



**“World Ferrochrome and Ferroalloys market, export duties and global market volatility“**

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*Industry data is sourced from ICDA, FerroalloyNet, LME, MB, ISSF, UN Trading Data, Eurostat, OANDA.*





## **UNICHROME AG introduction**

- **UNICHROME AG** has broad activities and deep expertise in the areas including trading of ferroalloys, base & minor metals, ores, as well as mining, production, costs, consumers value in use and market pricing mechanisms.
- **UNICHROME AG** has a global network and long-term relations with its partners in Europe, CIS, Asia, Africa and the Americas.
- Over the past several years many commodity markets have shown volatile behavior. Cr ore and FeCr indexes were at the top of the most volatile indicators for metals and commodities in general. We believe the market requires a mechanism which will allow all market participants to assess real-time supply/demand balance, evaluate longer term future expectations with better accuracy and financial responsibility than what presently exists. We apply our expertise in the market for of chromium and other alloys and develop the way forward.





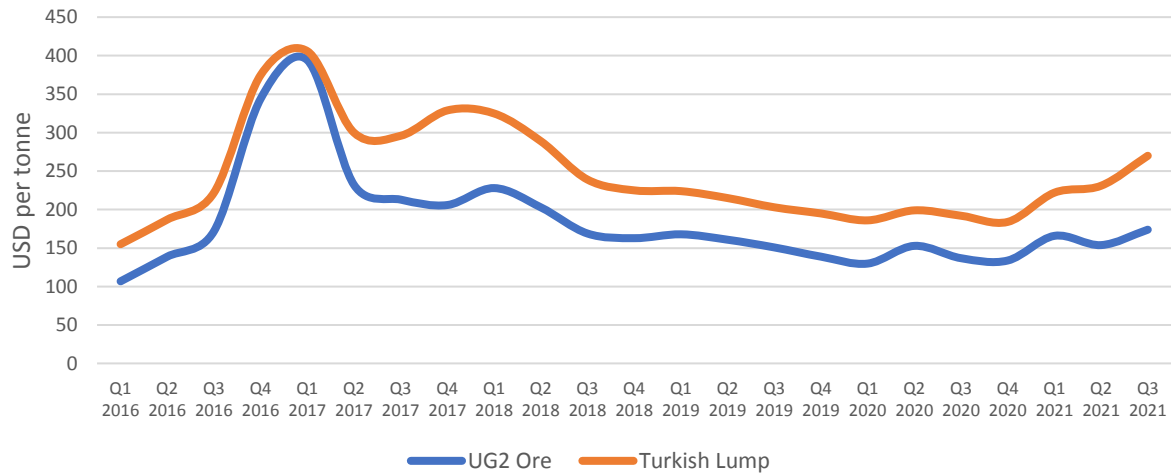
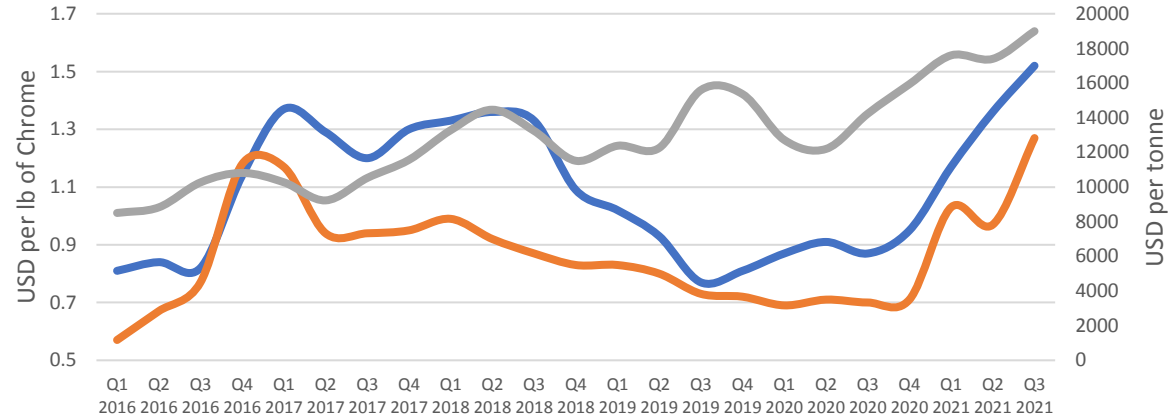
# Market Overview



