

US Biopharmaceuticals

The Priority Review- Week of February 23rd

Industry Overview

Lilly, can you take me higher? Our \$1000 PO story

Today, we raised our PO on Lilly to \$1000 ([see our note here](#)) based on the commercial momentum of Zepbound and Mounjaro and expected operating leverage. Indeed, the growth profile (5-year CAGR: >20% on revenue; >45% on non-GAAP EPS) is top tier and with upside potential. We also see a number of positive 1H catalysts this year including the approval of donanemab in Alzheimer's and phase 3 tirzepatide data in sleep apnea / heart failure, two indications that we think have multi-billion peak potential, but that aren't discussed by investors or modeled in consensus. We expect strong phase 2 data in NASH, full details of which could come at EASL (June 5-8) which isn't reflected in consensus estimates even though we think it's likely that GGG will ultimately be the drug of choice in NASH when looking at a pivotal study.

Looking at risks, Viking has released solid data as general angst is growing from the GLP-1 competitive landscape outside of Novo (Amgen, Zealand, BI, etc). That said, we're comfortable with Lilly and Novo dominating the landscape for 5 years ([see our note on GLP-1 market trends here](#)) and beyond given the high clinical profile just to match incumbent drugs, not to mention the billions in development cost to produce a challenger. The other common concern is that if GLP-1s show up in the IRA as a mandatory discounted product there would be a significant hit to earnings, but we've done a sensitivity on this assuming a 20% discount each year starting in 2027-28 and the downside is manageable as Lilly can take down price but offset it with volume.

Pfizer oncology day focused on pipeline differentiation

We were impressed by the depth and breadth of Pfizer's heme/onc portfolio, although we don't see a tipping point in demand until 2027/2028 near Ibrance patent expiration. On commercial, we think Seagen's \$3B sales guidance is very beatable and could scale given Pfizer's broader commercial reach, plus we think Elrexio in myeloma should have a strong launch this year. Pfizer's pipeline looks very differentiated across ADCs, bispecifics, and small molecules - we'd call out the PD1 ADC and HER2 ADC in urothelial cancer. Our note today details the timelines for pivotal readouts ([see our Pfizer oncology day takeaways here](#)) which are biased toward 2025 and 2026, so we think the near-term oncology narrative will be more about commercial execution. Overall, we remain Neutral on shares with a \$35 PO.

Bristol event focused on commercial execution

Despite the market chatter, Bristol didn't discuss the risks of its pending Karuna deal during its sellside breakfast on Monday ([see our Bristol sell side takeaways here](#)) as the company remains bullish on KarXt which they see as one of their biggest assets from a peak sales perspective. Bristol is facing multiple pressure from the upcoming Eliquis LOE, and the Opdivo LOE (though we're less concerned given the success with formulations and IO combos). Looking at Bristol's recent deals we think it will be quieter after the Mirati/Rayze/Karuna deals close as the company doesn't expect integration to be a major issue. We think the leverage from the deals and imminent launches will play out more closer to 2025-2026, so the stock could trade sideways for a bit. There are some upcoming catalysts like Cerevel and Abecma advisory panels in March, though we

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Biopharmaceuticals

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don't view these as thesis changers. Similar to Pfizer, while we were encouraged by the event it wasn't enough to make us more positive on the stock. We remain Neutral on Bristol with a \$60 PO.

2024 outlook

- [2024 US Biopharma Outlook report](#)
- [2024 Company Profiles report](#)
- [Bristol \(BMY\) Downgrade note](#)
- [Kymera \(KMYR\) Downgrade note](#)
- [LianBio \(LIAN\) Downgrade note](#)

