



Applied Value Quarterly Steel Report

Q2 2020 Report







Applied Value

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

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Fact Based



Practical over theoretical



Hands On



Global perspectives

Steel Product Offerings

15+ years of experience developing robust steel strategies for clients buying 10kMT up to 10mMT

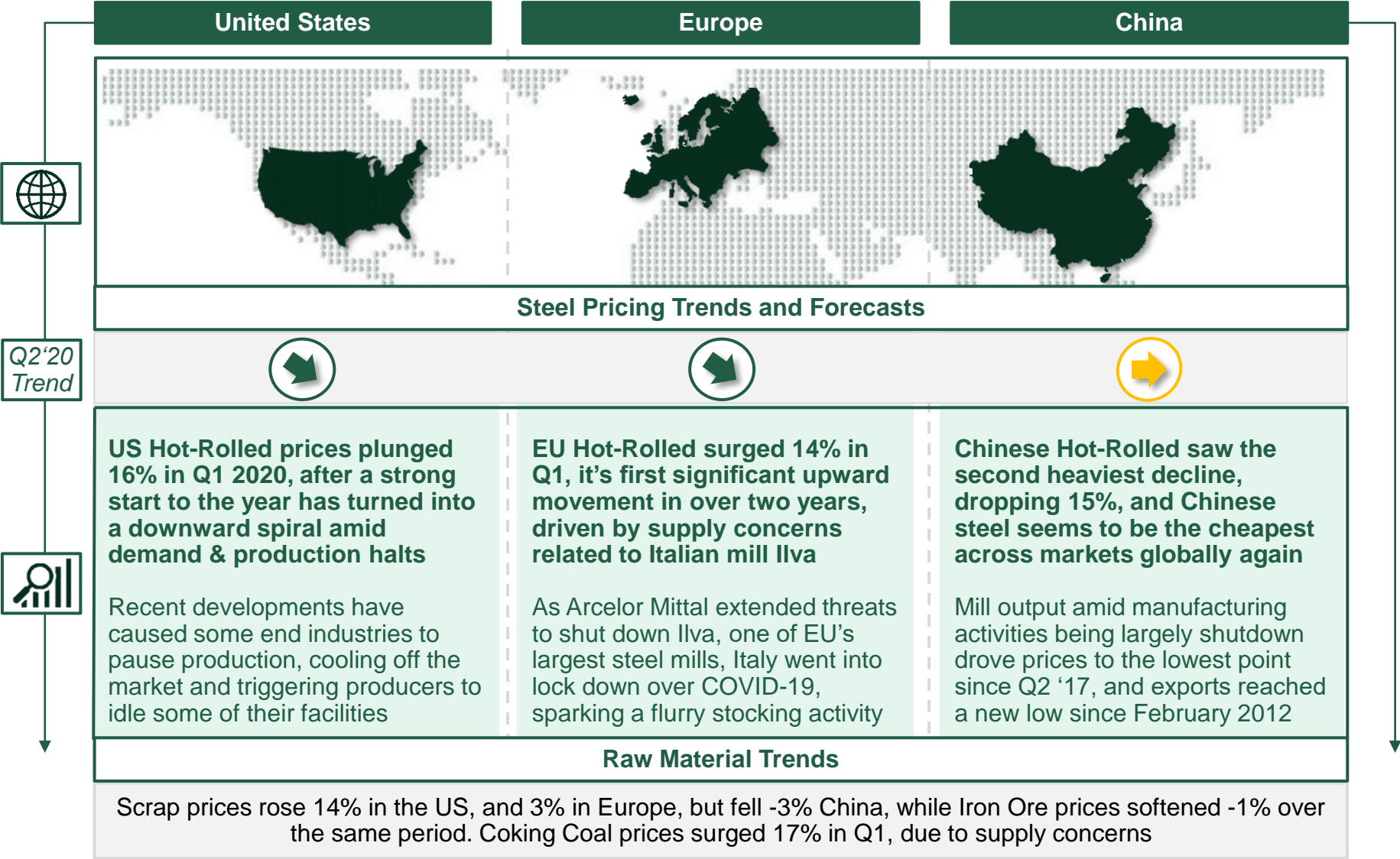


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Global steel prices saw a final upward push in Jan. before the impact of COVID-19 turned the market downwards.



The reaction to COVID-19 globally has been staggered, with mills implementing production cuts, idling, and push outs of new equipment.

Timeline	General	Demand	Supply
January	China begins reaction to COVID-19, shutting down Wuhan	Manufacturing activity starts to slow down in China	Steel production continues globally
February	China extends Holiday for Lunar New Year	Feb PMI indicated a ~20% drop comparing to January in China	Chinese steel production slows for holiday
	Italy begins reaction to COVID-19, shutting down 10 major cities	Manufacturing activity shut down in Italy	Steel production shut down in Italy
March	WHO declares COVID-19 a pandemic, US then declares nat'l emergency	Non-essential businesses begin to shut down in Europe/US	Many furnaces idled in the EU due to reduced demand
	Wall Street plunges with S&P 500 and NASDAQ down ~12%	Auto OEMs begin to shut down plants in Europe and the US	US furnaces idled & push outs of new equipment announced
April	China is the first country to begin the recovery process	~90% of Chinese factories have reopened	US steel capacity utilization at ~57%, down from 81.3% last yr

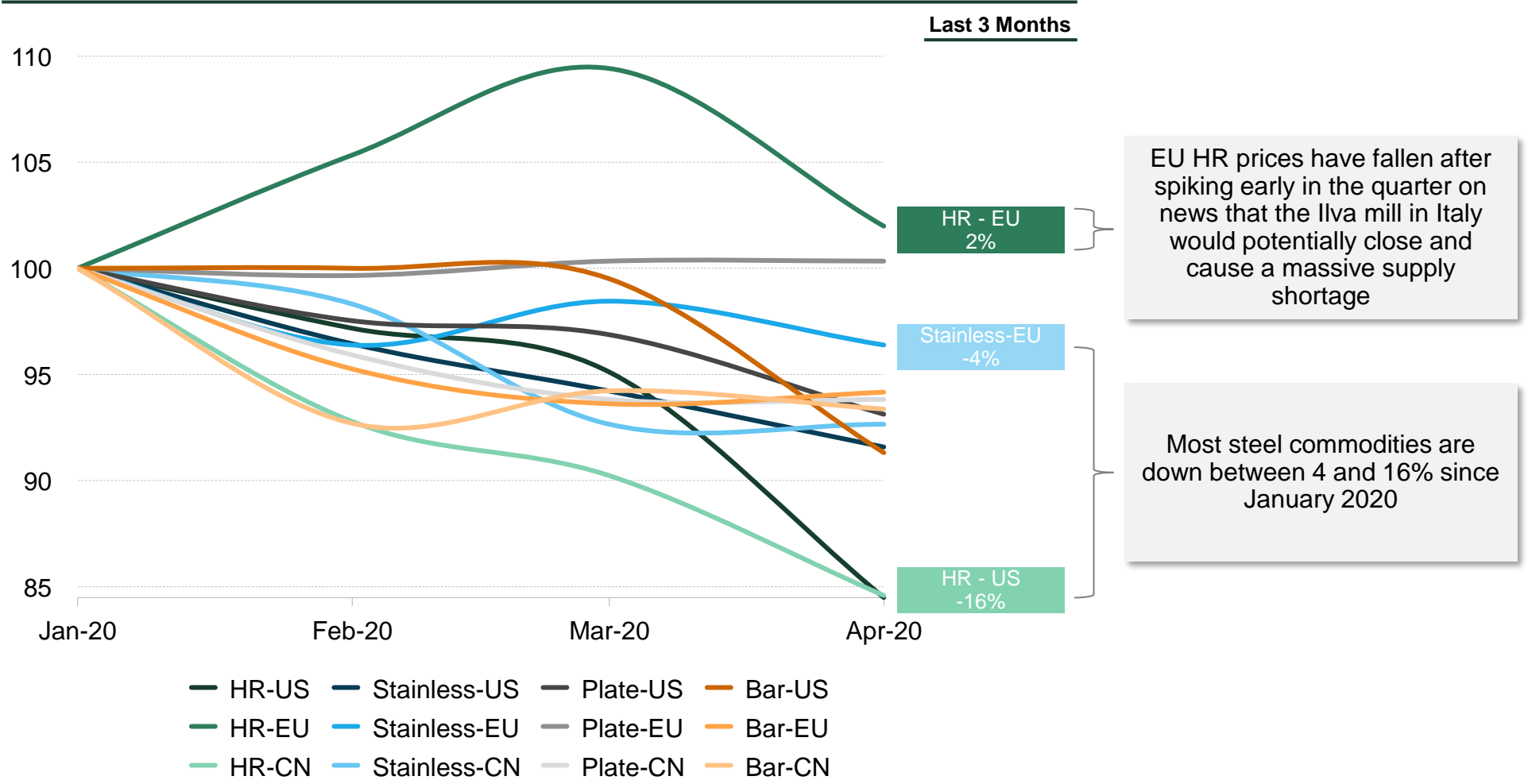
Q1 2020 Sheet Steel Production Cuts, % of 2019 Levels

US	EU	CN
-14%	-21%	-20%



Almost all steel commodity prices excluding have decreased in the last three months as COVID-19 has hit the globe.

Indexed Steel Costs
January 2020 – April 2020



With COVID-19 driving steel prices downwards, various levers such as contract re-negotiation can be pulled to help mitigate negative impact.

