# Applied Value Quarterly Steel Report

Q1 2021 Report

January 2021

**Applied Value**
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# Applied Value is a management consulting & investment firm with deep expertise in supporting clients throughout the steel industry.

## Applied Value Group

**Investments**

**Management Consulting**

**Social Responsibility**

**Selected portfolio companies**

Division 5 Inc STEEL FABRICATION

SOURCING VALUE

APPLIED VALUE

HAND IN HAND

*ROI driven*

*Practical over theoretical*

*Global perspectives*

*Fact-based*

*Hands-On*

## Steel Sourcing Strategies

*Experience with dozens of major steel consumers…*

- Game Changers
- Technical Savings
- Risk Management
- Manage Component Costs
- Value Chain Optimization
- Fact-based Negotiations
- Control of Data

*…across multiple industries from 10k-10M MT volumes*

***Tools & Data Analytics***

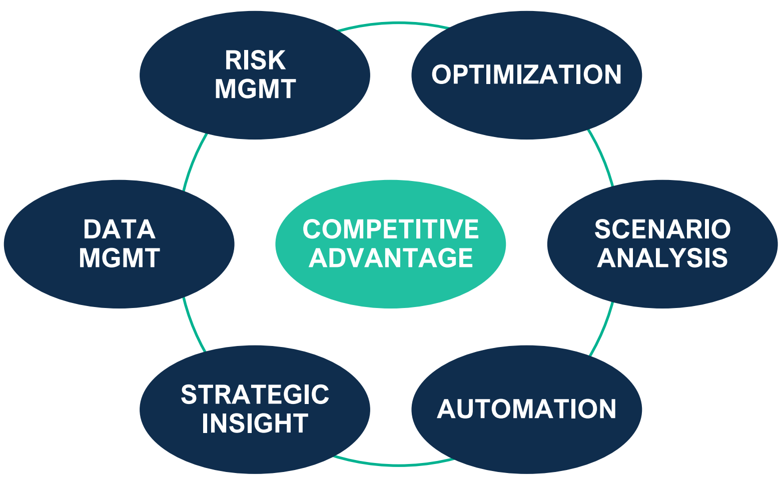
3 Main Offices support global clients across all 6 continents:

***New York*** ***Stockholm*** ***Shanghai***

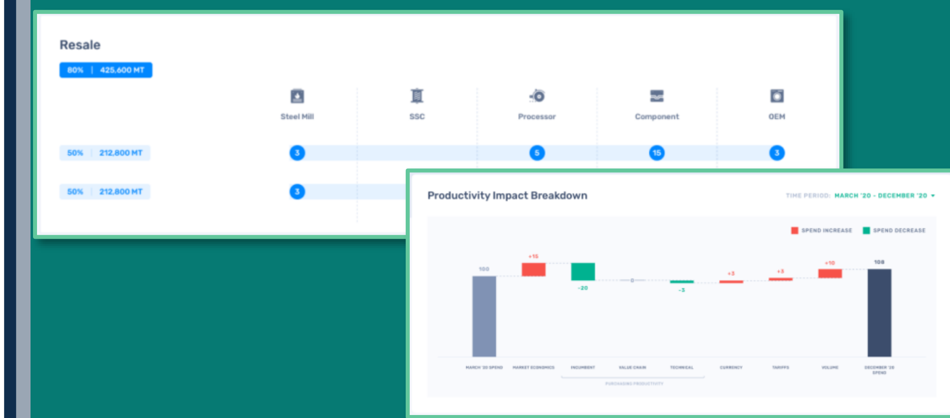
# Sourcing Value is a comprehensive digital analytics platform for steel sourcing, designed by Applied Value to save buyers time & money.

**SOURCING VALUE**

**Automate** and **enhance** your steel sourcing process to save **time** and **money**



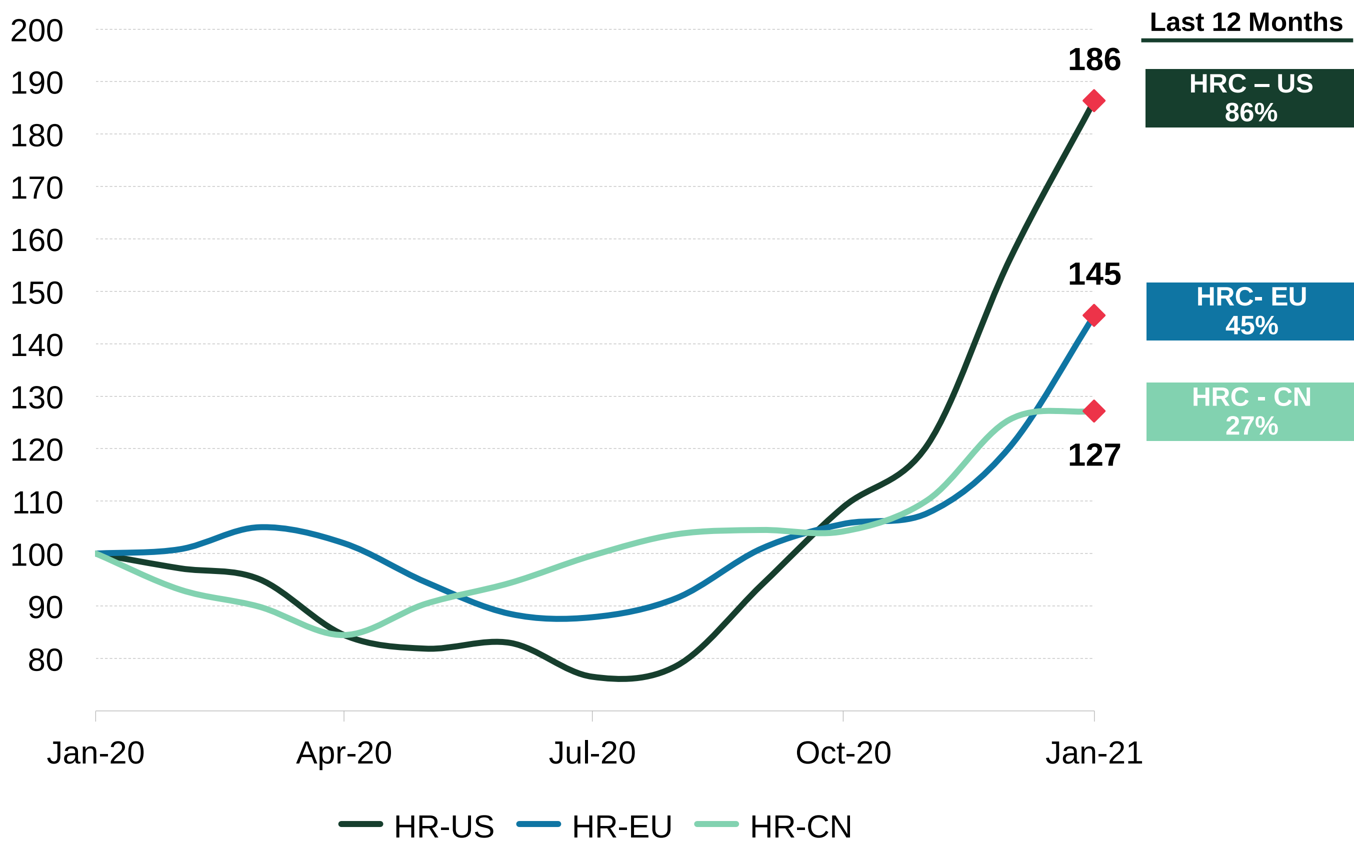

## Highlighted Features




- ✓ Data Management
- ✓ Directed Buy & Resale Management
- ✓ Benchmarking
- ✓ Value Chain Optimization
- ✓ Executive Reporting & Dashboards
- ✓ RFQ Portal & Quote Analytics
- ✓ Fact-Based Negotiations
- ✓ Market Intelligence
- ✓ Day to Day Spend Management

# Global HRC prices skyrocketed to record levels in Q4 ’20 amid short supply paired with strong demand recovery from pandemic-related lows.

**Indexed Hot-rolled Coil Costs**
Jan ‘20 – Jan ‘21




US HRC prices recorded in Jan ‘21 surged 71% since Oct ‘20; prices are expected to stay near record highs throughout Q1’21.

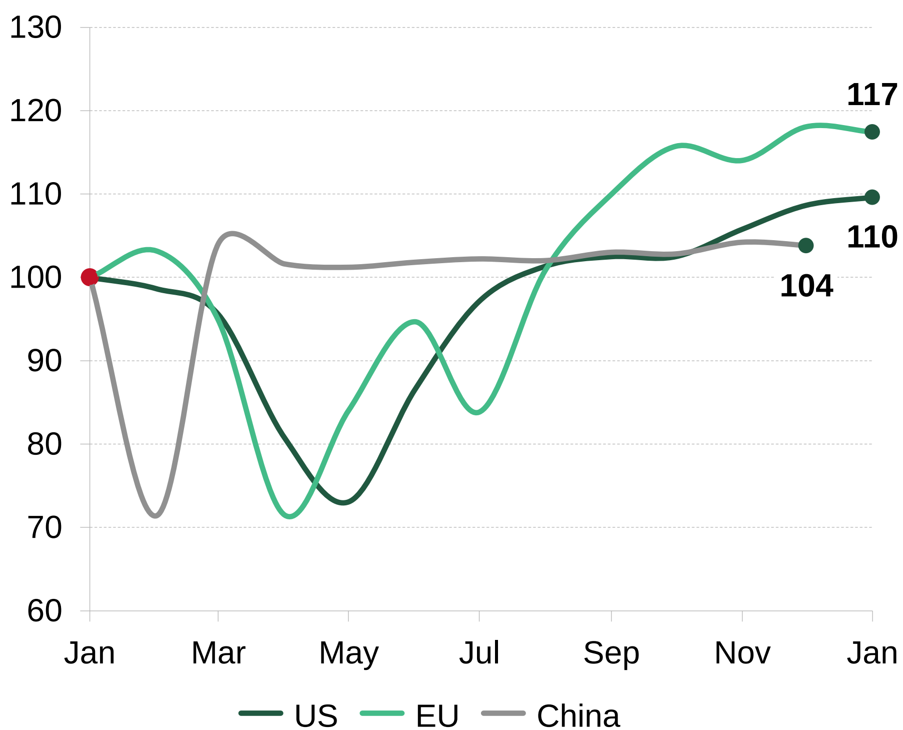
EU HRC has surpassed pre-COVID levels, spiking 38% since Oct ’20.

China HRC prices had two distinct hikes during H2’20 as the market continued its strong recovery; prices increased 22% in Q4’20.

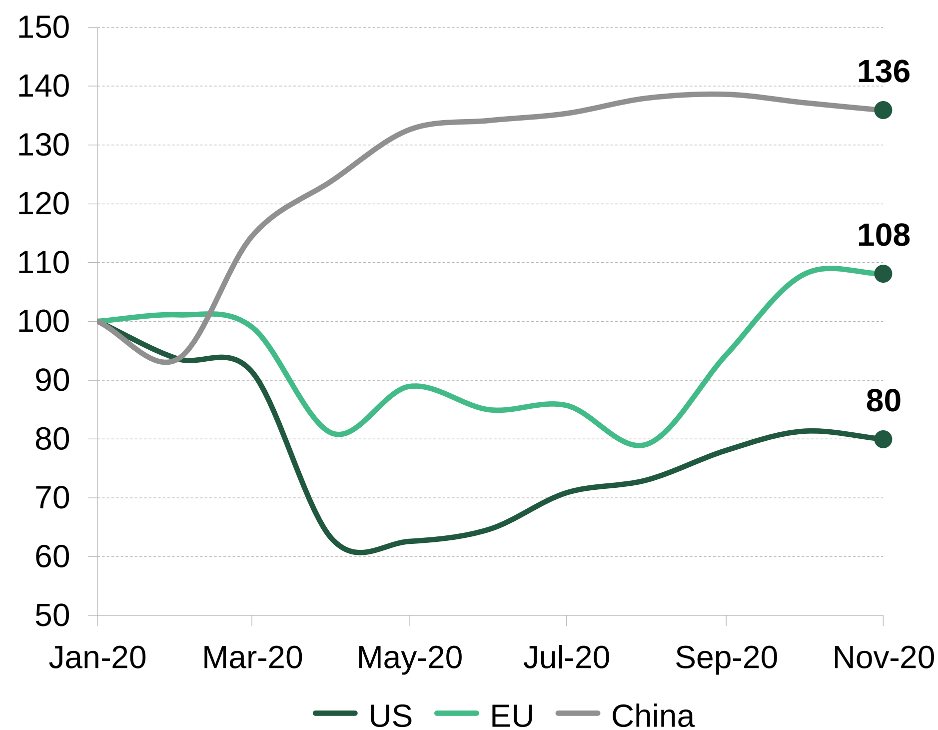
Source: AV Analysis

# Steel demand in both the United States and Europe has recovered much faster than steel production, leading to supply shortage and surging prices.

