SMU Community Chat

January 5, 2022 Starting at 11 AM Eastern

Michael Cowden, Steel Market Update Timna Tanners, Wolfe Research



SteelMarketUpdate.com/Blog/SMU-Community-Chat-Webinars

Steel Market Update





SMU Newsletter developed for active buyers & sellers of flat rolled steel.

Prices – Momentum – Trends – Analysis – with a guarantee

For more information visit www.SteelMarketUpdate.com

Upcoming SMU Events



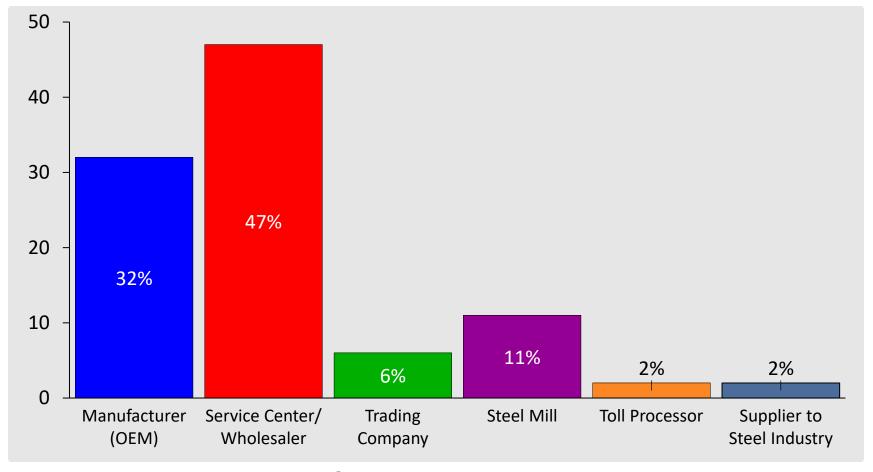
Date	Event	Status	Venue
January 11-12	SMU Steel 101 Workshop	Virtual	Online
February 14-15	SMU Introduction to Steel Hedging Workshop	Live	Marriott Waterside Hotel Tampa, Florida
February 14-16	Tampa Steel Conference	Live	Marriott Waterside Hotel Tampa, Florida
April 26-27	SMU Introduction to Steel Hedging Workshop	Virtual	Online
August 22-24	SMU Steel Summit Conference	Live	Georgia International Convention Center, Atlanta, Georgia

If you would like more information about any of our workshops, you may visit SteelMarketUpdate.com/Events or e-mail our team at Events@SteelMarketUpdate.com