Recent Changes



Global Steel Price Drops

Most steel commodities have seen reductions in pricing so far in 2020



Demand Spikes

Massive spikes in demand both upward & downward, depending on the industry



Fractured Supply Chains

Most steel mills closed, steel shortages & longer lead-times are the new reality



Organizational Changes

Remote work policies have been adopted and furloughs/ layoffs are increasing



Cash Flow





COVID-19 has strained cash flow, with reduced revenues & delayed payments

Recommended Actions and Mitigation Levers

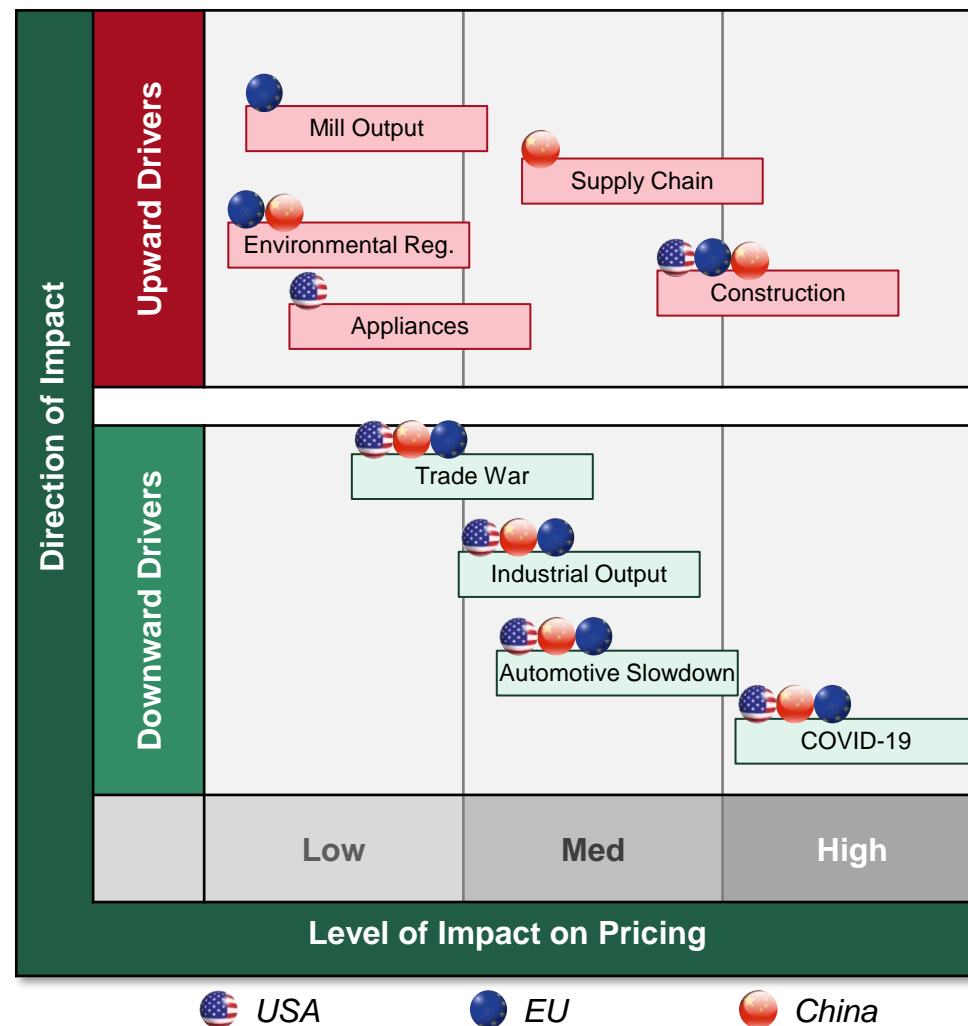
Short-Term	1	Renegotiate Contracts / Capture Savings	Perform analysis to prioritize categories, regions, suppliers for Fact-based Negotiations, quantify impact, & execute cost savings
	2	Improve Cash Management	Analyze all payments, payment terms, inventory & develop strategy to maximize cash on-hand
	3	Address Shortages	Deep dive global market, identify alternative sources & quickly set up new supply chains
Long-Term	4	Supplier Viability & Compression	Track suppliers' financial & operational performance and eliminate suppliers as needed
	5	Re-Evaluate Supply Base	Assess current supplier footprint and identify oppts. to reduce lead-times (ex: nearshoring)
	6	Modify Category Strategies	Deep dive categories, assess current vs. wanted position, and make changes as needed



Global Steel Price & Trend Summary.

Commodity		Latest Approx. Price (Mar)	Last 3 Months	Trend (Forward)
 Flat¹	US	\$560/MT	-16%	➡
	EU	€480/MT	2%	➡
	CN	\$460/MT	-15%	➡
 SS	US	\$2,302/MT	-12%	➡
	EU	\$2,120/MT	-4%	➡
	CN	\$2,000/MT	-6%	➡
 Plate	US	\$680/MT	-1%	➡
	EU	\$540/MT	-7%	➡
	CN	\$520/MT	-4%	➡
 Bar	US	\$760/MT	8%	➡
	EU	\$510/MT	-2%	➡
	CN	\$490/MT	-6%	➡

Major Market Drivers



Note: US, EU and CN latest flat prices are from April, and the last 3 months comparison take January as the baseline



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Market Conditions by Region

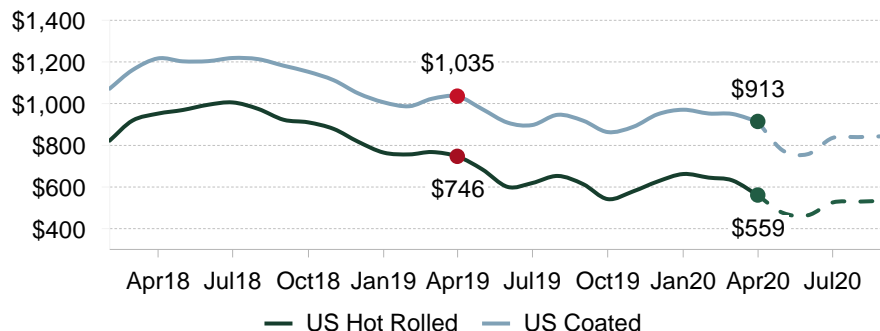
Steel Production Costs

Major Steel Mill Company Performance



The US HR price increases that began in Oct 2019 have nearly been erased in early 2020, as prices dropped 16% in Q1, starting April at ~\$560/MT.

US Flat Prices (USD/MT)

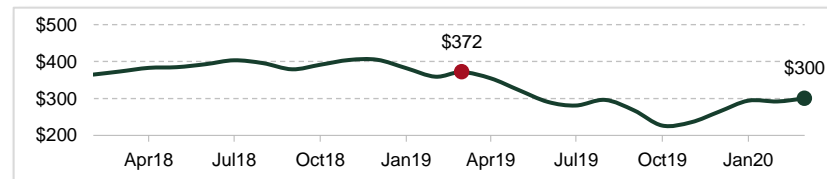


- Hot-Rolled prices began to level off in January after recovering from 24-month low of \$541/MT October 2019. April prices ended the quarter at ~\$560/MT, down 16% on a Q-o-Q comparison. Coated prices were nearly flat over the same period, starting April at ~\$913/MT, representing a decline of 6.0% in Q-o-Q. Late Q1 price movements started to indicate significant impact from COVID-19, as shown by the sharp falls of early April prices
- Scrap prices had a strong start in January, but quickly tapered through the end of the quarter to end at ~\$300/MT, a 14% increase Q-o-Q. The early January momentum and market sentiment was due to a tighter supply market, with lower imports from Asia and Europe
- US Mill Capacity Utilization fell to 81% in March, although early readings from AISI's April utilization figures indicate that utilization could plummet dramatically down to near 57% in the near term.
- The China-US HR spread widened at ~\$150/MT, primarily as a result of plunging HR prices in China on lower output and production activity associated with COVID-19. China's steel market was the first to show symptoms of the virus impact.

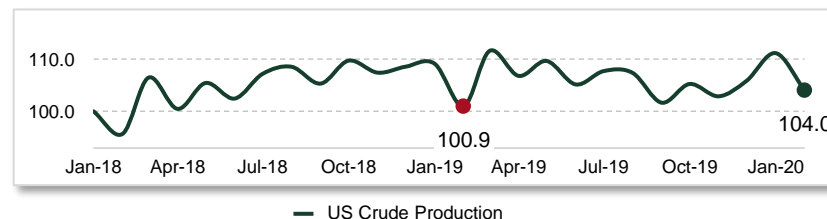
Source: AV Analysis

US Scrap Steel Price

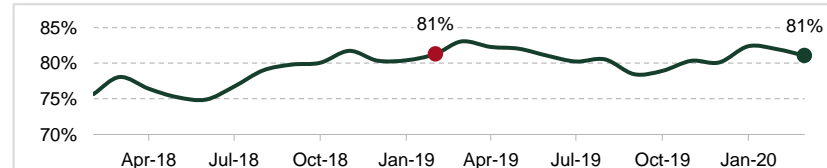
USD/MT



US Indexed Crude Steel Production Volume

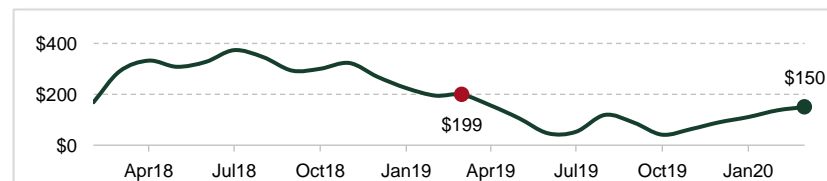


US Mill Capacity Utilization



US vs China Price

USD/MT

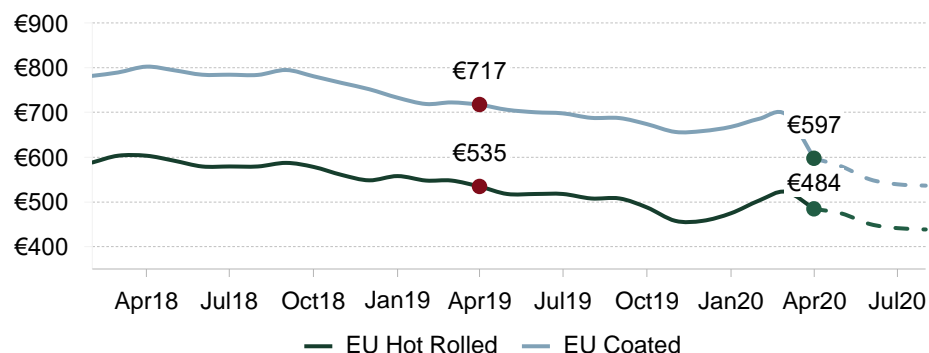


● Previous Year's Data ● Latest Data + - Correlation to Market Price



EU HR prices surged 14% in Q1 2020, the first significant upward movement in pricing in over two years as buyers looked to increase their stocks.

