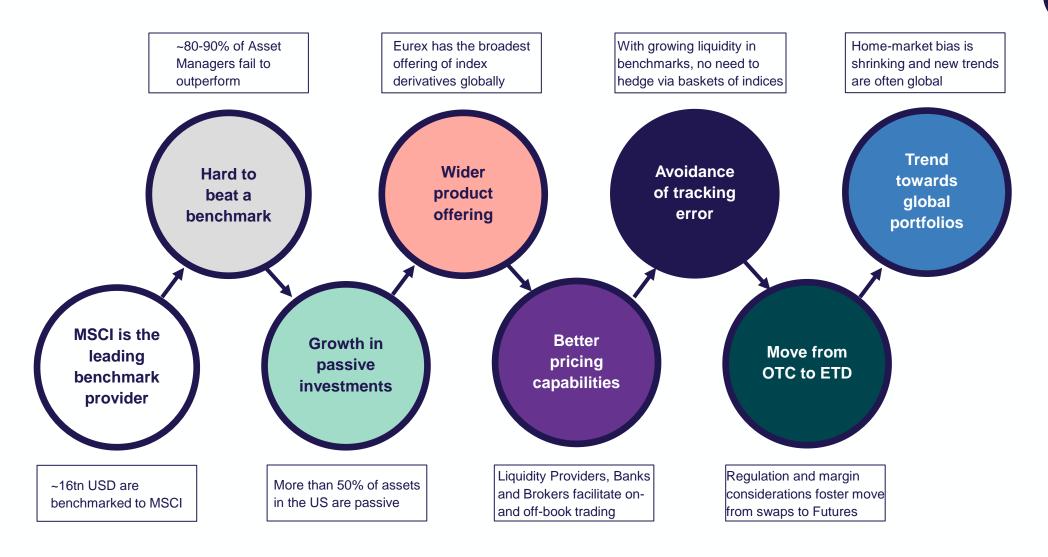
EUREX Architects of trusted markets



Eurex: The Global Home of MSCI Derivatives Sales Presentation

March 2024

Why are MSCI Derivatives getting popular?



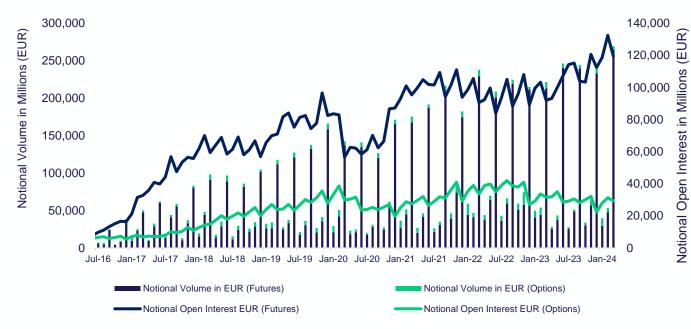
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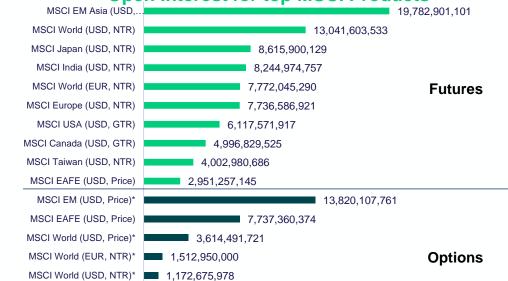
Eurex is the Global Home of MSCI Derivatives



Evolution of Notional Volume and Notional Open Interest



Open Interest for top MSCI Products



*Open Interest Market Share as of Dec 2023 Source: FIA

Open Interest as of March 28, 2024

* Options not eligible under SEC no-action relief as of February 29.2023. For eligible options, visit: : <u>MSCI Options Snapshot.pdf</u>

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Growth drivers for Eurex MSCI Derivatives



Broadest offering of MSCI Derivatives

 Eurex offers 166 MSCI futures & 28 options on regional and country indexes



Capital efficiency

 Eurex's portfolio-based margining methodology (PRISMA) offers the high levels of cross-margin offsets across equity derivatives



Improving order book liquidity picture

 Market Makers provide streaming quotes in all 3 time zones and on calendar spreads during roll periods