4Q23 earnings reports

- J&J: [Initial thoughts on the JNJ 4Q23 results](#) and [thoughts post the JNJ 4Q23 call](#)
- Merck: [Initial thoughts on MRK 4Q23 results](#) and [thoughts post the 4Q23 MRK call](#)
- Bristol: [Initial Thoughts on BMY 4Q23 results](#) and [thoughts post the BMY 4Q23 call](#)
- AbbVie: [Initial thoughts on ABBV 4Q23 results](#) and [thoughts post the ABBV 4Q23 call](#)
- Pfizer: [Initial thoughts on PFE 4Q23 results](#) and [thoughts post the PFE 4Q23 call](#)
- Amgen: [Initial thoughts on AMGN 4Q23 results](#) and [thoughts post the AMGN 4Q23 call](#)
- Regeneron: [Initial thoughts on REGN 4Q23 results](#) and [thoughts post the REGN 4Q23 call](#)
- Lilly: [Initial thoughts on LLY 4Q23 results](#) and [thoughts post the LLY 4Q23 call](#)
- Vertex: [Initial thoughts on VRTX 4Q23 results](#) and [thoughts post the VRTX 4Q23 call](#)
- Gilead: [Initial thoughts on GILD 4Q23 results](#) and [thoughts post the GILD 4Q23 call](#)
- Biogen: [Initial thoughts on BIIB 4Q23 results](#) and [thoughts post the BIIB 4Q23 call](#)
- Royalty: [Thoughts post the RPRX 4Q23 call](#)
- Moderna: [Initial thoughts on MRNA 4Q23 results](#) and [thoughts post the MRNA 4Q23 call](#)
- BioMarin: [Initial thoughts on BMRN 4Q23 results](#) and [thoughts post the BMRN 4Q23 call](#)

4Q23 earnings read-through notes

- Sanofi: [Sanofi read-through to our coverage](#)
- Novo: [Novo read-through to our coverage](#)
- Roche: [Roche read-through to our coverage](#)
- GlaxoSmithKline: [GSK read-through to our coverage](#)

4Q23 earnings tracker

- Week 1&2: [Weeks 1&2 Earnings Tracker](#) and [Weeks 1&2 Quotes Tracker](#)
- Week 3: [Week 3 Earnings Tracker](#) and [Week 3 Quotes tracker](#)
- Week 4: [Week 4 Earnings Tracker](#) and [Week 4 Quotes tracker](#)
- Week 5: [Week 5 Earnings Tracker](#) and [Week 5 Quotes tracker](#)

Abbreviations:

IRA: Inflation Reduction Act

LOE: Loss of exclusivity

MS: Multiple sclerosis

EASL: European Association for the Study of the Liver

GGG: Peptide

GLP-1: Glucagon like peptide

PD1: Pfizer ADC drug

HER2+: Breast Cancer

TNBC: Triple negative breast cancer

HIV: Human immunodeficiency virus

CROI: Conference on Retroviruses and Opportunistic Infections

PREP: HIV therapy

RSV: Respiratory syncytial virus

KOL: Key opinion leader

CMO: Chief Medical Officer

INT: Individualized Neoantigen Therapy



Exhibit 1: Stocks mentioned

Prices and ratings for stocks mentioned in this report

BofA Ticker	Bloomberg ticker	Company name	Price	Rating
AMGN	AMGN US	Amgen Inc.	US\$ 280.83	B-2-7
BMJ	BMJ US	Bristol-Myers Squibb	US\$ 50.825	B-2-7
LLY	LLY US	Eli Lilly	US\$ 774.29	B-1-7
PFE	PFE US	Pfizer	US\$ 26.61	B-2-7

Source: BofA Global Research

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Price objective basis & risk

Amgen Inc. (AMGN)

Our PO for AMGN is \$315 per share. We value AMGN using a sum of the parts NPV analysis of key marketed drugs (\$240/sh) and pipeline and others (\$156/sh), which assumes a range of weighted average cost of capital (WACC) from 5% and terminal growth rate ranging from -5% to -30% depending on the product lifecycle. Our PO also reflects -\$81/sh in net debt.

Upside risks to our price objective are 1) less than-expected base business erosion2) stronger-than-expected sales of Lumakras, Tezspire, Tepezza, and 3) competitor clinical trial failures

Downside risks to our price objective are 1) faster-than-expected revenue erosion from legacy brands, 2) slower-than-expected growth of new drug launches, and 3) clinical trial failures.