**Indexed PMI (Demand Indicator)**
Jan '20 – Jan '21




**Indexed Crude Steel Production (Supply Indicator)**
Jan '20 – Nov '20




- Global PMIs (Demand Indicator), recovered strongly after May, even surpassing pre-pandemic levels by August 2020

- Steel production recovered at a much slower pace in all regions except China
- EU production started to accelerate in August 2020, but US production didn't pick up until Dec '20/Jan '21

Sources: Statista, World Steel, Applied Value Analysis

# The Global Steel rally of Q4 ’20 was primarily driven by supply shortage; rising raw materials will support high prices as supply normalizes in Q1 ’20.

| United States | Europe | China |
|---|---|---|

**Steel Price Trends & Forecasts**

***Q1‘21 Trend***

| United States | Europe | China |
|---|---|---|
| **US HR prices shot up by 71% in Q4’20; the slow recovery in mill utilization has exacerbated the supply shortage amid an ongoing pandemic recovery.** | **EU HR prices surged 38% in January (Q-o-Q) as domestic and overseas supply remains tight; EU HRC has decisively surpassed domestic CN prices.** | **CN HR prices climbed 22% in January (Q-o-Q) driven by strong demand related to Gov’t stimulus; CN crude production levels are at record highs.** |
| US mill capacity is finally rebounding with the most recent January readings around 76.7%, indicating some relief to the supply shortage by Q2 2021. | EU demand recovery was particularly strong with Jan ’21 PMI sitting 17% above the same period last year, providing additional upward momentum. | CN HR prices may decline slightly in Q1’21 as record production levels flood the market with supply during cold weather months that typically slow construction activity. |

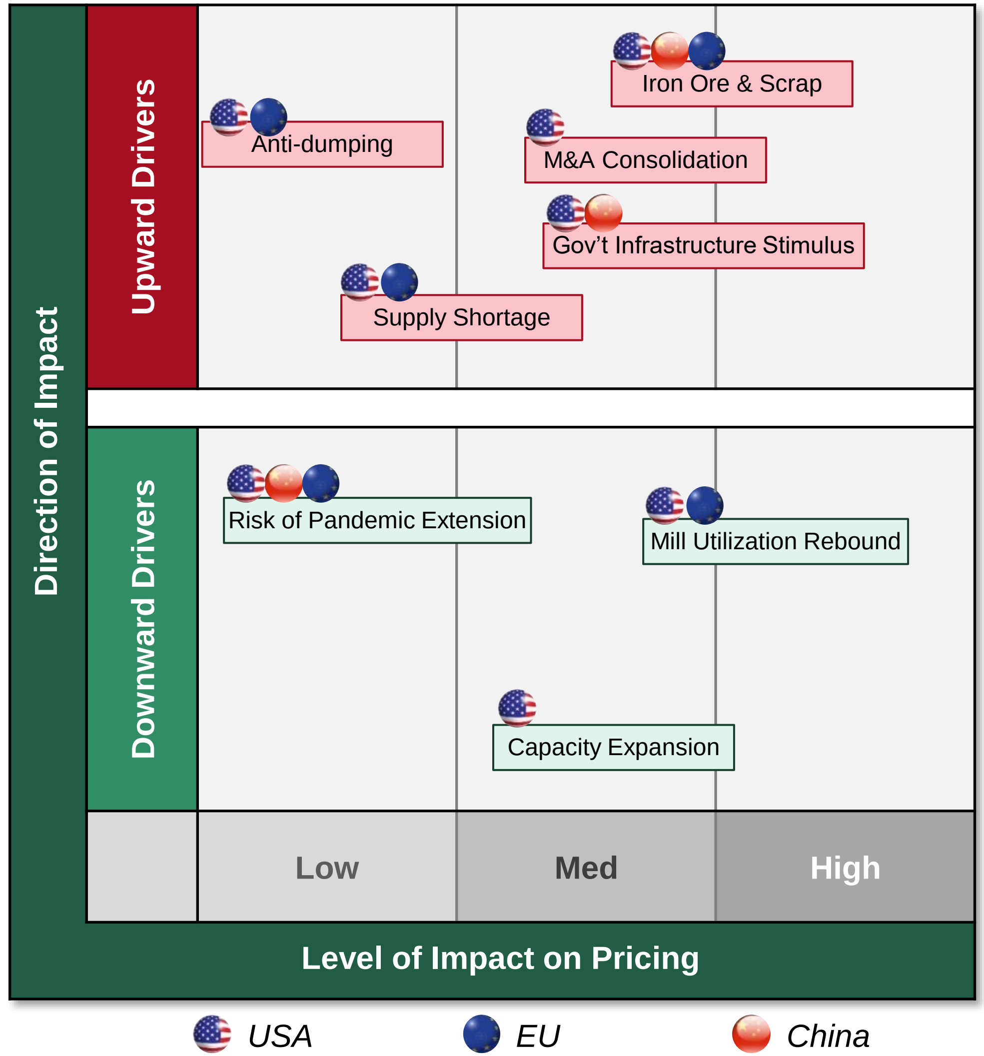
**Raw Material Trends**

Scrap prices rose by 50% in the US, 50% in Europe, and 17% in China Q-o-Q; Iron ore prices increased 24% Q-o-Q; scrap prices may continue to rise in 2021 as mill utilization increases and CN lifts ban on scrap imports.

# Global Steel Price & Trend Summary.

| Commodity | | | Latest Approx. Price* | Last 3 Months | Trend (3 Months Forward) |
|---|---|---|---|---|---|
|  | ***Flat*** | *US* | ~$1,236/MT | 71% | → |
| | | *EU* | ~€695/MT | 38% | ↗ |
| | | *CN* | ~$700/MT | 22% | → |
|  | ***SS*** | *US* | ~$2,879/MT | 7% | → |
| | | *EU* | ~$2,564/MT | 17% | ↗ |
| | | *CN* | ~$2,283/MT | 1% | → |
|  | ***Plate*** | *US* | ~$830/MT | 60% | ↗ |
| | | *EU* | ~$749/MT | 28% | ↗ |
| | | *CN* | ~$673/MT | 15% | → |
|  | ***Bar*** | *US* | ~$776/MT | 13% | ↗ |
| | | *EU* | ~$650/MT | 20% | ↗ |
| | | *CN* | ~$655/MT | 23% | → |

**Major Market Drivers**




* Flat prices updated to reflect most recent Jan '21 prices due to extremely volatile market conditions; all other prices as of Dec '20.

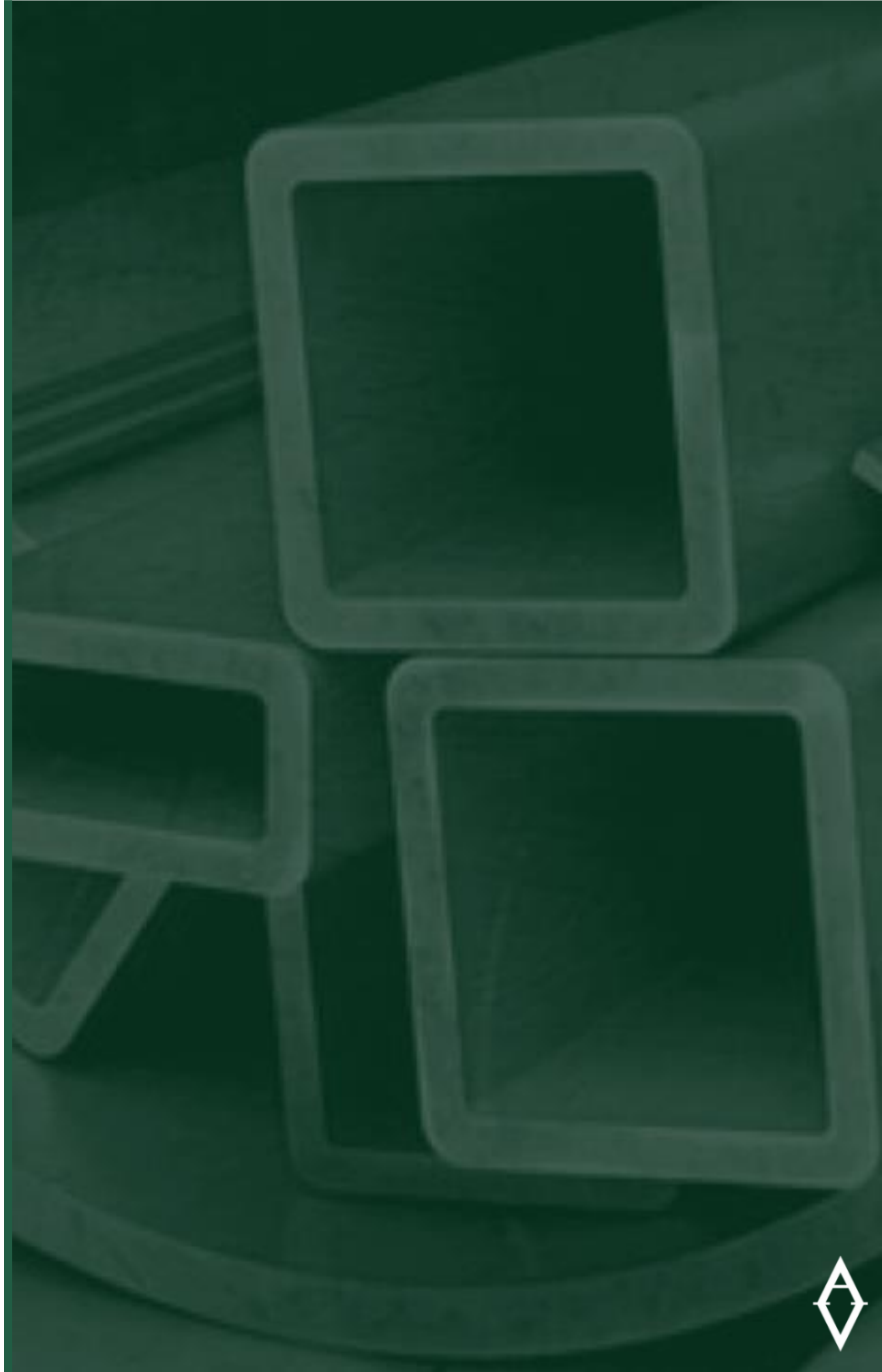
**Applied Value Quarterly Steel Report**

Q1 2021

**Market Conditions by Region**

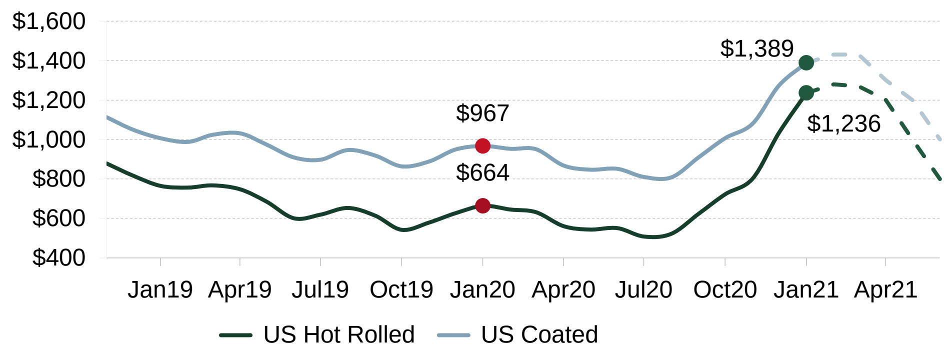
Steel Production Costs

Major Steel Mill Company Performance



# US HRC prices topped historical highs at $1,236/MT in January 2021, but should find some relief in Q2 with mill utilization back at ~77%.

## US Flat Prices (USD/MT)




› Prices for US hot-rolled and coated increased 71% and 38% Q-o-Q, respectively. Growth was primarily driven by the supply shortage and recovering demand. While many US steel mills are reluctant to increase utilization, fearing price decreases, many are eager to restart production to capitalize on the high prices.

› Scrap prices jumped 50% Q-o-Q to ~$435/MT as idled capacity came back online and even increased in some cases resulting from the introduction of new electric-arc furnaces; In December, China removed the import ban on ferrous scrap, providing further upward momentum.

› US crude steel production volume continues to recover but currently stands at ~8.8% lower than the same period last year.

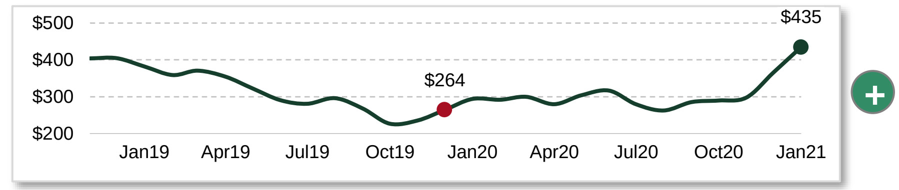
› Steel mill capacity utilization has recovered to 76.7%, indicating that relief from the ongoing supply shortage is on the way, although it could take months for the effect to have a material impact on prices.

