

BofA IG Healthcare Weekly

Vital Signs

Industry Overview

Healthcare highlights: HUM, SNN, AZN, COR, MRK, ELV

Humana issued \$1.25 billion 5.375% notes due 2031 and \$1.00 billion 5.750% notes due 2054. Smith & Nephew issued \$350 million 5.150% notes due 2027 and \$650 million 5.400% notes due 2034. AstraZeneca announced the acquisition of Amolyt Pharma for \$800 million upfront with an additional contingent payment of \$250 million upon achievement of a specified regulatory milestone. The deal bolsters AstraZeneca's rare disease late-stage pipeline and expands on its bone metabolism franchise, with an expected close by the end of the third quarter of 2024. Cencora announced that Steven H. Collis will retire as President and Chief Executive Officer, effective October 1, 2024. Robert P. Mauch, current Chief Operating Officer of Cencora, will succeed Collis as President and CEO. Merck announced the close of its acquisition of Harpoon Therapeutics. Elevance announced the close of its acquisition of Paragon Healthcare.

Earnings Scorecard update

All IG healthcare companies have now reported, 78% have beat EPS estimates, 20% have missed, and 2% have met. From a sales standpoint, 78% beat estimates and 22% missed. 74% of companies issued guidance, 13% affirmed, 11% raised, and 2% lowered.

Healthcare underperformed the IG Index last week

The ICE BofA IG Healthcare index underperformed the ICE BofA IG index, at -1.08% versus -0.79% on a total-return basis. Healthcare Services led other subsectors, with a total return of -0.78%. In Europe, Healthcare underperformed the ICE BofA EMU index, at -0.17% versus -0.01%.

YTD, Healthcare underperformed on total return

YTD, IG Healthcare has underperformed the ICE BofA IG index, at a total return of -1.72% versus -0.98%, and on an excess-return basis, IG Healthcare has underperformed, at 79 bps versus the index at 93 bps. IG Healthcare OAS was +79 bps versus the US Corp index at +94 bps. On a total-return basis, Healthcare Facilities performed the best within the IG Healthcare subsectors, at -0.79%; Healthcare Services ranked second, at -1.39%; Managed Care was the biggest laggard, at -2.19%.

18 March 2024

High Grade Credit
United States
Healthcare

Andrew Kaplan
Research Analyst
BofAS
+1 646 855 8748
andrew.kaplan@bofa.com

Vritika Patni
Research Analyst
BofAS
+1 646 855 7042
vritika.patni@bofa.com

Abbreviations

HUM	Humana
SNN	Smith & Nephew
AZN	AstraZeneca
COR	Cencora
MRK	Merck
ELV	Elevance
OAS	Option-adjusted spread
YTD	Year to date

BofA Securities does and seeks to do business with issuers covered in its research reports. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision. Refer to important disclosures on page 9 to 11.

12669730

Timestamp: 18 March 2024 09:00AM EDT

Returns Summary

Exhibit 1: Healthcare & Corporate Indices Returns Summary

The ICE BofA IG Healthcare index underperformed the ICE BofA IG index, at -1.08% versus -0.79% on a total-return basis.

	Total Returns					Excess Returns				
	1 week	MTD	QTD	YTD	12 month	1 week	MTD	QTD	YTD	12 month
US Corp Master	-0.79%	0.27%	-0.98%	-0.98%	5.75%	44 bps	46 bps	93 bps	93 bps	585 bps
Healthcare Index	-1.08%	0.24%	-1.72%	-1.72%	4.42%	47 bps	53 bps	79 bps	79 bps	562 bps
Pharmaceuticals	-1.10%	0.25%	-1.86%	-1.86%	4.07%	44 bps	54 bps	64 bps	64 bps	531 bps
Medical Products	-0.97%	0.18%	-1.65%	-1.65%	4.84%	37 bps	36 bps	47 bps	47 bps	499 bps
Managed Care	-1.03%	0.18%	-2.19%	-2.19%	4.47%	56 bps	49 bps	43 bps	43 bps	583 bps
Healthcare Services	-0.78%	0.35%	-1.39%	-1.39%	5.09%	51 bps	52 bps	59 bps	59 bps	533 bps
Healthcare Facilities	-1.44%	0.26%	-0.79%	-0.79%	4.88%	50 bps	72 bps	245 bps	245 bps	749 bps
Sterling Corporate Securities Index	0.05%	0.98%	-0.69%	-0.69%	6.57%	40 bps	60 bps	161 bps	161 bps	639 bps
Sterling Healthcare	-0.21%	0.94%	-2.63%	-2.63%	4.57%	35 bps	48 bps	36 bps	36 bps	514 bps
EMU Corp	-0.01%	0.54%	-0.27%	-0.27%	7.09%	43 bps	54 bps	145 bps	145 bps	470 bps
Euro Healthcare	-0.17%	0.55%	-0.95%	-0.95%	5.99%	39 bps	57 bps	108 bps	108 bps	371 bps

Source: ICE Data Indices, LLC

BofA GLOBAL RESEARCH

Exhibit 2: Healthcare Index Statistics

IG Healthcare OAS was +79 bps versus the US Corp index at +94 bps.

	Rating	# of Issues	% of Index	Avg Issue Size	Yield to Worst	OAS	Effective Duration	Spread Duration
US Corp Master	A3	10309	100.00%	797	5.48%	94 bps	6.6	6.6
Healthcare Index	A3	881	9.59%	894	5.28%	79 bps	8.3	8.2
Pharmaceuticals	A2	328	4.83%	1210	5.19%	71 bps	8.2	8.2
Medical Products	BBB1	121	1.06%	717	5.21%	76 bps	7.1	7.1
Managed Care	A3	152	1.69%	913	5.33%	85 bps	8.5	8.4
Healthcare Services	BBB2	71	0.88%	1018	5.44%	94 bps	6.9	6.9
Healthcare Facilities	A3	209	1.13%	445	5.48%	96 bps	10.4	10.3
Sterling Corporate Securities Index	A3	967	100.00%	404	5.47%	111 bps	6.3	6.3
Sterling Healthcare	A2	15	2.03%	528	4.83%	57 bps	8.2	8.1
EMU Corp	A3	4226	100.00%	689	3.85%	110 bps	4.5	4.6
Euro Healthcare	A3	210	5.21%	722	3.56%	94 bps	5.4	5.5

Source: ICE Data Indices, LLC

BofA GLOBAL RESEARCH

M&A YTD

Exhibit 3: 2024 Mergers and Acquisitions

\$30.7 bn of M&A has been announced YTD

Announce Date	Acquirer	Target	Total Value	Close
1/8/2024	Johnson & Johnson	Ambrx Biopharma, Inc.	\$1,900	3/07/2024
1/8/2024	Merck	Harpoon Therapeutics	\$680	3/11/2024
1/8/2024	Boston Scientific	Axonics, Inc.	\$3,700	1H'24
1/9/2024	GSK plc	Aiolos Bio, Inc.	\$1,000	2/15/2024
1/22/2024	Sandoz	Coherus BioSciences	\$170	3/04/2024
1/23/2024	Sanofi	Inhibrx, Inc.	\$1,700	2Q'24
1/31/2024	Cardinal Health	Specialty Networks	\$1,200	
2/5/2024	Novo Nordisk	Catalent Fill Finish Sites	\$11,000	Year-end 2024
2/5/2024	Merck	Aqua Business of Elanco Animal Health Inc.	\$1,300	Mid-year 2024
2/5/2024	Novartis	MorphoSys AG	\$2,900	1H'24
2/12/2024	Gilead	CymaBay Therapeutics	\$4,300	1Q'24
3/14/2024	AstraZeneca	Amolyt Pharma	\$800	3Q'24
Total			\$30,650	

