



CBOE EUROPE EQUITIES GUIDANCE NOTE

Q4 2017 EXCHANGE RELEASE

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VERSION 1.1

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Version History

Version Number	Publication Date	Description
1.0	27 th July 2017	Publication Version.
1.1	20 th September 2017	Remove MiFID II Iceberg behavior. Remove RTS 2 Deferrals (ILQD and SIZE) for ETRs.

Table of Contents

1.	Introduction	4
2.	Summary	5
3.	MMT v3.04 Guidance	9
3.	FIX	13
4.	BOE	16
6.	Multicast Pitch.....	19
6.	TCP Pitch	20
7.	Last Sale Feed	22
8.	Trade Data File	24
9.	Trade Detail File	24
10.	Symbol File.....	24
11.	Certification (UAT) & Production Availability.....	25
12.	Documentation	26

1. Introduction

This guidance note is intended to provide context and detail to the changes contained within the Cboe Europe Equities (“Cboe”) 2017 Q4 Exchange Release going live in Production from the start of day on **Friday 27th October 2017**. The 2017 Q4 release contains **mandatory protocol-level (PITCH) interface changes** to the Cboe BXE, CXE and TRF platforms. **The removal of MTFAccessFee is the only mandatory protocol-level FIX interface change as part of the 2017 Q4 release.**

These changes constitute further functional changes to real-time protocols and reference files for 2017, which are considered mandatory for MiFIR and MiFID II (collectively "MiFID II") compliance and MMT v3.04 adherence. Full change details follow in the subsequent protocol specific sections. These changes are in addition to [previous exchange releases](#) which included MiFID II-related content. Cboe’ MiFID II implementation milestones can be found [here](#). Participants are advised to check this resource regularly for Cboe’ upcoming MiFID II milestones.

In addition, Cboe are pleased to announce the introduction of the Firm Order Record Keeping service to aid firms in meeting their Record Keeping obligations under MiFID II RTS 6.

1.1 Intended Audience

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).

2. Summary

The changes in this release comprise the following main functional elements:

- Removal of MTFAccessFee from FIX .
- Support for Pending price “PNDG” functionality on TRF per RTS 1.
- MMT v3.04 support of latest additions to MMT standard.
- Addition of a Venue Cap Percentage column to Symbol Reference Files.
- Deferred publication of transactions on-exchange (BXE/CXE) must have ‘DEAL’ capacity.
- Introduction of the Firm Order Record Keeping service.

2.1 Reason for Changes

Removal of MTFAccessFee from FIX:

Fee codes were introduced as a replacement to access fees in the Q2 2017 release. The MTFAccessFee FIX tag is being deprecated and removed in this release with Fee codes already rolled out as a functional replacement.

Support for Pending price “PNDG” functionality on TRF per RTS 1:

MMTv3 .04 introduces flagging allowing Participants to use a zero or indicative price at the time of reporting a trade. These trades will be published on market data with a ‘PNDG’ identifier. Deferrals are eligible where an indicative price is provided, but are not possible where a price of zero is supplied. When the trade price becomes known to the Participant, the Trade Capture Report can be amended with the new price and an alternative Trade Price Condition, as per standard Cboe Trade Capture Report “TCR” amendment behaviour. Using FIX, the amended TCR could set TradePriceCondition = 16 (TNCP), for example, and the amended TCR will be published showing a TNCP identifier and the final Price.

MMT v3.04 support of latest additions to MMT standard:

To support the MMT Level 1 value for “Any other, including Hybrid”, TCRs can be sent to Cboe TRF (APA) with this as a Market Mechanism.

To support the Pre-Trade Transparency Indicators ILQD and SIZE being set together, Participants can specify these values together in TCRs to Cboe TRF (APA).

To support the Post-Trade Deferral Indicators ILQD and SIZE or ILQD and LRGS being set together, Participants can specify these values together in TCRs to Cboe TRF (APA).

Addition of a Venue Cap Percentage column to Symbol Reference Files:

MiFID II imposes a cap on the usage of the Reference Price and Negotiated Transaction pre-trade transparency waivers as part of RTS 3. The caps reference total EU on venue volume and are calculated on a per symbol basis at 4% on any particular venue and 8% market-wide in any 12-month rolling period. In Cboe' Q2 2016 release, a "capped" column was added to the symbol reference files to indicate whether such caps apply or whether Cboe has self-capped on specific instruments. In the Q4 2017 release, a new column called “venue_cap_percentage” is being added to the end of the symbol reference files to indicate when Cboe may cap.

Deferred publication of transactions on-exchange (BXE/CXE) must have ‘DEAL’ capacity:

To be compliant with RTS 1, Participants requesting deferrals on-exchange will only be able to do so when acting with a ‘DEAL’ Order Capacity. If a deferral is requested with an alternative Order Capacity, the deferral request will not be honoured and will be published immediately.