Survey Participants

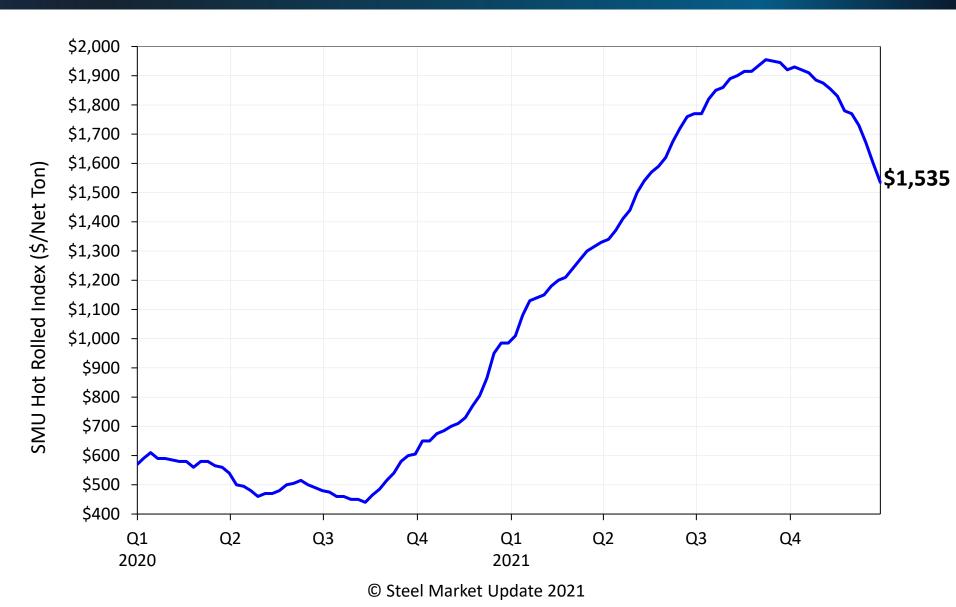


Our survey is by invitation only- Over 500 companies, mostly in the manufacturing or distribution industries, are asked to participate. Here are the percentages of participation in this week's survey by market sector.