Source: Bloomberg, company reports

BofA GLOBAL RESEARCH

Issuance YTD

Exhibit 4: 2024 IG Healthcare New Issuance

\$65.1 bn of new issuance has been announced YTD

Issue Date	Ticker	Company	Coupon	Maturity	Issue Spread	Amount USD (mm)
2/5/2024	BDX	Becton Dickinson	4.874	2/8/2029	75	\$625
2/5/2024	BDX	Becton Dickinson	3.519	2/8/2031		\$817
2/5/2024	BDX	Becton Dickinson	5.110	2/8/2034	95	\$550
2/5/2024	CI	Cigna	5.000	5/15/2029	90	\$1,000
2/5/2024	CI	Cigna	5.125	5/15/2031	100	\$750
2/5/2024	CI	Cigna	5.250	2/15/2034	110	\$1,250
2/5/2024	CI	Cigna	5.600	2/15/2054	125	\$1,500
2/5/2024	COR	Cencora	5.125	2/15/2034	98	\$500
2/7/2024	LLY	Eli Lilly	4.500	2/9/2027	30	\$1,000
2/7/2024	LLY	Eli Lilly	4.500	2/9/2029	45	\$1,000
2/7/2024	LLY	Eli Lilly	4.700	2/9/2034	60	\$1,500
2/7/2024	LLY	Eli Lilly	5.000	2/9/2054	70	\$1,500
2/7/2024	LLY	Eli Lilly	5.100	2/9/2064	77	\$1,500
2/14/2024	BMJ	Bristol Myers	FRN	2/20/2026		\$500
2/14/2024	BMJ	Bristol Myers	4.950	2/20/2026	40	\$1,000
2/14/2024	BMJ	Bristol Myers	4.900	2/22/2027	55	\$1,000
2/14/2024	BMJ	Bristol Myers	4.900	2/22/2029	70	\$1,750
2/14/2024	BMJ	Bristol Myers	5.100	2/22/2031	85	\$1,250
2/14/2024	BMJ	Bristol Myers	5.200	2/22/2034	95	\$2,500
2/14/2024	BMJ	Bristol Myers	5.500	2/22/2044	100	\$500
2/14/2024	BMJ	Bristol Myers	5.550	2/22/2054	115	\$2,750
2/14/2024	BMJ	Bristol Myers	5.650	2/22/2064	125	\$1,750
2/14/2024	CAH	Cardinal Health	5.125	2/15/2029	90	\$650
2/14/2024	CAH	Cardinal Health	5.450	2/15/2034	120	\$500
2/21/2024	AZN	AstraZeneca	4.800	2/26/2027	42	\$1,250
2/21/2024	AZN	AstraZeneca	4.850	2/26/2029	57	\$1,250
2/21/2024	AZN	AstraZeneca	4.900	2/26/2031	62	\$1,000
2/21/2024	AZN	AstraZeneca	5.000	2/26/2034	72	\$1,500
2/22/2024	BSX	Boston Scientific	3.375	3/8/2029		\$817
2/22/2024	BSX	Boston Scientific	3.500	3/8/2032		\$1,361
2/22/2024	ABBV	AbbVie	4.800	3/15/2027	35	\$2,250
2/22/2024	ABBV	AbbVie	4.800	3/15/2029	50	\$2,500
2/22/2024	ABBV	AbbVie	4.950	3/15/2031	60	\$2,000
2/22/2024	ABBV	AbbVie	5.050	3/15/2034	75	\$3,000
2/22/2024	ABBV	AbbVie	5.350	3/15/2044	75	\$750
2/22/2024	ABBV	AbbVie	5.400	3/15/2054	95	\$3,000
2/22/2024	ABBV	AbbVie	5.500	3/15/2064	105	\$1,500
2/23/2024	SOLV	Solventum	5.450	2/25/2027	100	\$1,000



Exhibit 4: 2024 IG Healthcare New Issuance

\$65.1 bn of new issuance has been announced YTD

Issue Date	Ticker	Company	Coupon	Maturity	Issue Spread	Amount USD (mm)
2/23/2024	SOLV	Solventum	5.400	3/1/2029	115	\$1,500
2/23/2024	SOLV	Solventum	5.450	3/13/2031	120	\$1,000
2/23/2024	SOLV	Solventum	5.600	3/23/2034	135	\$1,650
2/23/2024	SOLV	Solventum	5.900	4/30/2054	155	\$1,250
2/23/2024	SOLV	Solventum	6.000	5/15/2064	165	\$500
2/27/2024	TMO	Thermo Fisher	1.653	3/7/2028		\$374
2/27/2024	TMO	Thermo Fisher	1.840	3/8/2032		\$470
2/27/2024	TMO	Thermo Fisher	2.038	3/7/2036		\$368
3/4/2024	ROSW	Roche	4.790	3/8/2029	58	\$875
3/4/2024	ROSW	Roche	4.909	3/8/2031	68	\$750
3/4/2024	ROSW	Roche	4.985	3/8/2034	77	\$1,250
3/4/2024	ROSW	Roche	5.218	3/8/2054	87	\$1,000
3/11/2024	HUM	Humana	5.375	4/15/2031	127	\$1,250
3/11/2024	HUM	Humana	5.750	4/15/2054	147	\$1,000
3/13/2024	SNN	Smith & Nephew	5.150	3/20/2027	80	\$350
3/13/2024	SNN	Smith & Nephew	5.400	3/20/2034	125	\$650

