

Monitor

Metals



VOLUME
333

STEEL MARKET HEATS UP

HRC STEEL PRICE HITS ALL-TIME HIGH

Hot rolled coil prices surpassed \$1,180 per net ton as an undersupply left service centers desperate for inventory

COVID-19 SLUMP SPURS SHORTAGES

After shutdowns earlier in 2020, steel mills struggle to keep up with the recent rise in demand as inventory falls short

SCRAP PRICES SOAR NEAR 2008 HIGHS

Scrap prices climbed as demand jumped from steel mills, which ramped up steel production amid low supplies

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MONITOR METALS

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Deals are a moving target. A constantly shifting mix of people, numbers and timing. We're here to simplify this process for you. Our experts are dedicated to tracking down and flushing out the values you need even on the most complex deals, so you can leverage our hard-won knowledge to close the deal.

Trend Tracker

	Ferrous Metal	Non-ferrous Metal
NOLVs	Increasing ▲	Increasing ▲
Sales Trends	Increasing ▲	Increasing ▲
Gross Margin	Increasing ▲	Consistent — / Increasing ▲
Inventory	Increasing ▲	Consistent — / Increasing ▲
Pricing	Increasing ▲	Increasing ▲

NOLVS

- **Ferrous:** NOLVs increased in Q4 2020 and into January 2021 as mill prices and scrap costs increased, resulting in inventory costs below current market rates, versus the opposite price trend for the same period the prior year.
- **Non-ferrous:** NOLVs increased in Q4 2020 and into January 2021 as pricing remained strong, with larger gains versus the prior year due to the declining price environment at the end of 2019 into 2020, when the initial COVID-19 outbreak in China hurt confidence in the global manufacturing markets.

As the price increases were not as substantial or sharp as the ferrous markets, companies have been able to manage their inventory closer to market rates.

INVENTORY

- **Ferrous:** Inventory levels increased in recent months, as companies have been stocking while supplies are available, given the recent increase in pricing. However, inventory levels generally remain below year-ago levels, as companies continue to manage working capital during the unpredictability of COVID-19.
- **Non-ferrous:** Inventory levels were consistent to increasing in recent months, given price increases, and as companies have largely taken a replacement approach to inventory in the volatile market.

SALES TRENDS

- **Ferrous and Non-ferrous:** Sales increased in recent months along with pricing. Sales are poised to increase during the first half of 2021 compared to the first half of 2020, when the manufacturing and energy markets suffered shutdowns or slowdowns due to the onset of the COVID-19 pandemic.

GROSS MARGIN

- **Ferrous:** Gross margins increased in Q4 2020 and into January 2021 compared to earlier in 2020 as market pricing increased, allowing for higher top-line sales while selling through lower-cost, earlier-sourced inventory.
- **Non-ferrous:** Gross margins were consistent to increasing as market pricing increased through Q4 2020 and into January 2021.

PRICING

- **Ferrous:** Prices increased as mill lead times grew longer and round after round of price increases were accepted in the market during Q4 2020 and into January 2021. Benchmark hot rolled coil prices exceeded \$1,000 per net ton in January 2021, a price not seen in over 10 years.
- **Non-ferrous:** Prices continued to increase throughout Q4 2020 and into 2021, albeit at a slower rate than ferrous materials, given largely improved demand and market optimism surrounding the COVID-19 vaccines.

Overview

After the COVID-19 pandemic led to shutdowns across the steel industry in the first half of 2020, the resulting reduction in supplies, coupled with rising demand later in the year, boosted steel prices near record levels.

As U.S. industrial sectors continued to reopen over the past few months, demand for steel climbed while supplies remained short. According to the American Iron and Steel Institute (“AISI”), month-over-month shipments from steel mills increased 1.3% in October and 0.1% in November 2020. Year-over-year steel shipments continued to decrease, albeit at a lower rate than at the onset of the pandemic, with an 11.9% year-over-year decline in November 2020 versus declines of 31.5% in April and 32.9% in May. Meanwhile, the Metals Service Center Institute reported year-over-year shipments from steel service centers decreased only 8.1% in October and 1.3% in November 2020, versus pandemic lows, when shipments fell 31.3% in April and 34.2% in May.