› US HRC is currently priced at $514/MT more than steel sold in the domestic Chinese market. This spread is ~3x larger than the same spread in October 2020.

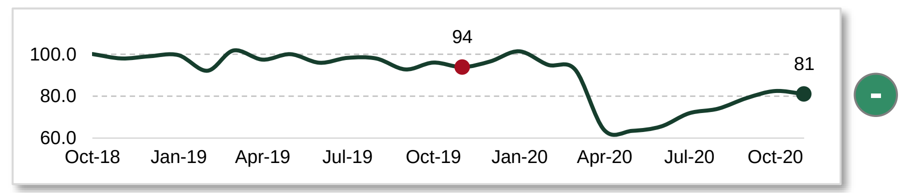
Source: AV Analysis

## US Scrap Steel Price

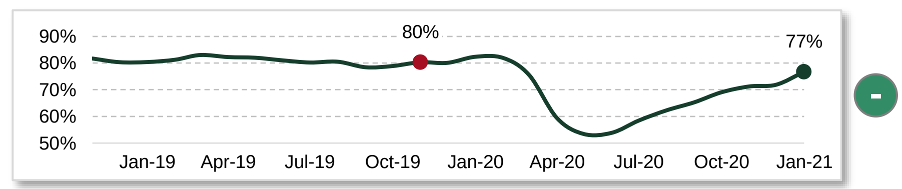
***USD/MT***




## US Indexed Crude Steel Production Volume ***100 = Oct 2018***

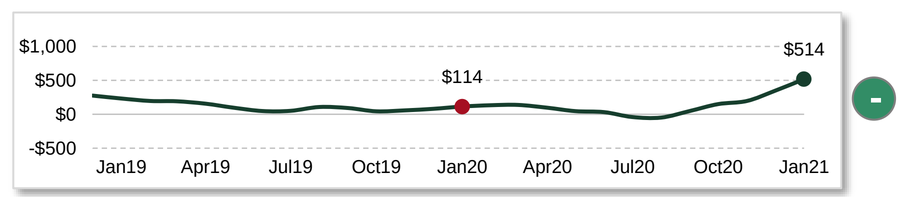



## US Mill Capacity Utilization




## US vs China Price

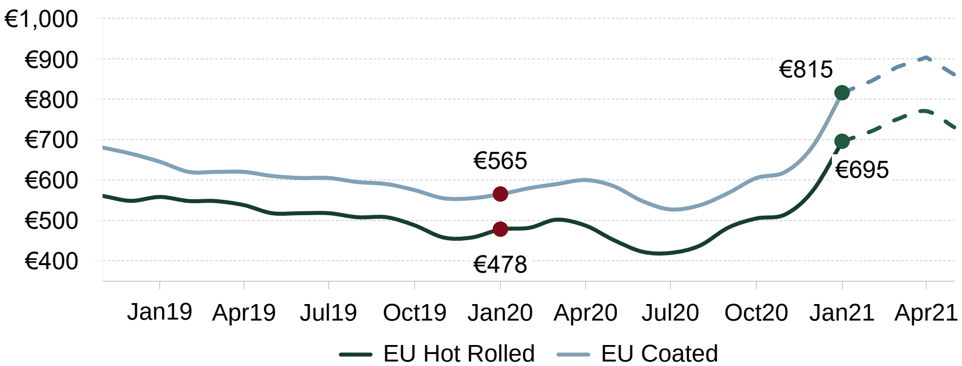
***USD/MT***




● Previous Year's Data ● Latest Data + - Correlation to Market Price

# EU HR prices spiked in Q4 2020, reaching €695/MT in Jan. due to a supply shortage and a dramatic demand recovery.

## European Flat Prices (EUR/MT)

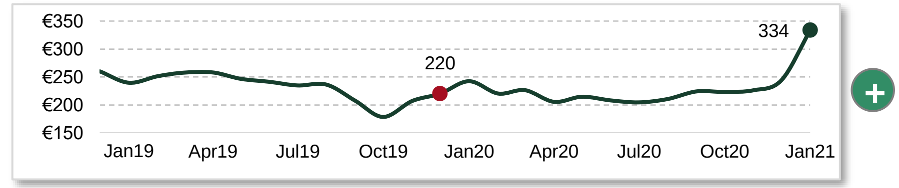



- In January, EU hot-rolled and coated steel prices grew 38% and 35% Q-o-Q, respectively. The rally was driven by a strong rebound in demand and a supply shortage caused by the slow return of crude production, which did not pick up until well after the surge in demand. Prices are expected to remain strong in Q1'21 given the strength of recovery in demand.
- European scrap prices rose nearly 50% over past quarter to 334 EUR/MT (Jan '21). The price increase is likely to be sustained by a continued supply shortage and China's recent retraction of an import ban on ferrous scrap.
- In Q4'20, crude steel production greatly recovered from months of stagnation caused by the initial April/May shutdowns. The growth was led by German, Italian, and French production which jumped by 15%, 3% and 4% in November Y-o-Y, respectively.
- PMI maintained strong growth in Q4'20 and now exceeds pre-pandemic levels by ~18%, reaching a 2-year high indicative of the continued recovery in demand.
- The EU-China HRC spread has reached a 2-year high, amid the recent spike in EU prices. The EU-China spread currently sits at 120 EUR/MT.

Source: AV Analysis

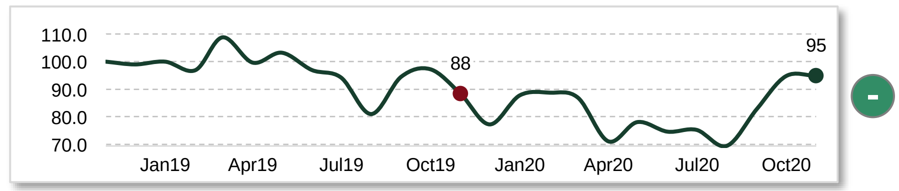
## European Scrap Prices

***EUR/MT***



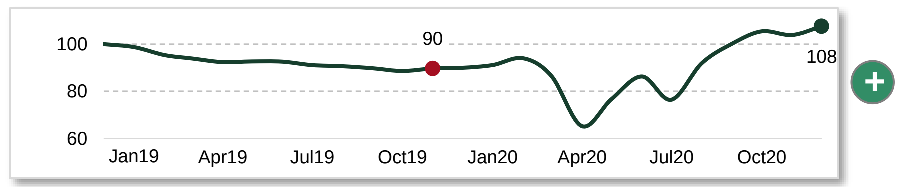

## EU Indexed Crude Steel Production

***100 = Nov 2018***



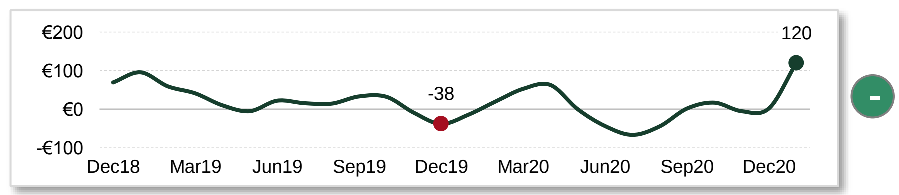

## Euro Zone Manufacturing Indexed PMI

***100 = Dec 2018***




## EU vs. China Price

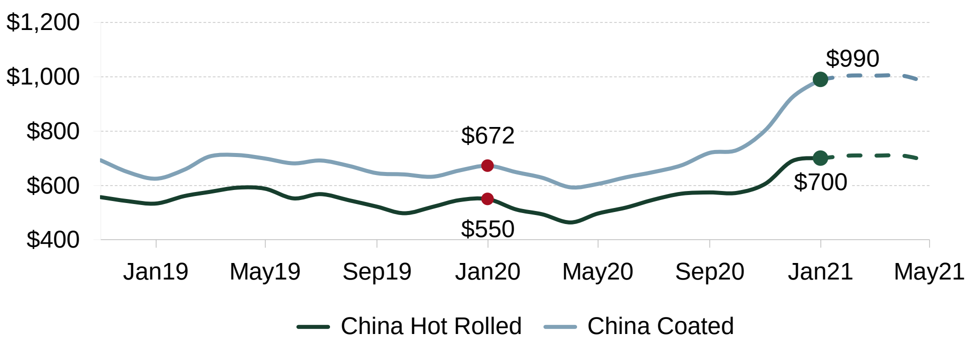
***EUR/MT***




Previous Year's Data  Latest Data  Correlation to Market Price

# China HR prices soared 22% in Q4 up to ~700/MT in Jan '21; this rally has been driven by strong Government stimulus and rising raw material prices.

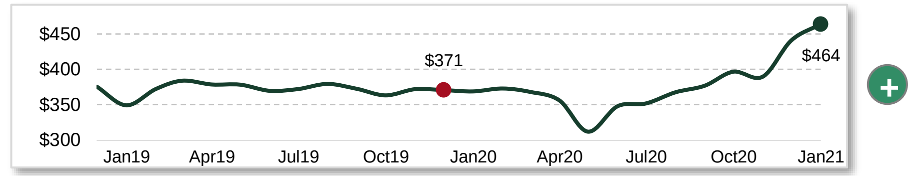
**China Flat Prices (USD/MT)**



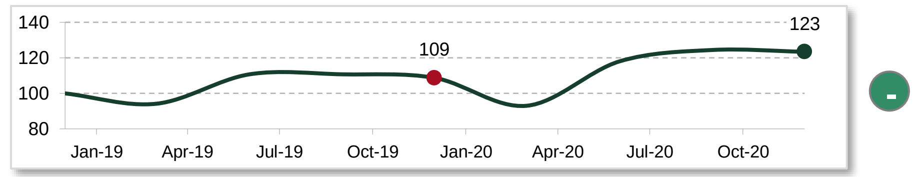

- China hot-rolled and coated steel prices saw a sharp ascent of 22% and 29%, respectively Q-o-Q. The current price levels are expected to be sustained through Q1' 21 given high raw material costs and a possible increase in export demand; the global steel shortage continues to challenge manufacturers.
- Domestic steel scrap prices recently hit a 2-year high of $464/MT, increasing by 17% Q-o-Q; the increase was driven by a major increase in Chinese production, which currently sits 13% above the same period last year and the macro environmental trend pushing Chinese producers towards EAFs.
- China has been producing steel at record volumes through H2'20 as one of the first economies to reopen following pandemic shutdowns. Strong support from Government stimulus has supported the high level of production. The stimulus was so strong that China briefly became a net importer of semi-finished steel over the summer, but this has since corrected.
- After net exports reached YTD lows in September, net steel exports began to rebound in Q4'20 as the global recovery has lifted demand and prices; as a result, exporting has become a more attractive option for Chinese steel mills.
- The spread between global steel prices took off in last quarter, with the US-China and Europe-China spreads inflated to $514 and $146/MT, respectively. Prior to COVID-19, these spreads were fluctuating around zero.

Source: AV Analysis

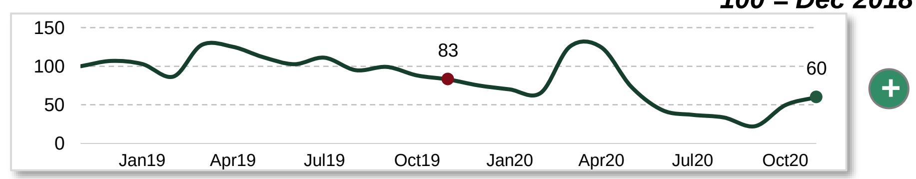
**China Scrap Steel Price** *USD/MT*



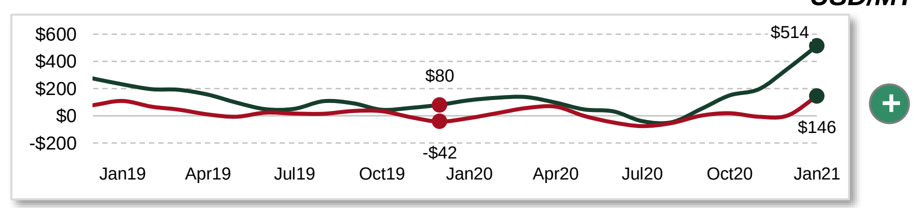

**Indexed Production** *100 = Dec 2018*




**Indexed China Net Exports** *100 = Dec 2018*




**Spread between US & EU** *USD/MT*




Previous Year's Data   Latest Data   Correlation to Market Price

# Upward momentum in Global steel markets has been driven by supply shortage with additional support from recovering demand & input costs.

## Upward Market Drivers

### Supply Squeeze

- US: Mills were slow to react to returning demand following the April-May 2020 shutdowns. Even with demand soaring in the summer, US mill capacity utilization remained at ~50-60%, well below the ~80% level it held to throughout 2019 and creating an unprecedented supply shortage. Now that capacity utilization has finally reached ~77%, the supply squeeze should ease. However, upward pressure is expected to remain in Q1’21.
- EU: The unexpectedly swift return of demand also caught European steelmakers off guard and production has been slow to come back online following the April-May 2020 shutdowns. However, EU mill capacity returned about 2-2.5 months faster than US mill capacity utilization.

