

CME Group (NASDAQ: CME)

BUY

Target Price: US\$ 332.96 (+25% Upside)
Current Price: US\$ 266.40 (20 March)

Investment Horizon: 2 years

Tan Xin Wei Ong Zhi Jie

Our View Relative To The Street



We believe that CME is fundamentally undervalued by street and that the market is overpricing CME's risks

Street View

FMX, a new futures exchange, will pose as a serious threat to CME's core business

 FMX, founded by current US Secretary of Commerce Howard Lutnick, has promised little to no transaction fees and has secured equity investment from 7 of the top 10 future clearing merchants, market-making support from Citadel Securities and crossmargining with London Clearing House-cleared FX swaps, making it a credit near-tomedium term threat to CME's rates business.

Interest rate trading will slow as the Federal Reserve cuts rates

- As the Federal Reserve begins its rate-cutting cycle, trading volumes in interest rates trading will go into a downtrend as there is less need to hedge interest rate risks.
- CME's high reliance on trading revenue (c. 77%) relative to peers (c. 35%-40%) will cause it to underperform peers in a volume downturn.

CME's growth ex-rates will slow as competitors gain market share

• Street points to the past on how CME has been losing market share in particular products (e.g. Brent crude by ICE, equity futures & options ("F&O") by Cboe) and thus CME will be increasingly forced to rely on its rates trading business to gain revenue. As such, they view CME as a mature business with slow topline growth relative to peers.

Our View

FMX has got off to an extremely slow start; with street being bamboozled by sell-side

- FMX launched in September 2024, but its cumulative volume till date is dwarfed by CME's average daily volume. We believe FMX will fail due to CME's natural moat.
- However, institutional sell-side has been showering praise on FMX and labelling it a real CME threat, subsequently downgrading CME's rating. We believe this to be part of sell-side's promotions to clients on FMX due to their equity interest in FMX.

Structural risks and regulatory shifts will continue to create demand for trading

- We are seeing a decoupling of the traditional relationship between volume and interest rates due to increased uncertainty regarding tariffs, wars and interest rates. Continued policy volatility by the Trump administration will drive volumes forward.
- We believe the market is not pricing in structural shifts brought on by Basel IV which will lead the shift away from OTC into ETDs dominated by CME.

CME's continued innovation in products and deep network effects make it a winner

- CME's drop in market share is due to their strategy to focus on key products and geographies, which have maintained their best-in-class margins relative to peers.
- While CME has gave up market share on particular products, they have gained inroads in others and their business model and innovative strategy will put them in an ideal position to capitalize on shifting industry trends.

We believe that street is undervaluing the stock fundamentally, and that clear near-term catalysts will induce a re-rating of the stock over the next 24 months

Executive Summary Company Overview Industry Overview Investment Theses Valuation Investment Overview

Company Overview

CME Group is the biggest financial derivatives exchange in the world



CME Group offers derivative products across a wide spectrum on its owned exchanges

CME Group CBOT





| Rates | Equities | FX | Commodities | Metals | Crypto |
|----------------------------------|--|--|--|-------------------------------------|---|
| SOFR US Treasury Fed Funds | E-mini S&P500 Nasdaq100 Russell2000 | FX F&Os Euro Swaps JPY Swaps GBP Swaps AUD Swaps | Corn Soybean Wheat WTI Crude Oil | Gold Silver Copper Lithium | BTC Futures ETH Futures BTC Friday Futures |

CME offers a marketplace for investors/traders to speculate or hedge their risks

Major Milestones of CME Group

| elect tradi | stry's first cronic ng platform: Globex | | ed largest res exchange | New Mer | visition of York cantile ange and | NEX, futur | isition of combined es, cash and offerings |
|----------------|---|-------------|---|------------|---|---------------|---|
| | 1997 Launched the first mini-size futures and f equity index futures | ed first | 2007 Acquisition of Chicago Boar Trade | | 2017 Launched firs regulated Bit futures | | 2021 Announced partnership with Google Cloud |

CME is led by a strong management team with a wealth of experience



Terence A. Duffy **Chairman and CEO**

25+ Years of Experience Chairman since 2002 and CEO since 2016.



Tim McCourt Global Head, Financial & **OTC Products** 25+ Years of Experience Led the introduction of BTC & ETH futures in 2017.