U.S. steel mills continued to raise prices of hot rolled coil, which serves as a bellwether for overall steel price trends, through Q4 2020 and into 2021. Hot rolled coil prices surpassed the \$1,000-per-net-ton mark in January 2021. Domestic steel mills have been increasing weekly production since mid-2020 in an effort to meet demand. However, with signs of import availability at competitive prices and enticing lead times versus domestic material, domestic price stabilization may be on the horizon for Q1 2021 if higher-priced domestic material continues to be in short supply.

Steel imports decreased overall in 2020, largely due to the global economic disruption caused by the pandemic. The U.S. Census Bureau reported that total and finished steel imports fell 21.2% and 23.3%, respectively, in 2020 versus 2019. However, total and finished steel imports increased 9.0% and 13.5%, respectively, in December versus the prior month.

In 2020, global steel output declined 0.9% versus 2019, according to the World Steel Association, due to the economic impacts of COVID-19. China, which accounts for more than half of global steel output, saw its year-over-year crude steel production increase 5.2% in December 2020, reflecting slower growth compared to 8.0% the prior month as tighter credit conditions impacted demand from the construction and infrastructure sectors. To meet low-carbon initiatives, China intends to reduce its crude steel output in 2021 versus 2020.

Prices for nearly all non-ferrous materials continued to increase throughout Q4 2020 and into January 2021, albeit at slower rates than ferrous materials, amid rising demand and positive sentiment surrounding COVID-19 vaccines.

Metal demand is driven by manufacturing activity. After increasing in December 2020, the U.S. purchasing manager's index (“PMI”), an indicator for manufacturing demand, decreased 1.8 percentage points to 58.7% in January 2021, according to the PR Newswire, reflecting slower expansion. U.S. automakers are gradually recovering from the pandemic-induced downturn, with new vehicle sales growing 2.8% in Q4 2020 versus Q3, though down 5.7% year-over-year, according to *DBusiness Magazine*. Auto sales fell 15.5% in 2020 to a seasonally adjusted annual rate of 14.4 million units, the lowest level since 2012, as the pandemic disruption ended the industry's five-year record. Although crude oil prices have slowly increased to the \$45-to-\$55 range after plummeting to historic lows in the spring, the low return on investment is limiting exploration and production activity. After falling to a record low of 244 rigs for the week ended August 14, 2020, the Baker Hughes U.S. rig count recovered slightly to 384 rigs by January 29, 2021.

Carbon Steel

SCRAP

	Ferrous Shredded Scrap Price Trend
12-month	Increasing ▲
Three-month	Increasing ▲

On January 25, 2021, SteelBenchmarker prices for U.S. shredded scrap (East of the Mississippi) reached \$459 per gross ton, up from \$287 per gross ton the prior year and increasing from \$287 per gross ton three months earlier.

U.S. ferrous scrap prices have soared in recent months, hitting decade-high levels, due to pressing demand from mills. The scrap price increase in December was the largest on record for the month, with January being another banner month.

After shutdowns earlier in 2020 reduced steel inventory levels, mills have been unable to keep up with the recent rise in steel demand amid the economic recovery, and have therefore ramped up steel production. The PMI ticked up 3.2 percentage points in December, reflecting rebounding manufacturing activity, before decreasing 1.8 percentage points in January, still reflecting growth, though at a slower rate.

Meanwhile, ferrous scrap supplies were not as impacted by earlier lockdowns compared to finished steel supplies. Although scrap supplies initially dwindled at the onset of the pandemic, the restart of auto plants beginning in May boosted scrap levels. Mills are therefore lining up for ferrous scrap, an input in raw steel production, creating a seller's market, with dealers in the rare position of being in more control of price negotiations. However, the February ferrous scrap trade registered a downward price correction, which was modest compared to the January increase.