Introduction of the Firm Order Record Keeping service:

To aid with Participants’ Order Keeping obligations under RTS 6 Cboe are providing a service for Participants to download

2.2 Mandatory Changes (Protocols and Files)

Removal of MTFAccessFee and Support for FeeCode

- **MTFAccessFee**(FIX tag 9621) will be deprecated from the BXE and CXE Production environments, effective Friday 1st September 2017. From this date, the field will be set to a value of zero (MTFAccessFee=0), and as valid values will no longer be calculated this field should be ignored. Further to this, as of Friday 27th October 2017, MTFAccessFee **will be removed in Production**.
- As announced in the Q2 2017 release, Cboe supports the FIX tag **FeeCode**(9882). This is a replacement to MTFAccessFee which can be enabled at a port level for FIX. For participants using Binary Order Entry (BOE) FeeCode is already an existing optional bitfield that can be requested and will remain optional. Participants may already receive this tag on their existing FIX sessions as FeeCode is configurable at a port level, please contact the [Trade Desk](#) for further details. Participants using the FIX protocol for order entry or drops must be prepared for these changes come market open on the effective date.

Principal Capacity required for deferral of On-Exchange Trade Capture Reports

- Participants will need to set **OrderCapacity** = P (Principal) which maps to 'DEAL' when requesting deferred publication on-exchange otherwise the deferral will **not** be honoured and **published immediately**.

Market data (Multicast and TCP):

- Trades with a pending price will be disseminated on market data using the Trade – Extended Message and Unknown Symbol Message with the new MMT Level 3.8 value of “N” (Price is currently available but pending) in TRF.
- Trades with a pending price may be disseminated on market data with a Price value of 0 (zero) in TRF.
- Trades will be disseminated on market data with the new MMT Level 1 value of 7 “Any other, Including Hybrid” in TRF.
- Trades will be disseminated on market data using the Trade – Extended Message and Unknown Symbol Message with the new MMT Level 3.2 value of 6 for “ILQD” and “SIZE” set together in TRF.
- Trades will be disseminated on market data using the Trade – Extended Message and Unknown Symbol Message with the new MMT Level 4.1 values of 5 for “ILQD and SIZE” and 6 for “ILQD and LRGS” set together in TRF.

Market data (Last Sale feed)

- Support for an additional value of 'PNDG' (Price is Pending) in the 'Price Discovery Process' field.
- Trades with a pending price may be disseminated on the Last Sale Feed with a Price value of 0 (zero).
- Trades where the Pre-Trade Transparency Waivers of 'ILQD' and 'SIZE' both apply will have the 'Negotiation Flag' field set to 'SIZE' on the Last Sale Feed.
- Trades where the Post-Trade Deferral Reasons of 'ILQD' and 'SIZE' or 'ILQD' and 'LRGS' both apply will have the 'Post-Trade Deferral Reason' field set to 'ILQD' on the Last Sale Feed.

Symbol File:

- A new column “venue_cap_percentage” will be added to the symbol file

Trade Data File:

- A new value of “PNDG” will be supported in the existing “Price Formation” column.
- A value of 0 (zero) will be supported in the “Price” column if the price is pending.
- A new value of “AnyOtherIncludingHybridMarket” will be supported in the existing “Market Mechanism” column.
- A new value of “IlliquidSI SizeSpecificSI” to the existing “Negotiated Trade” column.
- A new value of “Deferred (Illiquid) Deferred (SizeSpecific)” will be supported in the existing “Publication Mode” column.
- A new value of “Deferred (Illiquid) Deferred (Large In Scale)” will be supported in the existing “Publication Mode” column.

Trade Detail File:

- A value of 0 (zero) will be supported in the “Price” column if the price is pending.

2.3 Optional Changes

FIX

- **LastPx** (31) and **GrossTradeAmt**(381) will support ‘0’ (zero) values when **TradePriceCondition**(1839)=17 (PNDG) on inbound TCRs in TRF.
- **VenueType** (1430) will support a new value of H (Hybrid) on inbound TCRs in TRF.
- **TradePriceCondition** (1839) will support a new value of 17 (PNDG) on inbound TCRs in TRF.
- **TrdRegPublicationReasons** (8013) will support the multiple Pre-Trade Transparency Waiver values ‘4 5’ being specified together on inbound Trade Capture Reports in TRF.
- **TrdRegPublicationReasons** (8013) will support the multiple Deferral Type values ‘7 8’ (ILQD and SIZE) and ‘6’ (ILQD and LRGS) being specified together inbound and outbound in TRF.
- **TrdRegPublicationReasons** (8013) will support value ‘6’ (LRGS) Deferral Type on its own on inbound Trade Capture Reports in TRF.

BOE

- **LastPx** and **GrossTradeAmt** will support ‘0’ (zero) values when **PriceFormation** = 17 (PNDG) on inbound TCRs in TRF.
- **PriceFormation** will support a new value of 17 (PNDG) on inbound TCRs in TRF.
- **VenueType** will support a new value of H (Hybrid) on inbound TCRs in TRF.
- **WaiverType** will support the Waiver Type value ‘B’ to indicate ILQD and SIZE being set together on inbound Trade Capture Reports in TRF.
- **DeferralReason** will support the Deferral Type values ‘D’ to indicate ILQD and SIZE being set together and ‘C’ to indicate ILQD and LRGS being set together. These values are supported inbound and outbound in TRF only.
- **DeferralReason** will now support the value ‘6’ (LRGS) on its own on inbound Trade Capture Reports in TRF.

