



Exchanges

The implications of an ICE & CME entry into treasury central clearing

Industry Overview

ICE and CME may compete with the FICC

Earlier this week at the 2024 FIA Boca conference, CME announced that it would apply to become a central counterparty for treasuries, and ICE also indicated interest in doing so. We believe, the moves are an opportunistic response to both customer dissatisfaction with the FICC as well as the growth opportunity presented by recent regulations. The treasury market is estimated to be only 32% centrally cleared today (including 19% in hybrid clearing), and recent SEC rulemaking will force a much larger swath into central clearing through 2025. Our base case is that the FICC retains its monopoly on this market. However, in this note, we consider some possible implications of this newfound competition and size the addressable market.

Base case = FICC retains its lead, but CME has a shot

Our base case is that the FICC is able to retain its dominant position in the treasury clearing market. Clearing has significant first mover advantages, and as a market utility, the FICC likely has the ability to be more competitive on clearing fees than a for-profit publicly-traded company. The FICC currently clears 32% of all US treasury volume in some capacity, and it would be difficult for CME/ICE to make up this ground. Unlike the FICC, though, CME has the ability to offer full cross-margining with their dominant futures business as well as their smaller swaps business. However, our conversations with market participants indicate that there is a reluctance among dealers to concentrate more business at CME. ICE lacks any material footprint in US rates, so its right to win in treasury clearing is least obvious. LCH may also throw their hat into the ring given their ability to cross-margin with swaps. Since our base case is a continuation in the status quo, we maintain our ratings on CME (Neutral) and ICE (Buy).

In either case, we view EMMs as beneficiaries (vs banks)

By driving down prices and making clearing more economical, we think that competition in treasury clearing will encourage the participation of electronic market makers (EMMs), which lack the capital and scale of banks. Today, EMMs comprise just over half of the liquidity provision in the D2D treasury market and have a negligible presence in the D2C market. In the past, electronic market makers have cited the FICC's prohibitive clearing costs and eligibility requirements as an obstacle to their participation in the cash rates market. Exhibit 1 shows that the capital requirements for treasury clearing is out of proportion to other rates exposures. Additionally, in cash equities, many EMMs are eligible for a direct clearinghouse membership. In treasuries, these participants must instead go through banks, which adds another layer of fees and gatekeeping. We believe this reality has contributed to both less EMM participation (vs stocks), and buyside firms agreeing to bundle clearing with other services to rationalize fees. Lower clearing costs should therefore prompt further EMM entry into cash rates as well as improve EMM connectivity in the D2C market. While VIRT (Buy) has a small presence in rates today, competitive clearing could help them grow their footprint and take market share from bank dealers. We believe both Jump Trading and Citadel Securities are currently the largest electronic participants in the cash rates market. This development would also have second-derivative tailwinds for the rates e-trading platforms such as TW (Buy).

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Equity **United States** Exchanges

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CME: CME Group

ICE: Intercontinental Exchange

TW: Tradeweb VIRT: Virtu

FICC: Fixed Income Clearing

Corporation

GSD: Government Securities Division

MBS: MBS Division

SEC: Securities and Exchange

Commission

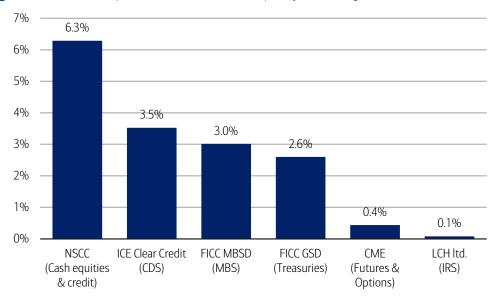
FIA: Futures Industry Association D2D: Dealer-to-Dealer trading D2C: Dealer-to-Client trading MBS: Mortgage-backed securities

IRS: interest rate swaps

Additional details

Exhibit 1: Margin deposits as a % of overnight risk for various US Clearinghouses

