

High Grade Basic Materials Weekly

Week ended January 12, 2024

Industry Overview

HG Basic Materials spreads finished 4 bps tighter w-o-w

HG Basic Materials spreads finished 4 bps tighter w-o-w, underperforming the Corp Index (-6 bps, OAS basis). All subsectors underperformed, excluding Chemicals which performed relatively in-line (-5 bps). We highlight International Flavors & Fragrances (IFF, MW) and Freeport (FCX, OW) bonds outperformed, both closing ~20 bps tighter.

HG Basic Materials underperformed the market

HG Basic Materials (+34 bps of excess returns) and all subsectors underperformed the Corp Index (+50 bps) w-o-w. Paper & Pack performed worst, returning 17 bps w-o-w.

IFF appoints new CEO; NEM temporarily shuts Tefler mine

On Thursday, International Flavors & Fragrances (IFF, MW) announced the appointment of J. Erik Fyrwald to succeed Frank Clyburn as Chief Executive Officer, effective 2/6/24. Prior to his appointment, incoming CEO J. Erik Fyrwalds served as CEO of Syngenta, Univar Solutions, and Nalco. He was also President at Ecolab and held numerous global / regional executive roles at DuPont (DD, NR). In its release, IFF also confirmed FY23 sales / EBITDA guidance and reiterated its commitment to further asset sales to support the balance sheet. Overall, we view the appointment of J. Erik Fyrwald to CEO positively given his extensive experience in the chemicals industry. We also appreciate the company's continued commitment to asset sales and de-leveraging. Despite the positive news, we remain MW IFF given the lack of relative value broadly. However, we still see upside in the belly of the curve, given its ~40 bps discount to Eastman Chemical (EMN), and maintain our OW rec on IFF's 2030 notes. Away from IFF, Bloomberg reported, on Wednesday, that Newmont Corp (NEM, NR) temporarily shut its Telfer mine in Western Australia due to safety concerns over tailings facilities. The shutdown could last as long as eight weeks and work at the mine has been stopped since December 24, 2023. The Telfer mine produced ~349k oz of gold in FY22. On a combined company basis, this accounts for ~4% of total annual gold production. Lastly, we include a preliminary calendar for upcoming earnings from various IG Basic Materials issuers.

Metals prices weaker w/w; US & China print December CPI

Metals prices were wrapped around unch'd w-o-w but mostly weaker. In the US, December CPI (+3.4% y/y, +0.3% m/m) was modestly above expectations (+3.2% y/y, +0.2% m/m). However, a decelerating core print hinted at a continued cooling of inflation broadly. Our [US econ team](#) maintained its outlook for a 25 bps rate cut in March but noted the Fed will likely signal that it cannot rule out additional rate hikes until it sees further progress on its mandate to bring inflation down to 2% growth y-o-y. Separately, China also printed December CPI data of -0.3% y-o-y which modestly beat expectations of -0.4%. Headline CPI edged up 0.1% m-o-m. PPI deflation also improved to -2.7% y-o-y (vs -3.0% in November) though fell 0.5% m-o-m as price declined for both producer and consumer goods in December (vs Nov). Overall, our [China econ team notes](#) that December's CPI print points to continued weak consumption and industrial demand. As a result, Helen Qiao and team revised down its 2024 CPI / PPI forecast to 0.8% (prev. 1.4%) and 0.3% (previously 1.2%), respectively.

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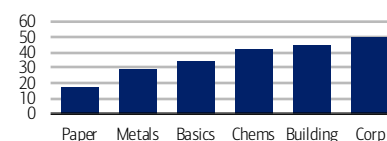
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Exhibit 1: WTD Excess Returns (bps)

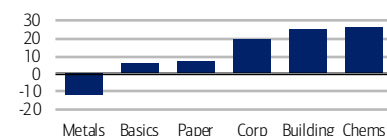
Basic materials underperformed this week



Source: BofA Global Research, ICE Data Indices, LLC
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Exhibit 2: YTD Excess Return (bps)

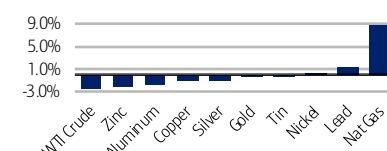
Basic materials underperformed YTD



Source: BofA Global Research, ICE Data Indices, LLC
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Exhibit 3: W-o-w Commodity Performance

Nat Gas gained the most w-o-w at 8.7%; while WTI Crude gained the least at -2.4%



Source: BofA Global Research, Bloomberg
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News & Views

IFF appoints new CEO and affirms FY23 guidance / strategic plan; remain MW

On Thursday, International Flavors & Fragrances (IFF, MW) announced the appointment of J. Erik Fyrwald to succeed Frank Clyburn as Chief Executive Officer, effective 2/6/24. Current CEO Frank Clyburn will remain in a transition role until March 31st and in an advisory capacity through December. Prior to his appointment, incoming CEO J. Erik Fyrwald served as CEO of Syngenta, Univar Solutions, and Nalco. He was also President at Ecolab and held numerous global / regional executive roles at DuPont (DD, NR). According to the announcement, current CEO Frank Clyburn is leaving IFF to pursue outside interests.

Separately in the release, IFF confirmed FY23 sales / EBITDA guidance and reiterated its commitment to further portfolio optimization efforts. For FY23, the company sees sales of \$11.3-11.6b (in-line with consensus at the midpoint) and EBITDA at the mid to high end of its outlook range of \$1.85-2.0b (consensus of ~\$2b). Away from guidance, IFF noted that they continue to progress additional divestiture actions to strengthen their capital structure. The company also maintained expectations for the \$810mm sale of its Lucas Meyers Cosmetics business to close in 1Q24.

Positive view on new CEO but remain MW on lack of rel val

Overall, we view the appointment of J. Erik Fyrwald positively given his experience in the chemicals industry while leading Syngenta, Univar Solutions, and Nalco. We look forward to 4Q23 earnings for more details on the news. Away from the appointment, we also appreciate the company's continued commitment to asset sales (to support de-leveraging) and view the confirmation of FY23 sales / EBITDA guidance positively. Despite the favorable news, we struggle to see relative value in IFF broadly and remain MW the name overall. Though we are MW most of the complex, we still see upside in the belly of the curve given its ~40 bps discount to Eastman Chemical (EMN, NR) and remain OW the company's 2030 notes, as a result.

NEM temporarily shuts Tefler mine due to safety concerns

On Wednesday morning, Bloomberg reported that Newmont Corp (NEM, NR) temporarily shut its Telfer mine in Western Australia due to safety concerns over tailings facilities. NEM does not expect Telfer to be operational until at least January end though the shutdown could last as long as eight weeks, according to the article. Work at the mine has been stopped since December 24, 2023. The Telfer mine, which was part of the recent Newcrest acquisition (closed in November 2023), produced ~349k oz of gold in FY22. On a combined company basis, this accounts for ~4% of total annual gold production. Annual production at the combined entity is expected to be 8mm oz of gold and ~350mm lbs of copper.

BofA Recommendations

Exhibit 4: BofA Global Research Recommendations
HG Basic Materials recommendations include 3 Overweights and 1 Underweight

Chemicals	Rating	Metals, Mining, & Steel	Rating
Celanese Corporation	OW	Freeport-McMoRan Inc.	OW
Dow Inc	UW	Nucor Corporation	MW
Int'l Flavors & Fragrances	MW, OW 2030s	Steel Dynamics, Inc.	OW
LyondellBasell Industries	MW, OW 2050s+	Teck Resources Ltd	MW
Nutrien Ltd	MW		
Sherwin-Williams	MW		

Source: BofA Global Research
Note: UW = Underweight, MW = Marketweight, OW = Overweight, RSTR = Restricted. Please see credit opinion key at the end of this report

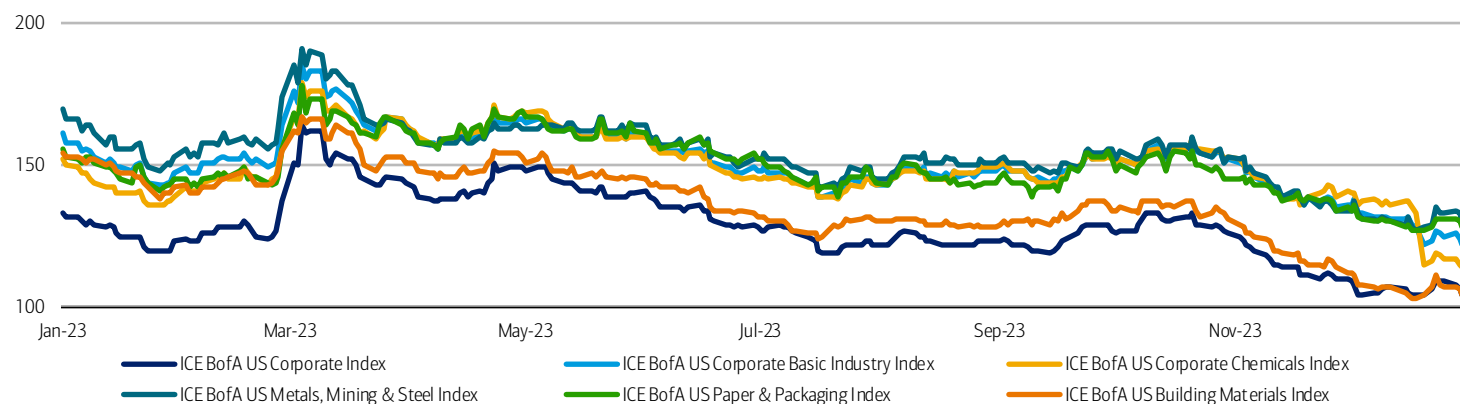
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HG Basic Materials Spreads

Exhibit 5: Option Adjusted Spread: HG Corporate Index and HG Basic Materials (& subsectors) Indices (LTM)

The Option Adjusted Spread for the HG Basic Materials Index has traded wide of the HG Corporate Index for the LTM



Source: BofA Global Research, ICE Data Indices, LLC

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Exhibit 6: HG Chemicals Cash Spreads (Bid)

In the HG Chemicals subsector, spreads were mostly 5 to 15 bps tighter w-o-w.

