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Pricing for Public Notes and Bonds

Syndicated Bank Loan Market Welcome to Issue 45 of PNC's Metals Industry Update. Our cover story offers a look at the economic factors influencing iron, steel, and non-ferrous metals. PNC Economist Ershang Laing paints a picture of slowing economic growth around the world putting downward pressure on pricing. Expectations for the second half of 2024 are for more of the same.

Improvement may come in 2025 if lower interest rates help to stimulate new investment.

Our section on metal prices reinforces our cover story, showing that during the second

quarter most carbon steel prices declined while most pon-ferrous prices increased.

quarter, most carbon steel prices declined while most non-ferrous prices increased only slightly. Activity levels in both the bond market and the syndicated bank loan market were very soft during the guarter. We have detailed that activity in the last two sections

of this Issue.

Thank you again for being a Metals Industry Update reader. Our Update is for you, so please feel free to reach out with any questions or comments.

### FOR MORE INFORMATION

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# METALS DEMAND TO REMAIN SOFT IN 2024, RECOVERY IN 2025

- Iron and steel prices weakened into mid-year, due to both demand- and supply-side factors.
- Prices of non-ferrous metals have increased in 2024 because of stronger demand.
- PNC expects non-ferrous metal prices to be flat or lower in the second half of 2024, while prices for iron and steel will continue to drop through the rest of the year.

Iron and steel prices started 2024 strong, but weakened into mid-year. The Producer Price Index (PPI) for iron and steel dropped more than 8% from January to May, according to the Bureau of Labor Statistics (BLS). The downward pressure on iron and steel prices is coming from both the demand and supply sides in 2024. Weak construction and industrial activity in the U.S. and China are weighing on demand for iron and steel this year, while a pickup in crude steel production in Asia and Europe has pushed steel prices even lower.

Even as U.S. production in primary metals manufacturing remains below its pre-pandemic peak in 2024 (Chart 1), crude steel production jumped 13.5% from January to May in Asia and 14.7% in the European Union, according to the World Steel Association. In the meantime, an increase in the 30-year fixed mortgage rate since January 2024 has reduced domestic demand from residential construction, with housing starts down more than 7% in May from January (Chart 2). A decline in public construction in 2024 has also weighed on demand.



## METALS DEMAND TO REMAIN SOFT IN 2024, RECOVERY IN 2025 (Continued)

In addition, U.S. real consumer spending on durable goods fell 1.1% in the first quarter, according to the Bureau of Economic Analysis (BEA). Consumer-oriented demand for iron and steel retreated somewhat under elevated interest rates and high borrowing costs (Chart 3). Value added in motor vehicles and parts dropped 3.7% in the first quarter from the fourth quarter of 2023, and 6.7% from a year earlier, according to the BEA.

While credit conditions have tightened in the U.S. over the past few years, China, the largest consumer of steel products, is lowering borrowing costs in an effort to stimulate its property sector and domestic demand. However, that effort is struggling. Chinese floor space for sale continues to pile up and is increasing at a year-over-year pace of more than 15% (Chart 4). In the meantime, new home construction has slowed, with floor space started and sold declining rapidly so far this year.

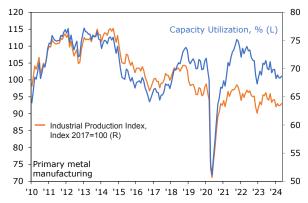
While prices for iron and steel have dropped, those of non-ferrous metals have increased in 2024, in large part because of differences in their end-usage. Unlike iron and steel, the PPI for non-ferrous metals has increased in 2024. Despite the contraction in manufacturing activity globally (Chart 5), U.S. consumers are in solid shape. Consumer spending on furnishings and durable household equipment still grew a weak 0.1% in the first quarter in the U.S. even with high interest rates, supported by an historically tighter labor market. Some widely-used base metals and light metals experienced price gains in this environment as input costs also rose, particularly for energy. Prices for coal, electricity, and natural gas, which are main energy inputs in the metals manufacturing industry, all increased somewhat in the first half of 2024.

PNC expects non-ferrous metals prices to be flat or lower in the second half of 2024. Even demand for less cyclical non-ferrous metals used in packaging (e.g., aluminum packaging in pharmaceuticals, personal care, health and beauty, and food cans and cases) will weaken with slower growth in wages, consumer spending, and business investment. PNC expects positive, but slower growth in aluminum consumption this year. Prices of iron and steel will likely continue to drop in the second half of 2024 as drags from high interest rates in advanced economies and high debt in China's real estate and local government sectors continue to weigh on manufacturing and construction needs in the near term.

Overall, PNC expects lower interest rates later this year will set for a gradual recovery in both residential and nonresidential construction spending and the metals industry. Price gains should resume next year as growth in business fixed investment in equipment and structures picks back up with Federal Reserve easing and lower interest rates (Chart 6).

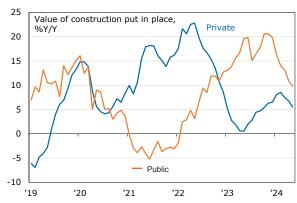
Risks to this outlook are balanced. A later-than-expected monetary policy shift in the U.S. could lead to additional drags on demand and production in the metals industry. More governmental support and more effective economic policies out of the Third Plenum in China and a stronger near-term economic recovery throughout 2024 in Europe could support infrastructure spending and demand for metals in 2024 and 2025.