Source: Bloomberg, company reports

BofA GLOBAL RESEARCH

2024 Debt Maturities

Exhibit 5: 2024 Maturities

\$53.0 bn of bonds mature in 2024

Company	Coupon	Maturity	Amount Outstanding USD
Danaher Corp	1.700%	3/30/2024	\$980
Gilead Sciences Inc	3.700%	4/1/2024	\$1,750
Quest Diagnostics Inc	4.250%	4/1/2024	\$300
Sanofi SA	0.625%	4/5/2024	\$653
Novartis AG	3.400%	5/6/2024	\$2,150
AstraZeneca PLC	0.750%	5/12/2024	\$980
Bristol-Myers Squibb Co	3.625%	5/15/2024	\$395
Pfizer Inc	3.400%	5/15/2024	\$1,000
UnitedHealth Group Inc	0.550%	5/15/2024	\$1,000
Baxter International Inc	0.400%	5/15/2024	\$817
Becton Dickinson & Co	3.875%	5/15/2024	\$144
Stryker Corp	3.375%	5/15/2024	\$600
Cencora Inc	3.400%	5/15/2024	\$500
AbbVie Inc	1.375%	5/17/2024	\$1,579
Johnson & Johnson	0.650%	5/20/2024	\$817
Amgen Inc	3.625%	5/22/2024	\$1,400
Eli Lilly & Co	0.150%	5/24/2024	\$679
AstraZeneca PLC	0.700%	5/28/2024	\$1,600
AbbVie Inc	1.250%	6/1/2024	\$762
GSK PLC	3.000%	6/1/2024	\$1,000
Becton Dickinson & Co	3.363%	6/6/2024	\$998
AbbVie Inc	3.850%	6/15/2024	\$1,037
Cigna Group	3.500%	6/15/2024	\$828
Cardinal Health Inc	3.079%	6/15/2024	\$750
Viatis Inc	1.023%	6/23/2024	\$817
Bristol-Myers Squibb Co	2.900%	7/26/2024	\$2,478
CVS Health Corp	3.375%	8/12/2024	\$650
CVS Health Corp	2.625%	8/15/2024	\$1,000
Elevance Health Inc	3.500%	8/15/2024	\$800
UnitedHealth Group Inc	2.375%	8/15/2024	\$750
Laboratory Corp of America	3.250%	9/1/2024	\$600
Thermo Fisher Scientific Inc	0.750%	9/12/2024	\$1,089
Roche Holding AG	0.100%	9/23/2024	\$849
Roche Holding AG	3.350%	9/30/2024	\$589
Humana Inc	3.850%	10/1/2024	\$600
UnitedHealth Group Inc	5.000%	10/15/2024	\$500

Exhibit 5: 2024 Maturities

\$53.0 bn of bonds mature in 2024

Company	Coupon	Maturity	Amount Outstanding USD
Thermo Fisher Scientific Inc	1.215%	10/18/2024	\$2,500
Merck & Co Inc	0.500%	11/2/2024	\$545
Johnson & Johnson	5.500%	11/6/2024	\$638
CVS Health Corp	3.500%	11/15/2024	\$750
Danaher Corp	2.200%	11/15/2024	\$700
Cardinal Health Inc	3.500%	11/15/2024	\$400
GE HealthCare Technologies Inc	5.550%	11/15/2024	\$1,000
Stryker Corp	FRN	11/16/2024	\$545
Abbott Laboratories	0.100%	11/19/2024	\$643
AbbVie Inc	2.600%	11/21/2024	\$3,750
Viatis Inc	2.250%	11/22/2024	\$1,089
Zimmer Biomet Holdings Inc	1.450%	11/22/2024	\$850
Baxter International Inc	1.322%	11/29/2024	\$1,400
Baxter International Inc	FRN	11/29/2024	\$300
CVS Health Corp	5.000%	12/1/2024	\$300
Elevance Health Inc	3.350%	12/1/2024	\$850
Laboratory Corp of America	2.300%	12/1/2024	\$400
GSK PLC	1.375%	12/2/2024	\$1,089
Stryker Corp	0.250%	12/3/2024	\$926
Becton Dickinson & Co	3.734%	12/15/2024	\$875
Total			\$52,989