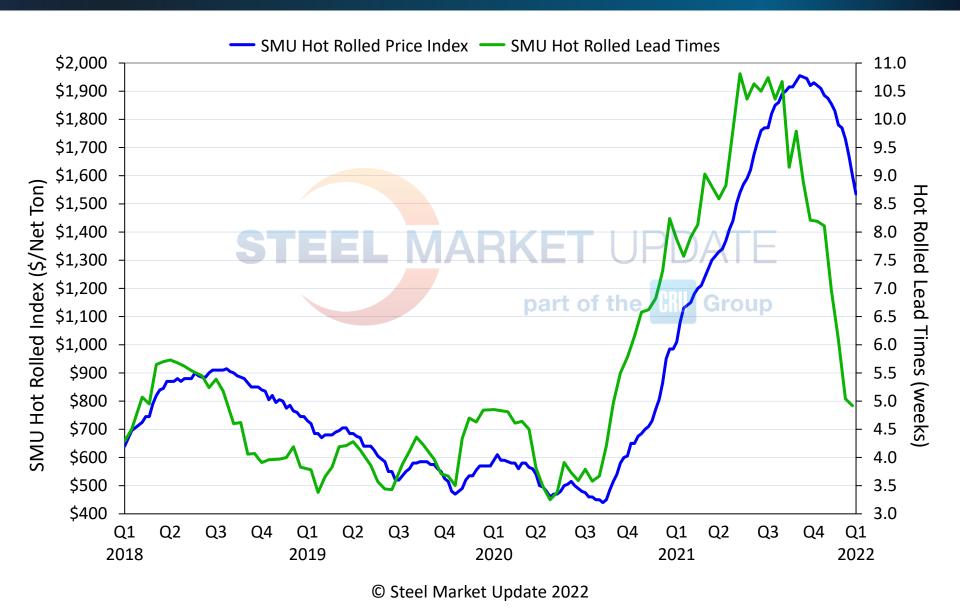
SMU Hot Rolled Price Average





SMU Hot Rolled Index vs Lead Times

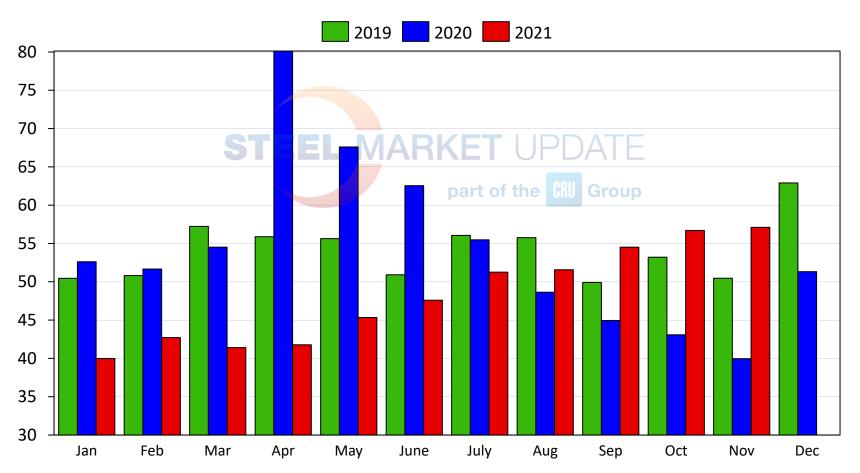




Service Center Inventories

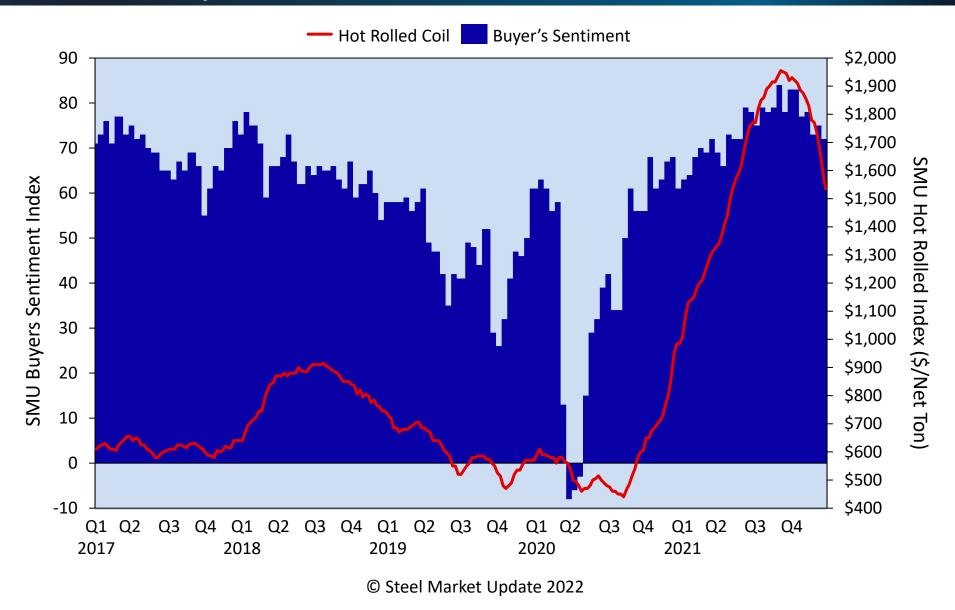


Shipping Days of Supply – Flat Rolled



SMU Hot Rolled Index & Buyers Sentiment Index





Timna Tanners





Timna Tanners is a Managing Director at Wolfe Research. She has covered the Metals and Mining sector since 2002. She was ranked #1 in Metals and Mining in the Institutional Investor All-America Research Poll from 2013 to 2018. Before joining Wolfe Research, Tanners worked as a Managing Director at Bank of America, where she covered metals and mining not only in North America but in Latin America as well. She began her career in 2002 at UBS. Tanners has a BA in politics from Pomona College, an MS in journalism from Northwestern University, and an MBA from UCLA. She is based in New York.

www.SteelMarketUpdate.com/blog/SMU-Community-Chat-Webinars

Steel Market Update (SMU) Community Chat

Jan 5, 2022

Timna Tanners (646) 582-9290 ttanners@WolfeResearch.com tannersteam@WolfeResearch.com



Hope you had a great time at the 2021 party... now for the hangover



The Great Steel Supply Squeeze of 2021 is over...

... prices rallied for a year and could slide for a year

> The pace of 2022's decline will depend on: 1) the pace of destocking; 2) new capacity ramping up; and 3) demand.

A trifecta of bad news for North American sheet prices

- Service center/broader channel destocking, on top of more imports (++supply/--demand);
- ii. Supply chain/output normalizing means more supply, expect more easing in H2 (++supply/-demand);
- iii. New U.S. + Mexican supply to total ~6Mt + ~6Mt in 2022E or a 15% hike in North America supply

Five areas we could be wrong (but why we don't think we are)



WHAT IF...

