

**Indian companies valuation**

	Price (INR)	EV/ EBITDA (x)		P/B (x)	
		FY23	FY24E	FY23	FY24E
<b>Steel</b>					
Tata	154	7.9	11.6	1.9	2.1
JSW	828	13.9	8.7	3.0	2.7
JSP	826	9.0	9.1	2.1	1.9
SAIL	134	10.6	10.0	1.0	1.0
<b>Non-ferrous</b>					
Vedanta	275	5.3	7.2	2.6	3.9
Hindalco	533	6.9	6.3	1.7	1.5
Nalco	157	10.9	10.3	2.2	2.1
<b>Mining</b>					
Coal	453	5.9	6.0	4.9	3.9
HZL	309	7.5	9.5	10.2	9.2
NMDC	229	10.0	8.0	3.0	2.6

**Global companies valuation**

Company	M.Cap USD b	EV/EBITDA (x)			P/B (x)
		CY22/ FY23	CY23/ FY24	CY22/ FY23	
<b>Steel</b>					
AM	22	3.6	3.6	0.4	
SSAB	7	3.0	4.2	1.1	
Nucor	45	6.3	8.0	2.2	
POSCO	28	6.0	6.1	0.7	
JFE	11	7.4	6.2	0.7	
<b>Aluminum</b>					
Norsk Hydro	11	5.9	5.3	1.1	
Alcoa	5	14.7	8.4	1.2	
<b>Zinc</b>					
Teck	21	5.6	4.3	1.1	
Korea Zinc	7	9.5	8.4	1.0	
<b>Iron ore</b>					
Vale	59	3.9	3.7	1.5	
<b>Diversified</b>					
BHP	144	5.6	5.5	3.3	
Rio	105	4.6	4.2	1.8	

## Flat steel prices continue to remain under pressure; Tier-I mills may roll over prices for Mar'24 deliveries

- Domestic prices for long steel on the IF route, which accounts for around 65-70% of the overall long steel market, witnessed a price improvement of INR600/t WoW to INR49,500/t. This increase was driven by higher demand and rising raw material costs.
- In line with the improvement observed in IF route long steel prices, prices in for primary rebar the project segment appear to have bottomed out, with an increase of INR200/t WoW to INR51,800/t.
- We believe, multiple public holidays in Mar-Apr'24 along with the financial year-end liquidity crunch and slowdown in the project segment will keep the overall demand for long steel under pressure with only need-based buying.
- Flat steel prices continue to remain under pressure with prices further declining INR400/t WoW at INR52,700/t. Considering the subdued demand, higher imports and narrow spreads between flat-long steel prices, Tier-I mills are expected to roll over the list prices for Mar'24 deliveries.
- Higher imports continue to post near-term challenges for domestic mills with HRC and plates import in Feb'24 at 0.64mt (up 40% MoM) and imports in Mar'24 already crossing 0.2mt.
- Indian mills' offerings to the export market have remained subdued due to stiff competition from producers in China and Vietnam.

## Domestic coal production for 11MFY24 up 12.4% YoY

- Coal production in India for 11MFY24 improved 12% YoY to ~881mt (784mt in 11MFY23).
- The improvement was driven by higher production from COAL, which was up 10% YoY to ~685mt, touching a monthly run-rate of ~75mt.
- COAL achieved 99.2% of its monthly production target with three subsidiaries viz. ECL, CCL, and WCL achieving over 100% of its monthly production target.
- Total domestic dispatches increased 11% to ~882mt and COAL dispatches were up 9% at ~685mt.
- COAL dispatch to the power sector (incl CPP) remained constant in the range of 88-90%.
- The demand for coal is expected to remain at an elevated level as the government banks on the thermal power plant to meet the peak power demand of ~265gw during the summer months. The total coal required by the power sector is expected to be in the range of 850-890mt.

### Commodities and forex tracker

	UoM	Spot	WoW (%)	MoM (%)
India HRC (ex-Mum)	INR/t	52,700	-2	-2
India TMT Prime (ex-Mum)	INR/t	51,800	0	-1
India TMT Secondary (ex-Mum)	INR/t	49,500	1	3
Korea HRC - FoB	USD/t	610	-1	-2
China HRC Dom.	USD/t	547	-1	-3
China HRC - FoB	USD/t	555	0	-2
India Prem HCC CNF	USD/t	322	-1	-2
India 64 Mid Vols CNF	USD/t	272	-1	-2
India Low Vols PCI CNF	USD/t	179	-1	-1
Iron Ore Fines (Odisha Index) Fe 62%	INR/t	5,450	0	-6
Iron Ore Fines (China - CNF) Fe 62%	USD/t	117	0	-10
Europe Scrap HMS 1&2(80:20)	USD/t	380	-2	-4
C-DRI (ex-Raipur)	INR/t	27,200	2	2
RB1 (6000 NAR) SA FoB	USD/t	116	0	4
RB2 (5500 NAR), SA FoB	USD/t	100	0	3
Indonesia (4200 GAR) Futures	USD/t	58	3	2
Copper	USD/t	8,553	1	6
Aluminum	USD/t	2,209	1	1
Zinc	USD/t	2,502	5	8
Lead	USD/t	2,125	5	4
Nickel	USD/t	17,803	1	14
Alumina	USD/t	333	0	0
Ali UBC Scrap	USD/t	1,631	3	4
Ali UBC Scrap Spread	USD/t	578	-3	-6
INR:USD	x	82.8	0	0
USD:EUR	"	1.09	1	1
USD:GBP	"	1.28	1	2
CNY:USD	"	7.19	0	0
JPY:USD	"	147	-2	-2

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Source: SteelMint, JPC, Bloomberg, Company, investing.com and MOFSL estimates

## FERROUS: India – prices

Exhibit 1: HRC - Mumbai (INR/t)

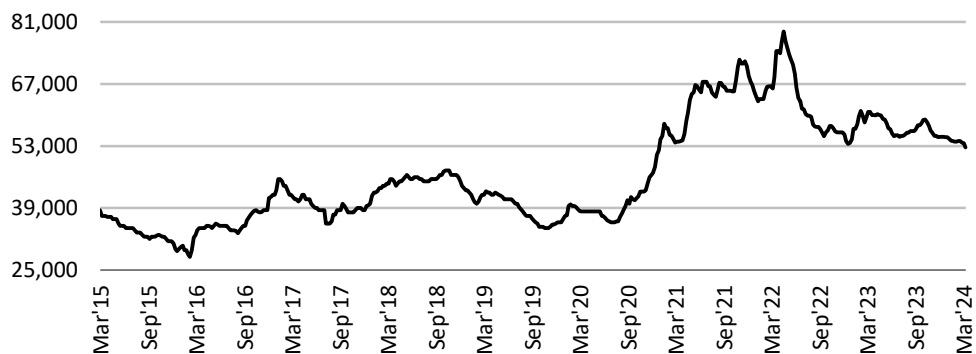


Exhibit 2: TMT Primary – Mumbai (INR/t)

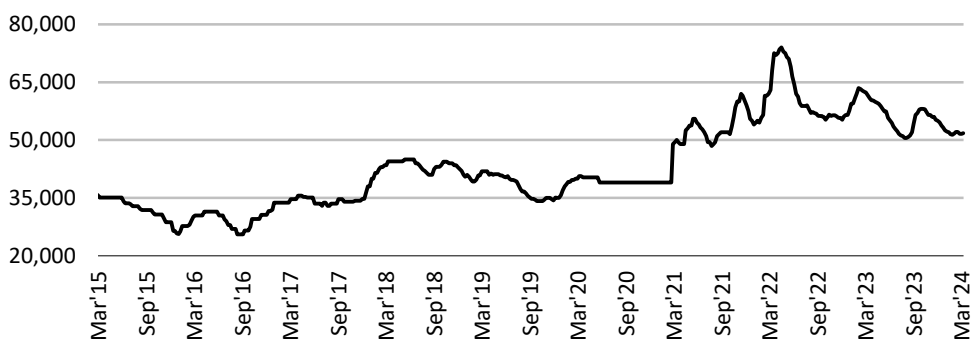
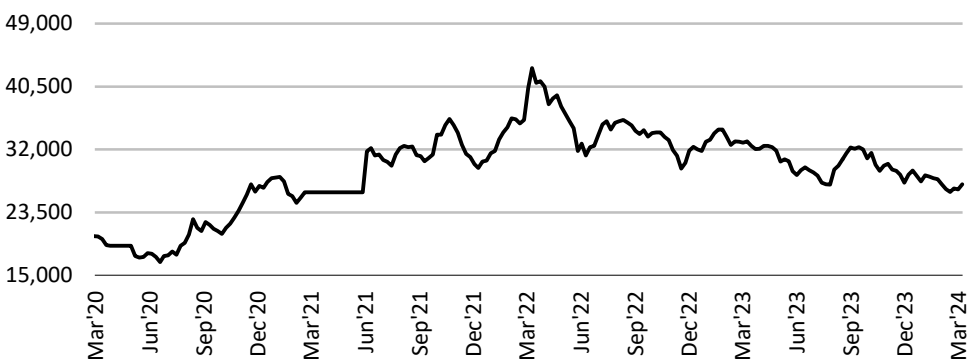


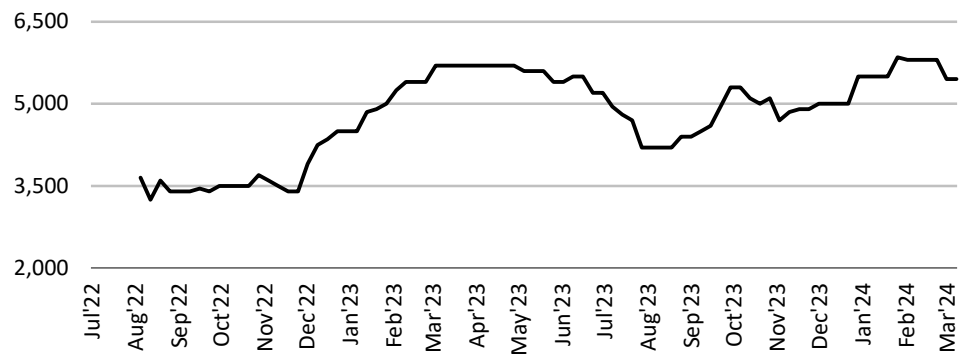
Exhibit 3: C-DRI (sponge iron), ExW-Raipur (INR/t)



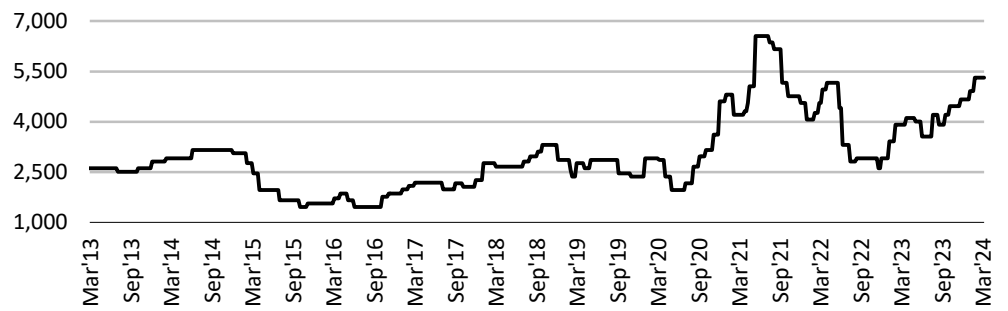
**Exhibit 4: Domestic Pellet – Barbil – 63% Fe (INR/t)**



