

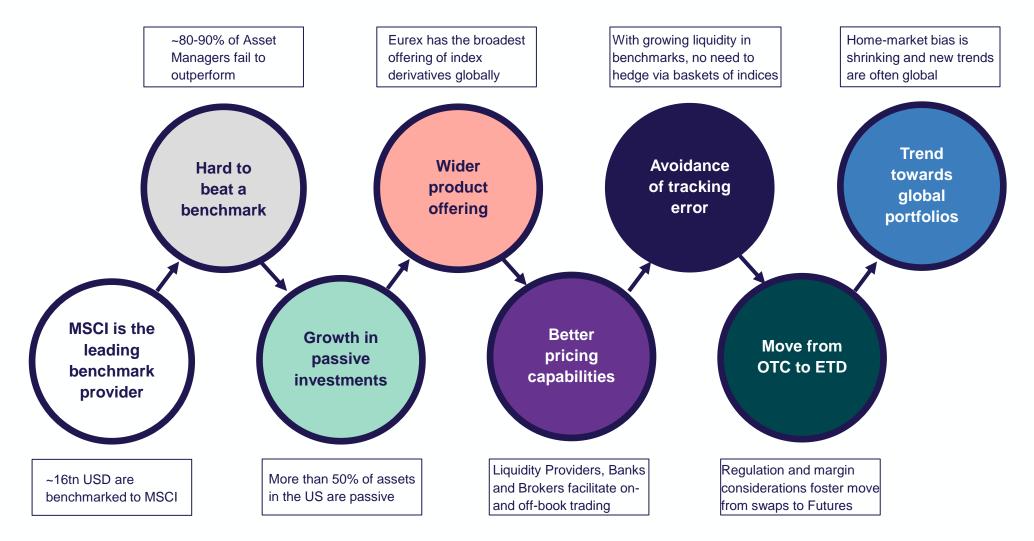


Eurex: The Global Home of MSCI Derivatives Sales Presentation

November 2024

Why are MSCI Derivatives getting popular?





EUREX November 2024

Internal

Eurex: The Global Home of MSCI Derivatives



by Open Interest with 59% market share

No. 2

by Trading volumes with 25% market share

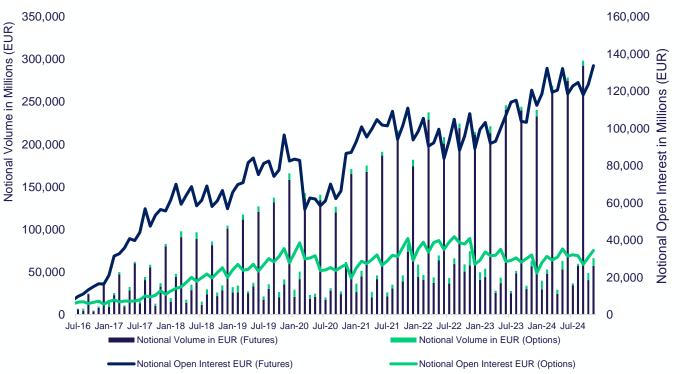
2024 Traded volume EUR 1.24 Trillion 19.9 million contracts

CAGR 2016 - 2024: 19%

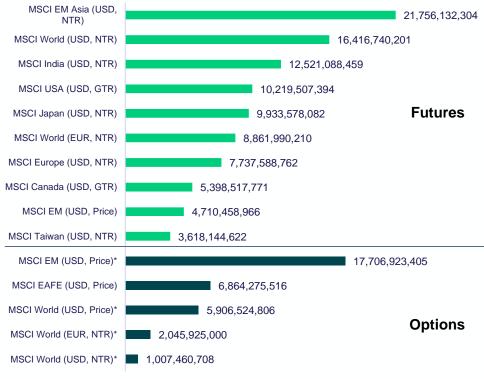
Open Interest EUR 168 Billion 2.7 million contracts

CAGR 2016 - 2024: 12%

Evolution of Notional Volume and Notional Open Interest



Open Interest for top MSCI Products



Open Interest as of November 30, 2024

Open Interest and Volume Market Share as of Aug 2024, Source: FIA Statistics do not include Open Interest and Traded Volumes for MSCI ESG & Dividend Products

^{*} Options not eligible under SEC no-action relief as of October 31, 2024. For eligible options, visit: : MSCI Options Snapshot.pdf