Issuer Entity		Coupon	Maturity	Outstanding (\$mm)	MDY/S&P	Bid (bps)	Z-Spread	G-Spread	Price	1 wk. change	6-mo tights	6-mo wides	8-wk avg. spread (bps)
ALB	Albemarle Corp	5.050	6/1/2032	600	Baa3 / BBB	168	206	171	96.08	(6)	153	215	178
ALB	Albemarle Corp	5.650	6/1/2052	450	Baa3 / BBB	216	280	216	90.56	(12)	208	258	229
APD	Air Products and Chemicals	4.800	3/3/2033	600	A2 / A	50	87	52	102.45	0	48	88	54
APD	Air Products and Chemicals	2.800	5/15/2050	950	A2 / A	69	133	67	69.10	(7)	62	88	70
CE	Celanese US Holdings LLC	6.700	11/15/2033	1,000	Baa3 / BBB-	171	207	171	107.51	(6)	163	259	182
CF	CF Industries Inc	5.375	3/15/2044	750	Baa3 / BBB	145	210	145	95.42	(16)	145	206	161
CTVA	Corteva, Inc	4.800	5/15/2033	600	A3 / A-	79	116	80	100.35	(2)	75	127	81
DD	DuPont de Nemours Inc	5.419	11/15/2048	2,150	Baa1 / BBB+	100	160	95	102.83	(14)	100	162	112
DOW	Dow Chemical Co/The	6.300	3/15/2033	600	Baa1 / BBB	94	131	96	109.99	(12)	94	148	108
DOW	Dow Chemical Co/The	6.900	5/15/2053	900	Baa1 / BBB	139	203	139	118.44	(9)	139	205	148
ECL	Ecolab Inc	2.125	2/1/2032	650	A3 / A-	61	100	64	83.69	1	53	92	64
ECL	Ecolab Inc	2.700	12/15/2051	850	A3 / A-	71	138	70	66.47	(12)	69	107	75
EMN	Eastman Chemical Co	5.750	3/8/2033	500	Baa2 / BBB	135	172	137	103.07	(5)	135	197	144
EMN	Eastman Chemical Co	4.650	10/15/2044	900	Baa2 / BBB	138	204	139	87.40	(12)	138	192	156
FMC	FMC Corp	5.650	5/18/2033	500	Baa2 / BBB-	187	224	188	98.69	(3)	187	257	204
FMC	FMC Corp	6.375	5/18/2053	500	Baa2 / BBB-	216	280	216	100.02	(11)	214	271	225
HUN	Huntsman International LLC	2.950	6/15/2031	400	Baa3 / BBB-	165	204	169	84.03	(5)	165	240	175
IFF	International Flavors and Fragrances Inc	3.468	12/1/2050	1,500	Baa3 / BBB-	165	229	163	67.80	(20)	165	234	181
LIN	Linde Inc/CT	2.000	8/10/2050	300	A2 / A	62	127	60	57.88	(3)	62	103	70
LYB	LYB International Finance III LLC	5.625	5/15/2033	500	Baa2 / BBB	112	149	113	103.90	(5)	112	175	122
LYB	LYB International Finance III LLC	3.625	4/1/2051	1,000	Baa2 / BBB	144	209	143	72.00	(17)	144	198	157
MOS	Mosaic Co	5.625	11/15/2043	600	Baa2 / BBB	156	221	156	97.12	(5)	156	206	167
NTRCN	Nutrien Ltd	5.800	3/27/2053	750	Baa2 / BBB	123	188	123	105.15	(14)	123	190	139
RPM	RPM International Inc	2.950	1/15/2032	300	Baa3 / BBB	137	176	140	84.66	(6)	137	214	158
RPM	RPM International Inc	4.250	1/15/2048	300	Baa3 / BBB	152	212	147	80.81	(3)	150	215	163
SHW	Sherwin-Williams Co/The	2.200	3/15/2032	500	Baa2 / BBB	82	121	85	82.72	(5)	82	131	91
SHW	Sherwin-Williams Co/The	2.900	3/15/2052	500	Baa2 / BBB	88	155	88	67.39	(13)	88	143	100
WLK	Westlake Chemical Corp	3.125	8/15/2051	600	Baa2 / BBB	135	201	134	65.83	(19)	135	188	149

Source: BofA Global Research, BofA Securities, Bloomberg

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Exhibit 7: HG Metals, Mining and Steel Cash Spreads (Bid)

In the HG Metals, Mining, & Steel subsector, spreads were mostly 5 to 15 bps tighter w-o-w.

Issuer	Entity	Coupon	Maturity	Outstanding (\$mm)	MDY/S&P	Bid (bps)	Z-Spread	G-Spread	Price	1 wk. change	6-mo tights	6-mo wides	8-wk avg. spread (bps)
AALLN	Anglo American Capital PLC	5.500	5/2/2033	900	Baa2 / BBB	155	192	156	99.90	(4)	155	200	159
AALLN	Anglo American Capital PLC	4.750	3/16/2052	750	Baa2 / BBB	164	229	164	84.87	(16)	164	217	174
ABXCN	Barrick Gold Corp	5.750	5/1/2043	849	Baa1 / BBB	104	169	106	104.75	(10)	94	146	105
BHP	BHP Billiton Finance USA Ltd	5.250	9/8/2033	1,500	A2 / A-	83	120	84	103.43	(10)	83	120	92
BHP	BHP Billiton Finance USA Ltd	5.500	9/8/2053	800	A2 / A-	84	150	85	106.78	(10)	84	113	90
FCX	Freeport-McMoRan Inc	5.400	11/14/2034	730	Baa2 / BB+	132	167	130	100.92	(18)	132	206	158
FCX	Freeport-McMoRan Inc	5.450	3/15/2043	1,706	Baa2 / BB+	142	207	144	96.74	(23)	142	204	164
GLENLN	Glencore Funding LLC	6.500	10/6/2033	1,000	Baa1 / BBB+	134	170	135	108.82	(9)	134	197	147
GLENLN	Glencore Funding LLC	3.375	9/23/2051	500	Baa1 / BBB+	132	198	131	69.60	(9)	132	189	144
KCN	Kinross Gold Corp	6.250	7/15/2033	500	Baa3 / BBB-	171	208	172	104.12	(8)	171	256	180
NEM	Newmont Corp	2.600	7/15/2032	1,000	Baa1 / BBB+	88	126	90	84.53	(2)	80	144	92
NEM	Newmont Corp	4.875	3/15/2042	1,000	Baa1 / BBB+	102	167	108	94.72	3	94	148	101
NUE	Nucor Corp	3.125	4/1/2032	550	Baa1 / A-	79	118	82	89.04	(4)	78	127	87
NUE	Nucor Corp	3.850	4/1/2052	550	Baa1 / A-	90	156	90	81.25	(5)	90	143	99
RIOLN	Rio Tinto Finance USA Ltd	5.000	3/9/2033	650	A2 / A-	61	98	63	103.09	(3)	59	108	67
RIOLN	Rio Tinto Finance USA Ltd	5.125	3/9/2053	1,100	A2 / A-	83	149	83	101.24	(10)	83	120	89
SOUTAU	South32 Treasury Ltd	4.350	4/14/2032	700	Baa1 / BBB+	191	229	194	90.16	(7)	191	244	209
STLD	Steel Dynamics	3.250	1/15/2031	500	Baa2 / BBB	105	144	110	89.71	1	97	159	112
STLD	Steel Dynamics	3.250	10/15/2050	400	Baa2 / BBB	142	206	140	67.27	(5)	130	181	144
TCKBCN	Teck Resources Ltd	5.400	2/1/2043	367	Baa3 / BBB-	165	230	168	93.65	(7)	163	222	170

Source: BofA Global Research, BofA Securities, Bloomberg

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Exhibit 8: HG Paper, Packaging, and Wood Cash Spreads (Bid)

In the HG Paper, Packaging, & Wood subsector, spreads were mostly 3 to 6 bps tighter w-o-w.

Issuer	Entity	Coupon	Maturity	Outstanding (\$mm)	MDY/S&P	Bid (bps)	Z-Spread	G-Spread	Price	1 wk. change	6-mo tights	6-mo wides	8-wk avg. spread (bps)
ATR	AptarGroup Inc	3.600	3/15/2032	400	Baa3 / BBB-	122	161	125	89.57	(6)	122	190	133
AVY	Avery Dennison Corp	5.750	3/15/2033	400	Baa2 / BBB	111	148	113	104.81	(3)	111	168	119
IP	International Paper Co	4.350	8/15/2048	740	Baa2 / BBB	110	171	106	86.88	(3)	110	163	119
PKG	Packaging Corp of America	3.050	10/1/2051	700	Baa2 / BBB	110	176	109	67.37	(3)	110	150	115
SON	Sonoco Products Co	2.850	2/1/2032	500	Baa2 / BBB	128	167	131	84.47	(3)	127	165	133
SON	Sonoco Products Co	5.750	11/1/2040	537	Baa2 / BBB	137	202	149	100.71	(3)	137	180	148
WRK	WRKCO Inc	3.000	6/15/2033	600	Baa2 / BBB	103	140	104	85.18	(3)	103	160	108
WY	Weyerhaeuser	3.375	3/9/2033	450	Baa2 / BBB	111	148	112	87.70	(3)	109	145	113
WY	Weyerhaeuser	4.000	3/9/2052	450	Baa2 / BBB	118	184	118	79.95	(3)	118	150	121

Source: BofA Global Research, BofA Securities, Bloomberg

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Exhibit 9: HG Construction Materials/Homebuilders Cash Spreads (Bid)

In the HG Construction Materials/Homebuilders subsector, spreads were mostly 5 to 15 bps tighter w-o-w.

