

India

**Underweight** (no change)

**Highlighted Companies**

**NMDC**

**ADD, TP Rs319, Rs262 close**

Iron ore prices are rising & may stay above the above current levels. The uptrend is likely to result in higher FY25F/26F realization at ~Rs5,500-5,750/t. We estimate EPS of Rs22.4/Rs27.2/Rs30.7 for FY24F/25F/26F, respectively. We value the stock at 6.5x FY26F EV/EBITDA and introduce a new target price of Rs319.

**Summary Valuation Metrics**

	Mar24-F	Mar25-F	Mar26-F
<b>P/E (x)</b>			
NMDC	11.69	9.62	8.53
<b>P/BV (x)</b>			
NMDC	2.85	2.36	1.98
<b>Dividend Yield</b>			
NMDC	2.57%	3.12%	3.52%

# Metals and Mining

## Pellet premiums to remain high in long run

- Pollution concerns regarding China, dwindling global scrap exports & unabated Chinese steel exports as the CNY depreciates bode well for pellet premiums.
- Pellet premiums are cyclical - they tend to rise rapidly in the winter season as sintering becomes unviable in China because of smog concerns.
- In the long run, 67% iron ore pellet premium is likely to remain at ~US\$40-45/t. This is positive for Indian and overseas pellet exporters.

### China pollution control needs to boost pellet demand

High pollution levels in steel-producing regions, unavailability of scrap in adequate quantity (which is making it costlier vis-à-vis pellets), depreciation of the CNY which makes steel exports attractive, and higher exports which lead to higher Chinese steel production, despite lukewarm steel demand, will result in higher pellet demand in the coming period. Please note that pellet prices have in-built seasonality as Chinese steel mills buy less pellets during the summer season (as they can emit dust during the sintering process), but in winter they will have to shift to pellets. Hence, as of now, pellet premium over iron ore is at the minimum level and we expect it to revert to the mean value of US\$0.50/t/%Fe content. We expect a 67% DRI grade pellet to trade near US\$150/t over the long run.

### Chinese scrap usage fell in CY23 & thus there is higher pellet demand

China has put a lot of emphasis on scrap usage in electric arc furnaces, and this led to a rapid increase in scrap usage. However, it appears that local scrap availability has stagnated, which led to a fall in scrap usage in CY23. The decline in scrap exports from the western world is not helping the matter either for China. Hence, to curb pollution and remain cost effective (as of now, global scrap is at a 10-year high level vis-à-vis pellets), China must import high grade pellets in the country. Hence, it's likely that 65-67% pellets can trade at a US\$40-45/t premium vis-à-vis iron ore in the coming months. Please note that pellet premiums are cyclical and in winter they can go much higher than US\$40-45/t, while in the summer they can fall below the mean (seasonality is because of smog concerns).

### Indian and global pellet exporters to benefit; buy NMDC

India exports ~10mt of pellets to China, but most Indian pellets are of low quality (62-63%) compared to Brazilian pellets. India's pellet exports don't attract export duty like iron ore and hence, pellet makers will continue their exports to China. Therefore, the domestic market will remain finely balanced (please see our earlier report: [IN: Metals and Mining - Indian iron ore to be firm for a longer span](#)). All Indian pellet makers like Lloyds Metals (UNRATED) as well as iron ore miners are likely to do well. We retain our ADD rating on NMDC with a one-year target price of Rs319.

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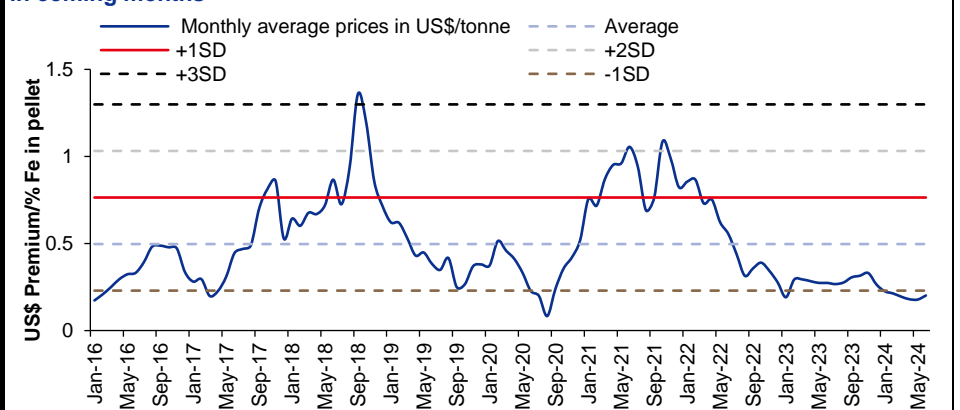
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**Figure 1: Current pellet premium is near -1SD of the long term; barring the Covid-19 lows, this is the worst level seen in the last 10 years, but the premium to bounce back in coming months**



