

PNC'S METALS INDUSTRY UPDATE

Issue 40

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Welcome to Issue #40 of PNC's *Metals Industry Update*.

We are excited to be celebrating our 10th anniversary. A lot has happened in the past 10 years, and we have enjoyed bringing you our view on what is occurring in the metals industry. We have tried to remain true to our model, which combines thought-provoking perspectives with usable content all wrapped up in a 5-minute read. Our plan is to keep this going for another 10 years.

In this Issue, we offer a cover story supporting our view that North American carbon steel producers are undervalued. Following that are our recurring sections on metals pricing, public notes and bonds, and the syndicated bank loan market.

Thanks for joining us on this journey. We look forward to your questions and comments.

FOR MORE INFORMATION

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CARBON STEEL PRODUCERS CAN'T GET NO RESPECT

Our cover story looks at the top six publicly traded carbon steel mills in North America. Past issues have commented on the astonishing financial results the metals industry produced in 2021. Then in 2022, this group of carbon steel mills matched the collective performance achieved in 2021. The combined EBITDA generated by the six mills we have reported on for this story totaled more than \$26 billion. Three of the mills (Nucor, Steel Dynamics and Commercial Metals) had record profits for 2022. To put this in context, the 2022 results for combined EBITDA at the six mills we analyzed were five times the levels achieved in 2019. We attribute this new level of financial performance to a combination of structural changes that we believe will support higher through the cycle financial results.

Consider the following:

Consolidation

Acquisitions by Cleveland-Cliffs, U. S. Steel and Commercial Metals have consolidated a significant amount of U.S. production capacity among a small group of producers. In 2021, 71% of total steel shipments were made by the "Big Four" (Nucor, Cliffs, Steel Dynamics and U. S. Steel). Commercial Metals' share of the 9.5-million-ton rebar market approaches 50%.

CARBON STEEL PRODUCERS CAN'T GET NO RESPECT *(Continued)*

Capabilities

The leading carbon mills have enhanced their capabilities with strategic capital investments and/or transformational M&A.

- **Nucor** — acquisitions of metal manufacturing and a \$7 billion capital investment plan
- **Cliffs** — industry-leading automotive supplier and price leader
- **Steel Dynamics** — Sinton, Texas, and Aluminum Dynamics
- **U. S. Steel** — Big River 1 and Big River 2
- **CMC** — Gerdau rebar mills and fabrication assets, Micro mills – 2, 3 and 4, and Senstar.

External factors fueling increased production and demand

- Improved enforcement of existing trade laws
- Infrastructure Investment and Jobs Act
- Inflation Reduction Act
- CHIPS and Science Act Act