### Supplier Consolidation

- US: In December 2020, US Steel announced it would be completing its acquisition of Big River Steel. US Steel had originally acquired 49.9% of BRS for $700M in November 2019 and the new announcement indicates USS will acquire the remaining 50.1% for $744M. This comes on the back of two large acquisitions by Cleveland Cliffs earlier in the year, which acquired both AK Steel and Arcelor Mittal USA (except for AM/NS Calvert).
- CN：China aims to increase industrial concentration of its top five participants to 40-60% of industrial concentration among the top 10 players by promoting mergers and a reorganization of the sector, in turn developing an industry leader for stainless steel, special steel, cast pipe, etc.

### Macroeconomic Environment

- EU: The European Green Deal and a €1.8 trillion recovery strategy will support EU steel demand, stemming from investment in infrastructure, renewable energy construction and electric mobility.
- US: Congress approved a $2.3 trillion infrastructure stimulus package in November 2020, which includes investment in Water Resources Development as well as transportation and large construction projects including energy, schools and hospitals, potentially increasing steel demand in 2021.

### Improved Manufacturing Activities

- US: Industrial production recorded a seventh consecutive monthly gain with a 0.4% increase in November, a 5.3% increase in automotive and a 2.3% increase in mining production partially offset the production output decline in utilities sector.
- EU: Industrial production experienced a huge recovery in Q4’20; German industrial output grew by 3.2 in October Y-o-Y; mainly driven by export-oriented manufacturing and Automotive sectors.

### Increased Raw Material Prices

- Global: Iron Ore prices have reached multi-year highs above $153/MT as the demand for steel surges globally following pandemic lock-downs. Scrap prices are also rising globally, most prominently in China where prices rose 18% in Q4’20.
- CN: China is now encouraging steelmakers to increase the use of EAF to 15-20% of total crude steel output; this tends to rise the scrap charge ratio to 30%; China's scrap demand is expected to increase as production costs in other regions continue to climb.

# As the supply shortage eases with steel mill capacity back online, prices are expected to cool off from the current historic highs but remain elevated.

## Downward Market Drivers

### Recovery of Supply

- US: With capacity utilization back at ~77%, the market should see some relief from the current supply shortage at the heart of rising prices. However, it will take time for the correction to have a material impact on prices.
- EU: Europe crude steel production has increased over the last 6 months; growth is expected to continue in Q1’21, easing supply constraints. However, demand remains elevated with the Eurozone PMI trending more than 10% above 2019 levels, supporting elevated price levels.

### Pandemic Extension Risk

- Global: A slower than expected vaccine roll-out coupled with the looming threat of mutating variants of the COVID-19 virus may give some manufacturers cause to slow production.

### Capacity Expansion Projects

- US: Major US producers have not yet recalled large-scale strategic plans to expand domestic capacity. Public Announcements indicate an upcoming ~10mMT of new annual steel output expected to flood into the market. Notable announcements include SDI’s new 3mMT flat-rolled steel mill in Sinton, TX; BRS’ (now USS) plan to double production in AR by ~1.65 mMT; JSW’s 1.5mMT upgrade in OH; and ArcelorMittal’s new 1.5mMT EAF facility in Calvert, AL.

### China’s Raw Material Strategy

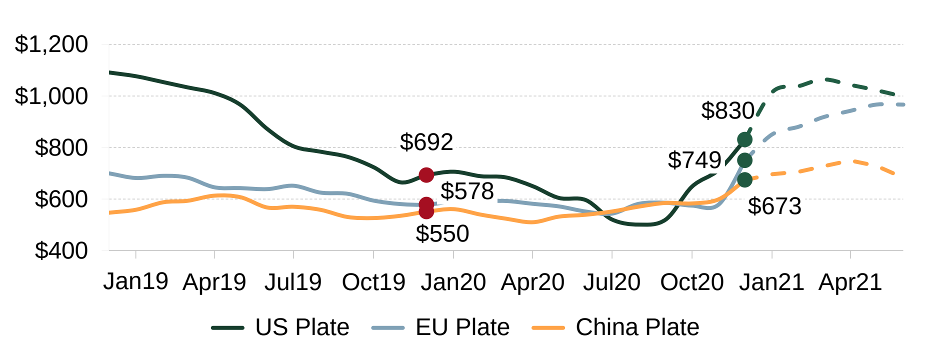
- CN: As the world’s biggest steelmaker, 80% of China’s iron ore is imported; China aims to build globally significant overseas iron ore mines by 2025 to boost its supply of raw materials and strengthen its bargaining power in iron ore; these mines are expected to account for more than 20% of China's iron ore imports, which would help China to reach its goal of a 45% domestic self-sufficiency rate.
- CN: China lifted the ban on ferrous scrap imports on January 1st, 2021 and its current 2% import tax on ferrous scrap will be removed; China is expected to import about 15-20 million tonnes of scrap in 2021, which may reduce production costs, lowering steel prices.

### Trade Flows

- EU: Turkey filed a complaint with the World Trade Organization about safeguard measures imposed by the EU on steel imports, which reduced its import quota and raised tariff rates on 26 grades of steel products beginning in July of this year; the decision is expected to be announced by mid-2021. If the quota were to ease in the current rolling 12-month period, steel imports would exert some pressure on domestic European steel prices.

# Plate prices have surged in all regions, with EU and CN prices reaching 2-year peaks and the US price soaring 60% Q-o-Q to $830/MT.

## Plate Prices – US / Europe / China (USD/MT)

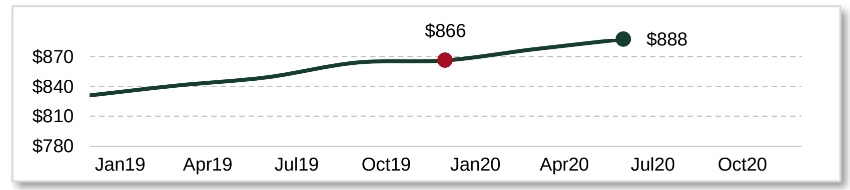



- Amid low mill utilization and supply shortage, US plate prices sky-rocketed 60% in Q4 2020, with December prices touching $830/MT. The momentum is expected to continue in Q1’21 until additional capacity starts to shorten lead times and alleviate upward pressure. Scrap and Iron Ore prices will provide additional support to current price levels even as supply constraints ease.
- EU plate rose sharply in December to $749/MT a 29% increase M-o-M. Before that EU plate price was stable during autumn season, despite accelerated HRC. The spike was mainly caused by inventory running low.
- China plate prices also accelerated in Q4’20, reaching to ~$673/MT, the highest point in the year. The price hike was largely caused by soaring raw material prices and increasing demand from domestic construction and automobile sectors.
- OPEC oil production reached to ~30 MBPD in December. Crude oil production in the US has risen in recent months to ~18 MBPD, as tight oil operators have brought wells back online in response to rising oil prices.
- BDI saw a 16% decrease Y-o-Y, affected by the ongoing trade dispute between Australia and China and the impact they are having on the coal sector is influencing sentiment.

Source: AV Analysis

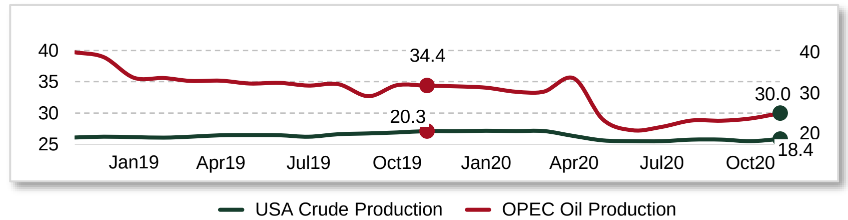
## US Defense Spending

***BUSD***



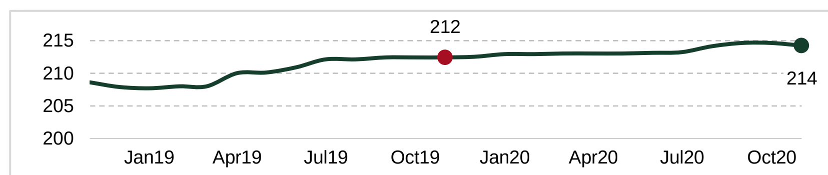

## Crude Oil Production

***MBPD***

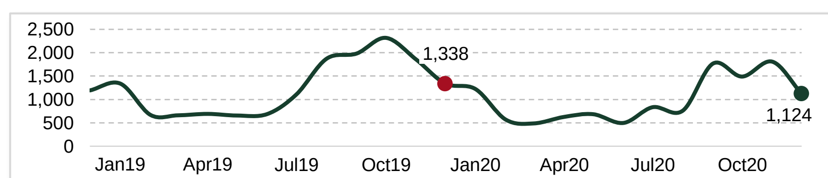



## US Ship Building and Repairs

***Index: 1985 = 100***



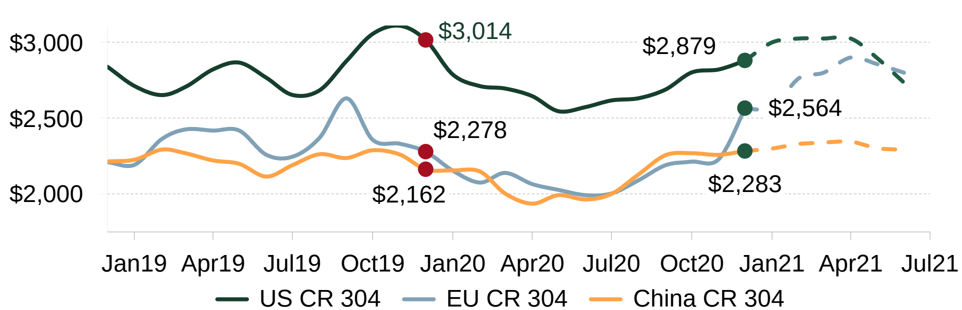

## Baltic Dry Index




Previous Year’s Data  Latest Data  Correlation to Market Price

# Stainless prices rose in all regions except China, with European prices approaching 2-year highs at $2,564/MT in December.

## Stainless Steel Prices – US / Europe / China (USD/MT)

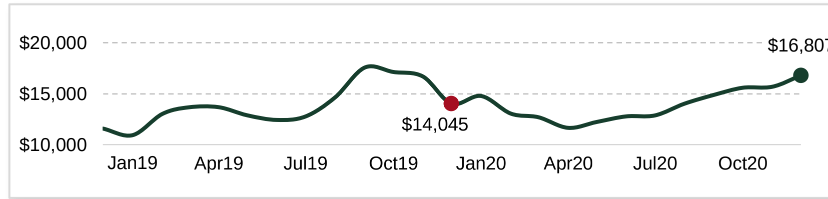



- US Stainless continued its upward trajectory with a 7% increase Q-o-Q in Q4, landing at $2,879/MT in December. This upward trend is heavily correlated with the rise in Nickel prices, which are boosted by the automotive and appliances industries. Nickel demand is expected to continue to pick up, particularly with the rise of Electric Vehicles.
- After reaching their historical low in June 2020, EU stainless steel prices have accelerated to a nearly 2-year high of $2,564/MT, representing a 17% increase Q-o-Q.
- China prices were stable at a historically elevated level during Q4’20, landing in December at $2,283/MT.
- The price of nickel rose by 13% Q-o-Q in Q4 2020 to $16,807/MT. This brings the Y-o-Y change to 20%. The rise is attributed to nearly double-digit declines in mine production due to COVID-19 disruptions and an increasing demand from the Electric Vehicle market.
- Iron ore prices rose 24% Q-o-Q in Q4 2020 to $153/MT. This brings the Y-o-Y change to 66%. The price has soared multi-year high as Chinese government stimulus spurs infrastructure building and reduced supply from Brazil, where the pandemic conditions have continued to deteriorate.

