

High Grade Basic Materials Weekly

Week ended March 8, 2024

Industry Overview

HG Basic Materials spreads finished 1 bps wider w-o-w

HG Basic Materials spreads finished 1 bps wider w-o-w, performing mostly in-line with the Corp Index (unchanged on an OAS basis w-o-w). All subsectors performed mostly inline. In metals, we highlight Freeport-McMoRan's (FCX) 2034 notes which outperformed and tightened 10 bps w-o-w on the back of a broad base metals price rally.

HG Basic Materials outperformed the Corp Index

HG Basic Materials (-8 bps of excess returns) underperformed the Corp Index (+1 bps bps) w-o-w. All subsectors underperformed, ex. Construction Materials / Homebuilders which performed in in-line.

BofA Ag & Materials Conference; ALB equity offering

Last week, the BofA Equity and Credit teams hosted our 10th annual BofA Global Agriculture & Materials Conference in Fort Lauderdale, FL. The event featured a keynote presentation from the DOE's Chief Commercial Officer and various fireside chats and industry panels, spanning topics of plastic circularity, hydrogen, lithium, seed technology, ag biologics, boxboard markets, containerboard & corrugated trends and more. We share two takeaway pieces published by our Basic Materials Equity Research Teams later in this report. (Chemicals recap report, Paper & Packaging recap report). In Chemicals, the outlook was mixed. Petchem producers expect continued sluggish demand while lithium producers expect a near-term bottom in pricing with a recovery likely later this year. Fertilizers continued to be a bright spot in Chemicals, with nitrogen standing out as having the most significant near-term upside. Separately, the tone for Paper & Packaging was broadly positive as several expert panels agreed that early trends for 2024 are better than expected, though prior expectations were soft. Away from the conference, we discuss Albemarle's (ALB) \$2b convertible preferred equity offering with proceeds to be used for general corporate purposes, including funding growth capex and repaying the company's outstanding commercial paper program (\$620mm outstanding at YE23). Separately, we note various rating agency actions, including: S&P's downgrade of Anglo American (AALLN) to BBB from BBB+ (stable outlook), Fitch's upgrade of Freeport-McMoRan to BBB from BBB- (stable outlook) and S&P's outlook revision for Albemarle (ALB) to negative from stable (affirmed BBB rating).

Metals prices up w/w; China sets FY24 GDP target at ~5%

Metals prices were stronger w-o-w. In the US, Fed Chair Jerome Powell testified in front of Congress, reiterating his stance that reducing policy rates later this year would be appropriate should the economy evolve in-line with Fed expectations (see our report, Federal Reserve Watch: "A little more evidence" to cut). February CPI will be released next week on March 12th. Separately, China's National People's Congress (NPC) commenced this week. The tone was supportive though mostly in-line with market expectations. FY24 GDP target was set at "around 5%" (in-line with consensus) signaling that continued policy support is needed to prop up growth. See our China econ team's full report for more info.

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High Grade Credit North America **Basic Materials**

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Exhibit 1:WTD Excess Returns (bps)

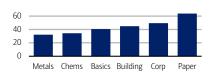
Basic materials underperformed this week



Source: BofA Global Research, ICE Data Indices, LLC BofA GLOBAL RESEARCH

Exhibit 2: YTD Excess Return (bps)

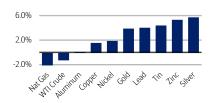
Basic materials have underperformed YTD



Source: BofA Global Research, ICE Data Indices, LLC BofA GLOBAL RESEARCH

Exhibit 3: W-o-w Commodity Performance

Silver gained the most w-o-w at 5.7%; while Nat Gas gained the least at -2.1%



Source: BofA Global Research, Bloomberg BofA GLOBAL RESEARCH

News & Views

The following is an excerpt from our Basic Materials Team's report <u>Global Agriculture & Materials</u> <u>Conference wrap-up; Focus on macro and sustainability published on March 4, 2024.</u>

Global Agriculture & Materials Conference wrap-up; Focus on macro and sustainability

Chemical Sector Conference wrap-up

Our 10th annual BofA Global Agriculture & Materials Conference included over 70 companies and 175 investors across global agriculture, chemicals, paper & packaging, building products, and waste sectors. The event featured a keynote presentation from the DOE's Chief Commercial Officer and 12 industry panels spanning the topics of plastics circularity, hydrogen, lithium, seed technology, sustainable aviation fuel, Ag biologics, and several paper & packaging panels (Staphos report here). We also toured Dow and Lyondell petchem facilities in Texas and Mosaic's phosphate operations in FL.