Improved financial strength

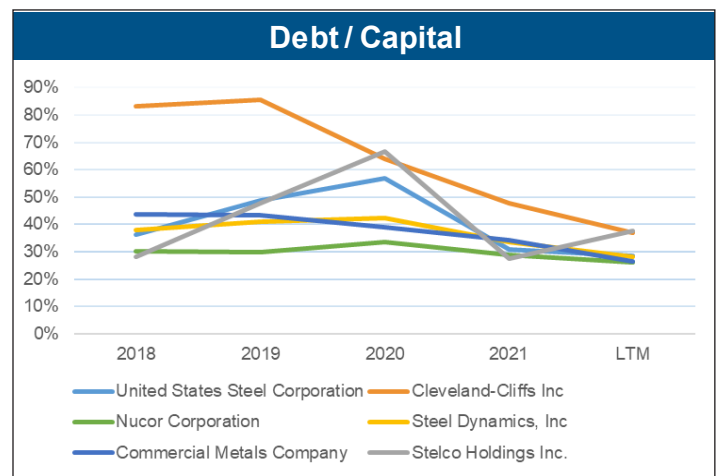
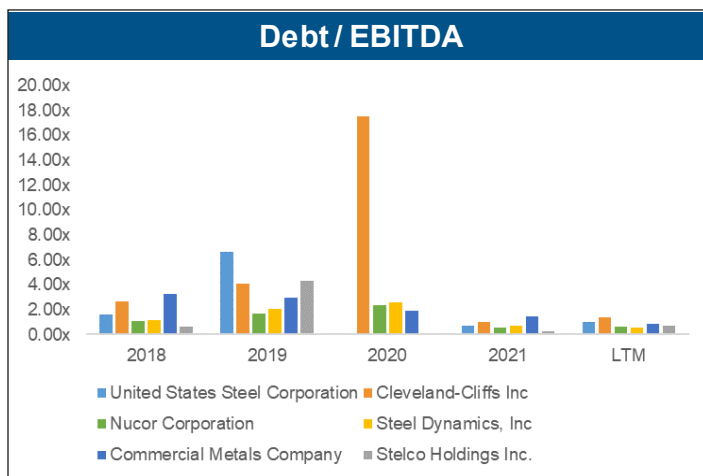
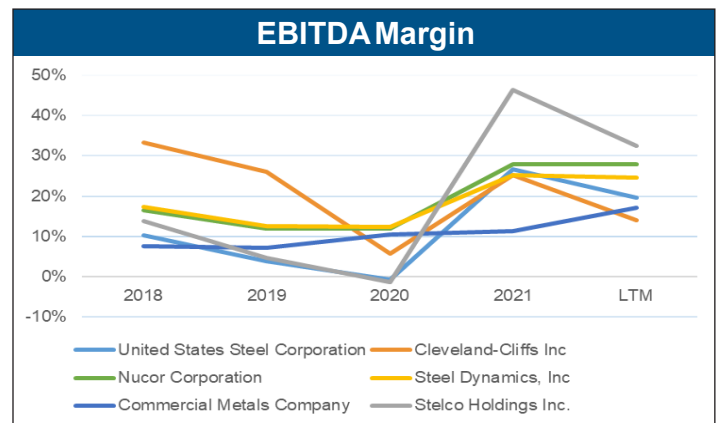
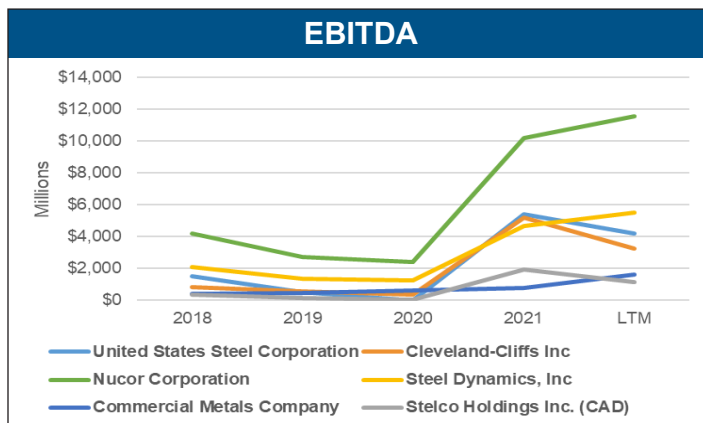
- Enhanced profit margins
- Increased free cash flow
- Record levels of liquidity
- All-time-low leverage ratios:
Net Debt/EBITDA < 1 and Debt/Capital < 30%

Enhanced shareholder returns

- Active share buy-back programs at every company
- Dividends paid at five of the six companies and growing

The charts below and on the following pages help to highlight the dramatic transformation that took place with the leading producers in the U.S. carbon steel marketplace.

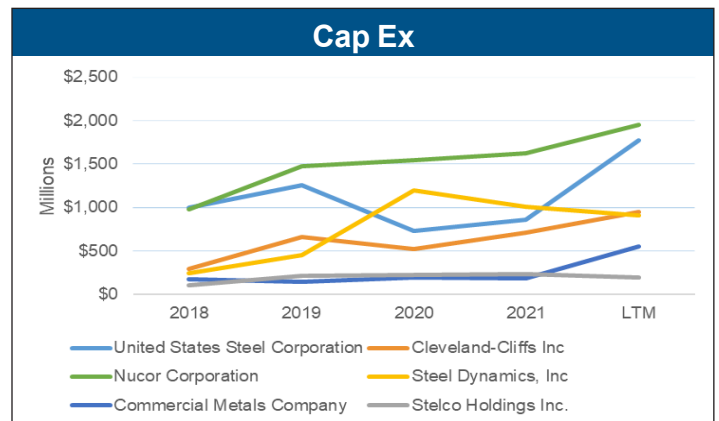
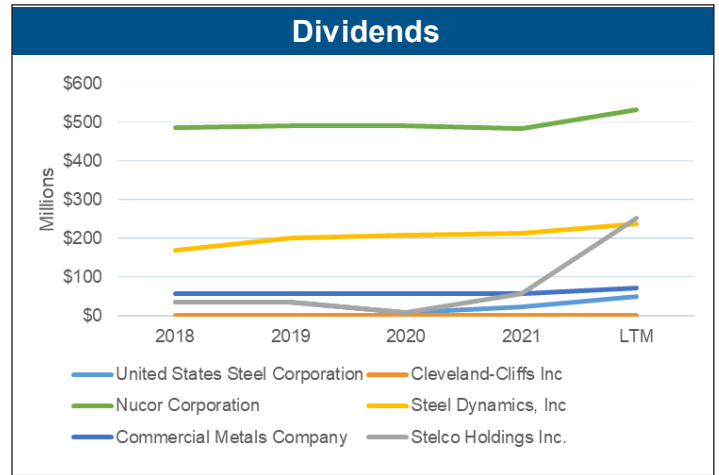
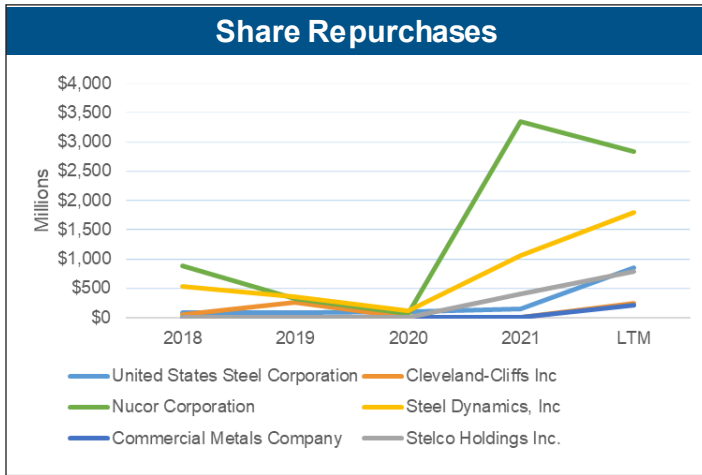
PROFITABILITY