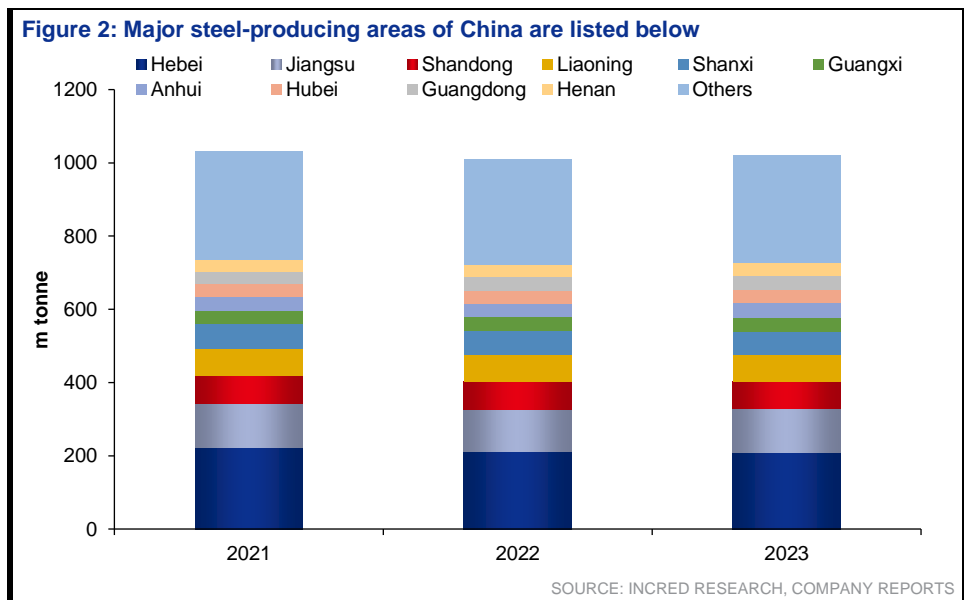
SOURCE: INCRED RESEARCH, COMPANY REPORTS

## Pellet premiums to remain high in long run

### China pollution control needs to boost pellet demand

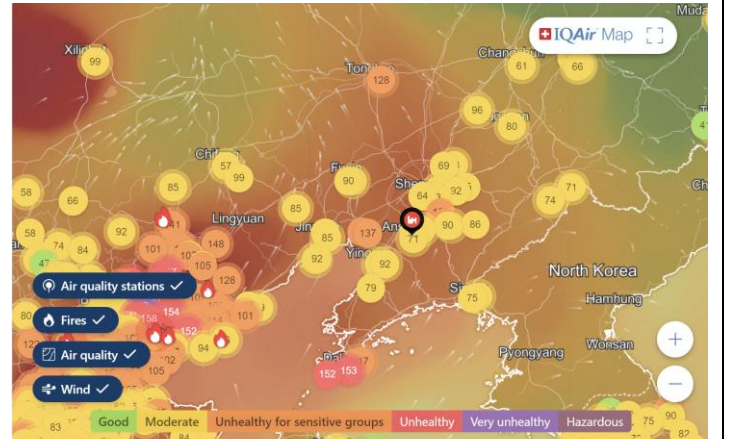
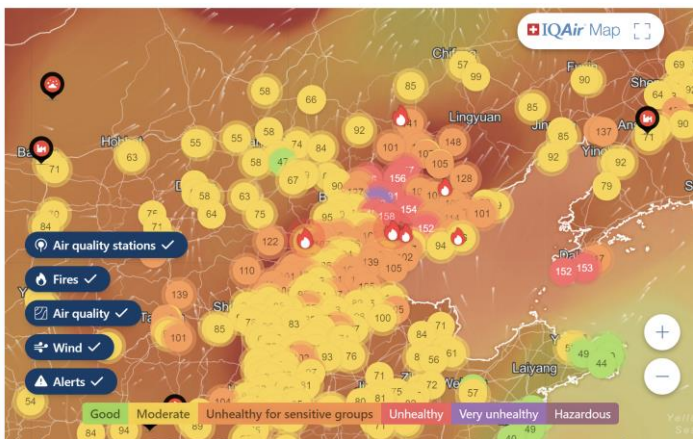
High pollution levels in the steel-producing regions, unavailability of scrap in adequate quantity (which is making it costlier vis-à-vis pellets), depreciation of the Chinese yuan or CNY which makes steel exports attractive, and higher exports which lead to higher Chinese steel production, despite the lukewarm steel demand, will result in higher pellet demand in the coming period. Please note that pellet prices have in-built seasonality as Chinese steel mills buy less pellets during the summer season (as they can emit dust during the sintering process), but in winter they will have to shift to pellets. Hence, as of now, pellet premium over iron ore is at the minimum level and we expect it to revert to the mean value of US\$0.50/t/% Fe content. We expect 67% DRI grade pellet to trade near US\$150/t in the long run.