Source: Bloomberg, company reports

BofA GLOBAL RESEARCH



Exhibit 6: BofA Global Research Investment Grade Pharmaceuticals Pricing Sheet

Pharmaceuticals Pricing Sheet

Description	Amt	Price	Moody's/S&P/Fitch	Duration	Price	Yield	Bid Spread	Z Spread	OAS	G Spread
AbbVie Inc.										
ABBV 4.8 29	\$2,500	99.78	A3/A-	4.38	\$99.78	4.849%	57 bps	79 bps	55 bps	56 bps
ABBV 5.05 34	\$3,000	100.38	A3/A-	7.60	\$100.38	5.000%	72 bps	107 bps	70 bps	72 bps
ABBV 5.4 54	\$3,000	101.50	A3/A-	14.73	\$101.50	5.298%	88 bps	156 bps	87 bps	88 bps
Amgen Inc.										
AMGN 4.05 29	\$1,250	95.60	Baa1/BBB+/BBB	4.77	\$95.60	4.986%	70 bps	95 bps	69 bps	70 bps
AMGN 5.25 33	\$4,250	100.13	Baa1/BBB+/BBB	7.06	\$100.13	5.232%	95 bps	130 bps	92 bps	95 bps
AMGN 5.65 53	\$4,250	101.20	Baa1/BBB+/BBB	14.12	\$101.20	5.565%	115 bps	181 bps	112 bps	113 bps
AstraZeneca										
AZN 4.85 29	\$1,250	99.93	A2/A/A-u	4.33	\$99.93	4.865%	58 bps	79 bps	55 bps	58 bps
AZN 5 34	\$1,500	100.19	A2/A/A-u	7.74	\$100.19	4.975%	70 bps	105 bps	67 bps	70 bps
AZN 3 51	\$750	68.75	A2/A/A-u	16.16	\$68.75	5.148%	73 bps	141 bps	70 bps	70 bps
Biogen Inc.										
BIIB 2.25 30	\$1,500	84.82	Baa2/BBB+	5.51	\$84.82	5.178%	89 bps	119 bps	90 bps	89 bps
BIIB 3.25 51	\$701	67.75	Baa2/BBB+	15.51	\$67.75	5.579%	117 bps	183 bps	112 bps	113 bps
Bristol Myers										
BMJ 4.9 29	\$1,750	100.14	A2/A	4.32	\$100.14	4.866%	58 bps	79 bps	55 bps	58 bps
BMJ 5.2 34	\$2,500	100.89	A2/A	7.51	\$100.89	5.082%	80 bps	115 bps	78 bps	80 bps
BMJ 5.55 54	\$2,750	102.00	A2/A	14.51	\$102.00	5.413%	100 bps	167 bps	98 bps	99 bps
Gilead Sciences Inc.										
GILD 1.65 30	\$1,000	81.49	A3/BBB+	5.97	\$81.49	5.007%	72 bps	104 bps	73 bps	72 bps
GILD 5.25 33	\$1,000	101.38	A3/BBB+	7.13	\$101.38	5.063%	79 bps	113 bps	76 bps	78 bps
GILD 5.55 53	\$1,000	102.38	A3/BBB+	14.13	\$102.38	5.387%	97 bps	164 bps	95 bps	96 bps
GSK PLC										
GSK 3.375 29	\$1,000	93.97	A2/A	4.64	\$93.97	4.695%	41 bps	65 bps	40 bps	41 bps
GSK 4.2 43	\$500	87.81	A2/A	12.51	\$87.81	5.219%	70 bps	134 bps	72 bps	72 bps
Johnson & Johnson										
JNJ 1.3 30	\$1,750	82.23	Aaa/AAA	6.04	\$82.23	4.506%	22 bps	54 bps	23 bps	22 bps
JNJ 3.55 36	\$1,000	88.19	Aaa/AAA	9.43	\$88.19	4.865%	59 bps	96 bps	52 bps	54 bps
JNJ 2.25 50	\$1,000	61.38	Aaa/AAA	17.48	\$61.38	4.860%	45 bps	113 bps	40 bps	41 bps
Eli Lilly										
LLY 4.5 29	\$1,000	99.44	A1/A+	4.32	\$99.44	4.628%	34 bps	55 bps	31 bps	34 bps
LLY 4.7 34	\$1,500	98.70	A1/A+	7.78	\$98.70	4.867%	59 bps	94 bps	56 bps	59 bps
LLY 5 54	\$1,500	98.06	A1/A+	15.20	\$98.06	5.127%	71 bps	140 bps	69 bps	71 bps
Merck										
MRK 4.3 30	\$750	96.98	A1/A+	5.26	\$96.98	4.873%	59 bps	88 bps	57 bps	58 bps
MRK 4.5 33	\$1,500	97.44	A1/A+	7.29	\$97.44	4.849%	57 bps	92 bps	54 bps	57 bps
MRK 5 53	\$1,500	96.75	A1/A+	14.77	\$96.75	5.218%	80 bps	148 bps	78 bps	79 bps
Merck KGaA										
MRKGR 3.25 25	\$1,600	97.93	A3/A	0.97	\$97.93	5.404%	71 bps	33 bps	49 bps	39 bps
Novartis										
NOVNVX 2.2 30	\$1,500	86.27	Aa3/AA-/AA-u	5.82	\$86.27	4.708%	42 bps	74 bps	42 bps	42 bps
NOVNVX 2.75 50	\$1,250	66.75	Aa3/AA-/AA-u	16.50	\$66.75	5.042%	63 bps	130 bps	58 bps	59 bps
Pfizer										
PFE 4.45 28	\$4,000	98.35	A2/A/Au	3.70	\$98.35	4.890%	61 bps	75 bps	52 bps	54 bps
PFE 4.75 33	\$5,000	97.61	A2/A/Au	7.21	\$97.61	5.078%	80 bps	115 bps	77 bps	80 bps
PFE 5.3 53	\$6,000	98.28	A2/A/Au	14.38	\$98.28	5.418%	100 bps	168 bps	98 bps	99 bps
Roche Holdings										
ROSW 4.79 29	\$875	99.62	Aa2/AA/AA	4.37	\$99.62	4.877%	59 bps	81 bps	57 bps	59 bps
ROSW 4.985 34	\$1,250	99.86	Aa2/AA/AA	7.77	\$99.86	5.002%	72 bps	108 bps	70 bps	72 bps
ROSW 5.218 54	\$1,000	99.92	Aa2/AA/AA	15.04	\$99.92	5.223%	81 bps	150 bps	79 bps	81 bps
Royalty Pharma										
RPRX 2.2 30	\$997	82.64	Baa3/BBB-/BBB-	5.83	\$82.64	5.424%	114 bps	145 bps	114 bps	113 bps
RPRX 2.15 31	\$600	79.94	Baa3/BBB-/BBB-	6.66	\$79.94	5.463%	119 bps	152 bps	118 bps	117 bps
RPRX 3.35 51	\$700	65.06	Baa3/BBB-/BBB-	15.19	\$65.06	5.948%	153 bps	220 bps	150 bps	150 bps
Viatis										
VTRS 2.7 30	\$1,450	84.09	Baa3/BBB-/BBB	5.54	\$84.09	5.764%	148 bps	178 bps	148 bps	147 bps
VTRS 4 50	\$2,000	68.35	Baa3/BBB-/BBB	13.64	\$68.35	6.537%	212 bps	276 bps	208 bps	208 bps
Zoetis Inc										
ZTS 5.6 32	\$750	103.19	Baa1/BBB	6.56	\$103.19	5.128%	85 bps	118 bps	81 bps	84 bps
ZTS 3 50	\$500	68.06	Baa1/BBB	15.73	\$68.06	5.262%	85 bps	151 bps	80 bps	80 bps

Source: Company reports, Bloomberg. U refers to an unsolicited rating by Fitch.



Exhibit 7: BofA Global Research Investment Grade Clinical Lab Pricing Sheet

Clinical Lab Pricing Sheet

Description	Amt.	Price	Moody's/S&P/Fitch	Duration	Price	Yield	Bid Spread	Z Spread	OAS	G Spread
Laboratory Corp										
LH 2.95 29	\$650	89.04	Baa2/BBB	5.08	\$89.04	5.196%	91 bps	119 bps	91 bps	91 bps
LH 2.7 31	\$500	85.19	Baa2/BBB	6.30	\$85.19	5.191%	91 bps	124 bps	90 bps	90 bps
LH 4.7 45	\$900	89.20	Baa2/BBB	12.60	\$89.20	5.582%	106 bps	172 bps	106 bps	107 bps
Quest Diagnostics										
DGX 4.2 29	\$500	96.36	Baa2/BBB+/BBB	4.62	\$96.36	4.991%	71 bps	95 bps	68 bps	71 bps
DGX 6.4 33	\$750	107.14	Baa2/BBB+/BBB	6.97	\$107.14	5.423%	115 bps	149 bps	112 bps	114 bps
DGX 4.7 45	\$300	89.09	Baa2/BBB+/BBB	12.43	\$89.09	5.589%	107 bps	173 bps	107 bps	108 bps

Source: Company reports, Bloomberg.

BofA GLOBAL RESEARCH

Exhibit 8: BofA Global Research Investment Grade Managed Care Pricing Sheet

Managed Care Pricing Sheet

Description	Amt.	Price	Moody's/S&P/Fitch	Duration	Price	Yield	Bid Spread	Z Spread	OAS	G Spread
Cigna										
CI 5 29	\$1,000	99.51	Baa1/A-/BBB+	4.47	\$99.51	5.111%	83 bps	106 bps	81 bps	83 bps
CI 5.25 34	\$1,250	99.13	Baa1/A-/BBB+	7.59	\$99.13	5.364%	109 bps	144 bps	106 bps	109 bps
CI 5.6 54	\$1,500	99.19	Baa1/A-/BBB+	14.29	\$99.19	5.656%	124 bps	192 bps	122 bps	124 bps
CVS										
CVS 5 29	\$1,000	99.51	Baa2/BBB	4.24	\$99.51	5.113%	83 bps	104 bps	80 bps	82 bps
CVS 5.25 33	\$1,750	99.13	Baa2/BBB	7.01	\$99.13	5.374%	110 bps	144 bps	106 bps	109 bps
CVS 5.625 53	\$1,250	96.63	Baa2/BBB	13.90	\$96.63	5.868%	145 bps	211 bps	143 bps	144 bps
Elevance Health										
ELV 2.875 29	\$825	89.80	Baa2/A/BBB+	4.96	\$89.80	5.024%	74 bps	100 bps	74 bps	74 bps
ELV 4.75 33	\$1,000	96.69	Baa2/A/BBB+	7.11	\$96.69	5.219%	94 bps	129 bps	91 bps	94 bps
ELV 5.125 53	\$1,100	94.63	Baa2/A/BBB+	14.53	\$94.63	5.498%	108 bps	175 bps	106 bps	107 bps
Humana										
HUM 5.75 28	\$500	102.12	Baa2/BBB/BBB	3.94	\$102.12	5.225%	94 bps	112 bps	89 bps	91 bps
HUM 5.95 34	\$850	102.95	Baa2/BBB/BBB	7.36	\$102.95	5.555%	128 bps	162 bps	125 bps	128 bps
HUM 5.75 54	\$1,000	99.19	Baa2/BBB/BBB	14.16	\$99.19	5.807%	139 bps	207 bps	138 bps	139 bps
UnitedHealth										
UNH 4.25 29	\$1,250	97.87	A2/A+/A	4.27	\$97.87	4.748%	46 bps	67 bps	43 bps	45 bps
UNH 4.5 33	\$1,500	96.11	A2/A+/A	7.18	\$96.11	5.039%	76 bps	111 bps	73 bps	76 bps
UNH 5.05 53	\$2,000	95.84	A2/A+/A	14.53	\$95.84	5.333%	92 bps	160 bps	89 bps	91 bps