Source: S&P Capital IQ
Calculations were made from information taken from each company's public SEC filings.

CARBON STEEL PRODUCERS CAN'T GET NO RESPECT *(Continued)*

CASH FLOW SPEND



Despite these structural developments, valuations remain depressed. Consider that today the S&P 500 trades about 20 times (Enterprise Value / EBITDA). The lowest since 2010 was 8.57 times. You could easily argue that any industry with significant concentration, mission-critical capabilities, favorable political dynamics and exceptional credit statistics should trade at a premium to a broader index like the S&P 500. Unfortunately, the carbon mills remain out of favor and trade at extremely low multiples. The multiples range from 1.58 times to 4.39 times, and the average weighted multiple for the group is 3.65 times.

Source: S&P Capital IQ
Calculations were made from information taken from each company's public SEC filings.

CARBON STEEL PRODUCERS CAN'T GET NO RESPECT *(Continued)*

EQUITY TRADING MULTIPLES STILL DEPRESSED

Peer EV / EBITDA: Market Capitalization		
	EV/EBITDA	Market Cap (billions)
Cleveland-Cliffs	4.39x	\$9.20
Commercial Metals	3.94x	\$5.45
Nucor	3.51x	\$37.35
Steel Dynamics	3.58x	\$18.74
Stelco	2.49x	\$2.04
U. S Steel	1.58x	\$5.85

We struggle to explain this deep discount. Logic will suggest investors are unwilling to accept that current EBITDA levels are sustainable.

We would suggest that 2022 actual results tell a different story, particularly since prices for many steel products were declining through most of the year. In addition, we expect 2023 to continue to reinforce the ability of the newly configured carbon steel industry to weather economic volatility. Readers will have the benefit of first quarter 2023 earnings to help evaluate our expectations.

So how do you explain the depressed valuation for these industry leaders? Our conclusion is far from scientific, but the carbon steel industry is a bit like Rodney Dangerfield and “**just can't get no respect.**”

Source: Seeking Alpha 3/29/2023.

METALS PRICING

In this Issue, we have added two new prices for aluminum including the AL LME price and the mid-west transaction price (MWTP) for P1020 ingots. Both declined for the quarter. Looking at all metals pricing, the first quarter of 2023 was the opposite of the fourth quarter of 2022. Of the 23 products we now track, 13 were up (vs. 15 down in Q4), 7 were down (vs. 3 up in Q4), and 3 were flat (also 3 flat in Q4). Most of the action was in carbon sheet, as Cleveland-Cliffs has positioned itself as the price leader announcing five HRC price increases (including April 3, 2023) for a total of \$400 per ton.

Here are some interesting observations for the quarter.

- HRC prices rose 44% during the quarter and \$400 from December levels.
- Spreads narrowed for CRC by \$60 per ton and for Galv by \$80 per ton.
- Plate continues to price independently from sheet and remained flat for the quarter.
- All carbon long products are up, but a small fraction of the increases are in sheet.
- OCTG and line pipe are beginning to show some softness.
- Aluminum pricing remains soft as all three products we track were down slightly.
- Scrap price increases were at a much lower rate than HRC, allowing sheet producers to expand metal margins. Long product pricing generally kept up with increased scrap prices.
- Nickel's 17.5% decline returned more than half the gains made in Q4 2022.

