

The Brookline Brief

Brookline Capital Markets

Life Sciences, Med. Tech. and Diagnostics
Equity Capital Markets Update

April 2024



Equity Market / New Issue Market **Tailwinds**

- US equity market investor sentiment ticked up this past month in response to dovish Fed comments following the March 2024 FOMC meeting - propelling headline US equity benchmarks to new record highs this past month. Of note, the S&P 500 and DOW posted gains of +3.1% and +2.1% during March, respectively, and finished the quarter at new all-time highs (S&P 500: 5,254.35, DOW: 39,807.37). Similarly, the NASDAQ Composite climbed +2.1% last month and closed out Q1 just -0.3% shy of its own new all-time high (March 31, 2024 close: 16,379.46, ATH: 16,428.82). Though some market participants expressed concern that, following the March 20th FOMC meeting, Fed Futures markets began to price in only a 49% probability of a rate cut in June (vs. 74% entering this past month). However, others were reassured by the release of new dot plot data on the 20th, which indicated a consensus estimate of 3 discrete rate cuts (-75bp vs. current) by the end of CY 2024 as well as alignment on longer-term interest rate cut expectations for CY 2025 and CY 2026 (-150bp vs. current and -225bp vs. current, respectively).
- Overall levels of follow-on market activity within the life sciences-, med. tech.-, and diagnostics-focused subsector remained robust during March. Specifically, 64 regular-way follow-on offerings priced during the past month, raising a combined \$5.4bn in aggregate gross proceeds (prior to overallocments, where applicable) - marking the highest monthly reading of follow-on offering volume (deal count) since the apex of the follow-on capital-raising boom in February 2021 (n = 84). In addition, March also represented the third consecutive month with over \$5bn in aggregate follow-on capital raised (the first such instance since December 2020 to February 2021). In total, follow-on activity during Q1 2024 tallied in an inflow of \$17.3bn in aggregate gross proceeds, exceeding Q1 totals from the past two years by 2.8x (Q1 2023 aggregate gross proceeds = \$6.1bn) and 5.1x (Q1 2022 aggregate gross proceeds = \$3.4bn), respectively - and even surpassed Q1 2021's record-setting levels by ~4% (Q1 2021 aggregate gross proceeds = \$16.6bn).
- 50% of follow-on offerings completed this past month within the life sciences-, med. tech.-, and diagnostics-focused subsectors yielded positive offer-to-end-of-month returns (n = 32 / 64), continuing a trend of robust aftermarket performance for healthcare follow-ons in 2024 YTD. Though some expressed concern that March marked the second consecutive month during which the proportion of positive-performance follow-ons declined (vs. 62% in January and 55% in February), others remain encouraged by consistently strong follow-on offering performance throughout the sector (particularly when compared to Q1 2023, where just 40% of follow-on offerings delivered positive offer-to-end-of-month returns).

Equity Market / New Issue Market **Headwinds**

- Although US benchmark indices tallied positive returns during March, the XBI fell -3.6% - marking its worst monthly performance (in absolute terms) since October 2023. In addition, March represented the first month since October 2023 during which the XBI underperformed all four major US benchmark indices (-6.7% vs. S&P 500, -5.4% vs. NASDAQ, -5.7% vs. DOW, -7.0% vs. Russell 2000), with many industry observers attributing its soggy performance to biotech's unique sensitivity to bearish interest rate signals, such as February's hotter-than-expected CPI print (+3.2% vs. +3.1% cons.) and increasing levels of uncertainty around a June 2024 rate cut. Though many concede that biotech is uniquely vulnerable to deteriorating interest rate expectations, others remain hopeful that the XBI's Q1 2024 performance (+6.3%) - which marked its strongest Q1 return since 2019 (+26.2%) - could provide stable footing for the sector to absorb the downside impact of a negative surprise at the June 2024 FOMC meeting.
- Despite robust follow-on new issue activity throughout the life sciences-, med. tech.-, and diagnostics-focused subsegments, IPO activity remained muted during March, with only 1 new entrant (BOLD) joining the IPO Class of 2024 on March 28th. Though some observers were relieved that BOLD's \$100M offering snapped a 48-calendar day IPO drought - and were further encouraged by CTNM's \$110M IPO on Apr. 5th - others expressed concern that both offerings delivered underwhelming IPO debut performance (-10.9% and -3.8%, respectively) even after pricing at the midpoint and low-end of their ranges, respectively. Though some contend that IPO investor sentiment has waned in recent weeks (as evidenced by BOLD and CTNM's shaky initial receptions), others continue to express optimism that the IPO market in 2024 remains on-track to comfortably surpass 2023's near-record-low levels of activity and may even exceed 2022's year-end tally. Specifically, as of this past Friday, 2024 IPO activity totaled 8 offerings that raised a combined \$1.3bn in aggregate gross proceeds (prior to overallocation exercises, where applicable) - compared to just 3 offerings for \$368mm during Q1 2023 and 8 offerings for \$725mm during Q1 2022.
- Follow-on offerings by "micro-cap" issuers continued to underperform transactions completed by larger-cap peers during March, lending support to the claim that capital-raising conditions in 2024 remain challenging for large swaths of the life-sciences-, med. tech.-, and diagnostics-focused subsegments of the market.⁽¹⁾ Specifically, follow-on offerings completed by "micro-cap" companies during March (n = 35) raised \$7.0mm of aggregate gross proceeds (prior to overallocments) on average (median basis) compared to \$125.0mm, on average (median basis), for follow-ons completed by issuers with pre-deal market capitalizations of at least \$150.0mm (n = 29). Moreover, 69% of this past month's "micro-cap" follow-ons featured warrant coverage in some capacity - representing an uptick in the proportion of "unit deals" as a percentage of all "micro-cap" follow-ons versus January and February of this year (67%).⁽²⁾