2.4 Introduction of Firm Order Record Keeping

As part of the Cboe 2017 Q4 Exchange Release, Cboe is pleased to announce the introduction of the Firm Order Record Keeping service.

- Firm Order Record Keeping files provide order activity data on orders placed on Cboe environments and are provided to all firms to aid them in meeting record keeping obligations under MiFID II RTS 6

For further details on the Firm Order Record Keeping service offering please refer to the [specification](#).

3. MMT v3.04 Guidance

3.1 MMT FIX / BOE Input vs Market Data Output

The following on-exchange and off-exchange tables illustrate what MMT values will be published on market data based on the inputs supplied using FIX or BOE.

On-Exchange

Market Data Output		FIX / BOE Inputs			
		FIX		BOE	
Level	Value	Tag	Value	Field	Value
L3.2	1 (NLIQ)	Use a liquid symbol		Use a liquid symbol	
	2 (OILQ)	Use a non-liquid symbol		Use a non-liquid symbol	
	3 (PRIC)	N/A	N/A	N/A	N/A
		N/A	N/A	N/A	N/A
		N/A	N/A	N/A	N/A
	3 (PRIC)	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)
L3.5	B (BENC)	SecondaryTrdType (855)	64 (Benchmark)	SecondaryTradeType	64 (Benchmark)
	S (RFPT)	Perform a dark execution		Perform a dark execution	
L3.6	E (SDIV)	TradePriceCondition (1839)	0 (Cum Dividend)	TradePriceCondition	0 (Cum Dividend)
			2 (Ex Dividend)		2 (Ex Dividend)
			13 (Special Dividend)		13 (Special Dividend)
L3.7	-	ExecMethod (2405)	0 (Unspecified)	Execution Method	U (Unspecified)
	M (M)		1 (Manual)		M (Manual)
	Q (Q)		2 (Automated)		A (Automated)
L3.8	T (NPFT)	N/A	N/A	N/A	N/A
		TradePriceCondition (1839)	15 (Non Price Forming)	PriceFormation	T (Non Price Forming)
L3.9	H (ALGO)	OrderAttributeTypes (8015)	4 (Algorithmic Order)	AlgorithmicIndicator	Y (ALGO)
		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	
	2 (LRGS)	LIS trade that receives a deferral		LIS trade that receives a deferral	

Off-Exchange

Market Data Output		FIX / BOE Inputs			
		FIX		BOE	
Level	Value	Tag	Value	Field	Value
3.1	D (D)	TrdType (828)	62 (Dark)	TransactionCategory	D (Dark)
	R (RPRI)	TradePriceCondition (1839)	14 (Trade w/ Price Imp.)	TransactionCategory	R (Trade w/ Price Imp.)
3.2	4 (ILQD)	TrdRegPublicationReasons (8013)	4 (Illiquid SI)	WaiverType	4 (Illiquid SI)
	5 (SIZE)	TrdRegPublicationReasons (8013)	5 (Size Specific SI)	WaiverType	5 (Size Specific SI)
	6 (ILQD, SIZE)	TrdRegPublicationReasons (8013)	4 5 (Illiquid SI & Size Specific SI)	WaiverType	B (Illiquid SI & Size Specific SI)
3.3	X (ACTX)	TrdSubType (829)	37 (Agency Cross)	TrdSubType	37 (Agency Cross)
3.5	B (BENC)	SecondaryTrdType (855)	64 (Benchmark)	SecondaryTradeType	64 (Benchmark)
	S (RFPT)	TrdRegPublicationReasons (8013)	3 (Reference Price)	WaiverType	3 (Dark Book)
3.6	E (SDIV)	TradePriceCondition (1839)	0 (Cum Dividend)	TradePriceCondition	0 (Cum Dividend)
			2 (Ex Dividend)		2 (Ex Dividend)
			13 (Special Dividend)		13 (Special Dividend)
3.7	-	ExecMethod (2405)	0 (Unspecified)	ExecutionMethod	U (Unspecified)
	M (M)		1 (Manual)		M (Manual)
	Q (Q)		2 (Automated)		A (Automated)
3.8	J (TNCP)	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)
3.8	N (PNDG)	TradePriceCondition (1839)	17 (Price is Pending)	PriceFormation	N (Price is Pending)
3.9	H (ALGO)	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	
	2 (LRGS)	TrdRegPublicationReasons (8013)	6 (Deferral Large in Scale)	DeferralReason	6 (Deferral Large in Scale)
	3 (ILQD)	TrdRegPublicationReasons (8013)	7 (Deferral Illiquid)	DeferralReason	7 (Deferral Illiquid)
	4 (SIZE)	TrdRegPublicationReasons (8013)	8 (Deferral Size Specific)	DeferralReason	8 (Deferral Size Specific)
	5 (ILQD, SIZE)	TrdRegPublicationReasons (8013)	7 8 (Deferral Illiquid & Size Specific)	DeferralReason	D (Deferral Illiquid & Size Specific)
	6 (ILQD, LRGS)	TrdRegPublicationReasons (8013)	7 6 (Deferral Illiquid & Large in Scale)	DeferralReason	C (Deferral Illiquid & Large in Scale)

Key: = Difference between Q2 and Q4 2017 release


3.2 MMT Waiver and Negotiation Indicator Guidance

The following FIX and BOE tables illustrate the deferral and waiver flagging that can be:

- Requested by Participants with TrdRegPublicationReasons(8013) using FIX or WaiverType and DeferralReason using BOE.
- Populated on messages back to Participants based on what the Participant has requested, or what Cboe has automatically calculated.