Below is the price detail for all the products we follow.

Carbon Flat-Rolled Steel \$/NT January–March 2023			
Product	January	February	March
Hot-Rolled	750	830	1,080
Cold-Rolled	1,050	1,090	1,320
Galvanized	1,150	1,170	1,410

Discrete Plate \$/NT January–March 2023			
Product	January	February	March
A36	1,480	1,480	1,480
A514	2,295	2,295	2,295
AR400	2,315	2,315	2,315

Wide Flange Beam \$/cwt. January–March 2023			
Size	January	February	March
24"x12¾"	66.00	66.50	69.00
18"x6"	64.00	64.50	67.00

MBQ \$/cwt. January–March 2023			
Shape	January	February	March
1" 1018 round	55.00	55.50	58.00

Rebar \$/cwt. – Grade 60 January–March 2023			
Size	January	February	March
16 mm - #5	46.50	46.00	48.50

SBQ \$/cwt. – 1" round January–March 2023			
Grade	January	February	March
HR 4140 Q&T	105.50	110.50	115.20

Pipe & Tube \$/NT January–March 2023			
Product	January	February	March
OCTG J55	2,175	2,125	2,095
Linepipe, ERW	1,425	1,400	1,400

Aluminum \$/lb January–March 2023			
Alloy	January	February	March
3003	2.22	2.26	2.25
LME	1.09	1.10	1.04
MWTP	1.40	1.39	1.32

Stainless \$/lb – Cold-Rolled Coil January–March 2023			
Grade	January	February	March
304	2.17	2.22	2.20

Copper \$/lb January–March 2023			
	January	February	March
Comex Avg.	4.12	4.09	4.05

Nickel \$/lb January–March 2023			
	January	February	March
LME Avg.	12.80	12.10	10.56

Ferrous Scrap \$/GT Midwest January–March 2023			
GRADE	January	February	March
No. 1 HMS	345	365	390
Shredded	415	446	510

Iron Ore \$/LT U.S. January–March 2023			
GRADE	January	February	March
Furnace Pellets	100	95	105

Met Coal \$/MT U.S. East Coast January–March 2023			
GRADE	January	February	March
Low-vol	285	285	255

The metals market price guide is courtesy of Sector3 Appraisals, Inc., provider of asset valuation and advisory services for asset-based lending (ABL) lenders, specializing in metals, chemicals and commodities. For more information, contact Michael Dawson – Editor, Market Research at mdawson@sector3appraisals.com.



PRICING FOR PUBLIC NOTES AND BONDS

METALS BOND UPDATE: ISSUERS HIT CONSTRUCTIVE WINDOWS IN 2023 DESPITE BANKING SECTOR JITTERS

Despite banking sector turbulence and heightened macroeconomic background noise in first quarter 2023, both Investment Grade and High Yield issuers took advantage of short-lived issuance windows to price a healthy \$443 billion of aggregate supply. Underlying U.S. Treasury rate volatility surged during the quarter as persistent inflationary pressures and strong U.S. jobs data initially had markets pricing in a higher forward path for interest rates. However, sentiment shifted dramatically following the collapse of SVB in early March, reigniting recessionary fears and sending U.S. treasury yields lower to end the quarter. After hitting a YTD high of 4.06% on March 2, the yield on the 10-year UST reached a low point of 3.30% on April 6 and is currently ~3.52%. Overall, the average yield of the Investment Grade (5.17%) and high-yield (8.35%) indices decreased 34 basis points and 64 basis points, respectively, from FYE 2022, as credit spreads remained resilient despite mounting recessionary concerns.

Periods of relative stability gave rise to constructive waves of IG new issue supply in first quarter — \$155 billion of IG volume priced in February, which was the busiest total for the month on record. First quarter volume totaled \$405 billion, the fourth-largest first quarter ever recorded — the highest quarterly total was \$491 billion in first quarter 2020. A-rated and BBB-rated credit spreads tightened 32 basis points and 35 basis points, respectively, and no IG metals issuers priced transactions in first quarter. Looking specifically at the PNC IG Metals Bond Index, spreads widened 3 basis points and yields tightened 2 basis points in 1Q23.

