriceFormation	T (Non Price Forming)
L3.9	H (ALGO)	N/A	N/A	N/A	N/A	OrderAttributeTypes (8015)	4 (Algorithmic Order)	AlgorithmicIndicator	Y (ALGO)
		N/A	N/A	N/A	N/A	AlgorithmicTradeIndicator (2667)	1 (ALGO)	AlgorithmicIndicator	Y (ALGO)
L4.1	1 (1)	Trade report reported late without permitted deferral		Trade report reported late without permitted deferral		Trade report reported late without permitted deferral		Trade report reported late without permitted deferral	
L4.1	2 (LRGS)	LIS trade that receives a deferral		LIS trade that receives a deferral		LIS trade that receives a deferral		LIS trade that receives a deferral	

Key:  = Difference between MMT v2 and v3     = **No** difference between MMT v2 and v3

## Off-Exchange

MMTv3 - OUT		MMTv2 - IN				MMTv3 - IN			
		FIX		BOE		FIX		BOE	
Level	Value	Tag	Value	Field	Value	Tag	Value	Field	Value
3.1	D (D)	TrdType (828)	62 (Dark)	TransactionCategory	D (Dark)	TrdType (828)	62 (Dark)	TransactionCategory	D (Dark)
3.1	R (RPRI)		N/A		N/A	TradePriceCondition (1839)	14 (Trade w/ Price Imp.)	TransactionCategory	R (Trade w/ Price Imp.)
3.2	4 (ILQD)		N/A		N/A	TrdRegPublicationReasons(8013)	4 (Illiquid SI)	WaiverType	4 (Illiquid SI)
3.2	5 (SIZE)		N/A		N/A	TrdRegPublicationReasons (8013)	5 (Size Specific SI)	WaiverType	5 (Size Specific SI)
3.3	X (ACTX)	TrdSubType (829)	37 (Agency Cross)	TrdSubType	37 (Agency Cross)	TrdSubType (829)	37 (Agency Cross)	TrdSubType	37 (Agency Cross)
3.5	B (BENC)	SecondaryTrdType (855)	64 (Benchmark)	SecondaryTradeType	64 (Benchmark)	SecondaryTrdType (855)	64 (Benchmark)	SecondaryTradeType	64 (Benchmark)
3.5	S (RFPT)	N/A	N/A	N/A	N/A	TrdRegPublicationReasons (8013)	3 (Reference Price)	WaiverType	3 (Dark Book)
3.6	E (SDIV)	TradePriceCondition (1839)	0 (Cum Dividend)	TradePriceCondition	0 (Cum Dividend)	TradePriceCondition (1839)	0 (Cum Dividend)	TradePriceCondition	0 (Cum Dividend)
			2 (Ex Dividend)		2 (Ex Dividend)		2 (Ex Dividend)		
			N/A		N/A		13 (Special Dividend)		
3.7	-	ExecMethod (2405)	0 (Unspecified)	ExecutionMethod	U (Unspecified)	ExecMethod (2405)	0 (Unspecified)	ExecutionMethod	U (Unspecified)
3.7	M (M)		1 (Manual)		M (Manual)		1 (Manual)		
3.7	Q (Q)		2 (Automated)		A (Automated)		2 (Automated)		A (Automated)
3.8	J (TNCP)	TrdType (828)	30 (Special Price)	TransactionCategory	F (Special price, w/ Conds)	N/A	N/A	N/A	N/A
			61 (Give-up)		G (Give-up/Give-in Trade)				
			63 (TechnicalTrade)		T (Technical Trade)				
		N/A	N/A	N/A	N/A	TradePriceCondition (1839)	16 (Not Contrib. to Pr. Dis.)	PriceFormation	J (Not Contrib. to Pr. Dis.)
						SecondaryTrdType (855)	64 (Benchmark)	SecondaryTradeType	64 (Benchmark)
3.9	H (ALGO)		N/A		N/A	AlgorithmicTradeIndicator (2667)	1 (ALGO)	AlgorithmicIndicator	Y (ALGO)
4.1	1 (1)	Trade report reported late without permitted deferral		Trade report reported late without permitted deferral		Trade report reported late without permitted deferral		Trade report reported late without permitted deferral	
4.1	2 (LRGS)	LIS trade that receives a deferral		LIS trade that receives a deferral		LIS trade that receives a deferral		LIS trade that receives a deferral	
4.1	3 (ILQD)		N/A		N/A	TrdRegPublicationReasons (8013)	7 (Deferral Illiquid SI)	DeferralReason	7 (Illiquid SI)
4.1	4 (SIZE)		N/A		N/A	TrdRegPublicationReasons (8013)	8 (Deferr. Size Specific SI)	DeferralReason	8 (Size Specific SI)

Key:  = Difference between MMT v2 and v3  = **No** difference between MMT v2 and v3

## 2.7.1 MMTv3 Flagging of BENC, PRIC, NPFT and TNCP Trades

### On-Exchange

All Benchmark ('BENC') trades are per definition not subject to current market price ('PRIC') if submitted as an ETR. Similarly, all non-price forming trades ('NPFT') are per definition 'PRIC'. However not all 'PRIC' trades are 'BENC'. Thus there is a requirement to be able to flag 'PRIC' and 'BENC' independently on-exchange in order to differentiate between an ETR that is 'PRIC' and a 'BENC' ETR.

The following table illustrates how the above trade types can be flagged on FIX/BOE and the resultant MMT v3 flags that will then be set on market data.

Scenario	FIX/BOE Inputs Required			Resultant MMT v3 Market Data Flagging		
	Benchmark Indicator	Subject to Conditions Other Market Price	Non Price Forming	PRIC	BENC	NPFT
	FIX: SecondaryTrdType(855) = 64 BOE: SecondaryTradeType = 64	FIX: TradePriceCondition (1839) = 16 BOE: PriceFormation = 3	FIX: TradePriceCondition (1839) = 15 BOE: PriceFormation = T			
Benchmark ETR	<b>Must</b> be set.	Can be set optionally, however note that Cboe will <b>always</b> automatically set PRIC on market data regardless, as this type of trade is always subject to conditions other than market price.	Not applicable.	Y	Y	N
An ETR subject to conditions other than market price that isn't a Benchmark ETR	Not applicable.	<b>Must</b> be set to indicate this is subject to conditions other than market price	Not applicable.	Y	N	N
An ETR that is non-price forming subject to conditions other than current market price.	Not applicable.	Can be set optionally, however note that Cboe will <b>always</b> automatically set PRIC on market data regardless, as this type of trade is always subject to conditions other than market price.	<b>Must</b> be set.	Y	N	Y

### Off-Exchange

All Benchmark ('BENC') trades are per definition not contributing to price discovery ('TNCP'). However not all 'TNCP' trades are 'BENC'. Thus there is a requirement to be able to flag 'TNCP' and 'BENC' independently off-exchange in order to differentiate between a TCR that is 'TNCP' and a 'BENC' TCR. The following table illustrates how the above trade types can be flagged on FIX/BOE and the resultant MMT v3 flags that will then be set on market data.