### Most steel-producing regions in China suffer from heavy pollution ➤



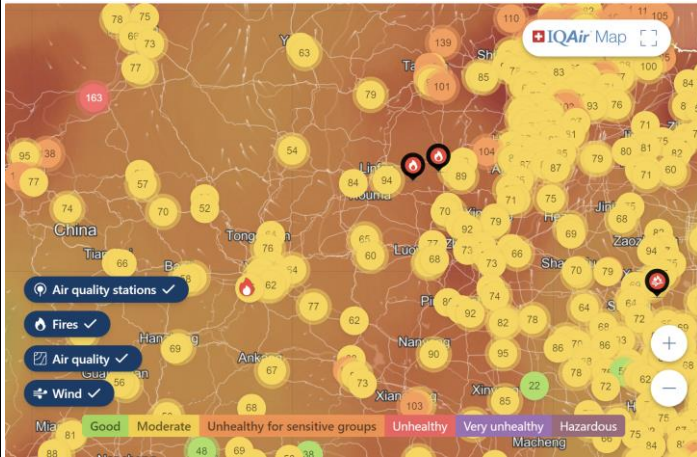
**Figure 3: The air quality map of Hebei (at present) is shown in the chart below and just imagine the scenario during winter**

**Figure 4: Even Liaoning's air quality is much below the desired level and the winter smog will be intense here as well**

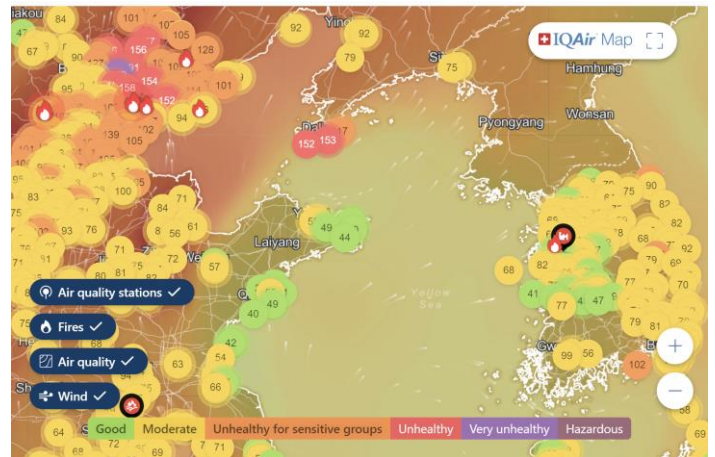


**Figure 5: Shanxi's air quality is still better but PPMI is 80 on an average at 11.30PM in the summer season - just imagine what will happen in the winter season**

**Figure 6: Shandong's scenario is no better and despite being near the sea, most of the province is under heavy particulate matter at 11.30PM**



SOURCE: INCRED RESEARCH, [HTTPS://WWW.IQAIR.COM/IN-EN/CHINA/SHANXI](https://www.iqair.com/in-en/china/shanxi)



SOURCE: INCRED RESEARCH, COMPANY REPORTS

**The pollution level gets worse in the winter season ➤**

The pollution level gets worse in the winter season as cold and heavy air doesn't allow particulate to go up easily into the atmosphere. This results in heavy smog during the winter season.