FIX


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

Key:  = Difference between Q2 and Q4 2017 release

* = 'PRIC' trades are flagged inbound with TradePriceCondition (1839) = 16 using FIX or with PriceFormation = 3 using BOE

BOE

Waiver/Negotiation Indicators		Mapping to BOE Protocol		Functional Support					
				BXE/CXE (Order Books)		BXE/CXE (On-exchange Trade Reports)		TRF/APA (Trade Reports)	
Description	MiFID II Value	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	-	-	-	-	Y	-	-
Negotiated Trade in Illiquid Instrument	OILQ	1	-	-	-	-	Y	-	-
Negotiated Trade Subject to Conditions Other Than the Current Market Price	PRIC	2	-	-	-	Y*	Y	-	-
Reference Price (Dark Book)	RFPT	3	-	-	Y	-	-	Y	Y
Pre-Trade Transparency Waiver for Illiquid Instrument (for SI only)	ILQD	4	-	-	-	-	-	Y	Y
Pre-Trade Transparency Waiver for Above Standard Market Size (for SI only)	SIZE	5	-	-	-	-	-	Y	Y
Pre-Trade Transparency Waiver for Illiquid Instrument (for SI only) AND Pre-Trade Transparency Waiver for Above Standard Market Size (for SI only)	ILQD, SIZE	B	-	-	-	-	-	Y	Y
Deferral for Large in Scale	LRGS	-	6	-	-	-	Y	Y	Y
Deferral for Illiquid Instrument (for RTS2 only)	ILQD	-	7	-	-	-	-	Y	Y
Deferral for Size Specific (for RTS2 only)	SIZE	-	8	-	-	-	-	Y	Y
Deferral for Illiquid Instrument (for RTS2 only) AND Deferral for Large in Scale	ILQD, LRGS	-	C	-	-	-	-	Y	Y
Deferral for Illiquid Instrument (for RTS2 only) AND Deferral for Size Specific (for RTS2 only)	ILQD, SIZE	-	D	-	-	-	-	Y	Y
Large In Scale (Pre-Trade Transparency Waiver)	n/a	9	-	-	Y	-	Y	-	-
Order Management Facility (Iceberg) (Pre-Trade Transparency Waiver)	n/a	A	-	-	Y	-	-	-	-

Key:  = Difference between Q2 and Q4 2017 release

* = 'PRIC' trades are flagged inbound with TradePriceCondition (1839) = 16 using FIX or with PriceFormation = 3 using BOE

4. FIX

4.1 Change Details

TRF:

- **TradePriceCondition**(1839) will support the additional value *17 (Price is Pending)* for Trade Capture Reports.
- **LastPx**(31) and **GrossTradeAmt**(381) will support for “0”(zero) values when price is pending.
- **TrdRegPublicationReasons**(8013) will support the additional value of *6 (Deferral for Large In Scale (LRGS))* on inbound Trade Capture Reports.
- **TrdRegPublicationReasons**(8013) will support specifying multiple values (separated by a space) on inbound Trade Capture Reports to indicate the Pre-Trade Transparency waiver type:
 - *4 (Pre-Trade Transparency Waiver for Illiquid Instrument (ILQD))* and *5 (Pre-Trade Transparency Waiver for Size Specific (SIZE))* can be submitted together for SI's.
- **TrdRegPublicationReasons**(8013) will support specifying multiple values (separated by a space) on inbound Trade Capture Reports to indicate the Post-Trade Deferral type:
 - *7 (Deferral for Illiquid Instrument (ILQD))* and *6 (Deferral for Large In Scale (LRGS))* can be submitted together
 - *7 (Deferral for Illiquid Instrument (ILQD))* and *8 (Deferral for Size Specific (SIZE))* can be submitted together
- **VenueType** (1430) will now support the additional value *H (Hybrid Market)* for Trade Capture Reports.