# Chrome, ferrochrome, ferroalloys and other commodities market volatility

YTD is based on prices from September 3rd 2021

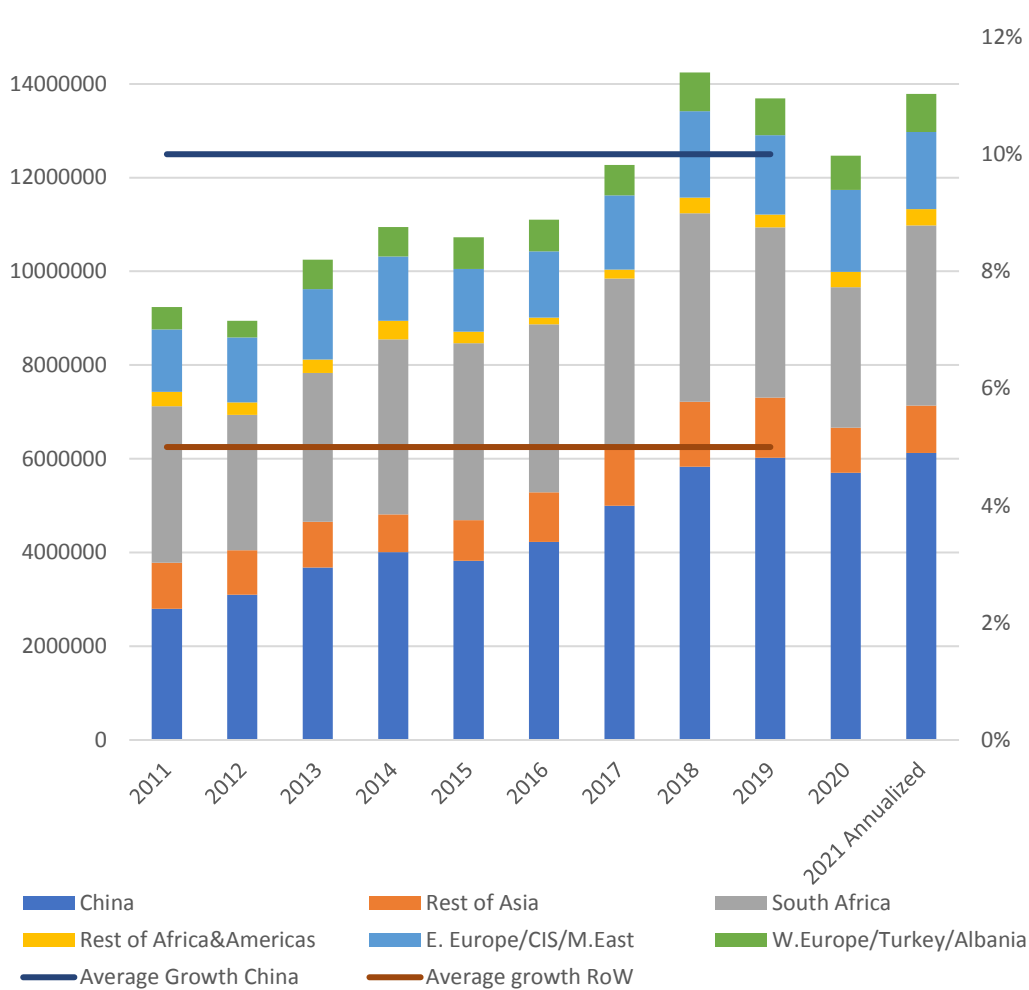
	Dec-18 YTD	Dec-19 YTD	2021 YTD
<b>SiMn MB</b>	62%	82%	78%
<b>CIF Shanghai Ch Cr</b>	57%	81%	74%
<b>FeSi MB</b>	54%	83%	69%
<b>Average China Tender FeCr</b>	46%	62%	68%
Tin LME	74%	96%	59%
<b>HC FeCr EU MB</b>	57%	94%	59%
Cobalt LME	-7%	52%	53%
<b>LC FeCr MB</b>	40%	75%	53%
FeV EU	-59%	68%	50%
Crude oil Brent	36%	9%	44%
Aluminium LME	40%	52%	34%
<b>EU Benchmark Ch Cr</b>	26%	53%	33%
<b>UG2</b>	13%	35%	26%
Copper LME	54%	54%	18%
Nickel LME	80%	41%	12%
Zinc LME	14%	31%	8%
Gold LME	46%	24%	-6%
Platinum LME	26%	9%	-9%
Iron ore	110%	58%	-11%