Bristol-Myers Squibb (BMJ)

Our \$60 price objective (PO) is based on a 50/50 blended average of our risk-adjusted discounted cash flow (DCF) and P/E multiple applied to 2024E EPS. Our DCF assumes 7% WACC and -4% terminal growth rate, and we assume an approximate 8x 2024 P/E multiple given an impending patent cliff and risks associated with later-stage pipeline.

Risks to our PO are 1) uninspiring readouts from late-stage trials in key I/O indications, 2) more rapid deceleration of Revlimid erosion than expected, 3) negative outcomes from the company's later-stage pipeline assets in development, 4) pressures from headline risks facing the sector (including drug pricing reform), and 5) negative patent rulings.

Eli Lilly and Company (LLY)

Our \$1000 price objective is based on a probability-adjusted net present value (NPV) analysis of franchise verticals including Endocrinology (\$691/share), Oncology (\$135/share), Cardiovascular (\$4/share), Neuroscience (\$14/share), Immunology (\$46/share), other pharmaceutical products and early pipeline assets (\$128/share), as

well as approximately -\$17/share in net cash. We use a WACC ranging from 5% for approved products to 8% for pipeline products, depending on the stage of development. We apply terminal values ranging from -12% (cardiology) to 1% (endocrinology) based on projected sales decline following loss of exclusivity within each business vertical.

Risks to our price objective are 1) better-than-expected launches of competing products, 2) emerging clinical data for pipeline assets that does not confirm prior observations, 3) failure to effectively commercialize approved products, 4) potential drug pricing system restructuring in the US.

Pfizer (PFE)

Our \$35/share for Pfizer is based on a 50/50 blended average of our discounted cash flow (DCF) analysis and P/E multiple based on the large cap global therapeutics group. For our DCF, we use a weighted-average cost of capital (WACC) of 7% and 1% terminal growth for an intrinsic value of \$47/share. Our P/E analysis assumes a 10x multiple of our 2025 EPS estimate, which yields a \$24 intrinsic value.

Downside risks: 1) sales downside, 2) inability for pipeline to overcome patent loss of exclusivities (LOEs) after 2025, 3) M&A transactions that are perceived to be value destructive.

Analyst Certification

I, Geoff Meacham, 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.

Special Disclosures

BofA Securities is currently acting as financial advisor to Bristol-Myers Squibb Co. in connection with its proposed acquisition of RayzeBio, Inc., which was announced on December 26, 2023.