Mike Dennis Global Head of Fixed Income

20+ Years of Experience Ex-Chief Commercial Officer, **ABN AMRO Clearing**

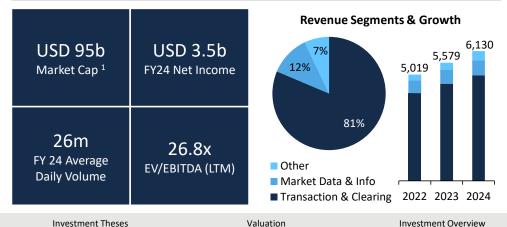


Derek Sammann Global Head, Commodities

35+ Years of Experience Led the development of the commodities portfolio.

2

Key Financial Highlights



Executive Summary Company Overview Industry Overview

Sources: CME Group

Key Drivers of Share Price



CME recently traded back to its L5Y average forward P/E, we expect P/E ratio to increase



Executive Summary Sources: CME Group

Company Overview

Industry Overview

Investment Theses

Valuation

Investment Overview

Company Overview – Business Model



CME mainly generates its revenues by charging transaction fees on trades that go through its exchanges

Trading derivatives involves multiple parties, each collecting their own fee



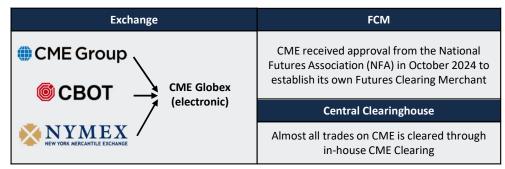
CME helps match orders while a central clearinghouse assumes all counterparty risk

CME's fee structures are very loose and often negotiated with clients

| | FCM | Exchange | Clearinghouse | |
|----------------|--------------------|-----------------|---------------|--|
| Fee Type | Brokering Fee | Transaction Fee | Clearing Fee | |
| Fee per | ~\$0.50 (micro) | ~\$0.35 | | |
| Contract * | ~\$1.50 (standard) | ~\$1.38 (s | | |
| Total Fee per | ~\$0.85 (micro) | | | |
| Contract * | ~\$2.88 (standard) | | | |
| Initial Margin | ~\$1,320 (micro) | | | |
| * | ~13,200 (standard) | | | |

The exchange and clearing fees represent a miniscule portion of total upfront cost

CME maintains a vertically integrated ecosystem across the derivatives complex



A centralized ecosystem offer clients more convenience and efficiency

CME delivers immense implicit cost savings to clients through cross-margining

denters immense impilat cost surmige to chemic timough cross margining



Each portfolio is treated as isolated and requires its own margin

Without Cross-Margining

Risk and required margin is evaluated by combining all portfolios

4

With Cross-Margining

 $Cross-margining\ reduces\ or\ eliminates\ the\ opportunity\ cost\ of\ margin$

Executive Summary Company Overview Industry Overview Investment Theses Valuation Investment Overview

Sources: CME Group,

Industry Overview



Financial derivatives have seen explosive growth as geopolitical and market uncertainties flare

Market share across different products are usually concentrated within 1-2 exchanges

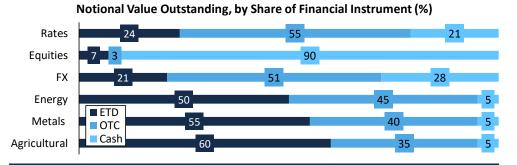
Notional Value Traded, NA & EMEA Market Share by Product Category (%)

Rates Equities FX Energy Metals Agricultural

| CME | HKEX | ICE | СВОЕ | DB | Notional \$tn |
|-----|------|-----|------|----|------------------|
| 76% | - | 15% | ı | 8% | 2,822 |
| 10% | - | 15% | 23% | 6% | 424 |
| 94% | - | 3% | 1 | 3% | 47 |
| 40% | - | 60% | - | - | 37 |
| 50% | 50% | | - | - | 51 |
| 71% | - | 23% | - | 6% | 20 |

CME dominates or maintains a strong presence in almost every product category

Investors can choose from spot, over-the-counter and exchange-traded derivatives



Exchange-traded derivatives ("ETD") still serve a small portion of select markets