Sustainability Initiatives

Three members of the DOE participated in various panel discussions, which seemed well received by the corporates as they are all evaluating technologies to cost effectively decarbonize. The DOE's approach is to facilitate and enable industry to decarbonize by funding new technology developments and supporting supply and demand relationships (e.g. hydrogen hubs). Our sustainable plastic panel highlighted how the technologies have diversified from mechanical, to molecular, to renewable feedstocks.

Many moving parts in Agriculture

Within the Ag sector, we hosted seed, crop chemical, fertilizer and ethanol companies along with several AgTech companies developing new approaches to gene edited seeds and bacterial products. Within the fertilizers, we would characterize nitrogen as having the most significant near-term upside, phosphate as having the most industry discipline and thus the most favorable pricing, and potash as suffering from aggressive FSU pricing. Our discussion with Corteva and a seed technology panel highlighted expectations for accelerating crop yields in coming years from gene editing. Crop chemical inventories remain elevated in South America, with aggressive generic pricing.

Nearing a bottom in Lithium and Petchems

We hosted discussions with 6 lithium companies, who were all expecting a near-term bottom in pricing with a recovery likely this year, but the timing less certain. The outlook for petchems was more mixed as global demand for PVC was still sluggish, but some pricing strength expected near-term.

Shareholder Activism

We hosted a panel discussion on shareholder activism consisting of attorneys focused exclusively either on the activism side or the defense side. Areas of agreement between these sides is that proxy fights have increased significantly in the post-COVID era, and not just from traditional activists, but more broadly from investors that are willing to go public in pursuit of operating changes or a new CEO as a result of poor performance.



The following is an excerpt from our Paper & Packaging Equity Research Team's report <u>BofA</u> <u>Global Ag & Materials Conference</u>: <u>Early in the recovery published on March 5, 2024</u>.

BofA Global Ag & Materials Conference: Early in the recovery

Positive tone at BofA Global Ag. & Mats Conf.

We hosted our Global Agriculture & Materials Conference in Fort Lauderdale, FL this past week, which included "fireside chat" discussions with 11 companies across Packaging & Paper/Forest (links at right) as well as several timely panels on topics including a review of: (a) Consumer GLP-1 trends; (b) North American boxboard markets; (c) Recycling and Recycled Fiber; (d) Containerboard & Corrugated trends; (e) Sustainable Plastics & Packaging; and (f) Trends being seen by two smaller-cap companies, Sylvamo and Clearwater, in a "Lightning Round" discussion. Our separate reports upgrading Ball Corp, International Paper, and Packaging Corp. to Buy and from our colleague Steve Byrne on the ag. & commodity chemical perspective are linked as well. We thank all the presenting companies and panelists, as well as the attending investors, who took part in our conference.

Outlooks improving; Signs of both inflation & productivity

The tone from presenting companies was largely consistent with or ahead of previously discussed trends from December-quarter reporting. Companies that pointed to improvements in early 2024 trends relative to 4Q-reporting commentary included Ball Corp. and Packaging Corp. That said, most companies expect stronger volume during 2H of 2024. Some companies in our view missed opportunities to comment on 1Q trends and/or more strongly defend their strategies. Again, please see the company discussions at right. Meantime, labor, and other costs remain elevated – please see our discussion on recycled fiber. Automation, sharing of best practices, benchmarking and other forms of increasing productivity look to be ahead.

Panels: Sustainability favors paper/metal?; C'board better

Meantime, our expert panels offered much color. On balance, there remains a lot of demand for recycled resin, well above that of available supply. Procurement costs and other factors remain a headwind. Meantime, look to an increase in box shipments in 2H of 2024, even as op. rates are expected to be a touch better this year. Early trends were "pleasantly surprising", though versus very low expectations. Meantime in boxboard, panelists saw comparatively good volumes in bleached board and coated unbleached kraft but weaker trends in coated recycled board. New capacity coming into the market was seen as manageable for now – given project delays and mill closures, perhaps ~200k tons in bleached board. Imports overall were seen as ~15% of the folding boxboard market, itself 52% of the overall boxboard market (and, at ~500k tons, about 10% of the bleached board market). Separately, GLP-1 therapies were viewed to be mild impacts to consumption at present, with some potential for positive volumes as well.