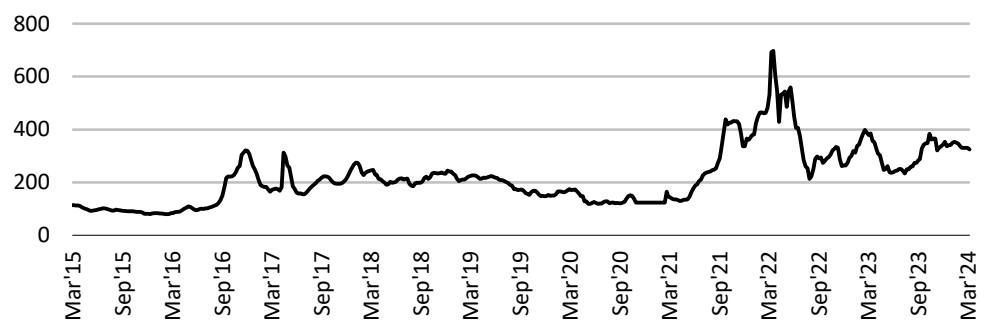
**Exhibit 5: Iron Ore Fines Odisha – Fe 62% (INR/t)**



**Exhibit 6: NMDC Fines – Fe 64% (INR/t)**

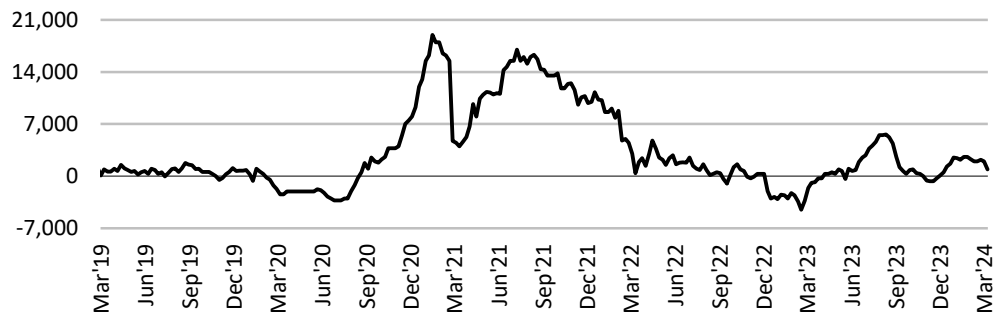


**Exhibit 7: Premium HCC CNF Paradip (USD/t)**

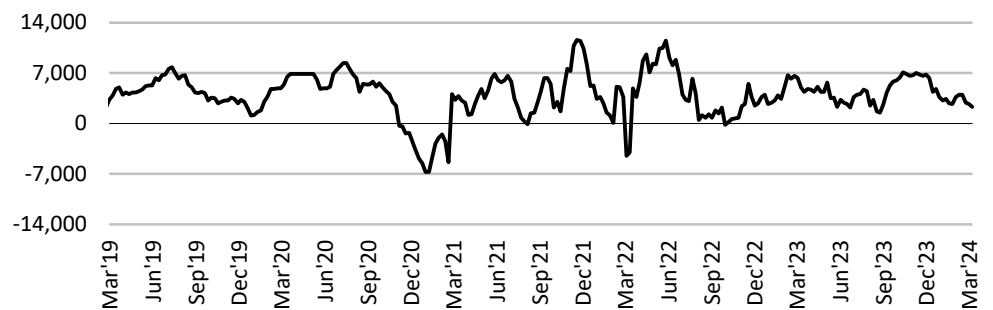


## Domestic spreads

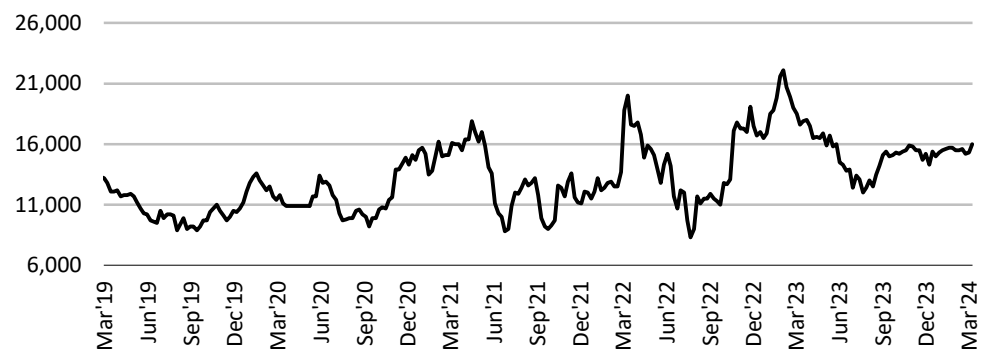
**Exhibit 8: Prime HRC v/s primary TMT (INR/t)**



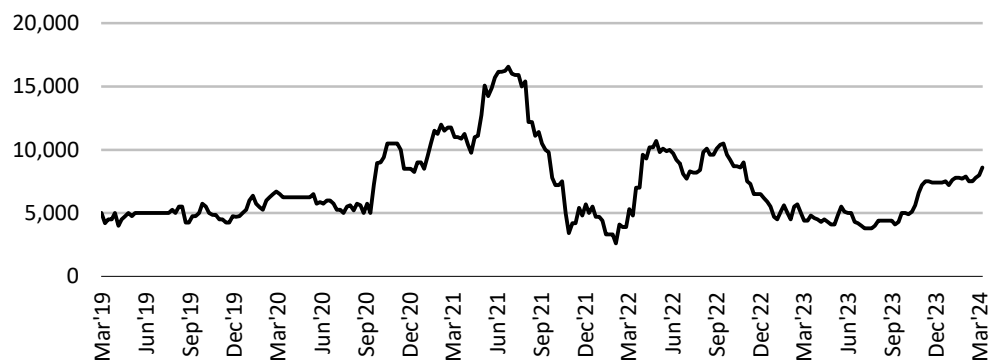
**Exhibit 9: Primary TMT v/s secondary TMT (INR/t)**



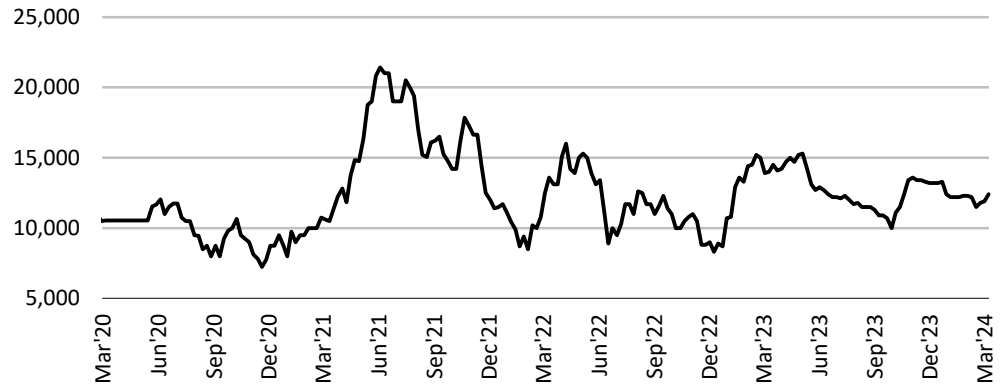
**Exhibit 10: Secondary TMT v/s domestic scrap (INR/t)**



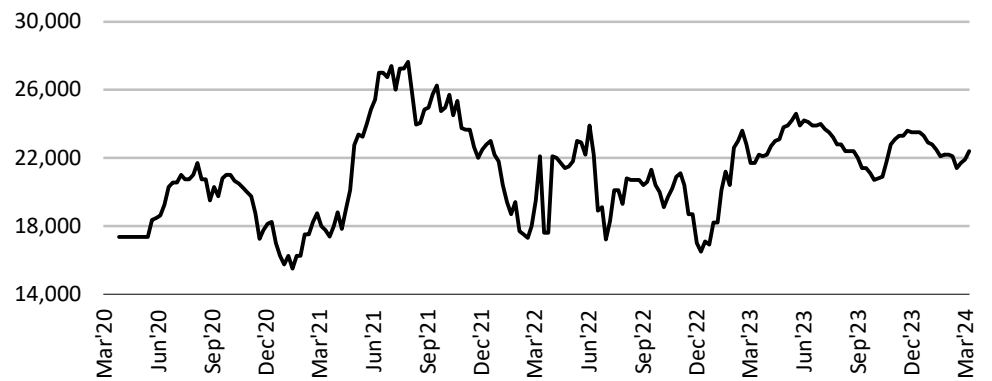
**Exhibit 11: HRC v/s CRC (INR/t)**



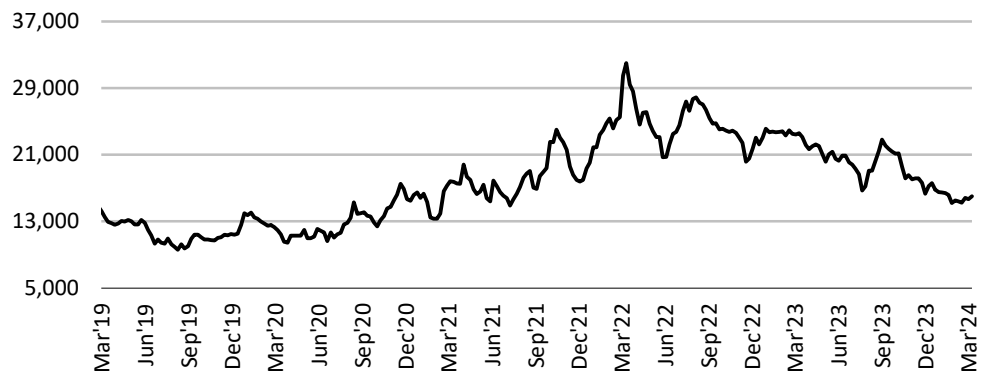
**Exhibit 12: HRC – galvanized (INR/t)**



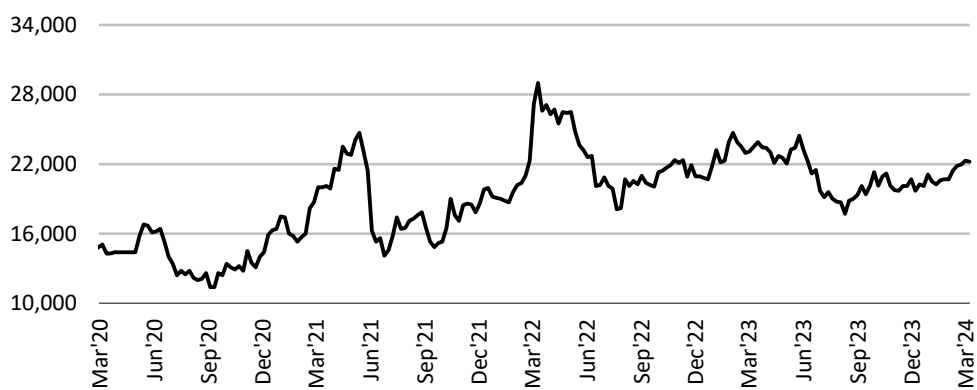
**Exhibit 13: HRC – color coated (INR/t)**



**Exhibit 14: DRI v/s NMDC lumps (INR/t)**



**Exhibit 15: Secondary TMT v/s DRI (INR/t)**



**Exhibit 16: DRI v/s pellet (INR/t)**





## China prices/spreads

Exhibit 17: China HRC FoB (USD/t)