Source: AV Analysis

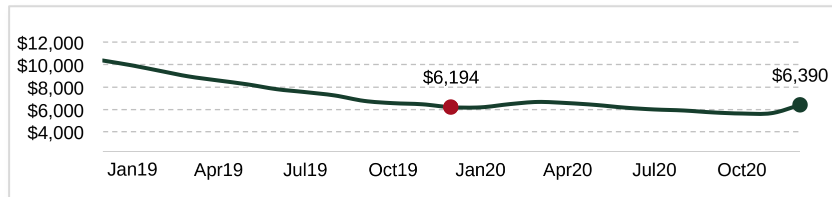
## Nickel

*USD/MT*



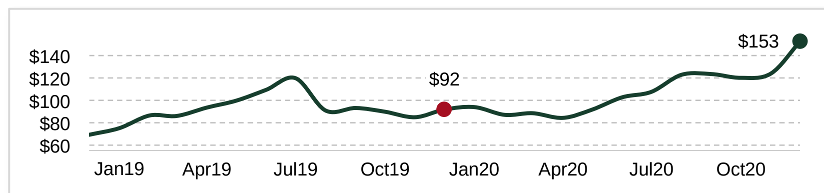

## Chromium

*USD/MT*



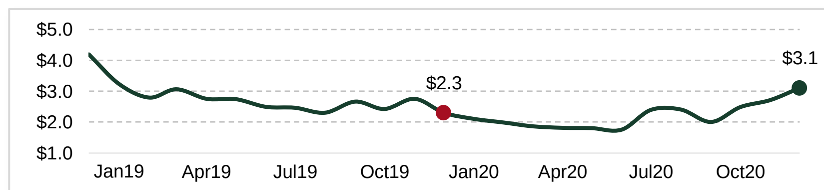

## Iron Ore

*USD/MT*




## Natural Gas

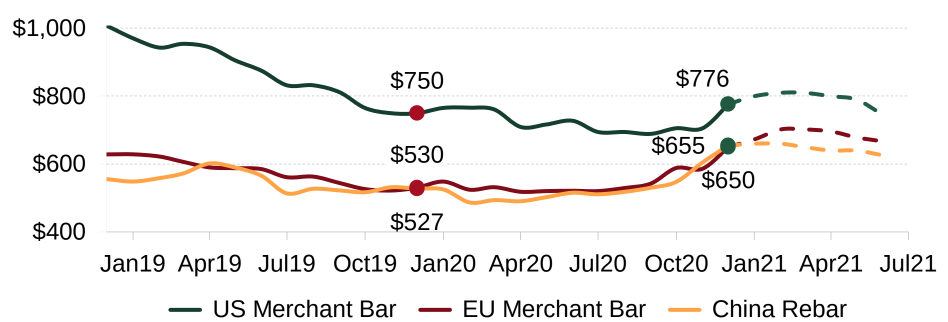
*USD/mmBtu*




Previous Year’s Data Latest Data + - Correlation to Market Price

# Global Long Steel prices rose sharply in Q4’20, with EU Merchant Bar and China Rebar topping 2-year highs & US Merchant Bar rising to a 1-year high.

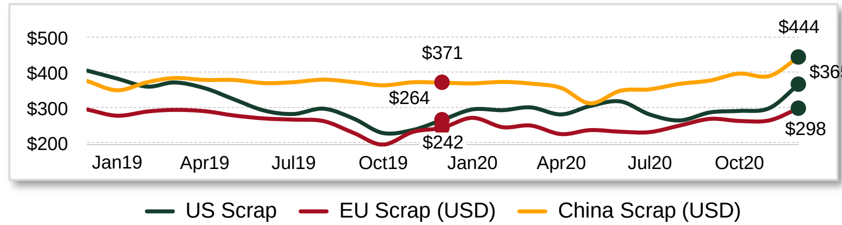
## Long Steel Prices (USD/MT)




- US Merchant Bar prices rose 13% Q-o-Q, ending the quarter at $776/MT. Prices were somewhat resistant to the effect of supply shortages in Q2-Q3’20, but have gained traction with rising scrap prices. SBQ followed a similar trend.
- EU Merchant Bar prices soared 20% Q-o-Q, recording a December price of $655/MT, which is its highest point in two years.
- China rebar prices surged by 24% Q-o-Q, reaching $650/MT, the highest level since September 2018. Prices were supported by rapidly rising raw material costs in addition to a heavy uptick in government-led infrastructure spending as part of the larger stimulus plan aimed to drag the economy out of its current pandemic-induced decline.
- Ferrochrome prices showed their first signs of reversing course from the current 2-year decline, with a 3% M-o-M increase in December.
- Molybdenum prices recovered to 2019 levels, reaching $9.2/lb. The uptrend began in Q3’20 around the time that China started increasing import volumes. The growth may continue into 2021, driven by resurgent demand from the global automotive sector.

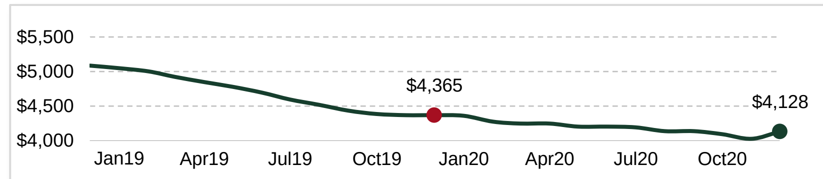
## Scrap Steel Price

*USD/MT*



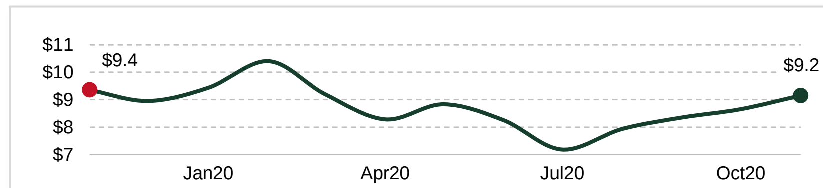

## Ferrochrome

*USD/MT*



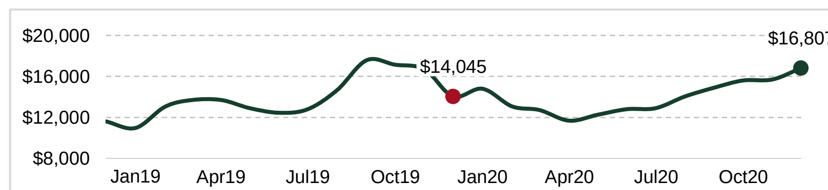

## Molybdenum

*USD/lb.*




## Nickel

*USD/MT*

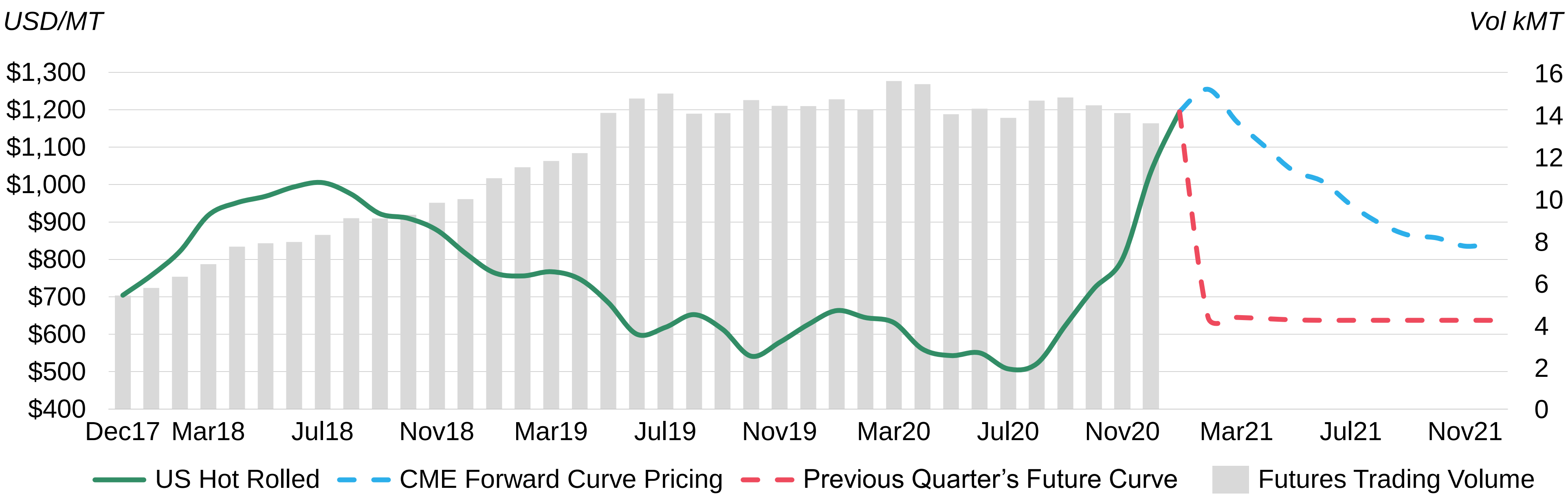



Previous Year’s Data  Latest Data  + - Correlation to Market Price

Source: AV Analysis

# US HRC futures indicate that prices will continue to rise through March '21 before declining to $835/MT by December '21.

### Hot Rolled Historical Prices, Contract Volume, and Futures CME Pricing



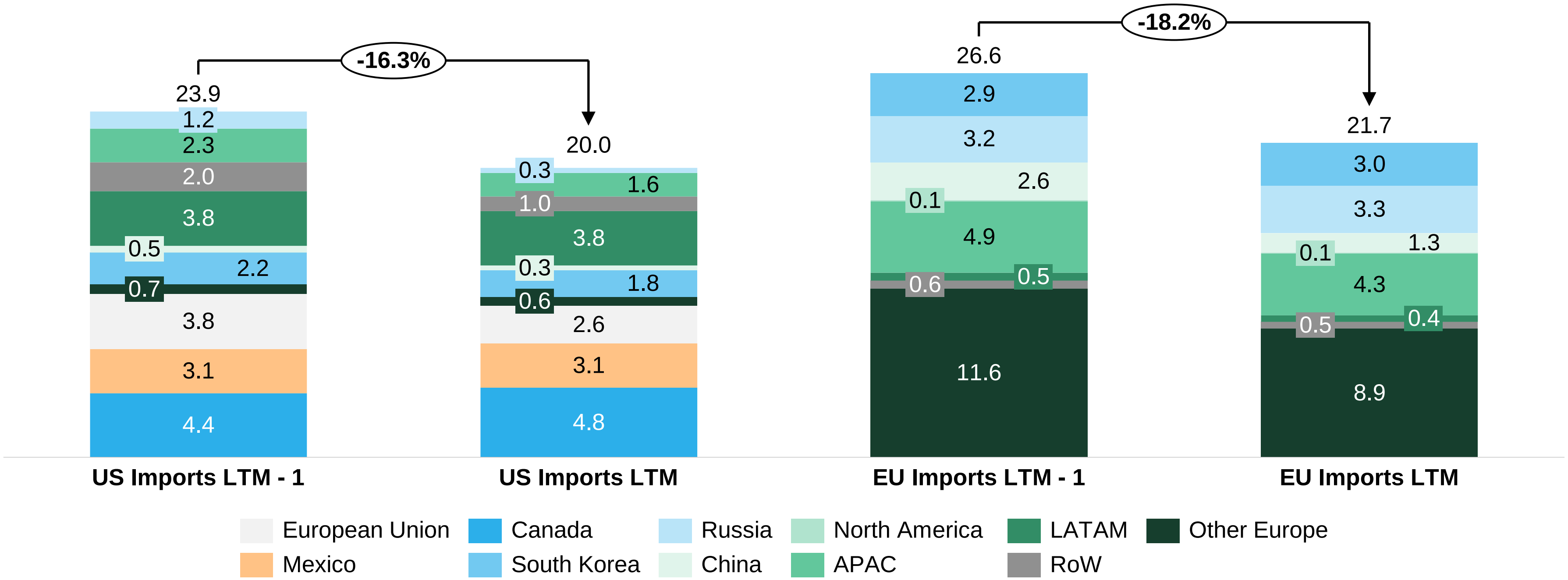

- The dramatic adjustment to the current forward curve vs. last quarter's future curve indicates that the explosion in US HRC prices caught the entire market by surprise. Although traders do not expect this upward momentum to continue past March, there is a clear expectation that prices will find support around the $835/MT through the end of 2021.
- Futures trading volume remains at elevated levels, indicating a high level of participation through the turbulent market. As steel prices continue to prove more volatile, many organizations have prioritized hedging strategies to control risk.

Note: Volumes are traded volumes cleared by CME, i.e. they exclude the "off exchange" OTC (over-the-counter) volumes not cleared by CME Prices pulled for CME futures Jan 8th, 2020

Source: CME, AV Analysis

# The pandemic slowed import activity of Steel products in both the US and EU during 2020, with LTM imports down 16.3% and 18.2%, respectively.

**US and EU Imports – All Steel Products** MMT *LTM: NOV 19 – OCT 20[1]*




- US steel imports declined by 16.3% Y-o-Y. Steel imports from Russia and the EU saw the largest declines at 75% and 31%, respectively. Steel imports from Canada have increased by 10% following the resumption of NAFTA and USMCA agreements, and its exemption from 232 tariffs.
- EU steel imports declined by 18.2% Y-o-Y but recovered significantly in Q4’20 as COVID-19 pandemic subsides took effect and business slowly returned to the new normal. On a year-to-year basis, imports from China and Turkey both declined significantly, largely the result of a country-by-country quota system for steel products introduced by the EU in Q2’20 to safeguard perceived “anti-dumping” practices.