Scenario	FIX/BOE Inputs Required		Resultant MMT v3 Market Data Flagging	
	Benchmark Indicator	Subject to Conditions Other Market Price	BENC	TNCP
	FIX: SecondaryTrdType(855) = 64 BOE: SecondaryTradeType = 64	FIX: TradePriceCondition (1839) = 16 BOE: PriceFormation = J		
A non-price forming trade not contributing to price discovery, but is not a benchmark TCR	Not applicable.	<b>Must</b> be set.	N	Y
Benchmark TCR	<b>Must</b> be set.	Can be set optionally, however note that Cboe will <b>always</b> automatically set TNCP, as this type of trade is always subject to conditions other than market price.	Y	Y



## 2.8 Fee Codes

### FIX

- **FeeCode**(9882) will be supported and can be enabled at the port level for order executions and trade capture reports upon request in BXE, CXE and TRF

### BOE

- **FeeCode** will support new values as described in the Fee Schedule for the respective market

### Trade Data File

- **Fee Code** column will now represent the category of fee applicable to the trade

### Trade Detail File

- **Fee\_code** column will now represent the category of fee applicable to the trade

## 3 FIX

### 3.1 Change Details

- **Removal** of values 30 (*Special Price*), 61 (*Give-up*), and 63 (*Technical Trade*) in **TrdType**(828) in Trade Capture Report (35=AE) messages in BXE, CXE and TRF
- **Addition** of new values 13 (*Special Dividend*), 14 (*Trade with price improvement*), 15 (*Non-price forming trade*) and 16 (*Trade not contributing to the Price Discovery Process*) in **TradePriceCondition**(1839) in Trade Capture Report (35=AE) messages in BXE, CXE and TRF
- **Deprecation** of 0 (*Cum Dividend*) and 2 (*Ex Dividend*) in Trade Capture Report (35=AE) messages in BXE, CXE and TRF
- **LastMkt**(30) sent in all Execution Report (35=8), Trade Cancel/Correct (35=UCC) and Trade Capture Report (Confirm) (35=AE) messages in BXE and CXE
- **Addition** of **FeeCode**(9882) in Execution Report (35=8), Trade Capture Report (35=AR) and Trade Capture Report (Confirm) (35=AE) messages in BXE, CXE and TRF
- **Addition** of new **Side**(54) values 5 (*Sell Short*), 6 (*Sell Short Exempt*) and H (*Sell Undisclosed*) for New Order (35=D), Execution Report (35=8), Trade Capture Report (35=AE), Trade Capture Report (35=AR) and Trade Capture Report (Confirm) (35=AE) messages in BXE and CXE
- **Addition** of **PartyID**(448) new value 3 (*CLIENT*) for New Order(35=D) and Execution Report (35=8) messages in BXE and CXE
- **Replacement** of **PartyRole**(452) value 5 with 122 (*Investor ID*) for New Order(35=D) and Execution Report (35=8) messages in BXE and CXE
- **PartyID** reserved values 0 = *NONE*, 1 = *AGGR* and 2 = *PNAL* will be applicable to PartyRole value 3. **PartyID** reserved value 3 = *CLIENT* will be applicable to PartyRole value 12, for New Order(35=D) and Execution Report (35=8) messages in BXE and CXE
- **Addition** of **PartyIDSource**(447) value P (*Short code identifier*) for New Order(35=D) and Execution Report (35=8) messages in BXE and CXE
- **Addition** of **PartyRoleQualifier**(2376) with values 0 (*None*), 22 (*Algorithm*), 23 (*Firm or legal entity (LEI)*) and 24 (*Natural person*) for New Order (35=D) and Execution Report (35=8) messages in BXE and CXE
- **Replacement** of **BasisOfTrade**(7559) value 1(*DMA*) with **OrderOrigination**(1724) value 5 (*DEA*) and 0 (*non DEA*) for New Order (35=D) and Execution Report (35=8) messages in BXE and CXE
- **Replacement** of **Algo**(20001) value Y with **OrderAttributeTypes**(8015) value 4(*Algorithmic Order*) for New Order (35=D) and Execution Report (35=8) messages in BXE and CXE
- **Replacement** of **Algo**(20001) values N or Y with **AlgorithmicTradeIndicator**(2667) values 0 (*No algorithm was involved (the default)*) or 1 (*The trade was an algorithmic trade*) for Trade Capture Report (35=AE) messages, Trade Capture Report (35=AR) and Trade Capture Report (Confirm) (35=AE) messages in BXE, CXE and TRF
- **Replacement** of **LiquidityProvision**(9215) with **OrderAttributeTypes**(8015) value 2 (*Liquidity provision activity order*) for New Order (35=D) and Execution Report (35=8) messages in BXE and CXE
- **OrderAttributeTypes**(8015) with value 2 (*Liquidity provision activity order*) will be required when orders are part of a liquidity provision activity in BXE and CXE
- **OrderCapacity**(47) mandatory for all New Order(35=D) messages in BXE and CXE

- **Change** in behaviour for OrderCapacity(47) (orders) or OrderCapacity(528) (trade capture reports) which will no longer be used to determine which Central Counterparty (CCP) Account Type prefix to use in Account(1) in BXE and CXE.
- **Removal** of **OrderCategory**(1115) for Trade Capture Report (35=AE), Trade Capture Report (35=AR) and Trade Capture Report (Confirm) (35=AE) messages in TRF
- **Addition** of **TrdRegPublicationReasons**(8013) with values per section 2.4, in Execution Report (35=8), Trade Capture Report (35=AR) and Trade Capture Report (Confirm) (35=AE) messages in BXE and CXE, and Trade Capture Report (35=AE), Trade Capture Report (35=AR) and Trade Capture Report (Confirm) (35=AE) messages in TRF.
- **Addition** of **LastCapacity**(29) with values *1 = Agent*, *3 = Cross as principal* and *4 = Principal* in Execution Report(35=8) messages in BXE and CXE. Values refer to inbound OrderCapacity(47) values as follows:

OrderCapacity(47)	LastCapacity(29)
<i>A = Agency (maps to AOTC)</i>	<i>1 = Agent</i>
<i>R = Riskless (maps to MTCH)</i>	<i>3 = Cross as principal</i>
<i>P = Principal (maps to DEAL)</i>	<i>4 = Principal</i>

- **Addition** of accepted MIC *BART* for Trade Capture Report (35=AE) messages specifying Cboe' Regulated Market primary listed symbols when submitted using ISIN/CCY/MIC
- **Timestamping** changed from millisecond to microsecond granularity in all messages sent by Cboe