**CHART 1** | Production Has Waned in US Primary Metal Manufacturing Industries Over the Past Year



Source: FRB

CHART 2 | Construction Spending Expected To Grow,
Albeit at a Slower Pace

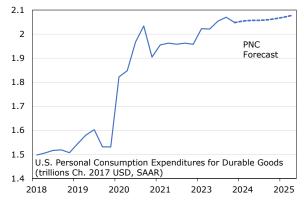


Source: U.S. Census Bureau



# METALS DEMAND TO REMAIN SOFT IN 2024, RECOVERY IN 2025 (Continued)

CHART 3 Durable Goods Consumption Expected To Grow at a Slower Pace in 2024



Source: BEA, PNC Economics June 2024 Forecast

CHART 4 Commodity Buildings in China Have Piled Up for Sale While Housing Construction Is Declining



Source: China Index Academy Limited: National Real Estate Development

CHART 5 | Manufacturing Activity Remains Weak in 2024

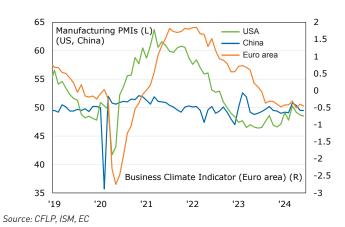
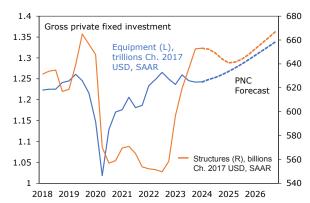


CHART 6 | Business Investment Expected To Pick Up in 2025



Source: BLS, PNC Economics June 2024 Forecast



## **METALS PRICING**

The pricing story for the second quarter is the continuing decline in carbon steel flat roll products. During the quarter, hot roll coil (HRC) fell 20%, while cold roll coil (CRC) and galvanized coil (GALV) fell 9% and 9.5% respectively. Comparatively, the other carbon steel prices we track had price changes that were quite modest. Of the six non-ferrous prices we track, prices for aluminum, stainless and copper were up between 3.3% and 5.6%. Nickel was the only non-ferrous price to decline falling 4%.

#### **Our Observations**

OCTG J55

Linepipe, ERW

- The fall in HRC prices from the beginning of the year is now approximately 40%.
- CRC and GLV spreads remain high at \$360 and \$390, respectively.
- Scrap price declines have outpaced to declines in CRC and GALV providing a small incremental metal margin for those with the richest product mixes.
- Non-ferrous prices continue to generally outperform ferrous prices.

#### See the complete list of monthly metal price during the quarter below.

|               |        | olled Steel \$/NT<br>une 2024    |        |  |  |
|---------------|--------|----------------------------------|--------|--|--|
| Product       | Apr    | May                              | Jun    |  |  |
| Hot-Rolled    | 810    | 760                              | 650    |  |  |
| Cold-Rolled   | 1,120  | 1,090                            | 1,010  |  |  |
| Galvanized    | 1,150  | 1,130                            | 1,040  |  |  |
|               |        | Plate \$/NT<br>une 2024          |        |  |  |
| Product       | Apr    | May                              | Jun    |  |  |
| A36           | 1,170  | 1,080                            | 1,080  |  |  |
| A514          | 2,345  | 2,345                            | 2,345  |  |  |
| AR400         | 2,365  | 2,365                            | 2,365  |  |  |
|               |        | Beam \$/cwt.<br>une 2024         |        |  |  |
| Size          | Apr    | May                              | Jun    |  |  |
| 24"x12³/₄"    | 64.50  | 64.00                            | 64.00  |  |  |
| 18"x6"        | 61.25  | 60.75                            | 60.75  |  |  |
|               |        | <b>\$/cwt.</b><br>une 2024       |        |  |  |
| Shape         | Apr    | May                              | Jun    |  |  |
| 1" 1018 round | 54.30  | 55.20                            | 55.20  |  |  |
|               |        | t. – <b>Grade 60</b><br>une 2024 |        |  |  |
| Size          | Apr    | May                              | Jun    |  |  |
| 16 mm - #5    | 41.00  | 40.50                            | 39.50  |  |  |
|               |        | . – 1" round<br>une 2024         |        |  |  |
| Grade         | Apr    | May                              | Jun    |  |  |
| HR 4140 Q&T   | 102.80 | 101.80                           | 100.00 |  |  |
|               |        | ube \$/NT<br>une 2024            |        |  |  |
| Product       | Apr    | May                              | Jun    |  |  |

1.300

1.200

| Aluminum \$/lb<br>April–June 2024 |                     |  |  |  |  |  |  |  |
|-----------------------------------|---------------------|--|--|--|--|--|--|--|
| Alloy Apr May Jun                 |                     |  |  |  |  |  |  |  |
| 3003                              | 2.12 2.25 2.19      |  |  |  |  |  |  |  |
| LME                               | 1.13 1.16 1.13      |  |  |  |  |  |  |  |
| MWTP                              | MWTP 1.28 1.33 1.34 |  |  |  |  |  |  |  |

| Stainless \$/lb – Cold-Rolled Coil<br>April–June 2024 |      |      |      |  |  |  |
|---|------|------|------|--|--|--|
| Grade   | Apr  | May  | Jun  |  |  |  |
| 304   | 1.65 | 1.67 | 1.74 |  |  |  |

| Copper \$/lb<br>April-June 2024 |      |      |      |  |  |  |  |
|---------------------------------|------|------|------|--|--|--|--|
|                                 | Apr  | May  | Jun  |  |  |  |  |
| Comex Avg.                      | 4.36 | 4.78 | 4.52 |  |  |  |  |

| Nickel \$/lb<br>April-June 2024 |      |      |      |  |  |  |
|---------------------------------|------|------|------|--|--|--|
|                                 | Apr  | May  | Jun  |  |  |  |
| LME Avg.                        | 8.24 | 8.85 | 7.94 |  |  |  |