European Flat Prices (EUR/MT)

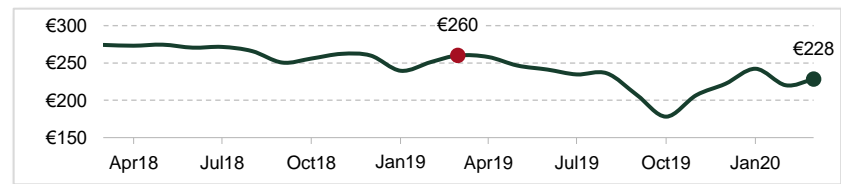


- European HR prices increased 14% Q-o-Q, ending the quarter in March at ~530 EUR/MT before tipping back down in early April to ~480 EUR/MT. Escalating threats from Arcelor Mittal's bid to walk away from Italian steel mill Ilva, one of Europe's largest, has affected the region's confidence in supply and sparked a flurry of buying activity. These concerns became even further exacerbated as Italy became one of the first European countries significantly affected by COVID-19 and the first to begin a country-wide lock-down.
- EU Scrap prices continued to increase in January but turned downward in February, ending Q1 with a 3% Q-o-Q decrease, mainly driven by falling scrap prices in Turkey.
- EU crude steel production increased 14% between December and February, driven primarily by a ramp up in France to support increased export activity. However, production remains down -9% Y-o-Y.
- The spread between EU and Chinese steel prices increased significantly in Q1 2020, driven equally by a heavy rise in Europe and an intense decline in China – it reached its highest point for the last 24 months in March. With China feeling the early effects of COVID-19, it has at least temporarily overtaken Europe as the weakest market globally.

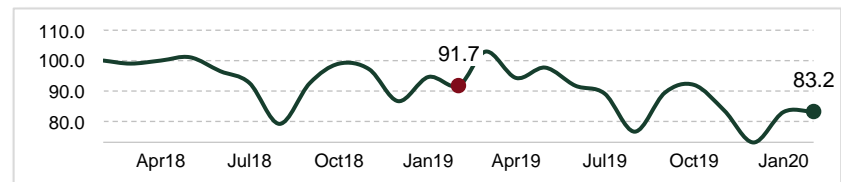
Source: AV Analysis

European Scrap Prices

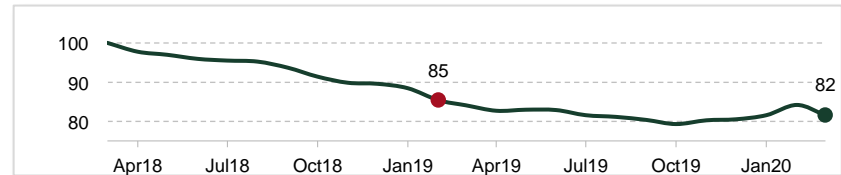
EUR/MT



European Union Indexed Crude Steel Production

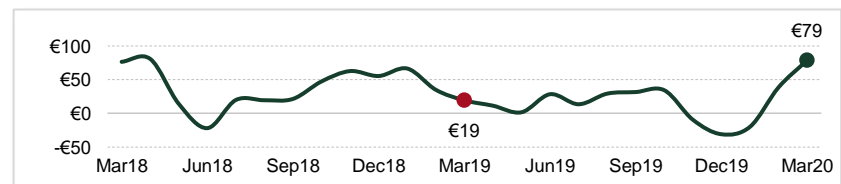


Euro Zone Manufacturing Indexed PMI



EU vs. China Price

EUR/MT

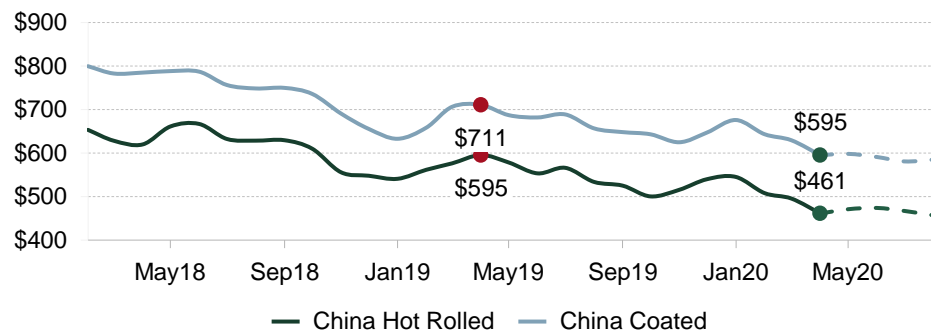


● Previous Year's Data ● Latest Data + - Correlation to Market Price



China's HRC and Coated markets plummeted ~15% and ~3%, respectively Q-o-Q as it became the first country to experience the impact of COVID-19.

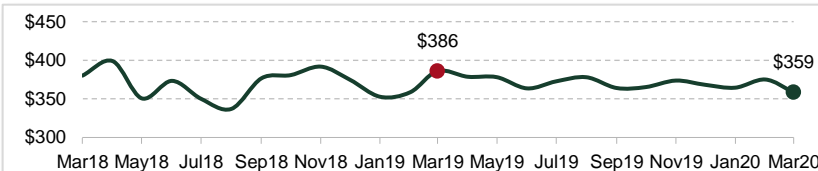
China Flat Prices (USD/MT)



- China HRC prices dropped 15% Q-o-Q to ~\$460/MT in April, becoming the first market globally to experience a significant decline due to the economic impacts of COVID-19. Coated prices experienced a more modest 2.7% reduction to end the quarter in March, at ~\$632/MT. China is also expected to be the first country to recover from the outbreak and has already started to unwind some of its strict lockdown requirements.
- COVID-19 accelerated the downward slope of China's Steel Exports, which saw a 17% reduction in volume Q-o-Q. Despite the volume reduction, China's production remains high, indicating a potential oversupply scenario once most manufacturing activity is resumed
- China now appears to be the weakest market globally, with spreads between US-China and Europe-China steel prices both soaring in Q1 and reaching \$150/MT and \$87/MT, respectively. However, steel prices in China have been affected negatively by COVID-19 outbreak, and the same impact is expected in the US and the EU for the next quarter, as they face the same crisis in late Q1 and the impacts could extend into Q2, raising the possibility of a market rebalance over the next months.

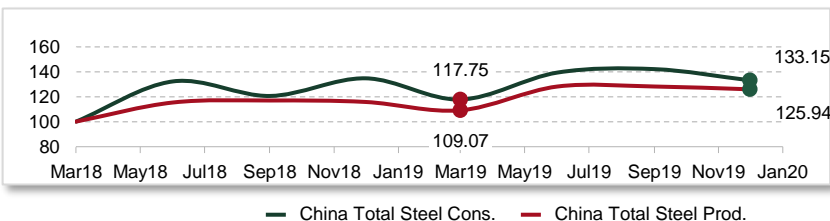
China Scrap Steel Price

USD/MT



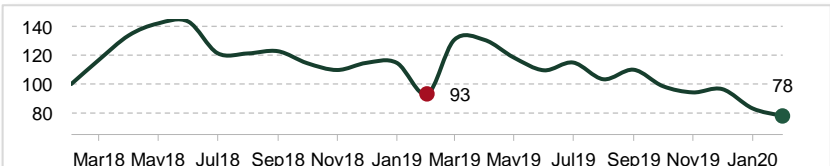
Indexed Production and Consumption

100= Mar 2018



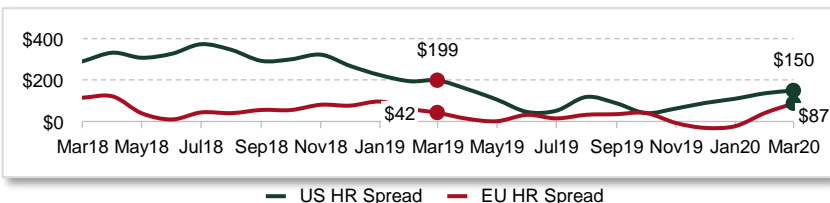
China Steel Exports

100= Feb 2018



Spread between US & EU

USD/MT



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



Traditional upward drivers are weakened by COVID-19, but the additional impact of constrained supply could provide some balance.

Upward Market Drivers



Supply Chain Constraints

- › CN: Chinese government implemented restrictions on transportation and the movement of people in efforts to control the epidemic; with declined outputs and hindered logistics in China, supply chains have become stagnant world-wide, cutting off supply.



Steel Mills Shutting Down

- › EU: In Italy, France, and Germany, most of the steel plants have temporarily shut down or are working at their lower historical rates; German flat steel stocks fell 18.4% and long steel stocks dropped 8.4% Y-o-Y, reducing market availability in the short-term.



Environmental standards to limit steel supply

- › CN: Higher emission & environmental standards are expected to limit steel production, with some of the steel manufacturers having 50% of capacity limited by the government in H1. Hence, output slowdown is expected in China's total steel production in 2020, after reaching record highs in 2019 at 750 million metric tons.
- › EU: The European Commission Green Deal aims to reduce emissions to net-zero by 2050. It is intended to financially support green initiatives such lower-emitting steel technologies (i.e. HYBRIT technology). These initiatives are expected to increase the production of steel but would also increase production costs by 20-30%, probably offsetting higher carbon prices.



Construction

- › CN: Increased infrastructure construction is expected to serve as an effective short-term mechanism to combat economic pressure following the nation's recovery from COVID-19. If approved, ~500 BUSD will be injected into new infrastructure projects by local governments in 2020, most of which in the telecom network and transportation sector.
- › EU: In February, one fourth of European construction companies indicated that they have a shortage of staff which indicates high activity. The sector also has limited overcapacity, which might not be able to regain lost time.
- › US: Trump wants to push a 2 TUSD infrastructure package, reviving a campaign pledge, and in response to the COVID-19 outbreak, though he faced resistance in the past over a similar agenda.



Appliances

- › US: Retailers have reported increased appliances sales in March, as people spend more time at home and decide to work on home improvement and upgrade their current household items.



The market could suffer from a possible recession, due to the COVID-19 and the struggle of world leaders to solve a public health and economic issue.

Downward Market Drivers



Economic Slowdown—COVID-19

- › Global: Unprecedented government action in response to the spread of COVID-19 has impacted several industries across the globe, disrupting supply chains, and causing manufacturing and sales forecasts to be cut drastically. Countries around the globe are seeing some degree of shelter in place orders and a halt on “non-essential” business operations.