High-yield volume of \$39 billion in first quarter was down modestly compared to \$43 billion in first quarter 2022. Amid rising interest rate uncertainty and a tepid M&A landscape, 72% of high-yield offerings in first quarter were for refinancing existing debt (in many cases, floating-rate bank outstandings). BB-rated and B-rated yields both tightened 60 basis points and 65 basis points on average. Compared to the previous quarter, average yields of companies in the PNC HY Metals Bond Index tightened by 10 basis points while spreads tightened 14 basis points. Cleveland-Cliffs was the lone HY metals issuer, pricing \$750 million 7NC3 6.75% Senior Unsecured Notes shortly after quarter end on April 11, 2023.

METALS BOND INDEX*

As of Date	PNC IG Metals Bond Index			PNC HY Metals Bond Index		
	4/14/2023	1/11/2023	Change	4/14/2023	1/11/2023	Change
Effective Maturity (Years)	9.34	9.30	0.04	5.76	5.66	0.10
Composite Rating	BBB+	BBB+	–	BB-	BB-	–
Weighted Average Coupon	4.16%	4.18%	-0.02%	5.46%	5.53%	-0.07%
Yield to Worst	5.13%	5.15%	-0.02%	6.27%	6.37%	-0.10%
Option Adjusted Spread to Treasuries (bps)	135.1	132.1	3.0	219.0	233.7	-14.7

*Index members are market-value weighted.

Note: PNC IG Metals Bond Index excludes bonds of size less than \$250 million.