| Ferrous Scrap \$/GT Midwest<br>April-June 2024 |                      |     |     |  |  |  |  |  |
|--|----------------------|-----|-----|--|--|--|--|--|
| Grade Apr May Jun                              |                      |     |     |  |  |  |  |  |
| No. 1 HMS                                      | 325                  | 315 | 295 |  |  |  |  |  |
| Shredded                                       | Shredded 410 395 385 |     |     |  |  |  |  |  |

| Iron Ore \$/LT U.S.<br>April–June 2024 |     |     |     |  |  |
|--|-----|-----|-----|--|--|
| Grade                                  | Apr | May | Jun |  |  |
| Furnace Pellets                        | 105 | 110 | 100 |  |  |

|         | Met Coal \$/MT U.S. East Coast<br>April–June 2024 |     |     |  |  |  |  |
|---------|---|-----|-----|--|--|--|--|
| Grade   | Apr   | May | Jun |  |  |  |  |
| Low-vol | Low-vol 213 217 223                               |     |     |  |  |  |  |



1.200

1,150

1.250

1,200

## PRICING FOR PUBLIC NOTES AND BONDS

#### METALS BOND UPDATE: ATTRACTIVE SPREADS DRIVE BUSY PRIMARY MARKET DESPITE STICKY INFLATION DATA

After higher than anticipated inflation data shook market confidence at the end of the first quarter, issuers adopted a wait-and-see posture come April. Patience was rewarded as softening economic indicators in May and June gave way to renewed rate-cut optimism and a continued risk-on sentiment. Primary market activity in the first half of the year was remarkable, with Investment Grade issuers pricing \$923BN of supply, marking the second busiest first half on record, while High Yield volume of \$163BN was up 76% from last year and just 6% below the 2023 total of \$174BN. After reaching a local high of 4.71% in late April, 10-year treasury yields have rallied ~50 bps to 4.20% today while spreads have remained resilient, presenting generally favorable execution windows for issuers in the second quarter. The average yield of the Investment Grade index tightened 35 bps (from 5.65% to 5.30%), while the average yield of the High Yield index tightened 31 bps (from 8.04% to 7.73%) in 2024.

Investment Grade issuers combined to price \$343BN in 2Q24, with each year-to-date monthly volume total now exceeding \$100BN for just the second time in the history of the IG primary market. The average Investment Grade new issue concession and order book subscription level finished at 3 bps and 3.66x. During the quarter, A-rated and BBB-rated credit spreads widened 4 bps each. Looking specifically at the PNC IG Metals Bond Index, yields tightened 0.26% and spreads widened 4 bps in 2Q24. Notably, Steel Dynamics priced \$600MM (Baa2/BBB) 10-year unsecured notes at T+123 bps (5.375%).

High Yield issuers priced \$70BN in 2Q24, bolstered by May volume of \$32BN, which is the largest monthly tally of the year. During the quarter, BB-rated spreads widened 3 bps and B-rated spreads tightened 10 bps on average. Compared to the previous quarter, the average spread of companies in the PNC HY Metals Bond Index widened 23 bps, while yields tightened 0.22%. No High Yield metals issuers priced new offerings in the second quarter.

#### **METALS BOND INDEX**

|  |           | Metals Bond | Index  | PNC HY Metals Bond Index |           |        |  |
|--|-----------|-------------|--------|--------------------------|-----------|--------|--|
| As of Date                                 | 7/12/2024 | 4/10/2024   | Change | 7/12/2024                | 4/10/2024 | Change |  |
| Effective Maturity (Years)                 | 8.02      | 8.19        | -0.17  | 5.34                     | 5.53      | -0.19  |  |
| Composite Rating                           | BBB+      | BBB+        | -      | BB-                      | BB-       | -      |  |
| Weighted Average Coupon                    | 4.31%     | 4.28%       | 0.03%  | 5.75%                    | 5.84%     | 0.09%  |  |
| Yield to Worst                             | 5.31%     | 5.57%       | -0.26% | 6.72%                    | 6.94%     | -0.22% |  |
| Option Adjusted Spread to Treasuries (bps) | 90.1      | 86.8        | 3.3    | 226.9                    | 203.6     | 23.3   |  |