Declined Industrial Output

- › US: Expected decrease in overall manufacturing output, as indicated by market sentiment and a big drop of 20%+ in the DJIA index. PMI has dropped in March to the lowest level since 2009, at 48.5.
- › EU: Industrial output has dropped across the Eurozone. In December, overall production was down 2% M-o-M across EU27 according to Eurostat. The output bounced back with 2% in January but is expected to decline the coming months due to the temporary closures of many factories. This was reflected in the manufacturing PMI in March which came in at 44.8.
- › CN: Ever since the nationwide outbreak of COVID-19, downstream demand in the manufacturing sector has been stalled due to factory closure, only have partially reopened to date. The Chinese PMI recovery in March from 35.7 to 52.0 shows the magnitude of February's drop.



Automotive Slowdown

- › CN: automotive production and sales volume witnessed around 45% y-o-y plummets in Q1. With car dealerships and manufacturers slow to restart business even as lockdown restrictions loosen up in China, the trend is expected to continue throughout Q2.
- › EU: European car sales first declined in the beginning of 2020 after four consecutive months of growth. The reversed trend was attributable to weakened general economic condition as well as a drop in sales of gasoline- and diesel-powered vehicles following emission limit restrictions. Many European factories have closed down due to the virus and Germany passenger car production saw y-o-y decline of 8% and 12% in the first two months, respectively.
- › US: Large manufactures are idling facilities, with no exception, as sales are expected to drop up to 20% in 2020 and the industry is struggling to connect the dots in a shaken and complex supply chain.



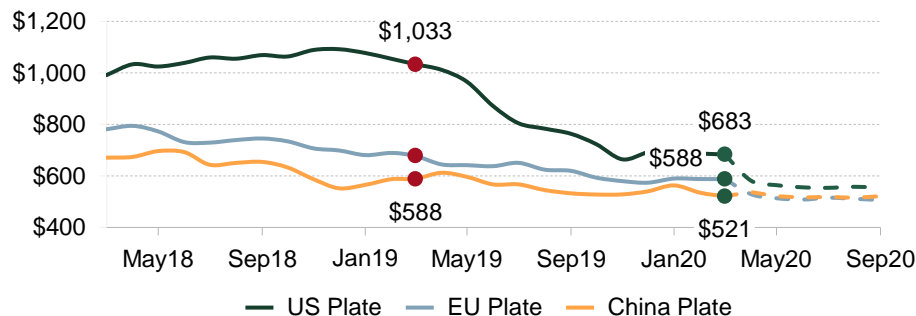
Trade War

- › Global: the rush to get medical supplies and related goods to fight the COVID-19 pandemics have raised talks on a new phase of the trade war imposed by the US, though this time it could focus on export restrictions on vital items pertained to the efforts of containing the outbreak. If such a move goes through, it is expected that China and the EU could retaliate, further aggravating manufacturing activity globally.



Plate prices in China declined in Q1 2020 with a 4% drop Q-o-Q, as delays, shelter at home orders, and a sharp oil price decline impacted the market.

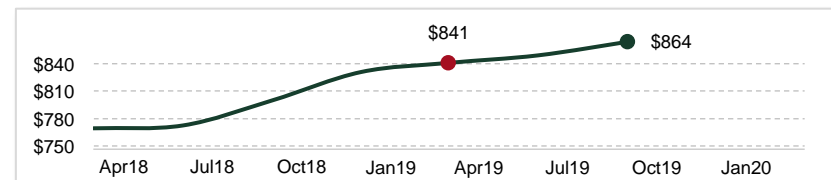
Plate Prices – US / Europe / China (USD/MT)



- US plate prices increased slightly in January but continued to drop during the rest of the quarter – the decrease Q-o-Q was 1%. The COVID-19 break out has caused construction delays and cancellations, causing the decrease in plate prices. The mills are worried for a recession – prices are expected to stay at low levels.
- Chinese Plate prices fell with 4% Q-o-Q, and the Y-o-Y decline is 12%. In January, factories closed for 2 weeks due to Lunar New Year. The closures continue unexpectedly due to the COVID-19 outbreak, creating a very low demand for steel. Most factories remained closed until end of February, and most are still not operating at full capacity.
- US Crude Oil production slowed its increasing trend and decreased to 20.6MBPD in February. The OPEC Oil Production also declined during the start of 2020. The fall out from COVID-19 has been accompanied by a plummeting crude oil price, which has fallen nearly 70% in Q1, reaching the lowest price in 18 years.
- BDI declined almost 50% Q-o-Q, reaching its lowest point for the last 24 months. The dry bulk shipping market is a result of both the US-China trade war and the global lockdowns due to COVID-19.

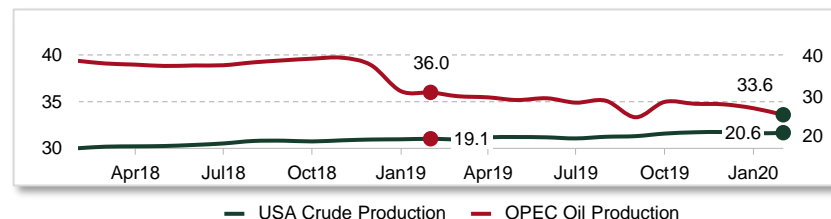
US Defense Spending

BUSD



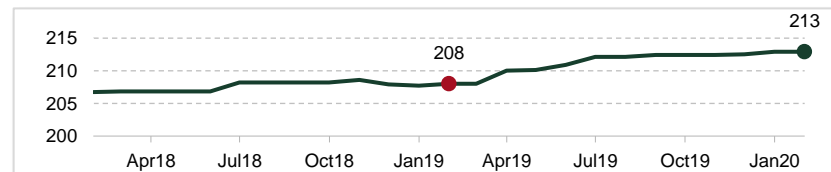
Crude Oil Production

MBPD

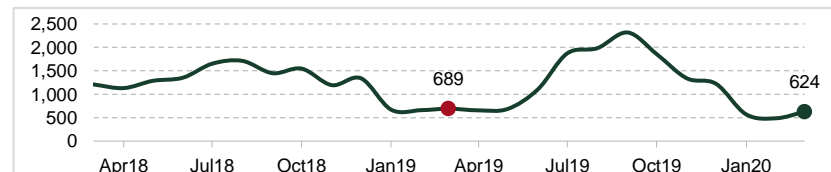


US Ship Building and Repairs

Index: 1985 = 100

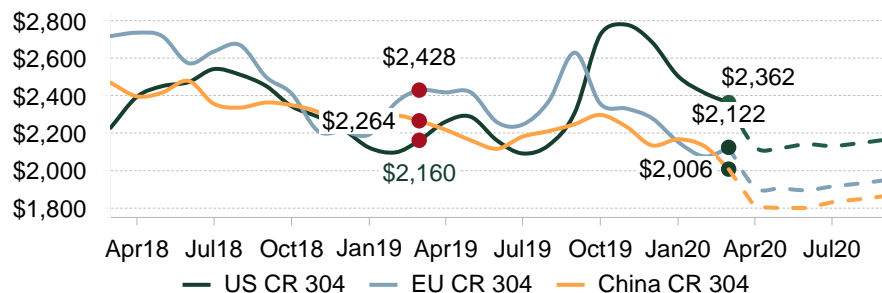


Baltic Dry Index



Stainless steel declined 12% Q-o-Q in the US, compared to a 7% and 6% drop in Europe and China, respectively, due to oversupply and low demand.

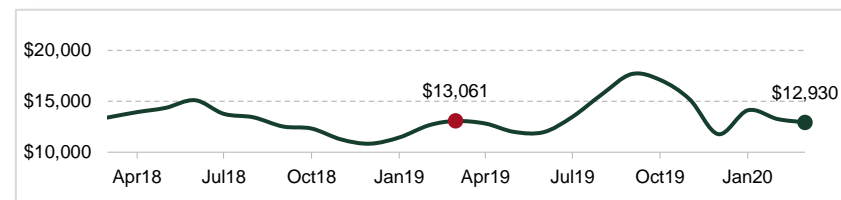
Stainless Steel Prices – US / Europe / China (USD/MT)



- › The Q1 decline in US stainless prices was more severe than all other regions at 12% QoQ, coming off of its significant peak at the end of 2019 of \$2,778/MT. March prices currently sit at ~\$2,362/MT.
- › Despite the strong upward trend in the flat market, EU stainless prices dropped 4% in Q1, as pressure mounted from declining raw material inputs.
- › Chinese stainless prices decreased with 6% Q-o-Q. Downstream demand for stainless steel stagnated during the quarter, which caused mills to cut production.
- › Nickel prices have been volatile for two quarters, as the Ramu plant in Papua New Guinea was forced shut down by the local government following a toxic spill. Since then, the market went through a correction and has returned to levels close to those before the spill.
- › After two years of consistent decline, Chromium finally turned upwards with an 8% increase Q-o-Q. However, due to the extent of the decline, prices remain down 25% YoY.
- › Natural gas prices are at their lowest in 24 months, resulting from milder than expected temperatures leading to a drop in demand but also a decline in crude oil prices as well.

