

### Indian companies valuation

	Price	EV/ EBITDA (x)		P/B (x)	
		FY23	FY24E	FY23	FY24E
	(INR)				
Steel					
Tata	121	6.7	9.3	1.5	1.6
JSW	759	13.0	7.8	2.8	2.4
JSP	637	7.1	7.4	1.7	1.5
SAIL	88	8.3	6.5	0.7	0.6
Non-ferrous					
Vedanta	242	4.8	7.4	2.3	3.3
Hindalco	487	6.4	6.0	1.6	1.4
Nalco	92	6.0	6.3	1.3	1.2
Mining					
Coal	348	3.9	4.3	3.5	2.8
HZL	303	7.7	9.1	10.4	7.9
NMDC	177	7.5	6.6	2.3	2.0

### Global companies valuation

Global companies valuation				
Company	M.Cap USD b	EV/EBITDA (x)		P/B (x)
		CY22/ FY23	CY23/ FY24	
Steel				
AM	19	3.2	3.4	0.3
SSAB	7	2.7	4.0	1.0
Nucor	38	5.3	7.3	1.8
POSCO	29	6.0	5.4	0.7
JFE	9	7.0	6.0	0.6
Aluminum				
Norsk Hydro	11	5.9	5.0	1.2
Alcoa	4	12.4	5.7	1.0
Zinc				
Teck	18	4.9	3.8	0.9
Korea Zinc	8	9.8	8.4	1.0
Iron ore				
Vale	65	4.4	4.2	1.5
FMG	46	4.9	5.5	2.5
Diversified				
BHP	147	5.7	5.7	3.3
Rio	110	4.9	4.8	1.9

## Festive mood keeps metal prices in check for fifth consecutive week

### Trade level prices dip further; long steel trading at a premium to flat steel products

- A slowdown in buying activity, due to Diwali holidays, higher imports, a notable absence of mills from export markets, and customers adopting a more need-based approach to purchasing, has contributed to sustained pressure since 6 Oct'23.
- Though Tier-I mills continue to remain focused on the domestic market, HRC prices have been correcting over the last five weeks. HRC/rebar prices were down 1% WoW to INR55,300/t and INR56,000/t, respectively.
- Though low buying activity during Diwali has kept the long steel prices under pressure, it has fared better than flat steel prices and currently commands a premium of ~INR700/t over flat steel.
- We believe, though the demand for long steel might remain under pressure in the near term due to liquidity crunch and labor availability issues during the festive season, it is expected to pick up as various infrastructure projects line up for completion before the election next year.
- Our channel checks indicated that currently, HRC is being traded at around INR54,000-55,000/t. Trade level activity appears subdued, with ~50% of participants absent from the market due to Diwali holidays.

### Domestic steel industry performance – Oct '23

- Crude steel production contracted 2% MoM and increased 23% YoY at 12.1mt and finished steel production was down 4% MoM and increased 14% YoY at 11.2mt.
- Crude steel production across the sector (except TATA) was up YoY.
- Net imports in Oct'23 surged to Jul'23 levels at 0.6mt and net imports surged to a 11-month high.
- However, in FYTD, India continues to remain a net exporter.
- Consumption of finished steel was down 4% MoM and increased 16% YoY at 11.7mt.
- SAIL, TATA, RINL, AM/NS, JSTL, and JSP accounted for 59% of the total crude steel production.

### Domestic coal sector performance – Oct '23

- Though domestic coal production stood the highest in the current FY at 78.7mt, the achievement percentage was the lowest Feb'23 at 94.6% due to lower-than-expected production at BCCL and ECL.
- Dispatches continue to remain elevated compared to production at 79.3mt, which was an achievement of 91.9% against a target sales of 86.3mt.
- All subsidiaries of COAL, except NCL, achieved lower volumes than targeted volumes.
- Dispatches to the power sector (incl CPP) stood at 88% for (89% for COAL).
- Reduced demand amid lower trading activities, reduction in prime coal blending, and improved spot availability has kept the coal prices under check.
- Premium HCC is down 12% WoW and 15% MoM to USD321/t.

**Commodities and forex tracker**

	UoM	Spot	WoW (%)	MoM (%)
India HRC (ex-Mum)	INR/t	55,300	-1	-5
India TMT Prime (ex-Mum)	INR/t	56,000	-1	-3
India TMT Secondary (ex-Mum)	INR/t	49,200	0	-3
Korea HRC - FoB	USD/t	590	0	-2
China HRC Dom.	USD/t	541	1	4
China HRC - FoB	USD/t	545	3	3
India Prem HCC CNF	USD/t	321	-12	-16
India 64 Mid Vols CNF	USD/t	266	-8	-10
India Low Vols PCI CNF	USD/t	195	-8	-12
Iron Ore Fines (Odisha Index) Fe 62%	INR/t	4,900	1	-4
Iron Ore Fines (China - CNF) Fe 62%	USD/t	128	1	8
Europe Scrap HMS 1&2(80:20)	USD/t	387	1	-2
C-DRI (ex-Raipur)	INR/t	29,000	0	-3
RB1 (6000 NAR) SA FoB	USD/t	132	-2	-10
RB2 (5500 NAR), SA FoB	USD/t	123	-5	-3
Indonesia (4200 GAR) Futures	USD/t	57	1	-13
Copper	USD/t	8,006	-2	1
Aluminum	USD/t	2,206	-2	1
Zinc	USD/t	2,584	1	7
Lead	USD/t	2,190	1	6
Nickel	USD/t	17,026	-6	-7
Alumina	USD/t	334	0	-1
Ali UBC Scrap	USD/t	1,565	-1	1
Ali UBC Scrap Spread	USD/t	640	-4	1
INR:USD	x	83.3	0	0
USD:EUR	"	1.07	0	2
USD:GBP	"	1.22	-1	1
CNY:USD	"	7.29	0	0
JPY:USD	"	152	1	1

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

## FERROUS: India – prices

Exhibit 1: HRC - Mumbai (INR/t)

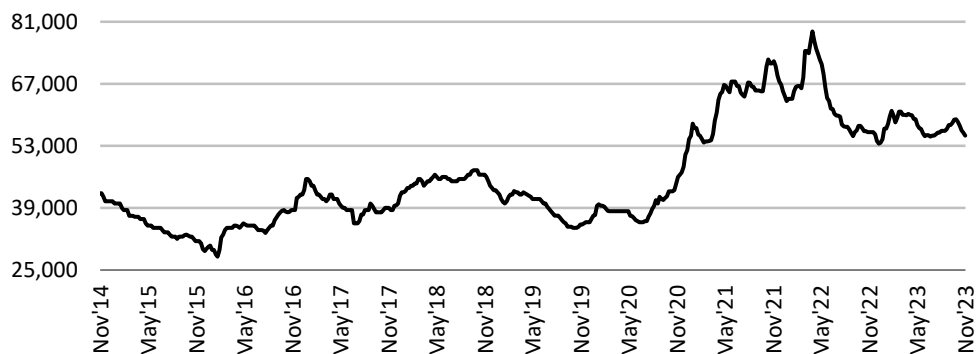


Exhibit 2: TMT Primary – Mumbai (INR/t)