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

Source: Bloomberg



### **METALS BOND UPDATE**

|   |  | Amount                                      |  |                                 |                            |  |                                      |                                    | Issuance                                 | As of                                | 7/12/2024                              |  | Since 4/1                            | 0/2024                           |
|---|--|---|--|---------------------------------|----------------------------|--|--------------------------------------|------------------------------------|--|--------------------------------------|--|--|--------------------------------------|----------------------------------|
| Issuance<br>Date  | Issuer   | Outstanding<br>(\$MM)                       | Structure  | Moody's<br>Rating               | S&P<br>Rating              | Maturity   | Coupon<br>Rate                       | Price at Issuance                  | Spread over<br>Treasury                  | Yield to<br>Worst                    | Spread<br>(OAS)                        | 4/10<br>Spread                         | Δ in Spread (bps)                    | %∆ in<br>Spread                  |
| Dute  | Steel Mills  | (\$11111)                                   | Ottuotuic  | raung                           | raung                      | watarity   | rtuto                                | issuance                           | neasury                                  | Worst                                | (OAO)                                  | Opicuu                                 | (pps)                                | Оргсии                           |
| 4/5/2024  |  | \$350                                       | and lien   | В3                              | В                          | 4/45/2020  | 9.125%                               | 100.00                             | 400 hns                                  | 0.4559/                              | 500 has                                | 422 hns                                | 00 hns                               | 23.5%                            |
| 3/11/2019   | Algoma Steel Inc ArcelorMittal SA  | \$350<br>\$401                              | 2nd lien<br>Sr Unsecured   | Baa3                            | BBB-                       | 4/15/2029<br>3/11/2026                           | 4.550%                               | 99.72                              | 490 bps<br>200 bps                       | 9.455%<br>5.380%                     | 522 bps<br>93 bps                      | 423 bps<br>79 bps                      | 99 bps<br>14 bps                     | 18.1%                            |
| 11/29/2022  | ArcelorMittal SA   | \$1,200                                     | Sr Unsecured   | Baa3                            | BBB-                       | 11/29/2027                                       | 6.550%                               | 99.91                              | 255 bps                                  | 5.292%                               | 109 bps                                | 94 bps                                 | 15 bps                               | 15.5%                            |
| 7/16/2019   | ArcelorMittal SA   | \$500                                       | Sr Unsecured   | Baa3                            | BBB-                       | 7/16/2029  | 4.250%                               | 99.00                              | 225 bps                                  | 5.033%                               | 96 bps                                 | 103 bps                                | -7 bps                               | -6.4%                            |
| 11/29/2022  | ArcelorMittal SA   | \$1,000                                     | Sr Unsecured   | Baa3                            | BBB-                       | 11/29/2032                                       | 6.800%                               | 99.37                              | 305 bps                                  | 5.669%                               | 147 bps                                | 136 bps                                | 11 bps                               | 8.4%                             |
| 3/7/2011  | ArcelorMittal SA   | \$434                                       | Sr Unsecured   | Baa3                            | BBB-                       | 3/1/2041   | 6.750%                               | 99.18                              | 230 bps                                  | 6.303%                               | 194 bps                                | 176 bps                                | 18 bps                               | 10.4%                            |
| 9/18/2020   | Big River Steel LLC  | \$720                                       | Secured  | Ba2 *+                          | BB- *+                     | 1/31/2029  | 6.625%                               | 100.00                             | 604 bps                                  | 5.978%                               | 102 bps                                | 82 bps                                 | 20 bps                               | 24.5%                            |
| 5/13/2019   | Cleveland-Cliffs Inc   | \$555                                       | Sr Unsecured   | Ba3                             | BB-                        | 6/1/2027   | 5.875%                               | 96.13                              | -  | 5.714%                               | 73 bps                                 | 66 bps                                 | 7 bps                                | 10.8%                            |
| 2/17/2021   | Cleveland-Cliffs Inc   | \$368                                       | Sr Unsecured   | Ba3                             | N/A                        | 3/1/2029   | 4.625%                               | 100.00                             | 368 bps                                  | 5.680%                               | 136 bps                                | 151 bps                                | -15 bps                              | -10.1%                           |
| 4/14/2023   | Cleveland-Cliffs Inc   | \$750                                       | Sr Unsecured   | Ba3                             | N/A                        | 4/15/2030  | 6.750%                               | 100.00                             | 325 bps                                  | 6.384%                               | 180 bps                                | 188 bps                                | -8 bps                               | -4.5%                            |
| 2/17/2021   | Cleveland-Cliffs Inc   | \$325                                       | Sr Unsecured   | Ba3                             | N/A                        | 3/1/2031   | 4.875%                               | 100.00                             | 374 bps                                  | 6.447%                               | 229 bps                                | 205 bps                                | 24 bps                               | 11.6%                            |
| 3/18/2024<br>1/28/2022  | Cleveland-Cliffs Inc   | \$825<br>\$300                              | Sr Unsecured   | Ba3<br>Ba2                      | N/A<br>BB+                 | 3/15/2032<br>1/15/2030                           | 7.000%                               | 100.00                             | 276 bps<br>-                             | 6.738%                               | 199 bps                                | 190 bps                                | 9 bps                                | 4.9%                             |
| 2/2/2021  | Commercial Metals Co Commercial Metals Co  | \$300                                       | Sr Unsecured<br>Sr Unsecured   | Ba2                             | BB+                        | 2/15/2031  | 4.125%<br>3.875%                     | 100.00<br>100.00                   | -<br>279 bps                             | 5.906%<br>5.879%                     | 175 bps<br>176 bps                     | 128 bps<br>144 bps                     | 47 bps<br>33 bps                     | 36.6%<br>22.6%                   |
