

# MoC – Market on Close

Listed Solution for Basis Trading

January 2018



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# About Basis Trading

## Current situation

- Today, futures trading for market on close in Europe takes mainly place in the OTC markets:
  - Agreement on the basis (difference between current futures price minus the current cash index level) occurs mainly in the Inter-Dealer-Broker market
  - Market participants enter the futures trades into the Eurex system only after the closing level of the index is available
- The final futures price has usually two decimal points as
  - The quotation of the basis in EURO STOXX 50® index futures is usually between 0.10 and 0.25 ticks, and
  - The closing index of the EURO STOXX 50® has 2 decimals
- MoC transactions have a higher likelihood of slippage costs as the traded price usually deviates from the calculated final futures price:
  - To achieve the exact final futures price, one MoC transaction has to be split into several trades, as the final price is more granular than the tick size of the index futures
  - MoC transactions need to have sufficient size to be able to be split due to the respective minimum block trade size
  - If the size is not sufficiently large, MoC transactions are entered into the orderbook to achieve the index close price by averaging around the time of the index cash close determination
  - As a result, only very large transactions can avoid slippage costs
- Overall, the current way of trading has several drawbacks:
  - High slippage costs
  - No straight-through-processing and higher manual effort (transactions have to be worked at least twice)
  - High operational effort on client side
  - Risk management possible only after the index close as the transactions can only be entered into the Eurex system after the complete price is available

# Product Summary

## Key Drivers & Objectives

- **Increase efficiency** for market participants
  - Straight-through-process for market on close transactions to reduce front office workload
  - After the basis has been traded, Eurex will automatically add the index close level to the agreed basis (initial basis futures price) once the cash market index close is available
- **Enhance market transparency** and **consolidate liquidity** of current OTC markets
  - Order book trading to offer immediate liquidity and price information
  - Off-book transactions to facilitate bilateral transactions of larger scale
- **Elimination of slippage** risk for market on close transactions
  - Smaller tick size of MoC futures to offer more precise pricing
  - Cash market index close level will be offered according to market conventions
- **Immediate availability of index futures** after settlement
  - Delivery of underlying to occur intra-day and will be tradable immediately
- **Immediate risk management** by Eurex Clearing
  - MOC trades will immediately after the transaction of the basis be included into the risk management system of market participants
  - CCP to mitigate counterparty risk
- **Hedging/trading** of financial instruments benchmarked against the index close
  - Exchange Traded Funds
  - Index options and structured products
  - OTC swaps and options
  - Cash equitization and balance sheet management