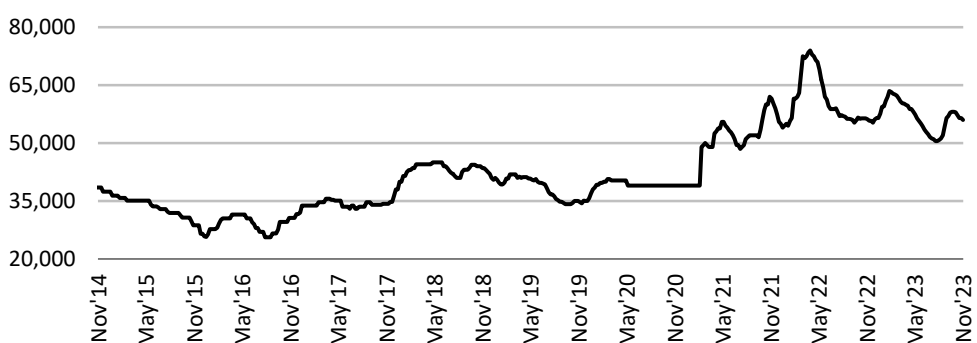
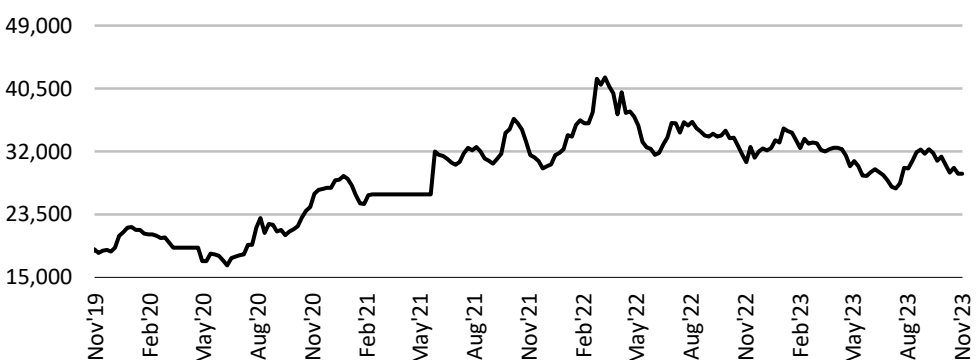
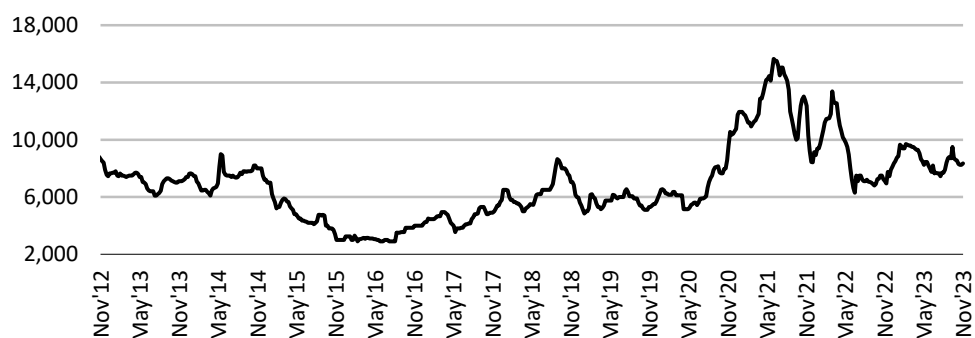


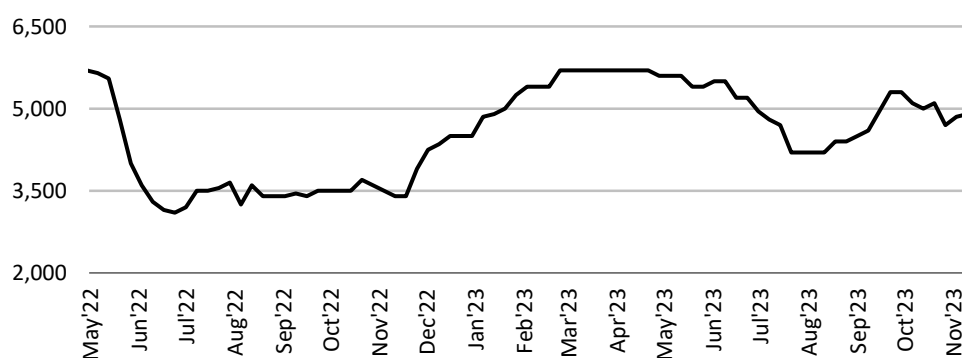
Exhibit 3: C-DRI (sponge iron), ExW-Raipur (INR/t)



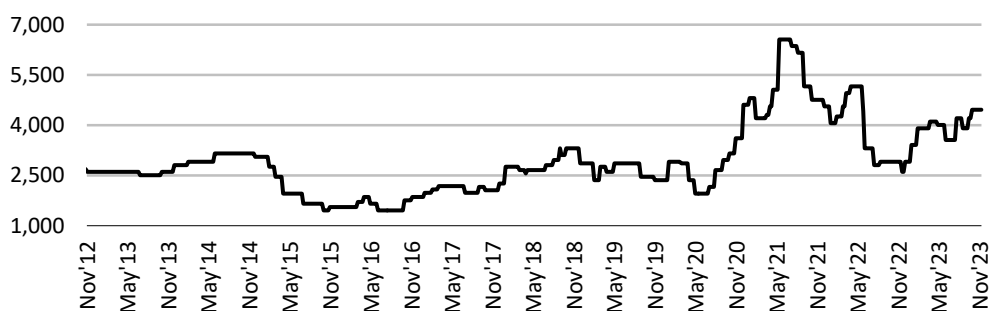
**Exhibit 4: Domestic Pellet – Barbil – 63% Fe (INR/t)**



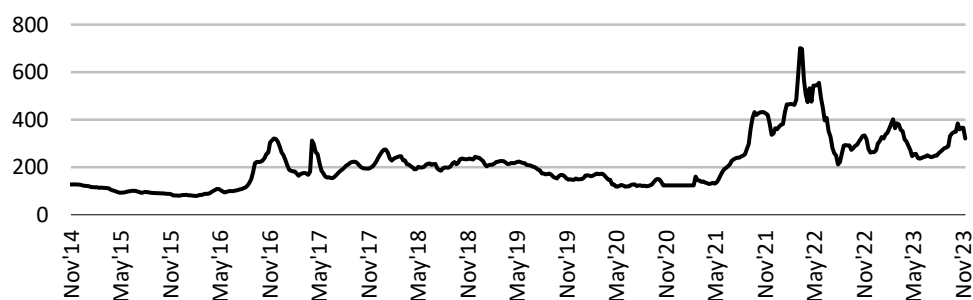
**Exhibit 5: Iron Ore Fines Odisha – Fe 62% (INR/t)**