Source: MB, LME, Ferroalloynet



## HC FeCr Production



- HC FeCr production in China rose on average by 10% since 2011 to 2019
- HC FeCr production in RoW rose on average by 5% since 2011 to 2019

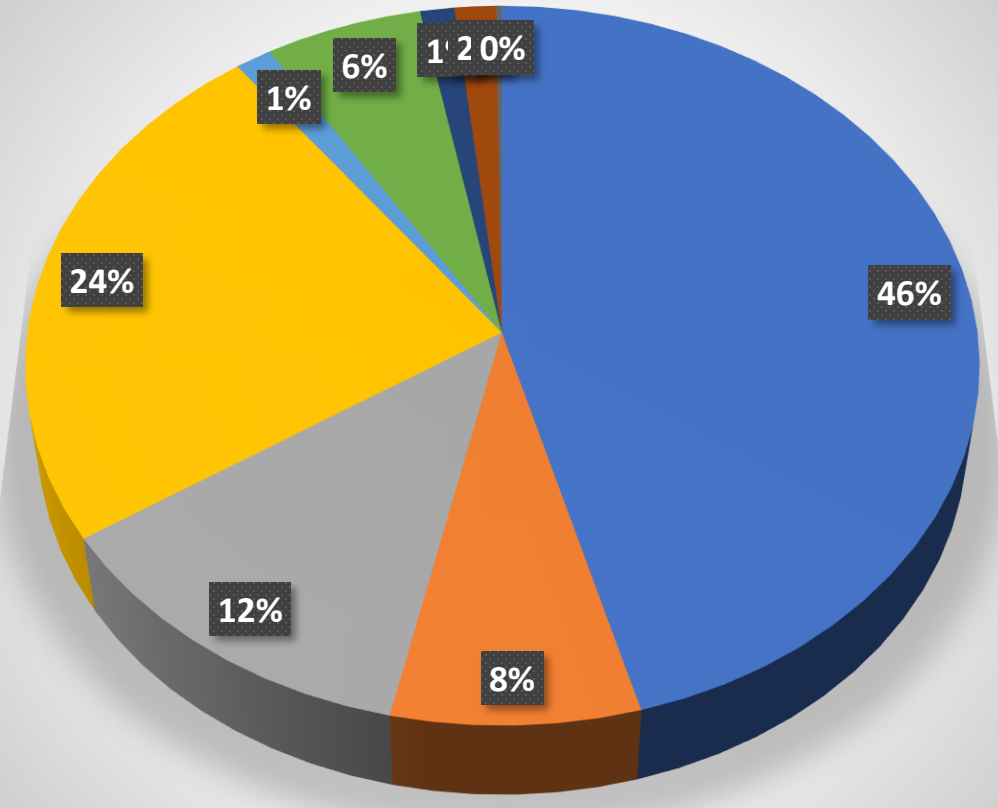
### Below overview of FeCr by regions in 2020/2021:

- **China**
  - In 2020 capacity increased by almost 1 million tonnes, to over 13 million, slightly below record level of 13.3 in 2018. Total output decreased by 5% to 5.7 million tonnes. Annualized output for 2021, shows return to pre-pandemic level of 2019 of 6 million tonnes
- **Kazakhstan and Russia**
  - 2020 production rose by 6% comparing to 2019, despite global economic slowdown
- **South Africa**
  - Glencore/Merafe joint venture reported a 28% drop in FeCr production in 2020. Latest production guidelines for 2021, indicate recovery to 2019 production level
  - Samancor has not issued any information and results
  - Hernic, Richards Bay and Mogale remain idled
  - ESKOM continues to struggle with electricity supply, and possible double digit tariffs increases are possible in the next couple of years
- **India**
  - 25% production drop in 2020, while 2021 production expected to return to 2019 level, or slightly lower
- **Turkey, Sweden and Finland**
  - Despite economic slowdown, production remained stable in 2020, with slight pickup in 2021
- **Stainless production in 2021 is expected to reach 56.5 million tonnes, an increase of 11% over 2020 and 8% over 2019**

Source: ICDA, ISSF

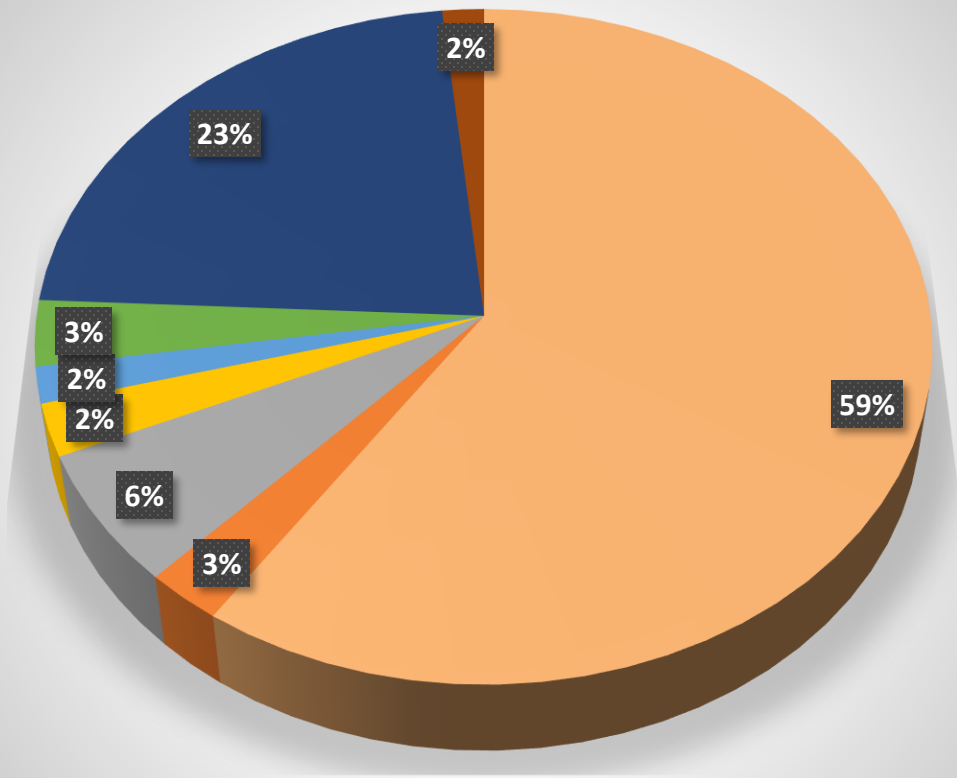


### HC FeCr and Ch Cr production in 2020



- China
- India
- Kazakhstan
- South Africa
- Zimbabwe
- Europe
- Brazil
- Russia
- RoW

