



# CHROME-BASED FERRO ALLOY INDUSTRY

---

**Ferro chrome prices likely to remain  
elevated globally over the near to  
medium term**

**OCTOBER 2024**





## Click to Provide Feedback

*Globally, ferro chrome prices remain significantly higher than pre-Covid levels, in contrast to prices of manganese-based ferro alloys like silico manganese and ferro manganese which have almost retreated back to pre-Covid levels.*

*Higher cost of production of smelters in China and South Africa (which account for around 69% of global ferro chrome production) led to an upward shift in the cost curve globally, which is keeping ferro chrome prices elevated.*



- Globally China and South Africa are the largest producers of ferro chrome with China accounting for around 48% (in CY2023) of the global ferro chrome production and South Africa for around 21% (in CY2023).



- Chinese smelting costs remain heavily influenced by the seaborne prices of chrome ore for which it is totally dependent on imports, mainly from South Africa. In this context, the ongoing logistics bottleneck in South Africa has resulted in elevated prices for imported chrome ore over the last few quarters. In addition, electricity costs in South Africa, which influence their smelting costs, have been rising steeply. This has boosted the production cost for South African smelters.



- The logistical crisis in South Africa is attributable to Transnet, which is the country's largest freight rail transport operator, currently grappling with a major locomotive shortage along with structural issues like systemic underinvestment in railway infrastructure due to limited funds and theft of railway infrastructure equipment. This has crippled the railway infrastructure and is consequently leading to supply bottlenecks.



- An upward shift in the cost curve for the leading ferro chrome producers globally is likely to keep global ferro chrome prices elevated over the near to medium term.



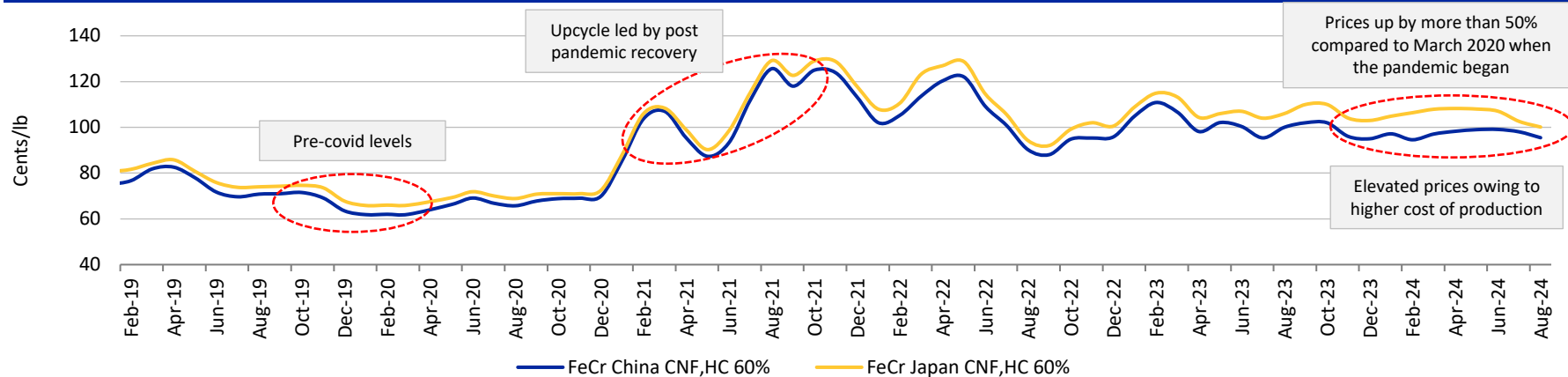
- Stainless steel production, where ferrochrome is used as an alloy, continues to remain strong, mainly driven by China and other Asian countries, which is lending support to ferrochrome prices globally.



- Domestic integrated ferro chrome players having captive mines under the earlier allotment regime, where there is no revenue sharing with the State Government, have benefitted from the high ferro chrome prices prevailing globally leading to superior profitability compared to the pre-pandemic levels.