UTILIZATION RATES

U.S. steel mills have been steadily increasing production on a weekly basis since mid-2020, restarting and expanding production at various locations. U.S. steel capacity utilization rates increased from the 50% range in June 2020 to over 75% in January 2021. Although remaining below the 80%+ rates that typically denote optimal profitability for mills, which were last achieved prior to the pandemic, capacity utilization has continued to improve with a rebound in steel demand due to the ongoing recovery in steel-consuming industries in the wake of pandemic-related shutdowns earlier in 2020.

After restarting two idled blast furnaces at the Gary Works steel mill in July 2020, U.S. Steel restarted its last idled blast furnace, No.4, at this location in December 2020 as the market continued to recover. More domestic steel capacity is expected to come online throughout 2021. Analysts have noted that some of the delays in restarting blast furnaces are related to the availability of steel workers.

The AISI reported that domestic raw steel production totaled 1,725,000 net tons in the week ended January 30, 2021, down 9.5% from the prior year, but up 0.5% from the prior week. Capacity utilization reached 76.1%, down from 82.4% the prior year, but up from 75.7% the prior week. Adjusted year-to-date production through January 30, 2021 totaled 7,360,000 net tons at a capacity utilization rate of 75.9%, down 9.7% from 8,149,000 net tons the same period last year, when the capacity utilization rate was 82.4%.

Week Ended	Raw Steel Production (In Millions of Net Tons)	Change Vs. Prior Year
October 3, 2020	1.484	(17.7%)
November 7, 2020	1.823	(13.7%)
December 26, 2020	1.600	(11.8%)
YTD 2020	79.739	(17.7%)
January 30, 2021	1.725	(9.5%)
YTD January 30, 2021	7.360	(9.7%)

Carbon Steel

CARBON STEEL SHEET COIL

	Flat Rolled Steel Coil Price Trend
12-month	Increasing ▲
Three-month	Increasing ▲

On January 25, 2021, SteelBenchmarker prices for U.S. hot rolled coil (East of the Mississippi) reached \$1,037 per net ton, rising well above \$579 per net ton the prior year and increasing from \$659 three months earlier. SteelBenchmarker prices for U.S. cold rolled coil (East of the Mississippi) reached \$1,222 per net ton, increasing from \$757 per net ton the prior year and \$826 per net ton three months earlier.

Flat rolled steel prices continued to ride wave after wave of price hikes implemented by domestic mills starting in September 2020 as U.S. manufacturing activity resumed following a brief collapse at the onset of the COVID-19 pandemic.

After mill shutdowns earlier in 2020 left millions of tons of steelmaking capacity offline, mills scrambled to keep up with the more recent rise in demand, with inventory falling short and mill lead times lengthening. The undersupply left service centers desperate for inventory, with average monthly service center supplies falling from 80.1 shipping days of supply in April 2020 to 40.0 in November 2020. Meanwhile, scrap suppliers were able to leverage the situation by raising scrap prices to mills in strong need of feedstock.

The perfect storm of strong demand, short supplies, and rising scrap prices spurred benchmark hot rolled coil prices to spike above \$1,000 per net ton in early January 2021, reaching levels not seen in over 10 years. As of February 4, 2021, U.S. hot rolled coil prices achieved an all-time high north of \$1,180 per net ton.

The recovery in capacity utilization had been sluggish until early January 2021, when weekly raw steel production jumped 3.1% for the week ended January 2, according to the AISI, driven by U.S. Steel restarting an idled blast furnace at its Gary Works facility in Indiana sooner than expected, as well as the anti-trust approval for Cleveland-Cliffs to acquire ArcelorMittal USA—to become North America's largest flat rolled steel producer—and bring that capacity online.