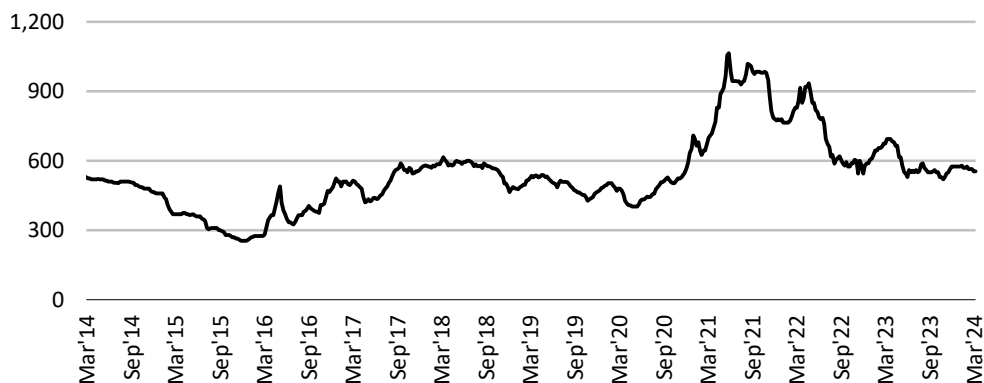


Exhibit 18: China HRC domestic (USD/t)

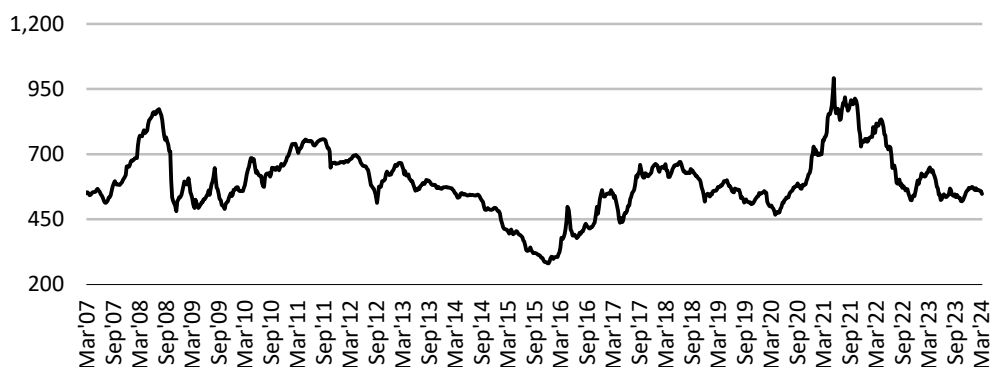
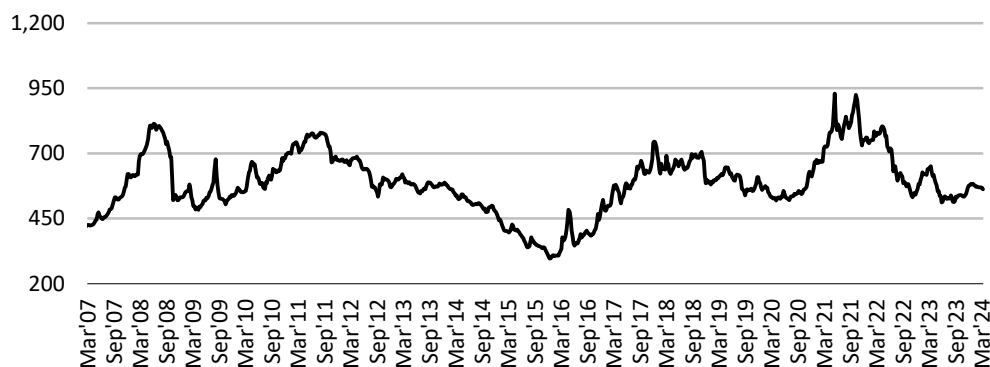
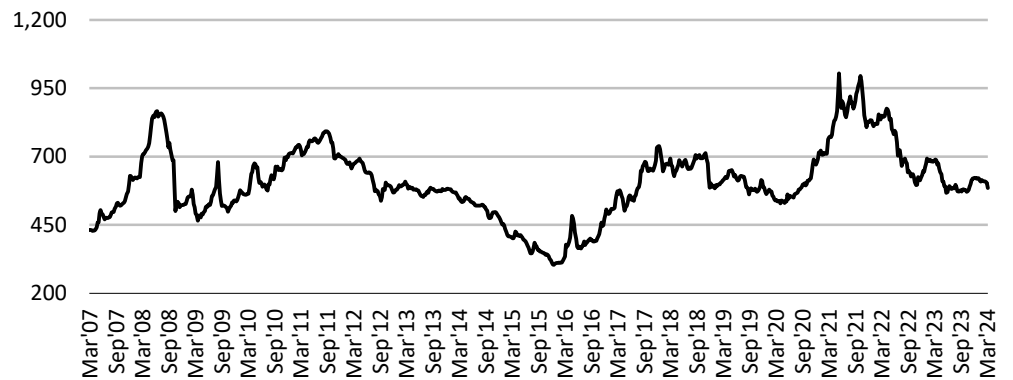


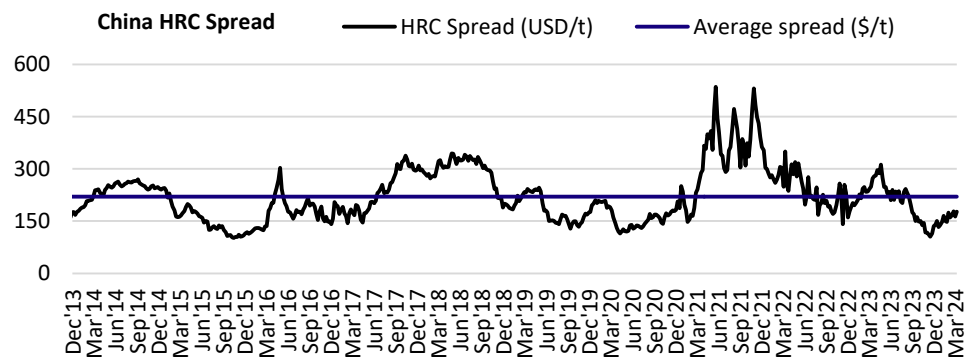
Exhibit 19: China domestic TMT (USD/t)



**Exhibit 20: China domestic wire rod (USD/t)**



**Exhibit 21: China HRC spread (1.6x IO and 0.85x HCC)**

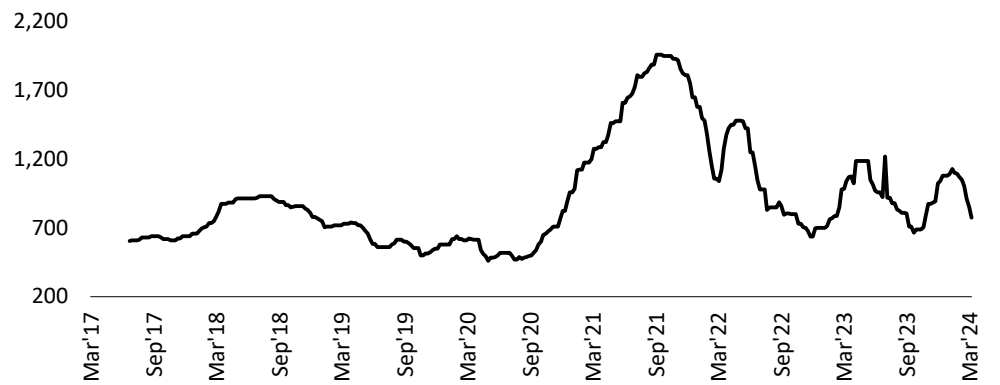


## Global prices

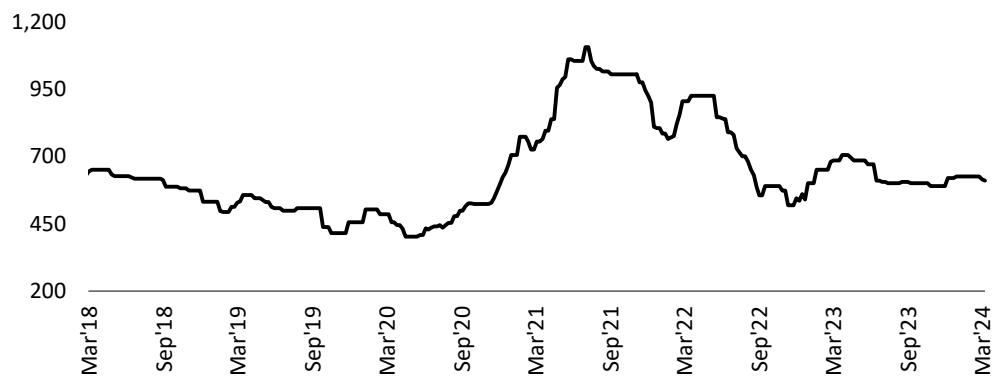
**Exhibit 22: Northern Europe HRC domestic (USD/t)**



**Exhibit 23: North America HRC domestic (USD/short ton)**



**Exhibit 24: Korea HRC FOB (USD/t)**



## Inventories

Exhibit 25: India steel inventory (mt)

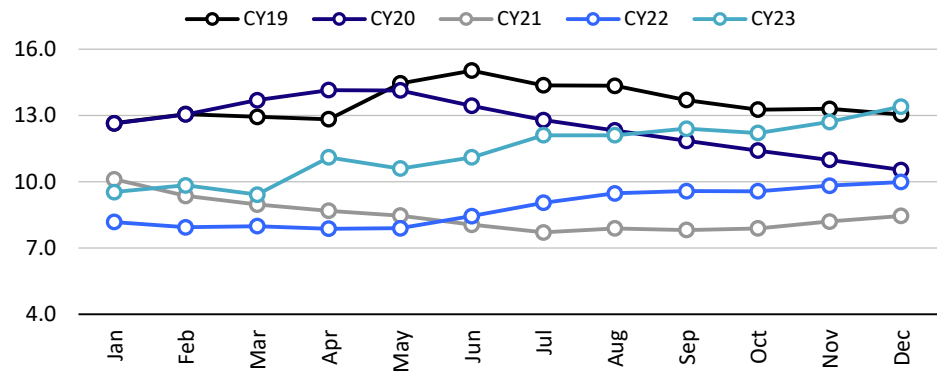


Exhibit 26: China wire rod and TMT inventory (mt)

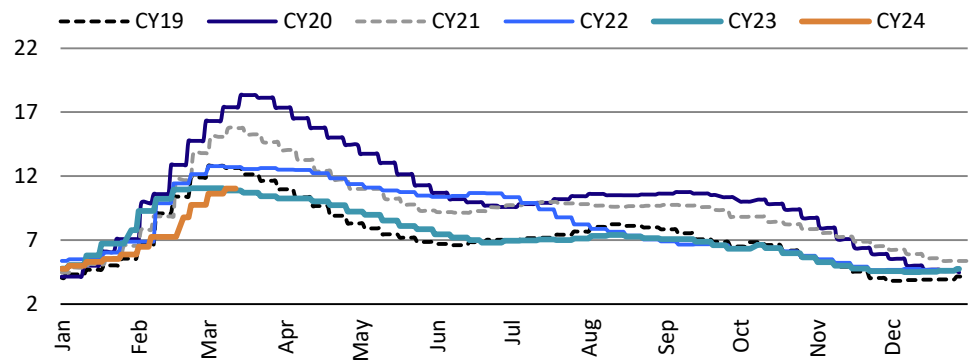
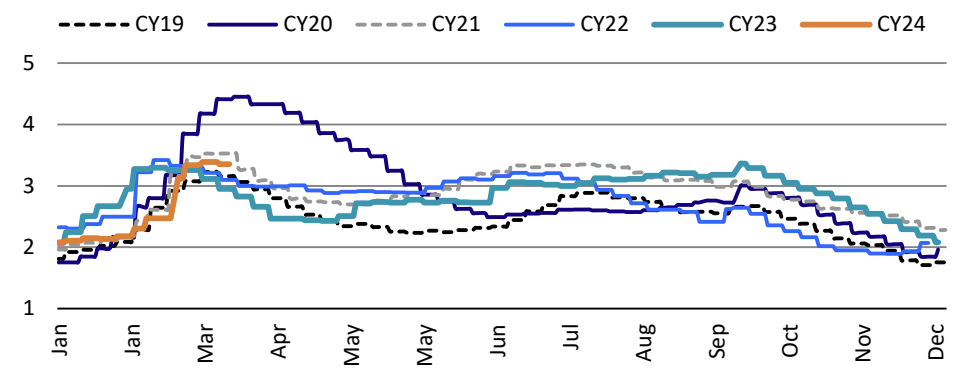