## 3.2 Summary of Changes

(Note: grey highlight indicates aspect that has changed. Yellow indicates aspect that has been removed)

From:				To:			
Field	MsgType	Tag	Contents	Field	MsgType	Tag	Contents
<b>Trdtype</b>	In 35=AE <b>Inbound</b> , 35=AR and 35=AE <b>Outbound</b>	828	0 = Regular Trade (aka Plain-Vanilla Trade) 30 = Special price (aka Trade with Conditions) 61 = Give-up / Give-in trade 62 = Dark Trade 63 = Technical Trade	<b>Trdtype</b>	In 35=AE <b>Inbound</b> , 35=AR and 35=AE <b>Outbound</b>	828	0 = Regular Trade (aka Plain-Vanilla Trade) 62 = Dark Trade
<b>TradePriceCondition</b>	In 35=AE <b>Inbound</b> , 35=AR and 35=AE <b>Outbound</b>	1839	0 = Cum Dividend (deprecated) 2 = Ex Dividend (deprecated)	<b>TradePriceCondition</b>	In 35=AE <b>Inbound</b> , 35=AR and 35=AE <b>Outbound</b>	1839	13 = Special Dividend (SDIV) 14 = Trade with price improvement (RPRI) 15 = Non-price forming trade (NPFT) 16 = Trade not contributing to the Price Discovery Process (TNCP)
				<b>TrdRegPublicationReasons</b>	In 35=8, 35=AR <b>Outbound</b> and 35=AE <b>In- and Outbound</b>	8013	See section 2.4
				<b>LastCapacity</b>	In 35=8 <b>Outbound</b>	29	1 = Agent (maps to OrderCapacity(47) = A Agency) (AOTC) 3 = Cross as principal (maps to OrderCapacity(47) = R) (MTCH) 4 = Principal (maps to OrderCapacity(47) = P) (DEAL)
				<b>FeeCode</b>	In 35=8, 35=AR and 35=AE <b>Outbound</b>	9882	Specific fee code associated with the trade. See the Fee Schedule for the respective market for possible values.
<b>BasisOfTrade</b>	In 35=D <b>Inbound</b> , 35=8 <b>Outbound</b>	7559	1 = DMA (use whenever DEA of any sort is involved)	<b>OrderOrigination</b>	In 35=D <b>Inbound</b> , 35=8 <b>Outbound</b>	1724	0 = Default (used to indicate DEA activity (as defined under MiFID II) <b>is not</b> involved in the order.) 5 = DEA (used to indicate DEA activity (as defined under MiFID II) is involved in the order)
<b>LiquidityProvision (optional)</b>	In 35=D <b>Inbound</b> , 35=8 <b>Outbound</b>	9215	N = Not Liquidity Provision (default) Y = Liquidity Provision	<b>OrderAttributeTypes</b> (mandatory for all orders which	In 35=D <b>Inbound</b> , 35=8 <b>Outbound</b>	8015	2 = Liquidity provision activity order

From:				To:			
Field	MsgType	Tag	Contents	Field	MsgType	Tag	Contents
				are part of a liquidity provision activity on BXE and CXE.)			
<b>LastMkt</b> <i>(upon request)</i>	In 35=8, 35=UCC and 35=AE <b>Outbound</b>	30	BATE = BXE Primary Sub-MIC code BATD = BXE Dark Book Sub-MIC code BATF = BXE Off-Book Sub-MIC code BATP = BXE Periodic Auction Sub-MIC code CHIX = CXE Primary Sub-MIC code CHID = CXE Dark Book Sub-MIC code CHIO = CXE Off-Book Sub-MIC code BART = REGM Primary Sub-MIC code BARK = REGM Dark Book Sub-MIC code BARO = REGM Off-Book Sub-MIC code	<b>LastMkt</b> <i>(mandatory)</i>	In 35=8, 35=UCC and 35=AE <b>Outbound</b>	30	BATE = BXE Primary Sub-MIC code BATD = BXE Dark Book Sub-MIC code BATF = BXE Off-Book Sub-MIC code BATP = BXE Periodic Auction Sub-MIC code CHIX = CXE Primary Sub-MIC code CHID = CXE Dark Book Sub-MIC code CHIO = CXE Off-Book Sub-MIC code BART = REGM Primary Sub-MIC code BARK = REGM Dark Book Sub-MIC code BARO = REGM Off-Book Sub-MIC code
<b>PartyID</b>	In 35=D <b>Inbound</b> , 35=8 <b>Outbound</b>	448	reserved values: 0 = NONE (No Client for this order) 1 = AGGR (An aggregation of multiple client orders) 2 = PNAL (Clients are pending allocation) or <i>short code</i> specified as 32-bit unsigned integer	<b>PartyID</b>	In 35=D <b>Inbound</b> , 35=8 <b>Outbound</b>	448	reserved values: <i>(Applicable to PartyRole value 3)</i> 0 = NONE (No Client for this order) 1 = AGGR (An aggregation of multiple client orders) 2 = PNAL (Clients are pending allocation) <i>(Applicable to PartyRole value 12)</i> 4 = CLIENT (Used for when time and venue of the order were instructed by the client of the Participant) or <i>short code</i> specified as 32-bit unsigned integer