The FICC GSD is more capital intensive than the other two primary rates clearinghouses (CME, LCH)



Source: Company reports, CFTC

Note: Notional equivalents are used for gauging overnight risk at derivatives clearinghouses; As of year-end 2023

BofA GLOBAL RESEARCH

A CME victory could be a material financial tailwind

While we do not think it is likely, we believe that a successful outcome in treasury clearing would be material for CME's stock and is worth monitoring, particularly because we think they would next envelop IRS clearing. Clearing tends to be a winner-takes-all market due to the network efforts inherent to portfolio margining. If CME is able to buy market share early and establish a critical mass of clearing participation, they would likely proceed to consolidate the market. Additionally, if CME is able to combine its dominant market position in rates futures clearing with cash treasury clearing, we think it is inevitable that they will next consume the market for IRS clearing. These three products are highly correlated, and therefore, the capital saves from clearing them at the same venue would be significant. CME currently has 2% share in IRS clearing against LCH's 98%. The FICC and LCH generated \$403M and \$190M in clearing revenues in 2023, respectively. In aggregate, this amounts to 11% of CME's 2023 revenue.

Vertical integration with BrokerTec would run afoul of SEC rules

There is some investor interest in what treasury clearing capabilities would mean for BrokerTec, CME's leading electronic treasury trading platform. Regulations would hamstring CME's ability to leverage a vertically-integrated cash treasury business to drive market share. The Exchange Act Amendments of 1975 empower the SEC to create a system of common securities clearing with non-discriminatory access to all market participants. Thus, it would be difficult to give special advantages to CME's treasury execution clients for also clearing at CME (or vice versa) without running afoul of regulators.



Exhibit 2: Stocks mentioned

Prices and ratings for stocks mentioned in this report

BofA Ticker	Bloomberg ticker	Company name	Price	Rating
CME	CME US	CME Group Inc	US\$ 217.88	B-2-7
ICE	ICE US	Intercontinental	US\$ 135.45	B-1-7
TW	TW US	Tradeweb	US\$ 103.99	B-1-7
VIRT	VIRT US	Virtu	US\$ 18.91	B-1-7

Source: BofA Global Research

BofA GLOBAL RESEARCH

Price objective basis & risk

CME Group Inc (CME)

Our primary valuation metric for US Exchanges is price to long-term earnings (2026E). We focus on long-term EPS because we prefer to normalize for any near-term factors, and it also provides credit for an additional two years of growth. We apply a 20x multiple on our 2026E EPS to derive our \$215 PO. Our multiple is based on the conservative assumption that CME trades in line with its higher-growth peer.

Downside risks are (1) depressed volumes, (2) lower earnings quality due to high transactional revenue composition, (3) mature markets and high market share stifling further growth, (4) trading at a premium to higher growth peers and (5) secular transition away from oil/fossil fuels where CME has high share.

Upside risks are (1) improving/elevated interest rate volumes due to quantitative tightening/inflation, (2) defensive qualities which drive stock outperformance in equity market drawdowns (e.g., 1Q22), (3) futures rollouts on additional retail brokerages, and (4) potential for share gains in select markets: base metals after the LME debacle and cash after the recent DTCC cross-margining agreement.

Intercontinental Exchange (ICE)

Our primary valuation metric for US Exchanges is price to long-term earnings (2026E). We focus on long-term EPS because we prefer to normalize for any near-term factors, and it also provides credit for an additional two years of growth. We apply a 20x multiple on our 2026E EPS to derive our \$152 PO. Our multiple is equal to ICE's historical average and a small premium to peers in light of ICE's superior growth prospects. We look for ICE's valuation to re-rate higher from current levels as mortgage origination volumes bottom. Additionally, ICE's accelerating earnings growth and improve earnings quality support a higher valuation.

Risks are: (1) elevated financial leverage, (2) subdued listings activity, (3) contrarian capital allocation decisions (eBay, BKI).