As supplies normalize, and as lower-priced import availability adds competition, market participants expect domestic hot rolled coil prices to peak sometime within the next three months before dropping and bottoming out at an anticipated range of \$600 to \$700. However, the management of the COVID-19 pandemic, as well as any change in tariff policy by the new presidential administration, may prove to be wildcards, while capacity additions will bring more supply online. While some market participants continue to restock given lean inventories and tight availability, others have slowed their restocking due to cancelled orders from downstream customers upset by the surge in steel prices.

Looking forward, Steel Dynamics Inc. plans to start the hot end of its new flat rolled mill in Sinton, Texas this summer, with an annual capacity of 3 million tons. Nucor's mill expansion in Ghent, Kentucky, is expected to start up in the second half of 2021, nearly doubling the mill's annual hot rolled coil capacity to 3 million tons. North Star BlueScope is wrapping up a third electric arc furnace ("EAF") and second caster at its sheet mill in Delta, Ohio late this year, bringing an anticipated 1 million more tons to the hot rolled market over the next few years. And AM/NS Calvert, a joint venture between ArcelorMittal and Nippon Steel Corp., plans to build a new EAF for completion by the first half of 2023; the new furnace in Calvert, Alabama will produce hot rolled coil, cold rolled coil, and coated sheet at an annual capacity of approximately 1.5 million metric tons.

Carbon Steel

STEEL PLATE

	Steel Plate Price Trend
12-month	Increasing ▲
Three-month	Increasing ▲

On January 25, 2021, SteelBenchmarker prices for U.S. standard steel plate (East of the Mississippi) reached \$967 per net ton, increasing from \$715 per net ton the prior year and from \$647 per net ton three months earlier.

Similar to flat rolled steel coil, steel plate enjoyed a flurry of price gains in recent months as scrap prices climbed and demand recovered with the economy. In the new year, the market enjoyed positive demand signals from OEMs and even the oil and gas industry, which had weathered a significant downturn in 2020. Limited spot availability and skyrocketing scrap prices also buoyed steel plate prices in January. Cut-to-length plate pricing has jumped nearly 88% since its 2020 low in August.

However, plate prices have not increased at the same rapid pace as hot rolled coil, in part because the plate market did not experience the same scope of mill shutdowns as the coil market at the onset of the pandemic. In addition, the relationship to hot rolled coil prices has inverted. By mid-January 2021, cut-to-length plate prices were nearly \$220 per net ton below hot rolled coil prices, compared to nearly \$200 per net ton above hot rolled coil prices in 2019. The widening price spread, coupled with rising demand as the economy recovers, prompted a surge in orders. Plate mills are shrinking the price gap, with more price hikes recently announced, and are determined to reverse the inversion. However, it remains to be seen whether demand will hold after service centers restock their inventories.

REBAR

	Rebar Price Trend
12-month	Increasing ▲
Three-month	Increasing ▲

In January 2021, U.S. Southeast rebar prices were above both year-ago and prior-quarter levels. Like most steel products, rebar prices rebounded in recent months, driven by limited supplies, extended lead times from mills, and higher scrap costs. In addition, buyers rushed to purchase material ahead of any additional price increases, although the panic-buying is beginning to subside.

By January 2021, price hikes pushed domestic rebar prices to a nine-year peak. However, rebar demand remains tepid at best, with the Association of General Contractors of America reporting pessimism for the commercial construction market in 2021, particularly the retail, lodging, and private office construction segments.

“This is clearly going to be a difficult year for the construction industry,” said Stephen E. Sandherr, the association’s chief executive officer. “Demand looks likely to continue shrinking, projects are getting delayed or canceled, productivity is declining, and few firms plan to expand their headcount.”

In industry news, Nucor has begun production at its rebar micro-mill in Frostproof, Florida to supply Florida’s construction market. The micro-mill will produce rebar from nearly 100% recycled content at an annual production capacity of approximately 318,000 metric tons, with production continuing to ramp up through Q1 2021 and slated to reach full capacity in Q2.

