

Exchanges

Earnings estimates update - Embedding March volume & fee data

Price Objective Change

Lowering ICE & TW EPS; modestly raising NDAQ

Following the release of intra-quarter data on volumes, fees, and margins, we are making modest adjustments to the estimates in our <u>1Q23 Preview</u> from earlier this month. We are raising our estimates for Nasdaq (NDAQ) while lowering estimates for ICE/TW. For CME Group (CME), we maintain our estimates and price objective.

NDAQ's cash equity & options RPC jump q/q

There was sequential strength in revenue per contract (RPC) with US cash and options 5-10% higher q/q. We raised our 1Q23/2023/2024 EPS to 0.67/2.71/2.84 from 0.66/2.69/2.83. We do not view the fee increases as sustainable, particularly as MEMX Options nears its 0.88 launch and starts to compete on price. As such, we maintain our Underperform rating given slower growth prospects across its segments.

Sequential CDS fee headwind for ICE

Intercontinental Exchange (ICE)'s CDS fees dropped meaningfully in 1Q23. Despite a mix-shift toward high-fee single-name CDS products as well as a 61% q/q increase in volumes, revenues increased just 25% sequentially. Accordingly, we've revised down our CDS RPC estimates going forward. This lowers our 1Q23/2023/2024 EPS to 1.395.40/\$6.29 from 1.445.56/\$6.44. Nevertheless, we maintain our Buy rating given our positive outlook on the mortgage technology business from current levels and our expectation of a post-deal valuation re-rating (relative to CME/NDAQ).

TW's credit share ticks downward

We've revised down our Tradeweb (TW) EPS estimates to 1Q23/2023/2024 EPS to 0.54/2.12/2.39 from 0.58/2.16/2.42 in light of both (1) lower than expected credit market share and (2) fee pressure in rates derivatives. TW's credit market share shrank 1% sequentially. Meanwhile, a decline in the average tenor of interest rate swaps adversely impacted fee-per-million in rates derivatives, which was down 8% sequentially. We expect these headwinds to be temporary, and we maintain our Buy rating in light of the large white space in fixed income electronification. We believe the sequential share decline was attributable to the regional bank distress; regional banks accounted for a relatively large proportion of TRACE in the quarter, and those bonds tended to trade via voice due to the uncertainty in that sector. Meanwhile, rates volatility in the quarter was unduly concentrated on the short end of the curve.

12 April 2023

Equity United States Exchanges

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Glossary

PO: Price Objective CDS: Credit default swap

TRACE: Trade reporting and compliance engine (post-trade tape for credit)

Exhibit 1: Price Objective Changes

Modestly lowered POs for ICE & TW

	New	Old	% Delta
CME	156	156	0%
ICE	137	140	-2%
NDAQ	53	53	0%
TW	90	91	-1%

Source: BofA Global Research

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Refer to important disclosures on page 5 to 9. Analyst Certification on page 4. Price
Objective Basis/Risk on page 3.

Timestamp: 12 April 2023 07:34PM EDT

Estimate change summary

Exhibit 2: BofA EPS estimates vs consensus

We estimate beats or in-line earnings for all exchanges

		1Q23E			2Q23E			2023E			2024E	
	BofA	Consensus	% Delta									
CME	2.34	2.30	2%	1.98	2.13	-7%	8.40	8.57	-2%	8.51	8.67	-2%
ICE	1.39	1.39	0%	1.29	1.34	-4%	5.40	5.49	-2%	6.29	5.92	6%
NDAQ	0.67	0.65	3%	0.68	0.68	0%	2.71	2.70	0%	2.84	2.94	-3%
TW	0.54	0.54	0%	0.56	0.55	2%	2.12	2.16	-2%	2.39	2.37	1%
Average	-	-	1%	-	-	-2%	-	-	-1%	-	-	0%

Source: Bloomberg, BofA Global Research estimates

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Exhibit 3: BofA EPS estimate revision summary

Modestly lowering EPS for ICE & TW while raising for NDAQ

		1Q23E			2Q23E			2023E			2024E	
	New	Old	% Delta									
CME	2.34	2.34	0%	1.98	1.98	0%	8.40	8.40	0%	8.51	8.51	0%
ICE	1.39	1.44	-3%	1.29	1.32	-2%	5.40	5.56	-3%	6.29	6.44	-2%
NDAQ	0.67	0.66	2%	0.68	0.68	0%	2.71	2.69	1%	2.84	2.83	0%
TW	0.54	0.58	-7%	0.56	0.55	2%	2.12	2.16	-2%	2.39	2.42	-1%
Average	-	-	-2%	-	-	0%	-	-	-1%	-	-	-1%