ALB announces a \$2b convertible preferred stock offering

On Tuesday, ALB priced a \$2b offering of depositary shares, each representing a 1/20th interest in a share of Series A Mandatory Convertible Preferred Stock in ALB. Each depositary share will automatically convert on March 1, 2027 into ALB common stock, unless converted earlier. In addition, ALB has granted the transaction's underwriters a 30-day option to purchase up to an additional \$300mm of depositary shares. Proceeds are expected to be used for general corporate purposes, including funding growth capex and repaying the company's outstanding commercial paper program (\$620mm outstanding at YE23).

Rating agency commentary

S&P downgrades AALLN to BBB, stable outlook

On Friday, S&P downgraded Anglo American (AALLN) to BBB from BBB+ and provided a stable outlook. The agency also removed the company's negative CreditWatch which was announced in late December. The downgrade reflects S&P's belief that lower volumes / prices for some commodities will result in weaker credit metrics while AALLN also continues to return to cash to shareholders. The agency acknowledged that management has embarked on a portfolio optimization plan though S&P lacks visibility on any potential changes. The stable outlook reflects the successful implementation of cost and capex cutting programs, as well as supportive prices for iron ore and copper. The outlook assumes no changes in the company's portfolio. A negative ratings action could be taken if commodity prices fall well below S&P's price assumptions, there is no short-term profit recovery in the company's Platinum Group Metals and Diamonds businesses, management further cuts production guidance, and/or scale is diminished without a change in absolute debt levels. Conversely, S&P sees a potential positive ratings action as remote. AALLN would need to have a much larger and more profitable portfolio with funds from operations to debt of ~60% (mid-cycle) and ~45% (bottom cycle).

Fitch upgrades FCX to BBB from BBB-; stable outlook

On Thursday, Fitch upgraded Freeport-McMoRan (FCX) to BBB from BBB- and provided a stable outlook. The upgrade reflects Fitch's belief that leverage will remain below 1.8x through 2027, supported by FCX's high quality assets, visibility on the successful completion of its Indonesian smelter projects, strong liquidity and improved capital structure. Fitch could take a positive ratings action if leverage is sustained at or below 1.3x. Conversely, a negative action could be taken if leverage is sustained above 2.0x and/or Fitch expects negative free cash flow on average.

S&P revises ALB's outlook to negative from stable; affirms BBB rating

On Wednesday, S&P revised Albemarle's (ALB, NR) outlook to negative from stable and affirmed its BBB rating. The negative outlook reflects uncertainty around lithium pricing and demand as the sharp decline in prices starting in 2Q23 has materially weakened ALB's credit metrics. In S&P's best case, they expect ALB's funds from operations (FFO) to debt to remain between 20-30%. A negative ratings action could be taken if FFO to debt drops below 20% with no prospects of improvement, liquidity weakens below 1.2x, or the company is negatively impacted by geopolitical factors. Conversely, S&P could stabilize ALB's outlook if FFO to debt remains comfortable between 20-30%, EBITDA margins expand by more than 400 bps, and its financial policies maintain strong credit metrics after including potential growth projects and shareholder returns.



New Issue Commentary

NEM priced \$2b of debt offering across two parts

On Monday, Newmont Gold Corp (NEM, NR) priced \$2b of senior unsecured notes across two parts. The notes are due March 15, 2026 (\$1b) and March 15, 2034 (\$1b) and priced at a spread over the relevant treasury benchmark of +70 bps (2026s) and +117 bps (2034s), respectively. Proceeds will be used to repay the outstanding balance under its revolving credit facility and for general corporate purposes.

BofA Recommendations

Exhibit 4: BofA Global Research Recommendations

HG Basic Materials recommendations include 2 Overweights and 2 Underweights

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

Source: BofA Global Research

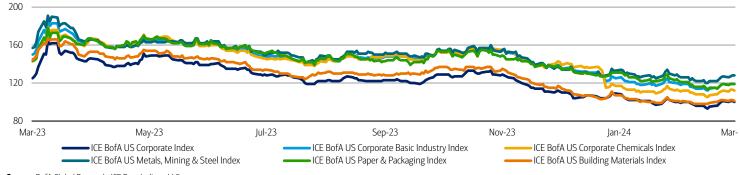
Note: UW = Underweight, MW = Marketweight, OW = Overweight, RSTR = Restricted. Please see credit opinion key at the end of this report



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 mixed but mostly flat to 5 bps tighter w-o-w.