## Possible Applications



# Product Structure (1/2)

## Product Structure

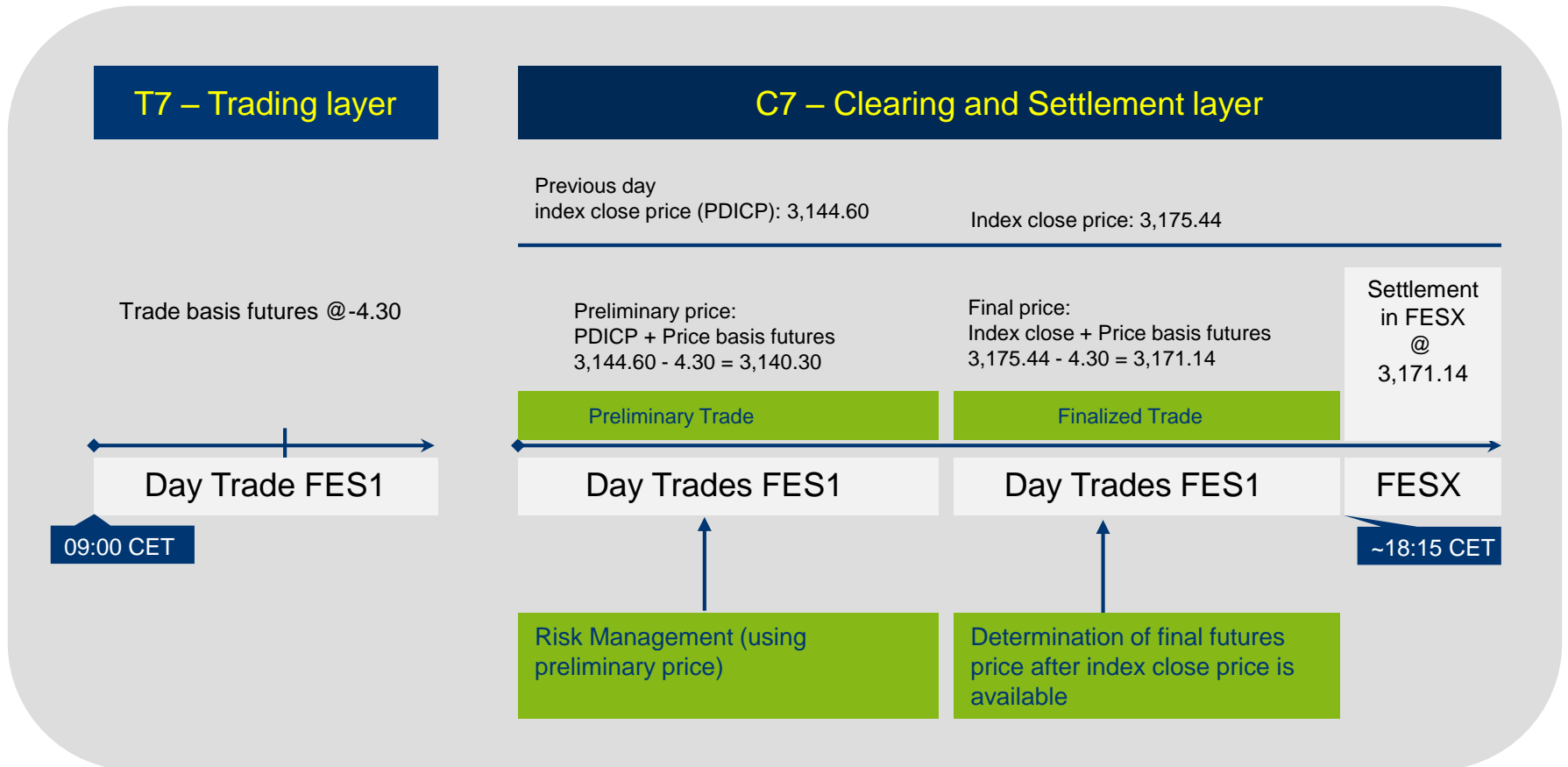
- **Underlying**
  - EURO STOXX 50® index futures (FESX)
  - Additional index futures may be listed at a later stage
- **Trading**
  - Execution of the MoC futures will be possible in the order book and via the Eurex Trade Entry Services (e.g. Block Trades)
  - Own product ID for MoC futures to process non-final trades intraday as not the complete information to determine the futures price of the underlying futures is available at the time of trading
  - MOC futures are settled on a daily basis after the cash index close is available (daily futures)
    - Up to nine months of the underlying EURO STOXX 50® index futures will be available for MoC transactions
    - After the end of the trading day all remaining orders will be deleted
    - No trading in MoC futures will be offered on the last trading day of the maturing underlying futures
- **Tick sizes**
  - EUR 0,10 compared to EUR 1.00 for EURO STOXX 50® index futures

## Product Structure (2/2)

### Product Structure

- **Price quotation**
  - In the Eurex trading system T7, only the bases will be traded
  - The price of the basis may become negative in the Eurex trading system T7
  - However in the Eurex clearing system C7, the price will always be positive due to addition of the previous day index close price (PDICP) as preliminary price
- **Final settlement price**
  - For determination of the final settlement price of the MoC futures the traded price of the basis will be added to the official index close
  - The exact index close value of the EURO STOXX 50® index with two decimals will be used
  - Based on the final settlement price, each transaction in the underlying futures will create a position in the EURO STOXX 50® index futures and the **transaction becomes final**
- **Miscellaneous**
  - After conclusion of a transaction in the Eurex MoC futures, a counterparty will be mandatorily settled into the underlying futures
  - Give-up/take-up will be possible at any time
  - No close-out transactions will be possible, e.g. two transactions of 100 contracts long and 100 contract short will be individually settled (netting-out would occur on the underlying futures only)
  - Exception will be mistrades which will lead to a cancellation of the transaction of the basis futures
  - The price of the opened position of the EURO STOXX 50® index futures will be with two decimals and deviates from the regular tick size in this index future

