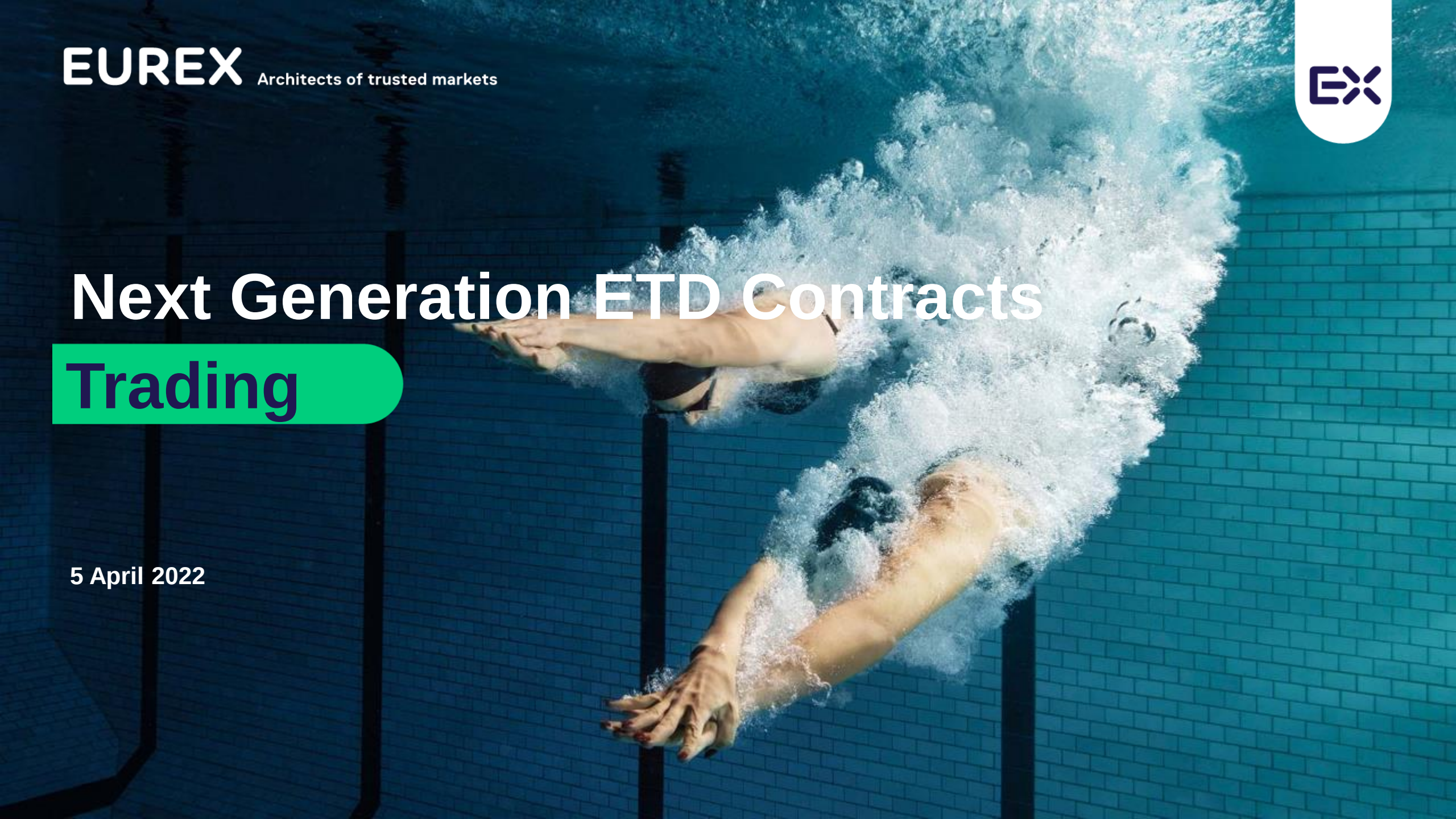
EUREX Architects of trusted markets



Next Generation ETD Contracts

Trading

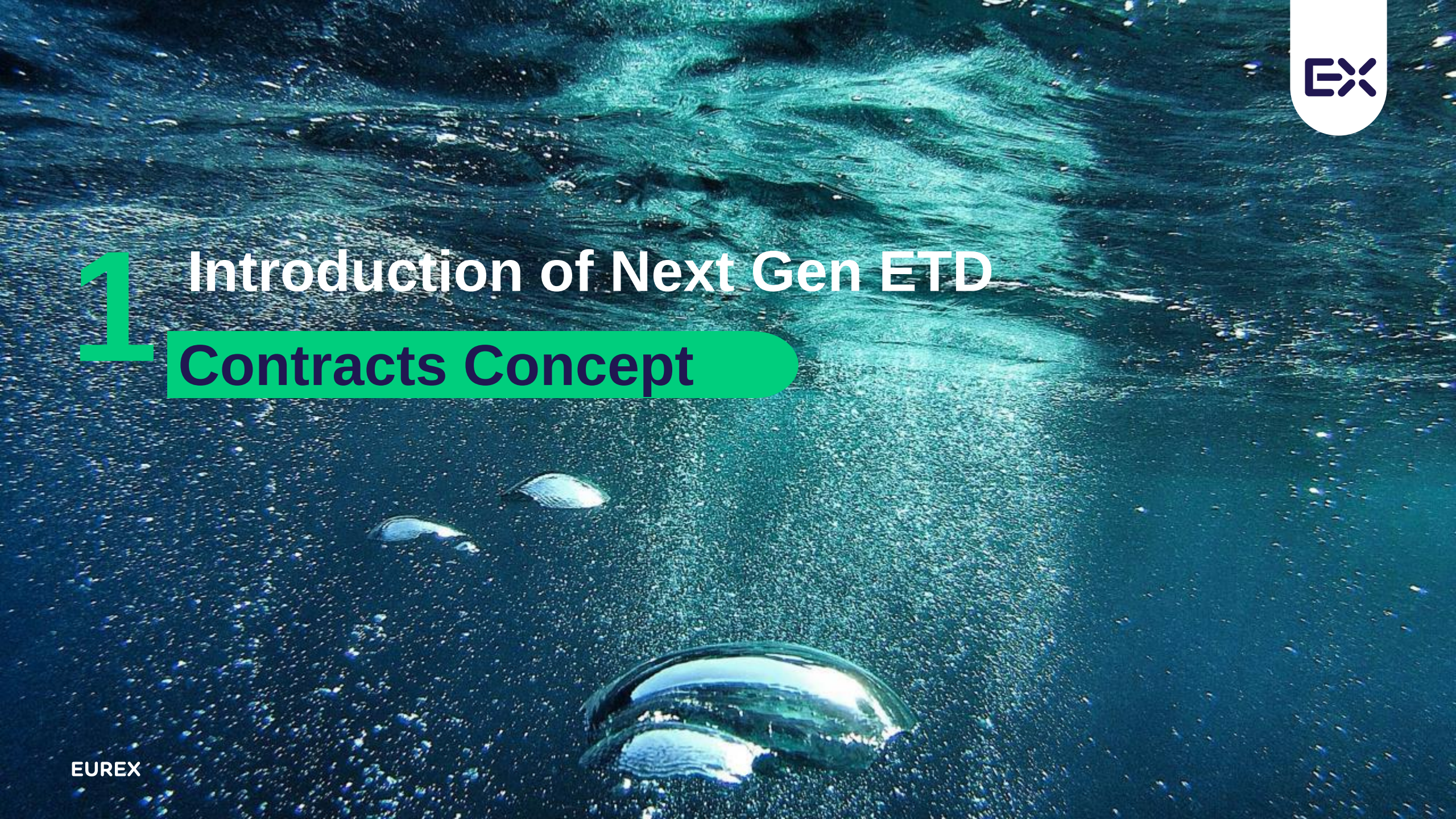
5 April 2022

Agenda

1 Introduction of Next Gen ETD Contracts Concept

2 Changes Across Eurex System Landscape

3 Appendix



1 Introduction of Next Gen ETD

Contracts Concept

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Next Gen ETD Contracts Overview