Source: Company reports, Bloomberg.

BofA GLOBAL RESEARCH

Exhibit 9: BofA Global Research Investment Grade Medical Products Pricing Sheet

Medical Products Pricing Sheet

Description	Amt.	Price	Moody's/S&P/Fitch	Duration	Price	Yield	Bid Spread	Z Spread	OAS	G Spread
Abbott Labs										
ABT 1.4 30	\$650	82.51	Aa3/AA-	5.85	\$82.51	4.642%	34 bps	67 bps	36 bps	35 bps
ABT 4.75 36	\$1,650	98.38	Aa3/AA-	9.28	\$98.38	4.923%	65 bps	101 bps	55 bps	58 bps
ABT 4.9 46	\$3,250	96.81	Aa3/AA-	13.24	\$96.81	5.139%	62 bps	131 bps	63 bps	65 bps
Agilent Technologies										
A 2.75 29	\$500	89.44	Baa1/BBB+/BBB+	4.98	\$89.44	4.973%	69 bps	95 bps	69 bps	69 bps
A 2.3 31	\$850	83.59	Baa1/BBB+/BBB+	6.27	\$83.59	5.127%	85 bps	117 bps	84 bps	83 bps
Alcon										
ALCSW 2.6 30	\$750	85.77	Baa2/BBB+	5.51	\$85.77	5.329%	104 bps	135 bps	105 bps	104 bps
ALCSW 5.375 32	\$700	100.32	Baa2/BBB+	6.63	\$100.32	5.327%	105 bps	138 bps	101 bps	104 bps
ALCSW 5.75 52	\$600	101.92	Baa2/BBB+	13.79	\$101.92	5.613%	120 bps	185 bps	117 bps	118 bps
Baxter										
BAX 2.272 28	\$1,249	87.82	Baa2/BBB/BBB-	4.32	\$87.82	5.227%	94 bps	115 bps	93 bps	92 bps
BAX 2.539 32	\$1,540	82.25	Baa2/BBB/BBB-	6.88	\$82.25	5.330%	105 bps	139 bps	104 bps	104 bps
BAX 3.132 51	\$750	64.88	Baa2/BBB/BBB-	15.60	\$64.88	5.657%	124 bps	192 bps	121 bps	122 bps
Becton Dickinson										
BDX 4.874 29	\$625	98.85	Baa2/BBB/BBB	4.27	\$98.85	5.142%	86 bps	107 bps	83 bps	85 bps
BDX 5.11 34	\$550	98.56	Baa2/BBB/BBB	7.62	\$98.56	5.298%	102 bps	137 bps	99 bps	102 bps
BDX 3.794 50	\$560	76.94	Baa2/BBB/BBB	14.73	\$76.94	5.460%	105 bps	169 bps	100 bps	100 bps
Boston Scientific										
BSX 2.65 30	\$1,200	87.80	Baa1/BBB+/BBB+	5.53	\$87.80	4.960%	68 bps	98 bps	67 bps	67 bps
BSX 4.55 39	\$450	93.00	Baa1/BBB+/BBB+	10.54	\$93.00	5.230%	95 bps	132 bps	81 bps	83 bps
BSX 4.7 49	\$650	91.56	Baa1/BBB+/BBB+	14.06	\$91.56	5.314%	90 bps	151 bps	83 bps	84 bps
Danaher										
DHR 2.6 29	\$800	89.15	A3/A-	5.10	\$89.15	4.813%	53 bps	80 bps	53 bps	53 bps
DHR 3.25 39	\$900	79.31	A3/A-	11.44	\$79.31	5.197%	92 bps	129 bps	77 bps	78 bps
DHR 2.8 51	\$1,000	64.63	A3/A-	16.50	\$64.63	5.231%	82 bps	151 bps	79 bps	79 bps
Medtronic										
MDT 4.25 28	\$1,000	97.71	A3/A	3.58	\$97.71	4.882%	60 bps	73 bps	50 bps	52 bps
MDT 4.5 33	\$1,000	96.44	A3/A	7.15	\$96.44	4.995%	72 bps	107 bps	69 bps	71 bps
MDT 4.625 45	\$1,813	92.81	A3/A	13.00	\$92.81	5.191%	67 bps	133 bps	68 bps	68 bps
Stryker										
SYK 4.85 28	\$600	99.65	Baa1/BBB+	4.12	\$99.65	4.931%	65 bps	84 bps	60 bps	63 bps
SYK 2.9 50	\$650	67.94	Baa1/BBB+	16.05	\$67.94	5.139%	72 bps	139 bps	67 bps	68 bps
Thermo Fisher Scientific										
TMO 5 29	\$1,000	100.76	A3/A-/A-	4.16	\$100.76	4.816%	53 bps	73 bps	50 bps	52 bps
TMO 5.2 34	\$500	101.31	A3/A-/A-	7.41	\$101.31	5.024%	75 bps	109 bps	72 bps	74 bps
TMO 4.1 47	\$750	84.00	A3/A-/A-	14.01	\$84.00	5.301%	78 bps	148 bps	80 bps	81 bps
Zimmer Holdings										
ZBH 5.35 28	\$500	101.05	Baa2/BBB/BBB	3.99	\$101.05	5.091%	81 bps	99 bps	76 bps	78 bps
ZBH 2.6 31	\$750	83.78	Baa2/BBB/BBB	6.69	\$83.78	5.186%	91 bps	125 bps	90 bps	90 bps
ZBH 4.45 45	\$395	88.68	Baa2/BBB/BBB	13.10	\$88.68	5.344%	82 bps	149 bps	82 bps	84 bps

Source: Company reports, Bloomberg.