Flexibility in entering trades

Eurex is offering multiple functionalities to enter pre-negotiated trades



Cheaper fees

 Eurex is significantly cheaper than main competitors



Buy-Side clients are getting increasingly involved

UMR as a regulatory driver, but also increased interaction with buy-side clients



Extended trading hours

 Asian hours trading has been crucial to compete and price in Emerging Markets



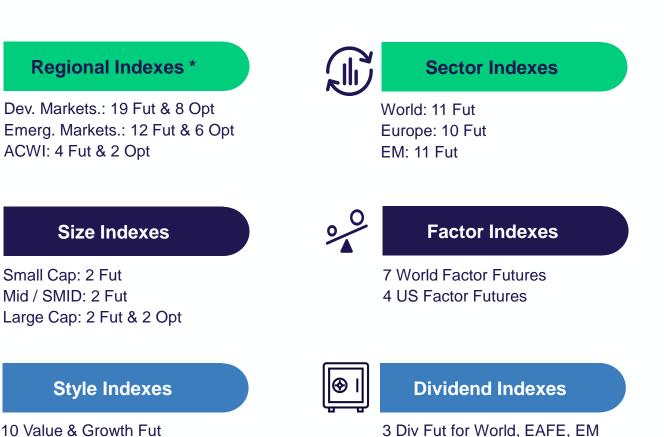
Building a MSCI Derivatives ecosystem

- Futures & Options on one platform
- Futures on ESG & Dividend Points

Internal

Broadest offering of MSCI Derivatives 1

Eurex lists over 169 Futures and 28 Options on Regional and Country Indexes



Full list of all MSCI products incl. specs & codes can be found in the specs and vendor file

* Only standard indexes counted here

March 2024

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1 China Tech Futures

8 ESG Screened Fut

4 ESG Screened Opt

4 ESG SRI Fut

Country Indexes *

Dev. Markets.: 24 Fut & 1 Opt

Emerg. Markets.: 22 Fut & 2 Opt

ESG Indexes

5 ESG Enhanced Focus Fut

Thematic Indexes

Small Cap: 2 Fut Mid / SMID: 2 Fut

Large Cap: 2 Fut & 2 Opt

Style Indexes

10 Value & Growth Fut

 $\overline{\mathbf{T}}$





Efficient Portfolio margining approach via PRISMA

Portfolio	Product name	Eurex code	BBG code	Long	Short	Net	Net Notional (in EUR)	Initial Margin (in EUR) per product	in %	Sum of Initial Margin (in EUR) per product	Initial margin (with Portfolio	
FESX	Euro STOXX 50	FESX	VG	35,000	16,000	19,000	757,340,000	79,933,029	10.55%	367,634,955	5 95,726,563 74	
add FMWO	MSCI World	FMWO	ZWP	2,000	25,000	(23,000)	1,785,320,755	150,727,474	8.44%			74%
add FMEF short	MSCI EM Futures	FMEF	RBE	-	16,000	(16,000)	726,792,453	54,840,423	7.55%			
add FMEA long	MSCI EM Asia Fut	FMEA	ZTW	12,000	-	12,000	649,811,321	59,419,520	9.14%			
add FMEL long	MSCI EM LatAm Fut	FMEL	ZUL	3,000	-	3,000	141,487,736	16,245,358	11.48%			
add FMEE long	MSCI EM EMEA Fut	FMEE	ZUY	2,500	-	2,500	62,735,849	6,469,151	10.31%			
Total							4,123,488,113	367,634,955	8.92%		2.32%	

*Calculation Date: 14 Dec 2022

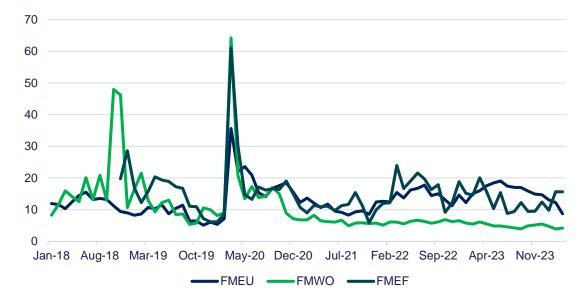
- Single product margins in this example are between 6.38% and 13.2% (with an portfolio average of 8.27%)
- However, based on PRISMA model, margin for the entire portfolio is only 1.86%, which is a reduction of 77%
- In general: the better a portfolio is balanced, the higher the margin offsets under PRISMA will be
- Eurex is in a unique position to generate margin offsets, since it hosts an open interest pool of ~140mn Equity & Index derivatives, which are all used to offset
 against each other
- Index products hereby include STOXX, DAX, SMI, MSCI, FTSE / Equity Products include Eq. Options / SSF