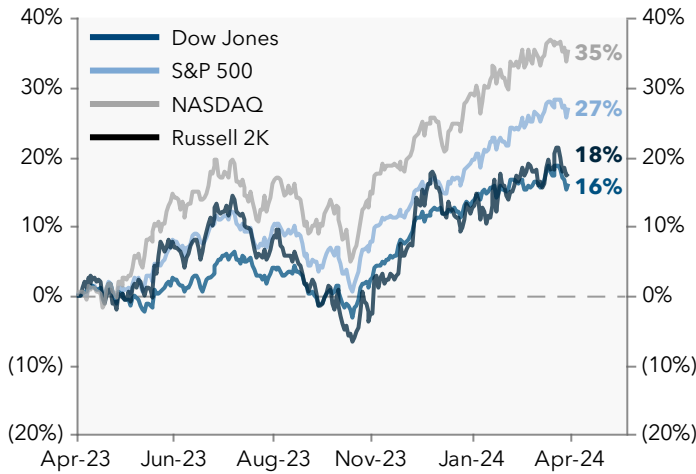
(1): "Micro-cap" issuers are defined as those with a fully-diluted pre-deal market capitalization less than \$150mm.

(2): However, only 11% of "micro-cap" deals during March featured warrant coverage of 200% or more - down from 18% in January and February 2024.

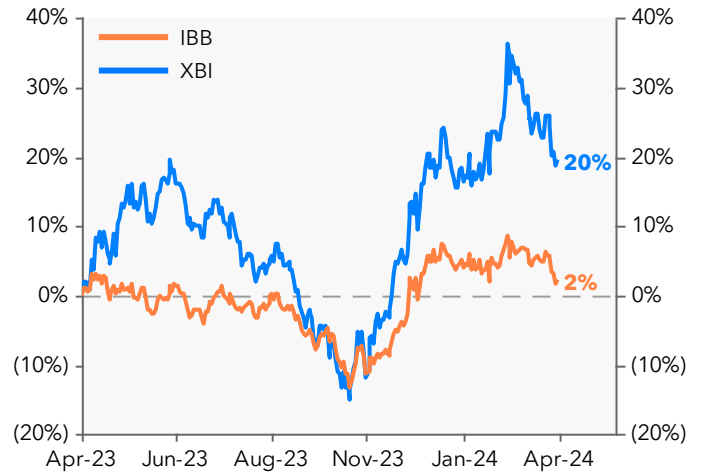
Sources: FactSet, Bloomberg, Brookline Capital Markets Investment Banking Data, US Food & Drug Administration Data, CME Group.

Market data as of 4:00 PM on April 5, 2024, unless otherwise noted.