Expansion of offered expiries per month per instrument

Current Contract Identification Concept

- **One possible expiry per month** and **product**
- Current contract logic based on **MM/YY**
- **Limitations:** The limitation of one expiry per **month increases trading complexity** and **restricts required use cases** requested by market participants

New Contract Identification Concept

- **More than one expiration per month** on product level (i.e. sub-monthly contracts)
- New contract logic based on **DD/MM/YY**
- **New Business Initiatives:**
  - Integration of Weekly Expiring Instruments on Product Level
  - Volatility Strategies in Single Stock Options
  - Market-on-Close Futures T+X
    (Basis Trading in Equity Index Futures)

Changes required to support new contract identification concept

- Introduction of new contract parameters in the trading layer
- Introduction of enhanced contract identification concept in the clearing layer

Timeline on Migration and Rollout Approach

2-step roll-out approach allowing extended lead time for client and vendor readiness

Integration of weekly and month-end contracts Initiative 1

Expansion of offered expiries per month per instrument

Current Trading Process

- Additional sub-monthly expirations require **separate products for the same underlying**
  (e.g. OES1/OES2/OES4 and OMSX for underlying index SX5E)
- Position rolling in one transaction between sub-monthly expirations not supported (inter-product spreads in options non-existent)

Next Gen ETD

Upcoming Changes

- **Sub-monthly contracts of the same underlying** will be moved to **one/main product**
  (e.g. OESX for underlying index SX5E)
- Sub-monthly expiring contracts can be included **as leg instruments to options strategies**
- **Relevant for**: Weekly expiring equity index options, equity options, & options on FI futures

Improvements

- **Position rolling of sub-monthly contracts** in one transaction can be performed by using supported options strategies
- Sub-monthly/monthly expiring contracts can be combined with **T7 risk protection tools**
  (e.g. market maker protection, pre-trade risk limits)

Volatility strategies in Single Stock Options Initiative 2

Full STP of delta neutral strategies

Current Trading Process

- Creation of **delta-neutral trades possible via OVS** in option products with corresponding future contract as underlying leg
- OVS are provided **with monthly expiring physically settled single stock futures (SSF) as underlying leg**

Next Gen ETD

Upcoming Changes

- Physically settled SSF are enhanced with **daily expiring contracts having a lifetime of one business day**
- **Daily expiring SSF contract** can be used **as underlying leg** in options volatility strategies of corresponding single stock options
- **Relevant for:** Equity options and physically settled single stock futures

Improvements

- Daily expiry of SSF **triggers delivery instruction of stocks on the same trading day and same way** as for monthly expiring SSF
- Daily expiring SSF in OVS **prevents risks** in terms of dividends or corporate actions

Market on Close (MoC) T+X

Initiative 3

Allowing fully automated basis-trade functionality

Current Trading Process

- Separate MoC future products enable trading of basis involving trading & clearing price notation (with cumbersome re-booking in clearing layer)
- Basis trade settlement **only supported for current business day** (T+0, i.e. X=0)

Next Gen ETD

Upcoming Changes

- **Index futures are enhanced with daily expiring contracts** with remaining lifetime "X" (up to 2 business days, i.e. X=0,1,2)
- Daily expiring index future used as near-term leg of future calendar spread & quarterly expiring contract used as long-term leg
- **Relevant for**: MSCI Futures

Improvements

- As newly defined future calendar spread is representing the basis, basis trading is equivalent to **future calendar spread trading in index futures supporting daily expirations**
- **Settlement of basis at T+X (X=0,1,2)** can be achieved by choosing corresponding future calendar spread **with daily expiring leg instrument expiring at T+X** (X=0,1,2)