| 1/28/2022   | Commercial Metals Co   | \$300                                       | Sr Unsecured   | Ba2                             | BB+                        | 3/15/2031  | 4.375%                               | 100.00                             | 219 bps<br>-                             | 5.911%                               | 170 bps<br>172 bps                     | 140 bps                                | 32 bps                               | 23.2%                            |
| 4/16/2014   | GUSAP III LP   | \$481                                       | Sr Unsecured   | Baa3                            | BBB-                       | 4/16/2044  | 7.250%                               | 100.00                             | 368 bps                                  | 6.342%                               | 192 bps                                | 186 bps                                | 6 bps                                | 3.2%                             |
| 5/23/2022   | Nucor Corp   | \$500                                       | Sr Unsecured   | Baa1                            | A-                         | 5/23/2025  | 3.950%                               | 99.94                              | 115 bps                                  | 5.395%                               | 54 bps                                 | 51 bps                                 | 3 bps                                | 5.3%                             |
| 5/22/2020   | Nucor Corp   | \$500                                       | Sr Unsecured   | Baa1                            | A-                         | 6/1/2025   | 2.000%                               | 99.85                              | 170 bps                                  | 5.486%                               | 60 bps                                 | 57 bps                                 | 3 bps                                | 6.0%                             |
| 5/23/2022   | Nucor Corp   | \$500                                       | Sr Unsecured   | Baa1                            | A-                         | 5/23/2027  | 4.300%                               | 99.84                              | 145 bps                                  | 4.757%                               | 52 bps                                 | 53 bps                                 | -1 bps                               | -1.8%                            |
| 4/26/2018   | Nucor Corp   | \$500                                       | Sr Unsecured   | Baa1                            | A-                         | 5/1/2028   | 3.950%                               | 99.85                              | 100 bps                                  | 4.827%                               | 64 bps                                 | 51 bps                                 | 14 bps                               | 26.7%                            |
| 5/22/2020   | Nucor Corp   | \$500                                       | Sr Unsecured   | Baa1                            | A-                         | 6/1/2030   | 2.700%                               | 99.72                              | 205 bps                                  | 4.739%                               | 71 bps                                 | 57 bps                                 | 14 bps                               | 23.9%                            |
| 3/11/2022   | Nucor Corp   | \$550                                       | Sr Unsecured   | Baa1                            | A-                         | 4/1/2032   | 3.125%                               | 99.67                              | 130 bps                                  | 5.021%                               | 87 bps                                 | 73 bps                                 | 14 bps                               | 19.6%                            |
| 3/11/2022   | Nucor Corp   | \$550                                       | Sr Unsecured   | Baa1                            | A-                         | 4/1/2052   | 3.850%                               | 99.07                              | 165 bps                                  | 5.387%                               | 98 bps                                 | 89 bps                                 | 9 bps                                | 9.6%                             |
| 12/7/2020   | Nucor Corp   | \$329                                       | Sr Unsecured   | Baa1                            | A-                         | 12/15/2055                                       | 2.979%                               | 99.29                              | 130 bps                                  | 5.328%                               | 89 bps                                 | 81 bps                                 | 8 bps                                | 10.0%                            |
| 7/3/2024  | Steel Dynamics Inc   | \$600                                       | Sr Unsecured   | Baa2                            | BBB                        | 8/15/2034  | 5.375%                               | 98.65                              | 123 bps                                  | 4.518%                               | 119 bps                                | - 50 h                                 | 45 6                                 | -                                |
| 12/11/2019<br>6/5/2020  | Steel Dynamics Inc Steel Dynamics Inc  | \$400<br>\$400                              | Sr Unsecured<br>Sr Unsecured   | Baa2<br>Baa2                    | BBB<br>BBB                 | 12/15/2024<br>6/15/2025                          | 2.800%<br>2.400%                     | 99.93<br>99.62                     | 115 bps<br>210 bps                       | 4.518%<br>4.730%                     | 74 bps<br>78 bps                       | 59 bps<br>93 bps                       | 15 bps<br>-15 bps                    | 25.1%<br>-16.3%                  |
| 12/6/2016   | Steel Dynamics Inc   | \$400                                       | Sr Unsecured   | Baa2                            | BBB                        | 12/15/2026                                       | 5.000%                               | 100.00                             | 266 bps                                  | 4.040%                               | 31 bps                                 | 21 bps                                 | 10 bps                               | 48.5%                            |
| 10/9/2020   | Steel Dynamics Inc   | \$350                                       | Sr Unsecured   | Baa2                            | BBB                        | 10/15/2027                                       | 1.650%                               | 99.30                              | 120 bps                                  | 4.798%                               | 81 bps                                 | 75 bps                                 | 6 bps                                | 7.7%                             |
| 12/11/2019  | Steel Dynamics Inc   | \$600                                       | Sr Unsecured   | Baa2                            | BBB                        | 4/15/2030  | 3.450%                               | 99.74                              | 165 bps                                  | 4.798%                               | 87 bps                                 | 86 bps                                 | 1 bps                                | 1.7%                             |
| 6/5/2020  | Steel Dynamics Inc   | \$500                                       | Sr Unsecured   | Baa2                            | BBB                        | 1/15/2031  | 3.250%                               | 98.96                              | 260 bps                                  | 4.798%                               | 103 bps                                | 94 bps                                 | 9 bps                                | 9.3%                             |
| 10/9/2020   | Steel Dynamics Inc   | \$400                                       | Sr Unsecured   | Baa2                            | BBB                        | 10/15/2050                                       | 3.250%                               | 96.33                              | 185 bps                                  | 4.798%                               | 127 bps                                | 129 bps                                | -3 bps                               | -2.1%                            |