Exhibit 27: China HRC inventory (mt)



## NON-FERROUS: Aluminum

Exhibit 28: LME spot (USD/t)

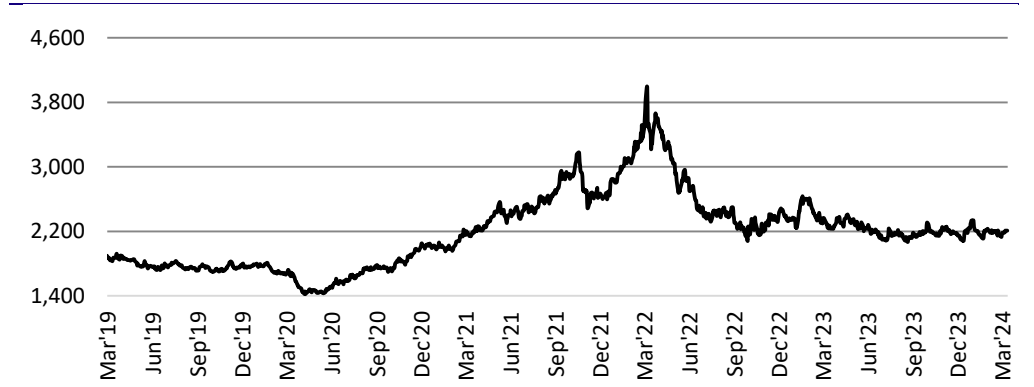


Exhibit 29: Alumina FoB Australia (USD/t)

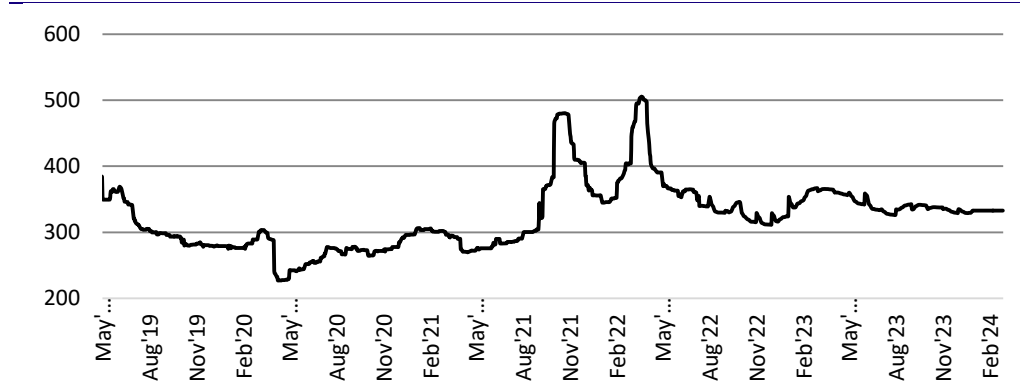
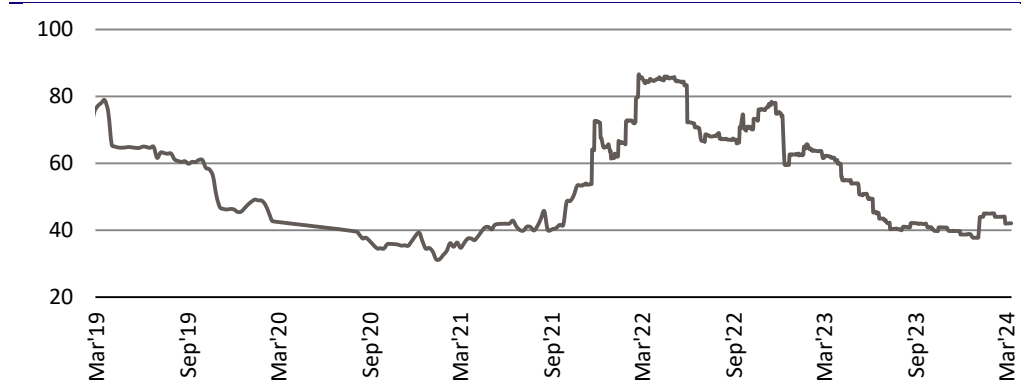
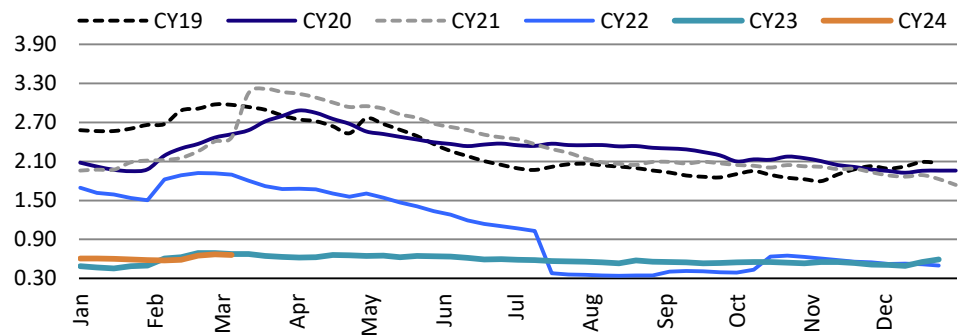


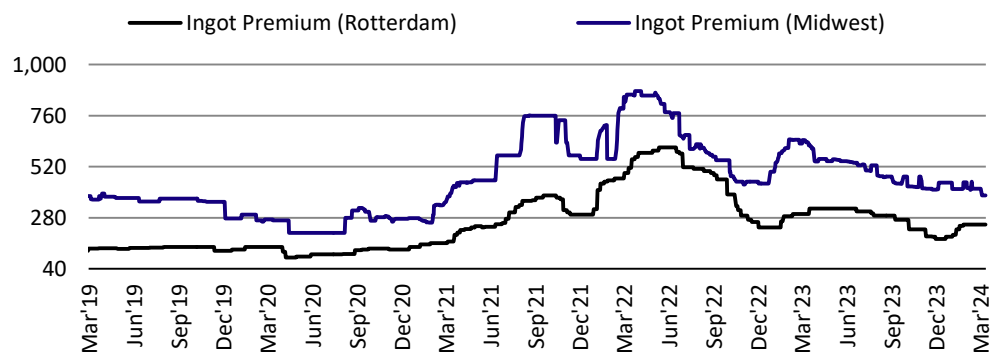
Exhibit 30: Caustic soda (USD/t)



**Exhibit 31: Total inventory (LME + SHFE, mt)**



**Exhibit 32: Ingot premiums (mt)**



# Copper

Exhibit 33: LME spot (USD/t)

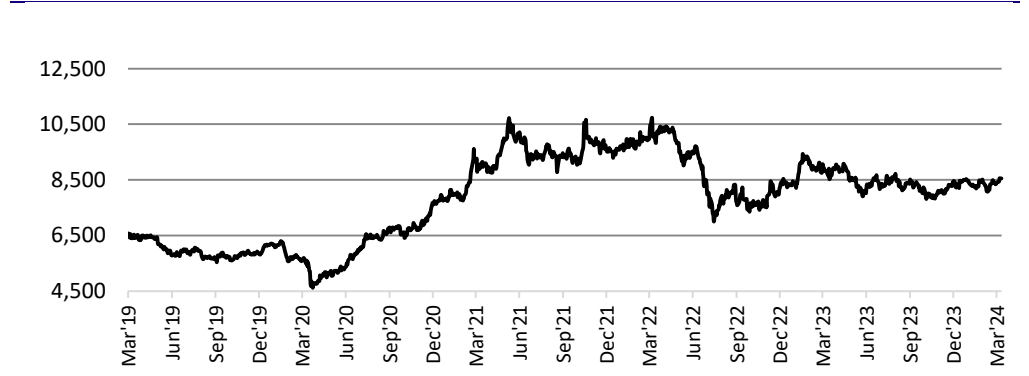
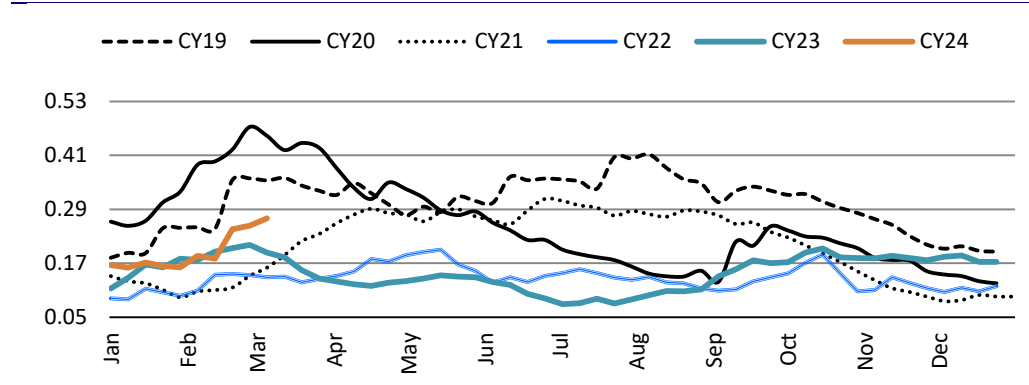


Exhibit 34: Total inventory (LME+SHFE, mt)



## Zinc

Exhibit 35: LME spot (USD/t)

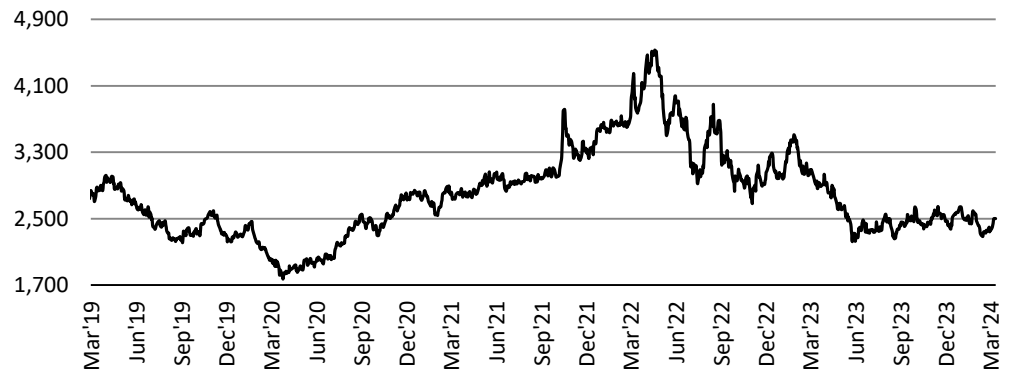
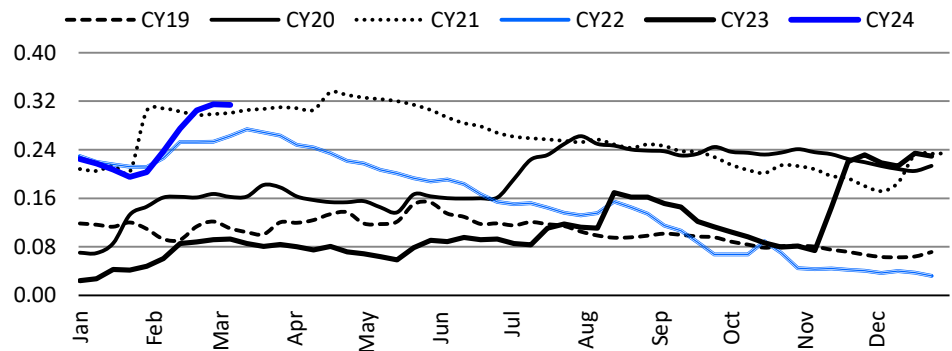