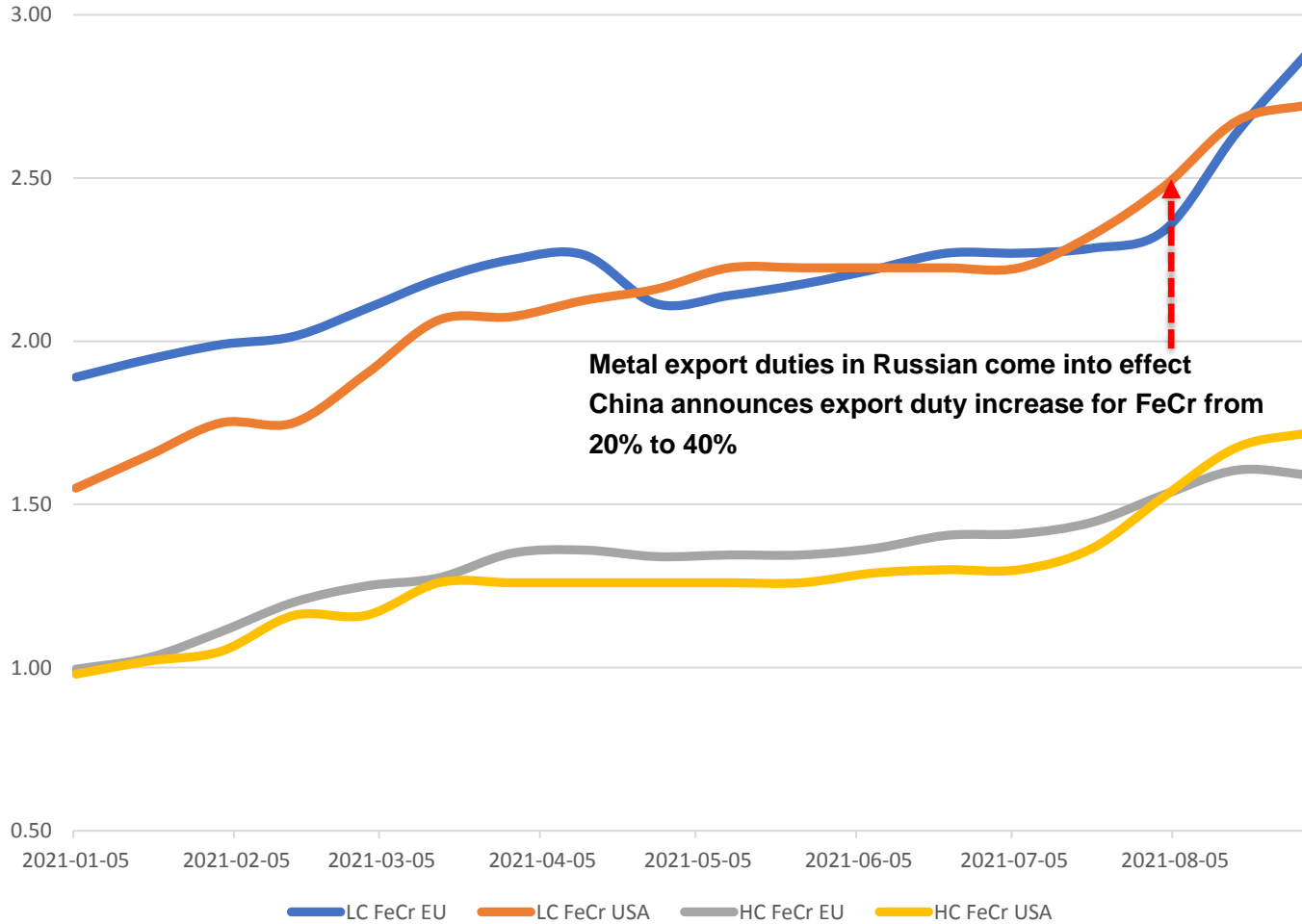
### LC/MC FeCr production in 2020



- China Domestic
- China Export
- Kazakhstan
- Brazil
- Germany
- Turkey
- Russia
- Japan



## Duties vs FeCr price



- Russia is the largest Refined FeCr exporter, accounting for over 2/3 of the total export.
- China is the largest producers globally, but only a marginal exporter, due to non-refundable VAT and export duty.
- On August 1<sup>st</sup> 2021, 15% export duty for ferrochrome from Russian took effect. On August 2<sup>nd</sup>, China announced an increase of export duty for FeCr from 20% to 40%
- The price surge for refined FeCr follows the price increase of HC FeCr, but with a small lag. Overall prices for both types of FeCr rose by the same margin since the beginning of the year.