US - Biopharmaceuticals Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
BUY				
	89bio, Inc	ETNB	ETNB US	Geoff Meacham
	Acumen Pharma	ABOS	ABOS US	Geoff Meacham
	Agios Pharmaceuticals	AGIO	AGIO US	Greg Harrison, CFA
	Amylyx Pharmaceuticals	AMLX	AMLX US	Geoff Meacham
	BioMarin	BMRN	BMRN US	Geoff Meacham
	BioXcel Therapeutics	BTAI	BTAI US	Greg Harrison, CFA
	BridgeBio Pharma	BBIO	BBIO US	Greg Harrison, CFA
	Caribou	CRBU	CRBU US	Geoff Meacham
	CRISPR Therapeutics	CRSP	CRSP US	Geoff Meacham
	Eli Lilly and Company	LLY	LLY US	Geoff Meacham
	Gilead Sciences Inc.	GILD	GILD US	Geoff Meacham
	HUTCHMED	HCM	HCM US	Alec W. Stranahan
	Immatics	IMTX	IMTX US	Alec W. Stranahan
	Insmid Incorporated	INSM	INSM US	Jason Zemansky
	Intellia Therapeutics	NTLA	NTLA US	Greg Harrison, CFA
	Janux Therapeutics	JANX	JANX US	Alec W. Stranahan
	Keros	KROS	KROS US	Greg Harrison, CFA
	Kiniksa Pharmaceuticals, Ltd.	KNSA	KNSA US	Geoff Meacham
	Krystal Biotech	KRYS	KRYS US	Alec W. Stranahan
	Kura Oncology	KURA	KURA US	Jason Zemansky
	Liquidia Corporation	LQDA	LQDA US	Greg Harrison, CFA
	Lyell Immunopharma	LYEL	LYEL US	Geoff Meacham
	MeiraGTx	MGTX	MGTX US	Alec W. Stranahan
	Merck & Co.	MRK	MRK US	Geoff Meacham
	Mineralys Therapeutics	MLYS	MLYS US	Greg Harrison, CFA
	Neumora Therapeutics	NMRA	NMRA US	Geoff Meacham
	Rani Therapeutics	RANI	RANI US	Geoff Meacham
	Regenxbio, Inc.	RGNX	RGNX US	Alec W. Stranahan
	Revolution Medicines	RVMD	RVMD US	Alec W. Stranahan
	Rocket Pharmaceuticals, Inc.	RCKT	RCKT US	Greg Harrison, CFA
	Royalty Pharma	RPRX	RPRX US	Geoff Meacham
	Sana Biotechnology	SANA	SANA US	Geoff Meacham
	SpringWorks	SWTX	SWTX US	Alec W. Stranahan
	Syndax Pharmaceuticals	SNDX	SNDX US	Jason Zemansky
	Traverse Therapeutics Inc	TVTX	TVTX US	Greg Harrison, CFA
	Turnstone Biologics	TSBX	TSBX US	Geoff Meacham
	Vertex Pharmaceuticals Inc.	VRTX	VRTX US	Geoff Meacham
	Werewolf Therapeutics	HOWL	HOWL US	Jason Zemansky
	Xencor	XNCR	XNCR US	Alec W. Stranahan
NEUTRAL				
	AbbVie	ABBV	ABBV US	Geoff Meacham
	Alector, Inc	ALEC	ALEC US	Greg Harrison, CFA
	Amgen Inc.	AMGN	AMGN US	Geoff Meacham
	Arcus Biosciences	RCUS	RCUS US	Jason Zemansky
	Beam Therapeutics	BEAM	BEAM US	Greg Harrison, CFA
	Biogen Inc.	BIIB	BIIB US	Geoff Meacham
	Bristol-Myers Squibb	BMJ	BMJ US	Geoff Meacham
	Cytokines, Incorporated	CYTK	CYTK US	Jason Zemansky
	Editas Medicine	EDIT	EDIT US	Greg Harrison, CFA
	Erasca	ERAS	ERAS US	Alec W. Stranahan
	Esperion	ESPR	ESPR US	Jason Zemansky
	Exscientia	EXAI	EXAI US	Alec W. Stranahan
	IGM Biosciences	IGMS	IGMS US	Greg Harrison, CFA
	Johnson & Johnson	JNJ	JNJ US	Geoff Meacham
	Kymera Therapeutics	KYMR	KYMR US	Geoff Meacham
	Moderna	MRNA	MRNA US	Geoff Meacham
	Pfizer	PFE	PFE US	Geoff Meacham
	Recursion Pharmaceuticals, Inc.	RXR	RXR US	Alec W. Stranahan
	Tyra Biosciences	TYRA	TYRA US	Greg Harrison, CFA
	Vir	VIR	VIR US	Alec W. Stranahan
	Y-mAbs Therapeutics, Inc	YMAB	YMAB US	Alec W. Stranahan
UNDERPERFORM				
	AlloVir, Inc.	ALVR	ALVR US	Jason Zemansky