Almost every derivative product has seen double digit annual growth

| | Notional Va | alue Traded (US | D tn) by Produ | ct Category | |
|----------------------------|-------------|-----------------|----------------|-------------|-------|
| | 2020 | 2021 | 2022 | 2023 | 2024 |
| CAGR: 10.1% Rates | 1,743 | 1,723 | 2,338 | 2,734 | 2,822 |
| CAGR: 10.6% Equities | 257 | 301 | 341 | 351 | 424 |
| CAGR: 16.7% FX | 22 | 25 | 32 | 34 | 47 |
| CAGR: 6.3% Energy | 38 | 40 | 36 | 39 | 51 |
| CAGR: 10.9% Metals | 22 | 33 | 42 | 34 | 37 |
| CAGR: 8.8% Agricultural | 13 | 17 | 18 | 20 | 20 |

Trading activity grew significantly due to increased geopolitical and market risks

Executive Summary
Sources: CME Group, FINRA, BIS

Company Overview

Industry Overview

Investment Theses

Valuation

Investment Overview

Competitive Landscape



While there are many financial exchanges, they each carve out their own niche in the market

| CME Group | ıce | C*boe | HKEX 香 港 交 易 所 | DEUTSCHE BÖRSE GROUP |
|-----------|-----|-------|--------------------------|-------------------------|
|-----------|-----|-------|--------------------------|-------------------------|

| | CME Group Inc (NASDAQ: CME) | Intercontinental Exchange Inc (NYSE: ICE) | Cboe Global Markets Inc (BAT: CBOE) | Hong Kong Exchange & Clearing Ltd (HKG: 0388) | Deutsche Borse AG (ETR: DB1) |
|---|-------------------------------------|--|---|--|---------------------------------|
| Market Cap (USD bn) ¹ | 95 | 98 | 22 | 58 | 48 |
| Revenue (USD bn) ² | 6.1 | 9.3 | 2.1 | 2.86 | 6.37 |
| Cash Trading Rev % ² Derivatives Rev % ² | 4% 77% | 3% 35% | 41% 45% | 40% 42% | 6% 40% |
| Operating Margin (%) ² | 64 | 46 | 56 | 70 | 50 |
| P/E Ratio (LTM) ³ | 26.8 | 35 | 29.8 | 34.4 | 26.3 |
| Dividend Yield (%) ⁴ | 4.0 | 1.1 | 1.2 | 2.7 | 1.5 |
| Avg. Daily Volume (ADV) (Contracts mn) ² | 26.5 | 8.0 | 15.0 | 1.6 | 8.0 |
| Avg. Revenue per Contract (RPC) (USD) ² | 0.70 | 0.65 | 0.30 | 1.61 | N.A. |
| Global Reach (Revenue by Region) ² | ~70% Americas ~30% International | Global (Americas & Europe) | Mainly Americas (expanding in EU & APAC) | Asia (HKEX) Europe (LME) | Europe |

Notes: ¹ As of 16 March 2025. ² 2024 Annual Filings from respective companies. ³ Extracted from Capital IQ. ⁴ TTM Dividends / Share Price as of 16 March 2025.

| Executive Summary | Company Overview | Industry Overview | Investment Theses | Valuation | Investment Overview |
|--|------------------|-------------------|-------------------|-----------|---------------------|
| Sources: Company 10Ks and Annual Filings, Capital IQ | | | | | |

Thesis 1 – FMX is not a threat



7

Street believes FMX's star partners would make it a major player in rates derivatives

Major sell-side banks have been touting FMX as a competitor to CME

Coincidentally, there is correlation between FMX's equity partners and -ve CME rating

J.P.Morgan

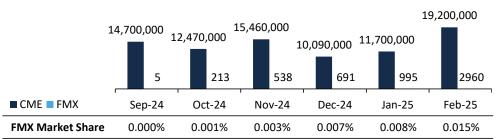
"We continue to see FMX as a competitive threat..." – Q424 review



Reputable sell-side firms have been causing negative sentiment to CME stock

One might expect FMX's launch in Sept-24 to be a great success

Interest Rates Average Daily Volume since FMX launch



FMX did not even create a dent in CME's rate complex since its inception

FMX Equity Investors

| Future Clearing | Merchants | Market Makers | | |
|------------------|-----------------|-------------------|--|--|
| J.P.Morgan | cîtî | CITADEL | | |
| BANK OF AMERICA | BARCLAYS | ♠ ♣ T | | |
| Goldman Sachs | Morgan Stanley | jumptrading Tower | | |