BXE/CXE:

- **MTFAccessFee** (9621) will return a '0' values as of Friday 1st September and will be **removed** as of Friday 27th October
- **OrderCapacity** (528) = 'P' Principal (maps to 'DEAL') is mandatory when requesting deferral (TradePublishIndicator = '2' Deferred Publication) on inbound Trade Capture Report messages in BXE and CXE

4.2 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
TradePriceCondition	In 35=AE Inbound , 35=AR and 35=AE Outbound In TRF only	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)	TradePriceCondition	In 35=AE Inbound , 35=AR and 35=AE Outbound In TRF only	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) 17 = Price is Pending (PNDG)
LastPx	In 35=AE Inbound , 35=AR and 35=AE Outbound In TRF only	31	Traded Price	LastPx	In 35=AE Inbound , 35=AR and 35=AE Outbound In TRF only	31	Traded Price. A value of zero or an indicative price may be used if the price is pending, as denoted by TradePriceCondition.
GrossTradeAmt	In 35=AE Inbound , 35=AR and 35=AE Outbound In TRF only	381	Total amount traded, expressed in units of currency. This tag is only considered when LastPx is not specified.	GrossTradeAmt	In 35=AE Inbound , 35=AR and 35=AE Outbound In TRF only	381	Total amount traded, expressed in units of currency. A value of zero or an indicative total amount traded price may be used if the price is pending, as denoted by TradePriceCondition. This tag is only considered when LastPx is not specified.
TrdRegPublicationReasons	In 35=8, 35=AR Outbound and 35=AE In- and Outbound	8013	See section 3.2	TrdRegPublicationReasons	In 35=8, 35=AR Outbound and 35=AE In- and Outbound	8013	See section 3.2 highlighted values
VenueType	In 35=AE Inbound , 35=AR and 35=AE Outbound In TRF only	1430	B = Central Limit Order Book Q = Quote Driven Market D = Dark Order Book O = Off Book A = Periodic Auctions N = Request for Quotes	VenueType	In 35=AE Inbound , 35=AR and 35=AE Outbound In TRF only	1430	B = Central Limit Order Book Q = Quote Driven Market D = Dark Order Book O = Off Book A = Periodic Auctions N = Request for Quotes H = Hybrid Market
MTFAccessFee	In 35=8 and 35=AE Outbound in BXE and CXE only	9621	Only present on trades. Indication of access fee for this fill (up to five decimal places, negative for rebates).	MTFAccessFee	In 35=8 and 35=AE Outbound in	9621	Only present on trades. Indication of access fee for this fill (up to five. decimal places, negative for rebates).

					BXE and CXE only		
<i>OrderCapacity</i>	In 35=AE Inbound , 35=AR and 35=AE Outbound In BXE and CXE only	528	Optional. A = Agency (maps to 'AOTC') P = Principal (maps to 'DEAL') R = Riskless (maps to 'MTCH')	<i>OrderCapacity</i>	In 35=AE Inbound , 35=AR and 35=AE Outbound In BXE and CXE only	528	Optional. 528 = P is Mandatory if 1390=2 A = Agency (maps to 'AOTC') P = Principal (maps to 'DEAL') R = Riskless (maps to 'MTCH')

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

5. BOE

5.1 Change Details

TRF:

- **PriceFormation** will support the additional value 17 (*Price is Pending (PNDG)*) for Trade Capture Report V2 messages.
- **LastPx and GrossTradeAmt** will support “0” (zero) values for when the price is pending.
- **DeferralReason** will support submitting 6 (*LRGS*) on its own for inbound Trade Capture Report V2 messages.
- **WaiverType** will support the new inbound value of “B” to specify pre trade transparency waivers 4 (*Pre-Trade Transparency Waiver for Illiquid Instrument (ILQD)*) and 5 (*Pre-Trade Transparency Waiver for Size Specific (SIZE)*) being set together for SI’s.
- **DeferralReason** will now support new inbound values:
 - C to indicate 7 (*Deferral for Illiquid Instrument (ILQD)*) and 6 (*Deferral for Large In Scale (LRGS)*) being set together
 - D to indicate 7 (*Deferral for Illiquid Instrument (ILQD)*) and 8 (*Deferral for Size Specific (SIZE)*) being set together
- **VenueType** will support the additional value H (*Hybrid Market*) for Trade Capture Report V2, Trade Capture Report Acknowledgement V2 and Trade Capture Report Confirm V2 messages.

BXE/CXE:

- **Capacity** = ‘P’ Principal (maps to ‘DEAL’) is mandatory when requesting deferral (TradePublishIndicator = ‘2’ Deferred Publication) on inbound Trade Capture Report messages in BXE and CXE.