China – Production could continue to shrink, driving net imports from exports

China's exports already shrunk in recent years, this isn't new and we don't expect net imports

Europe/Russia – Prices could be supported by high power costs, sanctions due to Ukraine involvement

Power costs could support Europe prices on the margin but small impact, Russia tons will find a way out

Demand – U.S. auto output should improve 2-3M units, energy/construction also solid

Demand up ~4-6Mt eclipsed by 10% more production and 12Mt of new NA sheet in 2022E

Mills have power – Consolidation has limited suppliers for exposed auto

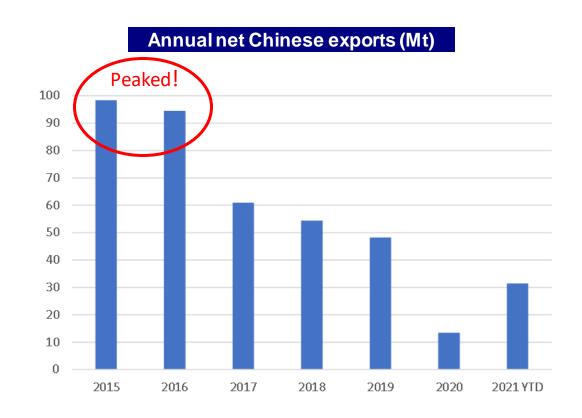
We estimate auto contracts up >50% y/y, but MT USA still around, Bluescope bigger, plenty of independents

Raw material costs – High scrap/coal costs can support selling prices

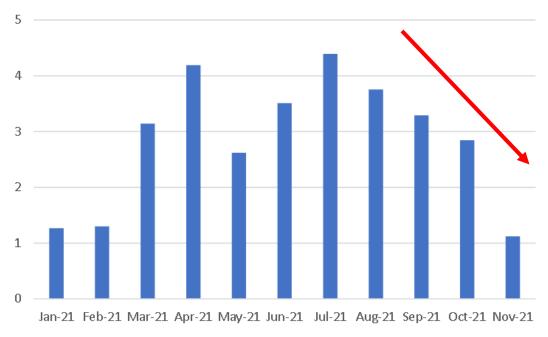
This is why we have \$725/st HRC in 2023E vs historical ~\$625/st but pig iron can fill in gaps and cap upside

What Chinese oversupply?





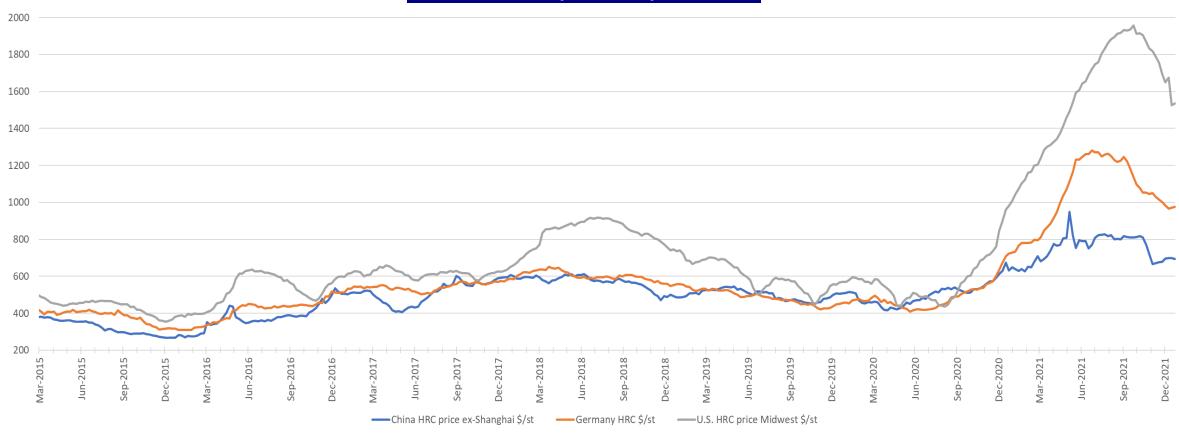
Chinese 2021 monthly net exports (Mt)



That's a steep premium...



Global HRC price comparison



Order book holes make for cloudy crystal balls



Who wants to buy into a falling market?

Some buyers have enough steel to cover their needs into April...

State of Steel survey question: "What could be the biggest risk for the steel markets in 2022?"