We believe that FCMs are more interested in promoting FMX than assessing CME fairly

FMX founder Howard Lutnick and many others have tried to challenge CME in rates



| Year Launched | Year Discontinued | Peak Market Share | Commentary |
|------------------|----------------------|----------------------|--------------------|
| 2000 | 2005 | c.1-3% | - |
| 2005 | 2010 | c.1-2% | Backed by Euronext |
| 2009 | 2011 | c.2-3% | Backed by JPM, GS |
| 2015 | 2018 | c.<1% | - |

History tells us that FMX will see limited success in breaking the dominance of CME

Executive Summary Company Overview Industry Overview Investment Theses Valuation Investment Overview

Sources: CME Group, JP Morgan, Company Annual Filings

Thesis 1 – FMX is not a threat



8

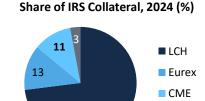
Street believes that FMX's cross-margining agreement with LCH is the game changer

FMX struck a partnership with LCH to cross-margin with LCH-cleared IRS swaps



As many interest-rate swaps naturally net/hedge out risks in futures, they can deliver up to c.80% of margin savings for clients

=



73

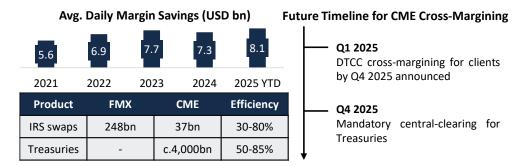
■ JPX

Street believes that margin savings would be enough for FMX to gain market share

Investors look at total cost to trade (TCT) when considering where to trade

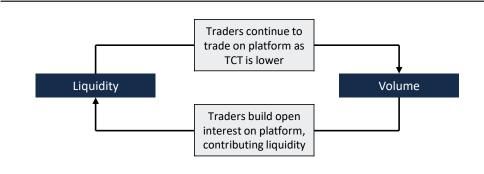
| Trading Fees | Liquidity | Margin Savings |
|--|--|---|
| Explicit | | Implicit |
| \ | ↑ | = |
| \uparrow | \downarrow | = |
| 5% | 25% | 70% |
| FMX is waiving trading fees for early-bird clients | CME dwarfs FMX in terms of liquidity and open interest | LCH partnership makes FMX on par with CME |

CME has more expansive cross-margining across wider products



CME's cross-margining program is arguably more comprehensive than FMX

Liquidity and volume are network effects, a key feature of CME's natural monopoly



As previous competitors have failed, CME's network effects will be hard to replicate

Executive Summary Company Overview Industry Overview Investment Theses Valuation Investment Overview

Sources: CME Group, FINRA, Company Filings

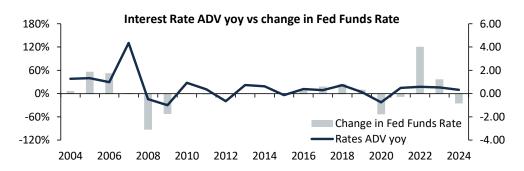
Thesis 2 – Trading Volumes will Remain Elevated



9

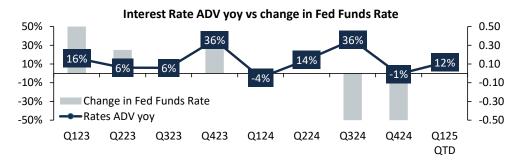
Street believes that interest rate cuts by the Fed will tamper demand for hedging

Rates volume has historically trended with the interest rate cut/hike cycle



Many believe CME is heading into a volume downturn due to this historical relationship

However, interest rate ADV has been decoupling from the rate/hike cycle



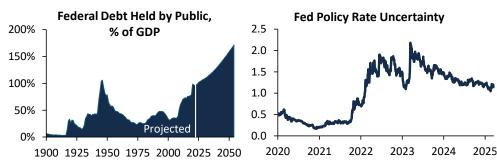
We believe that this decoupling would sustain into the near-term even as Fed cuts rates

CME's revenue is most sensitive to trading volumes, especially rates trading volumes



Street maintains pessimism on CME due to concentration risk in trading revenue

Structural risks and policy uncertainty will continue to mandate the need for hedging