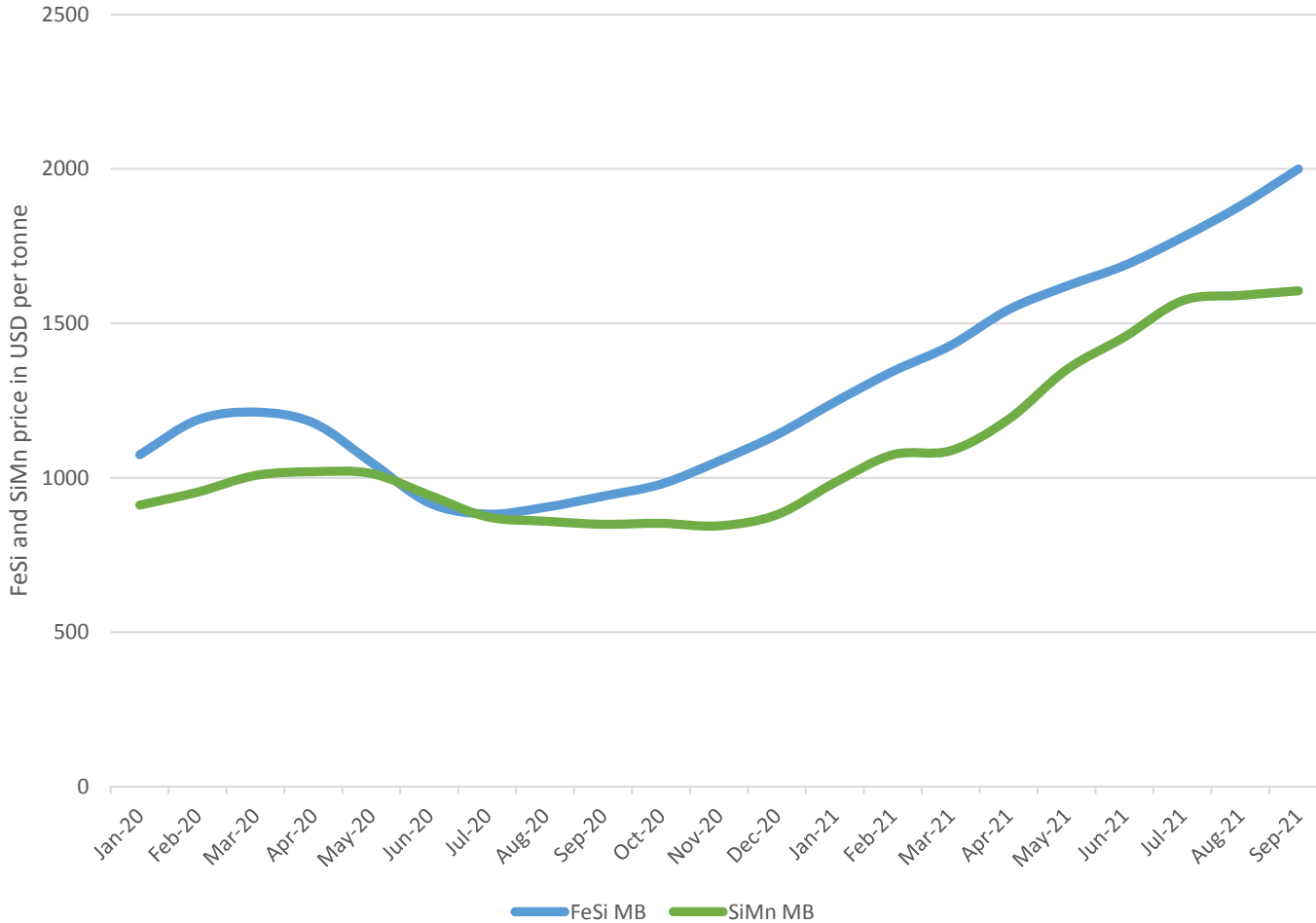
Source: MB







## Other ferroalloys



- Unlike the previous low-carbon FeCr, major Ferroalloys imported into EU showed almost no reaction to the metals duties announced by Russia
- Since beginning of August price for FeSi rose by only 6% and price for SiMn rose by a bit more than 1%
- In comparison, since the beginning of the year the corresponding prices increased by 68% and 78%. Driven by strong demand, and global economic recovery
- Prices of the above-mentioned products are based on the indices, which do not always reflect actual market price and conditions, additionally they are also published with a delay, and LC FeCr EU price is published biweekly only