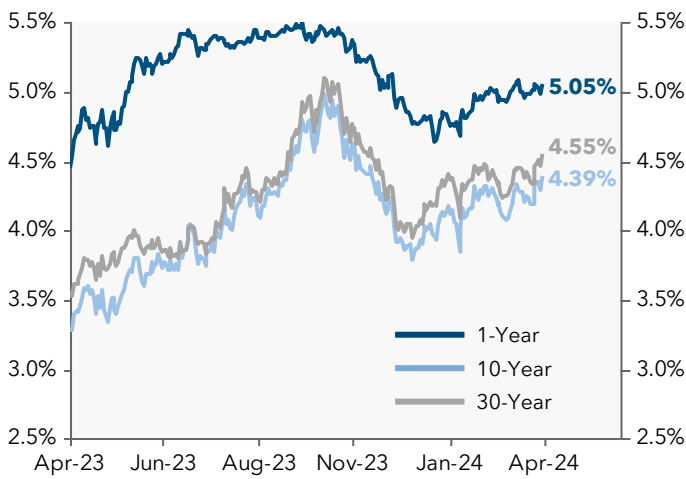
General Indices Performance (Last 12-Months)



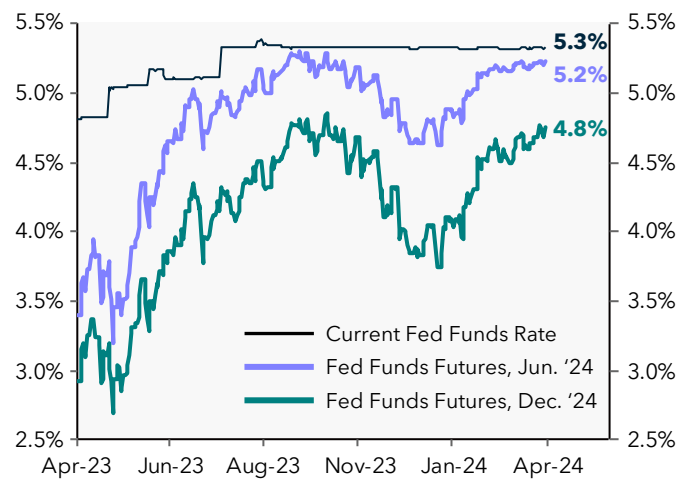
XBI and IBB Performance (Last 12-Months)



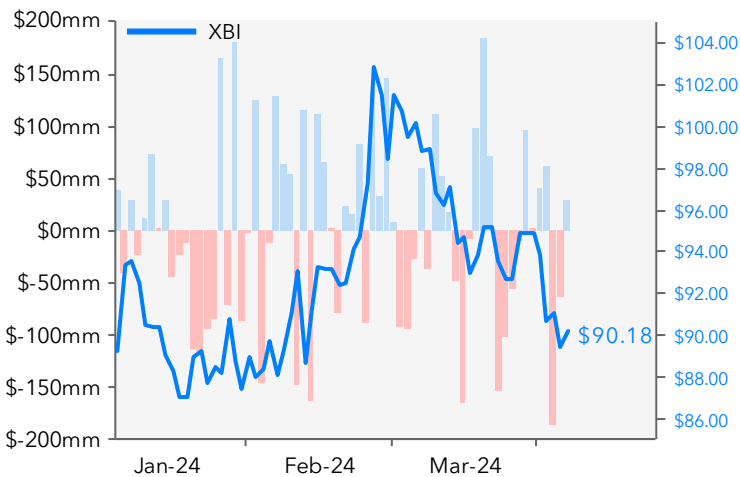
U.S. Treasury Yields (Last 12-Months)



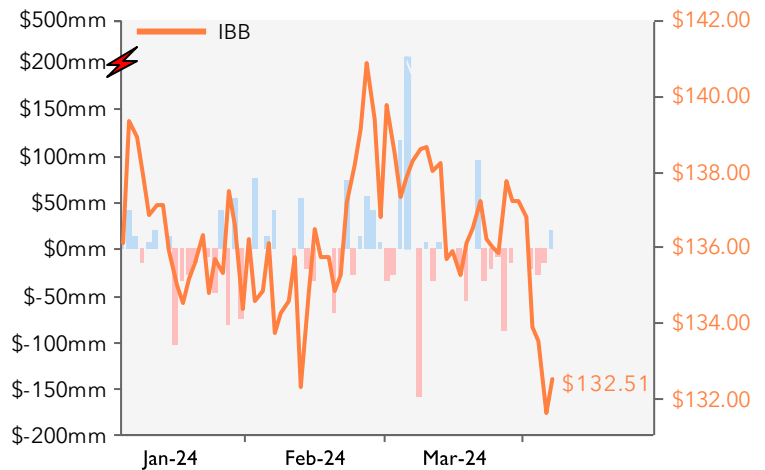
Fed. Funds Rate & Futures (Last 12-Months)



XBI Price & Weekly Fund Flows (Last 3-Months)