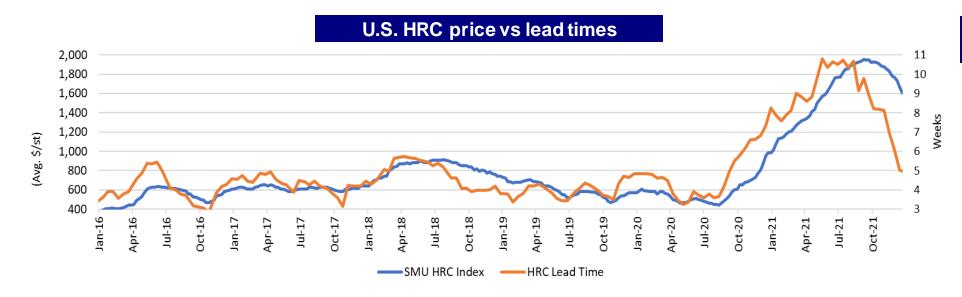
"So, as you know the year has been one for the ages. Pricing most definitely has come off the highs ... and mills are looking for HRC orders. I will say that on the demand side, all of our customers are busy and look for a good year ahead on all comps."

"I am ready for 2021 to be over and to get back to some steel price and inventory stability."

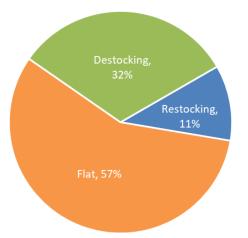
"Too much inventory"

"Elevated inventory risk for those of us operating in higher price regions (such as North America)" "

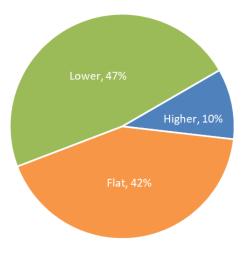
"Inventory devaluation"



HRC inventory plans into Q122



HRC lead time expectations into Q122



Source: Wolfe Research State of Steel survey, SMU

Brace for a Sheet Storm (formerly known as Steelmageddon®)

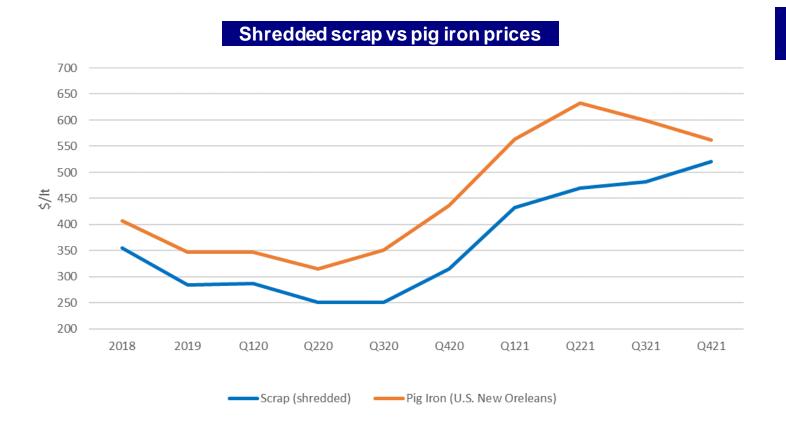


New North America sheet steel capacity (2020-2025E)

Target Date	Company	Capacity (Mst/yr)	Operations				
Q4 2020	Stelco - Lake Erie Works	0.30	Blast furnace upgraded				
Q4 2020	U.S. Steel - Big River Steel expansion	1.65	Doubled capacity via 2nd EAF at existing sheet mill				
Q2 2021	Ternium	4.40	New hot rolling mill				
Q4 2021	ArcelorMittal Mexico	2.76	New hot rolling mill				
Q4 2021	Steel Dynamics Inc. (SDI)	3.00	Greenfield EAF sheet mill Expansion of existing EAF sheet mill Expansion of existing EAF sheet mill Greenfield EAF plate mill Addition of EAF and slab casting capability Approximately 23% new Supply hit North America				
Q4 2021	Nucor (Gallatin)	1.40	Expansion of existing EAF sheet mill				
H1 2022	North Star BlueScope	0.85	Expansion of existing EAF sheet mill				
Q4 2022	Nucor	1.20	Greenfield EAF plate mill				
H1 2023	AM/NS Calvert	1.50	Addition of EAF and slab casting capability				
2024/2025	Nucor	3.00	Greenfield EAF sheet mill				
2024	U.S. Steel	3.00	Greenfield EAF sheet mill				
2024	Algoma	3.70	Greenfield EAF sheet mill				
	Total new capacity	26.76					
2024	U.S. Steel	1.60	Assumed Gary furnace to offset new EAF capacity				
2024	U.S. Steel	1.40	Assumed Granite City B idled to offset new EAF capacity				
H1 2023	AM/NS Calvert	1.50	Replacing slab imports				
2022/2023	Ternium	0.90	Planned idling of older capacity				
2024	Algoma	2.80	Algoma BF replacement				
	Net new capacity	18.56					