We expect continued volatility to create short-term tailwinds for rate volumes

Executive Summary Company Overview Industry Overview Investment Theses Valuation **Investment Overview**

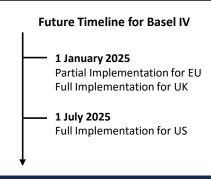
Thesis 2 – Trading Volumes will Remain Elevated

Street is not pricing in medium-term tailwinds from Basel IV



10

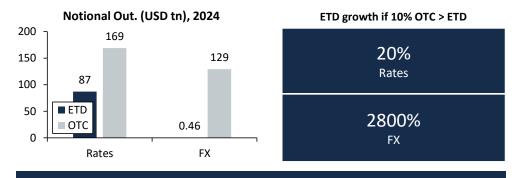
Financial Institutions will have to adhere to Basel IV effective 2025



| Rule | Pre-Basel IV | Post-Basel IV | |
|---|--|---|--|
| Counterparty risk | Internal model (flexibility) | Standardized Approach | |
| Counterparty Valuation Adjustment | Lower capital charges & exemptions for bilateral OTC | 50% higher capital charges, removal of exemptions | |

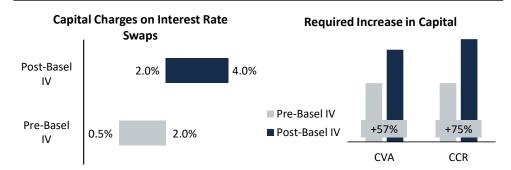
Basel IV introduces stricter counterparty risk management for financial institutions

Even a modest shift from OTC derivatives into ETDs will lead to a surge in volume



Structural shifts into ETDs will spur volume for both FX and Rates

Financial institutions are hit hard with increased capital charges on OTC derivatives



Financial institutions would have to shift to other products to reduce their charges

CME has been capitalising on this structural shift by offering new product lines

| CME Product | Competitor OTC Product | Launched Date | Open Interest yoy |
|---------------------------------|-------------------------------|---------------|-------------------|
| Cross Currency Basis Futures | Cross Currency Basis Swaps | 2024 | NA |
| Total Return Futures | Total Return Swaps | 2016 | 92% |
| ERIS SOFR Swap Futures | Interest Rate Swaps | 2020 | 60% |

CME continue to achieve double-digit volume growths due to structural shifts

Executive Summary Company Overview Industry Overview Investment Theses Valuation Investment Overview

Sources: CME Group, BIS

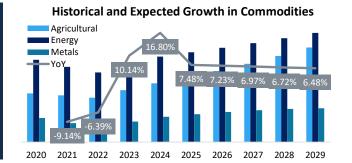
Thesis 3 – Continued Product Innovation Across Key Markets



Investors' fear around interest rate cuts overlooks CME's proven resilience and volume stability

Expanding market access in commodities and retail participation

CME has successfully launched micro-sized contracts in 2021 WTI Micro (e.g., Oil, Micro Crude Gold), making commodities trading accessible to smaller traders and retail investors.



The rapid adoption of micro futures trading on physical commodities is underpriced

CME Group to Launch Micro-Sized Grains and Oilseed Futures on February 2025

CME introduced micro-sized grains and oilseed futures (Corn, Wheat, Soybean, Soybean Oil, Soybean Meal)



- Contract size: 1/10 of standard CME commodities futures
- Contracts are cash-settled, simplifying participation for investors

Reduction of capital requirements

Attracting diverse clientele:

- Retail investors
- Smaller institutional traders (Phillip Nova)

Strong endorsement from key brokerage partners

Saxo Bank and Interactive Brokers actively integrating CME's micro-sized futures on their platforms

Leverage of dominant market position

Enhance market precision and risk management capabilities for existing traders

11

Strategic alliance between CME Group and Robinhood

Futures Products Offered

- Equity Indices: S&P 500, Nasdaq-100, Russell 2000, Dow Jones Industrial Average.
- Cryptocurrencies: Bitcoin, Ether.
- Foreign Exchange (FX): Metals: Gold, Silver, Copper.
- Energy Commodities: Crude Oil, Natural Gas.



Integration of futures into Robinhood allows CME Group to tap into a network of retail traders, increasing ADV and broadening its customer base.