| 2/11/2021   | United States Steel Corp   | \$475                                       | Sr Unsecured   | B1 *+                           | BB- *+                     | 3/1/2029   | 6.875%                               | 100.00                             | 592 bps                                  | 6.467%                               | 172 bps                                | 124 bps                                | 48 bps                               | 38.3%                            |
| 5/21/2007   | United States Steel Corp   | \$274                                       | Sr Unsecured   | B1 *+                           | BB- *+                     | 6/1/2037   | 6.650%                               | 99.41                              | 180 bps                                  | 6.509%                               | 230 bps                                | 202 bps                                | 28 bps                               | 14.0%                            |
|   | Distribution   |   |  |                                 |                            |  |                                      |                                    |  |                                      |  |  |                                      |                                  |
| 8/3/2020  | Reliance Inc   | \$400                                       | Sr Unsecured   | Baa2                            | BBB+                       | 8/15/2025  | 1.300%                               | 99.69                              | 110 bps                                  | 5.414%                               | 71 bps                                 | 74 bps                                 | -3 bps                               | -4.6%                            |
| 8/3/2020  | Reliance Inc   | \$500                                       | Sr Unsecured   | Baa2                            | BBB+                       | 8/15/2030  | 2.150%                               | 99.72                              | 160 bps                                  | 5.045%                               | 94 bps                                 | 90 bps                                 | 5 bps                                | 5.3%                             |
| 11/20/2006  | Reliance Inc   | \$250                                       | Sr Unsecured   | Baa2                            | BBB+                       | 11/15/2036                                       | 6.850%                               | 99.43                              | 220 bps                                  | 5.636%                               | 140 bps                                | 148 bps                                | -8 bps                               | -5.5%                            |
|   | Specialty  |   |  |                                 |                            |  |                                      |                                    |  |                                      |  |  |                                      |                                  |
| 7/12/2020   |  | ¢750  | Cullpassured   | Do1                             | DD                         | 10/15/2027                                       | E E000/                              | 100.00                             | OFF has                                  | E 7000/                              | 110 hns                                | E1 bno                                 | EO has                               | 117 50/                          |
| 7/13/2020<br>5/17/2018  | Alcoa Nederland Holding BV<br>Alcoa Nederland Holding BV   | \$750<br>\$500                              | Sr Unsecured<br>Sr Unsecured   | Ba1<br>Ba1                      | BB<br>BB                   | 12/15/2027<br>5/15/2028                          | 5.500%<br>6.125%                     | 100.00<br>100.00                   | 255 bps<br>314 bps                       | 5.790%<br>5.973%                     | 110 bps<br>127 bps                     | 51 bps<br>61 bps                       | 59 bps<br>65 bps                     | 117.5%<br>106.7%                 |
| 3/24/2021   | Alcoa Nederland Holding BV   | \$500                                       | Sr Unsecured   | Ba1                             | BB                         | 3/31/2029  | 4.125%                               | 100.00                             | 274 bps                                  | 5.738%                               | 159 bps                                | 143 bps                                | 16 bps                               | 11.5%                            |
| 3/21/2024   | Alcoa Nederland Holding BV   | \$750                                       | Sr Unsecured   | Ba1                             | BB                         | 3/15/2031  | 7.125%                               | 100.00                             | 301 bps                                  | 6.269%                               | 170 bps                                | 170 bps                                | 0 bps                                | -0.2%                            |
| 8/10/2023   | Arsenal AIC Parent LLC   | \$700                                       | Secured  | Ba3                             | B+                         | 10/1/2030  | 8.000%                               | 100.00                             | 396 bps                                  | 6.324%                               | 162 bps                                | 177 bps                                | -15 bps                              | -8.4%                            |
| 11/22/2019  | ATI Inc  | \$350                                       | Sr Unsecured   | B1                              | B+                         | 12/1/2027  | 5.875%                               | 100.00                             | 414 bps                                  | 6.078%                               | 116 bps                                | 87 bps                                 | 29 bps                               | 33.6%                            |
| 9/14/2021   | ATI Inc  | \$325                                       | Sr Unsecured   | B1                              | B+                         | 10/1/2029  | 4.875%                               | 100.00                             | 255 bps                                  | 6.105%                               | 190 bps                                | 143 bps                                | 47 bps                               | 33.1%                            |
| 9/14/2021   | ATI Inc  | \$350                                       | Sr Unsecured   | B1                              | B+                         | 10/1/2031  | 5.125%                               | 100.00                             | 255 bps                                  | 6.281%                               | 202 bps                                | 174 bps                                | 28 bps                               | 15.8%                            |
| 8/11/2023   | ATI Inc  | \$425                                       | Sr Unsecured   | B1                              | B+                         | 8/15/2030  | 7.250%                               | 100.00                             | 313 bps                                  | 5.848%                               | 138 bps                                | 148 bps                                | -10 bps                              | -6.5%                            |
| 7/24/2020   | Carpenter Technology Corp  | \$400                                       | Sr Unsecured   | B1                              | BB                         | 7/15/2028  | 6.375%                               | 100.00                             | 587 bps                                  | 5.848%                               | 85 bps                                 | 87 bps                                 | -2 bps                               | -1.9%                            |