													8-wk
													avg.
				Outstanding		Bid	Z-	G-		1 wk.	6-mo	6-mo	spread
Issuer	Entity	Coupon	Maturity	(\$mm)	MDY/S&P	(bps)	Spread	Spread	Price	change	tights	wides	(bps)
ALB	Albemarle Corp	5.050	6/1/2032	600	Baa3 / BBB	164	197	165	95.66	0	153	215	163
ALB	Albemarle Corp	5.650	6/1/2052	450	Baa3 / BBB	213	276	211	90.42	4	201	258	207
APD	Air Products and Chemicals	4.850	2/8/2034	1,150	A2 / A	82	116	82	99.62	(6)	76	88	80
APD	Air Products and Chemicals	2.800	5/15/2050	950	A2 / A	81	146	77	67.34	3	62	88	75
CE	Celanese US Holdings LLC	6.700	11/15/2033	1,000	Baa3 / BBB-	174	207	174	106.33	(4)	163	258	175
CF	CF Industries Inc	5.375	3/15/2044	750	Baa3 / BBB	151	213	151	94.28	4	138	195	143
CTVA	Corteva, Inc	4.800	5/15/2033	600	A3 / A-	85	119	85	99.04	(1)	75	121	80
DD	DuPont de Nemours Inc	5.419	11/15/2048	2,150	Baa1 / BBB+	120	179	115	99.49	(1)	96	150	113
DOW	Dow Chemical Co/The	5.150	2/15/2034	600	Baa1 / BBB	107	141	107	100.01	(5)	96	112	104
DOW	Dow Chemical Co/The	5.600	2/15/2054	650	Baa1 / BBB	137	203	137	99.62	(4)	129	141	134
ECL	Ecolab Inc	2.125	2/1/2032	650	A3 / A-	63	97	64	83.15	(2)	53	92	63
ECL	Ecolab Inc	2.700	12/15/2051	850	A3 / A-	84	152	82	64.61	(4)	69	102	79
EMN	Eastman Chemical Co	5.625	2/20/2034	750	Baa2 / BBB	147	180	147	100.57	(3)	142	150	146
EMN	Eastman Chemical Co	4.650	10/15/2044	900	Baa2 / BBB	150	214	151	85.68	(1)	138	192	144
FMC	FMC Corp	5.650	5/18/2033	500	Baa2 / BBB-	184	217	184	98.11	(7)	179	257	187
FMC	FMC Corp	6.375	5/18/2053	500	Baa2 / BBB-	222	285	221	98.68	(1)	205	271	216
HUN	Huntsman International LLC	2.950	6/15/2031	400	Baa3 / BBB-	172	205	173	83.31	0	165	225	171
IFF	International Flavors and Fragrances Inc	3.468	12/1/2050	1,500	Baa3 / BBB-	177	241	174	66.24	1	162	234	168
LIN	Linde Inc/CT	2.000	8/10/2050	300	A2 / A	73	139	69	56.42	4	62	95	67
LYB	LYB International Finance III LLC	5.500	3/1/2034	750	Baa2 / BBB	138	171	138	100.32	2	136	138	137
LYB	LYB International Finance III LLC	3.625	4/1/2051	1,000	Baa2 / BBB	152	216	149	70.74	(3)	136	187	146
MOS	Mosaic Co	5.625	11/15/2043	600	Baa2 / BBB	151	213	152	97.22	(3)	150	197	153
NTRCN	Nutrien Ltd	5.800	3/27/2053	750	Baa2 / BBB	143	207	141	101.60	(3)	122	177	135
RPM	RPM International Inc	2.950	1/15/2032	300	Baa3 / BBB	124	158	125	84.97	1	116	201	123
RPM	RPM International Inc	4.250	1/15/2048	300	Baa3 / BBB	144	203	138	81.26	(5)	141	194	144
SHW	Sherwin-Williams Co/The	2.200	3/15/2032	500	Baa2 / BBB	93	128	94	81.66	2	81	131	86
SHW	Sherwin-Williams Co/The	2.900	3/15/2052	500	Baa2 / BBB	104	171	102	65.23	2	87	143	95
WLK	Westlake Chemical Corp	3.125	8/15/2051	600	Baa2 / BBB	152	218	149	63.73	(1)	132	183	143