Issuer Entity		Coupon	Maturity	Outstanding (\$mm)	MDY/S&P	Bid (bps)	Z-Spread	G-Spread	Price	1 wk. change	6-mo tights	6-mo wides	8-wk avg. spread (bps)
EXP	Eagle Materials	2.500	7/1/2031	750	Baa2 / BBB	105	144	109	84.53	(9)	105	163	122
FBINUS	Fortune Brands Home & Security Inc	5.875	6/1/2033	600	Baa2 / BBB	140	177	141	103.66	(7)	140	200	152
FBINUS	Fortune Brands Home & Security Inc	4.500	3/25/2052	450	Baa2 / BBB	157	222	157	82.26	(10)	157	210	165
MAS	Masco Corp	2.000	2/15/2031	600	Baa2 / BBB	116	156	121	81.66	(2)	116	150	125
MAS	Masco Corp	3.125	2/15/2051	300	Baa2 / BBB	109	174	107	68.89	(18)	109	193	124
MDC	MDC Holdings Inc	2.500	1/15/2031	350	Ba1 / BBB-	168	208	173	82.04	(11)	168	259	200
MDC	MDC Holdings Inc	6.000	1/15/2043	500	Ba1 / BBB-	237	302	240	92.72	(25)	237	298	254
MLM	Martin Marietta Materials Inc	2.400	7/15/2031	900	Baa2 / BBB+	96	136	100	84.35	1	95	144	103
MLM	Martin Marietta Materials Inc	3.200	7/15/2051	900	Baa2 / BBB+	80	146	79	73.11	(10)	80	141	96
OC	Owens Corning	4.300	7/15/2047	600	Baa1 / BBB	107	176	111	85.67	(9)	107	179	127
PHM	PulteGroup Inc	7.875	6/15/2032	300	Baa2 / BBB	140	177	143	116.82	(4)	140	205	151
VMC	Vulcan Materials Co	4.700	3/1/2048	461	Baa2 / BBB+	109	169	104	91.85	(15)	109	163	125

Source: BofA Global Research, BofA Securities, Bloomberg

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HG Basic Materials Financial Data

Exhibit 10: HG Chemicals Financial Data (LTM as of 3Q23)

LTM financial data for HG Chemical Companies as of 3Q23

Company Name	Air Products	Albemarle	Celanese	CF Industries	Dow Chemical	DuPont	Eastman Chemical	Ecolab Inc.	FMC Corp.
Debt Ticker:	APD	ALB	CE	CF	DOW	DD	EMN	ECL	FMC
Sector/Subsector:	Industrial Gases	Spec. Chemicals	Spec. Chemicals	Agri. Chemicals	Petro. Chemicals	Spec. Chemicals	Spec. Chemicals	Spec. Chemicals	Agri. Chemicals
Moody's	A2 / S	Baa3 / S	Baa3 / N	Baa3 / S	Baa1 / S	Baa1 / S	Baa2 / S	A3 / N	Baa2 / S
S&P	A / S	BBB / S	BBB- / S	BBB / S	BBB / P	BBB+ / S	BBB / S	A- / N	BBB- / S
Financials (LTM, US\$ mm)									
Total Revenue	\$12,600	\$7,571	\$10,719	\$7,668	\$45,860	\$12,274	\$9,376	\$15,053	\$4,963
EBITDA	\$4,702	\$3,899	\$2,322	\$3,464	\$5,427	\$2,965	\$1,558	\$2,934	\$1,155
EBITDA Margin	37.3%	51.5%	21.7%	45.2%	11.8%	24.2%	16.6%	19.5%	23.3%
Capital Expenditures	\$4,626	\$1,365	\$583	\$445	\$2,197	\$659	\$852	\$714	\$143
Dividends	\$1,497	\$140	\$305	\$314	\$1,976	\$647	\$373	\$608	\$486
Free Cash Flow	(\$2,917)	\$242	\$722	\$2,103	\$1,445	\$113	\$154	\$1,096	(\$629)
Cash & Cash Equivalents	\$1,949	\$1,587	\$1,357	\$3,254	\$3,080	\$1,338	\$439	\$1,001	\$324
Total Debt	\$10,306	\$3,236	\$14,334	\$2,967	\$20,029	\$9,314	\$5,924	\$8,616	\$4,116
Total Debt/EBITDA	2.2x	0.8x	6.2x	0.9x	3.7x	3.1x	3.8x	2.9x	3.6x
Net Debt	\$8,357	\$1,649	\$12,977	(\$287)	\$16,949	\$7,976	\$5,485	\$7,615	\$3,792
Net Debt/EBITDA	1.8x	0.4x	5.6x	-0.1x	3.1x	2.7x	3.5x	2.6x	3.3x
Interest	\$178	\$76	\$710	\$90	\$724	\$417	\$211	\$296	\$225
EBITDA/Interest	26.5x	51.0x	3.3x	38.5x	7.5x	7.1x	7.4x	9.9x	5.1x
Market Capitalization	\$59,627	\$13,438	\$12,844	\$15,283	\$34,064	\$29,961	\$8,717	\$49,834	\$6,337
Enterprise Value	\$67,984	\$15,087	\$25,821	\$15,373	\$51,013	\$37,937	\$14,202	\$57,449	\$10,129
EV/EBITDA	14.5x	3.9x	11.1x	4.4x	9.4x	12.8x	9.1x	19.6x	8.8x
Total Debt/EV	15%	21%	56%	19%	39%	25%	42%	15%	41%

Source: BofA Global Research, Company Reports, Bloomberg

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Exhibit 11: HG Chemicals Financial Data (LTM as of 3Q23)

LTM financial data for HG Chemical Companies as of 3Q23

Company Name	Huntsman Corp.	Int'l Flavors & Fragrances	LyondellBasell	Mosaic	Nutrien	PPG Industries	RPM International	Sherwin-Williams	Westlake
Debt Ticker:	HUN	IFF	LYB	MOS	NTRCN	PPG	RPM	SHW	WLK
Sector/Subsector:	Commod. Chemicals	Spec. Chemicals	Petro. Chemicals	Agri. Chemicals	Agri. Chemicals	Coatings	Coatings	Coatings	Petro. Chemicals
Moody's	Baa3 / S	Baa3 / N	Baa2 / S	Baa2 / S	Baa2 / S	A3 / S	Baa3 / S	Baa2 / S	Baa2 / S
S&P	BBB- / S	BBB- / N	BBB / S	BBB / S	BBB / S	BBB+ / N	BBB / S	BBB / S	BBB / P
Financials (LTM, US\$ mm)									
Total Revenue	\$5,969	\$11,620	\$41,384	\$15,028	\$30,925	\$18,081	\$7,336	\$23,030	\$13,021
EBITDA	\$515	\$1,959	\$5,177	\$2,807	\$7,078	\$2,817	\$985	\$4,183	\$2,816
EBITDA Margin	8.6%	16.9%	12.5%	18.7%	22.9%	15.6%	13.4%	18.2%	21.6%
Capital Expenditures	\$233	\$550	\$1,520	\$1,384	\$2,814	\$531	\$249	\$803	\$1,049
Dividends	\$168	\$825	\$1,591	\$339	\$1,021	\$591	\$217	\$624	\$202
Free Cash Flow	(\$46)	(\$424)	\$1,931	\$1,102	\$1,817	\$978	\$447	\$1,818	\$1,347
Cash & Cash Equivalents	\$496	\$639	\$2,833	\$591	\$554	\$1,218	\$241	\$503	\$3,057
Total Debt	\$2,118	\$10,301	\$13,165	\$3,657	\$14,987	\$6,202	\$2,505	\$9,936	\$5,379
Total Debt/EBITDA	4.1x	5.3x	2.5x	1.3x	2.1x	2.2x	2.5x	2.4x	1.9x
Net Debt	\$1,622	\$9,662	\$10,332	\$3,066	\$14,433	\$4,984	\$2,264	\$9,433	\$2,322
Net Debt/EBITDA	3.1x	4.9x	2.0x	1.1x	2.0x	1.8x	2.3x	2.3x	0.8x
Interest	\$64	\$441	\$337	\$128	\$768	\$243	\$124	\$431	\$167
EBITDA/Interest	8.0x	4.4x	15.4x	21.9x	9.2x	11.6x	7.9x	9.7x	16.9x
Market Capitalization	\$4,294	\$18,130	\$29,971	\$11,266	\$27,952	\$29,508	\$12,606	\$65,463	\$15,845
Enterprise Value	\$5,916	\$27,792	\$40,303	\$14,332	\$42,385	\$34,492	\$15,112	\$74,896	\$18,167
EV/EBITDA	11.5x	14.2x	7.8x	5.1x	6.0x	12.2x	15.3x	17.9x	6.5x
Total Debt/EV	36%	37%	33%	26%	35%	18%	17%	13%	30%

Source: BofA Global Research, Company Reports, Bloomberg

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**Exhibit 12: HG Metals, Mining, & Steel Financial Data (LTM as of 3Q23)**