Growth drivers for Eurex MSCI Derivatives



Broadest offering of MSCI Derivatives

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



Cheaper fees

Eurex is significantly cheaper than main competitors



Capital efficiency

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



Buy-Side clients are getting increasingly involved

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



Improving order book liquidity picture

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



Extended trading hours

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



Flexibility in entering trades

Eurex is offering multiple functionalities to enter pre-negotiated trades



Building a MSCI Derivatives ecosystem

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

EUREX



Broadest offering of MSCI Derivatives



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



Country Indexes *

Dev. Markets.: 24 Fut & 1 Opt Emerg. Markets.: 22 Fut & 2 Opt



Regional Indexes *

Dev. Markets.: 19 Fut & 8 Opt Emerg. Markets.: 12 Fut & 6 Opt

ACWI: 4 Fut & 2 Opt



Sector Indexes

World: 11 Fut Europe: 10 Fut EM: 11 Fut



ESG Indexes

8 ESG Screened Fut 4 ESG Screened Opt

5 FSG Enhanced Focus Fut

4 ESG SRI Fut



Size Indexes

Small Cap: 2 Fut Mid / SMID: 2 Fut

Large Cap: 2 Fut & 2 Opt



Factor Indexes

7 World Factor Futures 4 US Factor Futures



Thematic Indexes

1 China Tech Futures



Style Indexes

10 Value & Growth Fut



Dividend Indexes

3 Div Fut for World, EAFE, EM

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

* Only standard indexes counted here November 2024



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Capital efficiency



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 Margining)	
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	
add FMWO	MSCI World	FMWO	ZWP	2,000	25,000	(23,000)	1,785,320,755	150,727,474	8.44%			
add FMEF short	MSCI EM Futures	FMEF	RBE	-	16,000	(16,000)	726,792,453	54,840,423	7.55%			74%
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

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Improving order book liquidity picture

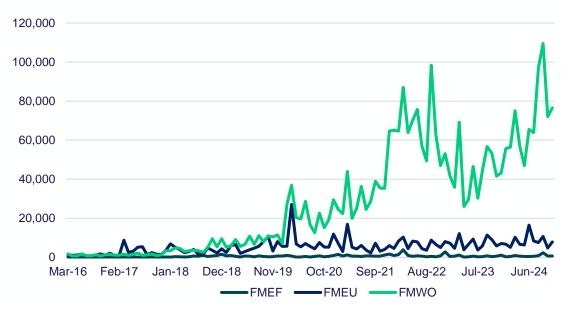


Order book liquidity has continuously improved since Covid peak in March 2020

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

70 60 50 50 40 10 10 Jan-18 Sep-18 May-19 Jan-20 Sep-20 May-21 Jan-22 Sep-22 May-23 Jan-24 Sep-24 —FMEU —FMWO —FMEF

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



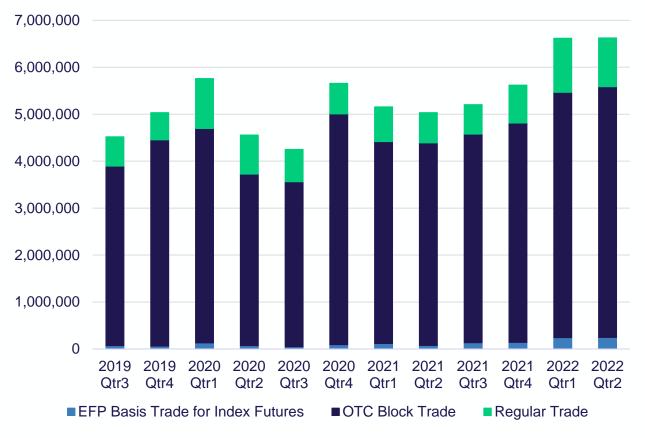
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Flexibility in entering trades





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

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Cheaper fees



Eurex is charging only ~50% exchange fee for MSCI Futures vs main competitor

Contract	MSCI F	Futures	MSCI Options			
Currency	EUR/ GBP/	/ USD/ CHF	EUR/ GBP/ USD			
Fee differentiation	Standard fee	Reduced fee *				
Account	A/P/M	A/P/M	А	Р	M	
Orderbook	0.6	0.3	0.58	0.5	0.5	
Eurex EnLight	0.9	0.45	0.58	0.5	0.5	
TES	0.9	0.45	0.58	0.5	0.5	
Threshold (number of contracts)	n. a.	n.a.	3,000 **	2,000 **	n.a.	