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

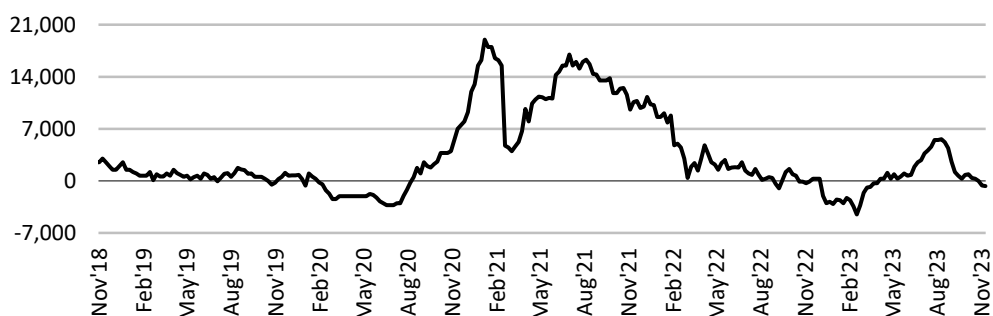


**Exhibit 7: Premium HCC CNF Paradip (USD/t)**

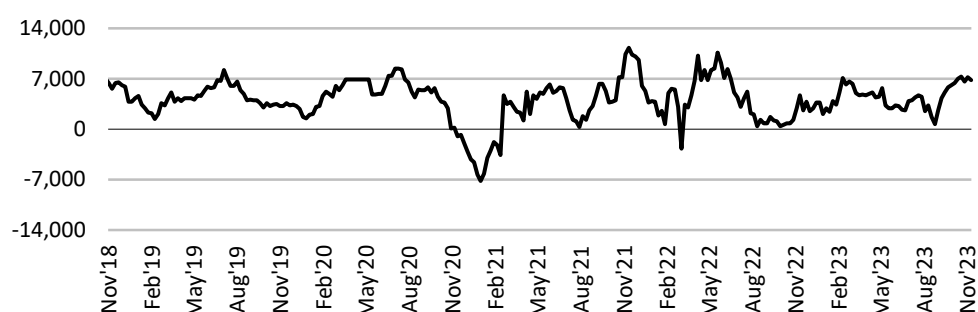


## Domestic spreads

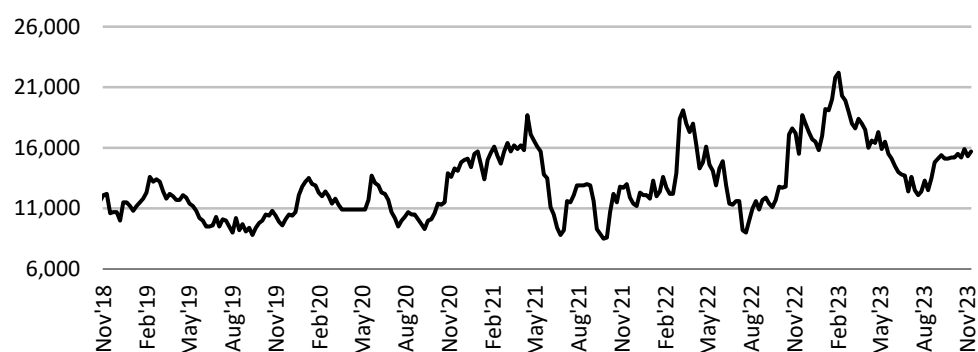
**Exhibit 8: Prime HRC v/s primary TMT (INR/t)**



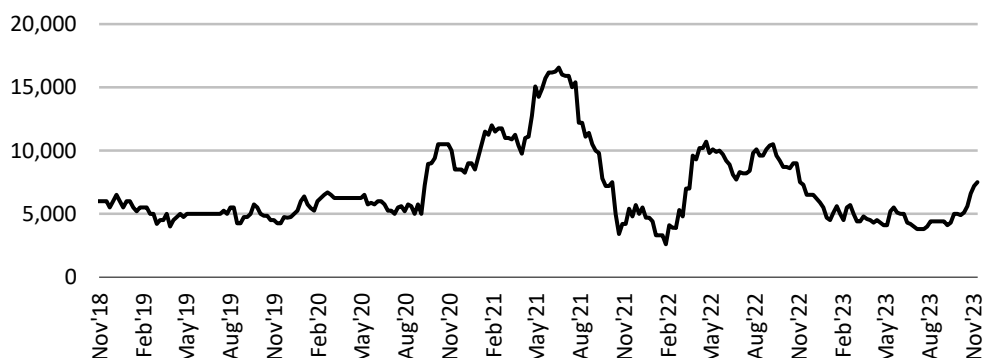
**Exhibit 9: Primary TMT v/s secondary TMT (INR/t)**



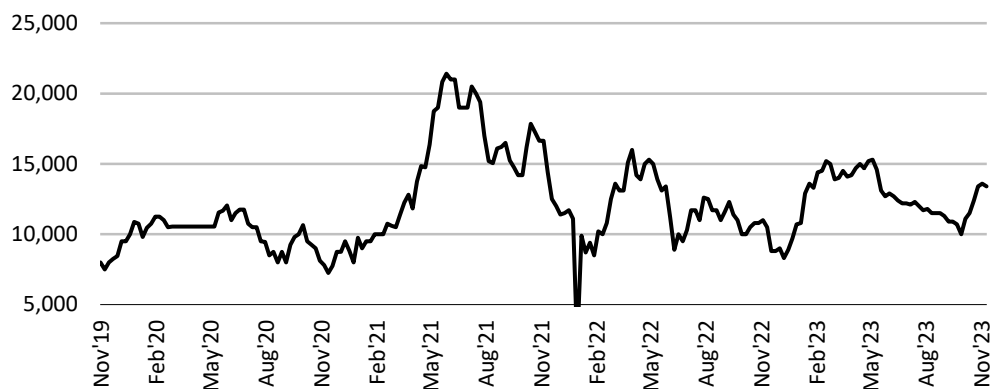
**Exhibit 10: Secondary TMT v/s domestic scrap (INR/t)**



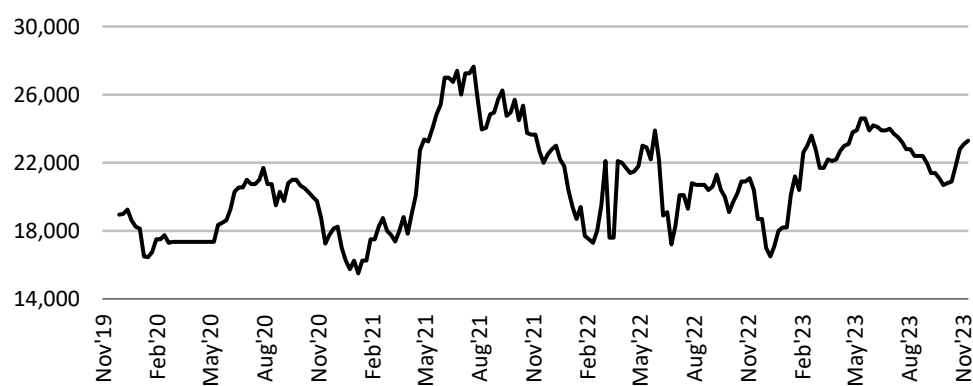
**Exhibit 11: HRC v/s CRC (INR/t)**



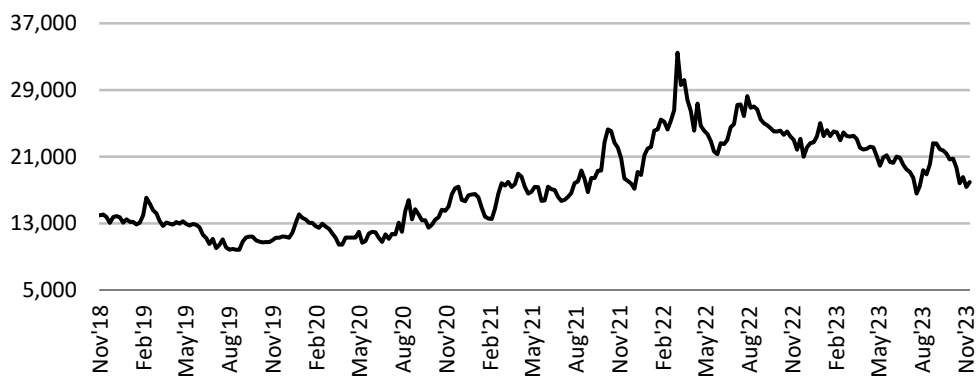
**Exhibit 12: HRC – galvanized (INR/t)**