LTM financial data for HG Metals, Mining, & Steel Companies as of 3Q23

Company Name	Barrick Gold	Freeport McMoRan	Kinross Gold	Newmont Mining	Nucor	Reliance Steel	Steel Dynamics	Teck Resources
Debt Ticker:	ABXCN	FCX	KCN	NEM	NUE	RS	STLD	TCKBCN
Sector/Subsector:	Metals & Mining	Metals & Mining	Metals & Mining	Metals & Mining	Steel	Steel	Steel	Metals & Mining
Moody's	A3 / S	Baa3 / S	Baa3 / S	Baa1 / P	Baa1 / S	Baa2 / S	Baa2 / S	Baa3 / S
S&P	BBB+ / S	BB+ / P	BBB- / N	BBB+ / S	A- / S	BBB / P	BBB / S	BBB- / S
Financials (LTM, US\$ mm)								
Total Revenue	\$11,112	\$22,708	\$4,133	\$11,055	\$35,733	\$15,079	\$19,388	\$12,731
EBITDA	\$5,301	\$8,754	\$1,751	\$3,990	\$7,630	\$2,144	\$3,904	\$5,997
EBITDA Margin	47.7%	38.6%	42.4%	36.1%	21.4%	14.2%	20.1%	47.1%
Capital Expenditures	\$3,116	\$4,509	\$1,098	\$2,392	\$2,014	\$451	\$1,487	\$4,917
Dividends	\$785	\$861	\$148	\$1,390	\$517	\$233	\$262	\$515
Free Cash Flow	(\$354)	(\$964)	\$452	(\$625)	\$5,594	\$1,271	\$2,050	(\$1,544)
Cash & Cash Equivalents	\$4,261	\$6,442	\$465	\$3,190	\$6,719	\$977	\$2,266	\$1,343
Total Debt	\$4,775	\$9,405	\$2,415	\$6,087	\$6,681	\$1,142	\$3,095	\$6,745
Total Debt/EBITDA	0.9x	1.1x	1.4x	1.5x	0.9x	0.5x	0.8x	1.1x
Net Debt	\$514	\$2,963	\$1,950	\$2,897	(\$38)	\$165	\$829	\$5,402
Net Debt/EBITDA	0.1x	0.3x	1.1x	0.7x	0.0x	0.1x	0.2x	0.9x
Interest	\$205	\$555	\$104	\$215	\$28	\$46	\$86	\$112
EBITDA/Interest	25.9x	15.8x	16.8x	18.6x	276.3x	46.8x	45.6x	53.5x
Market Capitalization	\$26,491	\$50,913	\$6,421	\$39,415	\$37,385	\$15,291	\$17,528	\$24,883
Enterprise Value	\$27,005	\$53,876	\$8,371	\$42,312	\$37,347	\$15,456	\$18,357	\$30,285
EV/EBITDA	5.1x	6.2x	4.8x	10.6x	4.9x	7.2x	4.7x	5.0x
Total Debt/EV	18%	17%	29%	14%	18%	7%	17%	22%

Source: BofA Global Research, Company Reports, Bloomberg

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Exhibit 13: HG Paper, Packaging, & Wood Financial Data (LTM as of 3Q23)

LTM financial data for HG Paper, Packaging, & Wood Companies as of 3Q23

Company Name	Avery Dennison	CCL Industries	International Paper	Packaging Corp	Sonoco Products	WestRock	Weyerhaeuser
Debt Ticker:	AVY	CCLBCN	IP	PKG	SON	WRK	WY
Sector/Subsector:	Labeling	Labeling	Paper / Packaging	Paper / Packaging	Packaging	Packaging	Forestry
Moody's	Baa2 / S	Baa2 / S	Baa2 / S	Baa2 / S	Baa2 / S	Baa2 / S	Baa2 / S
S&P	BBB / S	BBB / S	BBB / S	BBB / S	BBB / N	BBB / S	BBB / S
Financials (LTM, US\$ mm)							
Total Revenue	\$8,280	\$4,896	\$19,448	\$7,843	\$6,822	\$20,310	\$7,723
EBITDA	\$1,178	\$957	\$2,535	\$1,622	\$1,022	\$2,872	\$1,742
EBITDA Margin	14.2%	19.5%	13.0%	20.7%	15.0%	14.1%	22.6%
Capital Expenditures	\$288	\$377	\$1,158	\$576	\$337	\$1,142	\$512
Dividends	\$252	\$137	\$646	\$453	\$195	\$281	\$1,208
Free Cash Flow	\$320	\$266	\$298	\$371	\$271	\$405	(\$408)
Cash & Cash Equivalents	\$210	\$577	\$1,149	\$727	\$258	\$393	\$1,173
Total Debt	\$3,314	\$1,889	\$5,669	\$2,087	\$3,255	\$8,584	\$5,679
Total Debt/EBITDA	2.8x	2.0x	2.2x	1.3x	3.2x	3.0x	3.3x
Net Debt	\$3,104	\$1,312	\$4,520	\$1,361	\$2,997	\$8,191	\$4,506
Net Debt/EBITDA	2.6x	1.4x	1.8x	0.8x	2.9x	2.9x	2.6x
Interest	\$112	\$67	\$238	\$57	\$128	\$418	\$274
EBITDA/Interest	10.5x	14.4x	10.7x	28.3x	8.0x	6.9x	6.4x
Market Capitalization	\$14,018	\$6,343	\$11,450	\$14,123	\$5,398	\$9,864	\$20,739
Enterprise Value	\$17,122	\$7,656	\$15,970	\$15,483	\$8,395	\$18,054	\$25,245
EV/EBITDA	14.5x	8.0x	6.3x	9.5x	8.2x	6.3x	14.5x
Total Debt/EV	19%	25%	35%	13%	39%	48%	22%

Source: BofA Global Research, Company Reports, Bloomberg

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**Exhibit 14: HG Construction Materials/Homebuilders Financial Data (LTM as of 3Q23)**

LTM financial data for HG Construction Materials/Homebuilders Companies as of 3Q23

Company Name	D.R. Horton	Eagle Materials	Fortune Brands	Martin Marrietta	Masco	Mohawk	Owens Corning	Vulcan
Debt Ticker:	DHI	EXP	FBINUS	MLM	MAS	MHK	OC	VMC
Sector/Subsector:	Homebuilding	Construction Products	Building Products	Construction Products	Building Products	Building Products	Building Products	Construction Products
Moody's	Baa1 / S	Baa2 / S	Baa2 / S	Baa2 / S	Baa2 / S	Baa1 / S	Baa2 / P	Baa2 / S
S&P	BBB+ / S	BBB / S	BBB / S	BBB+ / S	BBB / S	BBB+ / S	BBB / S	BBB+ / S
Financials (LTM, US\$ mm)								
Total Revenue	\$35,460	\$2,205	\$966	\$6,646	\$8,008	\$11,174	\$9,658	\$7,680
EBITDA	\$6,364	\$772	\$861	\$2,052	\$1,235	\$1,348	\$2,264	\$1,824
EBITDA Margin	17.9%	35.0%	89.2%	30.9%	15.4%	12.1%	23.4%	23.8%
Capital Expenditures	\$149	\$132	\$247	\$637	\$268	\$523	\$530	\$829
Dividends	\$341	\$36	\$124	\$169	\$256	\$0	\$175	\$225
Free Cash Flow	\$3,814	\$386	\$743	\$597	\$369	\$751	\$991	\$402
Cash & Cash Equivalents	\$3,874	\$47	\$453	\$648	\$560	\$518	\$1,323	\$340
Total Debt	\$5,095	\$1,090	\$2,829	\$4,344	\$3,012	\$2,598	\$3,022	\$3,875
Total Debt/EBITDA	0.8x	1.4x	3.3x	2.1x	2.4x	1.9x	1.3x	2.1x
Net Debt	\$1,221	\$1,042	\$2,376	\$3,697	\$2,452	\$2,080	\$1,699	\$3,535
Net Debt/EBITDA	0.2x	1.4x	2.8x	1.8x	2.0x	1.5x	0.8x	1.9x
Interest	\$204	\$42	\$122	\$168	\$108	\$75	\$89	\$190
EBITDA/Interest	31.3x	18.5x	7.1x	12.2x	11.4x	18.0x	25.4x	9.6x
Market Capitalization	\$43,162	\$5,165	\$6,959	\$28,052	\$12,610	\$5,137	\$11,047	\$25,661
Enterprise Value	\$44,383	\$6,207	\$9,335	\$31,749	\$15,062	\$7,216	\$12,746	\$29,196
EV/EBITDA	7.0x	8.0x	10.8x	15.5x	12.2x	5.4x	5.6x	16.0x
Total Debt/EV	11%	18%	30%	14%	20%	36%	24%	13%

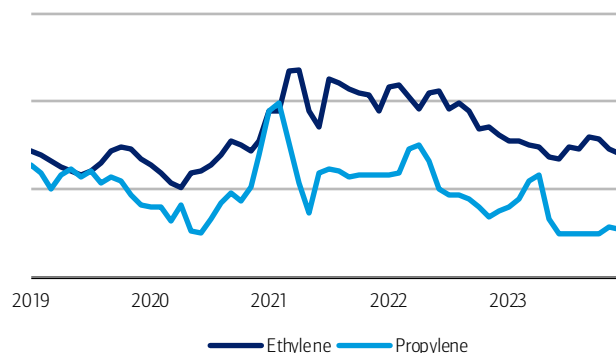
Source: BofA Global Research, Company Reports, Bloomberg

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Chemical Markets Data

Exhibit 15: Olefin Pricing (\$/lb)

Olefin prices have declined from their highs

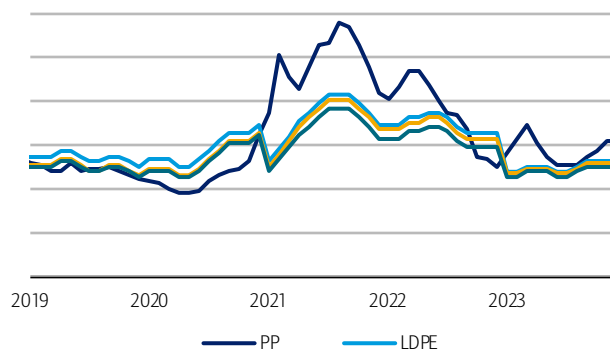


Source: Chemical Data Inc., a part of ICIS

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Exhibit 16: Polyolefin Pricing (\$/lb)

Polyolefin prices declined from their highs but have started to stabilize

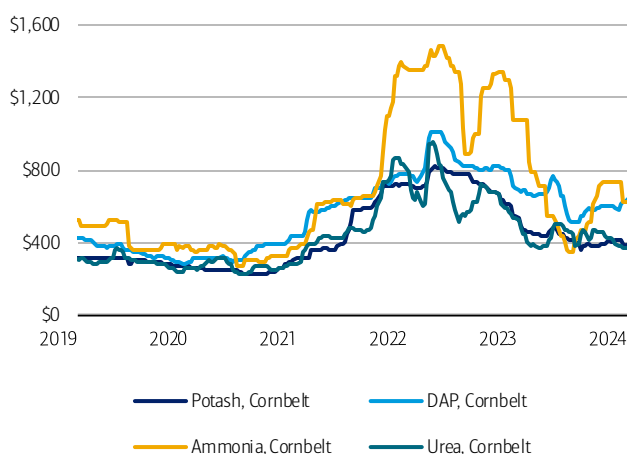


Source: Chemical Data Inc., a part of ICIS

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Exhibit 17: Fertilizer Pricing (\$/st)