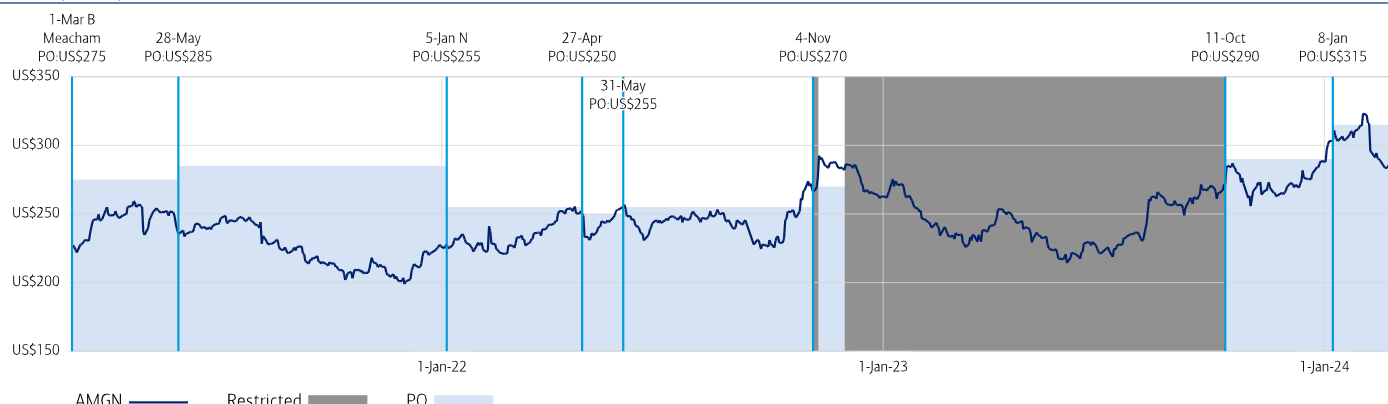
US - Biopharmaceuticals Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
	CureVac	CVAC	CVAC US	Geoff Meacham
	Day One Biopharmaceuticals	DAWN	DAWN US	Alec W. Stranahan
	Novavax	NVAX	NVAX US	Alec W. Stranahan
	Regeneron Pharmaceuticals Inc.	REGN	REGN US	Geoff Meacham
	Reneo Pharmaceuticals	RPHM	RPHM US	Jason Zemansky
	TG Therapeutics	TGTX	TGTX US	Alec W. Stranahan
	United Therapeutics Corporation	UTHR	UTHR US	Greg Harrison, CFA