**Figure 7: The winter scene in China is depicted below; the scenario in major steel-making provinces is worse or equal to the scenario depicted in photograph**



SOURCE: INCRED RESEARCH, [HTTPS://WWW.WIONEWS.COM/WORLD/CHINAS-AIR-POLLUTION-WORSENERD-IN-2023-THE-FIRST-TIME-IN-10-YEARS-STUDY-672662](https://www.wionews.com/world/chinas-air-pollution-worsened-in-2023-the-first-time-in-10-years-study-672662)

**Using pellets is better than sintering of iron ore ➤**

Sintering of iron ore creates big pollution problems and buying pellets simply takes away all the problems.

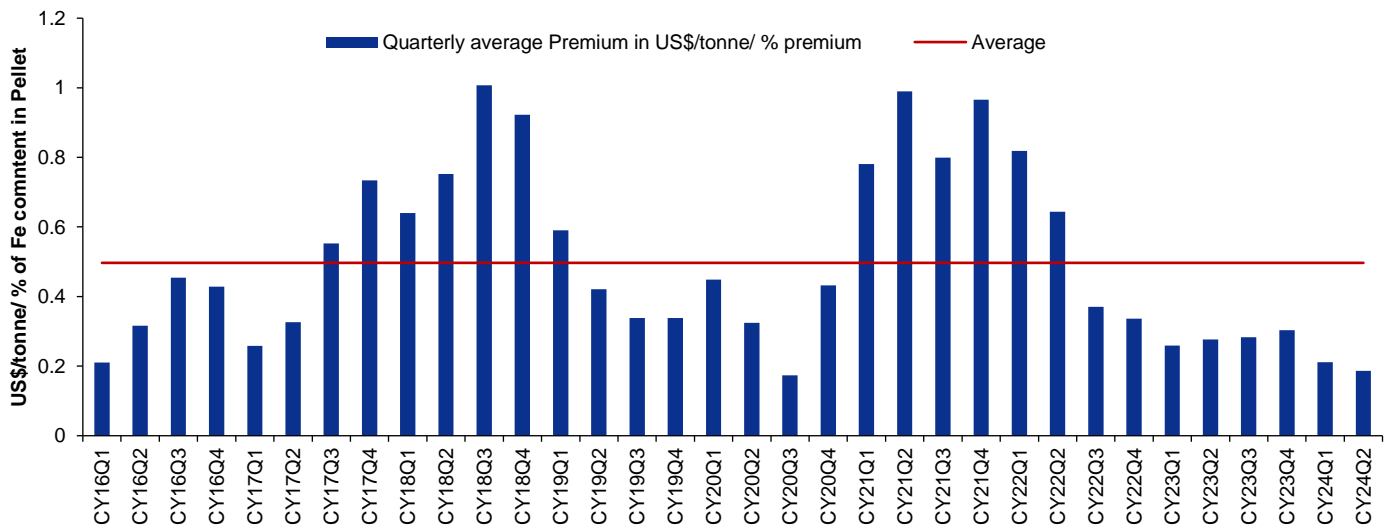
**Figure 8: The dust generated during the sintering process is a big menace in the winter season and adding to it is SO<sub>x</sub>, NO<sub>x</sub>, CO and CO<sub>2</sub> emissions**

Air Emissions	Unit	Sintering Process
Waste gas flow	Nm <sup>3</sup> /t	1,500 - 2,500
Dust	g/t	41 - 559
SO <sub>x</sub>	g/t	220 - 973
NO <sub>x</sub>	g/t	302 - 1031
CO	g/t	8,783 - 37,000
CO <sub>2</sub>	kg/t	162 - 368
VOC	g/t	37 - 673
PAH	mg/t	0.2 - 592

SOURCE: INCRED RESEARCH, [https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2AHUKEWJNY\\_QCXEWGAXU6XTGGHQDMDUWQFNOECB8QAQ&url=https%3A%2F%2FABMProceedings.com.br%2FPTBR%2FARTICLE%2FDOWNLOAD-PDF%2FCOMPARISON-OF-SINTER-AND-PELLET-USAGE-IN-IN-INTEGRATED-STEEL-PLANT&usg=AOVVAW0B\\_A4EY09ZFMQLQ\\_R7SXANQ&opi=89978449](https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2AHUKEWJNY_QCXEWGAXU6XTGGHQDMDUWQFNOECB8QAQ&url=https%3A%2F%2FABMProceedings.com.br%2FPTBR%2FARTICLE%2FDOWNLOAD-PDF%2FCOMPARISON-OF-SINTER-AND-PELLET-USAGE-IN-IN-INTEGRATED-STEEL-PLANT&usg=AOVVAW0B_A4EY09ZFMQLQ_R7SXANQ&opi=89978449)