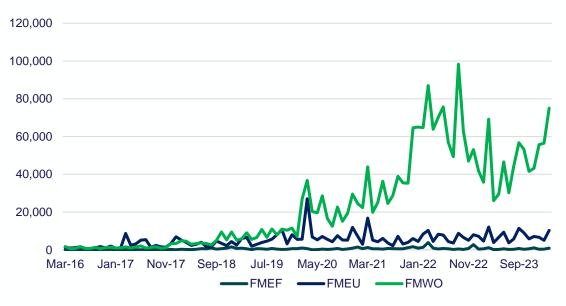


Order book liquidity has continuously improved since Covid peak in March 2020



ELM* in MSCI Europe, World & EM for a 2M EUR Order





Number of Trades in MSCI Europe, World & EM Futures

- Spreads on MSCI World Futures (FMWO) have been tightening continuously over time.
- Average impact for a 2M EUR order has decreased from ~15 bps in 2018 to ~6 bps in Q1, 2022
- Spreads on MSCI Europe Futures (FMEU) and EM Futures (FMEF) increased again in March 2022 based on Russian invasion
- Better liquidity is resulting in higher number of trades (esp. in MSCI World) and vice versa

* Eurex Liquidity Measure (ELM) measures the market impact of a certain order size in bps

7

Internal





7,000,000 6.000,000 5,000,000 4,000,000 3,000,000 2,000,000 1,000,000 0 2019 2019 2020 2020 2020 2021 2021 2021 2021 2022 2022 2020

Order book ("regular") vs TES trades ("Block, EFP") in MSCI Futures

- Even though Eurex encourages and incentivizes trading via the CLOB (Central Limit Order book), the majority of trading is still done via trade entry (TES)
- In order to facilitate those in the most efficient way, Eurex is offering a number of functionalities:
 - All blocks in MSCI Futures can be entered with 0.001 increments
 - **Flex trades** are allowed for Futures / Options
 - > Minimum Block Trade sizes are rather low
 - Intraday Non-Disclosure limits in place
 - Strategy trades between Futures & Options
 - Longer expiries for FMEF, FMWP, FMFP (5 years)
 - > EnLight is offered as a RFQ solution
 - MOC T+x is coming to facilitate Basis Trading

Qtr4

Qtr3

Qtr1

■ EFP Basis Trade for Index Futures

Qtr2

Qtr3

Qtr4

Qtr1

■ OTC Block Trade

Qtr2

Qtr3

Qtr4

Regular Trade

Qtr1

8

Qtr2



MSCI F	Futures	MSCI Options				
EUR/ GBP/	/ USD/ CHF		EUR/ GBP/ USD)		
d fee	Reduced fee *					
М	A/P/M	А	Р	М		
	0.3	0.58	0.5	0.5		

0.5

0.5

2,000 **

0.5

0.5

n. a.

0.58

0.58

3.000 **

* For EM Futures (FMEM, FMEF) / EAFE Futures (FMFA, FMFP) / Asian country Futures (FMCN, F	MCH, FMIN, FMID, FMMY, FMPH, FMTH, FMTW) until end of 2023

0.45

0.45

n. a.

** Fee per contract (contract number ≤ threshold value) in respective currencies

Standard fee

A/P/M

0.6

0.9

0.9

n. a.