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

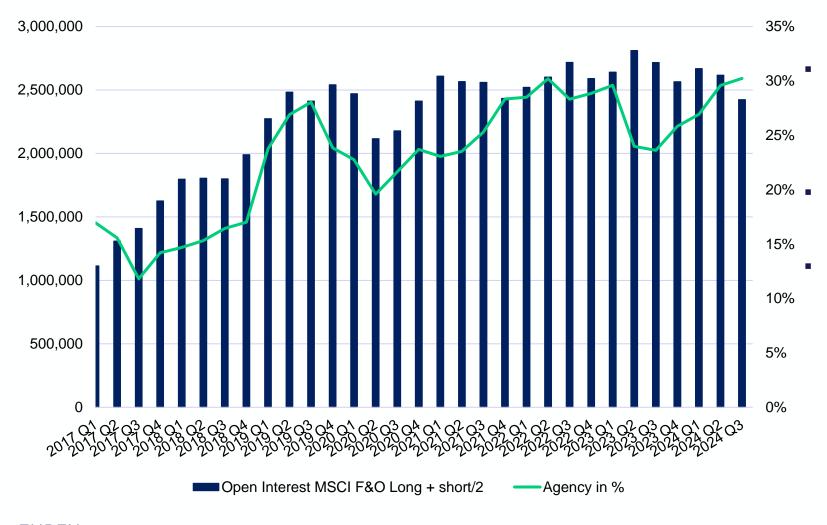
^{**} Fee per contract (contract number ≤ threshold value) in respective currencies



Buy-Side clients are getting increasingly involved



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



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

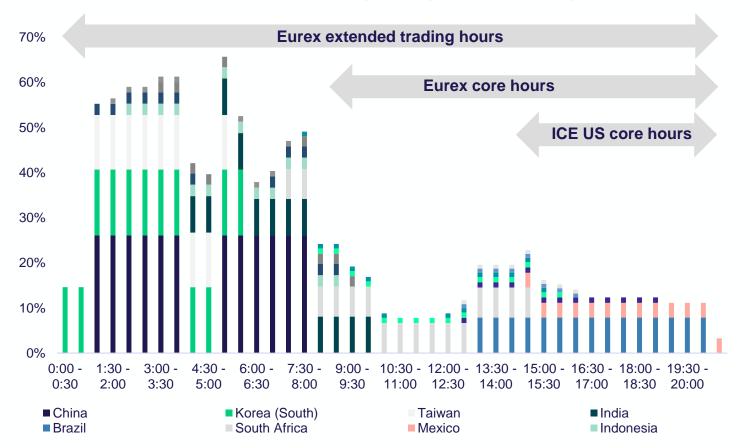


Extended trading hours

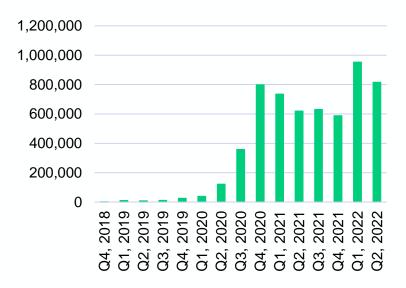


Adding Asian hours has been crucial to compete in Emerging Markets

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

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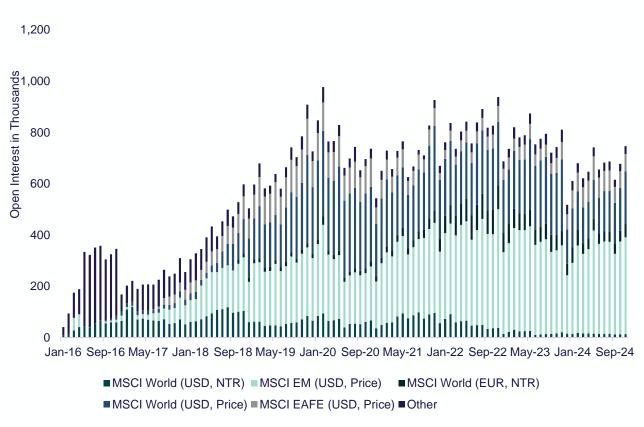


Building a MSCI Derivatives ecosystem



Options & Futures on one platform / additional product alternatives

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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