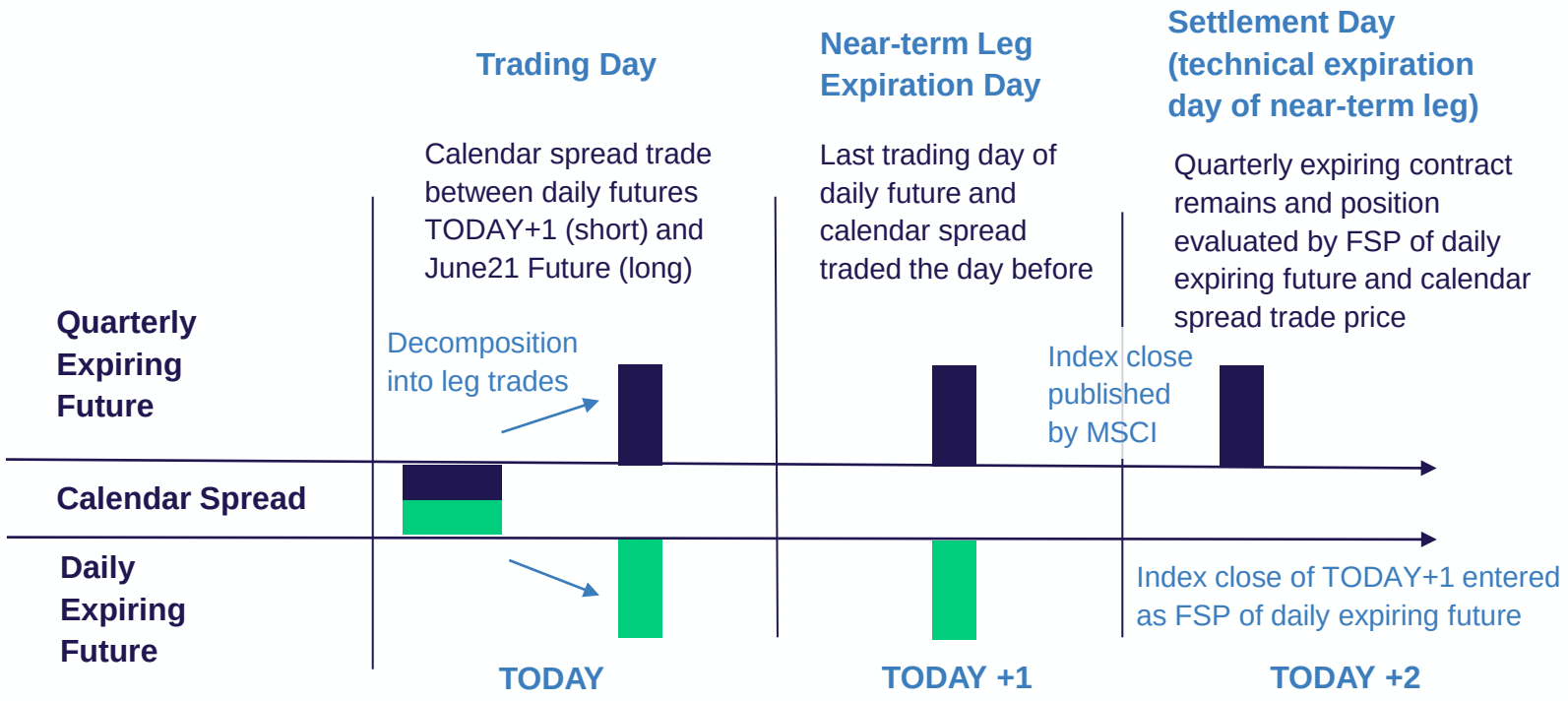
Market on Close (MoC) T+X

Initiative 3

Allowing fully automated basis trade functionality

Offered Solution

- In order to replicate basis trading, a **calendar spread between the daily future and the quarterly future** is **traded**



Example

- An end client wants to build a long position in the June 21 MSCI World Index Future (FMWO)
- As Australia & Japan are already closed for the day, basis trade is based on TODAY+1 index close (and settled at TODAY+2)
- Calendar spread with near-term leg expiring at TODAY+1 is traded TODAY at BasisPrice
- Since near-term leg expiring at TODAY+1 is finally settled at FSP, long term June 21 leg remains after TODAY+1 with a settlement price given by underlying index close and BasisPrice