Exhibit 36: Total inventory (LME+SHFE, mt)





## Lead

Exhibit 37: LME spot (USD/t)

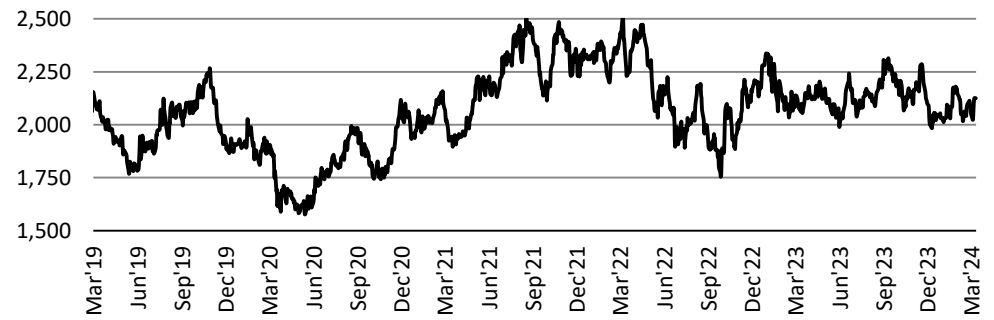
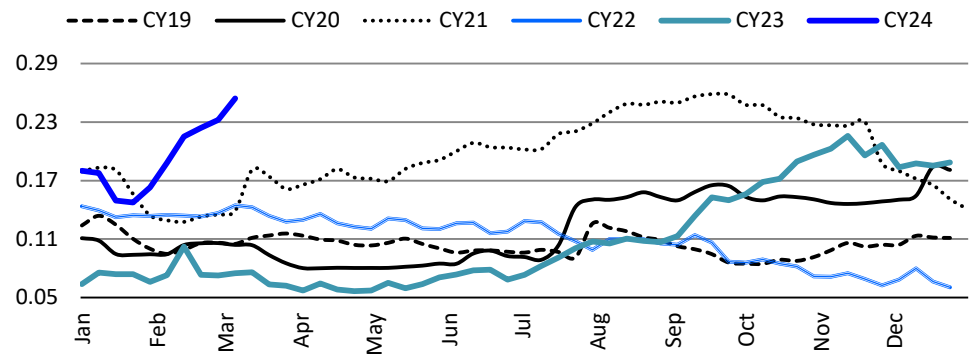


Exhibit 38: Total inventory (LME+SHFE, mt)



## Nickel

Exhibit 39: Nickel spot (USD/t)

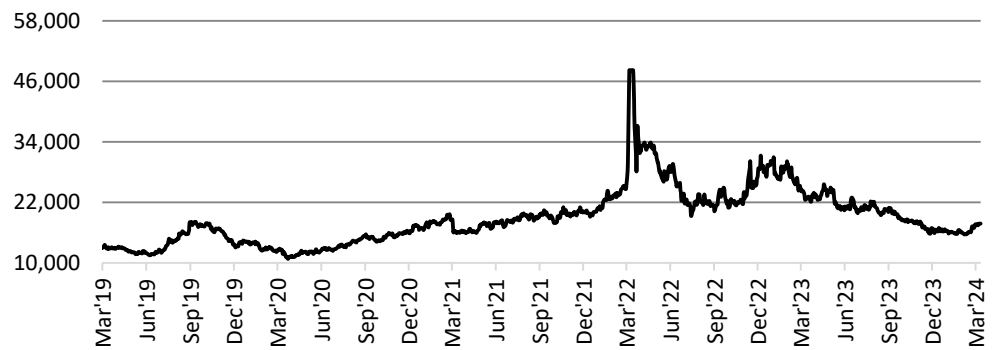
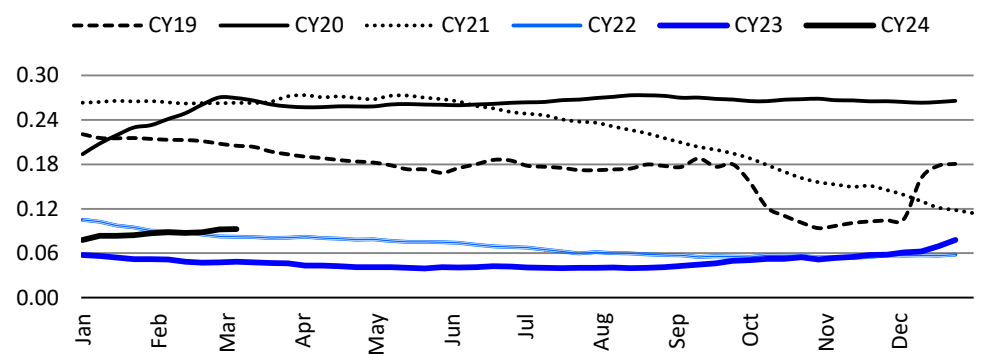


Exhibit 40: Total inventory (LME+SHFE, mt)



## India steel production, consumption, EXIM, and inventory

Exhibit 41: Crude steel production (mt)

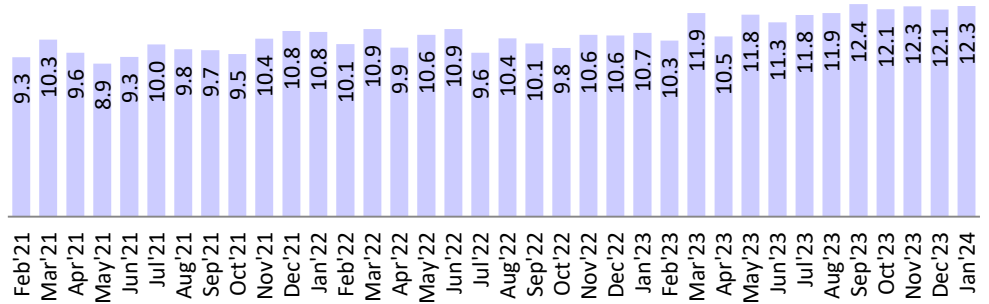


Exhibit 42: Finished steel production (mt)

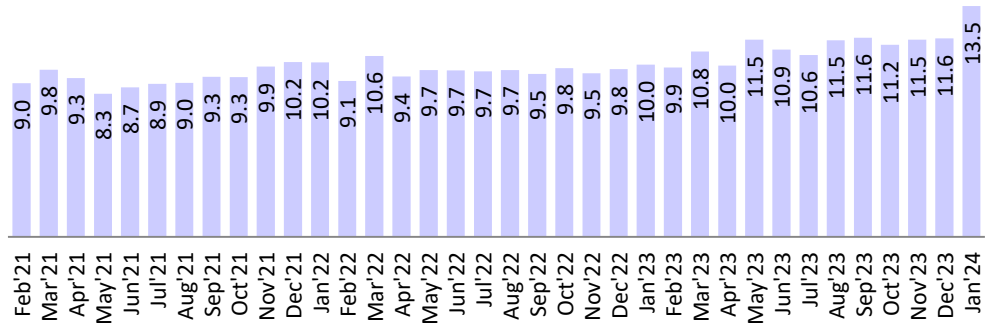


Exhibit 43: Imports including semis (kt)

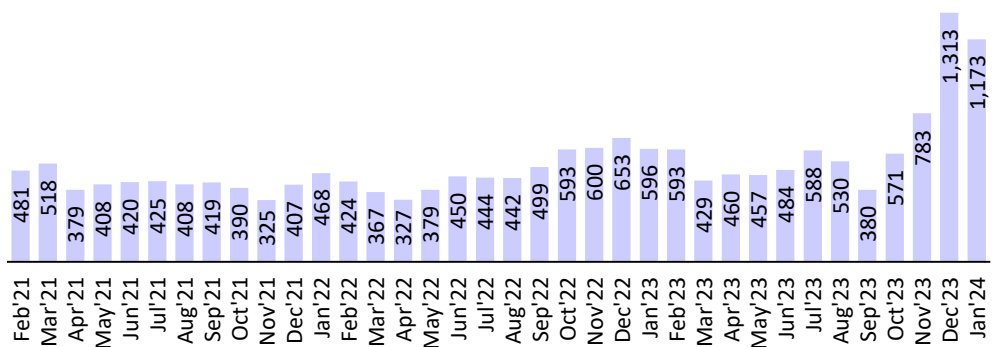


Exhibit 44: Exports including semis (kt)

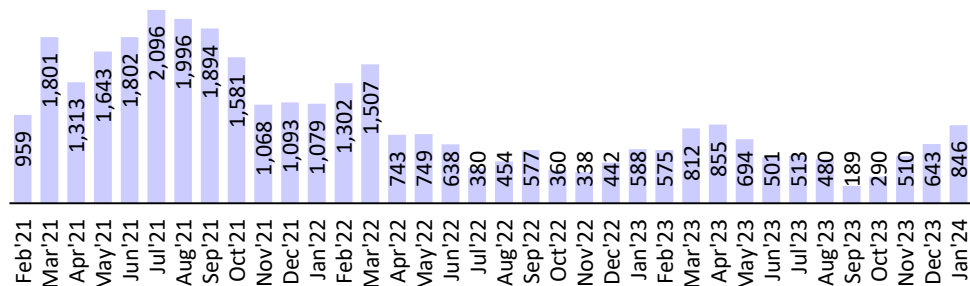


Exhibit 45: Net imports/(exports) of finished steel (kt)

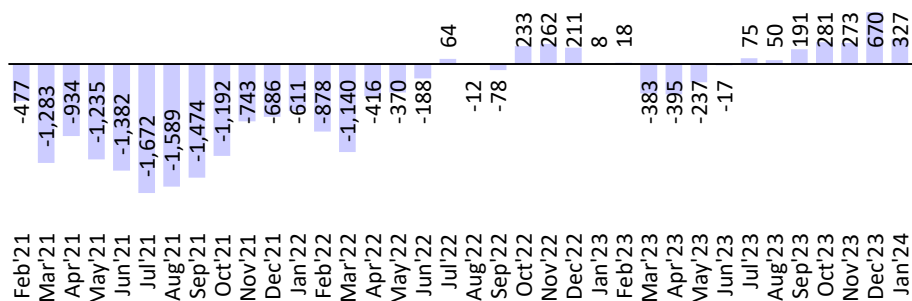
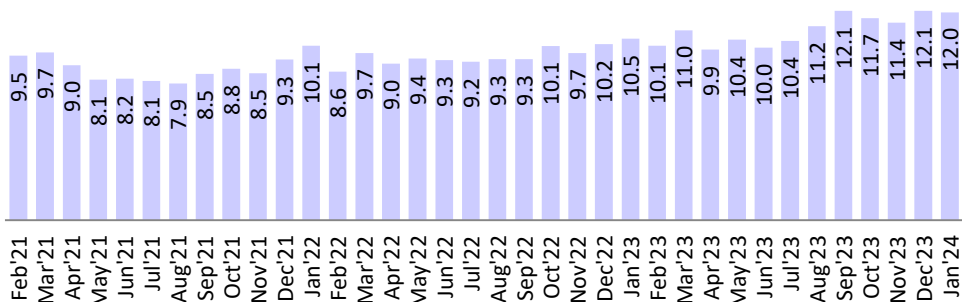