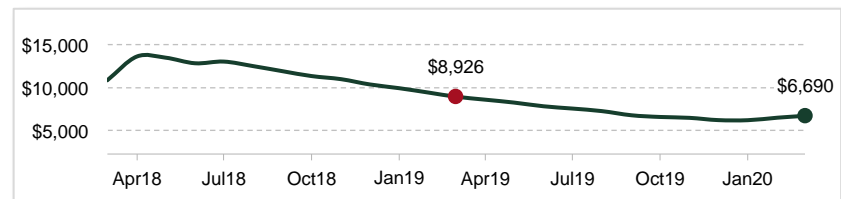
Nickel

USD/MT



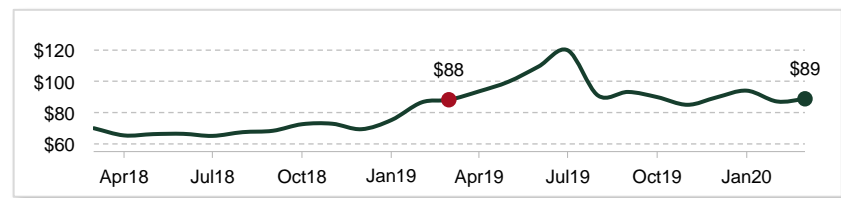
Chromium

USD/MT



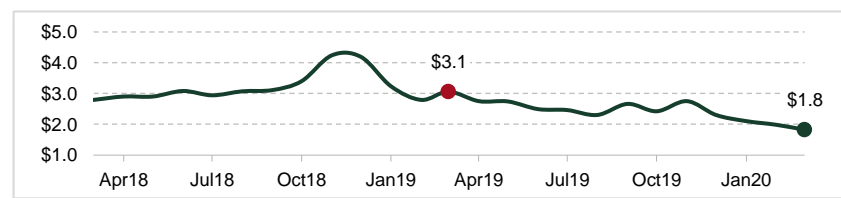
Iron Ore

USD/MT



Natural Gas

USD/mmBtu

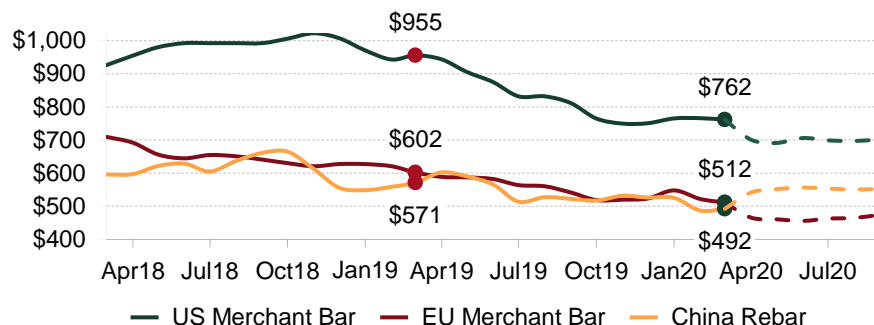


● Previous Year's Data ● Latest Data + - Correlation to Market Price



US bar prices improved with 8% Q-o-Q due to acceleration in scrap prices, while China saw decreasing bar prices with 6%.

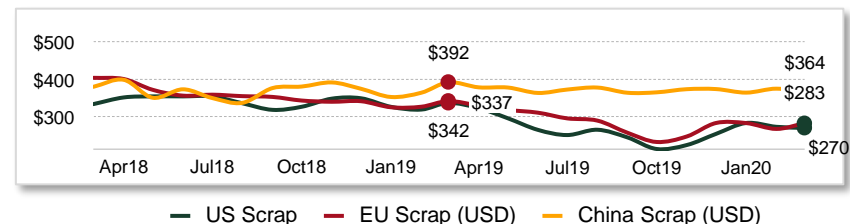
Long Steel Prices (USD/MT)



- US merchant bar prices rose slightly ~2% Q-o-Q, further pushing the rebounding trend seen since October. The US merchant bar market has been one of the most stable in the region amid a period of extreme volatility.
- EU merchant bar prices have been on a consistent decline for the last two years and despite an overall flat trajectory for the quarter, are down 14% YoY.
- In China, the rebar prices declined 6% Q-o-Q while inventories rose significantly in March, as Chinese mill activity remained high, stocking up on finished goods and betting on the economic recovery on Q2.
- Ferrochrome prices decreased 3% throughout Q1 2020, adding to the 14% Y-o-Y drop, due to a saturated market supply, as China has dedicated more capacity towards the production of high carbon content ferrochrome. Prices are expected to rebound in Q2, however, as Samancor Chrome, one of South Africa's largest chrome producer, sent a *Force Majeure* notice to its customers, and has plans to reduce chrome production due to market conditions.

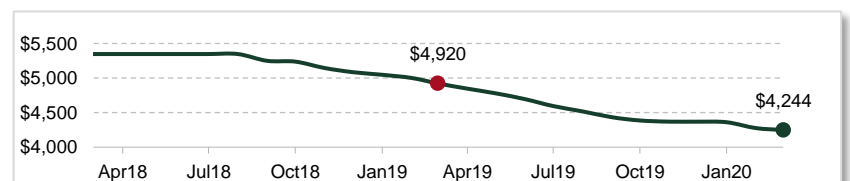
Scrap Steel Price

USD/MT



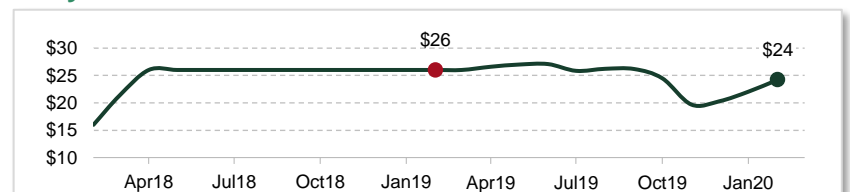
Ferrochrome

USD/MT



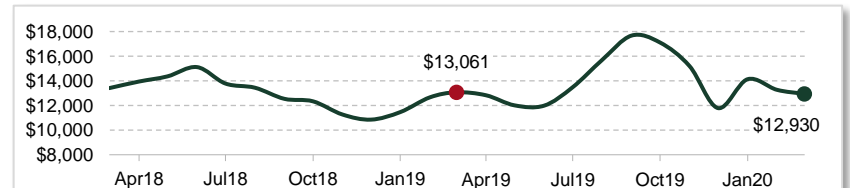
Molybdenum

USD/MT



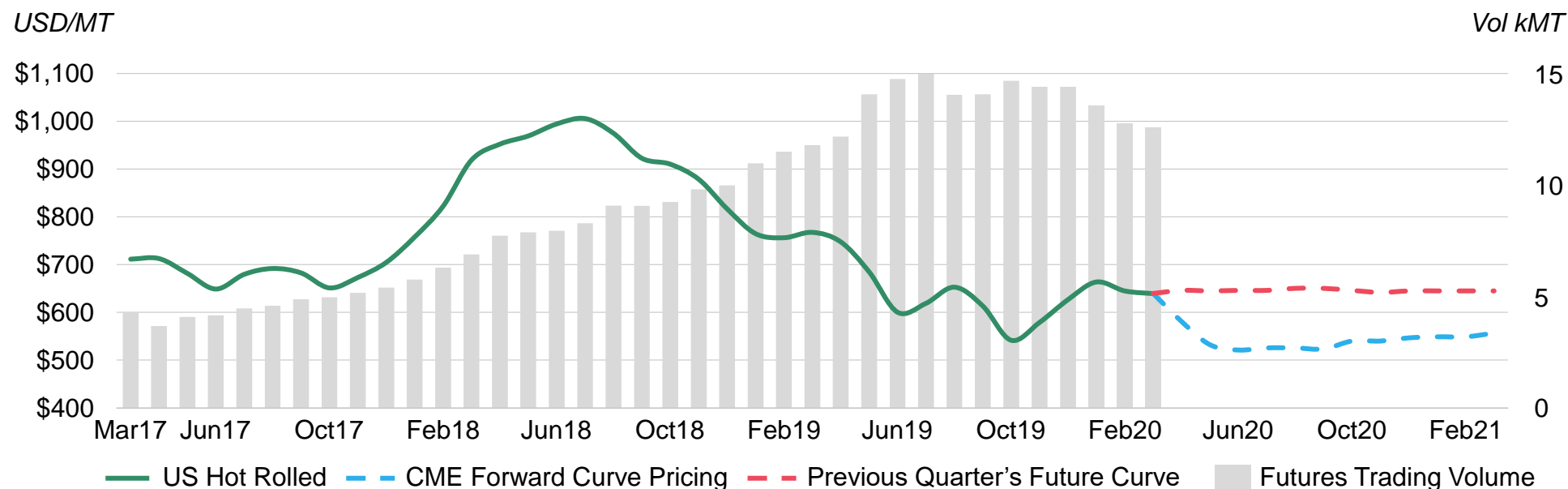
Nickel

USD/MT



US HR futures indicate an extremely bearish sentiment for next quarter and the remainder of 2020, with June contracts predicting a floor of \$521/MT.

Hot Rolled Historical Pricing and Contract Volume & Futures CME Pricing



- › The CME HRC Futures Curve turned bearish and market players expect a demand slowdown over the next months, due to implications of governmental orders across several states to pause non-essential activities, after the COVID-19 outbreak. Futures for June are the lowest since October 2016.
- › Volume of future contracts has decreased for the fifth consecutive month, as buyers are possibly waiting to see where the market bottoms before locking contracts out in advance. However it is interesting to note that volumes are more than double than when prices were at the same level in 2017, perhaps due to large steel consumers adopting risk mitigation strategies.

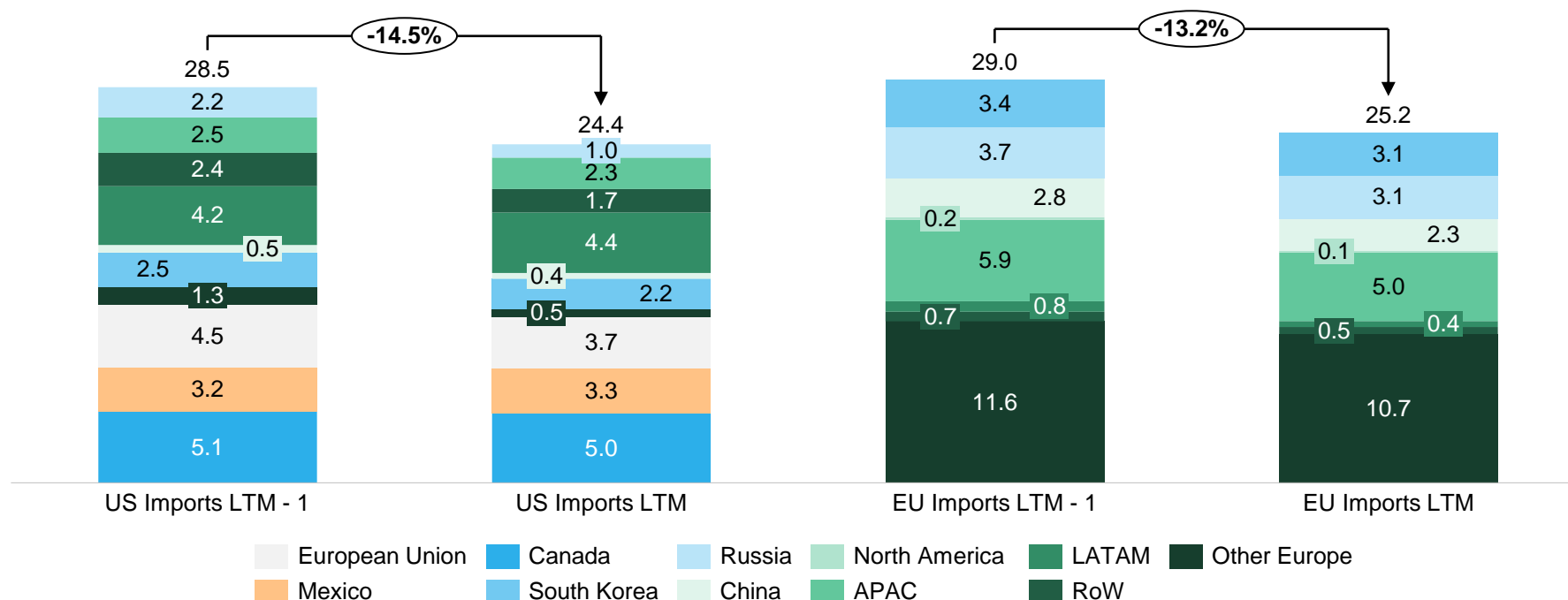
Note: Volumes are traded volumes cleared by CME, i.e. they exclude the "off exchange" OTC (over-the-counter) volumes not cleared by CME Prices pulled for CME futures Jan 8th, 2020