Source: BofA Global Research estimates

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Exhibit 4: BofA PO estimate revision summary

Lowering POs for ICE & TW

	PO				Return			
	New	Old	% Delta	Price	Upside Potential	Div Yield	Total Return	
CME	156	156	0%	193	-19%	4%	-15%	
ICE	137	140	-2%	107	28%	2%	29%	
NDAQ	53	53	0%	55	-3%	2%	-2%	
TW	90	91	-1%	71	26%	1%	27%	
Average	-	-	-1%	-	8%	2%	10%	

Source: BofA Global Research estimates

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Exhibit 5: Stocks mentioned

Source: BofA Global Research

Prices and ratings for stocks mentioned in this report

BofA Ticker	Bloomberg ticker	Company name	Price	Rating
CME	CME US	CME Group Inc	US\$ 191.74	B-3-7
ICE	ICE US	Intercontinental	US\$ 107.09	B-1-7
NDAQ	NDAQ US	Nasdaq	US\$ 54.89	B-3-7
TW	TW US	Tradeweb	US\$ 70.72	B-1-7

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Price objective basis & risk

CME Group Inc (CME)

Our primary valuation metric for US Exchanges is price to long-term earnings (2025E). 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 17.5x multiple on our 2025E EPS to derive our \$156 PO. Our multiple is based on the conservative assumption that CME trades in line with its peer group despite its lower growth prospects/earnings quality.

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, (5) secular transition away from oil/fossil fuels where CME has high share and (6) regulatory risks (transaction tax, capital requirements).

Upside risks are (1) improving/elevated interest rate volumes due to quantitative tightening/inflation, (2) rebound in energy/metals volumes should there be a resolution in supply chain issues and the Russia/Ukraine conflict, (3) defensive qualities which drive stock outperformance in equity market drawdowns (e.g., 1Q22), and (4) potential for share gains in select markets: base metals after the LME debacle and cash after the DTCC cross-margining proposal is approved (estimated in 1Q23 versus 3Q22 prior target).

Intercontinental Exchange (ICE)

Our primary valuation metric for US Exchanges is price to long-term earnings (2025E). 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 2025E EPS to derive our \$137 PO. Our multiple is equal to ICE's historical average and a small discount to peers despite ICE's superior growth prospects & earnings quality. We look for ICE's valuation to re-rate higher from current levels as: mortgage origination volumes bottom, BKI deal closes by mid-2023. Additionally, ICE's accelerating earnings growth and improve earnings quality support a higher valuation.

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

Nasdaq (NDAQ)

Our primary valuation metric for US Exchanges is price to long-term earnings (2025E). 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 17.5x multiple on our 2025E EPS to derive our \$53 PO on NDAQ. Our multiple reflects a slight discount on NDAQ's recent historical average given the recent earnings quality reduction and our expectation for decelerating growth.

Upside risks are: (1) a bull market could revive listings activity and drive revenue gains in indexing from beta, (2) a prolonged Democratic administration could enable SEC Chair Gensler to complete his equity market structure reforms and move volumes back onto exchanges, (3) the secular trend toward derivatives (vs. cash) could offset the downward normalization in options trading, and (4) NDAQ's new crypto custody business could enhance growth.

Downside risks are: (1) NDAQ's premium valuation, (2) MEMX's entrance into the options market, (3) retail investor disengagement, (4) decelerating Market Tech sales, (5) SEC



Chair Gensler's inability to complete his market structure agenda during his administration, and (6) volume headwinds as we transition toward a bull market.

Tradeweb Markets Inc. (TW)

Our price objective (PO) for Tradeweb is derived from a price to earnings valuation method. We apply a 32.5x multiple on our 2025E EPS to derive our \$90 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.