# Upward shift in cost curve for leading ferro chrome producers globally leading to elevated prices; likely to sustain over the near to medium term

Exhibit: Trend in Global ferro chrome prices

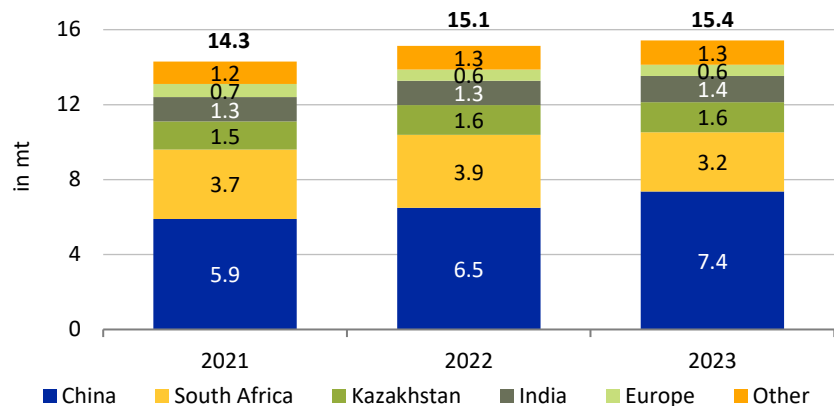


Source: BigMint; ICRA Research

- Globally, ferro chrome prices remain significantly higher than the pre-Covid levels. This is in stark contrast to prices of manganese-based ferro alloys like silico manganese and ferro manganese, which have almost retreated back to pre-Covid levels.
- Notwithstanding the inherent volatility in prices, ferro chrome prices are at present more than 50% higher than the levels of March 2020, when the Covid pandemic had just set in.

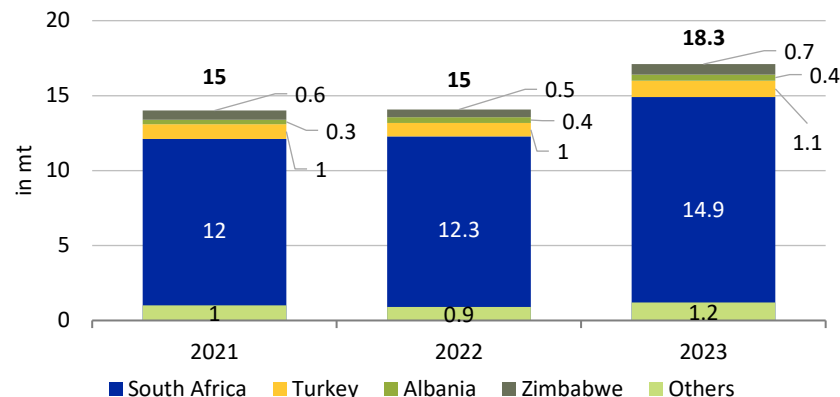
# Global dynamics keeping ferro chrome prices elevated

Exhibit: Global ferro chrome production



Source: CRU, ICRA Research

Exhibit: Chrome ore imports into China

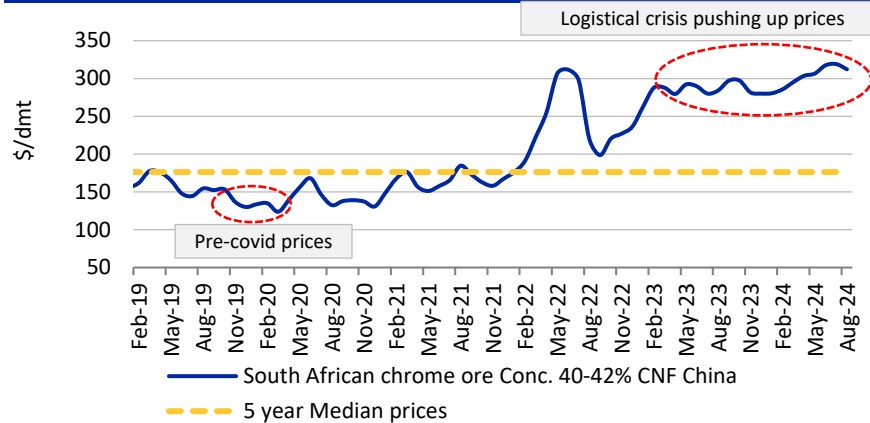


Source: CRU, ICRA Research

- Globally, China and South Africa are the largest producers of ferro chrome. China is the largest producer accounting for around 48% of the global ferro chrome production in CY2023. Chinese smelting costs remain heavily influenced by the seaborne prices of chrome ore, for which it is totally dependent on imports, mainly from South Africa.
- South Africa remains the second largest producer of ferro chrome globally, accounting for around 21% of the global ferro chrome production in CY2023, while also being the largest producer of chrome ore globally.