Source: MB

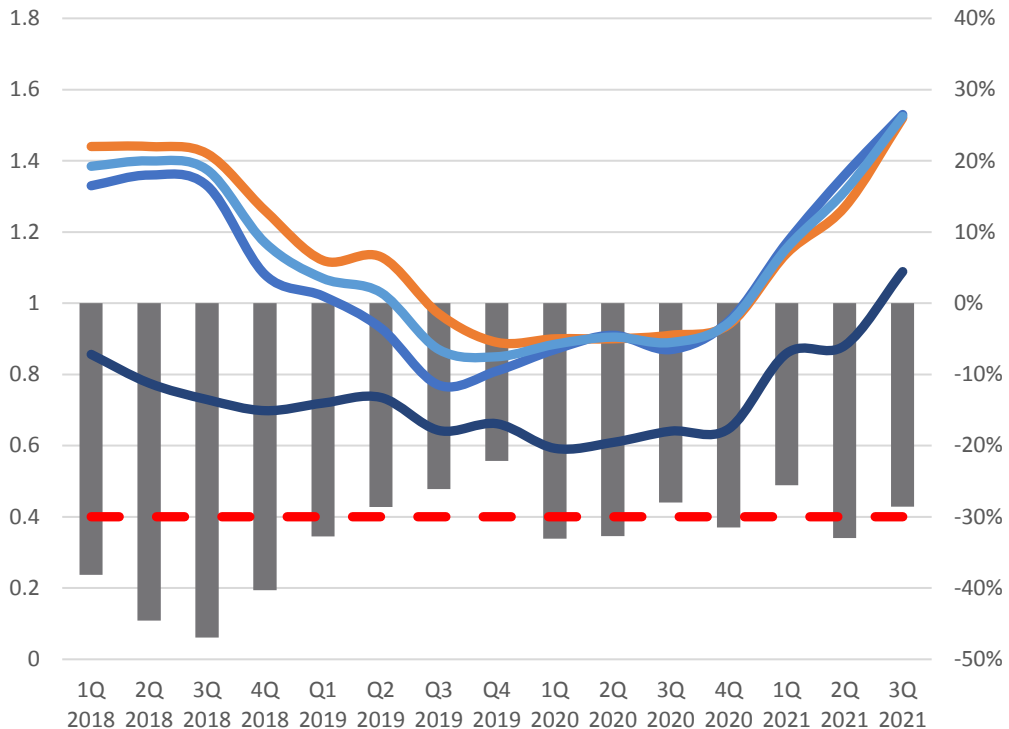




# Global FeCr prices vs China domestic FeCr prices

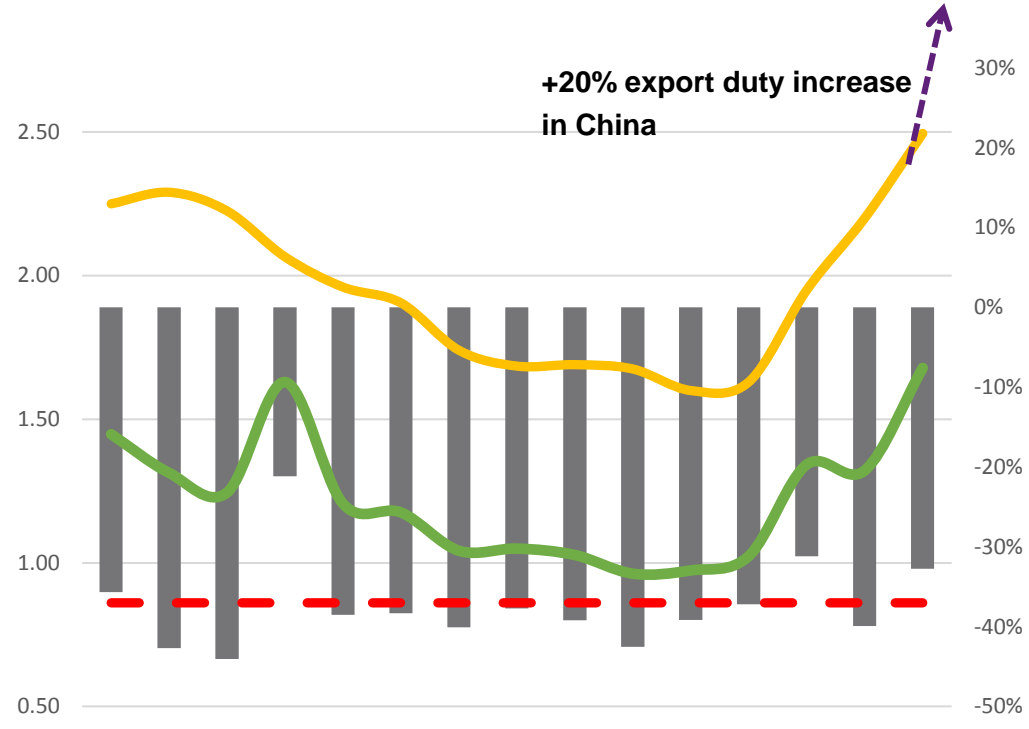
Source: MB, Ferroalloy.net

### HC FeCr Global Prices



- Delta between average China price and average global price in %
- Europe
- USA
- Average global price
- China USD per pound ex-VAT
- Average difference between average China price and average global price in %

### LC/MC FeCr Global Prices



- Delta between average China price and average global price in %
- Average Global Price
- China USD per pound ex-VAT
- Average difference between average China price and average global price in %





## Summary and market outlook

### In 2021 Ferrochrome market started a recovery from 2020 downturn:

- Most of the chrome metal prices rose over 50% since the beginning of the year
- Demand for ferrochrome remains robust, with stainless-steel production is set for another record-breaking year, while FeCr production still catching its 2019 level
- Indonesia on the pace to become the second largest stainless-steel producer

### On the other hand, the ferrochrome industry faces other significant risks such as:

- Uneven economic recovery after quarantine restrictions applied worldwide
- Increased price of logistics and major port gluts around the world
- No new capacity projects outside of China
- Some major ferrochrome production facilities in South Africa remain idled
- Electricity and environmental restrictions in China, that now affect both ferrochrome and stainless-steel producers
- Currency volatility in ferrochrome producing countries
- Impact of export and import duties for chrome related products, combined with antidumping investigations on stainless-steel:
  - Ferrochrome export duties from China (40%) and export duties from Russia (15%)
  - Possible introduction of chromium ore export duty in South Africa, export duty from Zimbabwe and India (which has been in use for over a decade). Those 3 countries accounted for 84% of total chrome ore exports in 2020