Carbon Steel

OCTG

	J55 ERW Price Trend
12-month	Increasing ▲
Three-month	Increasing ▲

Oil country tubular goods ("OCTG") and line pipe prices have generally increased in recent months due to soaring hot rolled coil prices; however, OCTG demand remains slow given the downturn in the oil and gas industry, which was exacerbated by the COVID-19 pandemic.

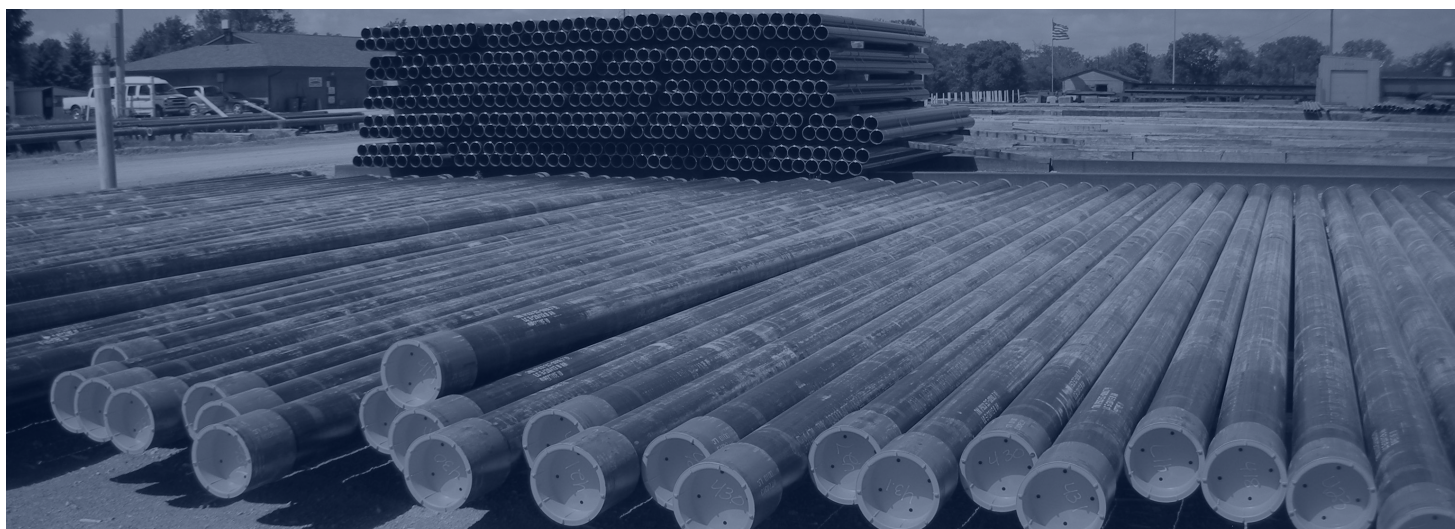
OCTG imports fell 53.2% in 2020 overall versus 2019; however, December 2020 OCTG imports spiked 147.5% versus the prior month, according to the U.S. Department of Commerce census data.

After bottoming out at a staggering negative \$37 per barrel in April 2020, crude oil prices have recovered to above \$50 per barrel entering 2021. The U.S. oil and gas rig count declined throughout most of 2020, reaching a low of 244 rigs in August, which is 40% below the prior all-time low.

Per Baker Hughes, the oil and gas rig count recovered slightly to 384 for the week ended January 29, 2021, but remains down by 406 rigs from the same week the prior year.

The outlook for OCTG demand remains murky. The combination of gradual activity increases and discipline regarding capital allocation has resulted in improving financial results across the industry when compared to the lows witnessed during the middle of 2020. However, the oil and gas market remains subject to variables such as the spread or containment of the COVID-19 pandemic. In addition, new U.S. President Joe Biden is enacting a policy shift less friendly to the oil and gas industry, including a re-commitment to the Paris Agreement, a worldwide pact related to emissions, and the cancellation of the Keystone XL pipeline, designed to transport oil from Canada to the U.S.