Source: Bloomberg

METALS BOND UPDATE

Issuance Date	Issuer	Amount Outstanding (\$MM)	Structure	Moody's Rating	S&P Rating	Maturity	Coupon Rate	Price at Issuance	Issuance Spread over Treasury	As of 4/14/2023		Since 1/11/2023		
										Yield to Worst	Spread (OAS)	1/11 Spread	Δ in Spread (bps)	%Δ in Spread
Steel Mills														
3/11/2019	ArcelorMittal SA	\$401	Sr Unsecured	Baa3	BBB-	3/11/2026	4.550%	99.72	200 bps	5.111%	120 bps	134 bps	-13 bps	-10.0%
11/29/2022	ArcelorMittal SA	\$1,200	Sr Unsecured	Baa3	BBB-	11/29/2027	6.550%	99.91	255 bps	5.533%	176 bps	207 bps	-32 bps	-15.3%
7/16/2019	ArcelorMittal SA	\$500	Sr Unsecured	Baa3	BBB-	7/16/2029	4.250%	99.00	225 bps	5.242%	160 bps	222 bps	-62 bps	-27.9%
11/29/2022	ArcelorMittal SA	\$1,000	Sr Unsecured	Baa3	BBB-	11/29/2032	6.800%	99.37	305 bps	6.195%	257 bps	275 bps	-18 bps	-6.7%
3/7/2011	ArcelorMittal SA	\$434	Sr Unsecured	Baa3	BBB-	3/1/2041	6.750%	99.18	230 bps	6.658%	290 bps	287 bps	3 bps	1.0%
3/13/2020	Cleveland-Cliffs Inc	\$829	1st lien	B2	BB+	3/15/2026	6.750%	100.00	606 bps	5.943%	150 bps	156 bps	-6 bps	-3.6%
5/13/2019	Cleveland-Cliffs Inc	\$555	Sr Unsecured	Ba3	BB-	6/1/2027	5.875%	96.13	-	6.445%	191 bps	211 bps	-20 bps	-9.3%
2/17/2021	Cleveland-Cliffs Inc	\$368	Sr Unsecured	Ba3	N/A	3/1/2029	4.625%	100.00	368 bps	6.484%	273 bps	230 bps	43 bps	18.8%
4/14/2023	Cleveland-Cliffs Inc	\$750	Sr Unsecured	Ba3	N/A	4/15/2030	6.750%	100.00	325 bps	7.061%	307 bps	-	-	-
2/17/2021	Cleveland-Cliffs Inc	\$325	Sr Unsecured	Ba3	N/A	3/1/2031	4.875%	100.00	374 bps	6.614%	292 bps	259 bps	33 bps	12.7%
1/28/2022	Commercial Metals Co	\$300	Sr Unsecured	Ba2	BB+	1/15/2030	4.125%	100.00	-	6.050%	233 bps	207 bps	26 bps	12.6%
2/2/2021	Commercial Metals Co	\$300	Sr Unsecured	Ba2	BB+	2/15/2031	3.875%	100.00	279 bps	6.066%	246 bps	234 bps	12 bps	5.0%
1/28/2022	Commercial Metals Co	\$300	Sr Unsecured	Ba2	BB+	3/15/2032	4.375%	100.00	-	6.261%	264 bps	237 bps	27 bps	11.6%
4/16/2014	GTL Trade Finance Inc	\$481	Sr Unsecured	Baa3	BBB-	4/16/2044	7.250%	100.00	368 bps	6.471%	267 bps	216 bps	51 bps	23.5%
5/23/2022	Nucor Corp	\$500	Sr Unsecured	Baa1	A-	5/23/2025	3.950%	99.94	115 bps	4.624%	50 bps	64 bps	-15 bps	-23.0%
5/22/2020	Nucor Corp	\$500	Sr Unsecured	Baa1	A-	6/1/2025	2.000%	99.85	170 bps	4.922%	79 bps	82 bps	-2 bps	-2.7%
5/23/2022	Nucor Corp	\$500	Sr Unsecured	Baa1	A-	5/23/2027	4.300%	99.84	145 bps	4.508%	74 bps	82 bps	-8 bps	-9.9%
4/26/2018	Nucor Corp	\$500	Sr Unsecured	Baa1	A-	5/1/2028	3.950%	99.85	100 bps	4.721%	103 bps	111 bps	-9 bps	-7.7%
5/22/2020	Nucor Corp	\$500	Sr Unsecured	Baa1	A-	6/1/2030	2.700%	99.72	205 bps	4.776%	113 bps	118 bps	-6 bps	-4.7%
3/11/2022	Nucor Corp	\$550	Sr Unsecured	Baa1	A-	4/1/2032	3.125%	99.67	130 bps	4.799%	117 bps	117 bps	0 bps	0.0%
3/11/2022	Nucor Corp	\$550	Sr Unsecured	Baa1	A-	4/1/2052	3.850%	99.07	165 bps	5.181%	136 bps	140 bps	-4 bps	-2.9%
12/7/2020	Nucor Corp	\$329	Sr Unsecured	Baa1	A-	12/15/2055	2.979%	99.29	130 bps	5.289%	145 bps	145 bps	0 bps	0.1%
12/11/2019	Steel Dynamics Inc	\$400	Sr Unsecured	Baa3	BBB-	12/15/2024	2.800%	99.93	115 bps	4.518%	124 bps	93 bps	30 bps	32.3%
6/5/2020	Steel Dynamics Inc	\$400	Sr Unsecured	Baa3	BBB-	6/15/2025	2.400%	99.62	210 bps	4.730%	100 bps	86 bps	15 bps	17.1%
12/6/2016	Steel Dynamics Inc	\$400	Sr Unsecured	Baa3	BBB-	12/15/2026	5.000%	100.00	266 bps	4.040%	-24 bps	-23 bps	-1 bps	2.7%
10/9/2020	Steel Dynamics Inc	\$350	Sr Unsecured	Baa3	BBB-	10/15/2027	1.650%	99.30	120 bps	4.798%	132 bps	130 bps	1 bps	1.1%
12/11/2019	Steel Dynamics Inc	\$600	Sr Unsecured	Baa3	BBB-	4/15/2030	3.450%	99.74	165 bps	4.798%	145 bps	140 bps	5 bps	3.2%
6/5/2020	Steel Dynamics Inc	\$500	Sr Unsecured	Baa3	BBB-	1/15/2031	3.250%	98.96	260 bps	4.798%	146 bps	144 bps	2 bps	1.3%
10/9/2020	Steel Dynamics Inc	\$400	Sr Unsecured	Baa3	BBB-	10/15/2050	3.250%	96.33	185 bps	4.798%	165 bps	168 bps	-3 bps	-1.6%
2/11/2021	United States Steel Corp	\$475	Sr Unsecured	B1	BB-	3/1/2029	6.875%	100.00	592 bps	6.820%	225 bps	254 bps	-29 bps	-11.4%