| 3/16/2022   | Carpenter Technology Corp  | \$300                                       | Sr Unsecured   | B1                              | BB                         | 3/15/2030  | 7.625%                               | 100.00                             | 566 bps                                  | 5.848%                               | 133 bps                                | 138 bps                                | -5 bps                               | -3.8%                            |
| 4/14/2021   | Century Aluminum Co  | \$250                                       | Secured  | Caa1                            | В                          | 4/1/2028   | 7.500%                               | 100.00                             | 615 bps                                  | 6.708%                               | 214 bps                                | 204 bps                                | 10 bps                               | 5.0%                             |
| 12/22/2020  | GrafTech Finance Inc   | \$500                                       | Secured  | Caa1                            | В                          | 12/15/2028                                       | 4.625%                               | 100.00                             | 390 bps                                  | 14.106%                              | 997 bps                                | 1141 bps                               | -144 bps                             | -12.6%                           |
| 6/26/2023   | GrafTech Global Enterprises Inc  |   | Secured  | Caa1                            | В                          | 12/15/2028                                       | 9.875%                               | 97.46                              | 654 bps                                  | 16.609%                              | 1245 bps                               | 1405 bps                               | -159 bps                             | -11.3%                           |
| 4/24/2020<br>9/1/2021   | Howmet Aerospace Inc Howmet Aerospace Inc  | \$600<br>\$700                              | Sr Unsecured<br>Sr Unsecured   | Baa3<br>Baa3                    | BBB-<br>BBB-               | 5/1/2025<br>1/15/2029                            | 6.875%<br>3.000%                     | 100.00<br>100.00                   | 255 bps<br>255 bps                       | 5.507%<br>4.966%                     | 54 bps<br>82 bps                       | 87 bps<br>106 bps                      | -32 bps<br>-23 bps                   | -37.3%<br>-22.1%                 |
| 1/25/2007   | Howmet Aerospace Inc   | \$700<br>\$625                              | Sr Unsecured   | Ваа3                            | BBB-                       | 2/1/2037   | 5.950%                               | 99.62                              | 255 bps<br>113 bps                       | 5.461%                               | 121 bps                                | 126 bps                                | -23 bps<br>-5 bps                    | -22.1%<br>-4.1%                  |
| 5/31/2018   | JW Aluminum Continuous   | \$300                                       | 1st lien   | B3                              | B-                         | 6/1/2026   | 10.250%                              | 100.00                             | 718 bps                                  | -2.613%                              | 198 bps                                | -352 bps                               | 550 bps                              | -156.4%                          |
| 11/26/2019  | Kaiser Aluminum Corp   | \$500                                       | Sr Unsecured   | B2                              | BB-                        | 3/1/2028   | 4.625%                               | 100.00                             | 289 bps                                  | 6.250%                               | 205 bps                                | 173 bps                                | 32 bps                               | 18.5%                            |
| 5/20/2021   |  |   |  | B2                              | BB-                        | 6/1/2031   | 4.500%                               | 100.00                             | 288 bps                                  | 6.269%                               | 209 bps                                | 208 bps                                | 1 bps                                | 0.4%                             |
| 3/20/2021   | Kaiser Aluminum Corp   | \$550                                       | Sr Unsecured   |                                 |                            |  |                                      |                                    |  |                                      |  |  |                                      |                                  |
|   |  | \$550<br>\$750                              | Sr Unsecured<br>Sr Unsecured   | Ba3                             | BB                         | 11/15/2026                                       | 3.250%                               | 100.00                             | 836 bps                                  | 5.485%                               | 112 bps                                | 121 bps                                | -9 bps                               | -7.3%                            |
| 8/11/2021   | Kaiser Aluminum Corp   |   |  |                                 |                            | 11/15/2026<br>1/30/2030                          | 3.250%<br>4.750%                     | 100.00<br>100.00                   | 836 bps<br>836 bps                       | 5.485%<br>6.025%                     | 112 bps<br>181 bps                     | 121 bps<br>187 bps                     | -9 bps<br>-6 bps                     | -7.3%<br>-3.0%                   |
| 8/11/2021<br>1/16/2020  | Kaiser Aluminum Corp<br>Novelis Corp   | \$750                                       | Sr Unsecured   | Ba3                             | ВВ                         |  |                                      |                                    |  |                                      |  |  |                                      |                                  |
| 8/11/2021<br>1/16/2020<br>8/11/2021                           | Kaiser Aluminum Corp<br>Novelis Corp<br>Novelis Corp<br>Novelis Corp<br>Precision Castparts Corp                             | \$750<br>\$1,600                            | Sr Unsecured<br>Sr Unsecured   | Ba3<br>Ba3                      | BB<br>BB                   | 1/30/2030  | 4.750%                               | 100.00                             | 836 bps                                  | 6.025%                               | 181 bps                                | 187 bps                                | -6 bps                               | -3.0%                            |
| 8/11/2021<br>1/16/2020<br>8/11/2021<br>6/10/2015<br>6/10/2015 | Kaiser Aluminum Corp<br>Novelis Corp<br>Novelis Corp<br>Novelis Corp<br>Precision Castparts Corp<br>Precision Castparts Corp | \$750<br>\$1,600<br>\$750<br>\$850<br>\$275 | Sr Unsecured<br>Sr Unsecured<br>Sr Unsecured<br>Sr Unsecured<br>Sr Unsecured | Ba3<br>Ba3<br>Ba3<br>Aa2<br>Aa2 | BB<br>BB<br>BB<br>AA<br>AA | 1/30/2030<br>8/15/2031<br>6/15/2025<br>6/15/2035 | 4.750%<br>3.875%<br>3.250%<br>4.200% | 100.00<br>100.00<br>99.80<br>99.40 | 836 bps<br>836 bps<br>110 bps<br>130 bps | 6.025%<br>5.988%<br>5.199%<br>4.676% | 181 bps<br>186 bps<br>36 bps<br>46 bps | 187 bps<br>193 bps<br>35 bps<br>65 bps | -6 bps<br>-7 bps<br>1 bps<br>-19 bps | -3.0%<br>-3.8%<br>3.3%<br>-28.9% |
| 8/11/2021<br>1/16/2020<br>8/11/2021<br>6/10/2015              | Kaiser Aluminum Corp<br>Novelis Corp<br>Novelis Corp<br>Novelis Corp<br>Precision Castparts Corp                             | \$750<br>\$1,600<br>\$750<br>\$850          | Sr Unsecured<br>Sr Unsecured<br>Sr Unsecured<br>Sr Unsecured                 | Ba3<br>Ba3<br>Ba3<br>Aa2        | BB<br>BB<br>BB<br>AA       | 1/30/2030<br>8/15/2031<br>6/15/2025              | 4.750%<br>3.875%<br>3.250%           | 100.00<br>100.00<br>99.80          | 836 bps<br>836 bps<br>110 bps            | 6.025%<br>5.988%<br>5.199%           | 181 bps<br>186 bps<br>36 bps           | 187 bps<br>193 bps<br>35 bps           | -6 bps<br>-7 bps<br>1 bps            | -3.0%<br>-3.8%<br>3.3%           |