5.2 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
PriceFormation field in Trade Capture Report V2 message type (0x3C) Inbound Trade Capture Report Acknowledgement V2 (0x30) Trade Capture Confirm V2 (0x32) Outbound in TRF only	1	Alphanumeric	Not specified or P = Plain-Vanilla Trade J = Trade Not Contributing to the Price Discovery Process (TNCP)	PriceFormation field in Trade Capture Report V2 message type (0x3C) Inbound Trade Capture Report Acknowledgement V2 (0x30) Trade Capture Confirm V2 (0x32) Outbound in TRF only	1	Alphanumeric	Not specified or P = Plain-Vanilla Trade J = Trade Not Contributing to the Price Discovery Process (TNCP) N = Price is Pending (PNDG)
LastPx field in Trade Capture Report V2 message type (0x3C) Inbound Trade Capture Report Acknowledgement V2 (0x30) Trade Capture Confirm V2 (0x32) Outbound in TRF only	8	Binary Price	Trade Price	LastPx field in Trade Capture Report V2 message type (0x3C) Inbound Trade Capture Report Acknowledgement V2 (0x30) Trade Capture Confirm V2 (0x32) Outbound in TRF only	8	Binary Price	Traded Price. A value of zero or an indicative price may be used if the price is pending, as denoted by TradePriceCondition.
GrossTradeAmt field in Trade Capture Report V2 message type (0x3C) Inbound Trade Capture Report Acknowledgement V2 (0x30) Trade Capture Confirm V2 (0x32) Outbound in TRF only	8	Binary Price	Total amount traded, expressed in units of currency.	GrossTradeAmt field in Trade Capture Report V2 message type (0x3C) Inbound Trade Capture Report Acknowledgement V2 (0x30) Trade Capture Confirm V2 (0x32) Outbound in TRF only	8	Binary Price	Total amount traded, expressed in units of currency. A value of zero or an indicative total amount traded price may be used if the price is pending, as denoted by TradePriceCondition. This is only considered when LastPx is not specified.
WaiverType field in (BXE, CXE) Trade Capture Report V2 message type (0x3C) , Trade Capture Report Acknowledgment V2 (0x30), Order Execution V2 (0x2C) Outbound and in (TRF) Trade Capture Report V2 (0x3C) Inbound & Trade Capture Confirm V2 message type (0x32) & Trade Capture Report	1	Alphanumeric	See section 3.2	WaiverType field in (BXE, CXE) Trade Capture Report V2 message type (0x3C) , Trade Capture Report Acknowledgment V2 (0x30), Order Execution V2 (0x2C) Outbound and in (TRF) Trade Capture Report V2 (0x3C) Inbound & Trade Capture Confirm V2 message type (0x32) & Trade Capture Report Acknowledgment V2 (0x30) Outbound	1	Alphanumeric	See section 3.2 highlighted values

Acknowledgment V2 (0x30) Outbound							
DeferralReason field in (BXE, CXE) Trade Capture Report V2 message type (0x3C) , Trade Capture Report Acknowledgment V2 (0x30), Order Execution V2 (0x2C) Outbound and in (TRF) Trade Capture Report V2 (0x3C) Inbound & Trade Capture Confirm V2 message type (0x32) & Trade Capture Report Acknowledgment V2 (0x30) Outbound	1	Alphanumeric	See section 3.2	DeferralReason field in (BXE, CXE) Trade Capture Report V2 message type (0x3C) , Trade Capture Report Acknowledgment V2 (0x30), Order Execution V2 (0x2C) Outbound and in (TRF) Trade Capture Report V2 (0x3C) Inbound & Trade Capture Confirm V2 message type (0x32) & Trade Capture Report Acknowledgment V2 (0x30) Outbound	1	Alphanumeric	See section 3.2 highlighted values
VenueType field in Trade Capture Report V2 (0x3C) Inbound & Trade Capture Confirm V2 message (0x32) & Trade Capture Report Acknowledgment V2 (0x30) Outbound	1	Alphanumeric	B = Central Limit Order Book Q = Quote Driven Market D = Dark Order Book O = Off Book A = Periodic Auctions N = Request for Quotes	VenueType field in Trade Capture Report V2 (0x3C) Inbound & Trade Capture Confirm V2 message (0x32) & Trade Capture Report Acknowledgment V2 (0x30) Outbound	1	Alphanumeric	B = Central Limit Order Book Q = Quote Driven Market D = Dark Order Book O = Off Book A = Periodic Auctions N = Request for Quotes H = Hybrid Market
Capacity field in Trade Capture Report V2 (0x3C) Inbound & Trade Capture Confirm V2 message (0x32) & Trade Capture Report Acknowledgment V2 (0x30) Outbound	1	Alphanumeric	A = Agency (maps to 'AOTC') P = Principal (maps to 'DEAL') R = Riskless Principal (maps to 'MTCH')	Capacity field in Trade Capture Report V2 (0x3C) Inbound & Trade Capture Confirm V2 message (0x32) & Trade Capture Report Acknowledgment V2 (0x30) Outbound	1	Alphanumeric	Capacity = P is Mandatory if TradePublishIndicator=2 A = Agency (maps to 'AOTC') P = Principal (maps to 'DEAL') R = Riskless Principal (maps to 'MTCH')

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

6. Multicast Pitch

6.1 Change Details

- **Trade – Extended Message and Unknown Symbol Message: Extended Trade Flags in TRF**
 - Support for an additional value of ‘7’ (*Hybrid Market*) in Level 1
 - Support for an additional value of ‘6’ (*Waiver of ILQD and SIZE*) in Level 3.2
 - Support for an additional value of ‘N’ (*Price is currently not available but pending*) in Level 3.8
 - Support for an additional value of ‘5’ (*Deferral of ILQD and SIZE*) in Level 4.1
 - Support for an additional value of ‘6’ (*Deferral of ILQD and LRGS*) in Level 4.1
 - Support of a 0 (zero) value in the ‘Price’ field the price is pending