Allows CME Group to diversify revenue streams, which has shown growing interest in diversified investment opportunities.



Enhances CME Group's brand recognition, positioning it as a versatile and accessible marketplace for various asset classes.

CME's business model has allowed it to introduce new products with no upfront cost





Asset-Light Model with scalable infrastructure

Due to CME operating as a marketplace and clearinghouse, new products (e.g. Micro WTI Crude, Micro Gold can be introduced without significant investment in physical assets.

Data-driven product innovation

CME leverages market demand analytics to identify gaps and introduce highly targeted products. Successful launches include Bitcoin & Ether futures, SOFR-linked products, and options on futures.

Monetization through transaction fees

The exchange clearing mechanism ensures risk mitigation, allowing CME to expand its offerings with limited exposure. Since all contracts are settled centrally, new launches don't require additional operational infrastructure.

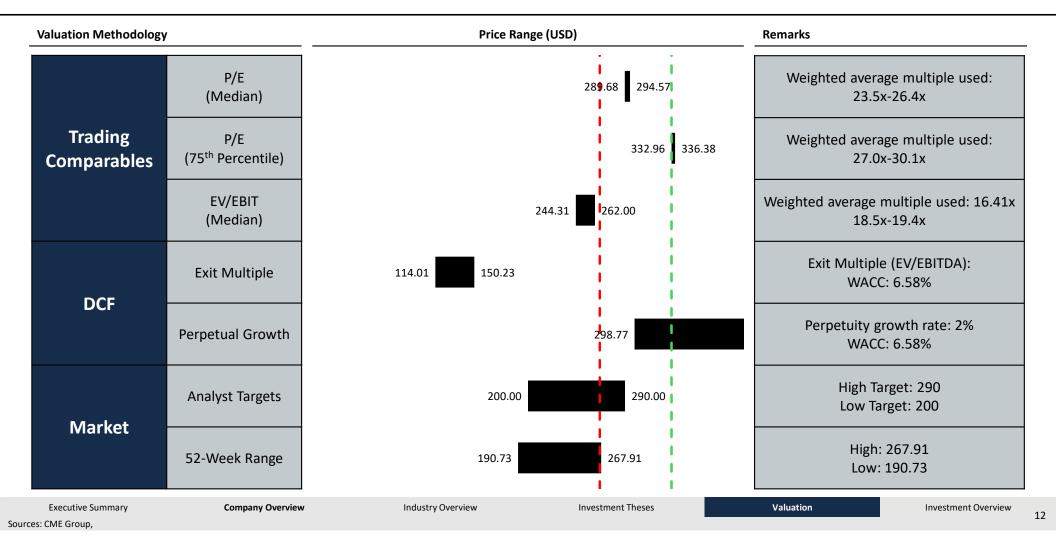
Executive Summary Company Overview Industry Overview Investment Theses Valuation Investment Overview

Sources: CME Group, ICE

Valuation

Price ranges from majority valuation methodologies





Investment Overview

Potential risks and foreseeable mitigations



13

Description

Mitigation

Declining interest rate ADV

As rate cuts are anticipated in 2025 and beyond, traders may shift to longer-duration hedges, reducing short-term volatility in rate futures, which has historically driven high trading volumes.

CME has already transitioned 70%+ of the short-term rate complex to SOFR-based contracts, with SOFR futures volumes averaging 4M contracts/day, mitigating Eurodollar contract losses.

FMX gaining market share

If FMX gains traction, CME's market share in U.S. Treasury and SOFR futures could face pressure, potentially reducing pricing power and liquidity advantages.

CME's cross-margining across asset classes (equities, rates, FX, commodities) creates a significant cost advantage over FMX, ensuring that major banks and institutions stay within CME Clearing.

Cooled down demand for new products

The Micro Agriculture Futures (Corn, Wheat, Soy, etc.) launching in 2025 may face slow adoption if retail traders do not see the same benefits as in Micro E-mini equity contracts.

CME's Micro E-mini contracts now account for ~30% of total futures trading, showing strong demand. Extending the Micro contract model to commodities and FX ensures steady product engagement.

Medium 2 Medium High Low Likelihood

Executive Summary Company Overview Industry Overview Investment Theses Valuation Investment Overview

Risk Analysis

Sources: CME Group,