Source: BofA Global Research, BofA Trading Desk, Bloomberg



Exhibit 7: HG Metals, Mining and Steel Cash Spreads (Bid)In the HG Metals, Mining, & Steel subsector, spreads were mostly flat to 10 bps tighter w-o-w.

													avg.
				Outstanding		Bid	Z-	G-		1 wk.	6-mo	6-mo	spread
Issuer	Entity	Coupon	Maturity	(\$mm)	MDY/S&P	(bps)	Spread	Spread	Price	change	tights	wides	(bps)
AALLN	Anglo American Capital PLC	5.500	5/2/2033	900	Baa2 / BBB	148	181	148	99.58	(6)	148	195	152
AALLN	Anglo American Capital PLC	4.750	3/16/2052	750	Baa2 / BBB	160	224	158	84.87	(1)	150	204	157
ABXCN	Barrick Gold Corp	5.750	5/1/2043	849	Baa1 / BBB	110	172	112	103.47	(2)	94	134	106
BHP	BHP Billiton Finance USA Ltd	5.250	9/8/2033	1,500	A2 / A-	93	127	93	101.78	(6)	82	120	90
BHP	BHP Billiton Finance USA Ltd	5.500	9/8/2053	800	A2 / A-	100	165	99	103.61	(4)	84	111	94
FCX	Freeport-McMoRan Inc	5.400	11/14/2034	730	Baa2 / BB+	147	180	145	98.81	(10)	131	206	147
FCX	Freeport-McMoRan Inc	5.450	3/15/2043	1,706	Baa2 / BB+	156	218	159	94.74	(5)	139	201	152
GLENLN	Glencore Funding LLC	6.500	10/6/2033	1,000	Baa1 / BBB+	127	160	127	108.37	(4)	127	197	133
GLENLN	Glencore Funding LLC	3.375	9/23/2051	500	Baa1 / BBB+	128	194	125	69.65	(8)	125	188	129
KCN	Kinross Gold Corp	6.250	7/15/2033	500	Baa3 / BBB-	169	202	169	103.36	(1)	157	238	166
NEM	Newmont Corp	5.350	3/15/2034	1,000	Baa1 / BBB+	110	144	110	101.31	N.A.	110	110	110
NEM	Newmont Corp	4.875	3/15/2042	1,000	Baa1 / BBB+	110	172	115	93.41	1	84	136	99
NUE	Nucor Corp	3.125	4/1/2032	550	Baa1 / A-	78	112	79	88.56	(3)	76	127	79
NUE	Nucor Corp	3.850	4/1/2052	550	Baa1 / A-	102	168	100	79.24	2	83	137	93
RIOLN	Rio Tinto Finance USA Ltd	5.000	3/9/2033	650	A2 / A-	78	111	79	101.01	(3)	59	107	72
RIOLN	Rio Tinto Finance USA Ltd	5.125	3/9/2053	1,100	A2 / A-	101	167	100	97.91	(6)	83	116	94
SOUTAU	South32 Treasury Ltd	4.350	4/14/2032	700	Baa1 / BBB+	178	211	179	90.39	(2)	176	244	183
STLD	Steel Dynamics	3.250	1/15/2031	500	Baa2 / BBB	106	138	108	89.22	1	87	145	97
STLD	Steel Dynamics	3.250	10/15/2050	400	Baa2 / BBB	149	213	145	66.19	0	130	170	143
TCKBCN	Teck Resources Ltd	5.400	2/1/2043	367	Baa3 / BBB-	162	224	165	93.54	(3)	158	217	161

Source: BofA Global Research, BofA Trading Desk, Bloomberg

BofA GLOBAL RESEARCH

8-wk

Exhibit 8: HG Paper, Packaging, and Wood Cash Spreads (Bid)In the HG Paper, Packaging, & Wood subsector, spreads were mixed 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-	132	166	133	88.43	2	118	172	127
AVY	Avery Dennison Corp	5.750	3/15/2033	400	Baa2 / BBB	100	133	101	104.70	0	98	155	100
IP	International Paper Co	4.350	8/15/2048	740	Baa2 / BBB	112	172	106	86.14	(3)	103	152	110
PKG	Packaging Corp of America	3.050	10/1/2051	700	Baa2 / BBB	105	171	102	67.53	0	95	142	99
SON	Sonoco Products Co	2.850	2/1/2032	500	Baa2 / BBB	108	142	109	85.20	(2)	105	155	108
SON	Sonoco Products Co	5.750	11/1/2040	537	Baa2 / BBB	122	183	133	101.84	(13)	122	170	130
WRK	WRKCO Inc	3.000	6/15/2033	600	Baa2 / BBB	92	127	92	85.33	(6)	92	147	97
WY	Weyerhaeuser	3.375	3/9/2033	450	Baa2 / BBB	105	140	105	87.49	0	105	145	106
WY	Weyerhaeuser	4.000	3/9/2052	450	Baa2 / BBB	115	181	113	79.84	0	107	142	111