Both the US and EU see continued decreases in imports, as the market feels the effect of steel tariffs implemented on both sides of the Atlantic.

US and EU Imports – All Steel Products MMT

LTM: Feb 19 – Jan 20¹



- US imports from Russia and the EU dropped 1.2 MMT (57%) and 0.8 MMT (18%), as they further continued with the negative trend, in the Nov 19 to Jan 20 period. The series started 2020 with a 14.5% LTM Y-o-Y drop, as all regions, except for Mexico and other LATAM, experienced a decline in exports. In addition to those already mentioned, other European countries had a big decline at a drop of -0.7 MMT (58%). The movement comes along a 16.7% HR price drop in the US, along with a shrinking gap and a scenario of near price parity between EU and CN flat prices, which shifted markets towards an increased domestic focus, both in US and in the EU.
- Similarly, other European countries and APAC also accounted for a large drop in EU imports, as they each decreased 0.9 MMT (8% and 15% drop, respectively), pushing the EU to keep with the negative trend. On aggregate the total tonnage went from a 7.5% to 13.2% LTM Y-o-Y drop.

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



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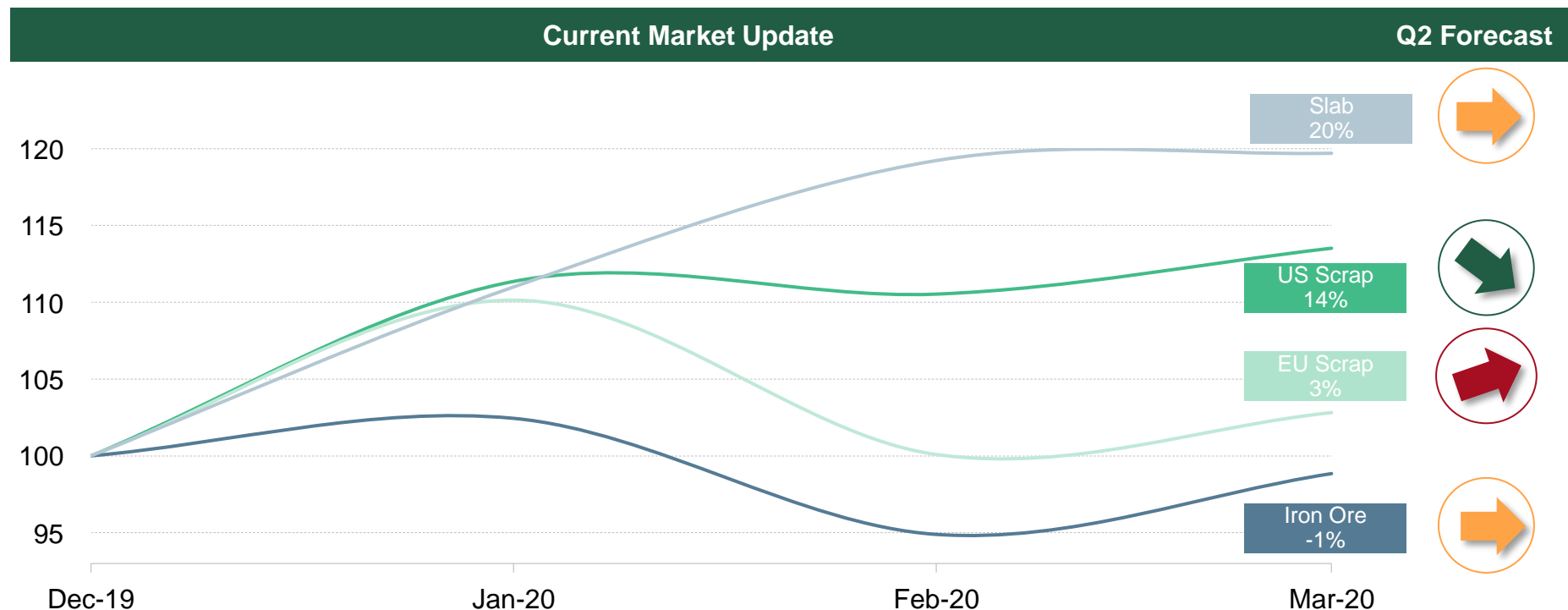
Market Conditions by Region

Steel Production Costs

Major Steel Mill Company Performance



Iron Ore was the only primary commodity to fall in Q1 2020 as other raw materials rode an upward wave driven by Pre-COVID supply factors.

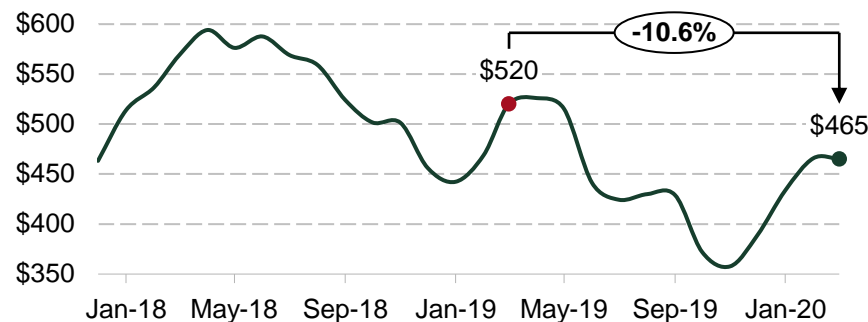


US Scrap	EU Scrap	Iron Ore	Slab
<ul style="list-style-type: none"> › A tight supply market sparked a swift increase in Q1, which is expected to correct with downward pressure from COVID in q2 	<ul style="list-style-type: none"> › EU Scrap fell in February as Turkish producers began to slow production, but an increase is expected as production ramps up in Q2 	<ul style="list-style-type: none"> › Q2 expectations are that prices stay flat, as Asian governments deploy counter-cyclical policies in response to COVID-19 	<ul style="list-style-type: none"> › Heavy demand for slab pushed prices upward in Q1, with Brazilian producers recording a 91.5% increase in exports YoY

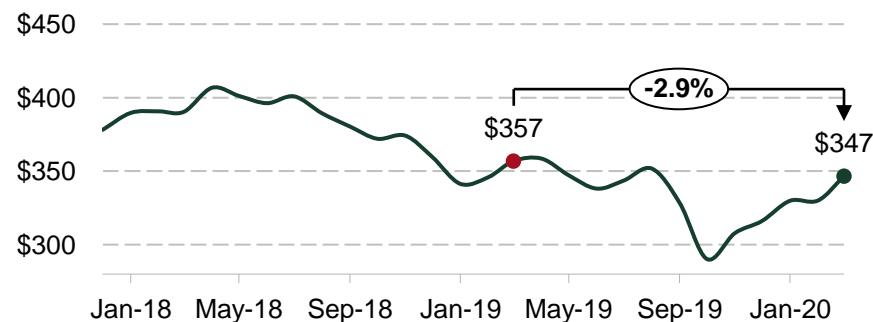


Pig Iron's growth continued through Q1, while Slabs and Scrap prices dropped after recovering in Q4; Y-o-Y drops range between 3% and 20%.