# Process Flow



# Contract specifications

## Eurex MOC Futures on Euro STOXX 50 index futures

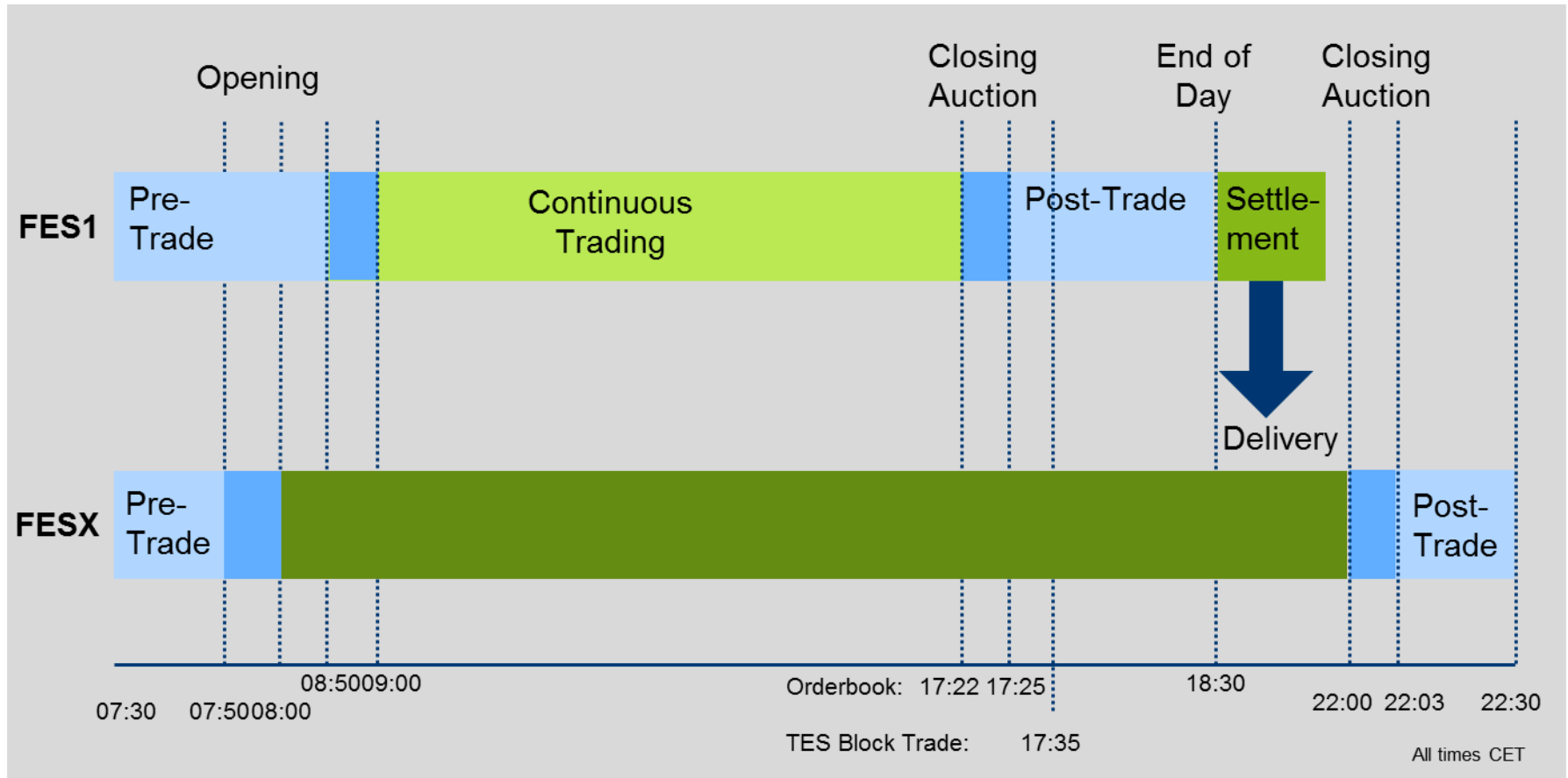
Eurex MOC Futures on Euro STOXX 50® index futures	Eurex specifications FES1	Bloomberg: FUBA Index Reuters: 0#FES1:
Underlying futures	Euro STOXX 50 index futures (FESX)	
Contract size	1 contract	
Settlement	Transaction-based, physical settlement of the Euro STOXX 50 index futures Settlement occurs from the traded maturity of the FES1 into the corresponding maturities of the FESX	
Delivery	Intraday delivery into underlying futures (FESX)	
Offered contracts	First three maturities of the underlying index futures (up to 9 months)*	
Tick Size	0.10 (represents EUR 1 of the underlying futures)	
Contract Quotation	Price of the basis in index points, and may be positive or negative	
Trading Hours	Order book: 09:00 – 17:25 CET, including closing auction TES block trade entry: 09:00 – 17:35 CET	
Trading holidays	Identical to underlying futures. No trading on the final settlement day of the underlying futures	
Final Settlement Day	Each Trading Day	
Final Settlement Price	The Final Settlement Price is established by Eurex on the Final Settlement Day of the contract and is determined as the official closing value of the Euro STOXX 50 index plus the traded basis price of the Eurex MOC futures	
Min. TES Block Trade Size	500 contracts	
Additional fee for	Orderbook: EUR 0.15 TES Block Trade: EUR 0.25	