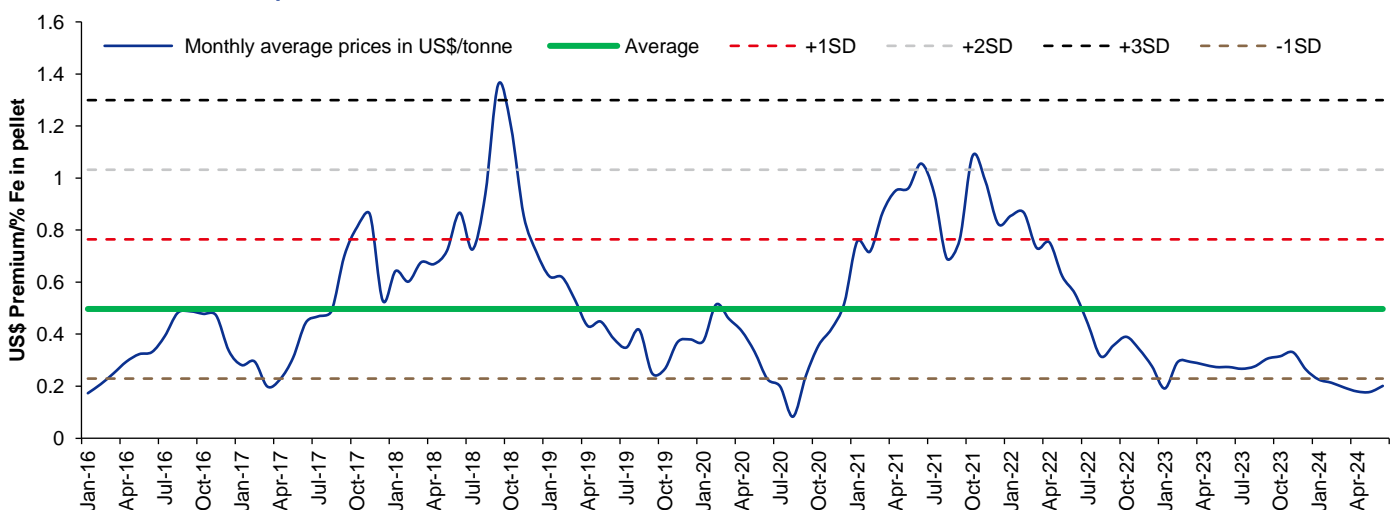
**That's why in the winter season China buys more pellets and as a result, pellet premiums go up ➤**

**Figure 9: As is evident in the graph below, pellet premiums always rise during the winter season in China**



SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 10: At a historical level, current pellet premiums are near -1SD of the long term; barring the Covid-19 lows, this is the worst level we have seen in the past decade**