Denotes new issuance since 4/10/24 Metals Bond Update

Denotes bond that matures in the next two years
\*+/\*- Indicates ratings currently on review for upgrade/downgrade

Source: Bloomberg

Source: Bloomberg



## SYNDICATED BANK LOAN MARKET

The second quarter fell off substantially both sequentially and year over year. This quarter produced 8 deals for a total volume of \$2.8 billion. This is down from 10 deals for \$7.3 billion in the first quarter of 2024 and 7 deals for \$6 billion from the same quarter one year ago. This quarter was dominated by maturity extensions of existing deals. As we look into the next quarter, the pipeline of deals seems muted at best. Most M&A activity such as Cliffs/Stelco is being supported by existing balance sheets with limited need for new financing. We are currently forecasting the third quarter to be down substantially from the 12 deals for \$8.3 billion reported in Q3 2023.

### The following provides details for some of the more notable transactions during the quarter.

|  | AA Metals, Inc.        | Radius Rec  | ycling, In  | c.                  | Edw. C. Levy Co.           | Kataman Metals, Inc.       | Lerman Holding Co, Inc.    | Steel Resources, LL |  |
|--|------------------------|---|---|---------------------|----------------------------|----------------------------|----------------------------|---------------------|--|
| Date   | Feb-24 (Amend. Jun-24) | Aug-22 (Amend. Jun-24)  |   | Apr-24              | Apr-24                     | Apr-24                     | Apr-24                     |                     |  |
| Deal Size (\$ in MM)   | \$250.0                | \$800 / 0   | C\$15.0   |                     | \$275.0 / \$100.0          | \$190.0 / \$10.0           | \$640.0 / \$50.0           | \$150.0             |  |
| Facility Type  | ABL Revolver           | CF Revolver /   | CF Revolv   | er                  | ABL Revolver / Term Loan A | ABL Revolver / Term Loan A | ABL Revolver / Term Loan A | CF Revolver         |  |
| Tenor  | 5 years                | 5 years /   | 5 years / 5 years   |                     | 3 years / 3 years          | 3 years / 3 years          | 5 years / 5 years          | 2 years             |  |
| Purpose  | Corporate Purposes     | Corporate   | Purposes  |                     | Corporate Purposes         | Corporate Purposes         | Corporate Purposes         | Corporate Purposes  |  |
| Ratings  |                        | -   |   |                     | -                          | -                          |                            |                     |  |
| S&P  | NR                     | NE  | 3   |                     | NR                         | NR                         | NR                         | NR                  |  |
| Moody's  | NR                     | NF  | 2   |                     | NR                         | NR                         | NR                         | NR                  |  |
| Amortization   | -                      | -   |   |                     | Not disclosed              | Not disclosed              | Not disclosed              | -                   |  |
| Pricing at close (bps)   |                        |   |   |                     |                            |                            |                            |                     |  |
| All-in Spread  | 175.0                  | 250.0 /   | 250.0   |                     | 150.0 / 150.0              |                            | 160.0                      | 255.0               |  |
| SOFR Margin  | Not disclosed          | Not disc  | closed  |                     | Not disclosed              | Not disclosed              | 150.0                      | Not disclosed       |  |
| Facility Fee   | -                      | -   |   |                     | Not disclosed              | 7701.030000                | -                          | Not disclosed       |  |
| Commitment Fee   | 25.0                   | 35.0 /  | 35.0  |                     | Not disclosed              |                            | 10.0                       | Not disclosed       |  |
| Sustainability Adjustment                                      | Not disclosed          | Not disc  | closed  |                     | Not disclosed              | Not disclosed              | Not disclosed              | Not disclosed       |  |
| Pricing Detail (bps)   |                        | Net Lev. SOI<br>Ratio Spre  | ad F  | mm.<br>ee<br>7.5    | -                          |                            |                            |                     |  |
|  |                        | < 1.00x 130   |   | 0.0                 |                            | Not disclosed              |                            |                     |  |
|  | Not disclosed          |   |   |                     | Not disclosed              |                            | Not disclosed              | Not disclosed       |  |
|  |                        | < 2.00x 200   | 1.0 2   | 5.0                 |                            |                            |                            |                     |  |
|  |                        | < 3.00x 225   | .0 30   | 0.0                 |                            |                            |                            |                     |  |
|  |                        | ≥ 3.50x 250   | .0 3  | 5.0                 |                            |                            |                            |                     |  |
| SOFR Adjustment (bps)<br>(1-mo / 3-mo / 6-mo)                  | Not disclosed          | 10.0 / 15   | .0 / 25.0   |                     | Not disclosed              | Not disclosed              | Not disclosed              | Not disclosed       |  |
| Financial Covenants  |                        | _   |   |                     | -                          |                            | -                          |                     |  |
| Fixed Charge Coverage Ratio                                    |                        | 1.50  | )x <sup>1</sup>   |                     |                            |                            |                            |                     |  |
| Interest Coverage Ratio  |                        | 2.00  | )x <sup>2</sup>   |                     |                            |                            |                            |                     |  |
| Total Leverage Ratio   | Not disclosed          | -   |   |                     | Not disclosed              | Not disclosed              | Not disclosed              | Not disclosed       |  |
| Net Leverage Ratio   |                        | -   |   |                     |                            |                            |                            |                     |  |
| Funded Debt Ratio  |                        | -   |   |                     |                            |                            |                            |                     |  |
| Debt to Capital Ratio  |                        | 0.55  | 5x <sup>3</sup>   |                     |                            |                            |                            |                     |  |
| Secured  | Yes                    | Ye  | s   |                     | Yes                        | Yes                        | Yes                        | Yes                 |  |
| Sources: S&P Capital IQ , Moody's,<br>Refinitiv Loan Connector |                        | Topfined as EBITE Payments for Envir Liabilities - CapEx Payments + Net ca remittances + the L and aggregate cash respect to any equi borrower Steps down to 1.2 Debt to Consolidat  Topfined as Consc Debt to Consolidat | onmental / Interest sh tax esser of \$1 n dividends ty interest in 5x 2/28/25 | OMM<br>with<br>n US |                            |                            |                            |                     |  |

 $\textbf{Sources:} \, S\&P \, Capital \, IQ, \, Moody's, \, Refinitiv \, Loan \, Connector$ 



#### Sources

1 https://data.bls.gov/dataViewer/view/timeseries/WPS101

2 https://worldsteel.org/media/press-releases/2024/

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