Analyst Certification

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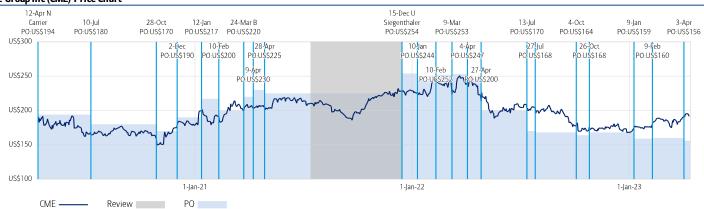
US - Brokers, Asset Managers, & Exchanges Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
BUY				
	Ameriprise Financial	AMP	AMP US	Craig Siegenthaler, CFA
	Ares Management Corp	ARES	ARES US	Craig Siegenthaler, CFA
	BlackRock, Inc.	BLK	BLKUS	Craig Siegenthaler, CFA
	Blackstone	BX	BX US	Craig Siegenthaler, CFA
	Blue Owl Capital	OWL	OWL 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
	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
NEUTRAL				
NEOTRAL	Affiliated Managers Group	AMG	AMG US	Craig Siegenthaler, CFA
	AllianceBernstein	AB	AB US	Craig Siegenthaler, CFA
	Apollo Global Management	APO	APO US	Craig Siegenthaler, CFA
	Invesco	IVZ	IVZ US	Craig Siegenthaler, CFA
	Janus Henderson Group	JHG	JHG US	Craig Siegenthaler, CFA
	Janus Henderson Group	IUHDY	IHG AU	Craig Siegenthaler, CFA
	LPL Financial Holdings	LPLA	LPLA US	Craig Siegenthaler, CFA
	Patria	PAX	PAX US	Craig Siegenthaler, CFA
	raula	FAA	FAX US	Claig Siegeriuider, Cl A
UNDERPERFORM				
	Charles Schwab Corp.	SCHW	SCHW US	Craig Siegenthaler, CFA
	CME Group Inc	CME	CME US	Craig Siegenthaler, CFA
	Franklin Resources	BEN	BEN US	Craig Siegenthaler, CFA
	Nasdaq	NDAQ	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
RSTR				
	Focus Financial Partners	FOCS	FOCS US	Craig Siegenthaler, CFA
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Important Disclosures

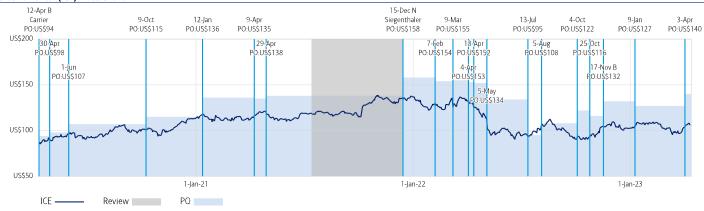
CME Group Inc (CME) Price Chart



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.

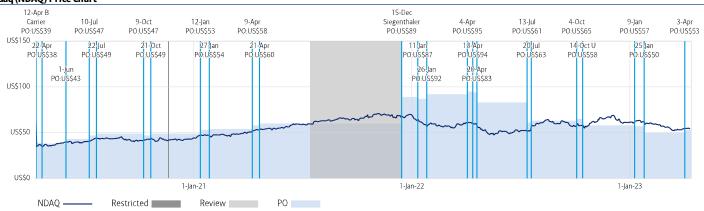
Intercontinental (ICE) Price Chart



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

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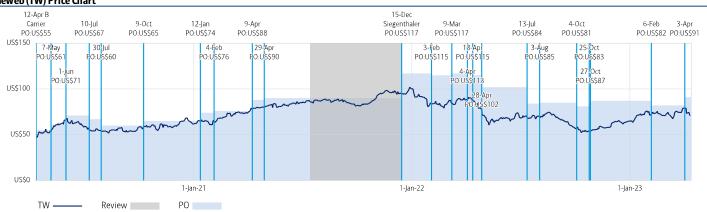
Nasdaq (NDAQ) Price Chart



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Tradeweb (TW) Price Chart



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

Coverage Universe	Count	Percent	Inv. Banking Relationships ^{R1}	Count	Percent
Buy	152	52.41%	Buy	92	60.53%
Hold	73	25.17%	Hold	44	60.27%
Sell	65	22.41%	Sell	41	63.08%

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

Coverage Universe	Count	Percent	Inv. Banking Relationships ^{R1}	Count	Percent
Buy	1869	53.01%	Buy	1030	55.11%
Hold	827	23.45%	Hold	476	57.56%
Sell	830	23.54%	Sell	389	46.87%

^[8] Issuers that were investment banking dients of BofA Securities or one of its affiliates within the past 12 months. For purposes of this Investment Rating Distribution, the coverage universe includes only stocks. A stock rated Neutral is included as a Hold, and a stock rated Underperform is included as a Sell.

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Investment rating Total return expectation (within 12-month period of date of initial rating) Ratings dispersion guidelines for coverage cluster⁸²

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Underperform	N/A	≥ 20%

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