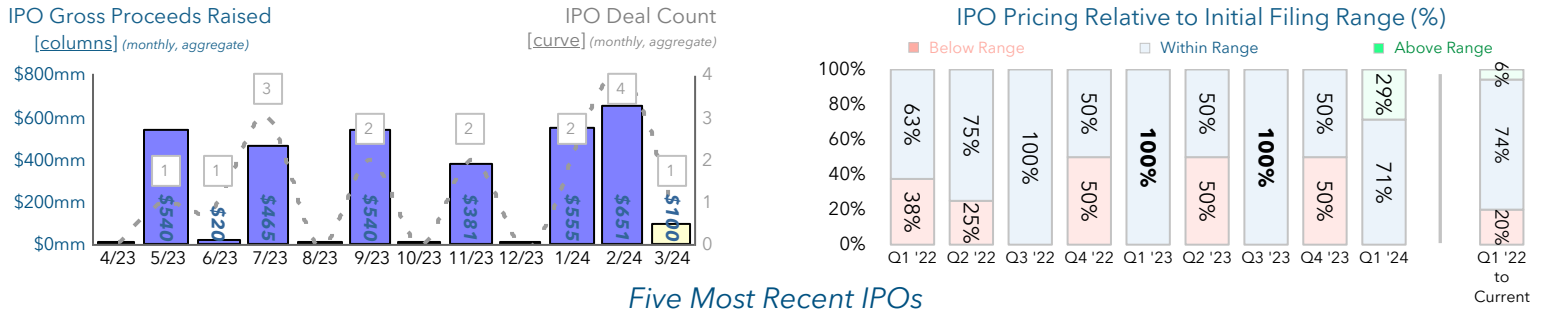


IBB Price & Weekly Fund Flows (Last 3-Months)



Sources: FactSet, Bloomberg, Brookline Capital Markets Investment Banking Data, US Food & Drug Administration Data. Market data as of 4:00 PM on April 5, 2024, unless otherwise noted.

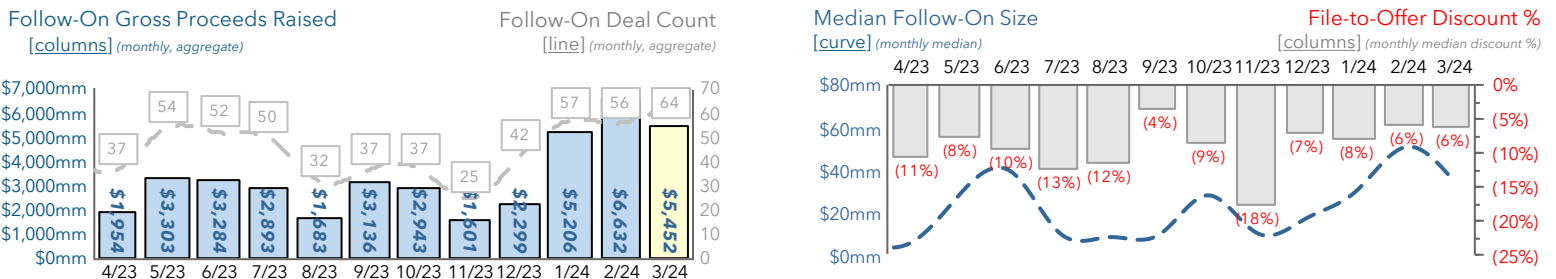
IPO Market Activity - Life Sciences, Med. Tech., and Diagnostics (Last 12-Months)



Five Most Recent IPOs

Company	Ticker	Indication	Offer Date	Offer Price	Gross Proceeds Raised ⁽¹⁾	Pre-Money Equity Valuation ⁽²⁾	Within Initial Range?	Disclosed Insider Part. (%)	% Change Offer / Current
Contineum Therapeutics	CTNM	Neuroinflammatory (LPA1R antagonist)	04-05-24	\$16.00	\$110.0mm	\$350.0mm	In Range	--	(3.8%)
Boundless Bio	BOLD	Oncology (Oncogene amplified cancers / ecDNA)	03-28-24	\$16.00	\$100.0mm	\$295.8mm	In Range	--	(17.4%)
Metagenomi	MGX	Gene Therapy (Metagenomics platform)	02-09-24	\$15.00	\$93.8mm	\$469.2mm	In Range	--	(34.5%)
Kyverna Therapeutics	KYTX	Autoimmune Diseases (CD19 CAR-T)	02-08-24	\$22.00	\$319.0mm	\$652.3mm	Above	--	+1.0%
Alto Neuroscience	ANRO	CNS (MDD / PTSD)	02-02-24	\$16.00	\$128.6mm	\$327.8mm	In Range	8%	(9.3%)