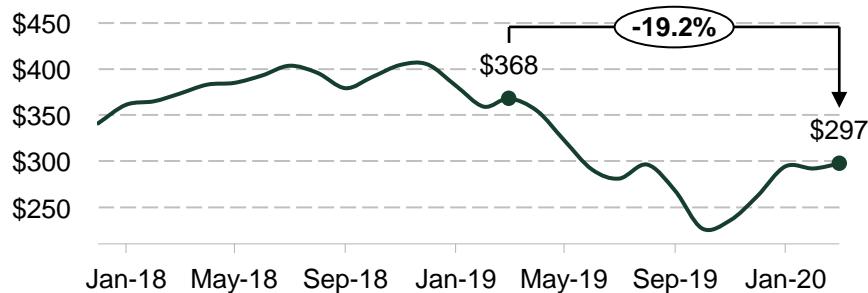
Slabs
USD/MT



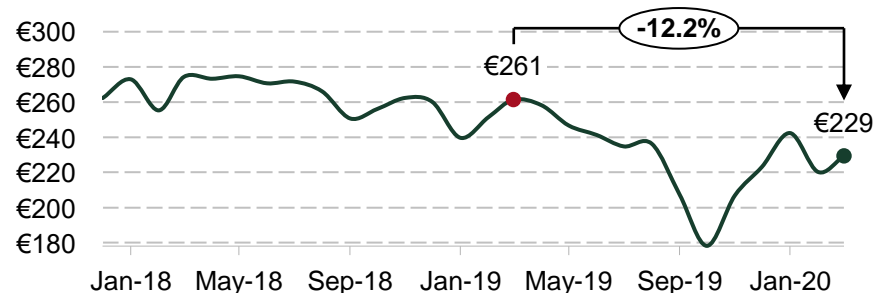
Pig Iron
USD/MT



Ferrous Scrap US
USD/GT



Ferrous Scrap Europe
EUR/MT

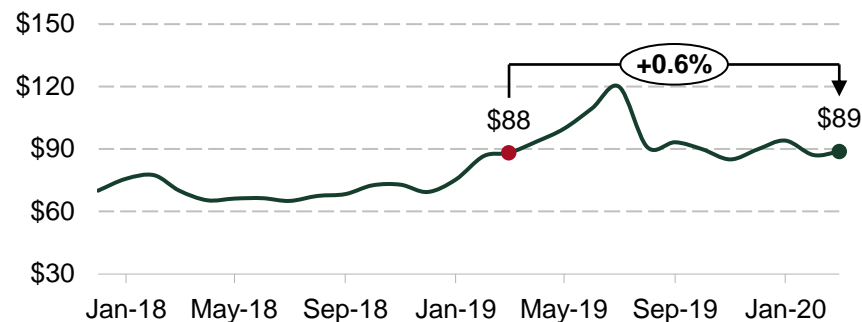


● Previous Year's Data
● Latest Data

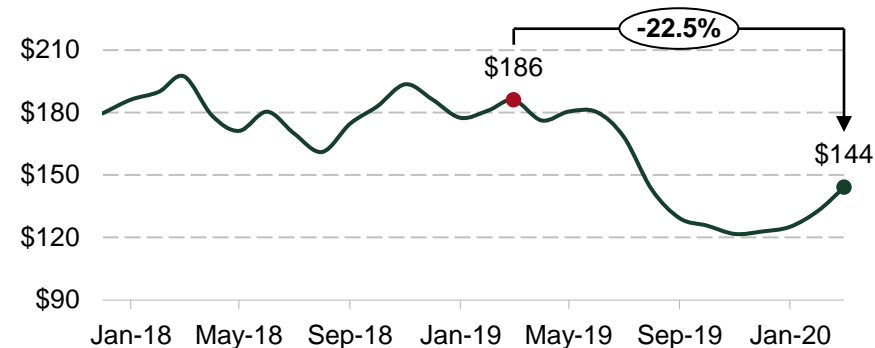


Coking Coal surged 17% in Q1, due to supply issues in China/Australia, while Zinc prices dropped 13% over the same time, and Iron Ore prices stayed flat.

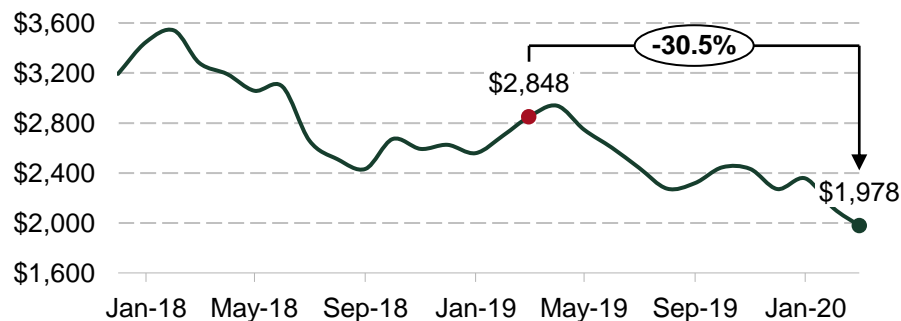
Iron Ore
USD/MT



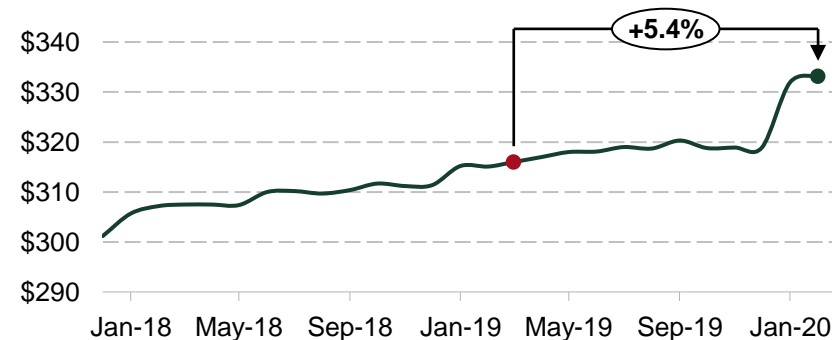
Coking Coal
USD/MT



Zinc
USD/MT



Limestone – Producer Price Index



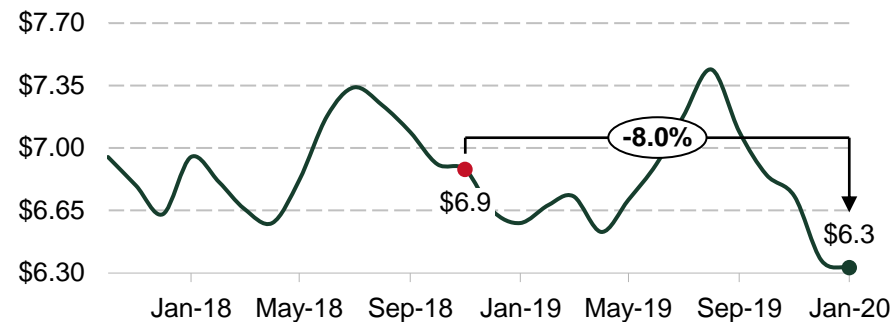
● Previous Year's Data
● Latest Data



Electricity and Natural Gas prices have plunged in Q1 both in the US and in EU, with drops ranging between 10% and 54% in Q-o-Q.

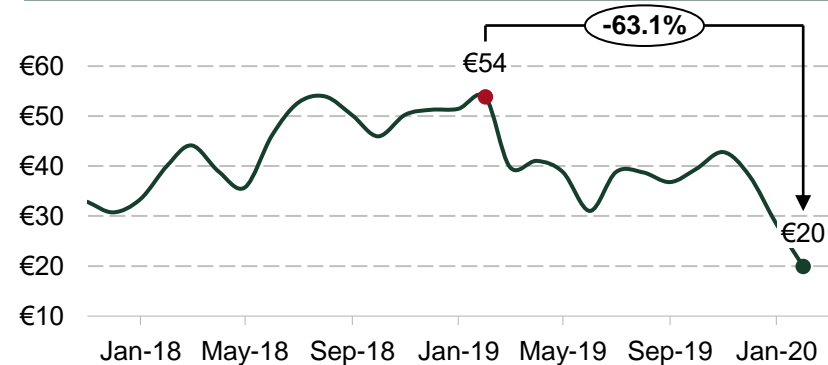
Electricity US

US cents/KWH



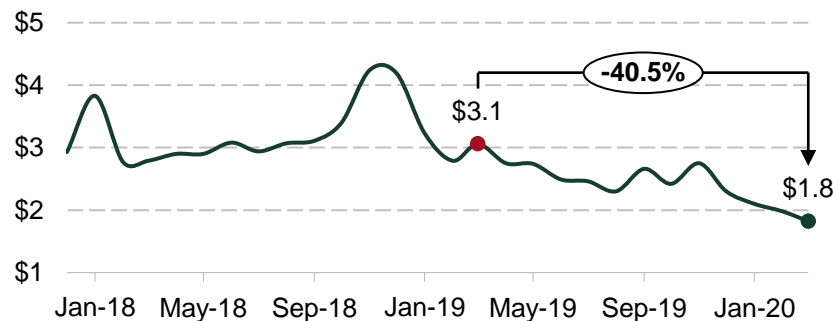
Electricity Europe

EUR/MWH



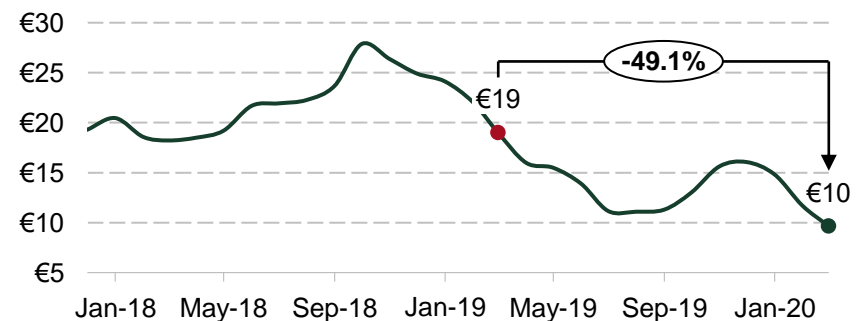
Natural Gas US

USD/mmBtu



Natural Gas Germany

EUR/MWH



● Previous Year's Data
● Latest Data



Applied Value Quarterly Steel Report

Q2 2020









Market Conditions by Region

Steel Production Costs

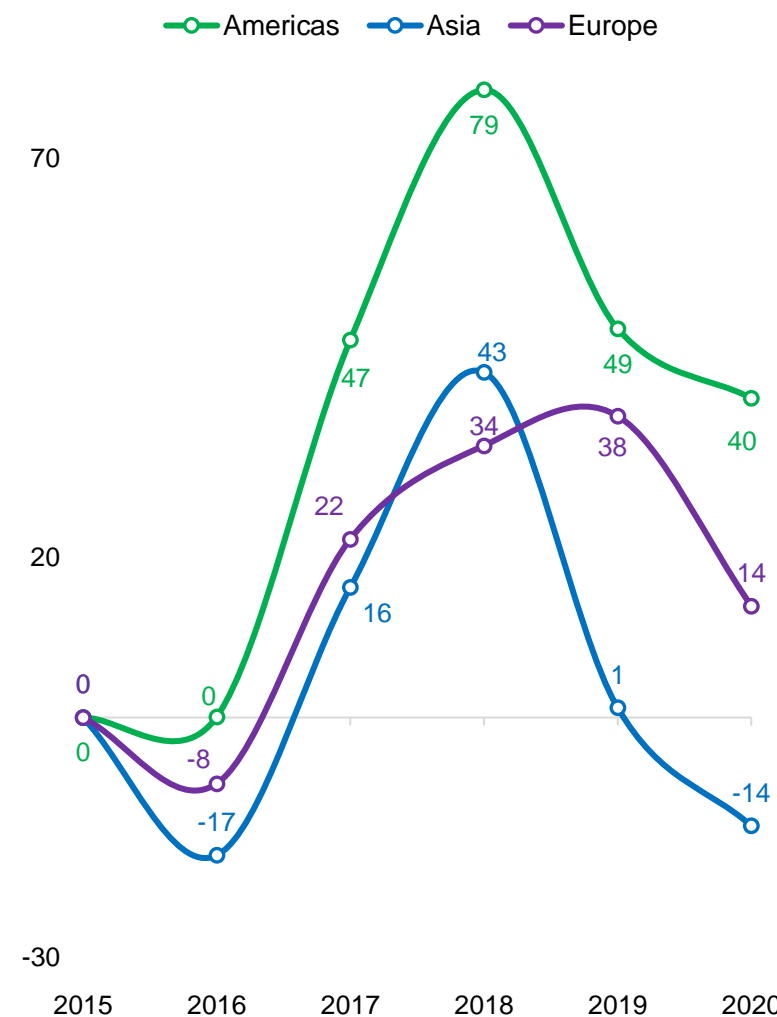
Major Steel Mill Company Performance



Americas and APAC stocks reached the peaks in 2018, whereas European companies performed better in 2019, with big drops followed in all markets.