Source: BofA Global Research, BofA Trading Desk, Bloomberg



Exhibit 9: HG Construction Materials/Homebuilders Cash Spreads (Bid)In the HG Construction Materials/Homebuilders subsector, spreads were flat to 5 bps tighter w-o-w.

													8-WK	ı
													avg.	
				Outstanding		Bid	Z-	G-		1 wk.	6-mo	6-mo	spread	
Issuer	Entity	Coupon	Maturity	(\$mm)	MDY/S&P	(bps)	Spread	Spread	Price	change	tights	wides	(bps)	
EXP	Eagle Materials	2.500	7/1/2031	750	Baa2 / BBB	105	138	106	84.15	0	98	163	103	
FBINUS	Fortune Brands Home & Security Inc	5.875	6/1/2033	600	Baa2 / BBB	139	172	139	102.85	(4)	130	200	137	
FBINUS	Fortune Brands Home & Security Inc	4.500	3/25/2052	450	Baa2 / BBB	153	218	151	82.27	1	141	202	147	
MAS	Masco Corp	2.000	2/15/2031	600	Baa2 / BBB	106	139	107	81.91	(1)	101	150	105	
MAS	Masco Corp	3.125	2/15/2051	300	Baa2 / BBB	118	183	115	67.52	(3)	109	182	115	
MLM	Martin Marietta Materials Inc	2.400	7/15/2031	900	Baa2 / BBB+	97	131	98	83.92	(2)	92	144	96	
MLM	Martin Marietta Materials Inc	3.200	7/15/2051	900	Baa2 / BBB+	102	168	99	70.13	(1)	80	137	93	
OC	Owens Corning	4.300	7/15/2047	600	Baa1 / BBB	128	196	131	82.78	3	96	172	116	
PHM	PulteGroup Inc	7.875	6/15/2032	300	Baa2 / BBB	135	167	136	116.10	(3)	130	188	134	l
VMC	Vulcan Materials Co	4.700	3/1/2048	461	Baa2 / BBB+	113	172	107	90.83	(2)	99	150	108	l

Source: BofA Global Research, BofA Trading Desk, Bloomberg

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 Research, Company Reports, Bloomberg

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 Research, Company Reports, Bloomberg



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 Research, Company Reports, Bloomberg

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 Research, Company Reports, Bloomberg



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

\$28,052

\$31,749

15.5x

14%

\$12,610

\$15,062

12.2x

20%

Source: BofA Research, Company Reports, Bloomberg

\$43,162

\$44,383

7.0x

11%

\$5,165

\$6,207

8.0x

18%

\$6,959

\$9,335

10.8x

30%

Market Capitalization

Enterprise Value

EV/EBITDA

Total Debt/EV

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\$25,661

\$29,196

16.0x

13%

\$5,137

\$7,216

5.4x

36%

\$11,047

\$12,746

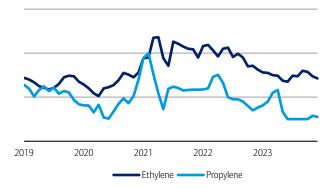
5.6x

24%

Chemical Markets Data

Exhibit 15: Olefin Pricing (\$/lb)

Olefin prices have declined from their highs



Source: Chemical Data Inc., a part of ICIS

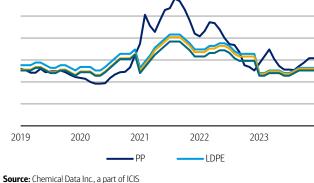
Exhibit 17: Fertilizer Pricing (\$/st)

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Exhibit 18: Isocyanates Pricing (\$/lb)

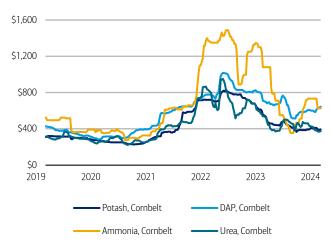
Exhibit 16: Polyolefin Pricing (\$/lb)