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
Extended Trade Flags in Trade - Extended Message	In 0x32	14	Extended Trade Flags in Trade - Extended Message Addition of new Trade Type Flags for TRF only Level 1 = 7 Level 3.2 = 6 Level 3.8 = N Level 4.1 = 5 Level 4.1 = 6	In 0x32	14
Price – The execution price	In 0x32	8	Price – The execution price. This may be zero if the price is pending for TRF only	In 0x32	8
Extended Trade Flags in Trade – Unknown Symbol Message	In 0x35	14	Extended Trade Flags in Trade – Unknown Symbol Message Addition of new Trade Type Flag for TRF only Level 3.8 = N Level 4.1 = 5 Level 4.1 = 6	In 0x35	14

7. TCP Pitch

7.1 Change Details

- **Trade – Extended Message and Unknown Symbol Message: Extended Trade Flags in TRF**
 - Support for an additional value of '7' (*Hybrid Market*) in Level 1
 - Support for an additional value of '6' (*Waiver of ILQD and SIZE*) in Level 3.2
 - Support for an additional value of 'N' (*Price is currently not available but pending*) in Level 3.8
 - Support for an additional value of '5' (*Deferral of ILQD and SIZE*) in Level 4.1
 - Support for an additional value of '6' (*Deferral of ILQD and LRGS*) in Level 4.1
 - Support of a 0 (zero) value in the 'Price' field the price is pending

7.2 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
Extended Trade Flags in Trade - Extended Message	In "O"	14	Extended Trade Flags in Trade - Extended Message Addition of new Trade Type Flags for TRF only Level 1 = 7 Level 3.2 = 6 Level 3.8 = N Level 4.1 = 5 Level 4.1 = 6	In "O"	14
Price - The execution price	In "O"	19	Price - The execution price. This may be zero if the price is pending for TRF only	In "O"	190
Extended Trade Flags in Trade - Unknown Symbol Message	In "k"	102	Extended Trade Flags in Trade - Unknown Symbol Message Addition of new Trade Type Flag for TRF only Level 3.8 = N Level 4.1 = 5 Level 4.1 = 6	In "k"	102

8. Last Sale Feed

8.1 Change Details

- **Last Sale Europe Message**

- Support for an additional value of 'PNDG' (Price is Pending) in the 'Price Discovery Process' field.
- Support for a 0 (zero) value in the 'Price' field if the price is pending, as denoted by the 'Price Discovery Process' field.
- In the 'Negotiation Flag' field, if the Pre-Trade Transparency Waivers of 'ILQD' and 'SIZE' both apply, 'SIZE' will be published in this field.
- In the 'Post-Trade Deferral Reason' field, if the Post-Trade Deferral Reasons of 'ILQD' and 'SIZE' or 'ILQD' and 'LRGS' both, 'ILQD' will be published in this field.

8.2 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
Negotiation Flag "NLIQ" = Negotiated Trade in Liquid Instruments "OILQ" = Negotiated Trade in Illiquid Instruments "PRIC" = Negotiated Trade Subject to Conditions Other Than The Current Market Price "ILQD" = Pre-Trade Transparency Waiver for Illiquid Instrument on an SI" "SIZE" = Pre-Trade Transparency Waiver for Above Standard Size on an SI	In "u"	4	Negotiation Flag "NLIQ" = Negotiated Trade in Liquid Instruments "OILQ" = Negotiated Trade in Illiquid Instruments "PRIC" = Negotiated Trade Subject to Conditions Other Than The Current Market Price "ILQD" = Pre-Trade Transparency Waiver for Illiquid Instrument on an SI" "SIZE" = Pre-Trade Transparency Waiver for Above Standard Size on an SI If the Pre-Trade Transparency Waivers of "ILQD" and "SIZE" both apply to the trade, "SIZE" will be published in this field	In "u"	4
Price Discovery Process "NPFT" = Non-Price Forming Trade "TNCP" = Trade not Contributing to the Price Discovery Process	In "u"	4	Price Discovery Process "NPFT" = Non-Price Forming Trade "TNCP" = Trade not Contributing to the	In "u"	4

From:			To:		
Description	Type	Length	Description	Type	Length
			Price Discovery Process "PNDG" = Price is Pending		
Price – Price of the trade	In "u"	18	Price – Price of the trade. This may be zero if the price is pending, as denoted by the "Price Discovery Process" field	In "u"	18
Post-Trade Deferral Reason "LRGS" = Deferral for "Large in Scale" "ILQD" = Deferral for "Illiquid Instrument" "SIZE" = Deferral for "Size Specific"	In "u"	4	Post-Trade Deferral Reason "LRGS" = Deferral for "Large in Scale" "ILQD" = Deferral for "Illiquid Instrument" "SIZE" = Deferral for "Size Specific" If the Post-Trade Deferral Reasons of "ILQD" and "SIZE" or "ILQD" and "LRGS" both apply to the trade, "ILQD" will be published in this field	In "u"	4