BofA GLOBAL RESEARCH

Exhibit 10: BofA Global Research Investment Grade Distributors Pricing Sheet

Distributors Pricing Sheet

Description	Amt.	Price	Moody's/S&P/Fitch	Duration	Price	Yield	Bid Spread	Z Spread	OAS	G Spread
Cencora										
COR 2.7 31	\$1,000	85.24	Baa2/BBB+/A-	6.19	\$85.24	5.251%	97 bps	130 bps	96 bps	96 bps
COR 5.125 34	\$500	99.37	Baa2/BBB+/A-	7.64	\$99.37	5.206%	93 bps	128 bps	90 bps	93 bps
COR 4.3 47	\$500	85.86	Baa2/BBB+/A-	13.81	\$85.86	5.359%	84 bps	155 bps	86 bps	88 bps
Cardinal Health										
CAH 5.125 29	\$650	99.81	Baa2/BBB/BBB	4.27	\$99.81	5.168%	88 bps	109 bps	85 bps	88 bps
CAH 5.45 34	\$500	101.79	Baa2/BBB/BBB	7.43	\$101.79	5.212%	93 bps	128 bps	91 bps	93 bps
CAH 4.368 47	\$566	83.49	Baa2/BBB/BBB	13.39	\$83.49	5.653%	113 bps	183 bps	116 bps	116 bps
McKesson										
MCK 4.9 28	\$400	100.14	Baa1/BBB+/A-	3.82	\$100.14	4.863%	58 bps	74 bps	50 bps	52 bps
MCK 5.1 33	\$600	100.00	Baa1/BBB+/A-	7.28	\$100.00	5.099%	82 bps	117 bps	79 bps	82 bps
MCK 4.883 44	\$255	88.76	Baa1/BBB+/A-	12.15	\$88.76	5.843%	132 bps	196 bps	132 bps	132 bps

Source: Company reports, Bloomberg.

BofA GLOBAL RESEARCH

Disclosures

Important Disclosures

BofA Global Research Credit Opinion Key

BofA Global Research provides recommendations on an issuer's bonds (including corporate and sovereign external debt securities), loans, capital securities, equity preferreds and CDS as described below. Convertible securities are not rated. An issuer level recommendation may also be provided for an issuer as explained below. BofA Global Research credit recommendations are assigned using a three-month time horizon.

Issuer Recommendations: If an issuer credit recommendation is provided, it is applicable to bonds and capital securities of the issuer except bonds and capital securities specifically referenced in the report with a different credit recommendation. Where there is no issuer credit recommendation, only individual bonds and capital securities with specific recommendations are covered. Loans, CDS and equity preferreds are rated separately and issuer recommendations do not apply to them.

BofA Global Research credit recommendations are assigned using a three-month time horizon:

Overweight: Spreads and /or excess returns are likely to outperform the relevant and comparable market over the next three months.

Marketweight: Spreads and/or excess returns are likely to perform in-line with the relevant and comparable market over the next three months.

Underweight: Spreads and/or excess returns are likely to underperform the relevant and comparable market over the next three months.

BofA Global Research uses the following rating system with respect to **Credit Default Swaps (CDS)**:

Buy Protection: Buy CDS, therefore going short credit risk.

Neutral: No purchase or sale of CDS is recommended.

Sell Protection: Sell CDS, therefore going long credit risk.

BofA Global Research personnel (including the analyst(s) responsible for this report) receive compensation based upon, among other factors, the overall profitability of Bank of America Corporation, including profits derived from investment banking. The analyst(s) responsible for this report may also receive compensation based upon, among other factors, the overall profitability of the Bank's sales and trading businesses relating to the class of securities or financial instruments for which such analyst is responsible.

BofA Securities fixed income analysts regularly interact with sales and trading desk personnel in connection with their research, including to ascertain pricing and liquidity in the fixed income markets.

Other Important Disclosures

From time to time research analysts conduct site visits of covered issuers. BofA Global Research policies prohibit research analysts from accepting payment or reimbursement for travel expenses from the issuer for such visits.

Prices are indicative and for information purposes only. Except as otherwise stated in the report, for any recommendation in relation to an equity security, the price referenced is the publicly traded price of the security as of close of business on the day prior to the date of the report or, if the report is published during intraday trading, the price referenced is indicative of the traded price as of the date and time of the report and in relation to a debt security (including equity preferred and CDS), prices are indicative as of the date and time of the report and are from various sources including BofA Securities trading desks.

The date and time of completion of the production of any recommendation in this report shall be the date and time of dissemination of this report as recorded in the report timestamp.

This report may refer to fixed income securities or other financial instruments that may not be offered or sold in one or more states or jurisdictions, or to certain categories of investors, including retail investors. Readers of this report are advised that any discussion, recommendation or other mention of such instruments is not a solicitation or offer to transact in such instruments. Investors should contact their BofA Securities representative or Merrill Global Wealth Management financial advisor for information relating to such instruments.

Rule 144A securities may be offered or sold only to persons in the U.S. who are Qualified Institutional Buyers within the meaning of Rule 144A under the Securities Act of 1933, as amended. SECURITIES OR OTHER FINANCIAL INSTRUMENTS DISCUSSED HEREIN MAY BE RATED BELOW INVESTMENT GRADE AND SHOULD THEREFORE ONLY BE CONSIDERED FOR INCLUSION IN ACCOUNTS QUALIFIED FOR SPECULATIVE INVESTMENT.

Recipients who are not institutional investors or market professionals should seek the advice of their independent financial advisor before considering information in this report in connection with any investment decision, or for a necessary explanation of its contents.

The securities or other financial instruments discussed in this report may be traded over-the-counter. Retail sales and/or distribution of this report may be made only in states where these instruments are exempt from registration or have been qualified for sale.

Officers of BofAS or one or more of its affiliates (other than research analysts) may have a financial interest in securities of the issuer(s) or in related investments.

This report, and the securities or other financial instruments discussed herein, may not be eligible for distribution or sale in all countries or to certain categories of investors, including retail investors.

Information relating to Affiliates of BofAS, MLPF&S and Distribution of Affiliate Research Reports:

Refer to [BofA Global Research policies relating to conflicts of interest](#).

"BofA Securities" includes BofA Securities, Inc. ("BofAS") and its affiliates. Investors should contact their BofA Securities representative or Merrill Global Wealth Management financial advisor if they have questions concerning this report or concerning the appropriateness of any investment idea described herein for such investor. "BofA Securities" is a global brand for BofA Global Research.