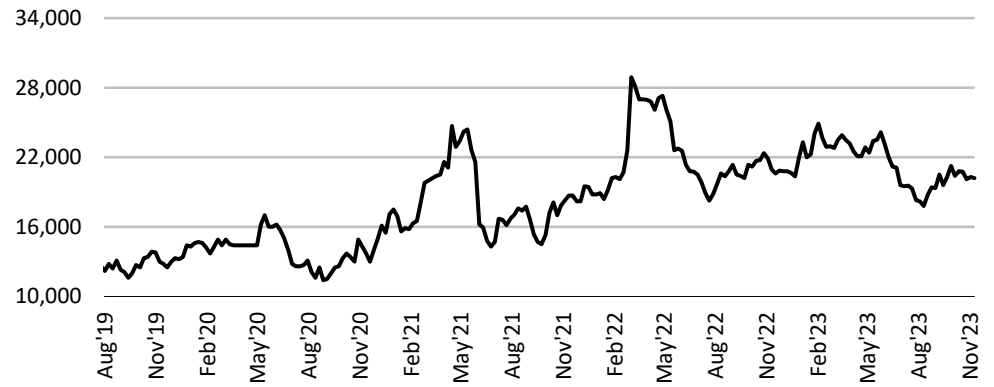
**Exhibit 13: HRC – color coated (INR/t)**



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



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



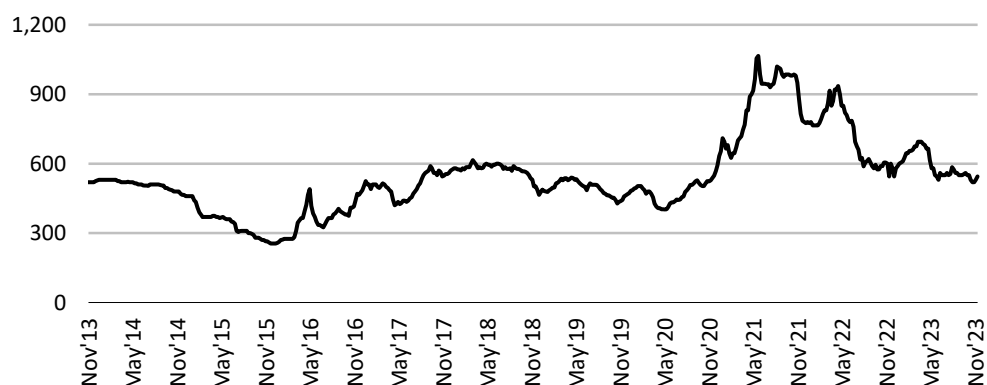
**Exhibit 16: DRI v/s pellet (INR/t)**





## China prices/spreads

**Exhibit 17: China HRC FoB (USD/t)**



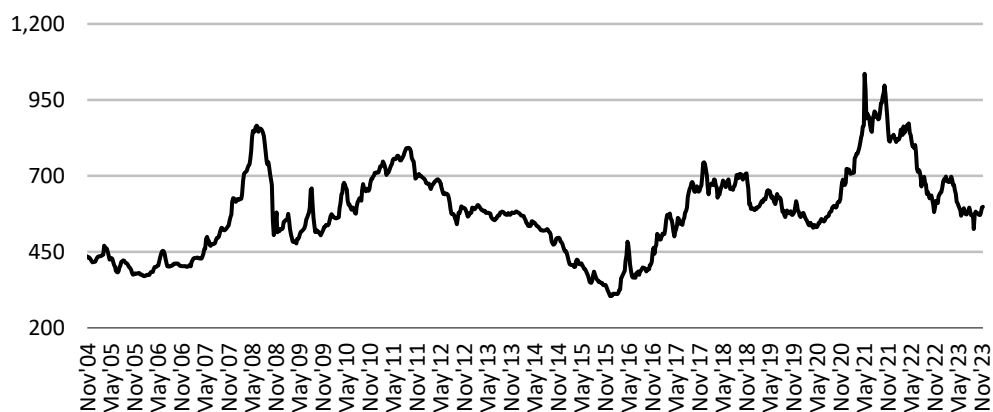
**Exhibit 18: China HRC domestic (USD/t)**



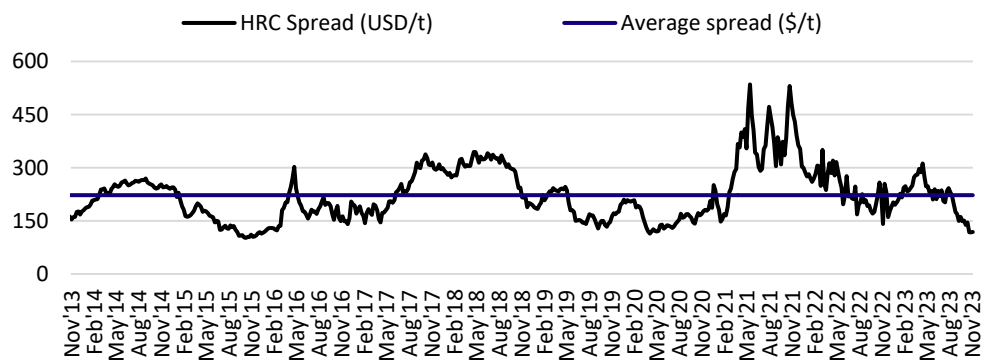
**Exhibit 19: China domestic TMT (USD/t)**