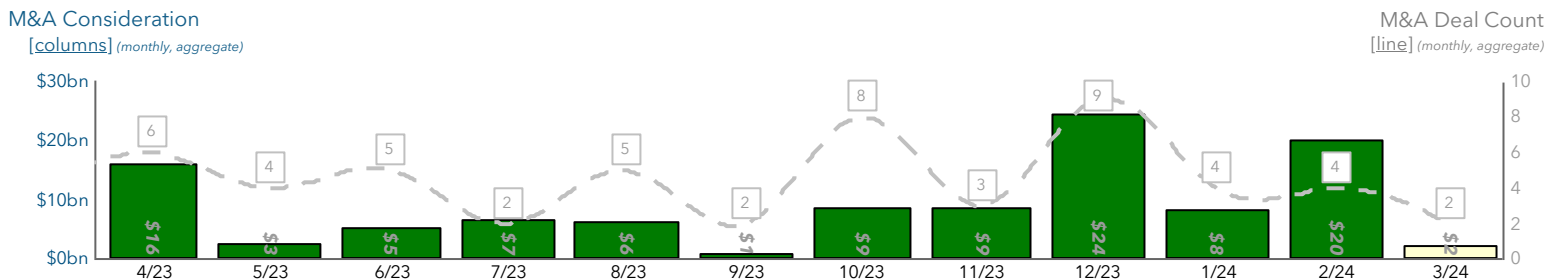
Follow-On Market Activity - Life Sciences, Med. Tech., and Diagnostics (Last 12-Months)



Five Largest Follow-Ons, March 2024

Company	Ticker	Indication	Offer Date	SEC Form	Offer Price	Gross Proceeds Raised ⁽¹⁾	Pre-Offer Market Cap ⁽²⁾	% Chg. File / Offer	% Chg. Offer / Current
Madrigal Pharmaceuticals	MDGL	Hepatology (THR-β agonist)	03-19-24	S-3	\$260.00	\$600.0mm	\$7,374.9mm	(8.2%)	(6.5%)
Apogee Therapeutics	APGE	Immunology (SubQ IL-13 mAb)	03-08-24	S-1	\$62.00	\$420.0mm	\$3,098.6mm	+4.6%	(8.4%)
Celldex Therapeutics	CLDX	Oncology (CD40 mAb)	03-01-24	S-3	\$47.00	\$400.4mm	\$3,009.0mm	(8.5%)	(15.8%)
Akero Therapeutics	AKRO	Hepatology (NASH)	03-06-24	S-3	\$29.00	\$319.0mm	\$1,793.5mm	(6.7%)	(19.9%)
BridgeBio Pharma	BBIO	Mendelian Genetic Diseases	03-06-24	S-3	\$29.00	\$250.0mm	\$6,432.8mm	(10.4%)	(3.1%)

M&A Activity - Public Life Sciences, Med. Tech., and Diagnostics (Last 12-Months) ⁽³⁾



Sources: Dealogic, FactSet Brookline Capital Markets Investment Banking Data.

(1) Excludes Shoe; (2) based on fully diluted shares outstanding immediately prior to offering, (3): Excludes all acquisitions of private companies.

Note: All IPOs with <\$10mm gross proceeds have been excluded. All acquisitions of private companies have been excluded. Includes life sciences, medical technology, and diagnostics companies.

Market data as of 4:00 PM on April 5, 2024, unless otherwise noted.

Firm Overview

Brookline Capital Markets is a **premier healthcare-focused boutique investment bank** led by former executives of top Wall Street firms **focused on underwriting and growth capital for private and public companies** with a full suite of advisory capabilities



Leadership With Decades of Industry Experience

Brookline prides itself on taking an advisor's mentality to the **complexities** facing life sciences, medical technology, and diagnostics companies in the capital markets



Unique Distribution Network

We have a strong network of **difficult-to-reach fundamental investors** including **Family Offices, Ultra High Net Worth Individuals,** and **Industry Specialists**