Contract

Currency

Fee differentiation

Account

Orderbook

Eurex EnLight

TES

Threshold (number of

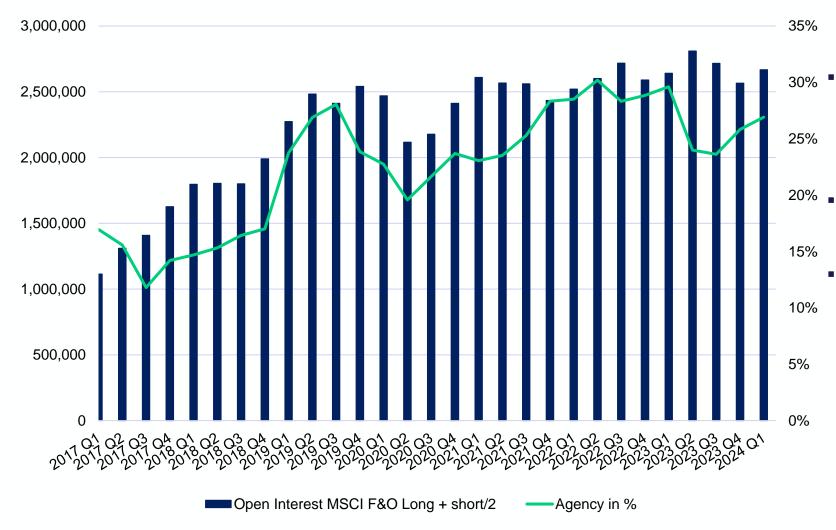
contracts)

EX

Buy-Side clients are getting increasingly involved



End client positions now represent 24% of Eurex's MSCI Derivatives flow



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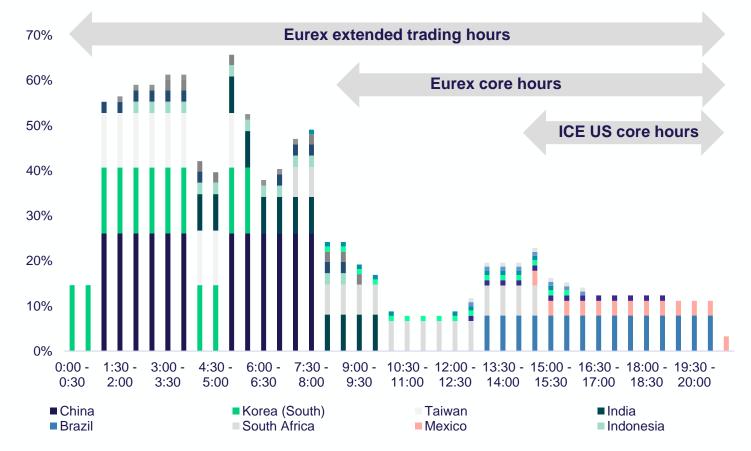
- With UMR (Uncleared Margin Rules) coming into play, it is expected that additional flow from buy-side clients will come into Futures
- Conversations ongoing with clients and dealers on how to optimize this shift
- Additional growth should attract also new players like hedge funds and more market makers / liquidity providers



Extended trading hours

Adding Asian hours has been crucial to compete in Emerging Markets

Share of MSCI EM Index open for trading throughout the trading day



Traded contracts in MSCI during Asian hours



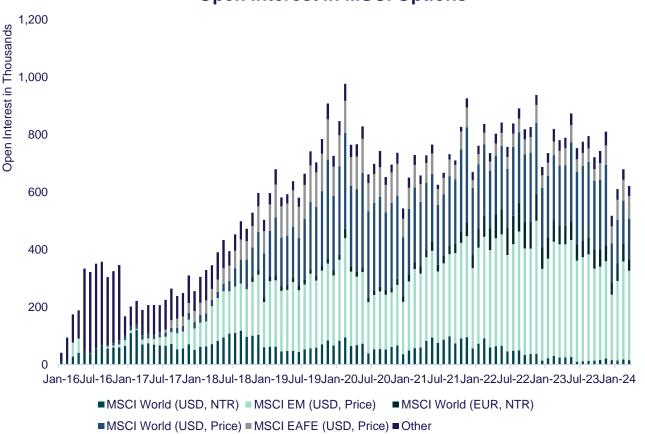
As the majority of EM countries are Asiabased (in total almost 80%), it is important to foster tradability of MSCI Futures in the Asian hours

Internal



Building a MSCI Derivatives ecosystem Options & Futures on one platform / additional product alternatives

EX



Open Interest in MSCI Options

- Offering Futures and options on the same platform offers advantages in hedging, margining, strategy trading
- Development in the options segment is focussing on EM, World & EAFE indices, as shown on the left
- Beside of that, Eurex offers different product types (same index in different currencies, Price vs NTR indices)
- Additional choice is given by the launch of ESG index derivatives: Screened indices follow a simple, valuesbased approach, whereas the Enhanced Focus CTB derivatives reach for a higher ESG score, while maintaining a low tracking error to the parent index
- Finally, Eurex is also offering Dividend point Futures (again on EM, World & EAFE) to make Dividends tradable on it's own

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