From:				To:			
Field	MsgType	Tag	Contents	Field	MsgType	Tag	Contents
<b>PartyRole</b>	In 35=D <b>Inbound</b> , 35=8 <b>Outbound</b>	452	3 = Client ID 5 = Investor ID (the Investment Decision Maker) 12 = Executing Trader (the Executing Decision Maker)	<b>PartyRole</b>	In 35=D <b>Inbound</b> , 35=8 <b>Outbound</b>	452	3 = Client ID 12 = Executing Trader (the Executing Decision Maker) 122 = Investor ID (the Investment Decision Maker)
<b>PartyIDSource</b>	In 35=D <b>Inbound</b> , 35=8 <b>Outbound</b>	447	D (Proprietary / Custom Code)	<b>PartyIDSource</b>	In 35=D <b>Inbound</b> , 35=8 <b>Outbound</b>	447	P = Short code identifier
				<b>PartyRoleQualifier</b>	In 35=D <b>Inbound</b> , 35=8 <b>Outbound</b>	2376	0 = None (applicable when PartyID value is reserved) 22 = Algorithm (applicable to PartyRole values 12 or 122) 23 = Firm or legal entity (LEI) (applicable to PartyRole value 3) 24 = Natural person (applicable to PartyRole values 3,12 and 122)
<b>Algo</b>	In 35=D <b>Inbound</b> , 35=8 <b>Outbound</b>	20001	N = No algorithm was involved (the default). Y = The order was generated by an algorithm.	<b>OrderAttributeTypes</b>	In 35=D <b>Inbound</b> , 35=8 <b>Outbound</b>	8015	4 = Algorithmic order
				<b>AlgorithmicTradeIndicator</b>	In 35=AE <b>Inbound</b> , 35=AR and 35=AE <b>Outbound</b>	2667	0 = No algorithm was involved (the default). 1 = The trade was an algorithmic trade (ALGO)
<b>OrderCapacity</b> (optional, used to determine which Central Counterparty (CCP) Account Type prefix to use in Account(1))	In 35=D <b>Inbound</b> , 35=8 <b>Outbound</b>	47	A = Agency P = Principal (default) R = Riskless	<b>OrderCapacity</b> (mandatory, no longer used to determine which Central Counterparty (CCP) Account Type prefix to use in Account(1))	In 35=D <b>Inbound</b> , 35=8 <b>Outbound</b>	47	A = Agency (maps to TradingCapacity 'AOTC') P = Principal (maps to TradingCapacity 'DEAL') R = Riskless (maps to TradingCapacity 'MTCH')
<b>OrderCategory</b>	In 35=AE <b>Inbound</b> , 35=AR and 35=AE <b>Outbound</b> , in BXE, CXE and TRF	1115	3 = Privately Negotiated Trade	<b>OrderCategory</b>	In 35=AE <b>Inbound</b> , 35=AR and 35=AE <b>Outbound</b> , in BXE, CXE only	1115	3 = Privately Negotiated Trade
<b>Side</b>	In 35=D and 35=AE <b>Inbound</b> , 35=8,	54	1 = Buy 2 = Sell	<b>Side</b>	In 35=D and 35=AE <b>Inbound</b> , 35=8, 35=AR and	54	1 = Buy 2 = Sell 5 = Sell Short

From:				To:			
Field	MsgType	Tag	Contents	Field	MsgType	Tag	Contents
	35=AR and 35=AE <b>outbound</b>				35=AE <b>outbound</b>		6 = Sell Short Exempt H = Sell Undisclosed
<b>SecurityExchange</b> (for Regulated Market primary listings)	In 35=AE <b>Inbound</b> , 35=AR and 35=AE <b>Outbound</b>	207	CHIX	<b>SecurityExchange</b> (for Regulated Market primary listings)	In 35=AE <b>Inbound</b> , 35=AR and 35=AE <b>Outbound</b>	207	CHIX BART
<b>FIX timestamps</b>	35=D, 35=F, 35=G and 35=AE <b>Inbound &amp; Outbound &amp; *all</b> message Headers Inbound and Outbound	42, 52*, 122*, 60, 7570	GMT expressed to <b>millisecond</b>	<b>FIX timestamps</b>	35=D, 35=F, 35=G and 35=AE <b>Inbound &amp; Header, 35=8, 35=UCC, 35=AR and 35=AE Outbound &amp; *all</b> message Headers Inbound and Outbound	42, 52*, 122*, 60, 7570	GMT expressed to <b>microsecond</b>

**Inbound** = From Participant to Cboe, **Outbound** = From Cboe to Participant

## 4. BOE

### 4.1 Change Details

- **Removal** of values 'F' (*Special*), 'T' (*Technical*) or 'G' (*Give-up*) in **TransactionCategory** in Trade Capture Report V2 messages in BXE, CXE and TRF
- **Addition** of new value 'R' (*Trade with Price Improvement*) in **TransactionCategory** in Trade Capture Report V2 messages in BXE, CXE and TRF
- **Addition** of new optional **PriceFormation** field in Trade Capture Report V2 messages in BXE, CXE and TRF. Valid values are P = *Plain-Vanilla Trade (used if not specified)*, T = *Non-Price Forming Trade*, J = *Trade Not Contributing to the Price Discovery* and 3 = *Negotiated Trade Subject to Conditions other than the Current Market Price*.
- **TradePriceCondition** will now support 13 = *Special Dividend*. 0 = *Cum Dividend* and 2 = *Ex Dividend* are deprecated in Trade Capture Report V2 messages in BXE, CXE and TRF
- **Addition** of new optional **WaiverType** field in Order Execution V2, Trade Capture Report Acknowledgement V2 and Trade Capture Report Confirm V2 messages in BXE and CXE, and in Trade Capture Report V2, Trade Capture Report Acknowledgement V2 and Trade Capture Report Confirm V2 messages in TRF. See section 2.4 for details
- **Addition** of new **FeeCode** values, as enumerated in the Fee Schedule for the respective market, in Trade Capture Report Acknowledgement V2 and Trade Capture Report Confirm V2 messages.
- **Addition** of new values 5 (*Sell Short*), 6 (*Sell Short Exempt*) and H (*Sell Undisclosed*) in **Side** in New Order V2 and Trade Capture Report V2 messages in BXE and CXE
- **Addition** of new reserved value 0 (*NONE*) in **ClientID** to be used when there is no Client for the order in New Order V2 message in BXE and CXE
- **Addition** of new reserved value 3 = *CLIENT* in **ExecutorID** to be used for when time and venue of the order were instructed by the client of the Participant, in New Order V2 message in BXE and CXE
- **Addition** of **ClientQualifiedRole** with supported values 0 (*None*), 23 (*Firm or legal entity (LEI)*) and 24 (*Natural person*) is required to provide qualification of *ClientID* values in New Order V2, Order Acknowledgement V2 and Order Execution V2 messages in BXE and CXE
- **Addition** of **ExecutorQualifiedRole** with supported values 0 (*None*), 22 (*Algorithm*) and 24 (*Natural person*) is required to provide qualification of *ExecutorID* values in New Order V2, Order Acknowledgement V2 and Order Execution V2 messages in BXE and CXE
- **Addition** of **InvestorQualifiedRole** with supported values 0 (*None*), 22 (*Algorithm*) and 24 (*Natural person*) is required to provide qualification of *InvestorID* values in New Order V2, Order Acknowledgement V2 and Order Execution V2 messages in BXE and CXE
- **Replacement** of **BasisOfTrade** value 1 (*DMA*) with **OrderOrigination** values 5 (*DEA*) and 0 (*non DEA*) for New Order V2 messages in BXE and CXE
- **Addition** of **DeferralReason** with values 6 (*Deferral for Large In Scale (LRGS)*), 7 (*Deferral for Illiquid Instrument (for RTS2 only) (ILQD)*) and 8 (*Deferral for Size Specific (for RTS2 only) (SIZE)*) in Trade Capture Report Confirm V2 messages in BXE, CXE and TRF
- **LiquidityProvision** mandatory for all New Order V2 messages when orders are part of a liquidity provision activity in BXE and CXE
- **Capacity** mandatory for all New Order V2 messages in BXE and CXE