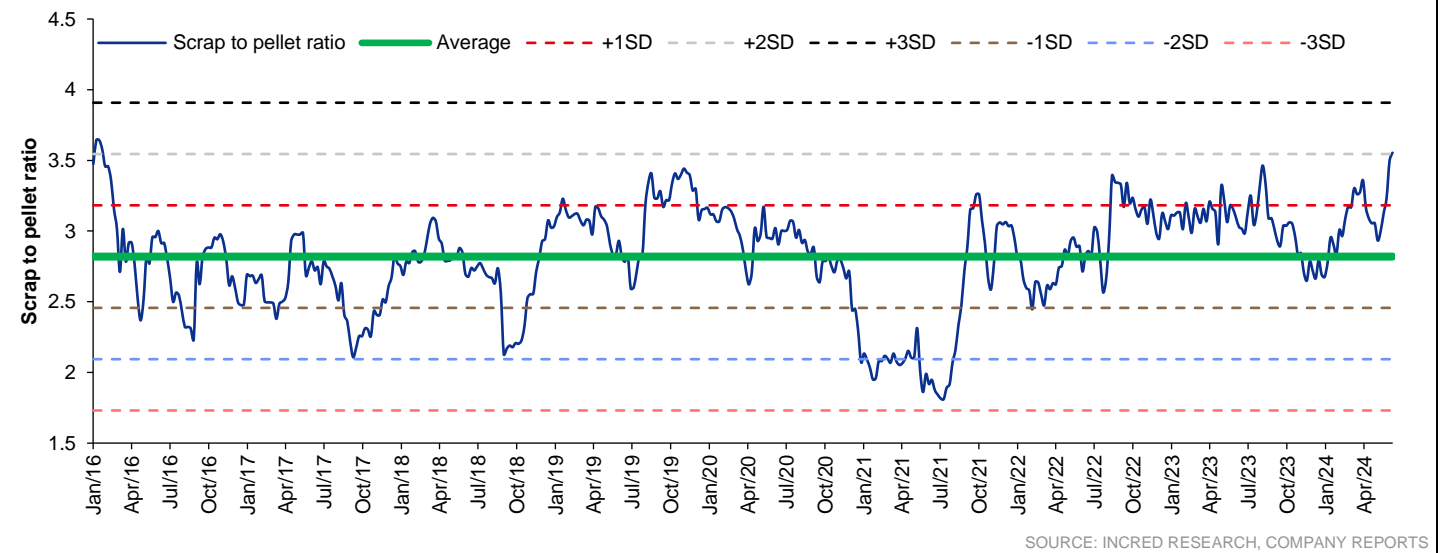


SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Is higher scrap availability leading to a fall in pellet premiums? No, it's not the case as scrap is costlier**

Vis-à-vis the historical perspective, scrap is costlier in comparison to iron ore pellets. Hence, it doesn't make sense to use scrap in lieu of pellets.

**Figure 11: The scrap-to-pellet ratio indicates that scrap is much costlier in comparison to pellets (65% Brazilian grade)**

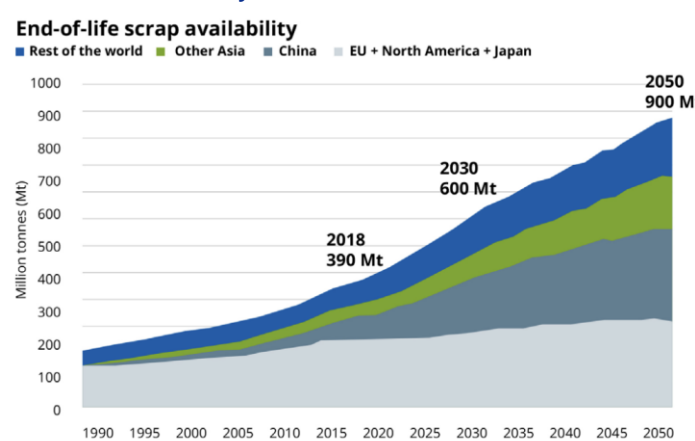


SOURCE: INCRED RESEARCH, COMPANY REPORTS

**So, what is likely to happen? Scrap prices are unlikely to fall as the supply is not increasing**

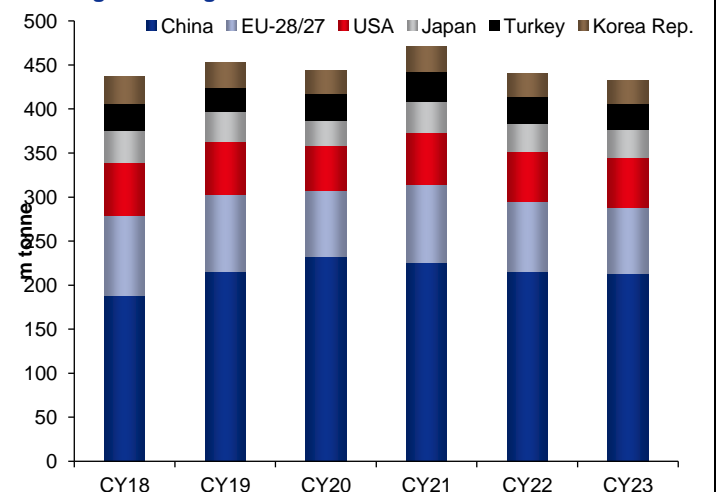
Scrap prices are unlikely to fall in the near-to-medium term. More electric arc furnaces or EAFs are coming across the world and more and more scrap is consumed internally. End-of-life scrap is not increasing, which means scrap supply is not rising and, as a result, forcing EAFs to use direct reduction of iron or DRI.

**Figure 12: End-of-life scrap availability is not likely to increase much in the next five years**



SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 13: Most countries are using process scrap and hence, the usage is falling**



SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Hence, Chinese companies have no option but to increase the usage of pellets**

While using scrap is ideal for China-based steel makers as it will lead to lower emissions, but unavailability and relatively higher cost deters them. Therefore, even EAFs will shift to DRI and will use high quality DRI pellets. In this regard, seasonality will remain a key aspect of pellet prices but, on an average, pellet premium over iron ore will go up.