5/21/2007	United States Steel Corp	\$274	Sr Unsecured	B1	BB-	6/1/2037	6.650%	99.41	180 bps	7.112%	346 bps	357 bps	-12 bps	-3.2%
9/18/2020	Big River Steel LLC	\$720	Secured	Ba2	BB-	1/31/2029	6.625%	100.00	604 bps	6.668%	209 bps	279 bps	-70 bps	-25.1%
Distribution														
8/3/2020	Reliance Steel & Aluminum Co	\$400	Sr Unsecured	Baa2	BBB	8/15/2025	1.300%	99.69	110 bps	5.165%	114 bps	85 bps	29 bps	34.4%
8/3/2020	Reliance Steel & Aluminum Co	\$500	Sr Unsecured	Baa2	BBB	8/15/2030	2.150%	99.72	160 bps	4.852%	129 bps	155 bps	-25 bps	-16.2%
11/20/2006	Reliance Steel & Aluminum Co	\$250	Sr Unsecured	Baa2	BBB	11/15/2036	6.850%	99.43	220 bps	5.574%	196 bps	245 bps	-49 bps	-20.2%
4/15/2014	Worthington Industries Inc	\$250	Sr Unsecured	Baa2	BBB -	4/15/2026	4.550%	99.79	195 bps	4.898%	125 bps	126 bps	-1 bps	-0.8%
Specialty														
5/13/2020	Arconic Corp	\$700	1st lien	Ba1	BB+	5/15/2025	6.000%	100.00	563 bps	5.833%	115 bps	142 bps	-27 bps	-18.9%
2/7/2020	Arconic Corp	\$900	2nd lien	NR	B+	2/15/2028	6.125%	100.00	457 bps	6.398%	185 bps	261 bps	-76 bps	-29.2%
9/22/2014	Howmet Aerospace Inc	\$905	Sr Unsecured	Ba1	BB+	10/1/2024	5.125%	100.00	255 bps	5.264%	81 bps	85 bps	-4 bps	-5.2%
4/24/2020	Howmet Aerospace Inc	\$600	Sr Unsecured	Ba1	BB+	5/1/2025	6.875%	100.00	255 bps	5.112%	105 bps	122 bps	-17 bps	-13.6%
9/1/2021	Howmet Aerospace Inc	\$700	Sr Unsecured	Ba1	BB+	1/15/2029	3.000%	100.00	255 bps	5.369%	187 bps	201 bps	-14 bps	-7.0%
1/25/2007	Howmet Aerospace Inc	\$625	Sr Unsecured	Ba1	BB+	2/1/2037	5.950%	99.62	113 bps	5.761%	209 bps	217 bps	-8 bps	-3.7%
7/13/2020	Alcoa Nederland Holding BV	\$750	Sr Unsecured	Baa3	BB+	12/15/2027	5.500%	100.00	255 bps	5.641%	115 bps	157 bps	-42 bps	-26.5%
5/17/2018	Alcoa Nederland Holding BV	\$500	Sr Unsecured	Baa3	BB+	5/15/2028	6.125%	100.00	314 bps	5.839%	105 bps	179 bps	-74 bps	-41.5%
3/24/2021	Alcoa Nederland Holding BV	\$500	Sr Unsecured	Baa3	BB+	3/31/2029	4.125%	100.00	274 bps	5.930%	219 bps	262 bps	-43 bps	-16.5%
11/22/2019	ATI Inc	\$350	Sr Unsecured	B2	B+	12/1/2027	5.875%	100.00	414 bps	6.221%	153 bps	219 bps	-66 bps	-30.0%
9/14/2021	ATI Inc	\$325	Sr Unsecured	B2	B+	10/1/2029	4.875%	100.00	255 bps	6.425%	268 bps	280 bps	-12 bps	-4.2%
9/14/2021	ATI Inc	\$350	Sr Unsecured	B2	B+	10/1/2031	5.125%	100.00	255 bps	6.528%	283 bps	286 bps	-2 bps	-0.8%
7/24/2020	Carpenter Technology Corp	\$400	Sr Unsecured	B2	BB	7/15/2028	6.375%	100.00	587 bps	5.848%	253 bps	275 bps	-22 bps	-8.1%
3/16/2022	Carpenter Technology Corp	\$300	Sr Unsecured	B2	BB	3/15/2030	7.625%	100.00	566 bps	5.848%	252 bps	270 bps	-17 bps	-6.3%
4/14/2021	Century Aluminum Co	\$250	Secured	Ca1	B	4/1/2028	7.500%	100.00	615 bps	8.788%	502 bps	683 bps	-181 bps	-26.5%
5/31/2018	JW Aluminum Continuous	\$300	1st lien	B3	B-	6/1/2026	10.250%	100.00	718 bps	9.736%	504 bps	459 bps	45 bps	9.7%
11/26/2019	Kaiser Aluminum Corp	\$500	Sr Unsecured	B1	BB-	3/1/2028	4.625%	100.00	289 bps	7.506%	386 bps	272 bps	114 bps	41.9%
5/20/2021	Kaiser Aluminum Corp	\$550	Sr Unsecured	B1	BB-	6/1/2031	4.500%	100.00	288 bps	7.889%	434 bps	361 bps	73 bps	20.3%
6/10/2015	Precision Castparts Corp	\$850	Sr Unsecured	Aa2	AA	6/15/2025	3.250%	99.80	110 bps	4.474%	38 bps	40 bps	-2 bps	-5.8%
6/10/2015	Precision Castparts Corp	\$275	Sr Unsecured	Aa2	AA	6/15/2035	4.200%	99.40	130 bps	4.705%	112 bps	118 bps	-7 bps	-5.7%
12/20/2012	Precision Castparts Corp	\$500	Sr Unsecured	Aa2	AA	1/15/2043	3.900%	99.38	100 bps	4.931%	108 bps	103 bps	5 bps	4.5%
6/10/2015	Precision Castparts Corp	\$325	Sr Unsecured	Aa2	AA	6/15/2045	4.375%	99.67	145 bps	5.034%	120 bps	108 bps	11 bps	10.4%
8/11/2021	Novelis Corp	\$750	Sr Unsecured	Ba3	BB	11/15/2026	3.250%	100.00	836 bps	5.883%	219 bps	204 bps	14 bps	7.0%
1/16/2020	Novelis Corp	\$1,600	Sr Unsecured	Ba3	BB	1/30/2030	4.750%	100.00	836 bps	6.381%	273 bps	256 bps	18 bps	6.9%
8/11/2021	Novelis Corp	\$750	Sr Unsecured	Ba3	BB	8/15/2031	3.875%	100.00	836 bps	6.368%	278 bps	276 bps	2 bps	0.5%