2 Changes Across Eurex

System Landscape

Changes Across Eurex System Landscape

Enhanced contract handling approach requires day-month-year information

Numerical Contract ID	▪ In the trading area, **contract identification is already based on numerical IDs (“T7 instrument ID”)** and will be retained in the future **(no change)** ▪ Additional contract ID will be introduced in trading, clearing, and risk management layer allowing unified cross-system contract identification approach ▪ With the help of contract ID or T7 instrument ID, **contract specific information like expiration date** or **contract date can be retrieved from reference data**
Contract Date	▪ Usually, **contract date** as characteristic date information on contract level **is identical to expiration date** ▪ However, deviation will still exist for **STIRs** and **MSCI futures**
Contract Key	▪ Eurex enhances the existing contract key used in the clearing layer for **contract identification by contract date replacing expiry month and expiry year** ▪ The enhanced contract key will ensure a unique identification of contracts with sub-monthly expirations within the same product
Interface changes	▪ Minor changes regarding T7 interfaces primarily affecting contract reference data ▪ Major changes regarding C7 and Prisma interfaces due to changed contract identification approach ▪ GUI changes to support display of sub-monthly expiring contracts in the trading and clearing area ▪ No impact expected on Trading Reports (since date-specific contract / instrument mnemonic is already used)

New Contract Parameters on T7 Trading Platform

Contract Parameters supported by the T7 Reference Data Interface (RDI / RDF)

- Enhancement of *SimpleInstrumentDescriptorGroup* (only applicable for simple instruments)

Attribute	Status	Description
contractDisplayInstruction	new	Specifies how the contract name is generated and gives an indication to front-end applications what kind of contract it is and how to name it
displayDay	new	provides information on day used for contract name
displayMonth	new	provides information on month used for contract name
displayWeek	new	provides information on week used for contract name
displayYear	new	provides information on year used for contract name
contractIdentificationEligibility	new	defines the least granularity with which a contract based on the Contract Generation Cycle can be identified
contractFrequency	new	provides information how granular the expiration of the contract can take place

Attribute	Status	Description
contractCycleType	already exists	Indicates the expiration cycle the corresponding contract belongs to or that the contract contains an expiration date provided by a trader (flexible contract)
isPrimay	new	defines if a contract based on this contract generation cycle is Primary contract or not
contractWeek	removed	is replaced by displayWeek and displayYear
contractWeekYear	removed	is replaced by displayWeek and displayYear
displayName	already exists	defines a string containing the name of the contract recommended for GUI display
contractMnemonic	already exists	defines a string containing the name of the contract provided in the reports
contractID	already exists	defines a string containing the name of the contract recommended for GUI display

- Attributes of display-family contain information which are summarized by the string attribute *contractName* to provide an easy-to-use contract name recommended for display on GUIs

Display of Sub-monthly Expiring Contracts on T7 Trader GUI

Examples

Weekly Expiring Options

- OESX Jun21-W1 3800 C (instead of OES1 Jun21 3800 C)
- OESX Jun21-EoM 3800 C (instead of OMSX Jun21 3800 C)
- OESX BLT May21-W1 Jun21 3800

OVS in Single Stock Options

- Daily expiring single stock future (as underlying leg instrument for OVS): SIEP TODAY
- OVS in single stock option: SIE C 100 Jun21 14000 vs 47 SIEP TODAY @ 139.50

Basis Trading in MSCI Futures

- Daily expiring MSCI future: FMEU Today, FMEU TODAY+1 or FMEU TODAY+2
- Calendar Spreads used for basis trading:
  - FMEU SPD TODAY Jun21
  - FMEU SPD TODAY+1 Jun21
  - FMEU SPD TODAY+2 Jun21

Contract Handling Aspects Across All Eurex Systems

Technical Background Information

Contract Parameters

- will be identical for T7, C7, and Prisma
- will be distributed via the following channels:
  - T7 RDI along with further product information
  - Eurex Public Reference Data API
  - C7 FIXML contract add, change, delete messages
  - Prisma Transparency Enabler files
- remain constant during the contract lifetime except for:
  - Contract Cycle Type (e.g. changing from yearly to quarterly to monthly)
  - Contract Type in case of Flex to Standard conversion
  - Corporate Actions including Mod Prod, Mod ISIN or Spin Off