Fertilizer prices declined from their high but have started to stabilize

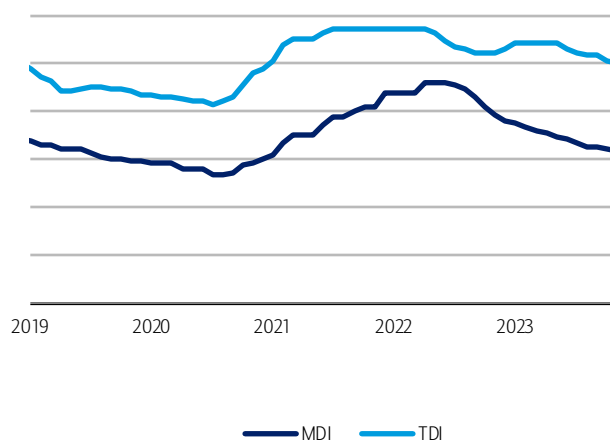


Source: BofA Global Research, Bloomberg

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Exhibit 18: Isocyanates Pricing (\$/lb)

MDI and TDI have rebounded from their COVID lows

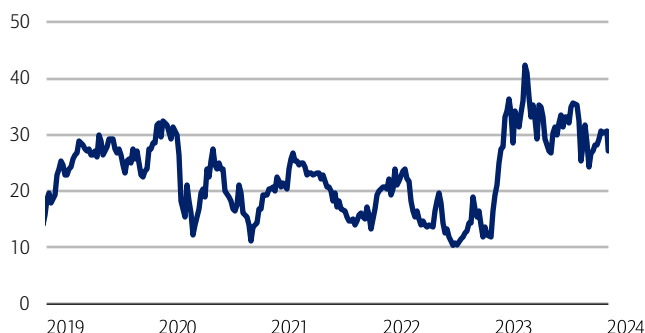


Source: Chemical Data Inc., a part of ICIS

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Exhibit 19: Brent (\$/bbl) to Natural Gas (\$/mmbtu)

The ratio of Brent to Natural Gas is at elevated levels

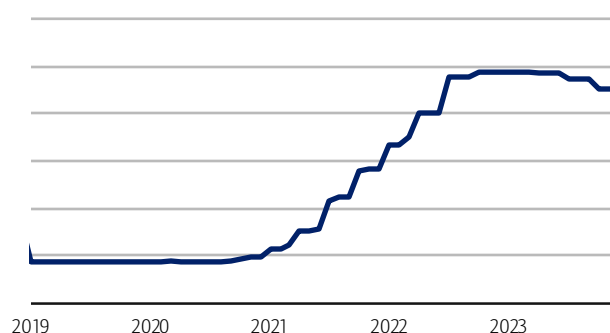


Source: BofA Global Research, Bloomberg

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Exhibit 20: Chlorine Price (US Gulf Coast FOB \$/st)

Chlorine price were largely flat in 2023



Source: Chemical Market Analytics by OPIS, a Dow Jones Company

BofA GLOBAL RESEARCH

Commodity Forecasts

Exhibit 21: Commodity Team Base Metals Forecasts

BofA's quarterly and annual forecasts for base metals

		1Q24E	2Q24E	3Q24E	4Q24E	2024E	2025E	2026E	2027E	2028E	LT price
Aluminum	US\$/t	2,250	2,500	2,750	2,750	2,563	3,000	3,250	3,015	2,781	2,546
	US\$/lb	102	113	125	125	116	136	147	137	126	115
Strip Aluminum	US\$/t	2,362	2,362	2,362	2,362	2,362	2,504	2,623	2,733		
Copper	US\$/t	8,000	8,500	8,750	9,250	8,625	10,500	9,500	9,539	9,578	9,617
	US\$/lb	363	386	397	420	391	476	431	433	434	436
Strip Copper	US\$/t	8,560	8,560	8,560	8,560	8,560	8,626	8,657	8,693		
Lead	US\$/t	2,000	2,000	2,000	2,000	2,000	1,750	2,024	2,217	2,409	2,602
	US\$/lb	91	91	91	91	91	79	92	101	109	118
Strip Lead	US\$/t	2,049	2,049	2,049	2,049	2,049	2,072	2,102	2,133		
Nickel	US\$/t	18,500	18,500	19,000	19,000	18,750	20,000	20,000	19,141	18,283	17,424
	US\$/lb	839	839	862	862	850	907	907	868	829	790
Strip Nickel	US\$/t	16,724	16,724	16,724	16,724	16,724	17,718	18,603	19,458		
Zinc	US\$/t	2,500	2,500	2,250	2,250	2,375	2,250	2,424	2,596	2,769	2,942
	US\$/lb	113	113	102	102	108	102	110	118	126	133
Strip Zinc	US\$/t	2,602	2,602	2,602	2,602	2,602	2,635	2,647	2,651		

Source: BofA Global Research, BofA Global Commodity Research, Bloomberg

BofA GLOBAL RESEARCH

Exhibit 22: Commodity Team Precious Metals Forecasts

BofA's quarterly and annual forecasts for precious metals

		1Q24E	2Q24E	3Q24E	4Q24E	2024E	2025E	2026E	2027E	2028E	LT price
Gold, nominal	US\$/oz	1,950	1,950	2,000	2,000	1,975	2,150	2,096	2,095	2,094	2,093
Gold, real	US\$/oz	1,950	1,950	2,000	2,000	1,975	2,098	1,995	1,946	1,898	1,850
Strip Gold	US\$/oz	2,090	2,090	2,090	2,090	2,090	2,182	2,286	2,342		
Silver, nominal	US\$/oz	22.50	23.00	23.53	24.00	23.26	24.75	26.07	27.18	28.39	29.42
Silver, real	US\$/oz	22.50	23.00	23.53	24.00	23.26	24.15	24.81	25.21	25.60	26.00
Strip Silver	US\$/oz	23.62	23.62	23.62	23.62	23.62	24.56	25.50	25.71		
Platinum	US\$/oz	1,000	1,000	1,100	1,250	1,050	1,250	1,322	1,372	1,421	1,471
Strip Platinum	US\$/oz	993	993	993	993	993	1,020	1,045			
Palladium	US\$/oz	900	800	700	600	750	500	500	824	1,147	1,471
Strip Palladium	US\$/oz	1,083	1,083	1,083	1,083	1,083	1,129	1,179			

Source: BofA Global Research, BofA Global Commodity Research, Bloomberg

BofA GLOBAL RESEARCH

Exhibit 23: Commodity Team Bulk Commodities Forecasts

BofA's quarterly and annual forecasts for bulk commodities

		1Q24E	2Q24E	3Q24E	4Q24E	2024E	2025E	2026E	2027E	2028E	LT price
Hard coking coal	US\$/t fob	360	280	210	230	270	215	205	212	219	226
Strip Hard coking coal	US\$/t fob	300	300	300	300	300	271	215	215		
Semi-soft	US\$/t fob	238	185	139	152	178	142	135	134	133	132
Thermal Coal	US\$/t fob	148	148	151	153	150	125	112	112	113	113
Iron ore fines, spot	US\$/t CIF	150	130	120	100	125	90	90	94	98	102
Strip Iron ore fines, spot	US\$/t CIF	135	135	135	135	135	120	111			

Source: BofA Global Research, BofA Global Commodity Research, Bloomberg

BofA GLOBAL RESEARCH

Exhibit 24: Commodity Team Other Materials Forecasts

BofA's quarterly and annual forecasts for other materials

		1Q24E	2Q24E	3Q24E	4Q24E	2024E	2025E	2026E	2027E	2028E	LT price
Lithium spodumene	\$/t	1,950	1,850	1,750	1,500	1,763	2,188	1,858	1,722	1,586	1,450
Lithium carbonate	\$/t	18,000	17,000	16,000	15,000	16,500	21,875	21,250	20,833	20,417	20,000
Lithium hydroxide	\$/t	19,500	18,500	17,500	16,500	18,000	23,375	22,750	22,333	21,917	21,500
Alumina	\$/t	340	340	340	340	340	348	357	375	394	412
Uranium	\$/lb	75.00	7,750.00	80.00	80.00	78.13	75.00	70.00	65.00	60.00	55.00
Molybdenum	\$/lb	18.10	18.10	18.10	18.10	18.10	18.10	18.10	16.32	14.54	12.76
Cobalt	\$/lb	18.00	18.00	18.00	18.00	18.00	18.00	18.44	19.84	21.23	22.63
Manganese ore	\$/dmtu	4.35	4.35	4.35	4.35	4.35	4.35	4.93	5.52	6.11	6.70

Source: BofA Global Research, BofA Global Commodity Research, Bloomberg

BofA GLOBAL RESEARCH

Exhibit 25: Commodity Team Steel HRC Forecasts

BofA's quarterly and annual forecasts for steel

		1Q24E	2Q24E	3Q24E	4Q24E	2024E	2025E
HRC, Europe	US\$/t	719	701	639	674	683	714
HRC, US	US\$/t	1,130	1,020	882	805	959	799
HRC, China	US\$/t	568	602	623	592	595	602

Source: BofA Global Research, BofA Global Commodity Research, Bloomberg

BofA GLOBAL RESEARCH

Exhibit 26: Commodity Team Energy Forecasts

BofA's quarterly and annual forecasts for steel

		1Q24E	2Q24E	3Q24E	4Q24E	2024E
Brent	US\$/bbl	78.00	80.00	82.00	80.00	80.00
Strip Brent	US\$/bbl	76.03	76.03	76.03	76.03	76.03
WTI	US\$/bbl	73.00	75.00	77.00	75.00	75.00
Strip WTI	US\$/bbl	71.39	71.39	71.39	71.39	71.39
Henry Hub	US\$/MMBtu	2.90	2.50	3.00	3.60	3.00
Strip Henry Hub	US\$/MMBtu	3.10	3.10	3.10	3.10	3.10