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

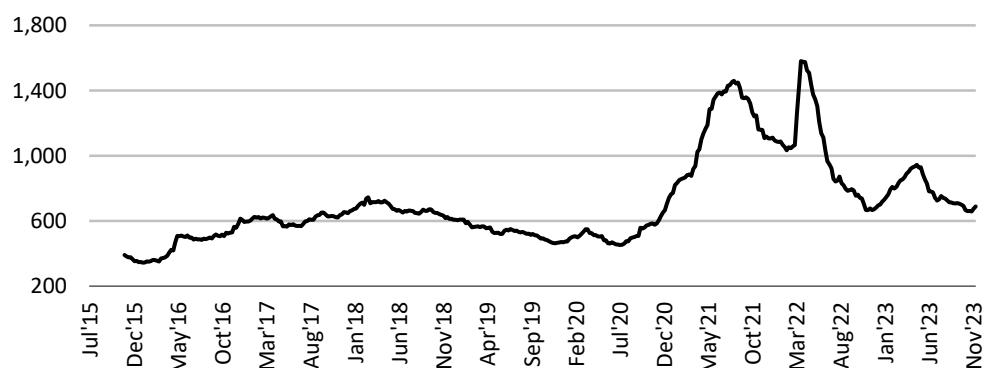


**Exhibit 21: China HRC spread (1.6x IO and 0.85x HCC)**

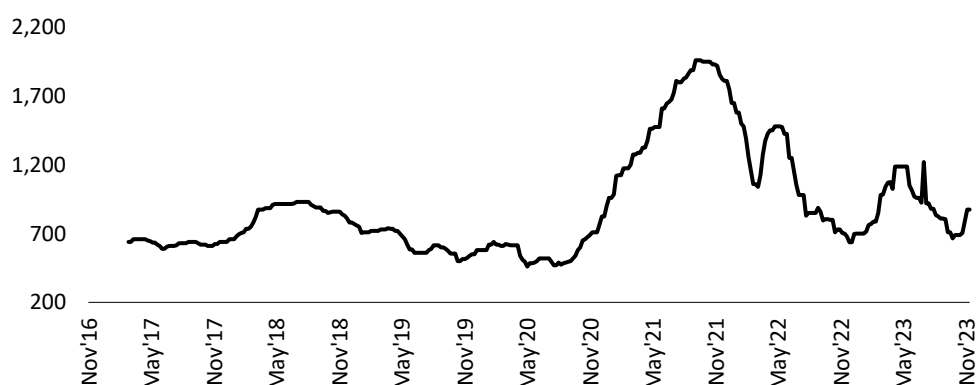


## Global prices

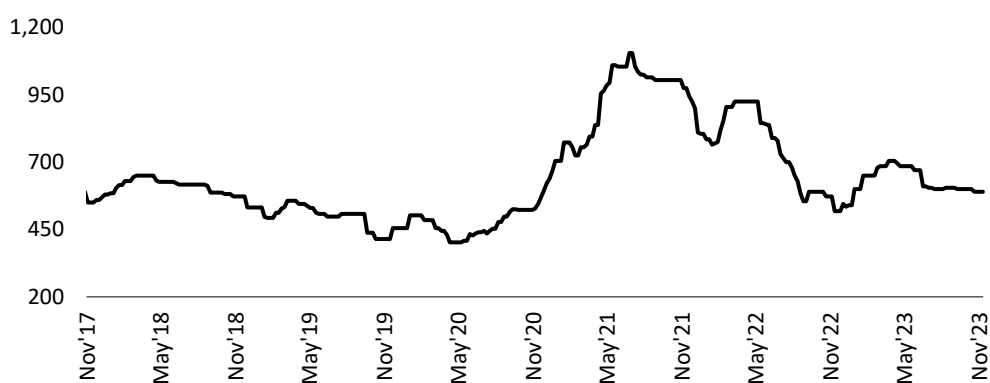
**Exhibit 22: Northern Europe HRC domestic (USD/t)**



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



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



## Inventories

Exhibit 25: India steel inventory (mt)

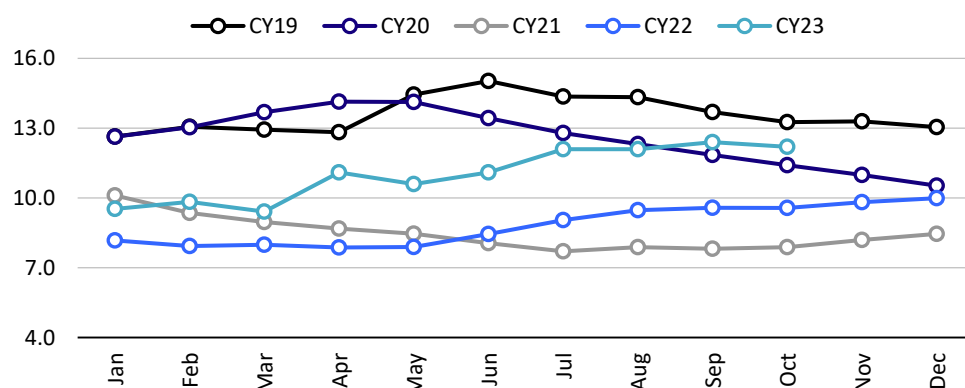


Exhibit 26: China wire rod and TMT inventory (mt)

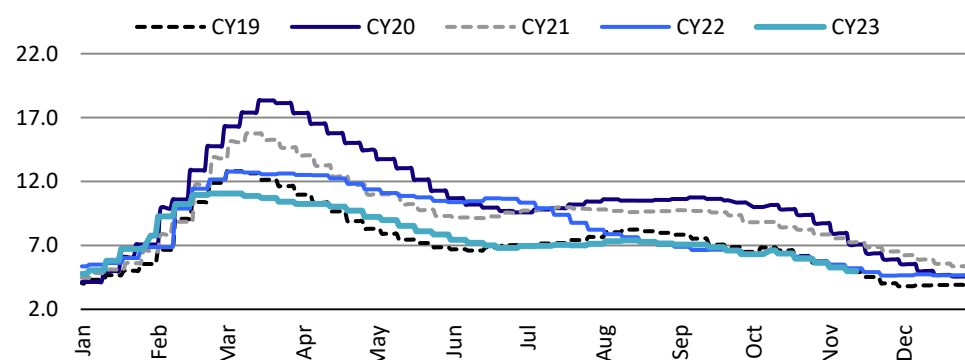
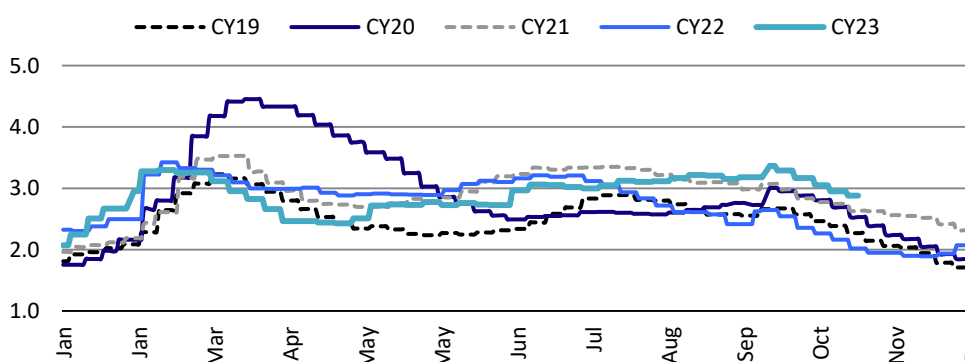


Exhibit 27: China HRC inventory (mt)



## NON-FERROUS: Aluminum

Exhibit 28: LME spot (USD/t)

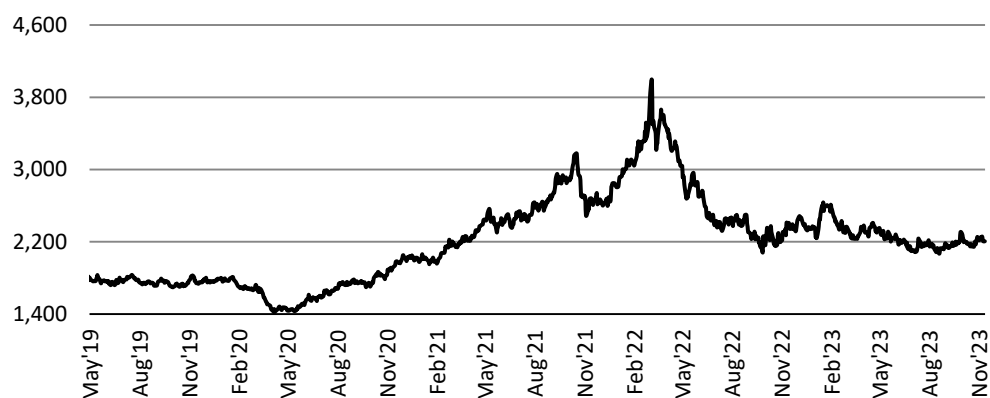


Exhibit 29: Alumina FoB Australia (USD/t)