A run on scrap can support finished steel prices, but squeeze mini-mill margins





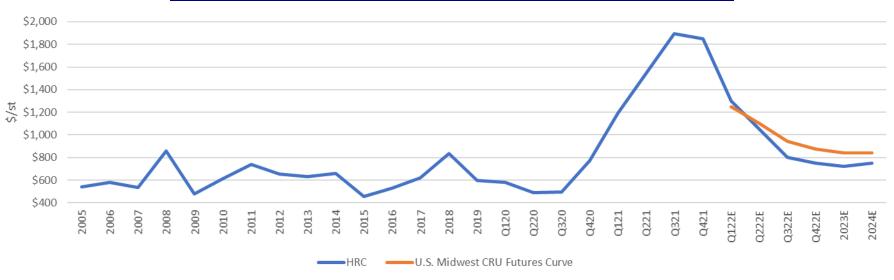
Est. added scrap/substitute demand

Year	Capacity (Mt/yr)
2022	5.78
2023	2.97
2024	10.67

Price rollercoaster and our forecasts



U.S. Hot Rolled Coil (HRC) price forecast and forward curve



	2017	2018	2019	2020	2021	Q122E	Q222E	Q322E	Q422E	2022E	2023E	2024E
Carbon steel												
HRC (\$/st)	\$623	\$835	\$601	\$587	\$1,620	\$1,300	\$1,050	\$800	\$750	\$975	\$725	\$750
CRC (\$/st)	\$815	\$952	\$755	\$755	\$1,839	\$1,700	\$1,350	\$1,050	\$950	\$1,263	\$875	\$875
HDG(\$/st)	\$889	\$1,033	\$839	\$830	\$1,903	\$1,950	\$1,550	\$1,200	\$1,100	\$1,450	\$975	\$950
Plate (\$/st)	\$684	\$941	\$811	\$638	\$1,474	\$1,750	\$1,500	\$1,200	\$1,000	\$1,363	\$925	\$950
Rebar (\$/st)	\$549	\$687	\$669	\$615	\$904	\$950	\$875	\$825	\$800	\$863	\$775	\$775
Merchant Bar (\$/st)	\$630	\$747	\$754	\$659	\$973	\$1,150	\$1,025	\$975	\$950	\$1,025	\$875	\$875
WF beams (\$/st)	\$678	\$851	\$850	\$714	\$950	\$1,050	\$975	\$975	\$950	\$988	\$925	\$925
Scrap												
Scrap (HMS 1/2) (\$/lt)	\$278	\$329	\$258	\$250	\$426	\$450	\$425	\$425	\$400	\$425	\$425	\$425
Scrap (Shredded) (\$/lt)	\$302	\$355	\$285	\$276	\$472	\$525	\$500	\$500	\$475	\$500	\$500	\$485
Scrap (Busheling) (\$/lt)	\$365	\$398	\$320	\$312	\$584	\$625	\$575	\$550	\$525	\$569	\$550	\$535

Source: Wolfe Research, Platts, CRU

Questions/comments



Conclusions:

- Steelmageddon[®] is now a Sheet Storm, thesis intact
- Mill power is limited, hard to fight gravity
- U.S. may convert to steel exporter, scrap importer by year end

Wild cards?