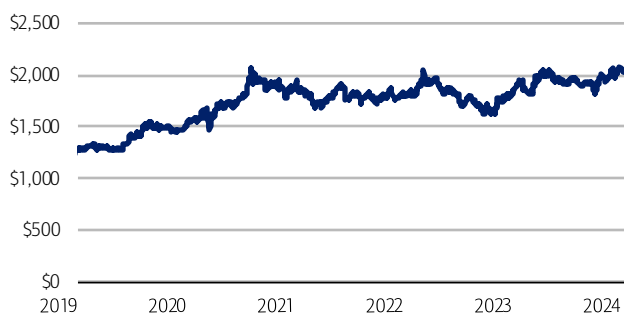
Source: BofA Global Research, BofA Global Commodity Research, Bloomberg

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Precious and Base Metals Market Data

Exhibit 27: Gold Spot Price (\$/oz)

Gold prices ended down -0.3% w/w at \$2,039



Source: BofA Global Research, Bloomberg

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Exhibit 28: Silver Spot Price (\$/oz)

Silver prices ended down -1.1% w/w at \$22.93

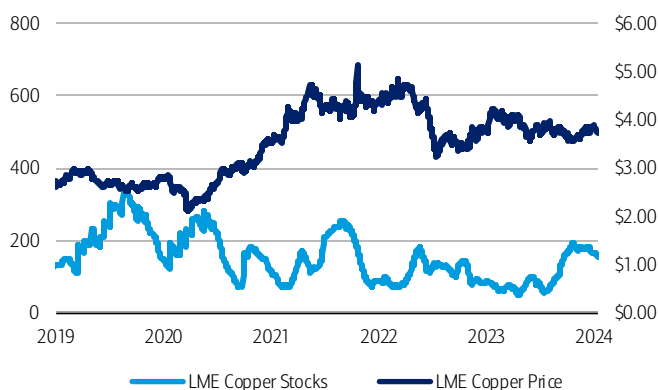


Source: BofA Global Research, Bloomberg

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Exhibit 29: LME Copper Warehouse Stocks (000s mt) & Price (\$/lb)

Copper prices ended down -1.3% w/w at \$3.75

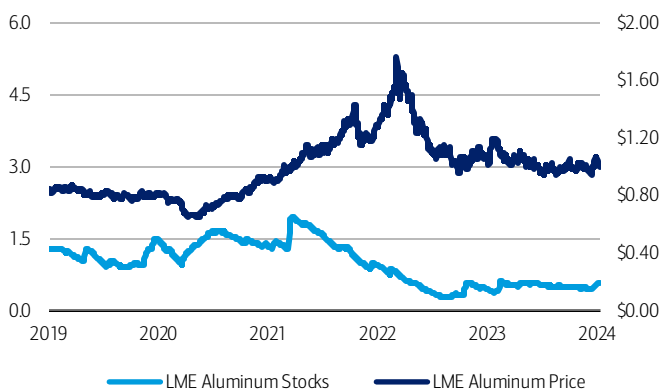


Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

Exhibit 30: LME Aluminum Warehouse Stocks (mm mt) & Price (\$/lb)

Aluminum prices ended down -2.1% w/w at \$0.99

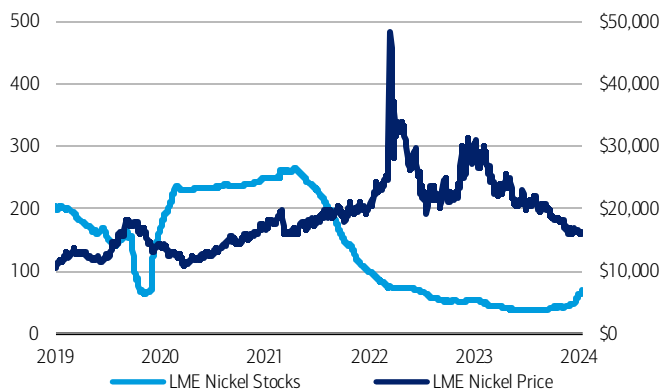


Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

Exhibit 31: LME Nickel Warehouse Stocks (000s mt) & Price (\$/mt)

Nickel prices ended up +2.2% w/w at \$16,179

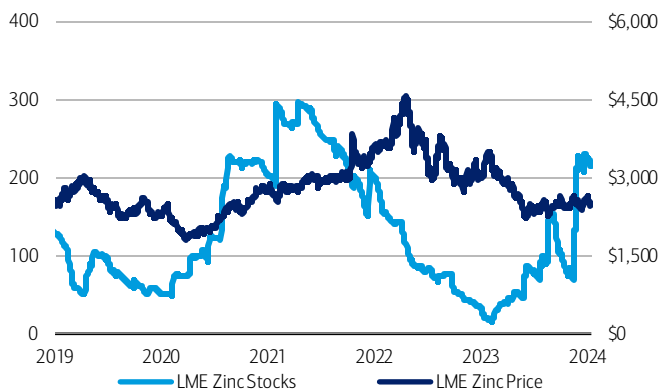


Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

Exhibit 32: LME Zinc Warehouse Stocks (000s mt) & Price (\$/mt)

Zinc prices ended down -1.4% w/w at \$2,481



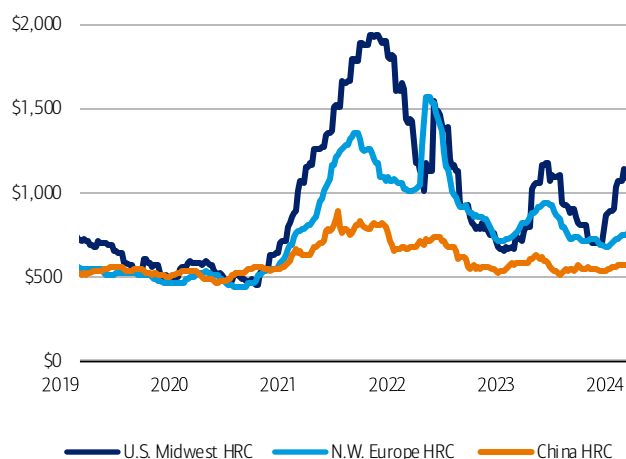
Source: BofA Global Research, Bloomberg

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Exhibit 33: U.S. Midwest HRC (\$/t), NW. Europe HRC (\$/mt) and China HRC (\$/mt)

U.S. Midwest HRC prices ended down -1.4% w/w at \$1075; NW. Europe HRC prices ended up +0.7% w/w at \$756; China HRC prices ended down -0.8% w/w at \$566



Source: BofA Global Research, Bloomberg

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Exhibit 34: China Spot Iron Ore 62% (\$/mt)

China spot iron ore prices ended down -4.4% w/w at \$134

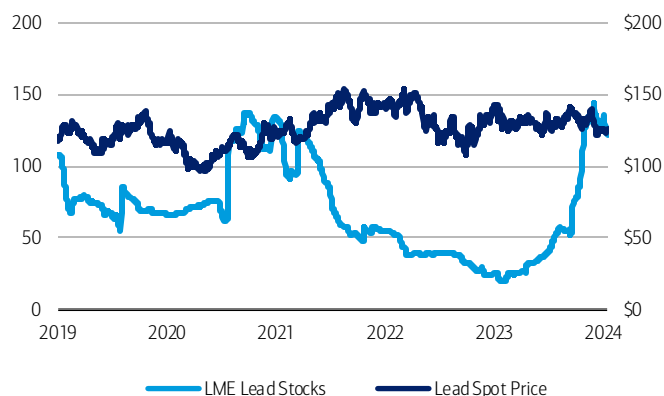


Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

Exhibit 35: LME Lead Warehouse Stocks (000s mt) & Price (\$/lb)

Lead prices ended up +1.3% w/w at \$126

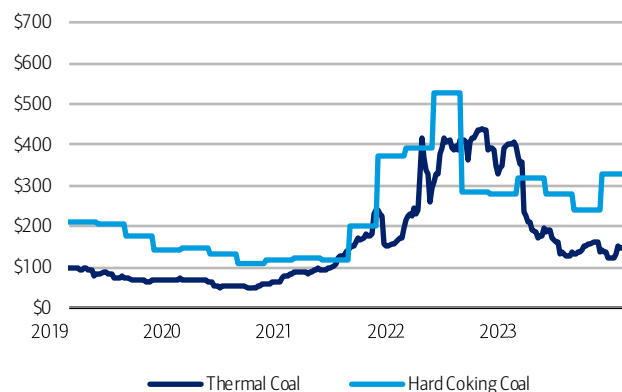


Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

Exhibit 36: Hard Coking Coal (\$/mt) and Thermal Coal (\$/mt)

Thermal Coal prices ended down -0.6% w/w at \$131 Hard Coking Coal prices ended Unch. at \$329



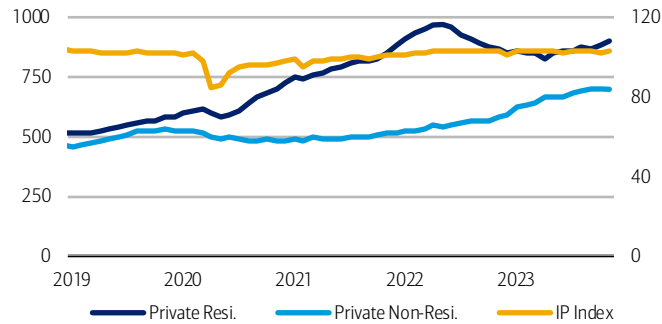
Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