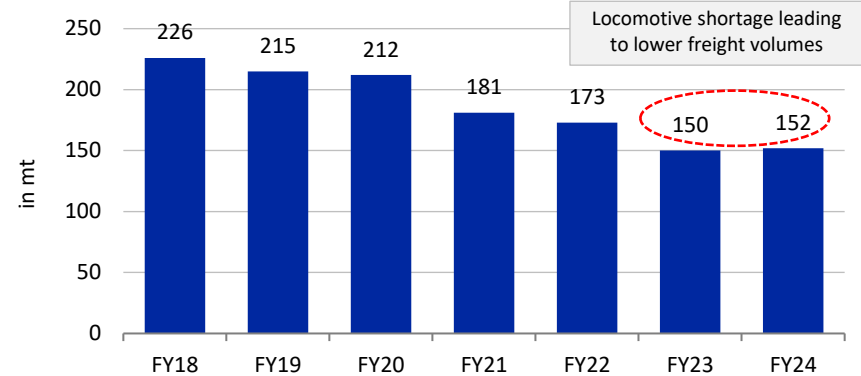
# Logistical crisis in South Africa is keeping seaborne chrome ore prices elevated leading to higher cost of production for Chinese smelters

Exhibit: Trend in South African chrome ore prices (UG2 grade)



Source: BigMint ICRA Research

Exhibit: Freight volumes moved through rail by Transnet

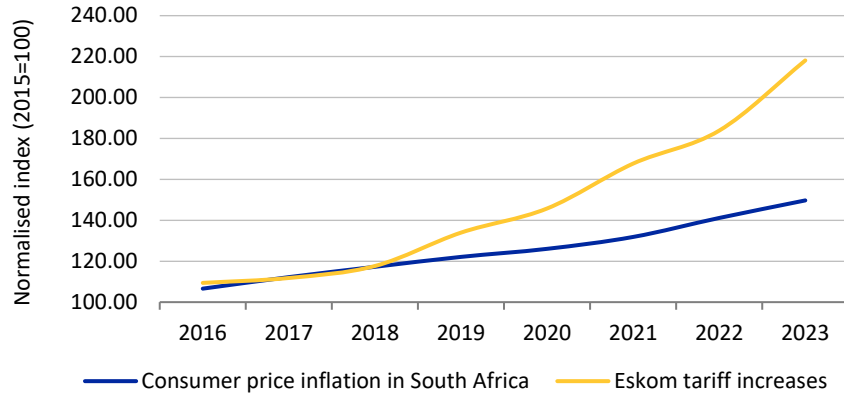


Source: Transnet Annual Report, ICRA Research; FY refers to Year ended March 31

- Chinese smelting costs, which remain heavily influenced by seaborne chrome ore prices and particularly South African chrome ore prices, have remained elevated over the last couple of quarters. The prevailing price levels presently are much higher than the historical median levels.
- The ongoing logistical crisis in South Africa is attributable to Transnet, which is the country's largest freight rail transport operator, currently grappling with a major locomotive shortage along with structural issues like systemic underinvestment in railway infrastructure due to limited funds and theft of railway infrastructure equipment. This has crippled the railway infrastructure and is consequently leading to supply bottlenecks.

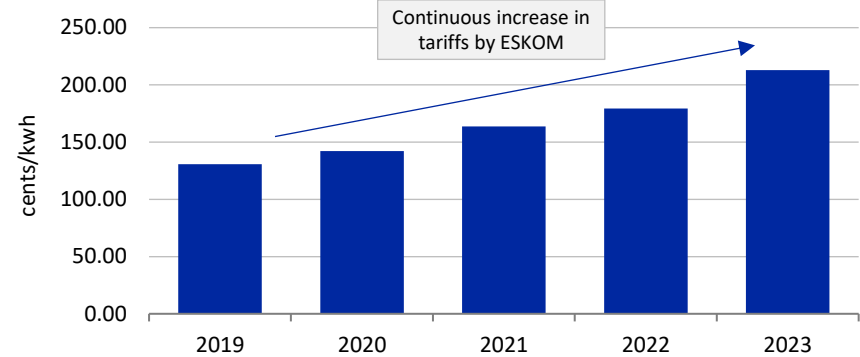
# Increasing electricity costs in South Africa have raised production costs for smelters