MDI and TDI have rebounded from their COVID lows



Polyolefin prices declined from their highs but have started to stabilize

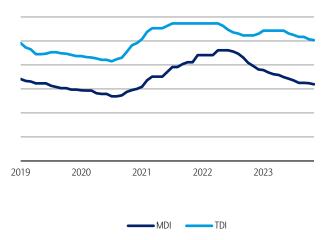
Crieffical Data Ific., a part of icis BofA GLOBAL RESEARCH



Fertilizer prices declined from their high but have started to stabilize

Source: BofA Global Research, Bloomberg

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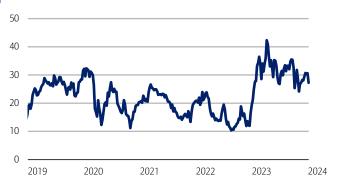


Source: Chemical Data Inc., a part of ICIS

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

The ratio of Brent to Natural Gas is at elevated levels

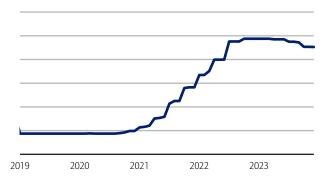


Source: BofA Global Research, Bloomberg

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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



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
	USc/lb	102	113	125	125	116	136	147	137	126	115
Strip Aluminum	US\$/t	2,279	2,279	2,279	2,279	2,279	2,425	2,546	2,637		
Copper	US\$/t	8,000	8,500	8,750	9,250	8,625	10,500	9,500	9,539	9,578	9,617
	USc/lb	363	386	397	420	391	476	431	433	434	436
Strip Copper	US\$/t	8,593	8,593	8,593	8,593	8,593	8,686	8,712	8,725		
Lead	US\$/t	2,000	2,000	2,000	2,000	2,000	1,750	2,024	2,217	2,409	2,602
	USc/lb	91	91	91	91	91	79	92	101	109	118
Strip Lead	US\$/t	2,167	2,167	2,167	2,167	2,167	2,189	2,219	2,251		
Nickel	US\$/t	18,500	18,500	19,000	19,000	18,750	20,000	20,000	19,141	18,283	17,424
	USc/lb	839	839	862	862	850	907	907	868	829	790
Strip Nickel	US\$/t	16,925	16,925	16,925	16,925	16,925	17,858	18,628	19,421		
Zinc	US\$/t	2,500	2,500	2,250	2,250	2,375	2,250	2,424	2,596	2,769	2,942
	USc/lb	113	113	102	102	108	102	110	118	126	133
Strip Zinc	US\$/t	2,592	2,592	2,592	2,592	2,592	2,621	2,627	2,630		

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

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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	2,064	2,064	2,064	2,064	2,064	2,155	2,259	2,314		
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	22.92	22.92	22.92	22.92	22.92	24.26	25.19	25.40		
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	907	907	907	907	907	936	969			
Palladium	US\$/oz	900	800	700	600	750	500	500	824	1,147	1,471
Strip Palladium	US\$/oz	958	958	958	958	958	1,000	1,049			

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

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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	295	295	295	295	295	273	220	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	128	128	128	128	128	112	102			

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

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

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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

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Exhibit 26: Commodity Team Energy Forecasts

BofA's quarterly and annual forecasts for steel

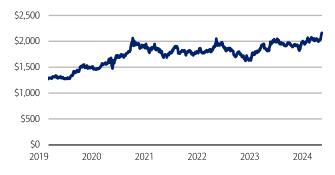
		1Q24E	2Q24E	3Q24E	4Q24E	2024E
Brent	US\$/bbl	78.00	80.00	82.00	80.00	80.00
Strip Brent	US\$/bbl	80.16	80.16	80.16	80.16	80.16
WTI	US\$/bbl	73.00	75.00	77.00	75.00	75.00
Strip WTI	US\$/bbl	75.46	75.46	75.46	75.46	75.46
Henry Hub	US\$/MMBtu	2.90	2.50	3.00	3.60	3.00
Strip Henry Hub	US\$/MMBtu	2.76	2.76	2.76	2.76	2.76