Construction Products Market Data

Exhibit 37: US Construction Spending (\$bn) & Industrial Production Index

U.S. private residential new construction spending peaked in May 2022

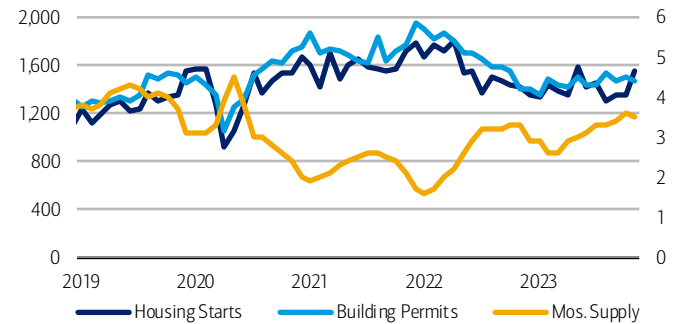


Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

Exhibit 38: US Housing Statistics (000s, SAAR) & Months' Supply of Existing Homes

U.S. housing starts & building permits have fallen from Spring 2022 highs

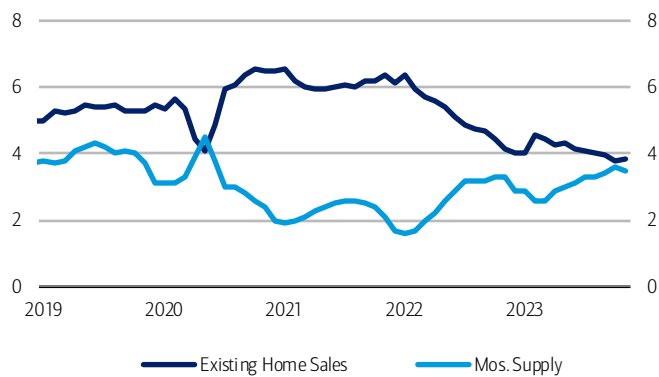


Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

Exhibit 39: Existing Home Sales (mm) & Months' Supply of Existing Homes

U.S. existing home sales have declined since February 2022

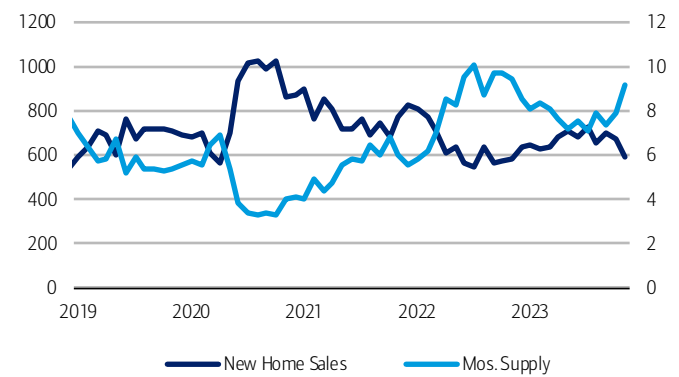


Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

Exhibit 40: New Home Sales (000s) & Months' Supply of New Homes

U.S. new home sales have fallen from 2020 highs

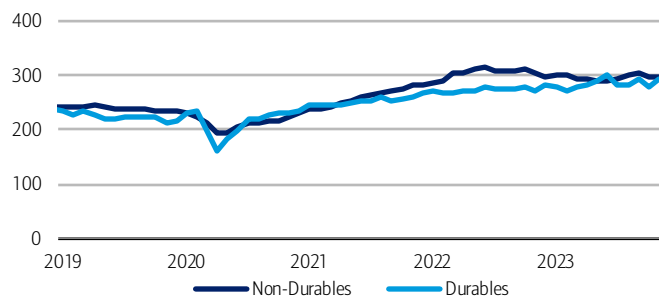


Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

Exhibit 41: U.S. Durable/Non-Durable Goods (\$bn)

New orders for U.S. durable and non-durable goods have rebounded since their COVID lows

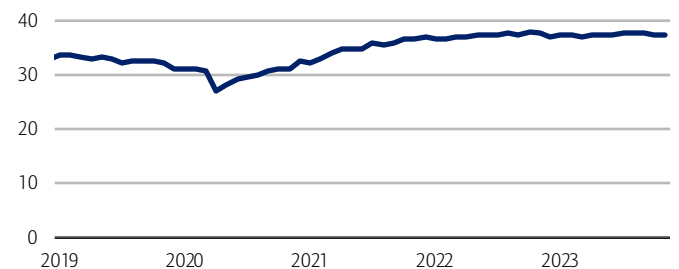


Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

Exhibit 42: U.S. Durable Goods: Machinery (\$bn)

New orders for U.S. machinery have rebounded since their COVID lows



Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

Earnings Calendar

Exhibit 43: HG Basic Materials Earnings Calendar

HG Basic Materials earnings over the next few weeks

Company	Sector	Ticker	EPS Date	Time	Status	Call Date	Call Time	Call Number	Call PIN
Alcoa Corp	Mining	AA US	1/17/2024	Aft-mkt	Confirmed	1/17/2024	5:00:00 PM	+1 (877) 883-0383	5763033
PPG Industries Inc	Chemicals	PPG US	1/18/2024	Aft-mkt	Confirmed	1/19/2024	8:00:00 AM	+1 833-470-1428	223546, 9298
DR Horton Inc	Home Builders	DHI US	1/23/2024	Bef-mkt	Confirmed	1/23/2024	8:30:00 AM	888-506-0062	566897
Steel Dynamics Inc	Iron/Steel	STLD US	1/23/2024	Aft-mkt	Confirmed	1/24/2024	11:00:00 AM	+1.973.528.0011	#N/A N/A
Freeport-McMoRan Inc	Mining	FCX US	1/24/2024	Bef-mkt	Tentative	1/24/2024	10:00:00 AM	#N/A N/A	#N/A N/A
Packaging Corp of America	Packaging&Containers	PKG US	1/24/2024	Aft-mkt	Confirmed	1/25/2024	9:00:00 AM	833-816-1102	#N/A N/A
Sherwin-Williams Co/The	Chemicals	SHW US	1/25/2024	Bef-mkt	Confirmed	1/25/2024	11:00:00 AM	#N/A N/A	#N/A N/A
Dow Inc	Chemicals	DOW US	1/25/2024	Bef-mkt	Confirmed	1/25/2024	8:00:00 AM	#N/A N/A	#N/A N/A
Eagle Materials Inc	Building Materials	EXP US	1/25/2024	Bef-mkt	Confirmed	1/25/2024	8:30:00 AM	833-630-0590	Eagle Materials
Weyerhaeuser Co	REITS	WY US	1/25/2024	Aft-mkt	Confirmed	1/26/2024	10:00:00 AM	877-407-0792	13742026
Eastman Chemical Co	Chemicals	EMN US	1/26/2024	NA	Estimated	NA	NA	#N/A N/A	#N/A N/A
Nucor Corp	Iron/Steel	NUE US	1/29/2024	Aft-mkt	Confirmed	1/30/2024	10:00:00 AM	#N/A N/A	#N/A N/A
MDC Holdings Inc	Home Builders	MDC US	1/30/2024	Bef-mkt	Confirmed	1/30/2024	12:30:00 PM	844-757-5733	#N/A N/A
PulteGroup Inc	Home Builders	PHM US	1/30/2024	Bef-mkt	Confirmed	1/30/2024	8:30:00 AM	(888) 440-6928	6106699
Fortune Brands Innovations Inc	Building Materials	FBIN US	1/30/2024	Aft-mkt	Confirmed	1/30/2024	5:00:00 PM	#N/A N/A	#N/A N/A
Corteva Inc	Biotechnology	CTVA	1/31/2024	Aft-mkt	Confirmed	2/1/2024	9:00:00 AM	#N/A N/A	#N/A N/A
International Paper Co	Forest Products&Paper	IP US	2/1/2024	Bef-mkt	Confirmed	2/1/2024	10:00:00 AM	844-291-5494	3266705
Westrock Co	Packaging&Containers	WRK US	2/1/2024	NA	Estimated	NA	NA	#N/A N/A	#N/A N/A
Avery Dennison Corp	Household Products/Wares	AVY US	2/2/2024	NA	Estimated	NA	NA	#N/A N/A	#N/A N/A
LyondellBasell Industries NV	Chemicals	LYB US	2/2/2024	NA	Estimated	NA	NA	#N/A N/A	#N/A N/A
Air Products and Chemicals Inc	Chemicals	APD US	2/5/2024	Bef-mkt	Confirmed	2/5/2024	8:30:00 AM	#N/A N/A	#N/A N/A
Cabot Corp	Chemicals	CBT US	2/5/2024	Aft-mkt	Confirmed	2/6/2024	8:00:00 AM	#N/A N/A	#N/A N/A
FMC Corp	Chemicals	FMC US	2/5/2024	Aft-mkt	Confirmed	2/6/2024	9:00:00 AM	+1 833 470 1428	196953
Linde PLC	Chemicals	LIN	2/6/2024	06:00	Confirmed	2/6/2024	9:00:00 AM	1 888 770 7292	6877110
DuPont de Nemours Inc	Chemicals	DD US	2/7/2024	NA	Estimated	NA	NA	#N/A N/A	#N/A N/A
Masco Corp	Building Materials	MAS US	2/8/2024	07:00	Confirmed	2/8/2024	8:00:00 AM	888-259-6580	96682919
Mohawk Industries Inc	Building Materials	MHK US	2/8/2024	Aft-mkt	Confirmed	2/9/2024	11:00:00 AM	1-833-630-1962	#N/A N/A
AptarGroup Inc	Packaging&Containers	ATR US	2/8/2024	Aft-mkt	Confirmed	2/9/2024	9:00:00 AM	#N/A N/A	#N/A N/A
Sonoco Products Co	Packaging&Containers	SON US	2/8/2024	NA	Estimated	NA	NA	#N/A N/A	#N/A N/A
International Flavors & Fragra	Chemicals	IFF US	2/8/2024	NA	Estimated	NA	NA	#N/A N/A	#N/A N/A
Ecolab Inc	Chemicals	ECL US	2/13/2024	Bef-mkt	Confirmed	2/13/2024	1:00:00 PM	#N/A N/A	#N/A N/A
Barrick Gold Corp	Mining	ABX CN	2/14/2024	06:00	Confirmed	2/14/2024	11:00:00 AM	1 800 319 4610	#N/A N/A
Reliance Steel & Aluminum Co	Iron/Steel	RS US	2/15/2024	Bef-mkt	Tentative	2/15/2024	11:00:00 AM	#N/A N/A	#N/A N/A
Owens Corning	Building Materials	OC US	2/15/2024	NA	Estimated	NA	NA	#N/A N/A	#N/A N/A
CF Industries Holdings Inc	Chemicals	CF US	2/15/2024	NA	Estimated	NA	NA	#N/A N/A	#N/A N/A
Albemarle Corp	Chemicals	ALB US	2/15/2024	NA	Estimated	NA	NA	#N/A N/A	#N/A N/A
Martin Marietta Materials Inc	Building Materials	MLM US	2/15/2024	NA	Estimated	NA	NA	#N/A N/A	#N/A N/A
Kinross Gold Corp	Mining	K CN	2/15/2024	NA	Estimated	NA	NA	#N/A N/A	#N/A N/A
Vulcan Materials Co	Building Materials	VMC US	2/16/2024	NA	Estimated	NA	NA	#N/A N/A	#N/A N/A
Northern Star Resources Ltd	Mining	NST AU	2/20/2024	NA	Estimated	NA	NA	#N/A N/A	#N/A N/A
Toll Brothers Inc	Home Builders	TOL US	2/21/2024	NA	Estimated	NA	NA	#N/A N/A	#N/A N/A
Huntsman Corp	Chemicals	HUN US	2/21/2024	NA	Estimated	NA	NA	#N/A N/A	#N/A N/A
Westlake Corp	Chemicals	WLK US	2/21/2024	NA	Estimated	NA	NA	#N/A N/A	#N/A N/A
Teck Resources Ltd	Coal	TCK	2/22/2024	Bef-mkt	Confirmed	2/22/2024	11:00:00 AM	#N/A N/A	#N/A N/A
Nutrien Ltd	Chemicals	NTR CN	2/22/2024	Aft-mkt	Confirmed	2/22/2024	10:00:00 AM	#N/A N/A	#N/A N/A
CCL Industries Inc	Packaging&Containers	CCL/B CN	2/22/2024	NA	Estimated	NA	NA	#N/A N/A	#N/A N/A
Mosaic Co/The	Chemicals	MOS US	2/22/2024	NA	Estimated	NA	NA	#N/A N/A	#N/A N/A
Newmont Corp	Mining	NEM US	2/23/2024	NA	Estimated	NA	NA	#N/A N/A	#N/A N/A
Celanese Corp	Chemicals	CE US	2/23/2024	NA	Estimated	NA	NA	#N/A N/A	#N/A N/A
Lennar Corp	Home Builders	LEN US	3/14/2024	NA	Estimated	NA	NA	#N/A N/A	#N/A N/A
RPM International Inc	Chemicals	RPM US	4/5/2024	NA	Estimated	NA	NA	#N/A N/A	#N/A N/A

Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH



Valuation & risk

Int. Flavors (IFF)

International Flavors & Fragrances Inc. (IFF) is a creator & manufacturer of food, bev, health & biosciences, scent & pharma solutions.

Recent operational underperformance (up until 3Q23) brought into question IFF's ability to de-lever below 3.5x by YE24 and avoid a downgrade at Moody's. In response, IFF announced an \$810mm sale of its Lucas Meyers business and is exploring a potential sale of its Pharma Solutions business (according to Bloomberg), a sale that could fetch up to \$3.5b. We previously noted that IFF needed to sell at least \$2b of assets (with proceeds used for deleveraging) to prevent a downgrade to high yield at all three agencies, an asset sale target that seems achievable given the Lucas Meyer sale and potential for the Pharma Solutions sale (which we view as likely). Coupled with 3Q23 outperformance, investors seem to have repriced a much lower likelihood that IFF falls to high yield and spreads ripped tighter as a result. We therefore view current trading levels as fair value and see minimal spread upside from here. This leaves us MW IFF though OW its 2030 notes given attractive wide trading levels versus peers.

Risks: failure to meet de-leveraging targets, failure to achieve projected synergies/integrate the combined business, failure to execute on divestitures or divestitures well in excess of needs, competitors taking market share, ratings downgrades, and higher/lower-than-expected raw material inflation/deflation.

Analyst Certification

I, Daniel Lungo, 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.

Security/Loan pricing

International Flavors & Fragrances Inc / IFF

	Amt		Ratings			Yield	Spread
Security		Maturity date	Moody's/S&P/Fitch	Price	Price date	(%)	(bps)
1.23, Senior, USD, 2025:B	1,000	01-OCT-2025	Baa3/BBB-/BBB	92.84	11-Jan-2024	5.66	127
1.832, Senior, USD, 2027:B	1,200	15-OCT-2027	Baa3/BBB-/BBB	88.21	11-Jan-2024	5.34	135
4.45, Senior, USD, 2028:B	400	26-SEP-2028	Baa3/BBB-/BBB	97.46	11-Jan-2024	5.06	112
2.3, Senior, USD, 2030:B	1,500	01-NOV-2030	Baa3/BBB-/BBB	82.75	11-Jan-2024	5.36	143
3.268, Senior, USD, 2040:B	750	15-NOV-2040	Baa3/BBB-/BBB	71.87	11-Jan-2024	5.93	171
4.375, Senior, USD, 2047:B	500	01-JUN-2047	Baa3/BBB-/BBB	76.05	11-Jan-2024	6.36	199
5, Senior, USD, 2048:B	800	26-SEP-2048	Baa3/BBB-/BBB	84.84	11-Jan-2024	6.21	185
3.468, Senior, USD, 2050:B	1,500	01-DEC-2050	Baa3/BBB-/BBB	68.12	11-Jan-2024	5.83	154

For pricing information refer to "Other Important Disclosures" below.

B=Bond; L=Loan; CS=Capital Security (Not including Equity Preferred); CDS=Credit Default Swap; EP=Equity Preferred

Disclosures

Important Disclosures

Credit opinion history

International Flavors & Fragrances Inc / IFF

Company	Date ^{R1}	Action	Recommendation	
International Flavors & Fragrances Inc / IFF	31-Dec-2020		Overweight	
	12-Feb-2021	Downgrade	Marketweight	
	04-Mar-2021	Extended Review	NA	
	09-Jul-2021	Coverage Reinstatement	Overweight	
	23-Aug-2021	Restricted	NA	
	24-Aug-2021	Coverage Resumed	Overweight	
	13-Jan-2023	Downgrade	Marketweight	
	10-Mar-2023	Upgrade	Overweight	
	28-Nov-2023	Downgrade	Marketweight	
Security	Date ^{R1}	Action	Recommendation	Price
1.23, Senior, USD, 2025:B	31-Dec-2022		Overweight	
	13-Jan-2023	Downgrade	Marketweight	89.51
	10-Mar-2023	Upgrade	Overweight	88.41
	28-Nov-2023	Downgrade	Marketweight	90.88
1.832, Senior, USD, 2027:B	31-Dec-2022		Overweight	
	13-Jan-2023	Downgrade	Marketweight	86.28
	10-Mar-2023	Upgrade	Overweight	83.49
	28-Nov-2023	Downgrade	Marketweight	85.22
4.45, Senior, USD, 2028:B	31-Dec-2022		Overweight	
	13-Jan-2023	Downgrade	Marketweight	96.66
	10-Mar-2023	Upgrade	Overweight	92.99
	28-Nov-2023	Downgrade	Marketweight	94.42
2.3, Senior, USD, 2030:B	31-Dec-2022		Overweight	
	13-Jan-2023	Downgrade	Marketweight	82.76
	10-Mar-2023	Upgrade	Overweight	77.79
3.268, Senior, USD, 2040:B	31-Dec-2022		Overweight	
	13-Jan-2023	Downgrade	Marketweight	76.37
	10-Mar-2023	Upgrade	Overweight	69.12
	28-Nov-2023	Downgrade	Marketweight	65.46
4.375, Senior, USD, 2047:B	31-Dec-2022		Overweight	
	13-Jan-2023	Downgrade	Marketweight	83.24
	10-Mar-2023	Upgrade	Overweight	76.44
	28-Nov-2023	Downgrade	Marketweight	70.71
5, Senior, USD, 2048:B	31-Dec-2022		Overweight	
	13-Jan-2023	Downgrade	Marketweight	92.04
	10-Mar-2023	Upgrade	Overweight	83.56
	28-Nov-2023	Downgrade	Marketweight	78.26
3.468, Senior, USD, 2050:B	31-Dec-2022		Overweight	
	13-Jan-2023	Downgrade	Marketweight	74.49
	10-Mar-2023	Upgrade	Overweight	66.46
	28-Nov-2023	Downgrade	Marketweight	61.62

International Flavors & Fragrances Inc / IFF**Company****Date^{R1}****Action****Recommendation**

Table reflects credit opinion history as of previous business day's close.^{R1}First date of recommendation within the last 36 months, if for an issuer or within the last 12 months, if for a security or loan. The investment opinion system is contained at the end of the report under the heading "BofA Global Research Credit Opinion Key."

Pricing information in the table is provided for each action where available. In the case of bonds, loans, capital securities and equity preferreds, the price shown reflects the nominal cash price for the security; and in the case of CDS, the price shown reflects the spread, on the date of the relevant action.

B=Bond; L=Loan; CS=Capital Security (Not including Equity Preferred); EP=Equity Preferred; CDS=Credit Default Swap

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.

Corporate Credit Issuer Investment Rating Distribution: Global Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships ^{R2}	Count	Percent
Buy	144	37.21%	Buy	119	82.64%
Hold	193	49.87%	Hold	163	84.46%
Sell	50	12.92%	Sell	37	74.00%

^{R2} 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 corporate credit issuer recommendations. A corporate credit issuer rated Overweight is included as a Buy, a corporate credit issuer rated Marketweight is included as a Hold, and a corporate credit issuer rated Underweight is included as a Sell.

Credit Opinion History Tables for the securities referenced in this research report are available on the [Price Charts and Credit Opinion History Tables website](#), or call 1-800-MERRILL to have them mailed.

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