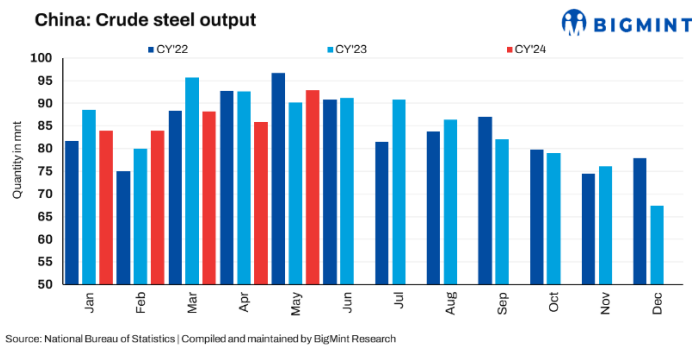
**Why doesn't China install pellet capacity and save on pellet premium? It doesn't make sense ➤**

Making pellets in China doesn't make sense vis-à-vis pollution concerns as the process of making pellets emits dust, which will defeat the purpose of using pellets.

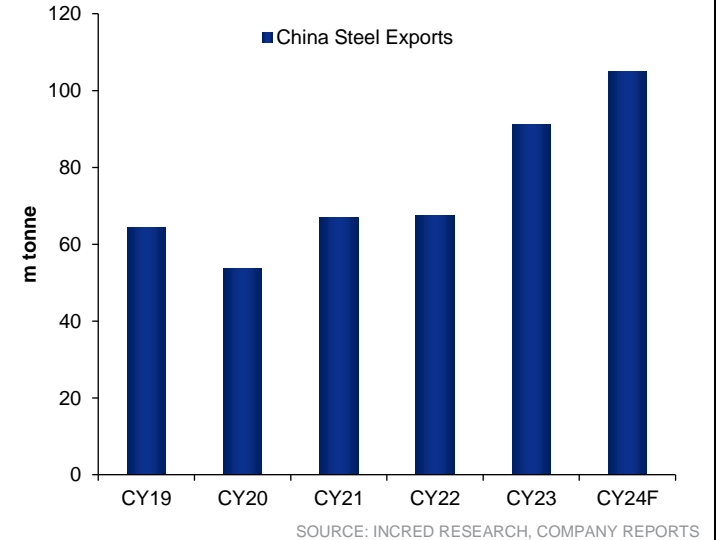
**Can Chinese steel production decline? Unlikely! CNY depreciation has given an edge to steel makers in China ➤**

We don't find any evidence of a decline in China's steel production. All the noise steel production cut in China because of pollution concerns has been fading. Domestic demand decline is not having an adverse impact on steel production as the country is going on increasing its exports.

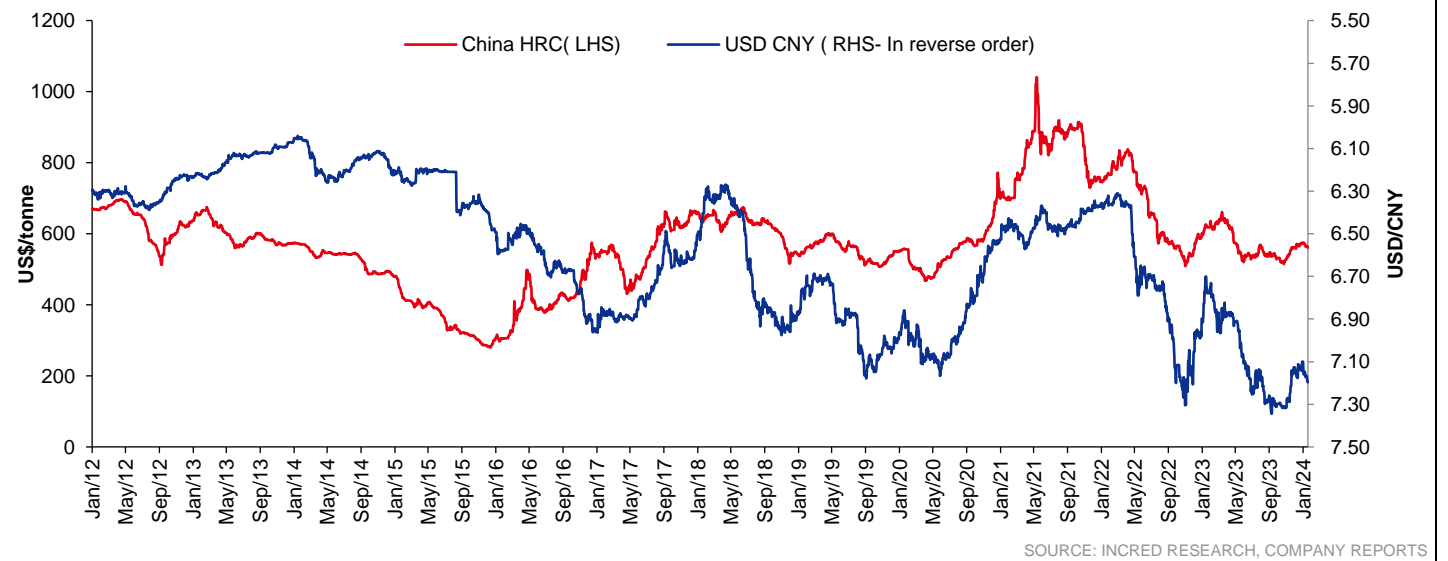
**Figure 14: Chinese crude steel output is showing no signs of decline in the last three years**