Exhibit 46: Steel consumption (mt)



## Global production trends

Exhibit 47: World crude steel production and China's share

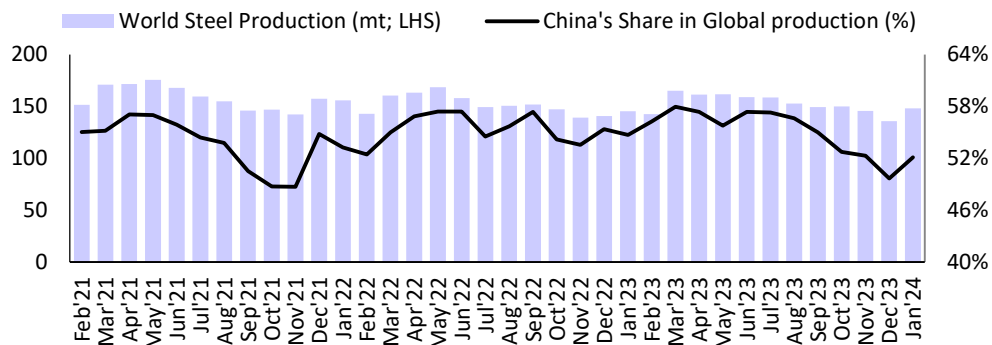


Exhibit 48: Crude steel production in China (mt)

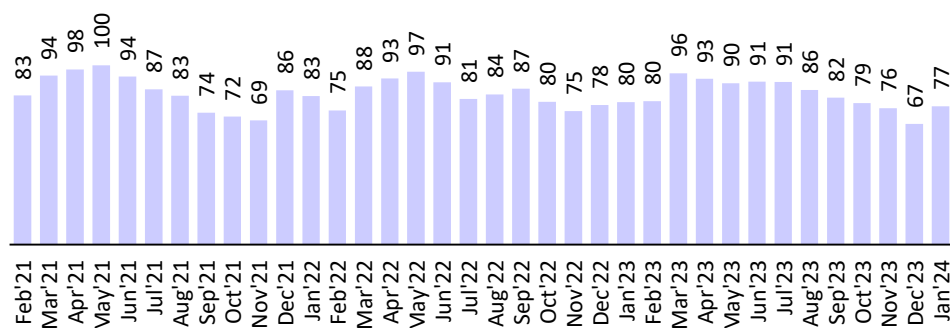


Exhibit 49: Crude steel production in Japan (mt)

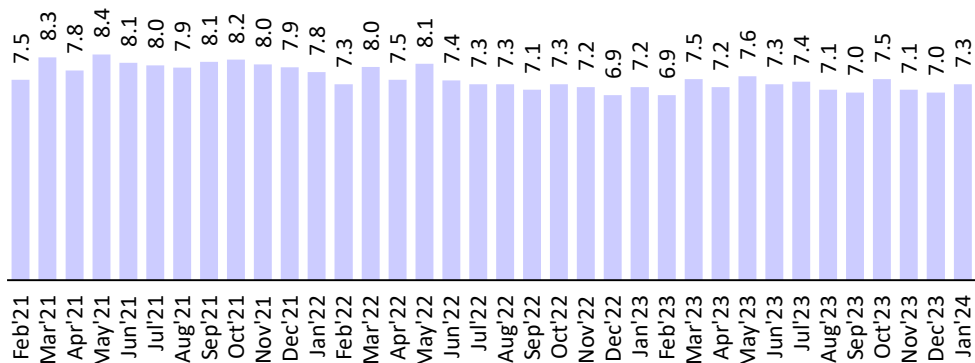
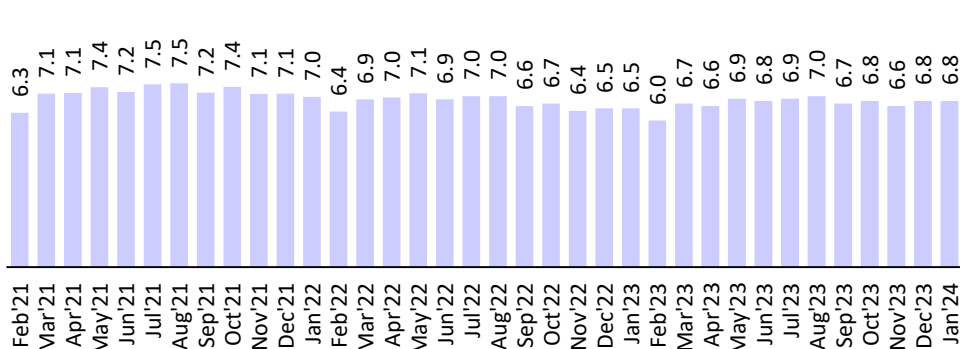


Exhibit 50: Crude steel production in the US (mt)



## China steel and macro

Exhibit 51: China's gross steel exports (mt)

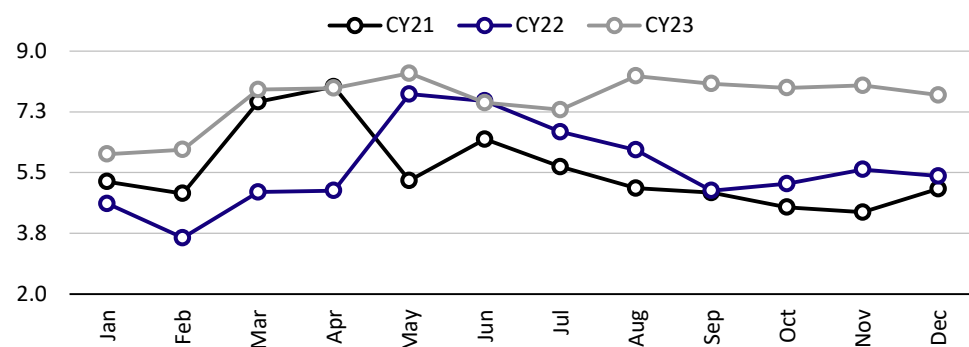


Exhibit 52: China's gross steel imports (mt)

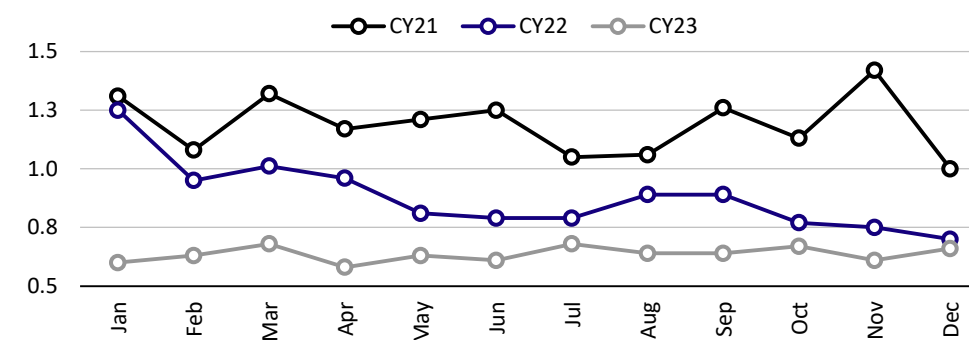


Exhibit 53: China's net steel exports/(imports) (mt)

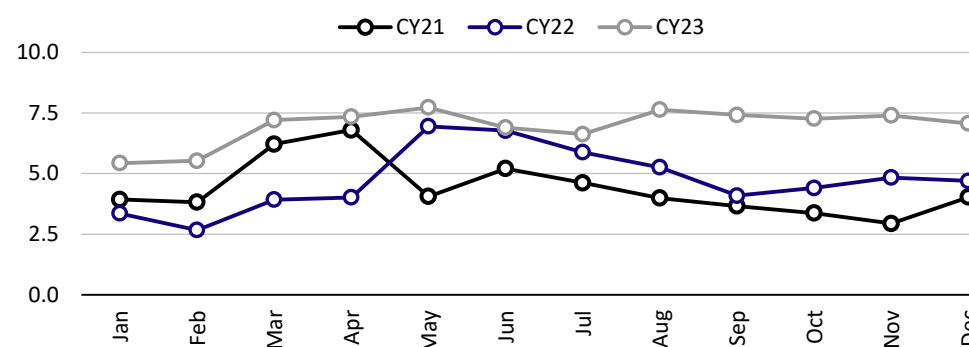


Exhibit 54: China's GDP growth YoY (constant prices)

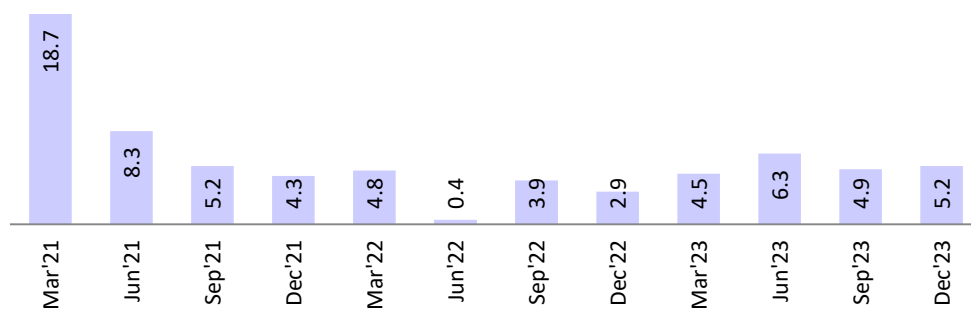


Exhibit 55: Automobile registration (m units)