Denotes new issuance since 1/11/23 Metals Bond Update

Denotes bond that matures in the next two years

*+/- Indicates ratings currently on review for upgrade/downgrade

Source: Bloomberg



SYNDICATED BANK LOAN MARKET

First quarter 2023 was the weakest quarterly volume since we began tracking this activity 10 years ago. There were five deals for \$1.28 billion. This volume is down 64% sequentially and 72% from the same quarter 1 year ago.

The largest deal of the quarter was done by TMS International and included a \$175 million ABL Revolver and a \$450 million Institutional Term Loan B. In addition, Perryman raised \$275 million in a 5-year Secured (cash flow) Revolver.

We do not have a good explanation for the lack of loan volume during the quarter. While there are growing concerns about the potential for tightening of bank credit, based on what we are seeing, good deals continue to get executed on favorable terms. We are always available to provide a more robust update on market conditions.

Below are the expanded details for some of the deals that were completed in the quarter.

(\$ in millions)	Perryman Company	Insteel Industries, Inc.	TMS International Corp	Challenge Manufacturing
Date	March 2023	March 2023	December 2020 (Amended March 2023)	December 2020 (Amended January 2023)
Deal Size (\$ in MM)	\$275.0	\$100.0	\$175.0 / \$450.0	\$100.0
Facility Type	CF Revolver	ABL Revolver	ABL Revolver / Term Loan B	ABL Revolver
Tenor	5 years	5 years	5 years / 7 years	5 years
Purpose	Corporate Purposes	Corporate Purposes	Corporate Purposes / Refinancing	Corporate Purposes
Ratings				
S&P	NR	NR	B+	NR
Moody's	NR	NR	B2	NR
Amortization	-	-	<i>Not disclosed</i>	-
Pricing at close (bps)				
All-in Spread	137.50	135.0	175.0 / 475.0	215.0
SOFR Margin	137.50	125.0	175.0 / 475.0	200.0
Facility Fee	<i>Not disclosed</i>	-	-	-
Commitment Fee	<i>Not disclosed</i>	25.0	25.0 / -	37.5
Sustainability Adjustment	<i>Not disclosed</i>	-	<i>Not disclosed</i>	<i>Not disclosed</i>
Pricing Detail (bps)				
		Avg. Excess Avail.	SOFR Spread	Comm. Fee
	<i>Not disclosed</i>	> 50.0%	125.0	25.0
		≤ 50.0%	150.0	25.0
			<i>Not disclosed</i>	<i>Not disclosed</i>
SOFR Adjustment (bps) (1-mo / 3-mo / 6-mo)	<i>Not disclosed</i>	10.0 / 10.0 / 10.0	<i>Not disclosed</i>	<i>Not disclosed</i>
Rate Floor	<i>Not disclosed</i>	0.00%	- / 0.50%	<i>Not disclosed</i>
Financial Covenants				
Debt to Capital Ratio		-		
Total Leverage Ratio	<i>Not disclosed</i>	-	<i>Not disclosed</i>	<i>Not disclosed</i>
Fixed Charge Coverage		1.00x when Liquidity is < 10% of Max. Revolver Amount ^{(1) (2)}		
Secured	Yes	Yes	Yes	Yes

Sources:
S&P Capital IQ, Moody's,
Refinitiv Loan Connector

¹ FCCR defined as (EBITDA - Unfinanced CapEx) to Fixed Charges
² Liquidity defined as Revolver Availability + Qualified Cash + Specified Investments (CDs, CPs, Treasuries, etc.)

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