Tradeweb Markets Inc. (TW)

Our price objective (PO) for Tradeweb is derived from a price to earnings valuation method. We apply a 30x multiple on our 2026E EPS to derive our \$111 PO. Our multiple is supported by TW's recent valuation range and assumes TW maintains a premium to the US exchanges due to higher visibility into its long-term growth trajectory combined with its defensive qualities.

Risks are (1) competitive pressures intensifying (MKTX, Bloomberg, ICE, Trumid), (2) a high mix of transactional revenues, (3) secular pressure to trading commissions (although TW's commissions are still a low % of bid-ask), and (4) a high valuation relative to slower-growth peers.



Virtu Financial (VIRT)

Our \$20 PO is formed using a 5.5x EV-to-EBITDA multiple on our 2026 EBITDA forecast. Over the last 5 years, VIRT has traded at a multiple of 5-10x and its exchange peers currently trade at a rich premium of 15x. Risks to our thesis include: (1) Intensifying competition in equities and strong rivals (including powerhouse Citadel Securities), (2) Continued cyclical pressures from tight monetary conditions, (3) Extreme volatility that dampens opportunities or drives losses, (4) Adverse regulatory outcomes, (5) Lack of scale in options markets and (6) Elevated financial leverage.

Analyst Certification

I, Craig Siegenthaler, CFA, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject securities and issuers. I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or view expressed in this research report.



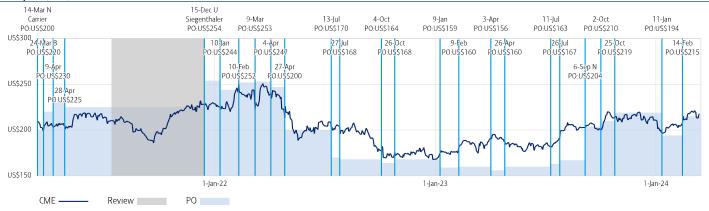
US - Brokers, Asset Managers, & Exchanges Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
BUY				
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	Ameriprise Financial	AMP	AMP US	Craig Siegenthaler, CFA
	Ares Management Corp	ARES	ARES US	Craig Siegenthaler, CFA
	BlackRock, Inc.	BLK	BLK US	Craig Siegenthaler, CFA
	Blackstone	BX	BX US	Craig Siegenthaler, CFA
	Blue Owl Capital	OWL	OWL US	Craig Siegenthaler, CFA
	Cboe Global Markets	CBOE	CBOE US	Craig Siegenthaler, CFA
	Interactive Brokers	IBKR	IBKR US	Craig Siegenthaler, CFA
	Intercontinental Exchange	ICE	ICE US	Craig Siegenthaler, CFA
	KKR & Co. Inc.	KKR	KKR US	Craig Siegenthaler, CFA
	Raymond James Financial	RJF	RJF US	Mark McLaughlin, CFA
	TPG Inc	TPG	TPG US	Craig Siegenthaler, CFA
	Tradeweb Markets Inc.	TW	TW US	Craig Siegenthaler, CFA
	Victory Capital Holdings, Inc.	VCTR	VCTR US	Craig Siegenthaler, CFA
	Virtu Financial	VIRT	VIRT US	Craig Siegenthaler, CFA
NEUTRAL				
	Affiliated Managers Group	AMG	AMG US	Craig Siegenthaler, CFA
	Apollo Global Management	APO	APO US	Craig Siegenthaler, CFA
	Brookfield Asset Management	BAM	BAM US	Craig Siegenthaler, CFA
	CME Group Inc	CME	CME US	Craig Siegenthaler, CFA
	Invesco	IVZ	IVZ US	Craig Siegenthaler, CFA
	Janus Henderson Group	JHG	JHG US	Craig Siegenthaler, CFA
	LPL Financial Holdings	LPLA	LPLA US	Craig Siegenthaler, CFA
	Patria	PAX	PAX US	Craig Siegenthaler, CFA
UNDERPERFORM				
	Charles Schwab Corp.	SCHW	SCHW US	Craig Siegenthaler, CFA
	Franklin Resources	BEN	BEN US	Craig Siegenthaler, CFA
	Nasdag	NDAO	NDAQ US	Craig Siegenthaler, CFA
	Robinhood Markets	HOOD	HOOD US	Craig Siegenthaler, CFA
	T. Rowe Price	TROW	TROW US	Craig Siegenthaler, CFA
	The Carlyle Group	CG	CG US	Craig Siegenthaler, CFA