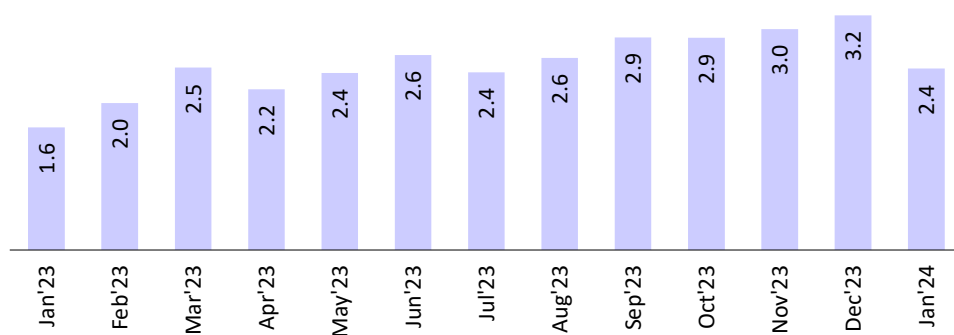


Exhibit 56: Manufacturing PMI

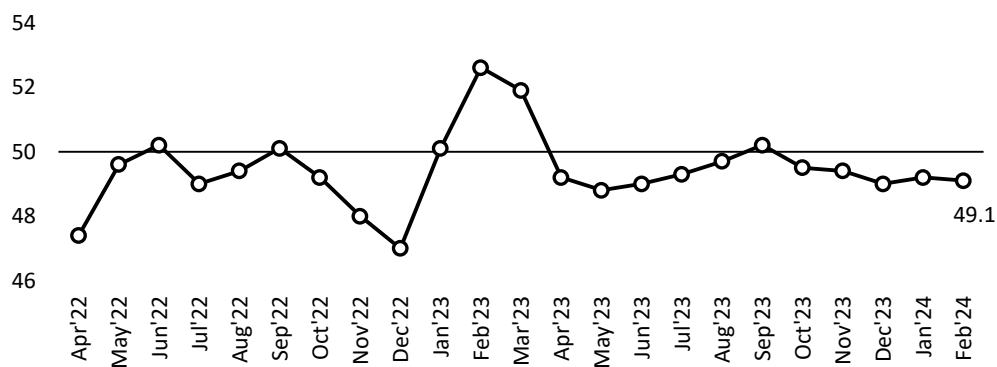
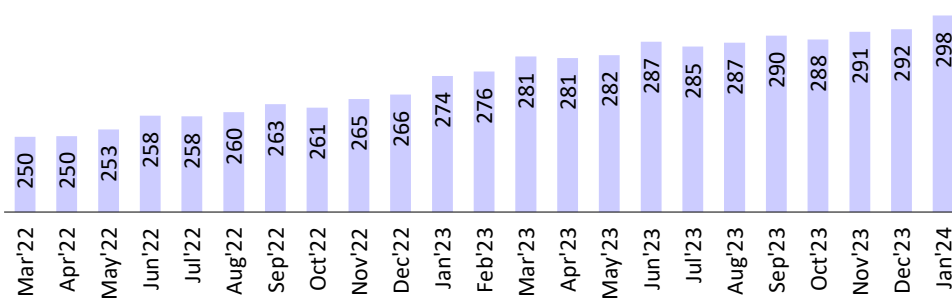
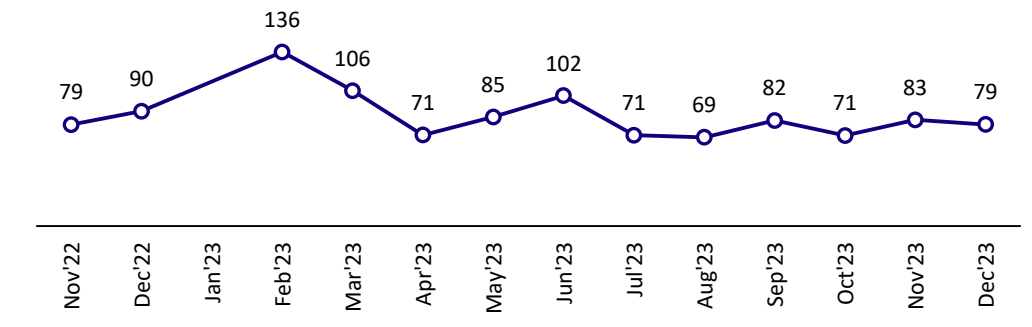


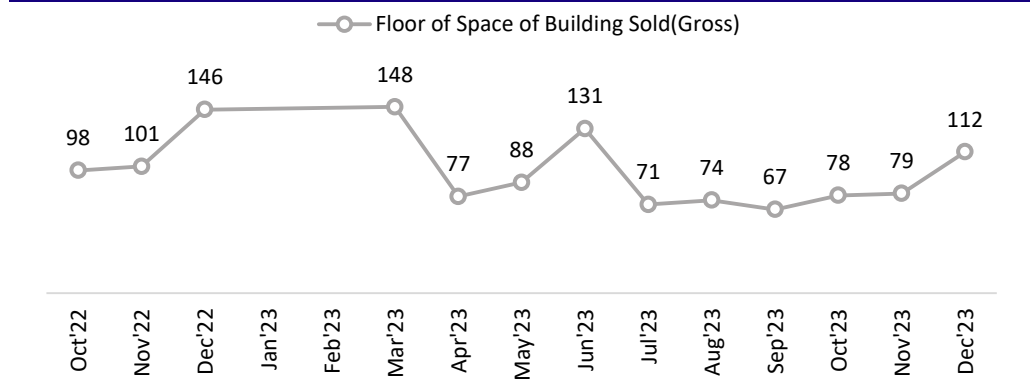
Exhibit 57: M2 money supply (CNY t)



**Exhibit 58: China floor space - start (mn. Sq. mts.)**



**Exhibit 59: China floor space - sold (mn. Sq. mts.)**





## Commodity monthly heat map

Commodity	UoM	Apr'23	May'23	Jun'23	Jul'23	Aug'23	Sep'23	Oct'23	Nov'23	Dec'23	Jan'24	Feb'24	Mar'24	MoM
<b>Oil and non-ferrous - prices</b>														
Brent Crude	USD/bbl	84	76	75	80	86	94	91	83	78	80	84	85	2
Copper	USD/t	8,816	8,253	8,386	8,445	8,353	8,271	7,940	8,174	8,404	8,350	8,311	8,481	2
Aluminum	USD/t	2,337	2,270	2,181	2,152	2,134	2,178	2,192	2,202	2,180	2,200	2,183	2,196	1
Zinc	USD/t	2,777	2,486	2,368	2,397	2,400	2,488	2,449	2,544	2,509	2,527	2,364	2,445	3
Lead	USD/t	2,147	2,090	2,118	2,107	2,153	2,253	2,136	2,185	2,037	2,085	2,084	2,074	0
Nickel	USD/t	23,771	22,135	21,233	21,091	20,446	19,645	18,264	17,027	16,444	16,112	16,338	17,649	8
Alumina	USD/t	359	348	341	329	339	340	337	332	331	333	333	#DIV/0!	NA
Aluminum Ingot Premium (Asia - MJP)	USD/t	99	124	122	119	117	103	104	108	99	#DIV/0!	#DIV/0!	NA	NA
Aluminum Ingot Premium (EU - Rotterdam)	USD/t	323	323	318	305	290	275	233	202	183	223	248	248	0
Aluminum Ingot Premium (US midwest)	USD/t	553	550	537	516	476	451	434	418	441	423	420	389	-7
Aluminum scrap	USD/t	1,715	1,608	1,536	1,515	1,532	1,521	1,552	1,570	1,561	1,569	1,571	1,603	2
Aluminum scrap spread	USD/t	622	662	645	638	602	656	640	632	619	631	612	593	-3
Silver	USD/t	886	860	830	861	831	828	795	825	852	813	805	851	6
USD:INR (Bloomberg)	INR	82	82	82	82	83	83	83	83	83	83	83	83	0
<b>Ferrous- International Prices</b>														
China HRC domestic	RMB/t	4,185	3,838	3,846	3,916	3,960	3,934	3,829	3,961	4,053	4,068	4,033	3,965	-2
China HRC domestic	USD/t	608	549	537	545	546	539	524	548	568	567	561	551	-2
China TMT domestic	RMB/t	4,023	3,748	3,774	3,796	3,765	3,910	3,928	4,003	4,143	4,126	4,099	4,059	-1
China TMT domestic	USD/t	584	536	527	528	519	536	537	554	580	576	570	564	-1
China HRC FoB	USD/t	661	562	551	563	569	555	532	559	575	574	563	555	-1
Korea HRC FoB	USD/t	689	681	624	601	605	600	595	NA	622	625	623	610	-2
North Europe HRC domestic	EUR/t	853	806	702	669	656	659	624	648	678	729	744	715	-4
North America HRC domestic (USD/short ton)	USD/st	1,155	1,128	969	964	828	721	707	874	1,057	1,104	1,013	829	-18
India HRC Export FoB (USD/t)	USD/t	700	598	567	570	575	580	580	NA	NA	597	598	593	-1
Australia Fe 62% iron ore CNF	USD/t	118	105	111	112	109	121	119	130	136	136	127	117	-7
<b>Chinese steel futures</b>														
TMT - Shanghai futures	RMB/t	3,885	3,607	3,691	3,764	3,720	3,731	3,649	3,890	3,974	3,947	3,823	3,716	-3
HRC - Shanghai futures	RMB/t	3,962	3,681	3,794	3,892	3,904	3,883	3,775	3,971	4,076	4,065	3,950	3,855	-2
Iron ore - Dalian Commodity Exchange	RMB/t	768	712	794	806	765	854	854	942	948	974	932	876	-6

Commodity	UoM	Apr'23	May'23	Jun'23	Jul'23	Aug'23	Sep'23	Oct'23	Nov'23	Dec'23	Jan'24	Feb'24	Mar'24	MoM
Coking coal - Dalian Commodity Exchange	RMB/t	1,561	1,336	1,317	1,419	1,441	1,781	1,777	1,982	1,947	1,823	1,726	1,740	1
China HRC FOB spread over RM (HRC - 1.7x iron ore -.85x HCC)	RMB/t	1,329	1,334	1,324	1,317	1,378	917	812	685	810	860	898	887	-1
<b>India steel and metallics prices</b>														
India HRC ex-Mumbai 5-10mm	INR/t	59,900	57,575	55,422	55,560	56,367	57,827	58,010	55,300	55,089	54,317	53,900	52,900	-2
Dom HRC prem to India export FoB price	INR/t	2,468	8,354	8,785	8,734	8,759	9,647	9,740	NA	NA	4,697	4,302	3,776	-12
CRC ex-Mumbai - 0.9mm	INR/t	64,186	62,500	59,888	59,443	60,800	62,244	63,450	62,600	62,400	61,917	61,683	61,300	-1
Galvanized plain - 120 GSM	INR/t	74,643	70,500	67,943	67,538	67,925	68,617	69,980	68,700	67,850	66,600	65,567	65,100	-1
Color coated /PPGI ex-Mumbai 90GSM	INR/t	82,725	81,550	79,540	78,900	78,800	79,200	79,500	78,700	78,267	76,850	75,500	75,100	-1
Wire rod - Primary Producers	INR/t	56,383	54,525	51,843	50,343	50,250	53,400	55,833	54,100	52,900	51,000	50,240	49,500	-1
TMT primary - Mumbai	INR/t	59,780	57,225	53,713	51,211	51,060	56,538	57,486	55,650	53,967	51,857	51,817	51,800	0
TMT secondary - Mumbai	INR/t	54,929	53,458	50,857	46,977	48,926	51,977	50,835	49,067	48,761	48,690	48,234	49,245	2
Domestic scrap-HMS(80:20) - Mumbai	INR/t	38,177	37,442	36,987	34,268	35,503	36,807	35,442	33,760	33,758	33,269	32,878	33,589	2
Sponge iron (DRI)	INR/t	29,540	27,885	27,155	25,518	28,318	30,023	28,248	26,642	26,184	25,756	25,636	26,036	2
Domestic pellet prices- Barbil - 63% Fe	INR/t	9,064	8,417	7,925	7,613	8,067	8,989	8,470	8,440	8,686	9,250	8,617	8,175	-5
Pellet Export Prices - FoB 64%Fe	USD/t	109	97	108	107	103	111	112	125	128	125	113	105	-7
<b>Domestic ferrous spreads</b>														
Primary HRC v/s primary TMT	INR/t	120	350	1,710	4,349	5,307	1,290	524	-350	1,122	2,460	2,083	1,100	-47
Primary TMT v/s secondary TMT	INR/t	4,851	3,767	2,856	4,234	2,134	4,561	6,650	6,583	5,205	3,167	3,582	2,555	-29
Secondary TMT v/s domestic Scrap	INR/t	16,752	16,016	13,870	12,710	13,423	15,170	15,394	15,307	15,003	15,422	15,357	15,657	2
Hot rolled v/s cold rolled	INR/t	4,286	4,925	4,465	3,883	4,433	4,417	5,440	7,300	7,311	7,600	7,783	8,400	8
Hot rolled - galvanized Plan	INR/t	14,743	12,925	12,521	11,978	11,558	10,789	11,970	13,400	12,761	12,283	11,667	12,200	5
Hot rolled - color coated	INR/t	22,825	23,975	24,118	23,340	22,433	21,373	21,490	23,400	23,178	22,533	21,600	22,200	3
<b>Coking coal</b>														
India premium HCC CNF	USD/t	290	246	244	245	267	316	364	337	345	348	332	326	-2
India 64 mid vols coking coal CNF	USD/t	258	222	216	213	234	264	286	276	294	289	277	274	-1
<b>NMDC iron ore - Chhattisgarh</b>														
64% Bailadila fines	INR/t	4,010	3,785	3,560	3,950	3,910	4,110	4,460	4,593	4,660	5,020	5,310	5,310	0
Iron ore lump	INR/t	4,200	4,050	3,900	4,530	4,650	4,850	5,200	5,333	5,400	5,720	6,000	6,000	0
<b>Domestic ferro alloys</b>														
Silico manganese	INR/t	75,048	73,510	70,979	67,184	67,313	69,760	65,777	63,030	63,761	64,558	67,810	66,827	-1
Ferro manganese	INR/t	77,500	75,456	73,392	69,539	67,982	69,898	66,805	63,648	63,726	65,145	67,760	67,164	-1
Ferro chrome	INR/t	38,177	37,442	36,987	34,268	35,503	36,807	35,442	33,760	33,758	33,269	32,878	33,589	2
<b>Ferrous - inventory</b>														