\* FESX has a term of up to 24 months



# Trading phases

## Timetable



# Eurex MOC Futures on EURO STOXX 50® index futures

## Proposed Designated Market Making Scheme

- Designated Market-Making (DMM) will be offered for MOC Futures on Euro STOXX® 50 index futures
- The DMM scheme\* will run until 31 December 2019 and may be limited to a defined number of DMM
- Additional fee for Eurex MOC Futures on EURO STOXX 50® index futures
  - Orderbook: EUR 0.15
  - TES Block Trade: EUR 0.25

MM Rebate	Regular DMM	
	Orderbook	TES Block Trade
Launch – 31.12.2018	EUR 0.15 (equals to 100% rebate)	EUR 0.25
01.01.19 – 31.12.2019	EUR 0.12 (equals to 80% rebate)	EUR 0.15

\* Subject to MiFid II implementation rules as of 2018

# Eurex MOC Futures on EURO STOXX 50® index futures

## Designated Market-Making (DMM) – Requirements for Order Book Quotation

The permanent quote (order-book) obligations include:

- (1) minimum quote size
- (2) pre-defined number of expirations
- (3) maximum spread
- (4) minimum quoting period
- (5) minimum quote size will be reduced by 50% and the max. quote spreads will be doubled during fast market conditions

Front Month	Requirements	Note
<b>Min Quote Size</b> [Bid / Ask contracts]	<b>300 contracts</b>	1. Quote <b>the Front contract</b> (via M-Account) (5 trading days before expiry quote either the Front or the next 2. In Fast Market (definition and announcement by the Exchange), maximum spreads will be increased by 100% and the minimum quote size will be reduced by 50%
<b>Maximum Quote Spreads</b> [ticks / absolute]	<b>10 ticks/1.00 index points</b>	
<b>Quoting Period</b>	Continuous quotation for an average of 80% of the trading period between 11:00 and 17:25 CET (calculated on a monthly average) on each Exchange trading day per calendar month	

## Fee & pricing

FES1 in EUR	M-Account	P-Account	A-Account
Orderbook	0.15	0.00	0.00
TES Block Trade	0.25	0.00	0.00

FESX in EUR	M-Account	P-Account	A-Account
Orderbook	0.30	0.30	0.35
TES Block Trade	0.45	0.45	0.50
MOC Orderbook	0.30	0.45	0.50
MOC TES Block Trade	0.45	0.70	0.75

- All fees for Eurex MoC transaction to be charged on the underlying index futures (FESX)
- Exception for M-Accounts for regulatory reasons
- Once settlement into underlying futures (FESX) has occurred, any future transaction will be charged according to the native fee for the underlying futures