Regions	Mills	Indexed Stock Movement				
		2016	2017	2018	2019	2020
Americas	 CLIFFS	8.3	70.9	98.1	102.8	58.1
	 GERDAU	-5.8	42.4	100.0	87.6	144.2
	NUCOR	8.0	31.4	42.0	22.7	8.4
	(US\$)	-10.3	44.3	74.2	-18.5	-50.8
APAC	 ANSTEEL	-25.4	23.4	54.7	-4.5	-25.5
	 BAOSTEEL	-23.0	4.8	23.0	-5.3	-20.5
	JFE	-36.5	-22.8	-3.9	-37.7	-48.6
	TATA STEEL	16.0	59.7	99.1	52.4	40.4
Europe	 ArcelorMittal	-31.7	-6.6	7.9	-31.5	-40.1
	 EVRAZ	-6.6	60.7	83.1	269.6	168.1
	 Severstal	9.0	27.2	45.4	16.8	28.1
	 ThyssenKrupp	-2.5	5.8	6.6	-42.2	-51.0
	voestalpine	-9.6	24.5	27.2	-24.1	-35.5









Regional Stock Movement 2015-2020



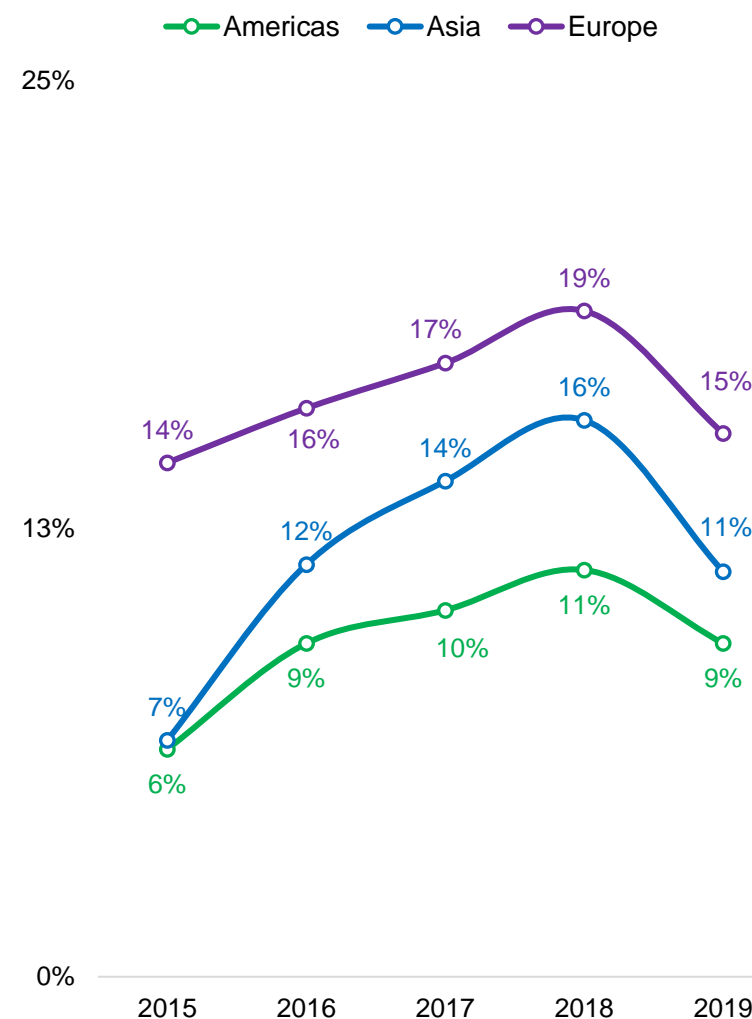
Note: Index base is average stock price of each company in 2015



Steel mills have seen slight decline in EBITDA in the last year while European mills maintains relatively higher EBITDA margin.

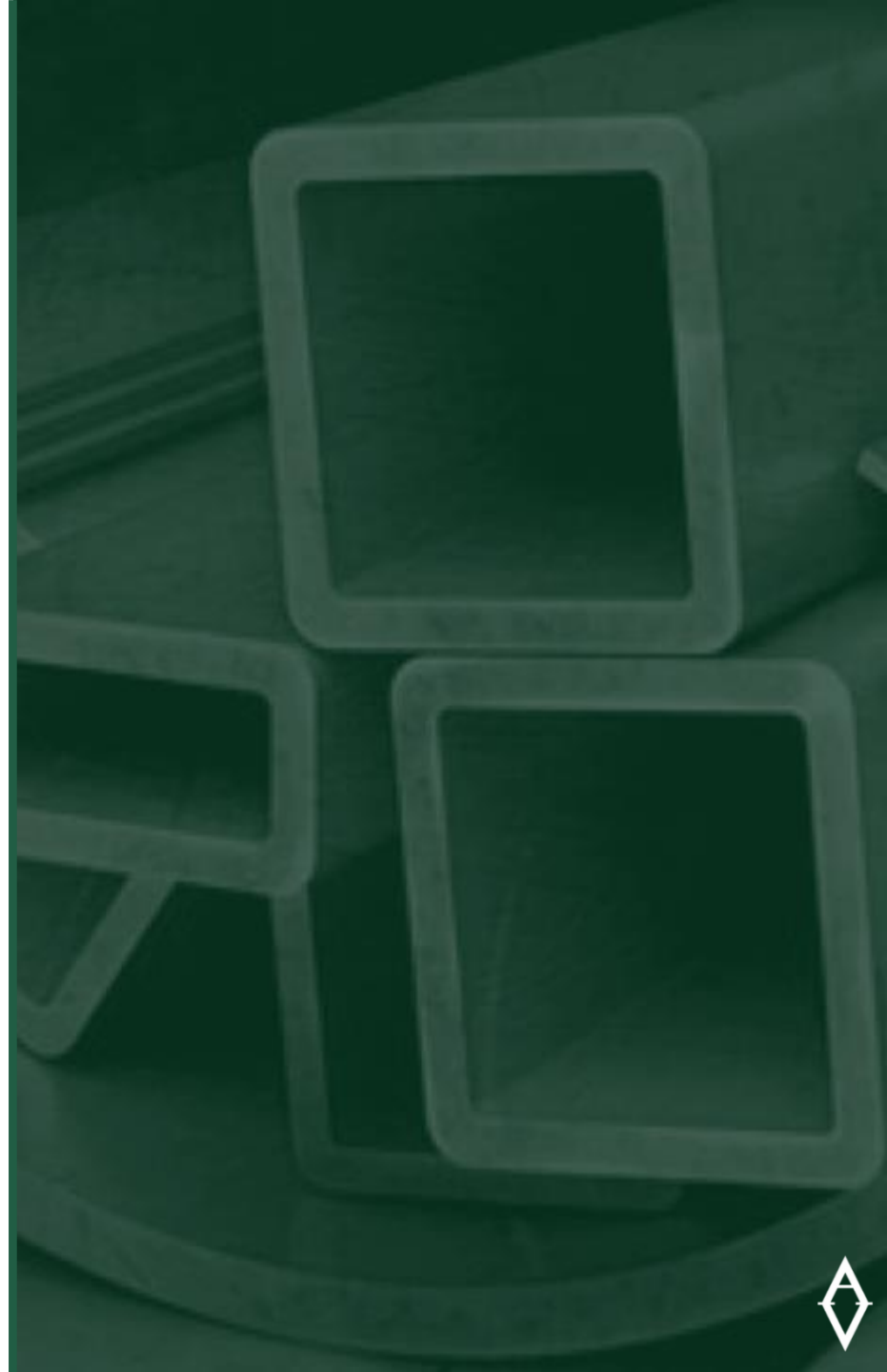
Regions	Mills	EBITDA %				
		2015	2016	2017	2018	2019
Americas	 AKSteel	7.2	10.2	8.8	7.1	7.2
	 GERDAU	9.8	9.9	10.8	13.2	13.0
	NUCOR	8.2	13.3	13.0	15.1	11.8
	(US\$)	0.2	3.8	8.3	10.0	5.3
APAC	 ANSTEEL	1.9	10.2	11.7	15.3	7.8
	 BAOSTEEL	9.1	13.4	15.1	17.0	12.5
	JFE	7.8	8.4	11.0	11.2	8.9
	TATA STEEL	7.6	14.0	17.5	18.6	16.0
Europe	 ArcelorMittal	5.3	10.2	11.7	13.4	7.5
	 EVRAZ	15.9%	19.2	23.7	27.5	22.1
	 Severstal	32.4	31.8	32.4	35.3	33.7
	 ThyssenKrupp	5.4	5.1	2.7	2.8	2.6
	voestalpine	12.9	13.0	15.1	13.9	9.9

Regional EBITDA Movement 2015-2019



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	✓	✓	✓		✓		
0.1M	Lifting OEM	✓	✓	✓	✓	✓		✓
	Global Engineering	✓	✓	✓		✓		
	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.



Applied Value works internationally with global clients



New York

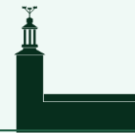
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