In industry news, Boomerang Tube laid off 150 workers at its OCTG facility in Liberty, Texas in late December 2020 after reportedly auctioning off a portion of its assets. Meanwhile, Tex-Isle Inc. plans to open a tubular steel mill in Robstown, Texas during Q3 2021, with approximately 250,000 tons of the 350,000-ton capacity slated for oil and gas pipelines and the remainder intended for structural products.



Aluminum

	Aluminum Price Trend
12-month	Increasing ▲
Three-month	Increasing ▲

In January 2021, monthly average London Metal Exchange (“LME”) prices for aluminum and Midwest transaction prices for grade P1020 aluminum were above year-ago levels and have increased over the past three months. As of February 3, 2021, the three-month LME price reached \$1,972 per metric ton.

In the second half of 2020, aluminum prices bounced back from their pandemic-induced lows as China, the world’s largest consumer of aluminum, relaxed economic restrictions and issued a stimulus, and as vaccines began to be dispersed. In addition, scrap supplies remained tight, while freight costs climbed. As a result, aluminum prices reached the year’s peak in early December, marking the highest level since October 2018. The gains in December were also accelerated by fears that the U.S. might reinstate sanctions on United Co. Rusal International PJSC, a Russian aluminum producer and major supplier to Europe.

In the Q1 2021, however, aluminum prices on the LME are anticipated to trend downward based on lower seasonal demand in China. Overall, aluminum demand is expected to grow this year as China’s post-lockdown economic activity ramps up, spurring higher demand from end-markets such as construction and infrastructure, and as restocking occurs amid rising demand from recovering regions throughout the world. Still, this demand is expected to be more than offset by higher Chinese aluminum production, combined with increased aluminum production in regions outside of China, paving the way for a potential global oversupply.

In 2020, North America’s primary aluminum production increased 4% from 2019 to reach an estimated 3.9 million metric tons, according to International Aluminum Institute data, reflecting the second straight year of growth for the industry.

A full global recovery may rely on the full rollout of vaccines, which will take some time, making additional waves of virus outbreaks in at least the first half of 2021 a real possibility. In addition, it remains to be seen how U.S.-China trade relations pan out under the new presidential administration. The removal of Section 232 tariffs on primary aluminum imports could shake up the aluminum industry and significantly impact prices. On January 22, 2021, the Aluminum Association outlined its priorities for the new administration, including trade, indicating that “The single biggest threat to U.S. aluminum remains unfairly subsidized overcapacity in China. Strong, targeted trade enforcement is vital to the U.S. aluminum industry’s ability to compete on a market-based, level playing field. The Aluminum Association supports renewed cooperation with traditional trading partners and allies to address this perennial issue.”

	Midwest Transaction Premium Trend
12-month	Increasing ▲
Three-month	Increasing ▲

The P1020 aluminum Midwest transaction premium remained above year-ago levels and increased in recent months due to tighter supplies, higher freight and scrap costs, and optimism surrounding COVID-19 vaccines. In addition, news about the Federal Aviation Administration’s decision to unground Boeing 737-Max boosted the premium. However, the outlook is cloudy given uncertainty surrounding the new presidential administration, particularly as it relates to aluminum tariffs.

Copper

	Copper Price Trend
12-month	Increasing ▲
Three-month	Increasing ▲

In January 2021, monthly average copper prices on the LME were well above year-ago levels and have been increasing over the past three months. As of February 3, 2021, the three-month LME price reached \$7,821 per metric ton. After hitting a multi-year low in March 2020 due to the pandemic, copper prices experienced a sharp recovery for the remainder of the year, with prices soaring in December after strong economic data from China, which consumes more than 50% of the world's copper, along with positive COVID-19 vaccine news.