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

Precious and Base Metals Market Data

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

Gold prices ended up +3.9% w/w at \$2,164

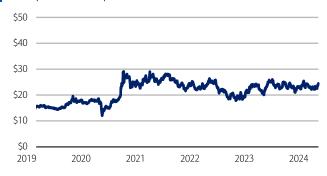


Source: BofA Global Research, Bloomberg

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

Silver prices ended up +5.9% w/w at \$24.49

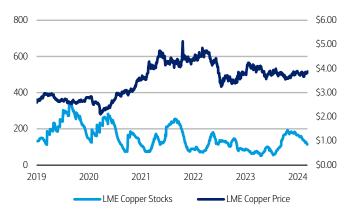


Source: BofA Global Research, Bloomberg

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

Copper prices ended down +1.7% w/w at \$3.88



Source: BofA Global Research, Bloomberg

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

Aluminum prices ended up +1.0% w/w at \$1.00



Source: BofA Global Research, Bloomberg

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

Nickel prices ended up +0.6% w/w at \$17,768



Source: BofA Global Research, Bloomberg

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

Zinc prices ended up +4.9% w/w at \$2,499

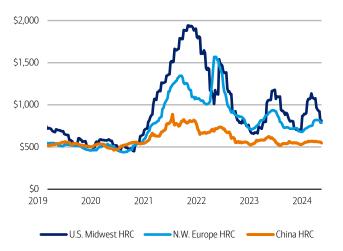


Source: BofA Global Research, Bloomberg



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

U.S. Midwest HRC prices ended up +2.9% w/w at \$813; NW. Europe HRC prices ended down -1.4% w/w at \$787; China HRC prices ended down -2.0% w/w at \$547



Source: BofA Global Research, Bloomberg

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

Lead prices ended down -1.5% w/w at \$126



Source: BofA Global Research, Bloomberg

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

China spot iron ore prices ended up +1.8% w/w at \$117

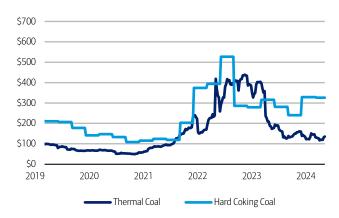


Source: BofA Global Research, Bloomberg

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

Thermal Coal prices ended up +2.7% w/w at \$136 Hard Coking Coal prices ended Unch. at \$326



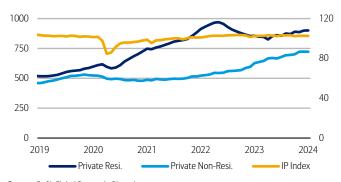
Source: BofA Global Research, Bloomberg



Construction Products Market Data

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

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



Source: BofA Global Research, Bloomberg

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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

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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

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

U.S new home sales have fallen from 2020 highs

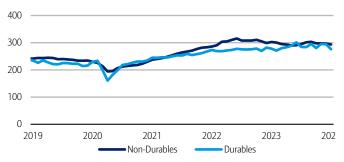


Source: BofA Global Research, Bloomberg

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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

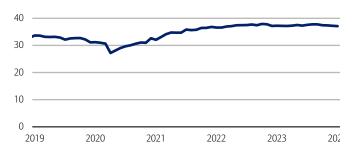


Source: BofA Global Research, Bloomberg

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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



HG Basic Materials New Issuance

Exhibit 43: HG Energy New Issuance

There was ~\$7.3b of HG New Issuance to date in 2024

Announce Date	Ticker	Issuer	Moody's	S&P	Amount Issued (\$MM)	Coupon (%)	Maturity Date	Term (yrs)	Spread At Issue
2/6/2024	APD	Air Products & Chemicals	A2	Α	750	4.6	2/8/2029	5	60
2/6/2024	APD	Air Products & Chemicals	A2	Α	600	4.75	2/8/2031	7	70
2/6/2024	APD	Air Products & Chemicals	A2	Α	1150	4.85	2/8/2034	10	80
2/7/2024	DOW	Dow Chemical Co/The	Baa1	BBB	600	5.15	2/15/2034	10	105
2/7/2024	DOW	Dow Chemical Co/The	Baa1	BBB	650	5.6	2/15/2054	30	130
2/15/2024	EMN	Eastman Chemical Co	Baa2	BBB	750	5.625	2/20/2034	10	142
2/26/2024	LYB	Lyb Int Finance lii	Baa2	BBB	750	5.5	3/1/2034	10	130
3/4/2024	NEM	Newmont / Newcrest Fin	Baa1	BBB+	1000	5.3	3/15/2026	2	70
3/4/2024	NEM	Newmont / Newcrest Fin	Baa1	BBB+	1000	5.35	3/15/2034	10	117

Source: Bloomberg, Company & Partnership Reports



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