COVID duration, Russia sanctions, power costs, start-up timing

Wishing you a fantastic 2022 and thanks for your attention and questions!

Please contact me to be part of our quarterly surveys at ttanners@wolferesearch.com

Wolfe Research, LLC does not assign ratings of Buy, Hold or Sell to the stocks it covers. Outperform, Peer Perform and Underperform are not the respective equivalents of Buy, Hold and Sell but represent relative weightings as defined above. To satisfy regulatory requirements, Outperform has been designated to correspond with Buy, Peer Perform has been designated to correspond with Hold and Underperform has been designated to correspond with Sell.

Wolfe Research Securities, Wolfe Research Advisors, LLC and Wolfe Research, LLC have adopted the use of Wolfe Research and The Wolfe Daily Howl as brand names. Wolfe Research Securities, a member of FINRA (www.finra.org) and the National Futures Association, is the broker-dealer affiliate of Wolfe Research, LLC. Wolfe Research Advisors, LLC is the SEC-registered investment adviser affiliate of Wolfe Research, LLC. Wolfe Research Advisors, LLC are responsible for the contents of this material. Any analysts publishing these reports are associated with each of Wolfe Research, LLC, Wolfe Research Securities and Wolfe Research Advisors, LLC.

The Wolfe Daily Howl is a subscription-based service for Institutional investor subscribers only and is a product of Wolfe Research, LLC. The products received may contain previously published research which has been repackaged for Wolfe Daily Howl subscribers. The types of services provided to you by Wolfe Research, LLC, vary as compared to that provided to other external clients of Wolfe Research. Wolfe Research, LLC, its directors, employees and agents will not be liable for any investment decisions made or actions taken by you or others based on any news, information, opinion, or any other material published through this service.

The content of this report is to be used solely for informational purposes and should not be regarded as an offer, or a solicitation of an offer, to buy or sell a security, financial instrument or service discussed herein. Opinions in this communication constitute the current judgment of the authors as of the date and time of this report and are subject to change without notice. Information herein is believed to be reliable but Wolfe Research and its affiliates, including but not limited to Wolfe Research Securities, makes no representation that it is complete or accurate. The information provided in this communication is not designed to replace a recipient's own decision-making processes for assessing a proposed transaction or investment involving a financial instrument discussed herein. Recipients are encouraged to seek financial advice from their financial advisor regarding the appropriateness of investing in a security or financial instrument referred to in this report and should understand that statements regarding the future performance of the financial instruments or the securities referenced herein may not be realized. Past performance is not indicative of future results. This report is not intended for distribution to, or use by, any person or entity in any location where such distribution or use would be contrary to applicable law, or which would subject Wolfe Research, LLC or any affiliate to any registration requirement within such location. For additional important disclosures, please see https://www.WolfeResearch.com/Disclosures.

The views expressed in Wolfe Research, LLC research reports with regards to sectors and/or specific companies may from time to time be inconsistent with the views implied by inclusion of those sectors and companies in other Wolfe Research, LLC analysts' research reports and modeling screens. Wolfe Research communicates with clients across a variety of mediums of the clients' choosing including emails, voice blasts and electronic publication to our proprietary website.

Copyright © Wolfe Research, LLC 2022. All rights reserved. All material presented in this document, unless specifically indicated otherwise, is under copyright to Wolfe Research, LLC. None of the material, nor its content, nor any copy of it, may be altered in any way, or transmitted to or distributed to any other party, without the prior express written permission of Wolfe Research, LLC.

This report is limited for the sole use of clients of Wolfe Research. Authorized users have received an encryption decoder which legislates and monitors the access to Wolfe Research, LLC content. Any distribution of the content produced by Wolfe Research, LLC will violate the understanding of the terms of our relationship.

DISCLOSURE SECTION

Analyst Certification:

The various Wolfe Research, LLC analysts who are primarily responsible for this research report certify that (i) the recommendations and opinions expressed in this research report accurately reflect the research analysts' personal views about the subject securities or issuers and (ii) no part of the research analysts' compensation was, is or will be directly or indirectly related to the specific recommendations or views contained in this report.