Note 1: There is a one-quarter lag on the publication of import data

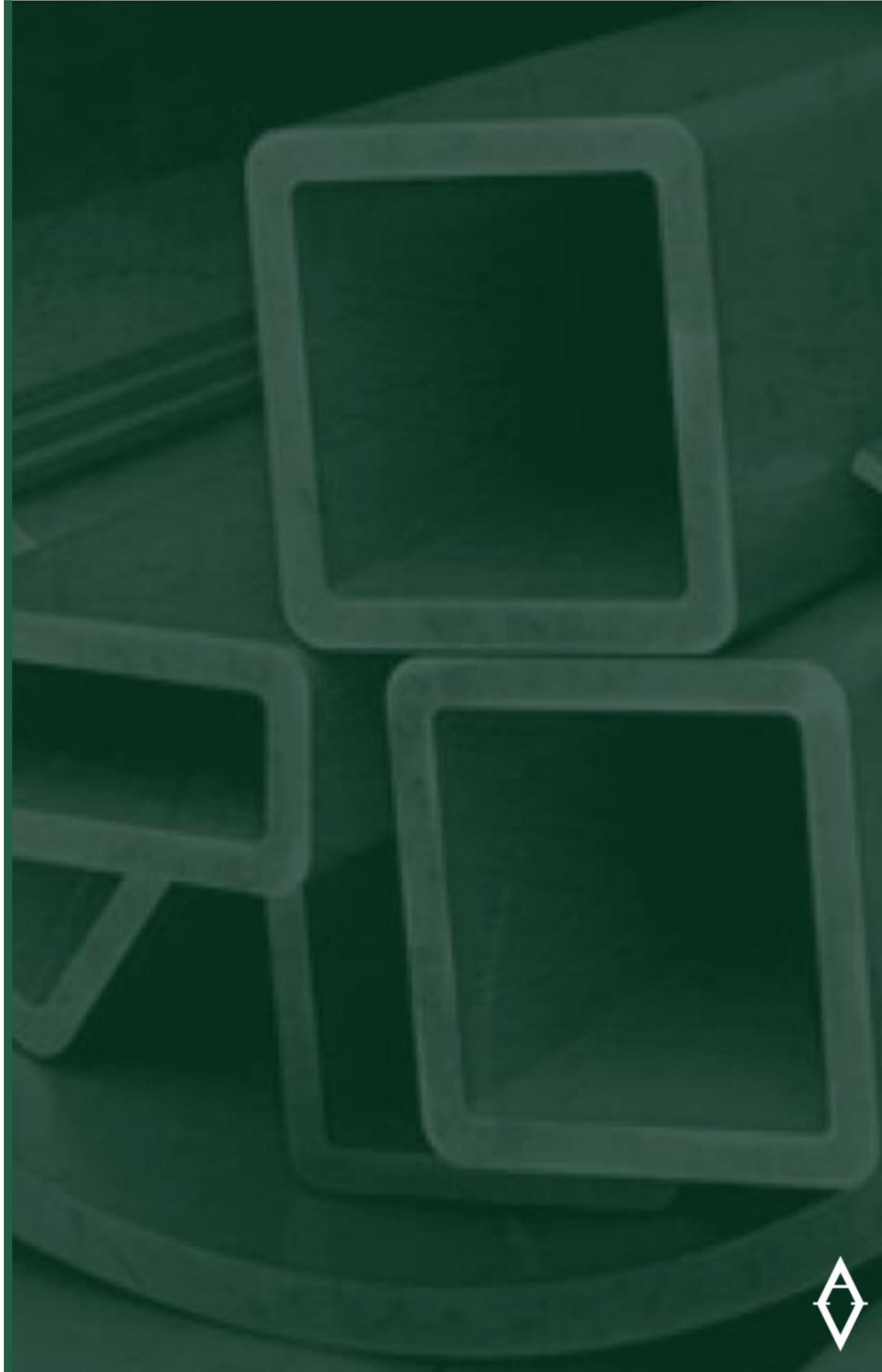
## Applied Value Quarterly Steel Report

Q1 2021

Market Conditions by Region

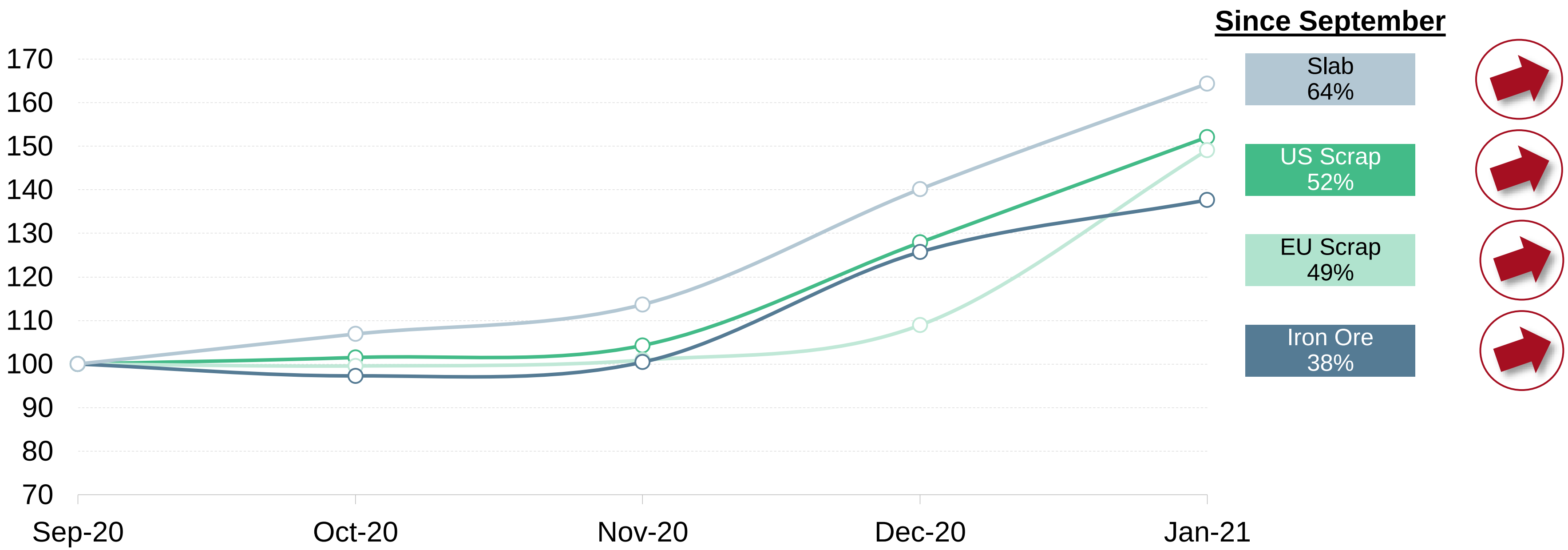
**Steel Production Costs**

Major Steel Mill Company Performance



# Commodity prices have increased sharply in Q4’20 as government sponsored infrastructure spending and other stimulus takes effect.

**Current Market Update** | **Q1 Forecast**




## US Scrap

- US scrap price increased sharply driven in part by strengthening steel demand following the announced economic stimulus package, which will include significant infrastructure spending.

## EU Scrap

- EU scrap price increase was mild in Q4’20 but took off in January, largely due to the strong recovery in demand from domestic downstream and imports from China.

## Iron Ore

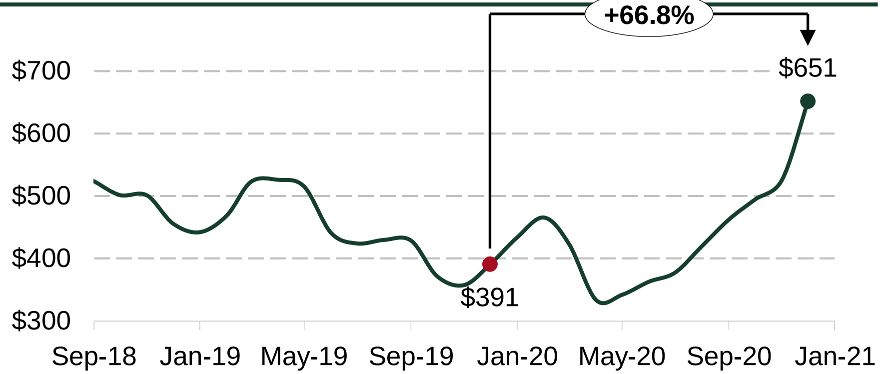
- Iron ore price increased significantly in December due to short seaborne supply caused by higher-than-expected demand related to Chinese infrastructure stimulus

## Slab

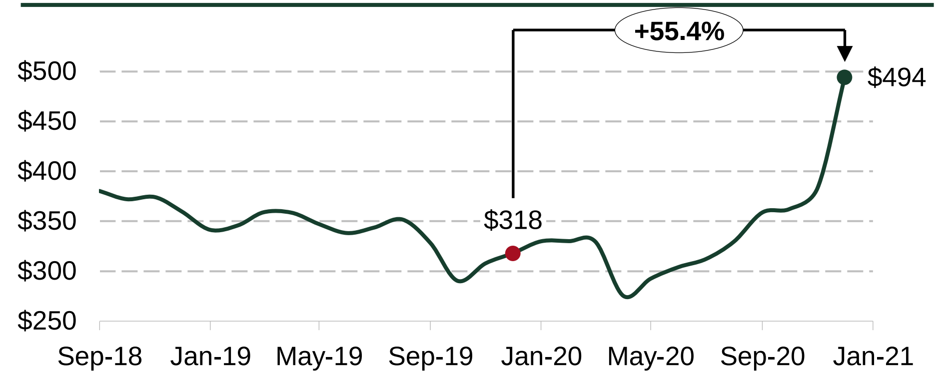
- Steel slab price increased significantly in the last quarter, largely driven by strong demand from construction industries.