Exhibit: Eskom tariff vs South Africa Inflation



Source: Eskom; ICRA Research; World Bank

Exhibit: Trend in Eskom electricity tariff rates

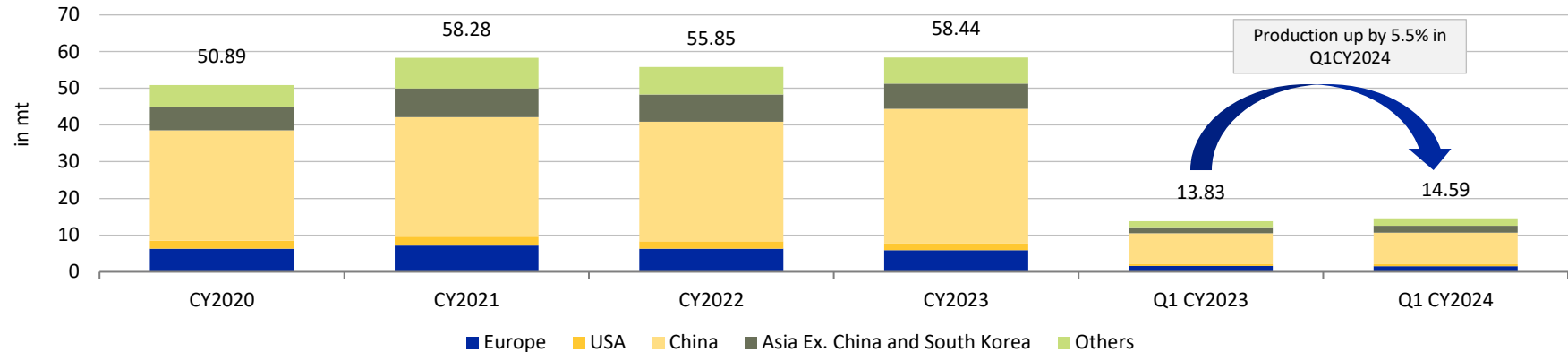


Source: Eskom, ICRA Research; cents in South African Rand; Excludes VAT

- While South African smelters (integrated players) would have the advantage of lower chrome ore costs, spiralling electricity costs have been raising their smelting costs given the power-intensive nature of ferro chrome manufacturing operations. South Africa has been suffering from an electricity crisis for more than a decade now. Eskom Holdings SOC Limited, a government-owned entity that generates most of the country's electricity, continues to face operational challenges in power generation due to ageing power plants, lack of investment and mismanagement, among other reasons, which have caused power costs to spiral significantly over the years. The average of tariff of Eskom has risen at a faster rate than the rate of inflation in South Africa.

# Stainless steel production remains buoyant, lending support to ferro chrome prices

Exhibit: Trend in global stainless steel production

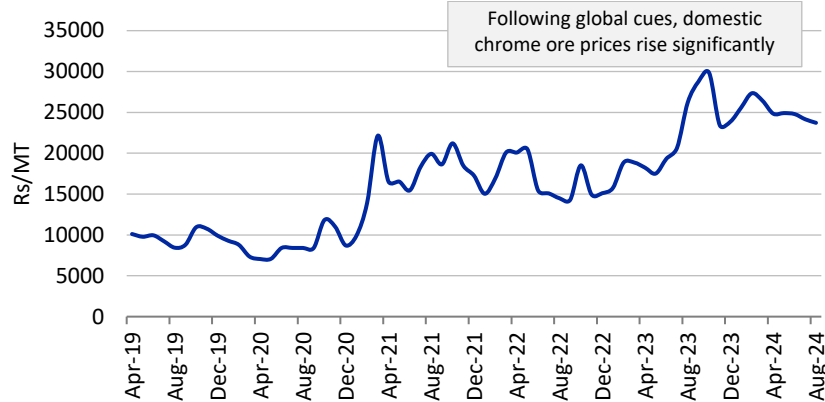


Source: Worldstainless; ICRA Research

- Stainless steel production had declined globally in CY2022 due to the challenging operating environment following the Russia-Ukraine conflict and high energy prices. This has rebounded sharply in CY2023, driven by China. While advanced economies like Europe and the US, experienced a decline in stainless steel production, increased output from China more than compensated for the drop. In the current calendar year, stainless steel production has remained buoyant led by China and other Asian countries, with output increasing by 5.5% in Q1 CY2024. The buoyant stainless steel production, where ferro chrome is used as an alloy, is lending support to global ferro chrome prices.