Further integration of flexible contracts

- Settlement Method and Exercise Style remain fixed for standard contracts within the same product
- Flexible Product ID remains in place in the clearing layer

Summary of Impacts

Trading	▪ Modifications on T7 Trading GUI due to required changes in displaying adapted contract names ▪ Minor change regarding flex contracts created via T7 ETI Interface due to new contract date ▪ Since T7 risk management functionality is based on product level, integration of weekly options may have an impact on how this functionality is handled by trading participants • Market Maker protection • Pre-trade risk limits
Risk Management	▪ Risk impacts due to changed contract key • Transparency Enabler Files • Risk Reports
Clearing	▪ Clearing impacts due to changed contract key and introduction of new contract fields • C7 Clearing GUI • Clearing Reports • FIXML

Please check your system landscape whether contract handling is referring to limiting expiry month-year information

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Thank you!

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Appendix

Appendix – Functional Details Basis Trading

Trading the basis involves future calendar spreads with basis price identical to negative calendar spread price

Motivation

- Trader wants to create an end-of-day long position in a monthly expiring index future which is 10 points below the underlying closing price
- Trader decides to sell a future calendar spread with a daily expiring future on the short-term leg (UL leg as leg 1) denoted by TODAY+X with final settlement at X=0, 1,2 business days and the monthly expiring future on the long-term leg (Future leg as leg 2)

Concept

$$TrdPrc_{CalSpread} = TrdPrc_{UL} - TrdPrc_{Fut} = (-1) \cdot TrdPrc_{Basis}$$

	UL Leg: FMEU TODAY+X	Calendar Spread: FMEU TODAY+X / Jun21	Future Leg: FMEU Jun21
Calendar Spread Trading		$Calendar\ Spread\ Trade \quad Sell\ \ 1\ @\ +10$ $(Basis\ Trade \quad Buy\ \ 1\ @\ -10)$ decomposed by exchange immediately after trade occurred	
	$Sell\ \ 1\ @\ 3630$		$Buy\ \ 1\ @\ 3620$
Settlement	$SttPrc_{UL}^{final} = 3625$ Final settlement price Identical to underlying close price	$SttlPrc_{CalSpread} = +10 \quad (SttlPrc_{Basis} = -10)$	$SttlPrc_{Fut} = 3615$ End-of day settlement price
Resulting Cash Flow	$Variation\ Margin: \quad +5$	Provided the spread price does not change, profit/ loss on UL side are balanced by loss / profit on Future side	$Variation\ Margin: \quad -5$
End-of-Day Position	$expired$	Price difference in future position (here: FMEU Jun21) and underlying close (here: MSCI Europe) reflect price of traded calendar spread (basis)	$Long\ \ 1\ @\ 3615$

Appendix – contract attributes across all Eurex systems

Contract Identification Method	Description	Standard Option Contract	Flexible Option Contract	Standard	Flex	Key Fields
Contract Fields	ProdID	ODAX	ODAX	Y	Y	Y
	Call / Put Indicator (option only)	Call	Put	Y	Y	Y
	Contract Date	20201211	20201211	Y	Y	Y
	Contract Type	Standard	Flexible	Y	Y	Y
	Strike Price (option only)	3200	3215	Y	Y	Y
	Version No (option only)	0	0	Y	Y	Y
	Settlement Method[1]	Cash	Cash	Y	Y	Y
	Exercise Style[1] (option only)	European	American	Y	Y	Y
	Contract Frequency	Weekly	Flex	Y	Y	N
	Final Settlement Price Date	20201211	n/a	Y	N	N
	Flexible Product Id	n/a	OD8X	N	Y	N
	Contract Month	11	n/a	Y/N [2]	N	N
	Contract Year	2020	n/a	Y/N [2]	N	N
	Expiration Date	20201211	20201211	Y	Y	N
	Contract ID	69994644	40318697	Y	Y	N
	Contract Mnemonic	ODAX SI 20201211 CS EU C 3200 0	ODAX FI 20201211 CS AM P 3215 0	Y	Y	N

[1] Settlement Method and Exercise Style remain fixed for standard contracts within the same product

[2] Y: valid until end of Q1-2022 N: valid from Q2-2022

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