BofAS and/or Merrill Lynch, Pierce, Fenner & Smith Incorporated ("MLPF&S") may in the future distribute, information of the following non-US affiliates in the US (short name: legal name, regulator): Merrill Lynch (South Africa): Merrill Lynch South Africa (Pty) Ltd., regulated by The Financial Service Board; MLI (UK): Merrill Lynch International, regulated by the Financial Conduct Authority (FCA) and the Prudential Regulation Authority (PRA); BofASE (France): BofA Securities Europe SA is authorized by the Autorité de Contrôle Prudentiel et de Résolution (ACPR) and regulated by the ACPR and the Autorité des Marchés Financiers (AMF). BofA Securities Europe SA ("BofASE") with registered address at 51, rue La Boétie, 75008 Paris is registered under no 842 602 690 RCS Paris. In accordance with the provisions of French Code Monétaire et Financier (Monetary and Financial Code), BofASE is an établissement de crédit et d'investissement (credit and investment institution) that is authorised and supervised by the European Central Bank and the Autorité de Contrôle Prudentiel et de Résolution (ACPR) and regulated by the ACPR and the Autorité des Marchés Financiers. BofASE's share capital can be found at www.bofam.com/BofASEdisclaimer; BofA Europe (Milan): Bank of America Europe Designated Activity Company, Milan Branch, regulated by the Bank of Italy, the European Central Bank (ECB) and the Central Bank of Ireland (CBI); BofA Europe (Frankfurt): Bank of America Europe Designated Activity Company, Frankfurt Branch regulated by BaFin, the ECB and the CBI; BofA Europe (Madrid): Bank of America Europe Designated Activity Company, Sucursal en España, regulated by the Bank of Spain, the ECB and the CBI; Merrill Lynch (Australia): Merrill Lynch Equities (Australia) Limited, regulated by the Australian Securities and Investments Commission; Merrill Lynch (Hong Kong): Merrill Lynch (Asia Pacific) Limited, regulated by the Hong Kong Securities and Futures Commission (HKSF); Merrill Lynch (Singapore): Merrill Lynch (Singapore) Pte Ltd, regulated by the Monetary Authority of Singapore (MAS); Merrill Lynch (Canada): Merrill Lynch Canada Inc, regulated by the Canadian Investment Regulatory Organization; Merrill Lynch (Mexico): Merrill Lynch Mexico, SA de CV, Casa



de Bolsa, regulated by the Comisión Nacional Bancaria y de Valores; Merrill Lynch (Argentina): Merrill Lynch Argentina SA, regulated by Comisión Nacional de Valores; BofA Japan: BofA Securities Japan Co., Ltd., regulated by the Financial Services Agency; Merrill Lynch (Seoul): Merrill Lynch International, LLC Seoul Branch, regulated by the Financial Supervisory Service; Merrill Lynch (Taiwan): Merrill Lynch Securities (Taiwan) Ltd., regulated by the Securities and Futures Bureau; BofA India: BofA Securities India Limited, regulated by the Securities and Exchange Board of India (SEBI); Merrill Lynch (Israel): Merrill Lynch Israel Limited, regulated by Israel Securities Authority; Merrill Lynch (DIFC): Merrill Lynch International (DIFC Branch), regulated by the Dubai Financial Services Authority (DFSA); Merrill Lynch (Brazil): Merrill Lynch S.A. Corretora de Títulos e Valores Mobiliários, regulated by Comissão de Valores Mobiliários; Merrill Lynch KSA Company: Merrill Lynch Kingdom of Saudi Arabia Company, regulated by the Capital Market Authority.

This information has been approved for publication and is distributed in the United Kingdom (UK) to professional clients and eligible counterparties (as each is defined in the rules of the FCA and the PRA) by MLI (UK), which is authorized by the PRA and regulated by the FCA and the PRA - details about the extent of our regulation by the FCA and PRA are available from us on request; has been approved for publication and is distributed in the European Economic Area (EEA) by BofASE (France), which is authorized by the ACPR and regulated by the ACPR and the AMF; has been considered and distributed in Japan by BofAS Japan, a registered securities dealer under the Financial Instruments and Exchange Act in Japan, or its permitted affiliates; is issued and distributed in Hong Kong by Merrill Lynch (Hong Kong) which is regulated by HKSF; is issued and distributed in Taiwan by Merrill Lynch (Taiwan); is issued and distributed in India by BofAS India; and is issued and distributed in Singapore to institutional investors and/or accredited investors (each as defined under the Financial Advisers Regulations) by Merrill Lynch (Singapore) (Company Registration No 198602883D). Merrill Lynch (Singapore) is regulated by MAS. Merrill Lynch Equities (Australia) Limited (ABN 65 006 276 795), AFS License 235132 (MLEA) distributes this information in Australia only to 'Wholesale' clients as defined by s.761G of the Corporations Act 2001. With the exception of Bank of America N.A., Australia Branch, neither MLEA nor any of its affiliates involved in preparing this information is an Authorised Deposit-Taking Institution under the Banking Act 1959 nor regulated by the Australian Prudential Regulation Authority. No approval is required for publication or distribution of this information in Brazil and its local distribution is by Merrill Lynch (Brazil) in accordance with applicable regulations. Merrill Lynch (DIFC) is authorized and regulated by the DFSA. Information prepared and issued by Merrill Lynch (DIFC) is done so in accordance with the requirements of the DFSA conduct of business rules. BofA Europe (Frankfurt) distributes this information in Germany and is regulated by BaFin, the ECB and the CBL. BofA Securities entities, including BofA Europe and BofASE (France), may outsource/delegate the marketing and/or provision of certain research services or aspects of research services to other branches or members of the BofA Securities group. You may be contacted by a different BofA Securities entity acting for and on behalf of your service provider where permitted by applicable law. This does not change your service provider. Please refer to the [Electronic Communications Disclaimers](#) for further information.

This information has been prepared and issued by BofAS and/or one or more of its non-US affiliates. The author(s) of this information may not be licensed to carry on regulated activities in your jurisdiction and, if not licensed, do not hold themselves out as being able to do so. BofAS and/or MLPF&S is the distributor of this information in the US and accepts full responsibility for information distributed to BofAS and/or MLPF&S clients in the US by its non-US affiliates. Any US person receiving this information and wishing to effect any transaction in any security discussed herein should do so through BofAS and/or MLPF&S and not such foreign affiliates. Hong Kong recipients of this information should contact Merrill Lynch (Asia Pacific) Limited in respect of any matters relating to dealing in securities or provision of specific advice on securities or any other matters arising from, or in connection with, this information. Singapore recipients of this information should contact Merrill Lynch (Singapore) Pte Ltd in respect of any matters arising from, or in connection with, this information. For clients that are not accredited investors, expert investors or institutional investors Merrill Lynch (Singapore) Pte Ltd accepts full responsibility for the contents of this information distributed to such clients in Singapore.

General Investment Related Disclosures:

Taiwan Readers: Neither the information nor any opinion expressed herein constitutes an offer or a solicitation of an offer to transact in any securities or other financial instrument. No part of this report may be used or reproduced or quoted in any manner whatsoever in Taiwan by the press or any other person without the express written consent of BofA Securities.

This document provides general information only, and has been prepared for, and is intended for general distribution to, BofA Securities clients. Neither the information nor any opinion expressed constitutes an offer or an invitation to make an offer, to buy or sell any securities or other financial instrument or any derivative related to such securities or instruments (e.g., options, futures, warrants, and contracts for differences). This document is not intended to provide personal investment advice and it does not take into account the specific investment objectives, financial situation and the particular needs of, and is not directed to, any specific person(s). This document and its content do not constitute, and should not be considered to constitute, investment advice for purposes of ERISA, the US tax code, the Investment Advisers Act or otherwise. Investors should seek financial advice regarding the appropriateness of investing in financial instruments and implementing investment strategies discussed or recommended in this document and should understand that statements regarding future prospects may not be realized. Any decision to purchase or subscribe for securities in any offering must be based solely on existing public information on such security or the information in the prospectus or other offering document issued in connection with such offering, and not on this document.