- **Change** in behaviour for **OrderCapacity** (orders) or OrderCapacity (trade capture reports) which will no longer be used to determine which Central Counterparty (CCP) Account Type prefix to use in **Account** in BXE and CXE.
- **Addition** of accepted MIC *BART* for Trade Capture Report V2 messages specifying Cboe' Regulated Market primary listed symbols when submitted using ISIN/CCY/MIC in BXE, CXE and TRF

## 4.2 Summary of Changes

(Note: grey highlight indicates aspect that has changed. Yellow indicates aspect that has been removed)

From:				To:			
Field	Length	Data Type	Contents	Field	Length	Data Type	Contents
<b>TransactionCategory</b> field in Trade Capture Report V2 message type (0x3C) <b>Inbound</b>	1	Alphanumeric	P = Regular Trade (aka Plain-Vanilla Trade) F = Special price (aka Trade with Conditions) D = Dark Trade T = Technical Trade G = Give-up / Give-in trade <b>Inbound</b>	<b>TransactionCategory</b> field in Trade Capture Report V2 message type (0x3C) <b>Inbound</b>	1	Alphanumeric	P = Regular Trade (aka Plain-Vanilla Trade) D = Dark Trade R = Trade with Price Improvement <b>Inbound</b>
				<b>WaiverType</b> field in (BXE, CXE) Trade Capture Report V2 message type (0x3C) , Trade Capture Report Acknowledgment V2 (0x30), Order Execution V2 (0x2C) <b>Outbound</b> and in (TRF) Trade Capture Report V2 (0x3C) <b>Inbound</b> & Trade Capture Confirm V2 message type (0x32) & Trade Capture Report Acknowledgment V2 (0x30) <b>Outbound</b>	1	Alphanumeric	See section 2.4
				<b>PriceFormation</b> field in Trade Capture Report V2 message type (0x3C) <b>Inbound</b> & Trade Capture Report Acknowledgment V2 (0x30), Trade Capture Confirm V2 message type (0x32) <b>Outbound</b>	1	Alphanumeric	P = Plain Vanilla Trade T = Non-Price Forming Trade J = Trade not contributing to the Price Discovery Process 3 = Negotiated Trade Subject to Conditions other than the Current Market Price

<b>TradePriceCondition</b> field in Trade Capture Report V2 message type (0x3C) <b>Inbound</b>	1	Binary	0 = Cum Dividend 2 = Ex Dividend	<b>TradePriceCondition</b> field in Trade Capture Report V2 message type (0x3C) <b>Inbound</b>	1	Binary	0 = Cum Dividend 2 = Ex Dividend 13 = Special Dividend
<b>ClientID</b> field in (BXE, CXE) New Order V2 (0x38) <b>Inbound</b> , Order Acknowledgement V2 (0x25), Order Execution V2 (0x2C) <b>Outbound</b>	4	Binary	1 = AGGR (An aggregation of multiple client orders) 2 = PNAL (Clients are pending allocation)	<b>ClientID</b> field in (BXE, CXE) New Order V2 (0x38) <b>Inbound</b> , Order Acknowledgement V2 (0x25), Order Execution V2 (0x2C) <b>Outbound</b>	4	Binary	0 = NONE (No Client for this order) 1 = AGGR (An aggregation of multiple client orders) 2 = PNAL (Clients are pending allocation)
<b>ExecutorID</b>	4	Binary	The <i>short code</i> representing the execution decision maker of the order. Data corresponding to this short code must have been previously supplied, or will be supplied by the end of the calendar day, per our Rules. Specified as 32-bit unsigned integer	<b>ExecutorID</b>	4	Binary	The <i>short code</i> representing the execution decision maker of the order. Data corresponding to this short code must have been previously supplied, or will be supplied by the end of the calendar day, per our Rules. Specified as 32-bit unsigned integer. 3 = (CLIENT) (time and venue of the order were instructed by the client of the Participant)
				<b>ClientQualifiedRole</b> field in (BXE, CXE) New Order V2 (0x38) <b>Inbound</b> , Order Acknowledgement V2 (0x25), Order Execution V2 (0x2C) <b>Outbound</b> (Required on New Order message when a ClientID is specified)	1	Binary	0 = None 23 = Firm or legal entity (LEI) 24 = Natural person
				<b>ExecutorQualifiedRole</b> field in (BXE, CXE) New Order V2 (0x38) <b>Inbound</b> , Order Acknowledgement V2 (0x25), Order Execution V2 (0x2C) <b>Outbound</b>	1	Binary	0 = None 22 = Algorithm 24 = Natural person

				<b>(Required on New Order message when an ExecutorID is specified)</b>			
				<b>InvestorQualifiedRole</b> field in (BXE, CXE) New Order V2 (0x38) <b>Inbound</b> , Order Acknowledgement V2 (0x25), Order Execution V2 (0x2C) <b>Outbound</b> <b>(Required on New Order when an InvestorID is specified)</b>	1	Binary	0 = None 22 = Algorithm 24 = Natural person
<b>BasisOfTrade</b> field in in (BXE, CXE) New Order V2 (0x38) <b>Inbound</b> , Order Acknowledgement V2 (0x25), <b>Outbound</b>	1	Text	1 = DMA	<b>OrderOrigination</b> field in (BXE, CXE) New Order V2 (0x38) <b>Inbound</b> , Order Acknowledgement V2 (0x25), Order Execution V2 (0x2C) <b>Outbound</b>	1	Text	0 = Default (used to indicate DEA activity (as defined under MiFID II) <b>is not</b> involved in the order.) 5 = DEA (used to indicate DEA activity (as defined under MiFID II) is involved in the order)
<b>LiquidityProvision</b> in New Order V2 (0x38) <b>(mandatory for LPP 3 only)</b>	1	Text	N = Not Liquidity Provision (default) Y = Liquidity Provision	<b>LiquidityProvision</b> in New Order V2 (0x38) <b>(mandatory for all orders which are part of a liquidity provision activity on BXE and CXE.)</b>	1	Text	N = Not Liquidity Provision (default) Y = Liquidity Provision
				<b>DeferralReason</b> field in (BXE, CXE) Trade Capture Confirm V2 message type (0x32) <b>Outbound &amp; in (TRF)</b> Trade Capture Report V2 message type (0x3C) <b>Inbound</b> and Trade Capture Confirm V2 message type (0x32) <b>Outbound</b>	1	Alphanumeric	6 (Deferral for Large In Scale (LRGS)) 7 (Deferral for Illiquid Instrument (for RTS2 only) (ILQD)) 8 (Deferral for Size Specific (for RTS2 only) (SIZE))
<b>Capacity</b> in New Order V2 (0x38) <b>(used to determine which Central Counterparty (CCP) Account Type prefix to use in Account(1))</b>	1	Alpha	A = Agency P = Principal R = Riskless Principal	<b>Capacity</b> in New Order V2 (0x38) <b>(mandatory, no longer used to determine which Central Counterparty (CCP) Account Type prefix to use in Account(1))</b>	1	Alpha	A = Agency (maps to TradingCapacity 'AOTC') P = Principal (maps to TradingCapacity 'DEAL') R = Riskless (maps to TradingCapacity 'MTCH')