**Figure 15: Depreciating CNY is opening the export market for China and hence, steel production is unlikely to decline**

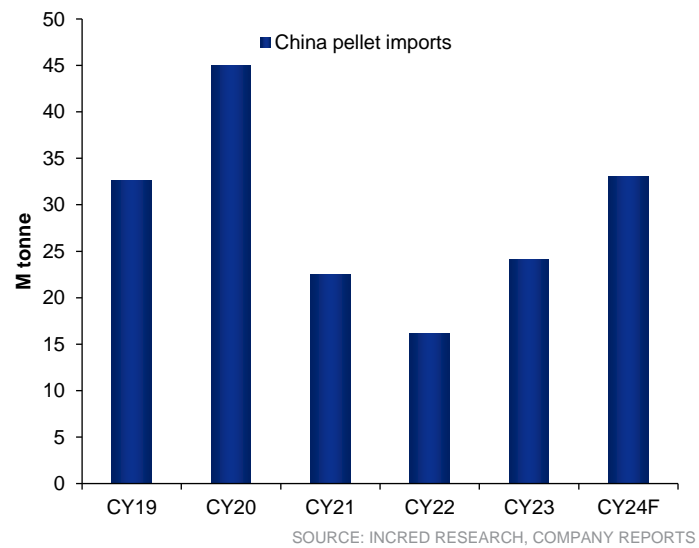


**Figure 16: China's HHC export prices are trending downwards, but CNY depreciation is making exports more attractive than ever before; in this scenario, China's steel production cut is unlikely**

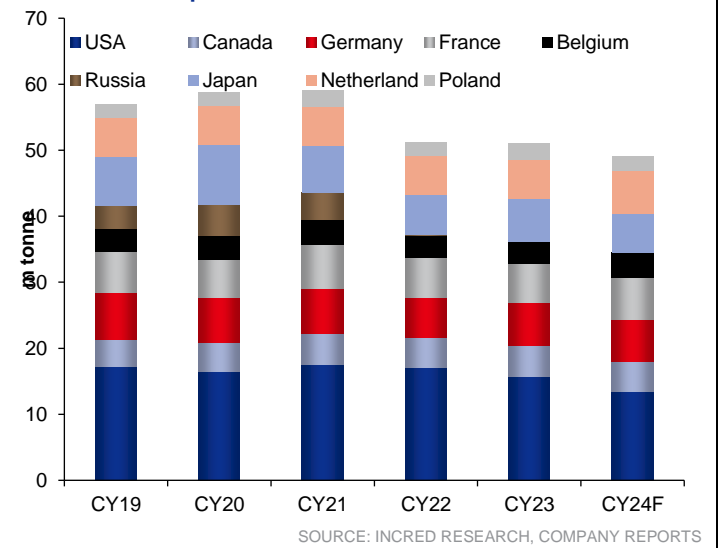


**Consequently, China’s steel production will remain unabated and pellet imports will rise ➤**

**Figure 17: We expect China’s pellet imports to exceed pre-Covid highs in CY24F**



**Figure 18: Global scrap exports are trending downwards; please note that the developed world is increasingly using scrap for internal consumption**



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