Zinc

	Zinc Price Trend
12-month	Increasing ▲
Three-month	Increasing ▲

In January 2021, monthly average zinc prices on the LME were above year-ago levels and have been increasing over the past three months. As of February 3, 2021, the three-month LME price reached \$2,608 per metric ton. After plunging amid pandemic-related lockdowns in Q1 2020, zinc prices slowly recovered for the remainder of the year, with a slight reversal before the rally continued in Q4. Similar to other base metals, zinc prices climbed at the end of the year as Chinese demand recovered amid stronger-than expected industrial activity, and given the optimistic investor sentiment surrounding the COVID-19 vaccine.

Copper prices have a strong outlook for Q1 2021, given an undersupply in the market after sporadic mine disruptions spurred by earlier lockdowns, with end-users replenishing their inventories as the economic recovery ramps up. Investor confidence has brightened with the continued rollout of the COVID-19 vaccine, and as the new presidential administration's environmental agenda may boost demand for copper used in renewable power and electric vehicles. While there may not be an immediate change in trade policy, the new administration has also eased fears of an escalation in the trade war. Still, copper prices were somewhat tempered early in 2021 by rising scrap supplies and an increase in China's COVID-19 cases.

Eurasian Resources Group forecasts global refined copper demand will grow 4% to 5% this year, the highest level in nearly a decade, with modest growth in mine production.

As with most base metals, China is the world's largest consumer of zinc. Approximately 30% of refined zinc demand is used for galvanized steel sheet, of which China is the world's largest producer, and Chinese galvanized sheet output increased in 2020 despite declines in the rest of the world. In addition, zinc supplies began to tighten.

Analysts foresee a positive outlook for zinc prices at least through the first half of 2021, given continued tightness in the concentrate market and the possibility of Chinese smelter cuts, as well as a targeted Chinese infrastructure stimulus. As galvanized steel sheet is largely used in construction and automotive applications, the recovery of these sectors would boost zinc demand. However, uncertainty remains regarding the rollout of the COVID-19 vaccine, further closures related to additional COVID-19 outbreaks, and a potential extension of the outage the Gamsberg mine in South Africa.

Nickel

	Nickel Price Trend
12-month	Increasing ▲
Three-month	Increasing ▲

In January 2021, monthly average nickel prices on the LME were above year-ago levels, and have been increasing over the past three months. As of February 3, 2021, the three-month LME price reached \$17,663 per metric ton. After plunging in March 2020 during the onset of the pandemic, nickel prices rebounded through the end of the year. The recovery that began with the lifting of lockdown measures in Q2 2020 turned into a rally in Q3 as Tesla CEO Elon Musk offered a major contract for nickel mined efficiently.

Tesla is developing cathodes with higher nickel content for its electrical vehicles. In Q4, nickel prices continued to rise, driven by increased demand from the stainless steel sector, especially in China and Indonesia, while scheduled capacity expansions in Indonesia had been delayed until 2021. Nickel consumption by the battery sector remained strong in 2020.

The International Nickel Study Group expects global nickel demand to increase 8.7% to 2.5 million metric tons in 2021 versus 2020, fueled by the stainless steel sector and aided by demand from the battery sector. In addition, economic growth is slated to continue recovering from the pandemic-related lows of 2020. Meanwhile, supply growth is anticipated to remain constrained, although the market will likely stay in a surplus, albeit much smaller than the 2020 surplus.

Stainless Steel

	Stainless Steel Price Trend
12-month	Increasing ▲
Three-month	Increasing ▲

In January 2021, monthly average stainless steel prices were above year-ago levels and have been increasing over the past three months. The recent increase in stainless steel prices was driven by rising demand and tightening supplies, as well as higher nickel surcharges as nickel prices rebounded. Similar to most other steel types, stainless steel is enjoying recovering demand as industrial activity ramps up after closures at the onset of the COVID-19 pandemic. Some market participants indicate that part of the demand may reflect overbuying in fear of facing shortages.