<b>Security Exchange</b> field (for Regulated Market primary listings) in Trade Capture Report V2 (0x3C) <b>Inbound</b>	4	Alphanumeric	CHIX	<b>Security Exchange</b> field (for Regulated Market primary listings) in Trade Capture Report V2 (0x3C) <b>Inbound</b>	1	Alphanumeric	CHIX BART
<b>FeeCode</b> field in Trade Capture Report V2 message type (0x3C) <b>Outbound</b> & Trade Capture Report Acknowledgment V2 (0xBA) <b>Outbound</b>	2	Alphanumeric	No supported value	<b>FeeCode</b> field in Trade Capture Report V2 message type (0x3C) <b>Outbound</b> & Trade Capture Report Acknowledgment V2 (0xBA) <b>Outbound</b>	2	Alphanumeric	Specific fee code associated with the trade. See the Fee Schedule for the respective market for possible values.
<b>Side</b> field in New Order V2 (0x38), Trade Capture Report V2 (0x3C) <b>Inbound</b>	1	Alphanumeric	1 = Buy 2 = Sell	<b>Side</b> field in New Order V2 (0x38), Trade Capture Report V2 (0x3C) <b>Inbound</b>	1	Alphanumeric	1 = Buy 2 = Sell 5 = Sell Short 6 = Sell Short Exempt H = Sell Undisclosed

**Inbound** = From Participant to Cboe, **Outbound** = From Cboe to Participant

## 5. MULTICAST PITCH

### 5.1 Change Details

- **Trade Message - Unknown Symbol** will be added as a new message in TRF for TDM trades reported in symbols outside of the TRF symbol universe
- **Changes to Execution Flags and Trade Flags.** Fields will be lengthened, re-ordered and support an additional value, *Algorithmic Trade*. Dividend Indicator, previously always '-', will be replaced by Benchmark Or Reference Price Indicator
- **Changes to Extended Trade Flags.** Fields will be lengthened, re-ordered and support additional values *Algorithmic Indicator, Deferral or Enrichment Type, Duplicative Indicator*
- *Cboe Trade Timing Indicator* will be removed from **Extended Trade Flags** and added as a field with the same name in **Trade Message - Extended Format**

## 5.2 Summary of Changes

(Note: grey highlight indicates aspect that has changed. Yellow indicates aspect that has been removed)

From:			To:		
Description	Type	Length	Description	Type	Length
			<b>Trade Message – Unknown Symbol</b> (refer to Multicast PITCH Specification for details)	0x35	72
<p><b>Execution Flags</b> (based on MMT v2.2 standard) in Order Executed Message:</p> <p>Level 1 populated per Execution Flags offset 0            Level 2 populated per Execution Flags offset 1            Level 3.1 will always be 'P' for Plain-Vanilla Trade            Level 3.2 will always be '-' for not being a Negotiated Trade            Level 3.3 will always be '-' for not being a Crossing Trade            Level 3.4 will always be '-' for no Modification Indicator            Level 3.5 will always be '-' for no Benchmark Indicator            Level 3.6 populated per Execution Flags offset 2            Level 3.7 will always be '-' for unspecified (as not off book)            Level 4 will always be '-' for no deferral of publication</p>	In 0x23, 0x24	3	<p><b>Execution Flags</b> (based on MMT v3.01 standard) in Order Executed message:</p> <p>Level 1 populated per Execution Flags offset 0            Level 2 populated per Execution Flags offset 1            Level 3.1 will always be '-' for a standard trade            Level 3.2 will always be '-' for not being a Negotiated Trade            Level 3.3 will always be '-' for not being a Crossing Trade            Level 3.4 will always be '-' for no Modification Indicator            Level 3.5 will always be '-' for no Benchmark or Reference Price Indicator            Level 3.6 populated per Execution Flags offset 2            Level 3.7 will always be '-' for unspecified (as not off book)            Level 3.8 will always be 'P' for a Plain-Vanilla Trade            Level 3.9 populated per Execution Flags offset 3            Level 4.1 will always be '-' for no deferral of publication            Level 4.2 will always be '-' for not being applicable            Level 5 will always be '-' for not being applicable</p>	In 0x23, 0x24	4

From:			To:		
Description	Type	Length	Description	Type	Length
<p><b>Trade Flags</b> (based on MMT v2.2 standard) in Trade Message:</p> <p>Level 1 populated per Trade Flags offset 0  Level 2 populated per Trade Flags offset 1  Level 3.1 populated per Trade Flags offset 2  Level 3.2 will always be '-' for not being a Negotiated Trade  Level 3.3 will always be '-' for not being a Crossing Trade  Level 3.4 will always be '-' for no Modification Indicator  Level 3.5 will always be '-' for no Benchmark Indicator  Level 3.6 populated per Trade Flags offset 3  Level 3.7 will always be '-' for unspecified (as not off book)  Level 4 will always be '-' for no deferral of publication</p>	In 0x41, 0x2B	4	<p><b>Trade Flags</b> (based on MMT v3.01 standard) in Trade Message:</p> <p>Level 1 populated per Trade Flags offset 0  Level 2 populated per Trade Flags offset 1  Level 3.1 populated per Trade Flags offset 2  Level 3.2 will always be '-' for not being a Negotiated Trade  Level 3.3 will always be '-' for not being a Crossing Trade  Level 3.4 will always be '-' for no Modification Indicator  Level 3.5 populated per Trade Flags offset 3  Level 3.6 will always be '-' for no Special Dividend  Level 3.7 will always be '-' for unspecified (as not off book)  Level 3.8 will always be 'P' for a Plain-Vanilla Trade  Level 3.9 populated per Execution Flags offset 4  Level 4.1 will always be '-' for no deferral of publication  Level 4.2 will always be '-' for not being applicable  Level 5 will always be '-' for not being applicable</p>	In 0x41, 0x2B	5
<b>Extended Trade Flags</b> in Trade - Extended Message	In 0x32	11	<b>Extended Trade Flags</b> in Trade - Extended Message (refer to Multicast PITCH specification for details)	In 0x32	14
Cboe Trade Timing Indicator, in Extended Trade Flags	In 0x32	1	Cboe Trade Timing Indicator, in Trade Message - Extended Format	In 0x32, offset 53	1