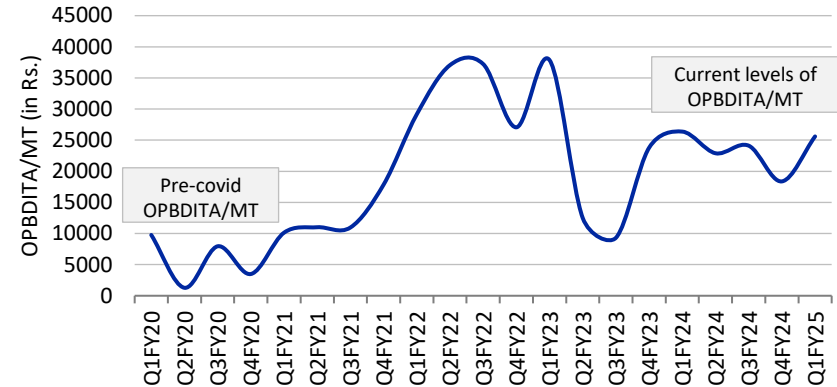
# Elevated ferro chrome prices have benefitted Indian integrated players with captive mines under the earlier allotment regime

Exhibit: Trend in domestic chrome ore prices (Lumps, Friable 48-50%)



Source: BigMint, ICRA Research; Odisha Mining Corporation, Ex-mines prices

Exhibit: Trend in OPBDITA/MT for Indian Ferro Alloys & Metals Limited



Source: BSE, OPBDITA: Operating profit before depreciation, interest, taxes and amortisation

- Following global cues, domestic chrome ore prices also remain elevated, putting pressure on the margins of non-integrated/integrated (with mines won through the auction-based regime under the MMDR Act) ferro chrome manufacturers in India.
- However, integrated ferro chrome manufacturers like Indian Metals & Ferro Alloys Limited having captive mines under the earlier allotment regime, where there is no revenue sharing with the State Government, have benefitted from the high ferro chrome prices prevailing globally leading to superior profitability compared to the pre-pandemic levels.





**Click to Provide Feedback**



ICRA

# Analytical Contact Details

Name	Designation	Email	Contact Number
Girishkumar Kadam	Senior Vice-President	<a href="mailto:girishkumar@icraindia.com">girishkumar@icraindia.com</a>	022 – 6114 3408
Vikram V	Vice-President	<a href="mailto:vikram.v@icraindia.com">vikram.v@icraindia.com</a>	040 – 6939 6410
Sumit Jhunjunwala	Assistant Vice-President	<a href="mailto:sumit.jhunjunwala@icraindia.com">sumit.jhunjunwala@icraindia.com</a>	033 – 7150 1107
Deepayan Ghosh	Senior Analyst	<a href="mailto:deepayan.ghosh@icraindia.com">deepayan.ghosh@icraindia.com</a>	033 – 7150 1220





ICRA

# Business Development/Media Contact Details

Name	Designation	Email	Contact Number
L Shivakumar	Chief Business Officer	<a href="mailto:shivakumar@icraindia.com">shivakumar@icraindia.com</a>	022-61693304
Neha Agarwal	Head – Research Sales	<a href="mailto:neha.agarwal@icraindia.com">neha.agarwal@icraindia.com</a>	022-61693338
Rohit Gupta	Head Business Development – Infrastructure Sector	<a href="mailto:rohitg@icraindia.com">rohitg@icraindia.com</a>	0124-4545340
Vivek Bhalla	Head Business Development – Financial Sector	<a href="mailto:vivek.bhalla@icraindia.com">vivek.bhalla@icraindia.com</a>	022-61693372
Vinita Baid	Head Business Development – Corporate Sector - West & East	<a href="mailto:vinita.baid@icraindia.com">vinita.baid@icraindia.com</a>	033-71501131
Shivam Bhatia	Head Business Development – Corporate Sector - North & South	<a href="mailto:shivam.bhatia@icraindia.com">shivam.bhatia@icraindia.com</a>	0124-4545803
Naznin Prodhani	Head - Group Corporate Communications & Media Relations, ICRA Ltd	<a href="mailto:communications@icraindia.com">communications@icraindia.com</a>	0124-4545860





***© Copyright, 2024 ICRA Limited. All Rights Reserved.***

All information contained herein has been obtained by ICRA from sources believed by it to be accurate and reliable. Although reasonable care has been taken to ensure that the information herein is true, such information is provided 'as is' without any warranty of any kind, and ICRA in particular, makes no representation or warranty, express or implied, as to the accuracy, timeliness or completeness of any such information. Also, ICRA or any of its group companies, while publishing or otherwise disseminating other reports may have presented data, analyses and/or opinions that may be inconsistent with the data, analyses and/or opinions in this publication. All information contained herein must be construed solely as statements of opinion, and ICRA shall not be liable for any losses incurred by users from any use of this publication or its contents.



ICRA

**Thank You!**