Constrained stainless steel supplies are partially driven by Allegheny Technologies Inc.'s plan to exit the standard stainless sheet business by mid-2021 due to high operation costs and shift capital to the aerospace and defense business.



Monitor Information

The *Metals Monitor* provides market value trends in both ferrous and non-ferrous metals. The commodity nature of steel scrap, aluminum ingot, copper cathode, zinc, and nickel often results in volatile market values. Our *Metals Monitor* reflects pricing and market trends in order to reflect significant developments in the metals markets. The information contained herein is based on a composite of B. Riley Advisory Services' industry expertise, contact with industry personnel, industry publications, liquidation and appraisal experience, and data compiled from a variety of well-respected sources.

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Experience

B. Riley Advisory Services' extensive record of metals inventory valuations features companies throughout the entire metal supply chain, including foreign and domestic metal- and steel-producing mills; metal converters that produce tubing and pipe, as well as expanded, grating, and perforated metal types; metal service centers/processors and distributors; structural and custom fabricators and stampers; manufacturers that utilize metals as raw materials; and scrap yards, recyclers, dealers, and brokers. B. Riley Advisory Services has also appraised precious and specialty metals. B. Riley Advisory Services has appraised metal products with applications in a wide variety of industries.

A sampling of B. Riley Advisory Services' extensive appraisal experience includes:

- Steel mini-mills and producers of flat rolled steel products.
- Globally recognized vertically integrated manufacturers and distributors of steel tube, including OCTG.
- A vertically integrated producer of aluminum with over \$1 billion in sales annually and over \$130 million in inventory.
- A number of the largest scrap recycling processors in the U.S.
- Well-known service centers across the nation, including a multi-division full-line steel service center.

Moreover, B. Riley Advisory Services has liquidated a number of companies with metal products, including Charleston Aluminum, Advanced Composites, Aluminum Skylight & Specialty Corporation, Anello Corporation, Apex Pattern, Balox Fabricators, BJS Industries, Buckner Foundry, Crown City Plating, GE Roto Flow, Laird Technology, Maddox Metal Works, Miller Pacific Steel, R.D. Black Sheet Metal, Valley Brass Foundry, and Southline Steel. B. Riley Advisory Services has also been involved in liquidations of metalworking equipment for companies such as Adams Campbell Company, CAMtech Precision Manufacturing, Inc., Gregg Industries, Inc., International Piping Systems, Heat Transfer Products, PMC Machining and Manufacturing, Sherrill Manufacturing, Trans-Matic Manufacturing, Veristeel, Inc., and Weiland Steel, Inc. In addition, B. Riley Advisory Services maintains a staff of experienced metals experts with personal contacts within the metals industry that we utilize for insight and perspective on recovery values.

Capitalize On The B. Riley Difference

B. Riley Financial (“B. Riley”) companies provide tailored financial solutions to meet the strategic, operational, financial advisory and capital needs of its clients. Our diverse suite of business capabilities goes beyond traditional financial service offerings. By leveraging cross-platform expertise and assets, our companies are uniquely positioned to provide full service, collaborative solutions at every stage of the business life cycle.

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- Inventory Clearance
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- Real Estate Solutions

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WHOLESALE & INDUSTRIAL SOLUTIONS

Provides equipment management and capital recovery solutions through a suite of services in various industries.

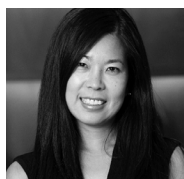
- Auctions, Private Treaty & Liquidation
- Valuations
- Asset Planning & Recovery Strategies

Appraisal & Valuation Team

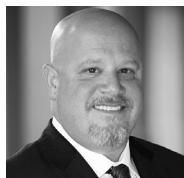
BUSINESS DEVELOPMENT



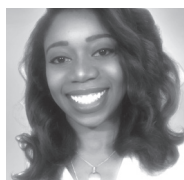
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