## 6. TCP PITCH

### 6.1 Change Details

- **Trade Message - Unknown Symbol** will be added as a new message in TRF for TDM trades reported in symbols outside of the TRF symbol universe
- Changes to **Execution Flags** and **Trade Flags**. Fields will be lengthened, re-ordered and support an additional value, *Algorithmic Trade*. Dividend Indicator, previously always '-', will be replaced by Benchmark Or Reference Price Indicator
- Changes to **Extended Trade Flags** in **Trade Message - Extended Form**. Field will be lengthened, re-ordered and support additional values *Algorithmic Indicator, Deferral or Enrichment Type, Duplicative Indicator*
- *Cboe Trade Timing Indicator* will be removed from **Extended Trade Flags** and added as a field with the same name in **Trade Message - Extended Form**

## 6.2 Summary of Changes

(Note: grey highlight indicates aspect that has changed. Yellow indicates aspect that has been removed)

From:			To:		
Description	Type	Length	Description	Type	Length
			<b>Trade Message - Unknown Symbol</b> (refer to PITCH Specification for details)	k	102
<p><b>Execution Flags</b> (based on MMT v2.2 standard) in Order Executed message</p> <p>Implied MMT flags for the Order Executed message are as follows:</p> <p>Level 1 populated per Execution Flags offset 0</p> <p>Level 2 populated per Execution Flags offset 1</p> <p>Level 3.1 will always be 'P' for Plain-Vanilla Trade</p> <p>Level 3.2 will always be '-' for not being a Negotiated Trade</p> <p>Level 3.3 will always be '-' for not being a Crossing Trade</p> <p>Level 3.4 will always be '-' for no Modification Indicator</p> <p>Level 3.5 will always be '-' for <b>no Benchmark Indicator</b></p> <p>Level 3.6 populated per Execution Flags offset 2</p> <p>Level 3.7 will always be '-' for unspecified (as not off book)</p> <p>Level 4 will always be '-' for no deferral of publication</p>	In E, e	3	<p><b>Execution Flags</b> (based on MMT v3.01 standard) in Order Executed message</p> <p>Implied MMT flags for the Order Executed message are as follows:</p> <p>Level 1 populated per Execution Flags offset 0</p> <p>Level 2 populated per Execution Flags offset 1</p> <p>Level 3.1 will always be '-' for a standard trade</p> <p>Level 3.2 will always be '-' for not being a Negotiated Trade</p> <p>Level 3.3 will always be '-' for not being a Crossing Trade</p> <p>Level 3.4 will always be '-' for no Modification Indicator</p> <p>Level 3.5 will always be '-' for no Benchmark or Reference Price Indicator</p> <p>Level 3.6 populated per Execution Flags offset 2</p> <p>Level 3.7 will always be '-' for unspecified (as not off book)</p> <p>Level 3.8 will always be 'P' for a Plain-Vanilla Trade</p> <p>Level 3.9 populated per Execution Flags offset 3</p> <p>Level 4.1 will always be '-' for no deferral of publication</p> <p>Level 4.2 will always be '-' for not being applicable</p> <p>Level 5 will always be '-' for not being applicable</p>	In E, e	4

From:			To:		
Description	Type	Length	Description	Type	Length
<p><b>Trade Flags</b> (based on MMT v2.2 standard) in Trade Message:</p> <p>Level 1 populated per Trade Flags offset 0  Level 2 populated per Trade Flags offset 1  Level 3.1 populated per Trade Flags offset 2  Level 3.2 will always be '-' for not being a Negotiated Trade  Level 3.3 will always be '-' for not being a Crossing Trade  Level 3.4 will always be '-' for no Modification Indicator  Level 3.5 will always be '-' for <b>no Benchmark Indicator</b>  Level 3.6 populated per Trade Flags <b>offset 3</b>  Level 3.7 will always be '-' for unspecified (as not off book)  Level 4 will always be '-' for no deferral of publication</p>	In P, q	4	<p><b>Trade Flags</b> (based on MMT v3.01 standard) in Trade Message:</p> <p>Level 1 populated per Trade Flags offset 0  Level 2 populated per Trade Flags offset 1  Level 3.1 populated per Trade Flags offset 2  Level 3.2 will always be '-' for not being a Negotiated Trade  Level 3.3 will always be '-' for not being a Crossing Trade  Level 3.4 will always be '-' for no Modification Indicator  Level 3.5 populated per Trade Flags offset 3  Level 3.6 will always be '-' for no Special Dividend  Level 3.7 will always be '-' for unspecified (as not off book)  Level 3.8 will always be 'P' for a Plain-Vanilla Trade  Level 3.9 populated per Execution Flags offset 4  Level 4.1 will always be '-' for no deferral of publication  Level 4.2 will always be '-' for not being applicable  Level 5 will always be '-' for not being applicable</p>	In P, q	5
<p><b>Extended Trade Flags</b> in Trade Message - Extended</p>	In O	11	<p><b>Extended Trade Flags</b> in Trade Message – Extended (refer to Multicast PITCH specification for details)</p>	In O	14
<p><b>Cboe Trade Timing Indicator</b> in <b>Extended Trade Flags</b></p>	In O	1	<p><b>Cboe Trade Timing Indicator</b> in Trade Message - Extended Form</p>	In O	1

## 7. Trade Data File

### 7.1 Change Details

- **Addition of Price Formation** column to indicate *whether the trade was contributing to Price Formation or Price Discovery Process (equivalent to MMT Level 3.8)*
- **Addition of Algorithmic Trade** column to indicate *whether the trade was executed as a result of an investment firm engaging in algorithmic trading (equivalent to MMT Level 3.9)*
- **Changed semantics of Fee Code** column to indicate *category of fee applicable to the trade*
- **Changed semantics of Negotiated Trade** to an indication of *which Negotiated Trade or Pre-Trade Waiver the trade was conducted under (equivalent to MMT Level 3.2)*
- **Changed semantics of Publication Mode** to an indication *whether the trade was published immediately or the deferral reason (equivalent to MMT Level 4.1)*
- **Changed semantics of Benchmark Indicator** to indicate *whether the price of the trade was determined referencing an external benchmark or was a Reference Price trade (equivalent to MMT Level 3.5)*

## 8. Trade Detail File

### 8.1 Change Details

- **Changed semantics of fee\_code** column to *category of fee applicable to the trade*

## 9. MiFID II Identifier Management Application

### 9.1 Change Details

- The MiFID II Identifier Management application for uploading and downloading short to long code registrations replaces the web API based functionality previously announced.

The User Interface for the MiFID II ID Management App can be accessed via the Participant Tools section of the Cboe website for permissioned users using the HTTPS protocol and is served from the [www.markets.cboe.com](http://www.markets.cboe.com) domain. Alternatively, an API to allow programmatic file upload and download can be accessed via a URL using the HTTPS protocol served from the [api.markets.cboe.com](http://api.markets.cboe.com) domain.

The full specification for application can be found [here](#).