Commodity	UoM	Apr'23	May'23	Jun'23	Jul'23	Aug'23	Sep'23	Oct'23	Nov'23	Dec'23	Jan'24	Feb'24	Mar'24	MoM
China HRC	mt	2	3	3	3	3	3	3	3	2	2	3	3	21
China wire rod	mt	3	2	2	2	2	1	1	1	1	1	2	3	36
China TMT	mt	7	6	5	5	6	5	5	4	4	4	6	8	32
<b>Non-ferrous - inventory</b>														
<b>Aluminum</b>														
LME	kt	544	568	563	524	506	495	489	473	482	555	549	583	6
SHFE	kt	96	74	54	54	50	52	63	66	49	45	62	83	34
<b>Total</b>	<b>kt</b>	<b>640</b>	<b>642</b>	<b>617</b>	<b>578</b>	<b>556</b>	<b>547</b>	<b>552</b>	<b>539</b>	<b>531</b>	<b>600</b>	<b>610</b>	<b>666</b>	<b>9</b>
<b>Zinc</b>														
LME	kt	48	55	83	82	122	126	86	130	220	208	244	274	12
SHFE	kt	28	12	9	16	18	13	7	7	5	5	17	40	134
<b>Total</b>	<b>kt</b>	<b>76</b>	<b>67</b>	<b>92</b>	<b>98</b>	<b>141</b>	<b>139</b>	<b>93</b>	<b>137</b>	<b>225</b>	<b>213</b>	<b>262</b>	<b>314</b>	<b>20</b>
<b>Lead</b>														
LME	kt	29	34	39	48	56	64	101	135	131	119	160	188	17
SHFE	kt	32	27	36	34	51	67	69	68	58	48	41	56	37
<b>Total</b>	<b>kt</b>	<b>61</b>	<b>61</b>	<b>75</b>	<b>82</b>	<b>107</b>	<b>131</b>	<b>171</b>	<b>203</b>	<b>189</b>	<b>167</b>	<b>201</b>	<b>244</b>	<b>21</b>
<b>Copper</b>														
LME	kt	59	83	88	61	89	143	179	178	174	158	132	115	-13
SHFE	kt	66	53	29	22	13	9	9	3	6	8	64	145	125
<b>Total</b>	<b>kt</b>	<b>125</b>	<b>136</b>	<b>117</b>	<b>83</b>	<b>101</b>	<b>152</b>	<b>188</b>	<b>181</b>	<b>179</b>	<b>166</b>	<b>196</b>	<b>260</b>	<b>32</b>
<b>Nickel</b>														
LME	kt	42	39	38	38	37	40	44	44	52	68	71	74	4
SHFE	kt	2	1	3	3	3	5	9	11	13	14	16	19	15
<b>Total</b>	<b>kt</b>	<b>43</b>	<b>40</b>	<b>41</b>	<b>40</b>	<b>40</b>	<b>45</b>	<b>52</b>	<b>54</b>	<b>65</b>	<b>82</b>	<b>87</b>	<b>92</b>	<b>6</b>

## Metals valuation matrix

Exhibit 60: Global steel comparative valuation

Company	M-Cap USD m	P/E (x)		EV/EBITDA (x)		P/B (x)		RoE (%)	
		CY22/ FY23	CY23/ FY24	CY22/ FY23	CY23/ FY24	CY22/ FY23	CY23/ FY24	CY22/ FY23	CY23/ FY24
<b>India</b>									
Tata*	23,201	21.7	38.6	7.9	11.6	1.9	2.1	8.3	5.2
JSW*	24,458	56.3	19.0	13.9	8.7	3.0	2.7	5.3	15.1
JSP*	10,175	22.7	13.8	9.0	9.1	2.1	1.9	9.9	14.5
SAIL*	6,692	28.6	38.0	10.6	10.0	1.0	1.0	3.5	2.6
<b>Japan</b>									
JFE	10,634	9.4	7.7	7.4	6.2	0.7	0.6	7.4	8.8
Nippon Steel	23,625	5.3	7.3	5.5	6.1	0.8	0.7	17.3	10.8
Kobe Steel	5,304	12.3	6.3	8.4	5.2	0.9	0.8	7.5	12.8
<b>Korea</b>									
POSCO	28,228	14.4	15.6	6.0	6.1	0.7	0.6	4.7	4.3
Hyundai Steel	3,404	6.2	7.8	5.0	4.8	0.2	0.2	3.7	3.0
<b>US</b>									
Nucor	44,735	10.4	14.1	6.3	8.0	2.2	2.0	21.7	15.3
US Steel	10,614	11.2	15.0	5.9	6.4	1.0	0.9	9.6	6.6
Steel Dynamics	20,794	8.9	12.5	6.0	8.2	2.4	2.2	28.1	18.5
<b>Europe</b>									
AM	22,171	6.9	5.4	3.6	3.6	0.4	0.4	6.3	7.8
SSAB	7,441	6.0	9.1	3.0	4.2	1.1	1.1	18.4	11.9
TKA	3,085	17.1	12.7	NA	NA	0.2	0.2	1.1	2.7
VOE	4,749	4.3	8.8	2.6	3.6	0.6	0.5	13.8	6.5
<b>China</b>									
Baosteel	20,934	13.4	11.5	5.5	5.0	0.8	0.7	5.5	6.4

Source: MOFSL, Company, Bloomberg(\*) denotes MOFSL estimates

Exhibit 61: Diversified miners global comparative valuation

Company	M-Cap USD m	P/E (x)		EV/EBITDA (x)		P/B (x)		RoE (%)	
		CY22/ FY23	CY23/ FY24	CY22/ FY23	CY23/ FY24	CY22/ FY23	CY23/ FY24	CY22/ FY23	CY23/ FY24
<b>Vedanta*</b>	<b>12,363</b>	<b>9.7</b>	<b>23.3</b>	<b>5.3</b>	<b>7.2</b>	<b>2.6</b>	<b>3.9</b>	<b>20.1</b>	<b>13.4</b>
BHP	1,43,661	10.4	10.4	5.6	5.5	3.3	3.1	31.0	31.8
Rio	1,04,637	8.4	7.8	4.6	4.2	1.8	1.6	21.9	22.3
Glencore	61,775	9.4	12.3	4.9	5.0	1.4	1.4	14.7	11.5
Anglo	28,462	9.9	10.4	4.6	4.5	1.1	1.0	10.2	10.4
South 32	8,754	9.3	22.0	3.5	5.5	0.9	0.9	9.7	4.1

Source: MOFSL, Company, Bloomberg(\*) denotes MOFSL estimates

Exhibit 62: Zinc global comparative valuation

Company	M-Cap USD m	P/E (x)		EV/EBITDA (x)		P/B (x)		RoE (%)	
		CY22/ FY23	CY23/ FY24	CY22/ FY23	CY23/ FY24	CY22/ FY23	CY23/ FY24	CY22/ FY23	CY23/ FY24
<b>HZL*</b>	<b>15,766</b>	<b>12.5</b>	<b>17.0</b>	<b>7.5</b>	<b>9.5</b>	<b>10.2</b>	<b>9.2</b>	<b>44.5</b>	<b>56.7</b>
Korea Zinc	7,202	18.8	16.3	9.5	8.4	1.0	1.0	5.3	6.0
Teck	21,416	10.5	11.3	5.6	4.3	1.1	1.0	9.9	9.4

Source: MOFSL, Company, Bloomberg(\*) denotes MOFSL estimates

### Exhibit 63: Coal global comparative valuation

Company	M-Cap USD m	P/E (x)		EV/EBITDA (x)		P/B (x)		RoE (%)	
		CY22/ FY23	CY23/ FY24	CY22/ FY23	CY23/ FY24	CY22/ FY23	CY23/ FY24	CY22/ FY23	CY23/ FY24
<b>Coal*</b>	<b>33,696</b>	<b>9.9</b>	<b>9.6</b>	<b>5.9</b>	<b>6.0</b>	<b>4.9</b>	<b>3.9</b>	<b>49.2</b>	<b>40.8</b>
China Shenhua	1,01,736	8.4	8.7	5.9	5.9	1.3	1.3	15.6	14.1
Banpu	1,586	6.8	8.1	4.8	5.0	0.4	0.4	7.1	5.1
Bukit Asam	2,156	6.3	6.8	4.0	4.2	1.4	1.4	21.9	20.7
Adaro Energy	5,510	3.5	5.1	1.7	2.6	0.8	0.8	23.5	16.0

Source: MOFSL, Company, Bloomberg(\*) denotes MOFSL estimates

### Exhibit 64: Aluminum global comparative valuation

Company	M-Cap USD m	P/E (x)		EV/EBITDA (x)		P/B (x)		RoE (%)	
		CY22/ FY23	CY23/ FY24	CY22/ FY23	CY23/ FY24	CY22/ FY23	CY23/ FY24	CY22/ FY23	CY23/ FY24
<b>Hindalco*</b>	<b>14,476</b>	<b>11.8</b>	<b>11.7</b>	<b>6.9</b>	<b>6.3</b>	<b>1.7</b>	<b>1.5</b>	<b>16.3</b>	<b>13.7</b>
<b>Nalco*</b>	<b>3,491</b>	<b>20.1</b>	<b>20.7</b>	<b>10.9</b>	<b>10.3</b>	<b>2.2</b>	<b>2.1</b>	<b>11.2</b>	<b>10.3</b>
Alcoa	5,360	NA	106.2	14.7	8.4	1.2	1.2	-9.5	1.3
Norsk Hydro	10,866	13.2	11.0	5.9	5.3	1.1	1.1	8.1	9.7
CHALCO	14,361	11.4	9.4	6.7	5.6	1.1	1.0	11.0	11.6
RUSAL	4,663	3.4	2.4	6.1	4.4	0.3	0.3	10.6	14.1
Alumina	2,257	NA	155.5	NA	43.0	1.5	1.6	-3.0	3.1

Source: MOFSL, Company, Bloomberg(\*) denotes MOFSL estimates

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## NOTES

Explanation of Investment Rating	
Investment Rating	Expected return (over 12-month)
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NEUTRAL	> - 10 % to 15%
UNDER REVIEW	Rating may undergo a change
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