9. Trade Data File

9.1 Change Details

- **Addition** of a new value **“PNDG”** to the existing “Price Formation” column to indicate if a price is still pending for a trade (*equivalent to MMT Level 3.8*).
- **Support of 0 (zero) values** in the “Price” column if the price is pending.
- **Addition** of a new value **“AnyOtherIncludingHybridMarket”** to the existing “Market Mechanism” column, which is used to denote any other type of trading mechanism indicate (*equivalent to MMT Level 1*).
- **Addition** of a new value **“IlliquidSI SizeSpecificSI”** to the existing “Negotiated Trade” column (*equivalent to MMT Level 3.2*).
- **Addition** of a new value **“Deferred (Illiquid) Deferred (SizeSpecific)”** to the existing “Publication Mode” column (*equivalent to MMT Level 4.1*).
- **Addition** of a new value **“Deferred (Illiquid) Deferred (Large In Scale)”** to the existing “Publication Mode” column (*equivalent to MMT Level 4.1*).

10. Trade Detail File

10.1 Change Details

- **Support of 0 (zero) values** in the “Price” column if the price is pending

11. Symbol File

11.1 Change Details

- **Addition** of **“venue_cap_percentage”** column to the end of the BXE, CXE, TRF and LIS symbol reference file. This column is updated for each symbol at the start of each day with the approximate percentage of trading on the Cboe venue as a whole compared to all other venues. The calculation includes the Reference Price and Negotiated Transaction pre-trade transparency waivers for the previous eleven months and the current month to date combined. Note that the percentage populated in a given symbol file relates to the value calculated for Cboe at a venue level. Until 3rd January 2018, the value in this column should only be used as an indicator for testing.

12. Certification (UAT) & Production Availability

All features described above will be effective in Production environments on **Friday, 27th October 2017** and in Certification environments according to the below schedule:

Environment	Q4 Release Availability
BXE UAT	Monday 25 th September
CXE UAT	Monday 9 th October
TRF UAT	Monday 25 th September

MTFAccessFee will be deprecated and removed according to the below schedule:

Environment	MTFAccessFee value set to '0'	MTFAccessFee field removed	FeeCode availability
BXE and CXE UAT	Monday 28 th August	Monday 25 th September	Now
TRF UAT	-	-	Now
BXE and CXE Production	Friday 1 st September	Friday 27 th October	Now
TRF Production	-	-	Now

Firm Order Record Keeping will be available in certification on Monday, 25th September 2017 and production on Friday, 27th October 2017.

13. Documentation

- Cboe MiFID II Implementation Milestones: <https://www.cboe.com/europe/equities/regulation/mifid/milestones/>
- Q4 2017 Exchange Release Guidance Note: http://cdn.markets.cboe.com/resources/participant_resources/BCE-GuidanceNote-Q42017Release_Final.pdf
- BXE/CXE FIX: http://cdn.markets.cboe.com/resources/participant_resources/BATS_Europe_FIX_Specification.pdf
- BXE/CXE BOEv2: http://cdn.markets.cboe.com/resources/participant_resources/BATS_Europe_BOE2_Specification.pdf
- TRF FIX: http://cdn.markets.cboe.com/resources/participant_resources/BATS_ChiX_Europe_TRF_FIX_Specification.pdf
- TRF BOE v2: http://cdn.markets.cboe.com/resources/participant_resources/BATS_Europe_TRF_BOE2_Specification.pdf
- TCP PITCH: http://cdn.markets.cboe.com/resources/participant_resources/BATS_Europe_PITCH_Specification.pdf
- MC PITCH: http://cdn.markets.cboe.com/resources/participant_resources/BATS_Europe_MC_PITCH_Specification.pdf
- Last Sale: http://cdn.markets.cboe.com/resources/participant_resources/BATS_Europe_Last_Sale_Specification.pdf
- Symbol File: http://cdn.markets.cboe.com/resources/participant_resources/BATS_Europe_Reference_Data.pdf
- Trade Data File: http://cdn.markets.cboe.com/resources/participant_resources/BATS_Europe_Trade_Data_File.pdf
- Trade Detail File: http://cdn.markets.cboe.com/resources/participant_resources/BATS_Europe_Trade_Detail_File.pdf
- Firm Order Record Keeping:
http://cdn.markets.cboe.com/resources/participant_resources/Bats_Europe_MiFID2_RTS6_Firm_Order_Record_Keeping_File_Specification.pdf
- Technical Change Calendar: http://cdn.markets.cboe.com/resources/participant_resources/BATS_Change_Calendar.pdf
- Introduction of a new Cboe Exchange Fee Schedules:
 - BXE: http://www.cboe.com/europe/equities/participation/fee_schedule/bxe/
 - CXE: http://www.cboe.com/europe/equities/participation/fee_schedule/cxe/
 - TRF: http://www.cboe.com/europe/equities/participation/fee_schedule/trf/
- Previous MiFID II Exchange Release Guidance Notes:
 - Q2 2017: http://cdn.markets.cboe.com/resources/participant_resources/BCE-GuidanceNote-Q22017Release_Final.pdf
 - Q4 2016: http://cdn.markets.cboe.com/resources/participant_resources/BCE-GuidanceNote-Q42016Release_Final.pdf
 - Q2 2016: 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.