Disclosures

Important Disclosures

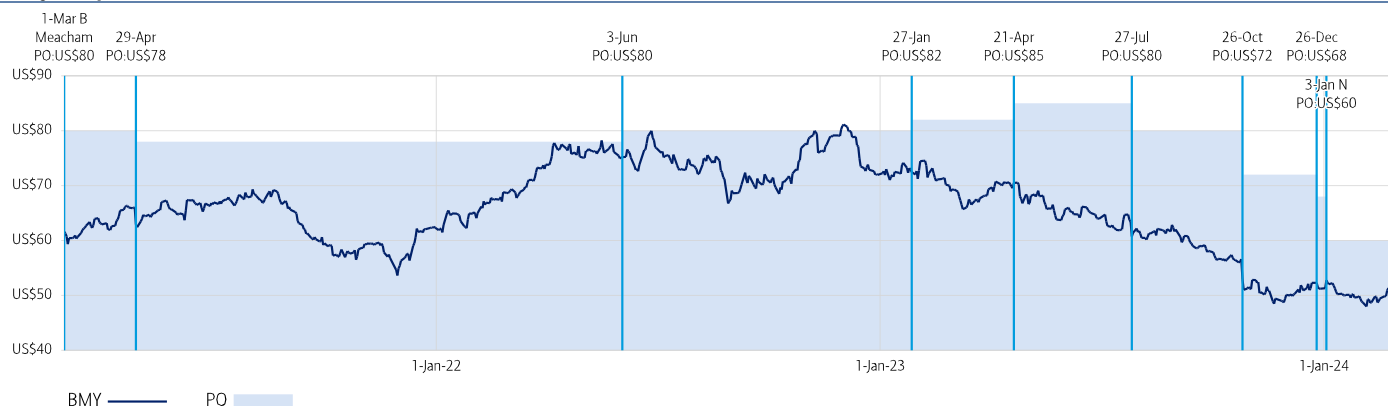
Amgen Inc. (AMGN) Price Chart



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

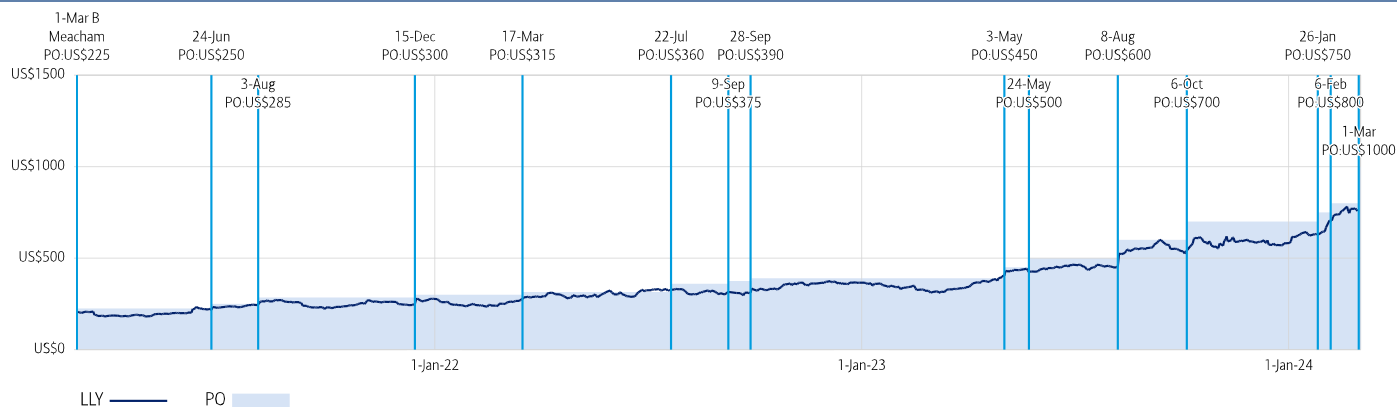
The Investment Opinion System is contained at the end of the report under the heading "Fundamental Equity Opinion Key". Dark grey shading indicates the security is restricted with the opinion suspended. Medium grey shading indicates the security is under review with the opinion withdrawn. Light grey 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.

Bristol-Myers Squibb (BMY) Price Chart



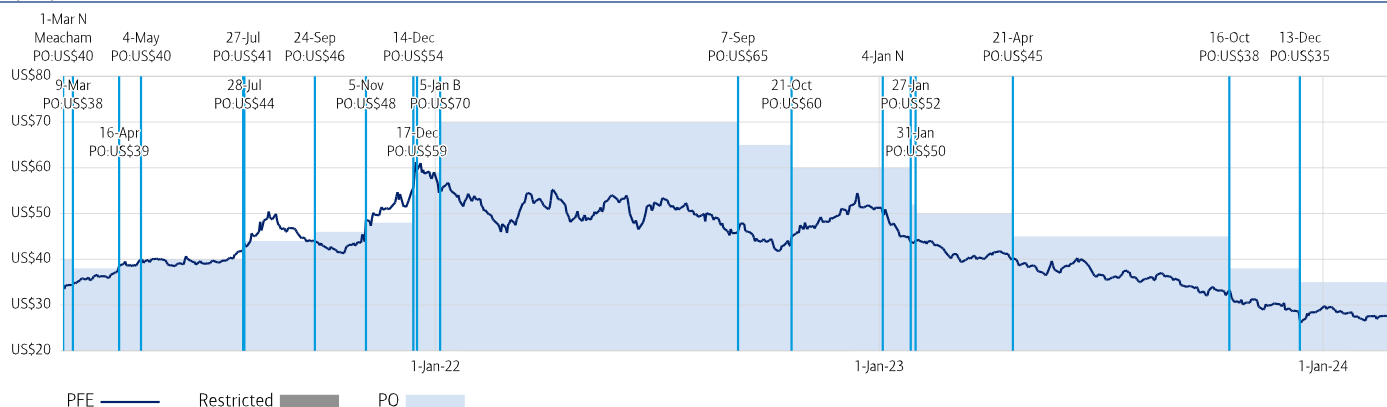
B: Buy, N: Neutral, U: Underperform, PO: Price Objective, NA: No longer valid, NR: No Rating

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Eli Lilly (LLY) Price Chart

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

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Pfizer (PFE) 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.

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

Coverage Universe	Count	Percent	Inv. Banking Relationships ^{R1}	Count	Percent
Buy	234	60.94%	Buy	115	49.15%
Hold	80	20.83%	Hold	36	45.00%
Sell	70	18.23%	Sell	29	41.43%

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%

^{R1} Issuers that were investment banking clients 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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Buy	≥ 10%	≤ 70%
Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

^{R2}Ratings 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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