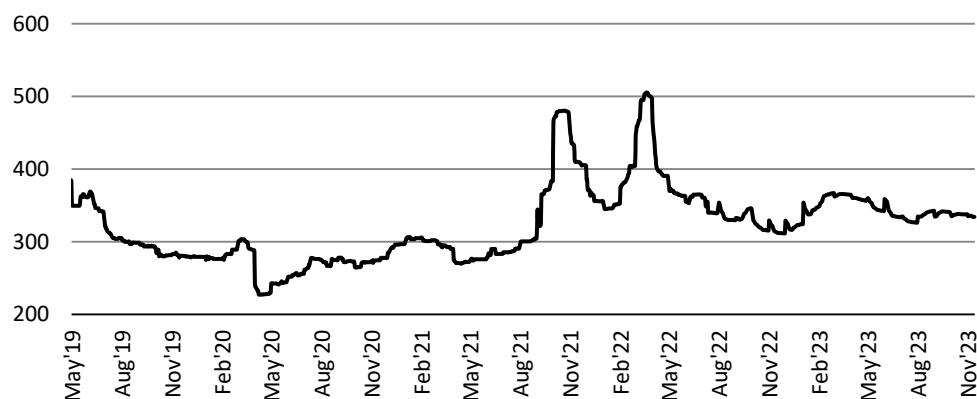
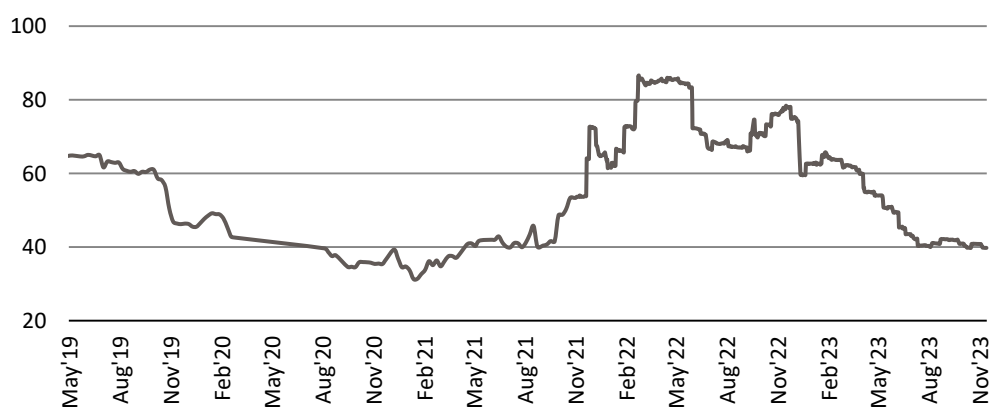
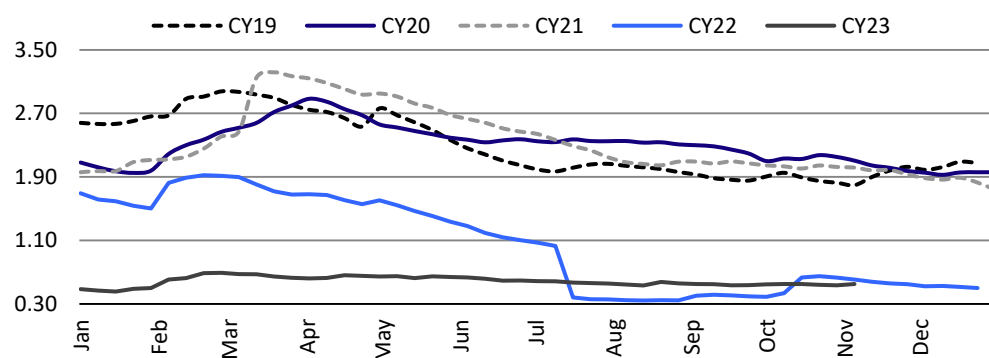


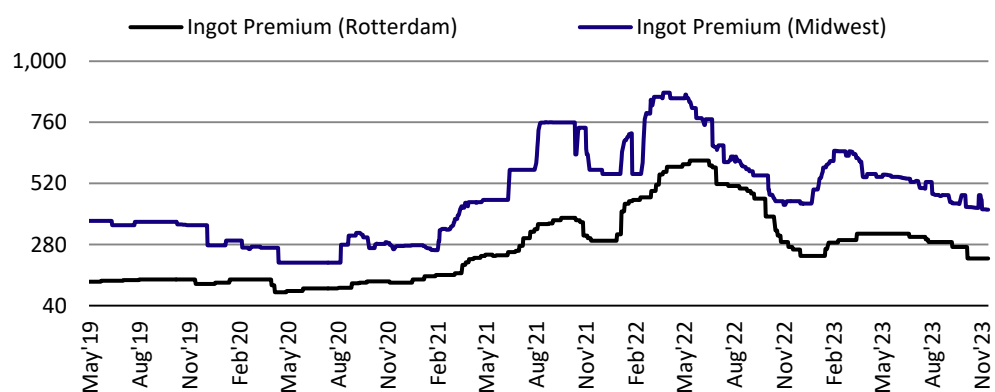
Exhibit 30: Caustic soda (USD/t)



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



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



## Copper

Exhibit 33: LME spot (USD/t)

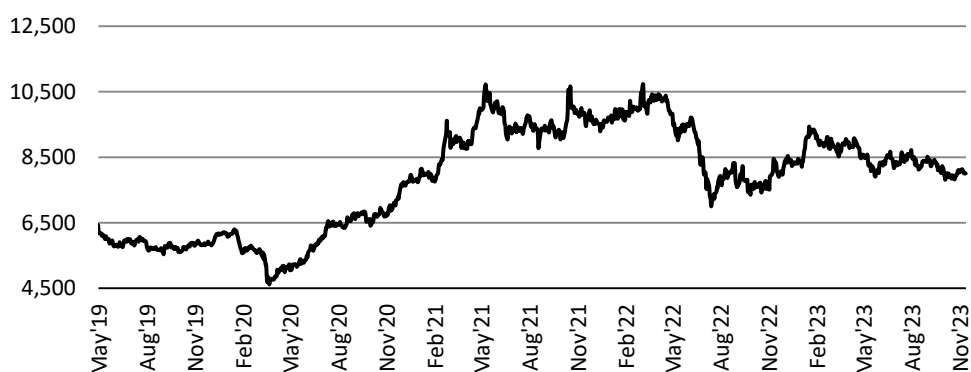
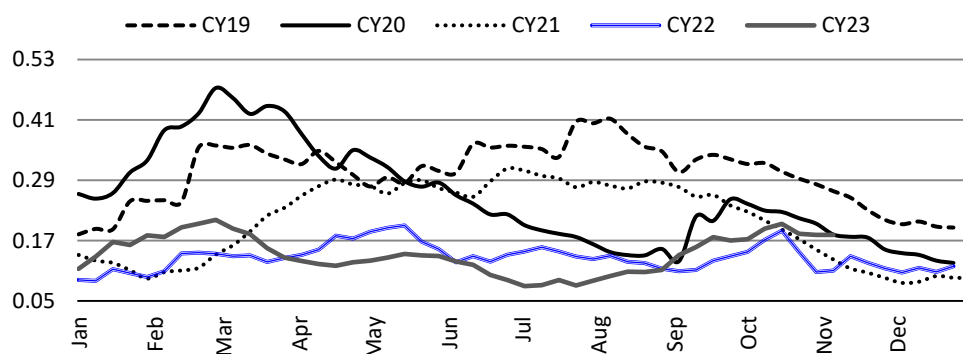