# Slab and Pig Iron prices have increased to historic highs, driven by strong demand from construction industries.

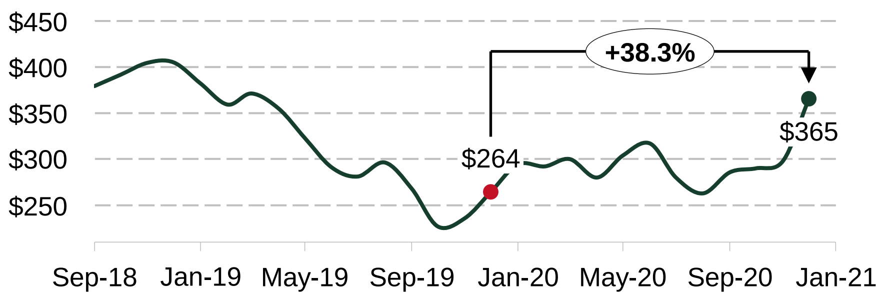
**Slab**
USD/MT Sep 18 – Dec 20



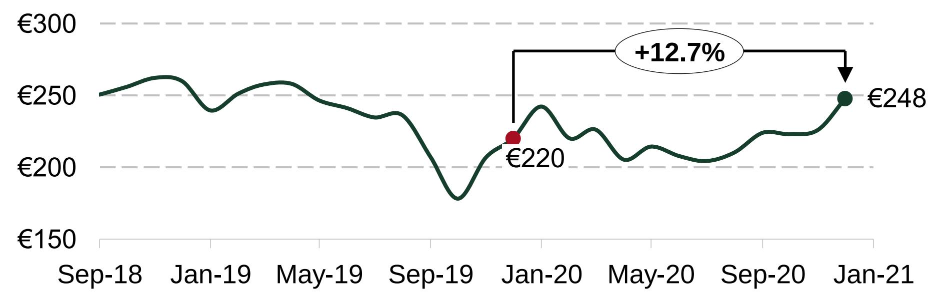

**Pig Iron**
USD/MT




**Ferrous Scrap US**
USD/GT




**Ferrous Scrap Europe**
EUR/MT

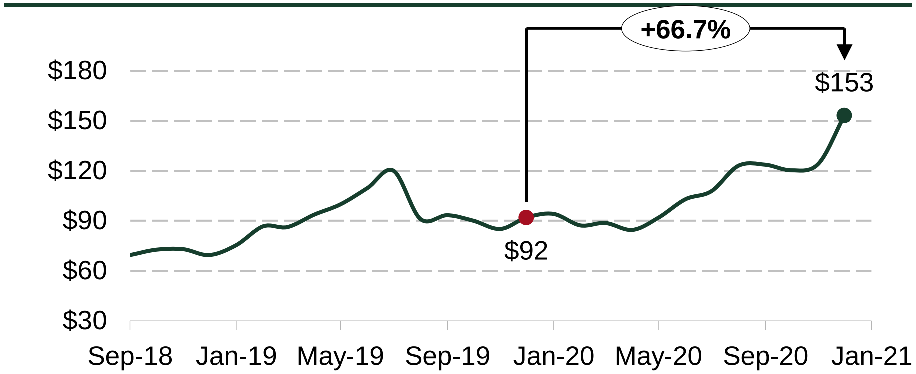



Previous Year's Data
Latest Data

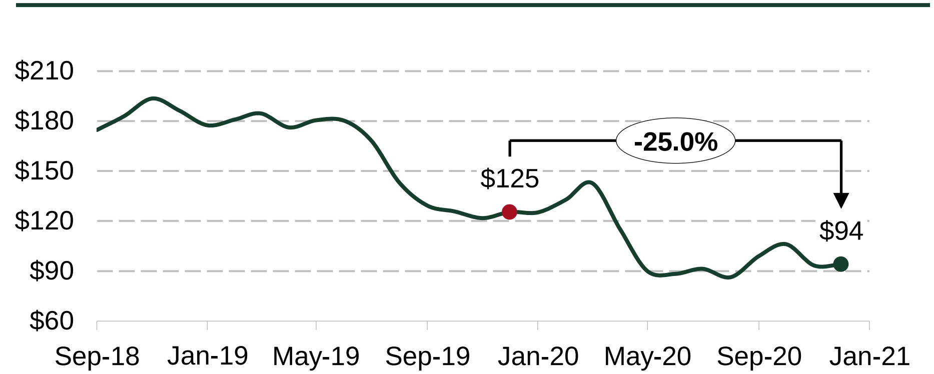
Source: AV Analysis

# Iron Ore prices spiked in late December ’20, largely due to a seaborne supply shortage and increasing Chinese demand.

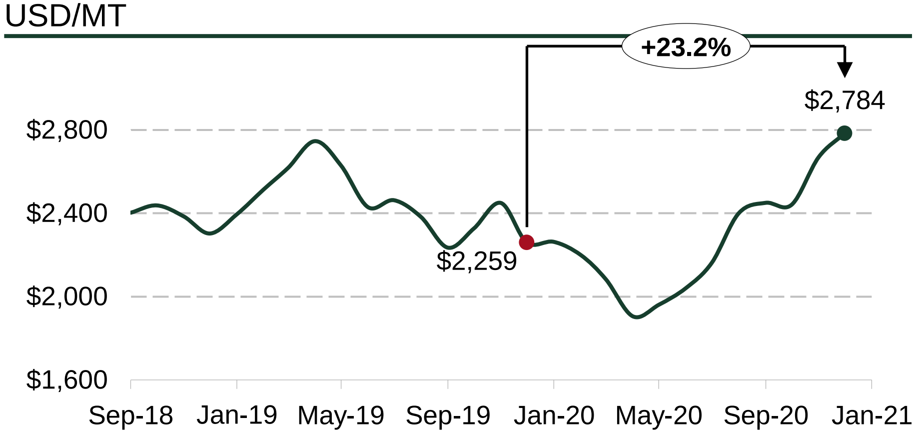
**Iron Ore**
USD/MT Sep 18 – Dec 20



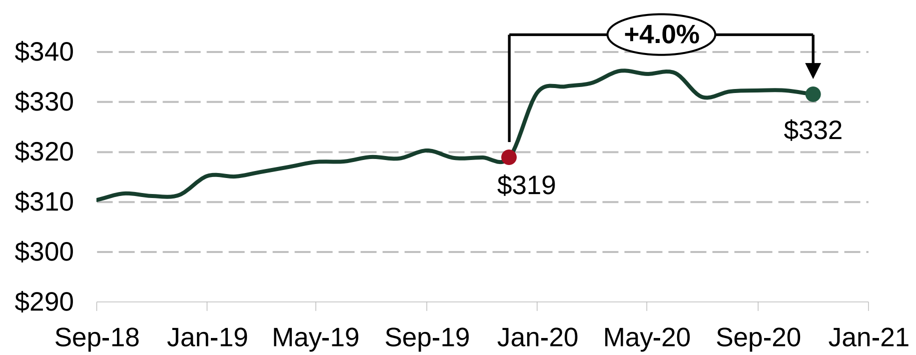

**Coking Coal**
USD/MT




**Zinc**
USD/MT




**Limestone – Producer Price Index**

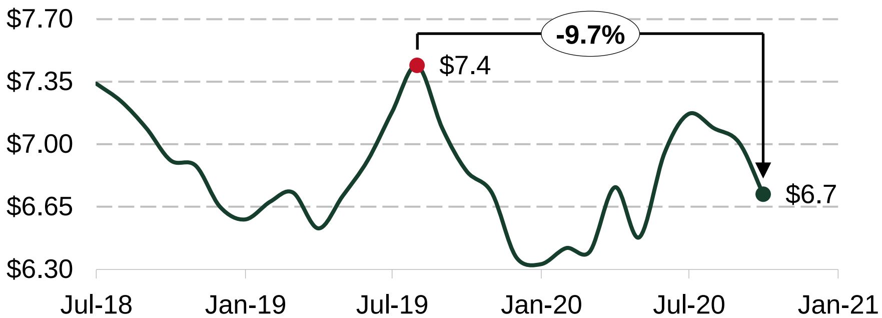



Previous Year’s Data
Latest Data

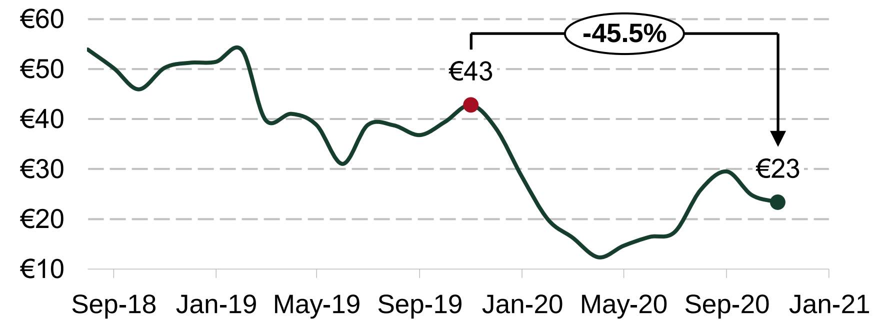
Source: AV Analysis

# US natural gas price increase in Q4’20 was tempered by significantly warmer-than-average weather, which reduced residential heating demand.

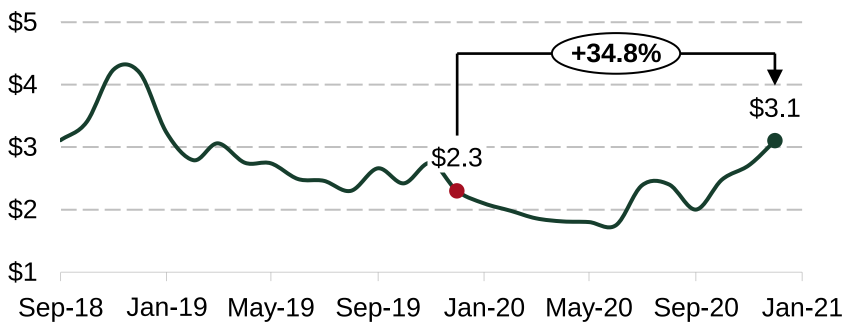
**Electricity US**
US cents/KWH



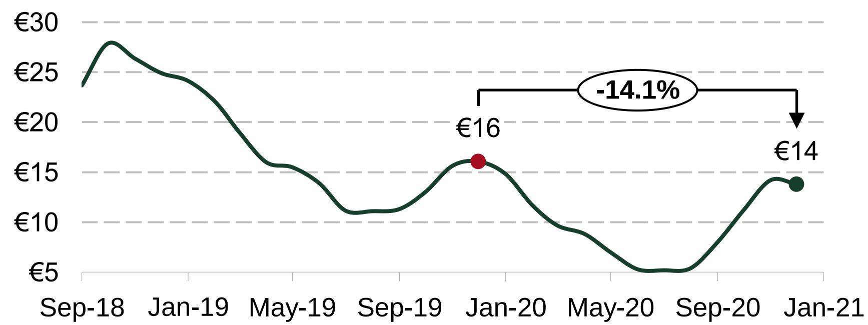

**Electricity Europe**
EUR/MWH




**Natural Gas US**
USD/mmBtu




**Natural Gas Germany**
EUR/MWH




● Previous Year’s Data
● Latest Data

Source: AV Analysis

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Q1 2021

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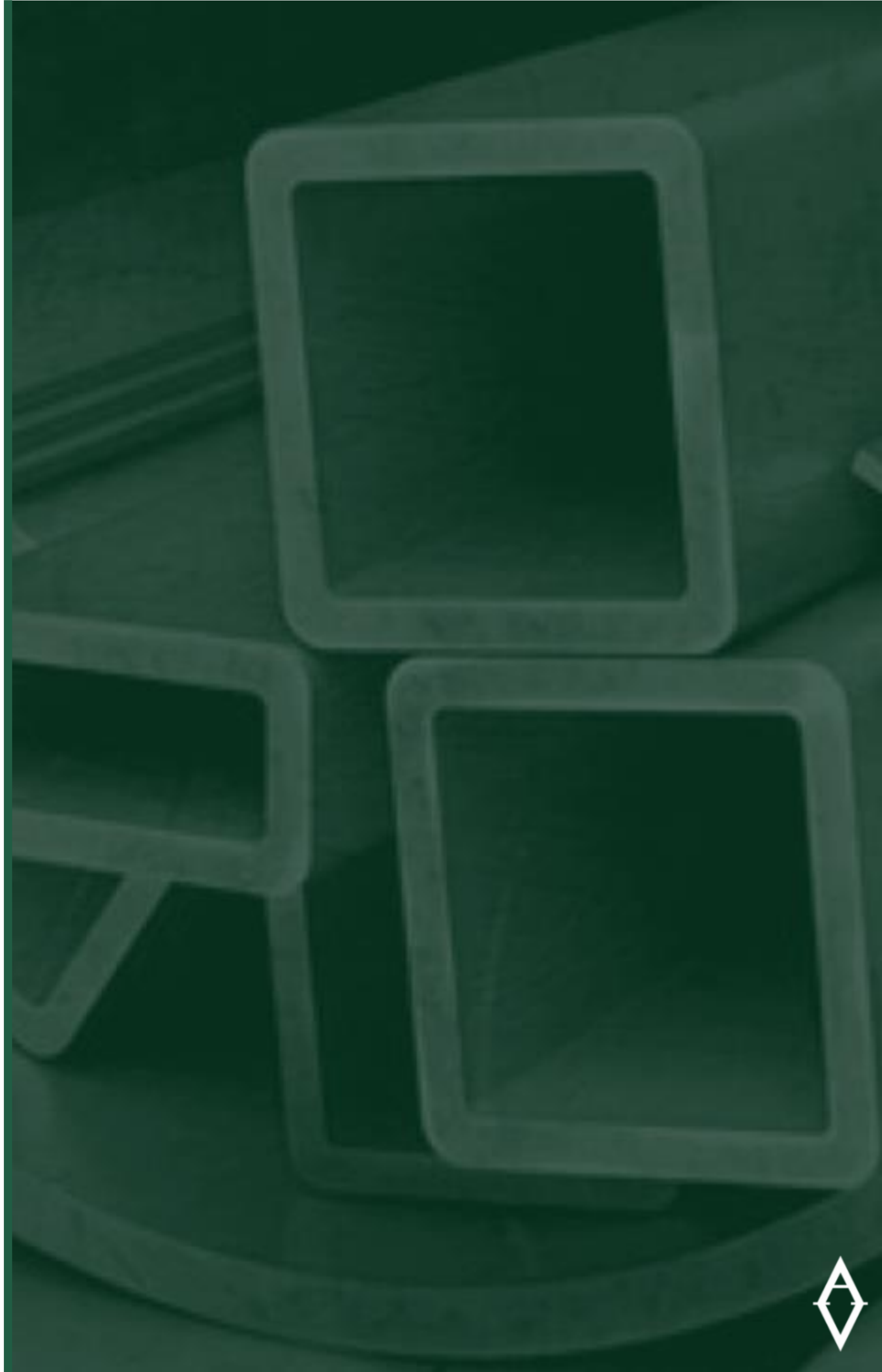
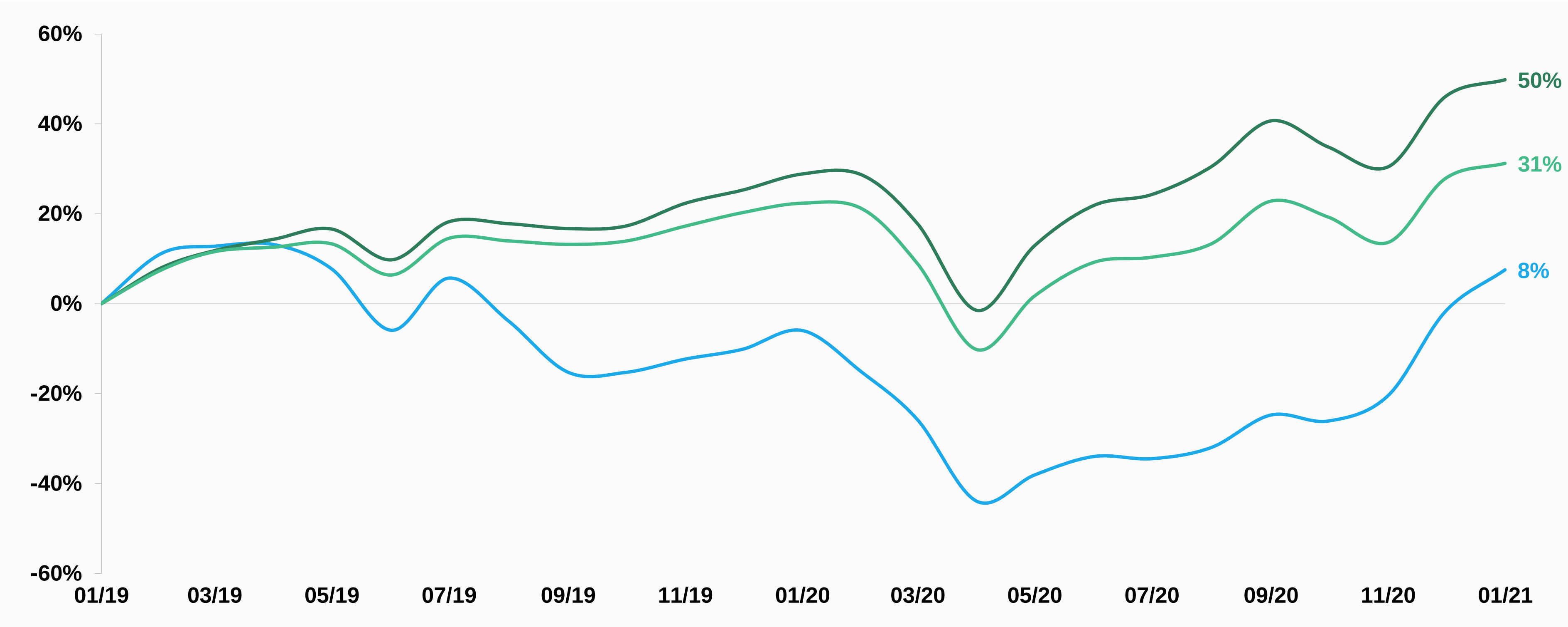