Example for total transaction fee

Buy FES1 orderbook A-Account = EUR 0.50

Sell FESX orderbook A-Account = EUR 0.35

Total fees for roundtrip: EUR 0.85

# Product Range

## Index Futures in Focus

### Indicative Implementation Timeline

Planned roll-out date	Scope of index futures
30 October 2017	EuroSTOXX 50
Q1/Q2 2018	DAX, SMI, STOXX 600, selected STOXX sector, RDX USD
	Remaining STOXX sector, STOXX broadbased/size
	Other index futures

# Transaction Reporting Requirements

- The transaction reporting requirements for Eurex MOC futures were discussed in the ESMA working group
- BaFin informed Eurex about the results of this discussion and requested to inform Eurex' clients accordingly
- Eurex understands the transaction reporting requirements for the planned Basis Futures as follows:

Relevant Regulatory Act	Reporting Requirements at t+1
<b>EMIR Art. 9</b>	<ul style="list-style-type: none"> <li>• Transaction of the Basis Futures (FES1) with final price (Step 3 next page)</li> <li>• Settlement transaction of Underlying Futures (FESX) – Cancel and New (Step 4 and 5 next page)</li> <li>• Incidentally, all relevant life cycle events according to EMIR Art. 9 have to be reported (regarding life cycles in general, please see latest version of Member information – Reporting by Eurex Clearing according to EMIR Article 9 in ECAG circular #40/2017)</li> </ul>
<b>MIFIR (MIFID II) Art. 26</b> Trading Focus; concentrate of investment firms* Valid as of 03.01.2018	<ul style="list-style-type: none"> <li>• Transaction of the original Basis Futures (FES1) with final price only (Step 3 next page)</li> <li>• Settlement transaction of Underlying Futures (FESX) not required</li> <li>• Please note: original Basis Futures transactions (<u>before</u> Give up) have to be reported with the final price</li> </ul>
<b>MIFID I WphG §9 (German national law)</b> Valid until 02.01.2018**	<ul style="list-style-type: none"> <li>• Transaction of the Basis Futures (FES1) with final price only (Step 3 next page)</li> <li>• Settlement transaction of Underlying Futures (FESX) <u>not required</u></li> <li>• Please note: original Basis Futures transactions (<u>before</u> Give up) have to be reported with the final price</li> </ul>
	Reasoning BaFin: <ul style="list-style-type: none"> <li>• The buy/sell transaction of a FES1 already creates a binding agreement</li> <li>• Usage of individual ISINs for both products</li> <li>• Always original transaction has to be reported for MIFID I and MIFIR</li> </ul>

\* ECAG is only required to report due to 2. Finanzmarktnovellierungsgesetz (national)

\*\* Last reporting date for Mifid I (transaction date: 29.12.2017)