Selected Recent Transactions

 Biopharmaceuticals Company Ongoing Engagement Capital Markets Advisor	 Biopharmaceuticals Company Ongoing Engagement Capital Markets Advisor	 Biopharmaceuticals Company Ongoing Engagement Capital Markets Advisor	 Specialty Pharma Company Ongoing Engagement Capital Markets Advisor	 CERVOMED \$50,000,000 PIPE Financial Advisor March 2024	 Aquestive \$75,000,000 Follow-On Financial Advisor March 2024	 DT DE CLOUD ACQUISITION CORPORATION \$69,000,000 IPO Sole Bookrunner February 2024	 IMUNON Completed Engagement Capital Markets Advisor January 2024
 WAVE AEROSPACE \$1,100,000 Series A Placement Agent January 2024	 Schiff Scientific Industries, Inc. \$7,000,000 PIPE Exclusive Placement Agent January 2024	 Immunic THERAPEUTICS \$80,000,000 PIPE Financial Advisor January 2024	 IRON HORSE ACQUISITIONS \$69,000,000 IPO Co-Manager December 2023	 iBio \$4,500,000 Follow-On Co-Manager December 2023	 CoreWeave \$6,750,000 Secondary Sale Introducing Agent December 2023	 AI TRANSPORTATION \$60,000,000 IPO Co-Manager November 2023	 LungTherapeutics \$18,500,000 PIPE Co-Placement Agent October 2023
 HEPION PHARMACEUTICALS Completed Engagement Capital Markets Advisor October 2023	 CIRCULOGENE THERANOSTICS \$12,670,000 Secured Note Sole Placement Agent October 2023	 Quetta Acquisition Corp. \$69,000,000 IPO Co-Manager October 2023	 SAB BIOTHERAPEUTICS \$67,100,000 PIPE Financial Advisor October 2023	 HEPION PHARMACEUTICALS \$5,000,000 Registered Direct Financial Advisor September 2023	 TONIX PHARMACEUTICALS \$4,500,000 Follow-On Co-Placement Agent September 2023	 Ainos \$4,750,000 Secured Convertible Promissory Note Co-Placement Agent September 2023	 WAVE AEROSPACE \$3,100,000 Series A Placement Agent September 2023

Investment Banking Team & Contact Information

William B. Buchanan, Jr.

646.248.5085
bill.buchanan@brooklinecapmkt.com

Patrick Sturgeon

646.681.4651
patrick.sturgeon@brooklinecapmkt.com

Michael D. Rhea

646.807.4125
michael.rhea@brooklinecapmkt.com

Zak Ross-Nash

646.462.4681
zak.rossnash@brooklinecapmkt.com

Michael Fontaine

646.248.5091
michael.fontaine@brooklinecapmkt.com

Samuel Wertheimer, Ph.D.

646.462.4718
sam.wertheimer@brooklinecapmkt.com

Joseph Rudick, M.D.

646.603.6716
joe.rudick@brooklinecapmkt.com

Scotty Katzmann

646.248.5091
scotty.katzmann@brooklinecapmkt.com

Scott A. Katzmann

646.681.4668
scott.katzmann@brooklinecapmkt.com

Charles E. Mather, CFA

646.681.4624
charlie.mather@brooklinecapmkt.com

Eric Solash

917.509.0875
eric.solash@brooklinecapmkt.com

Hayden Edwards

646.248.7801
hayden.edwards@brooklinecapmkt.com

Graham A. Powis

646.762.0826
graham.powis@brooklinecapmkt.com

Dimitre Genov

646.807.4124
dimitre.genov@brooklinecapmkt.com

Robert Donohue

646.681.4650
robert.donohue@brooklinecapmkt.com

Sales & Trading Team & Contact Information

Harris Lydon

646.248.5185
harris.lydon@brooklinecapmkt.com

Noah Uzal

646.603.6719
noah.uzal@brooklinecapmkt.com

Michael Dean

917.873.6651
michael.dean@brooklinecapmkt.com

Jake Ward

646.248.5184
jake.ward@brooklinecapmkt.com

Edward Heaney

646.603.6718
edward.heaney@brooklinecapmkt.com

Drew Crovello

646.603.6720
drew.crovello@brooklinecapmkt.com

Ashley Helm

631.566.1157
ashley.helm@brooklinecapmkt.com

Jake Hanley

646.248.6718
jake.hanley@brooklinecapmkt.com

Equity Research Team & Contact Information

Kemp Dolliver, CFA

781.258.0240
kemp.dolliver@brooklinecapmkt.com

Will Hidell

804.402.2069
will.hidell@brooklinecapmkt.com

Kumar Raja, PhD

662.694.1446
kumar.raja@brooklinecapmkt.com

Leah Rush Cann

646.934.6976
leah.cann@brooklinecapmkt.com

Tyler Bussian, PhD

815.275.4056
tyler.bussian@brooklinecapmkt.com