# Global steel mill stock prices have been in large part down since January 2019, performing well-below market averages.

**Stock Market Movement Jan '19 - Jan '21**

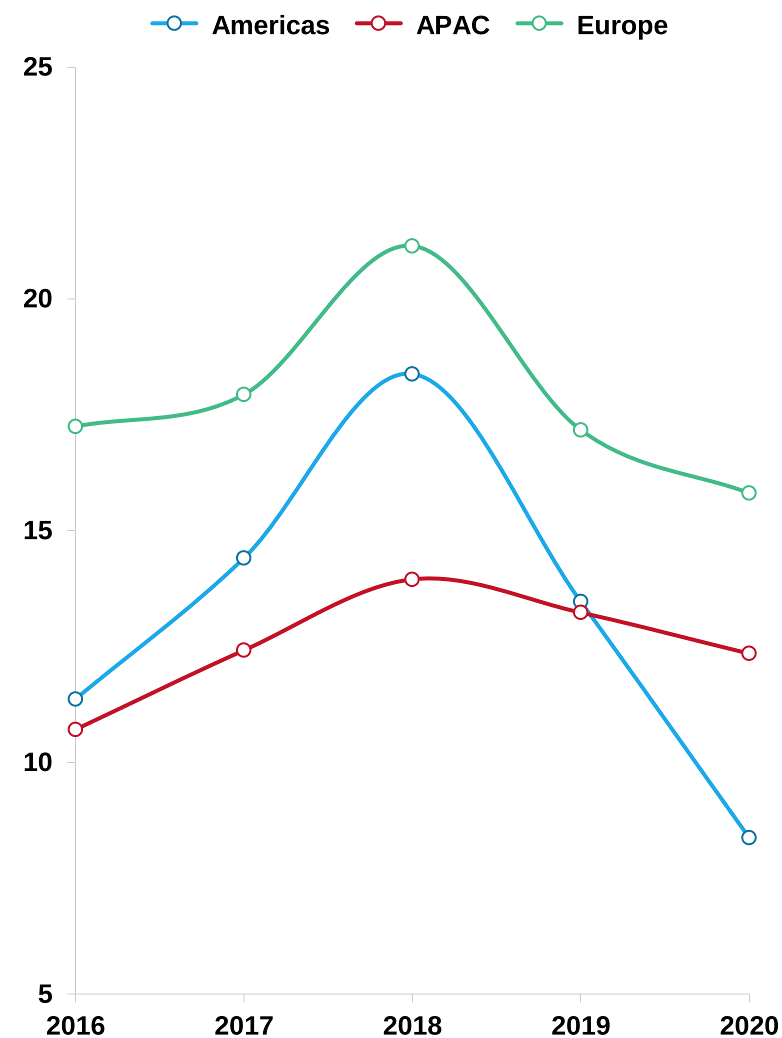



| | | | | | | |
|---|---|---|---|---|---|---|
| **Top Performers:** | CLIFFS | 89.3% | GERDAU | 65% | Severstal | 28.7% |
| **Bottom Performers:** | ThyssenKrupp | -45.8% | JFE | -43.8% | HBIS 河钢集团 HBIS GROUP | -21.1% |

# EBITDA margins of global steel mills declined significantly in 2020 with American mills declining by ~5 percentage points.

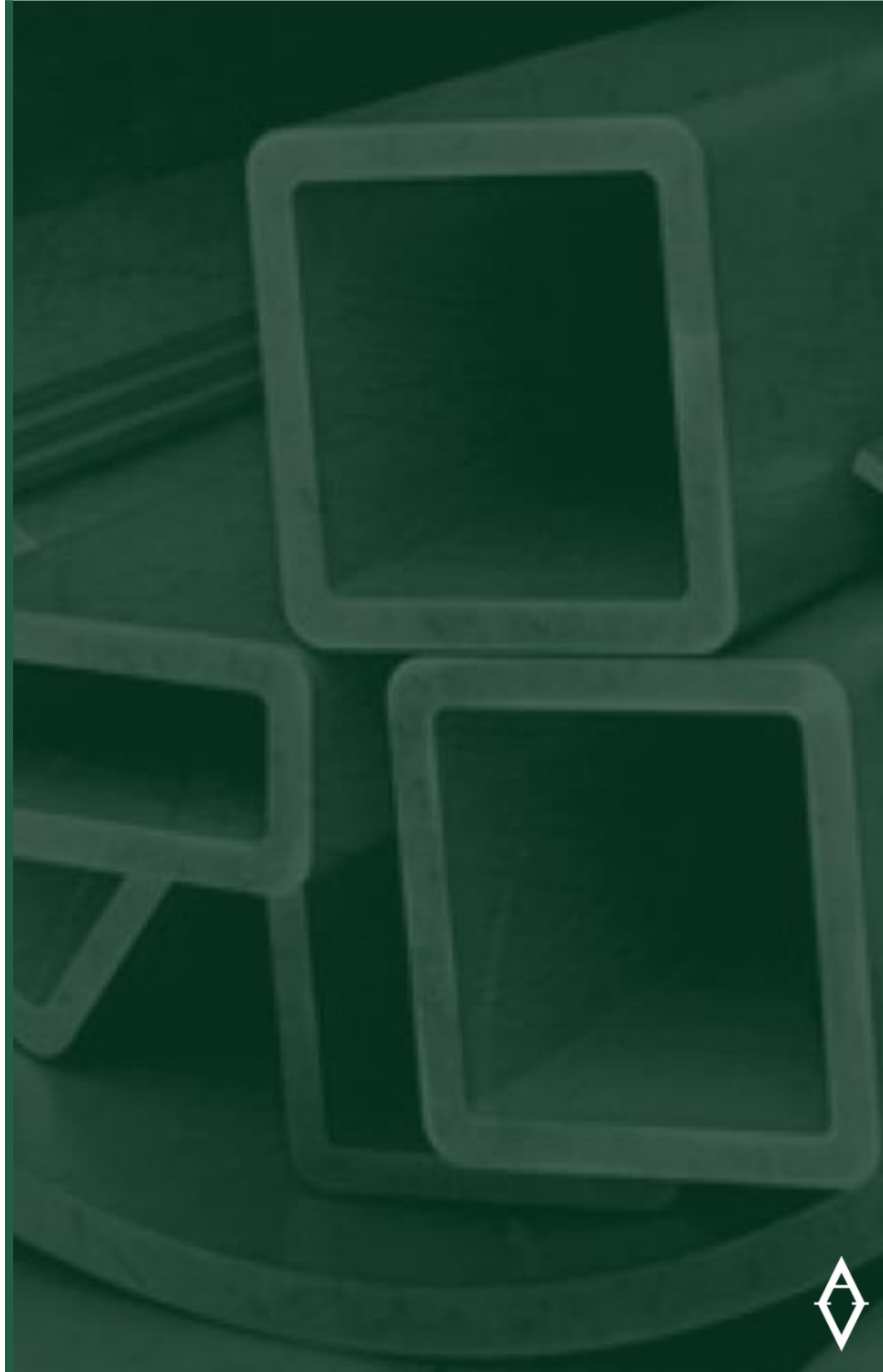
| Regions | Mills | EBITDA % | | | | |
|---|---|---|---|---|---|---|
| | | 2016 | 2017 | 2018 | 2019 | 2020 |
| Americas | CLIFFS | 18.5 | 25.6 | 33.3 | 26.1 | 12.9 |
| | GERDAU | 9.9 | 10.8 | 13.4 | 12.4 | 11.6 |
| | NUCOR | 13.3 | 12.9 | 16.5 | 12.0 | 10.5 |
| | USS | 3.8 | 8.4 | 10.4 | 3.4 | -1.5 |
| APAC | BAOSTEEL | 13.4 | 15.2 | 15.6 | 11.1 | 10.7 |
| | HBIS 河钢集团 HBIS GROUP | 14.1 | 12.1 | 13.4 | 12.6 | 13.9 |
| | JFE | 7.8 | 8.4 | 11.0 | 10.1 | 8.9 |
| | TATA STEEL | 7.6 | 14.0 | 15.8 | 19.1 | 16.0 |
| Europe | ArcelorMittal | 10.2 | 11.7 | 12.9 | 5.1 | 3.7 |
| | EVRAZ | 19.2 | 23.7 | 29.0 | 21.2 | 19.5 |
| | Severstal | 31.8 | 32.4 | 36.1 | 33.7 | 32.7 |
| | ThyssenKrupp | 5.1 | 2.7 | 4.3 | 2.6 | 1.1 |
| | voestalpine | 12.9 | 13.0 | 15.2 | 11.2 | 9.9 |

## Regional EBITDA Movement 2016-2020



# Introduction to Applied Value

## Background



# Applied Value has 15+ years of experience working with clients in numerous industries involved in various facets of steel purchasing.

| Client Annual Consumption, tons | | Data Control | Fact-based Negotiations | Leverage Creation | Manage Steel Component Costs | Risk Management | Macroeconomic Factors on Global Steel Trade | Game Changers |
|---|---|---|---|---|---|---|---|---|
| 10M | Automotive OEM | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | White Goods OEM | ✓ | ✓ | ✓ | | ✓ | | ✓ |
| | Automotive OEM | | ✓ | ✓ | | ✓ | | |
| | Global Engineering | | ✓ | ✓ | | | | |
| 1M | Global Construction | ✓ | | | | ✓ | | ✓ |
| | Industrial Products | | ✓ | | | ✓ | | |
| | 4 Food Producers | | ✓ | | | | ✓ | ✓ |
| | Heavy Truck OEM | | ✓ | ✓ | ✓ | | | |
| | Defense/Heavy Truck | ✓ | ✓ | ✓ | ✓ | | | |
| | Security Solutions | ✓ | ✓ | ✓ | | | ✓ | |
| | Heavy Truck OEM | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| | Truck Tier 1 | ✓ | ✓ | ✓ | | ✓ | | |
| | Lifting OEM | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ |
| | Global Engineering | ✓ | ✓ | ✓ | | ✓ | | |
| 0.1M | Consumer Goods OEM | | ✓ | ✓ | | | | ✓ |
| | EU Turbine Manufacturer | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| 0.01M | Automotive Tier 1 | ✓ | ✓ | | ✓ | ✓ | | |
| | Scand. Engineering | ✓ | ✓ | ✓ | | | ✓ | |
| | Scand. Construction | ✓ | ✓ | ✓ | | | | |

# Our Lean Growth framework is based on Focus, Simplicity, Speed – guiding principles to raise client performance.

## Lean Growth

### Focus
- ✓ Define strategic focus
- ✓ Excel in key capabilities
- ✓ Use partners for non-core activities

### Simplicity
- ✓ Reduce complexity
- ✓ Simplify and standardize processes, organization and supply chain

### Speed
- ✓ Set targets
- ✓ Measure and improve
- ✓ Reduce Time to Market-Customer-Cash

## Offerings

**Go-to-Market**
*Segmentation, Market Studies, Positioning, Product/Channel Mix*

**Gross Margin Improvement**
*Pricing, Sourcing, VA/VE, Supply Chain, Operations*

**OPEX Efficiency**
*Operational efficiency, S&M / G&A productivity, Organization*

**Capital Efficiency**
*Working Capital mgmt., Innovation/R&D performance, M&A, Fixed asset leverage*

**Digital Transformation and Efficiency**
*Strategy, Capability improvement, Execution*

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