Other Disclosures:

Wolfe Research, LLC Fundamental Stock Ratings Key:

Outperform (OP): The security is projected to outperform analyst's industry coverage universe over the next 12 months.

Peer Perform (PP): The security is projected to perform approximately in line with analyst's industry coverage universe over the

next 12 months.

Underperform (UP): The security is projected to underperform analyst's industry coverage universe over the next 12 months.

Wolfe Research, LLC uses a relative rating system using terms such as Outperform, Peer Perform and Underperform (see definitions above). Please carefully read the definitions of all ratings used in Wolfe Research, LLC research. In addition, since Wolfe Research, LLC research contains more complete information concerning the analyst's views, please carefully read Wolfe Research, LLC research in its entirety and not infer the contents from the ratings alone. In all cases, ratings (or research) should not be used or relied upon as investment advice and any investment decisions should be based upon individual circumstances and other considerations.

Wolfe Research, LLC Sector Weighting System:

Market Overweight (MO): Expect the industry to outperform the primary market index for the region (S&P 500 in the U.S.) by at least

10% over the next 12 months.

Market Weight (MW): Expect the industry to perform approximately in line with the primary market index for the region (S&P 500

in the U.S.) over the next 12 months.

Market Underweight (MU): Expect the industry to underperform the primary market index for the region (S&P 500 in the U.S.) by at

least 10% over the next 12 months.

Wolfe Research, LLC Distribution of Fundamental Stock Ratings (As of December 30, 2021):

Outperform:	55%	6% Investment	Banking Clients
Peer Perform:	39%	4% Investment	Banking Clients
Underperform:	6%	0% Investment	Banking Clients

Thank You



Thank you for attending our SMU Community Chat. And a special thank you to Timna Tanners for her participation today.

To contact Michael Cowden: Michael@SteelMarketUpdate.com

To contact Timna Tanners: TTanners@WolfeResearch.com

For information about subscribing to SMU, contact

Paige Mayhair: Paige@SteelMarketUpdate.com

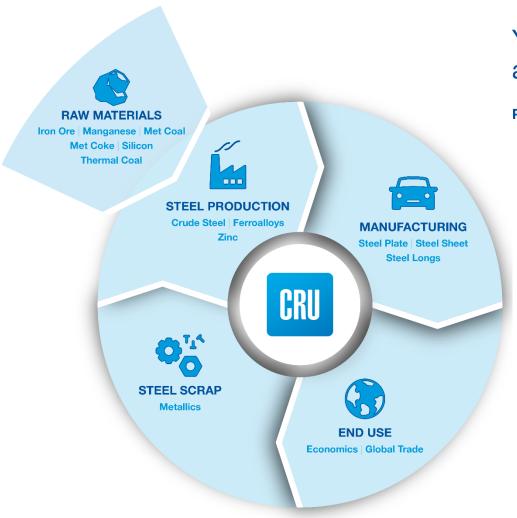
To participate in our survey contact Brett Linton:

Brett@SteelMarketUpdate.com

To become a data provider for our service center inventory report, contact Estelle Tran: Estelle.Tran@CRUGroup.com

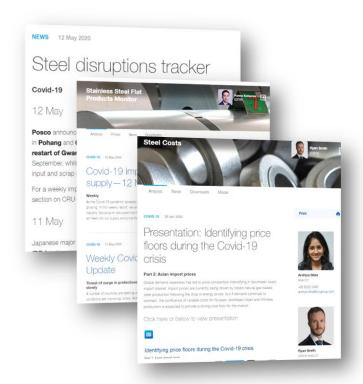
Stay safe and stay tuned to Steel Market Update!

CRU SUPPORTS STEEL



Your market intelligence solution across the entire supply chain.

PRICES • ANALYSIS • FORECASTS • COSTS • CONSULTING



Learn more





When you need answers... www.SteelMarketUpdate.com