- Introduction of Carbon Border Tax mechanism in Europe
- Prices for FeCr continue to be volatile and different indexes lead to complication in pricing
- With rapidly changing economic, supply and demand state around the world, FeCr and other alloys market requires new tool to establish its real-time market value, ensure liquidity and hedge future expectations and risks.





# **FeCr, ferroalloys and other multigrade products trading and pricing**



## Exchange tradable vs non-exchange tradable metals

### Exchange traded metals



### Non-exchange traded metals



### Major reasons of non-possibility of traditional exchange for ferroalloys include:

- Lack of standardization and multichemical quality parameters for each product, could have its own value in use which depends on individual producer from one side and consumer from the other side
- Due to the above reasons, any standardization leads to decrease of liquidity and lack of publicly agreed product value
- Consequently, classic exchange mechanisms were not successfully applied to auction trading of ferroalloys products
- Trade platform based on new digital technologies combined with modern methods of exchanging multiparameter products will help the market to become more liquid and transparent.
- UNICHROME AG is going to present this year the tool for trading non standardizable products such as ferrochrome, based on the modern principals of exchange multiparameter products by trading digital receipts (tokens) and empowered by recently developed confidential cryptographic solutions.





*Partnership with UNICHROME is  
the ticket to the island of reliability  
and sustainable development  
in the turbulent ocean  
of commodity markets*

[www.unichrome.ch](http://www.unichrome.ch)

**Thank you for your kind attention**



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