# Clearing FES1 Full Service Transaction

## Intraday

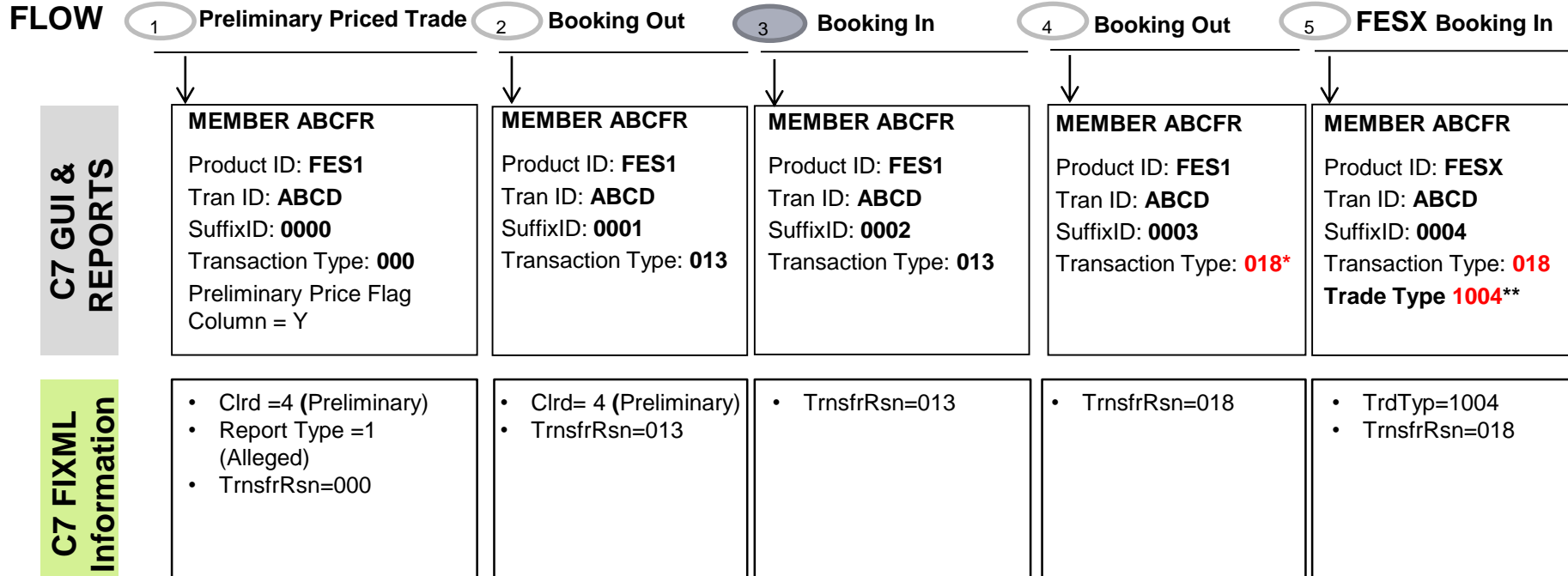
## Transaction Based Settlement

Preliminary priced transaction

Final priced transaction

09.00 CET

~17:50 CET – 18:30 CET



\*New transaction type for transaction based settlement for GUI & Reports, (FIXML) = Transfer Reason

\*\* New Trade Type for MoC FESX GUI, Reports & FIXML

3 Reportable FES1 transaction (see slide 11)

# Your benefits trading Basis Futures at Eurex

## Automated Processing

- Fully automated process compared to current OTC solution
- Currently trades have to be processed twice (at time of agreement and after the index close is available)

## No Slippage Risk

- Smaller tick size for basis futures and index level at OTC standards (SX5E with 2 decimals)

## Market Convention

- Quotation of the basis in +/- index points equal to OTC market

## Lower Costs

- Lower costs compared to the OTC market
- According to market participants the OTC costs vary between 0.10 and 0.25 basis points

## Higher Efficiency

- Basis futures enable market participants to trade FESX at a more granular tick size, reducing the need to split the trades in FESX and lower tracking error
- Smaller orders can be executed at more accurate prices (today, these orders are executed in the orderbook as an average trade around the cash market close)

## Increased Risk Management

- Immediate inclusion of the basis trade transaction by Eurex Clearing (CCP) will reduce operational risk
- Currently, agreed OTC basis trades are not included into internal bank systems until the index close is available

## Immediate Availability

- Index future immediately available intraday after settlement



# Further Information

## Contact us

### Global Product R&D

Tobias Ehinger

T: +49 (0)69 211-1 2313

[tobias.ehinger@eurexchange.com](mailto:tobias.ehinger@eurexchange.com)

### Sales UK

James Brown

T: +44 (0)207 8 62 72-12

[james.brown@eurexchange.com](mailto:james.brown@eurexchange.com)

### Sales Switzerland & Italy

Philipp Schultze

T: +41 (0)43 43 0-71 26

F: +41 (0)43 43 0-72 90

[philipp.schultze@eurexchange.com](mailto:philipp.schultze@eurexchange.com)

### Sales Germany

Simona Simon

T: +49 (0)69 2 11-1 82 18

F: +49 (0)69 2 11-61 52 38

[simona.simon@eurexchange.com](mailto:simona.simon@eurexchange.com)

### Sales Asia & Middle East

Stefan Morgenstern

T: +852 25 30-78 08

F: +852 25 30-78 88

[stefan.morgenstern@eurexchange.com](mailto:stefan.morgenstern@eurexchange.com)

### Sales France

Nicolas von Kageneck

T: +33 (0)155 2 76-7 76

F: +33 (0)155 2 76-7 50

[nicolas.kageneck@eurexchange.com](mailto:nicolas.kageneck@eurexchange.com)

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