Securities and other financial instruments referred to herein, or recommended, offered or sold by BofA Securities, are not insured by the Federal Deposit Insurance Corporation and are not deposits or other obligations of any insured depository institution (including, Bank of America, N.A.). Investments in general and, derivatives, in particular, involve numerous risks, including, among others, market risk, counterparty default risk and liquidity risk. No security, financial instrument or derivative is suitable for all investors. Digital assets are extremely speculative, volatile and are largely unregulated. In some cases, securities and other financial instruments may be difficult to value or sell and reliable information about the value or risks related to the security or financial instrument may be difficult to obtain. Investors should note that income from such securities and other financial instruments, if any, may fluctuate and that price or value of such securities and instruments may rise or fall and, in some cases, investors may lose their entire principal investment. Past performance is not necessarily a guide to future performance. Levels and basis for taxation may change.

BofA Securities is aware that the implementation of the ideas expressed in this report may depend upon an investor's ability to "short" securities or other financial instruments and that such action may be limited by regulations prohibiting or restricting "shortselling" in many jurisdictions. Investors are urged to seek advice regarding the applicability of such regulations prior to executing any short idea contained in this report.

This report may contain a trading idea or recommendation which highlights a specific identified near-term catalyst or event impacting a security, issuer, industry sector or the market generally that presents a transaction opportunity, but does not have any impact on the analyst's particular "Overweight" or "Underweight" rating (which is based on a three month trade horizon). Trading ideas and recommendations may differ directionally from the analyst's rating on a security or issuer because they reflect the impact of a near-term catalyst or event.

Foreign currency rates of exchange may adversely affect the value, price or income of any security or financial instrument mentioned in this report. Investors in such securities and instruments effectively assume currency risk.

BofAS or one of its affiliates is a regular issuer of traded financial instruments linked to securities that may have been recommended in this report. BofAS or one of its affiliates may, at any time, hold a trading position (long or short) in the securities and financial instruments discussed in this report.

BofA Securities, through business units other than BofA Global Research, may have issued and may in the future issue trading ideas or recommendations that are inconsistent with, and reach different conclusions from, the information presented herein. Such ideas or recommendations may reflect different time frames, assumptions, views and analytical methods of the persons who prepared them, and BofA Securities is under no obligation to ensure that such other trading ideas or recommendations are brought to the attention of any recipient of this information.

In the event that the recipient received this information pursuant to a contract between the recipient and BofAS for the provision of research services for a separate fee, and in connection therewith BofAS may be deemed to be acting as an investment adviser, such status relates, if at all, solely to the person with whom BofAS has contracted directly and does not extend beyond the delivery of this report (unless otherwise agreed specifically in writing by BofAS). If such recipient uses the services of BofAS in connection with the sale or purchase of a security referred to herein, BofAS may act as principal for its own account or as agent for another person. BofAS is and continues to act solely as a broker-dealer in connection with the execution of any transactions, including transactions in any securities referred to herein.

Copyright and General Information:

Copyright 2024 Bank of America Corporation. All rights reserved. iQdatabase® is a registered service mark of Bank of America Corporation. This information is prepared for the use of BofA Securities clients and may not be redistributed, retransmitted or disclosed, in whole or in part, or in any form or manner, without the express written consent of BofA Securities. BofA Global Research information is distributed simultaneously to internal and client websites and other portals by BofA Securities and is not publicly-available material. Any unauthorized use or disclosure is prohibited. Receipt and review of this information constitutes your agreement not to redistribute, retransmit, or disclose to others the contents, opinions, conclusion, or information contained herein (including any investment recommendations, estimates or price targets) without first obtaining express permission from an authorized officer of BofA Securities.

Materials prepared by BofA Global Research personnel are based on public information. Facts and views presented in this material have not been reviewed by, and may not reflect information known to, professionals in other business areas of BofA Securities, including investment banking personnel. BofA Securities has established information barriers between BofA Global Research and certain business groups. As a result, BofA Securities does not disclose certain client relationships with, or compensation received from, such issuers. To the extent this material discusses any legal proceeding or issues, it has not been prepared as nor is it intended to express any legal conclusion, opinion or advice. Investors should consult their own legal advisers as to issues of law relating to the subject matter of this material. BofA Global Research personnel's knowledge of legal proceedings in which any BofA Securities entity and/or its directors, officers and employees may be plaintiffs, defendants, co-defendants or co-plaintiffs with or involving issuers mentioned in this material is based on public information. Facts and views presented in this

material that relate to any such proceedings have not been reviewed by, discussed with, and may not reflect information known to, professionals in other business areas of BofA Securities in connection with the legal proceedings or matters relevant to such proceedings.

This information has been prepared independently of any issuer of securities mentioned herein and not in connection with any proposed offering of securities or as agent of any issuer of any securities. None of BofAS any of its affiliates or their research analysts has any authority whatsoever to make any representation or warranty on behalf of the issuer(s). BofA Global Research policy prohibits research personnel from disclosing a recommendation, investment rating, or investment thesis for review by an issuer prior to the publication of a research report containing such rating, recommendation or investment thesis.

Any information relating to the tax status of financial instruments discussed herein is not intended to provide tax advice or to be used by anyone to provide tax advice. Investors are urged to seek tax advice based on their particular circumstances from an independent tax professional.

The information herein (other than disclosure information relating to BofA Securities and its affiliates) was obtained from various sources and we do not guarantee its accuracy. This information may contain links to third-party websites. BofA Securities is not responsible for the content of any third-party website or any linked content contained in a third-party website. Content contained on such third-party websites is not part of this information and is not incorporated by reference. The inclusion of a link does not imply any endorsement by or any affiliation with BofA Securities. Access to any third-party website is at your own risk, and you should always review the terms and privacy policies at third-party websites before submitting any personal information to them. BofA Securities is not responsible for such terms and privacy policies and expressly disclaims any liability for them.

All opinions, projections and estimates constitute the judgment of the author as of the date of publication and are subject to change without notice. Prices also are subject to change without notice. BofA Securities is under no obligation to update this information and BofA Securities ability to publish information on the subject issuer(s) in the future is subject to applicable quiet periods. You should therefore assume that BofA Securities will not update any fact, circumstance or opinion contained herein.

Certain outstanding reports or investment opinions relating to securities, financial instruments and/or issuers may no longer be current. Always refer to the most recent research report relating to an issuer prior to making an investment decision.

In some cases, an issuer may be classified as Restricted or may be Under Review or Extended Review. In each case, investors should consider any investment opinion relating to such issuer (or its security and/or financial instruments) to be suspended or withdrawn and should not rely on the analyses and investment opinion(s) pertaining to such issuer (or its securities and/or financial instruments) nor should the analyses or opinion(s) be considered a solicitation of any kind. Sales persons and financial advisors affiliated with BofAS or any of its affiliates may not solicit purchases of securities or financial instruments that are Restricted or Under Review and may only solicit securities under Extended Review in accordance with firm policies.

Neither BofA Securities nor any officer or employee of BofA Securities accepts any liability whatsoever for any direct, indirect or consequential damages or losses arising from any use of this information.