Exhibit 34: Total inventory (LME+SHFE, mt)



## Zinc

Exhibit 35: LME spot (USD/t)

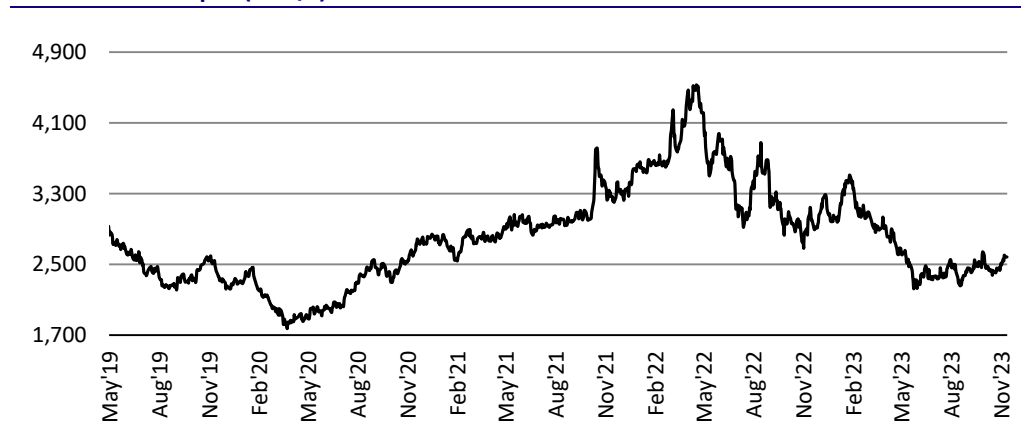
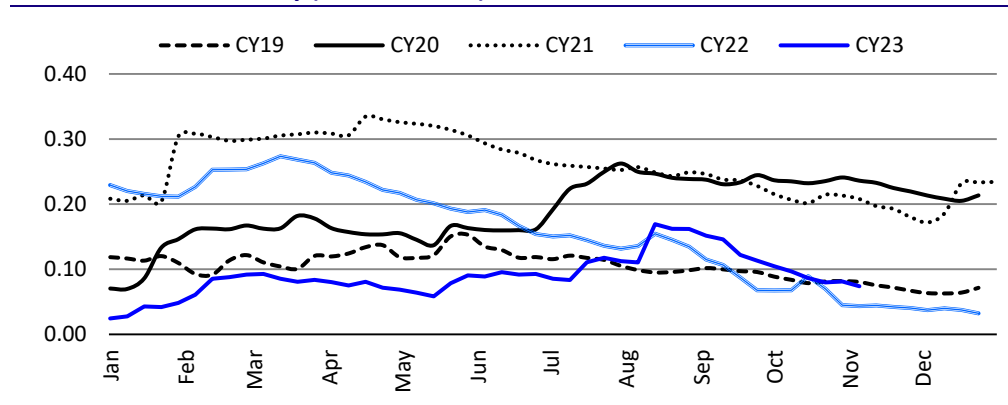


Exhibit 36: Total inventory (LME+SHFE, mt)





## Lead

Exhibit 37: LME spot (USD/t)

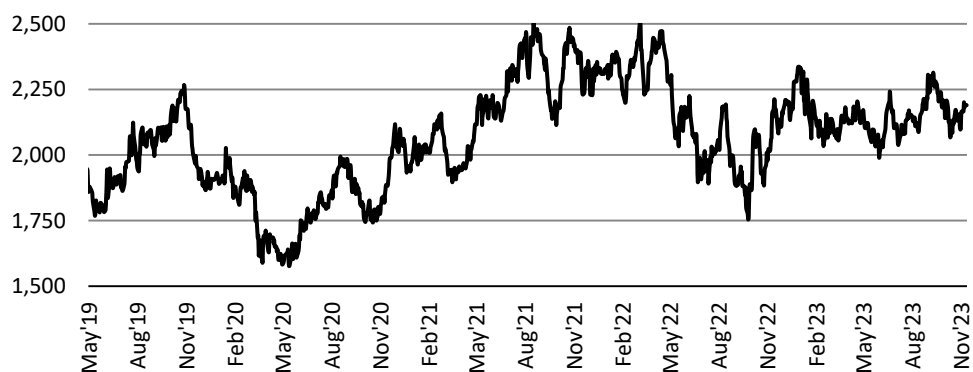
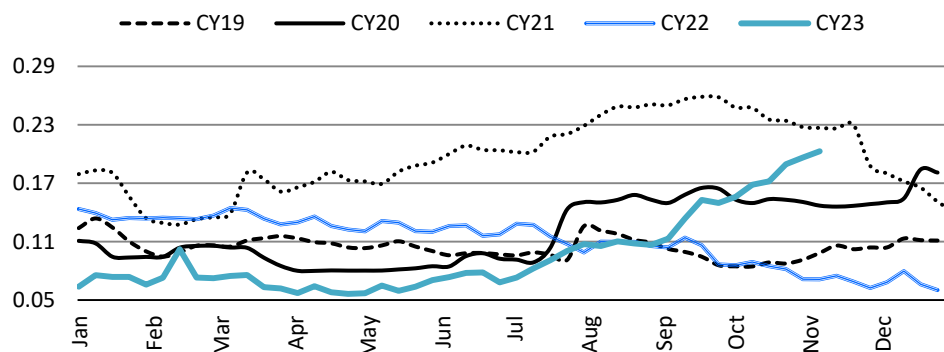


Exhibit 38: Total inventory (LME+SHFE, mt)



## Nickel

Exhibit 39: Nickel spot (USD/t)

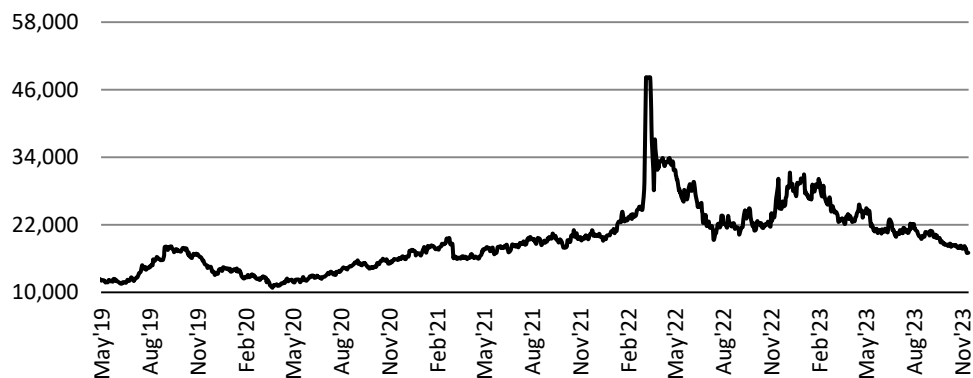
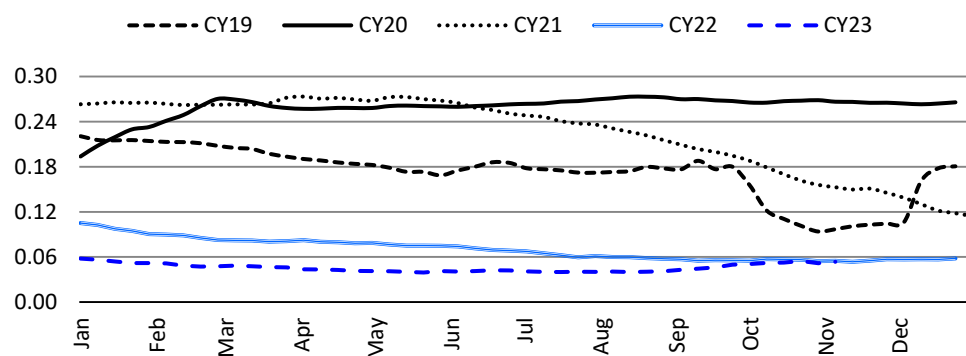