#### Register Identifiers CSV upload

- **Identifier Type** field replaces **Code Type** and **Role** fields.
- New **Effective Date** and **End Date** fields will be added.
- **Short Codes** 0, 1, 2 and 3 are reserved.
- A new CSV file is provided in response to an upload, which states whether each registration record has been successfully applied or not.

#### View Identifiers CSV download

- **Identifier Type** replaces **codeType** and **role** field.
- The **shortCode**, **longCode**, **beginDt** and **endDt** columns have been renamed **Short Code**, **Long Code**, **Effective Date** and **End Date** respectively.

#### View Missing Identifiers CSV download

- **Identifier Type** replaces **codeType** and **role** field.
- The **beginDt** and **endDt** columns have been renamed **Effective Date** and **End Date** respectively.
- The **longCode** field has been removed.

## 10. CERTIFICATION (UAT) & PRODUCTION AVAILABILITY

All features described above will be made available in Production environments on **Friday, 14th July 2017** and in Certification environments according to the below schedule:

Environment	MMT v3 inbound order handler availability	MMT v3 outbound market data mandatory	MiFID II availability	Fee Codes
<b>BXE UAT</b>	7 <sup>th</sup> March	7 <sup>th</sup> March	7 <sup>th</sup> March	7 <sup>th</sup> March
<b>CXE UAT</b>	13 <sup>th</sup> June	13 <sup>th</sup> June	13 <sup>th</sup> June	7 <sup>th</sup> March
<b>TRF UAT</b>	7 <sup>th</sup> March	7 <sup>th</sup> March	7 <sup>th</sup> March	7 <sup>th</sup> March

## 11. DOCUMENTATION

- Cboe MiFID II implementation milestones:  
<https://www.markets.cboe.com/europe/equities/regulation/mifid/milestones/>
- Q2 2017 Exchange Release Guidance Note:  
[http://cdn.markets.cboe.com/resources/participant\\_resources/BCE-GuidanceNote-Q22017Release\\_Final.pdf](http://cdn.markets.cboe.com/resources/participant_resources/BCE-GuidanceNote-Q22017Release_Final.pdf)
- BXE/CXE FIX:  
[http://cdn.markets.cboe.com/resources/participant\\_resources/BATS\\_Europe\\_FIX\\_Specification\\_Effective.pdf](http://cdn.markets.cboe.com/resources/participant_resources/BATS_Europe_FIX_Specification_Effective.pdf)
- BXE/CXE BOEv2:  
[http://cdn.markets.cboe.com/resources/participant\\_resources/BATS\\_Europe\\_BOE2\\_Specification\\_Effective.pdf](http://cdn.markets.cboe.com/resources/participant_resources/BATS_Europe_BOE2_Specification_Effective.pdf)
- TRF FIX:  
[http://cdn.markets.cboe.com/resources/participant\\_resources/BATS\\_ChiX\\_Europe\\_TRF\\_FIX\\_Specification\\_Effective.pdf](http://cdn.markets.cboe.com/resources/participant_resources/BATS_ChiX_Europe_TRF_FIX_Specification_Effective.pdf)
- TRF BOE v2:  
[http://cdn.markets.cboe.com/resources/participant\\_resources/BATS\\_Europe\\_TRF\\_BOE2\\_Specification\\_Effective.pdf](http://cdn.markets.cboe.com/resources/participant_resources/BATS_Europe_TRF_BOE2_Specification_Effective.pdf)
- TCP PITCH:  
[http://cdn.markets.cboe.com/resources/participant\\_resources/Bats\\_Europe\\_PITCH\\_Specification\\_Effective.pdf](http://cdn.markets.cboe.com/resources/participant_resources/Bats_Europe_PITCH_Specification_Effective.pdf)
- MC PITCH:  
[http://cdn.markets.cboe.com/resources/participant\\_resources/Bats\\_Europe\\_MC\\_PITCH\\_Specification\\_Effective.pdf](http://cdn.markets.cboe.com/resources/participant_resources/Bats_Europe_MC_PITCH_Specification_Effective.pdf)
- MiFID II Identifier Management:  
[http://cdn.markets.cboe.com/resources/participant\\_resources/BATS\\_Europe\\_MiFID2\\_Identifier\\_Management\\_Specification.pdf](http://cdn.markets.cboe.com/resources/participant_resources/BATS_Europe_MiFID2_Identifier_Management_Specification.pdf)
- Trade Data File:  
[http://cdn.markets.cboe.com/resources/participant\\_resources/BATS\\_Europe\\_Trade\\_Data\\_File\\_Effective.pdf](http://cdn.markets.cboe.com/resources/participant_resources/BATS_Europe_Trade_Data_File_Effective.pdf)
- Trade Detail File:  
[http://cdn.markets.cboe.com/resources/participant\\_resources/BATS\\_Europe\\_Trade\\_Detail\\_File\\_Effective.pdf](http://cdn.markets.cboe.com/resources/participant_resources/BATS_Europe_Trade_Detail_File_Effective.pdf)
- Trading Price List:  
[http://cdn.markets.cboe.com/resources/participant\\_resources/BATSEuro\\_Pricing\\_Effective.pdf](http://cdn.markets.cboe.com/resources/participant_resources/BATSEuro_Pricing_Effective.pdf)
- Technical Change Calendar:  
[http://cdn.markets.cboe.com/resources/participant\\_resources/BATS\\_Change\\_Calendar.pdf](http://cdn.markets.cboe.com/resources/participant_resources/BATS_Change_Calendar.pdf)
- Fee Codes (links will become available in UAT from 7<sup>th</sup> March):
  - [http://www.cboe.com/europe/equities/participation/fee\\_schedule/bxe/](http://www.cboe.com/europe/equities/participation/fee_schedule/bxe/)
  - [http://www.cboe.com/europe/equities/participation/fee\\_schedule/cxe/](http://www.cboe.com/europe/equities/participation/fee_schedule/cxe/)
  - [http://www.cboe.com/europe/equities/participation/fee\\_schedule/trf/](http://www.cboe.com/europe/equities/participation/fee_schedule/trf/)
- Previous MiFID II Exchange Releases:
  - Q4 2016 Exchange Release Guidance Note:  
[http://cdn.markets.cboe.com/resources/participant\\_resources/BCE-GuidanceNote-Q42016Release\\_Final.pdf](http://cdn.markets.cboe.com/resources/participant_resources/BCE-GuidanceNote-Q42016Release_Final.pdf)
  - Q2 2016 Exchange Release Guidance Note:  
[http://cdn.markets.cboe.com/resources/participant\\_resources/BCE-GuidanceNote-Q22016Release\\_Final.pdf](http://cdn.markets.cboe.com/resources/participant_resources/BCE-GuidanceNote-Q22016Release_Final.pdf)

Please contact the Trade Desk or your Account Manager if you have any questions.