Disclosures

Important Disclosures

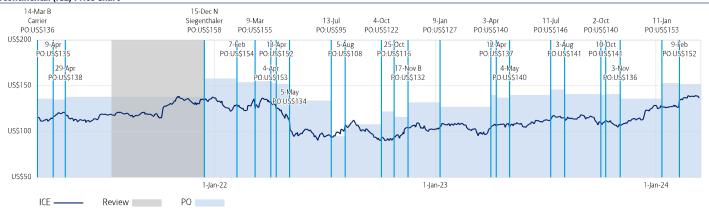
CME Group Inc (CME) Price Chart



B: Buy, N: Neutral, U: Underperform, PO: Price Objective, NA: No longer valid, NR: No Rating

The Investment Opinion System is contained at the end of the report under the heading 'Fundamental Equity Opinion Key'. Dark grey shading indicates the security is restricted with the opinion suspended. Medium grey shading indicates the security is under review with the opinion withdrawn. Light grey shading indicates the security is not covered. Chart is current as of a date no more than one trading day prior to the date of the report.

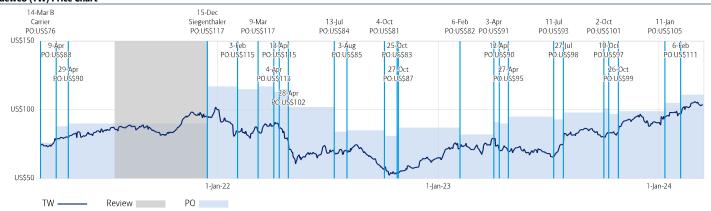
Intercontinental (ICE) Price Chart



B: Buy, N: Neutral, U: Underperform, PO: Price Objective, NA: No longer valid, NR: No Rating

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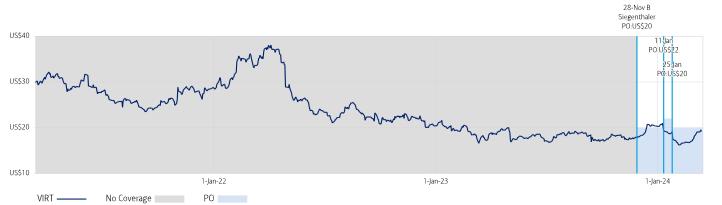
Tradeweb (TW) Price Chart



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Virtu (VIRT) Price Chart



B: Buy, N: Neutral, U: Underperform, PO: Price Objective, NA: No longer valid, NR: No Rating

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Equity Investment Rating Distribution: Financial Services Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships R1	Count	Percent
Buy	156	53.79%	Buy	94	60.26%
Hold	72	24.83%	Hold	48	66.67%
Sell	62	21.38%	Sell	35	56.45%

Equity Investment Rating Distribution: Global Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships R1	Count	Percent
Buy	1895	53.62%	Buy	1083	57.15%
Hold	832	23.54%	Hold	454	54.57%
Sell	807	22.84%	Sell	383	47.46%

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Investment rating Total return expectation (within 12-month period of date of initial rating) Ratings dispersion guidelines for coverage cluster^{R2}

Buy	≥ 10%	≤ 70%
Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

R2Ratings dispersions may vary from time to time where BofA Global Research believes it better reflects the investment prospects of stocks in a Coverage Cluster.

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