Exhibit 40: Total inventory (LME+SHFE, mt)



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

Exhibit 41: Crude steel production (mt)

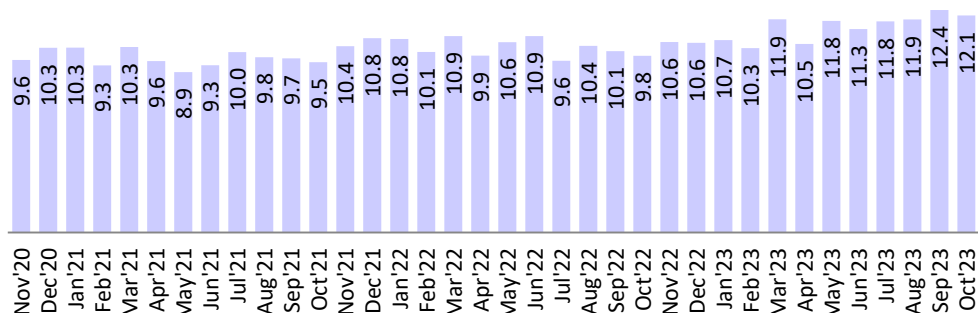


Exhibit 42: Finished steel production (mt)

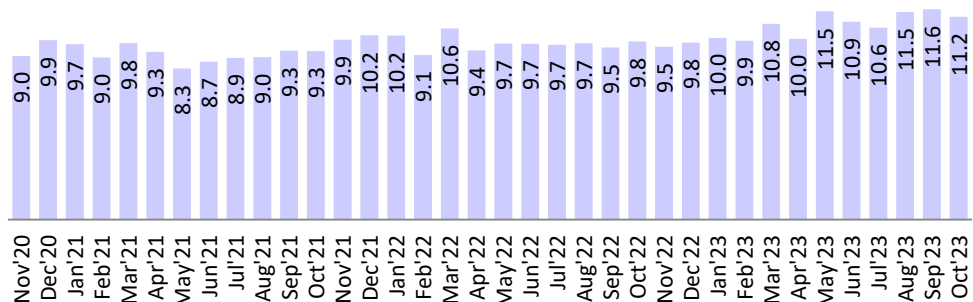


Exhibit 43: Imports including semis (kt)

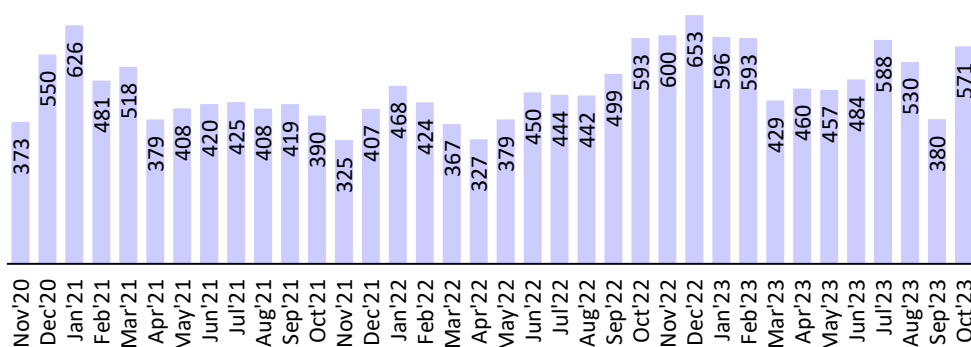


Exhibit 44: Exports including semis (kt)

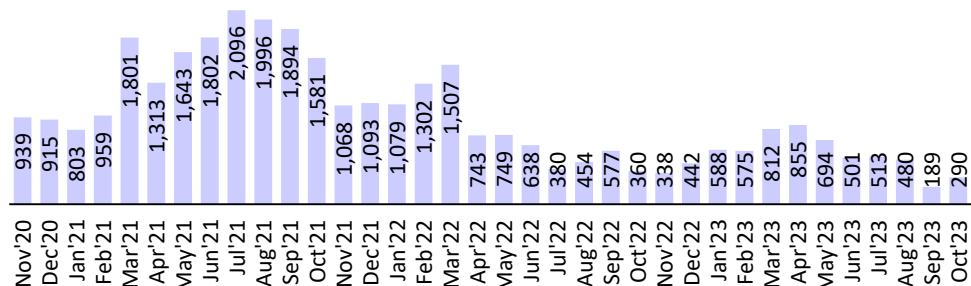


Exhibit 45: Net imports/(exports) of finished steel (kt)

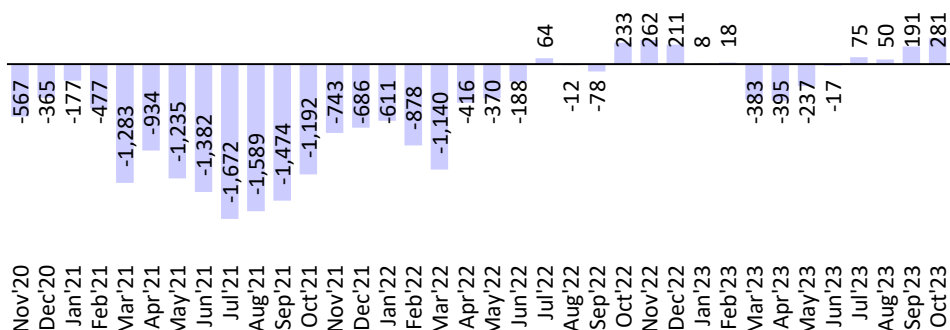
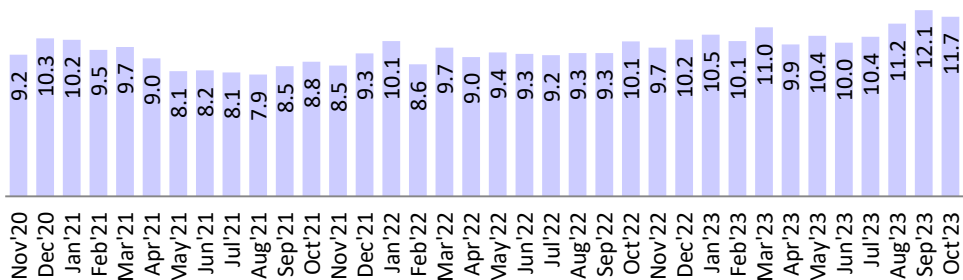
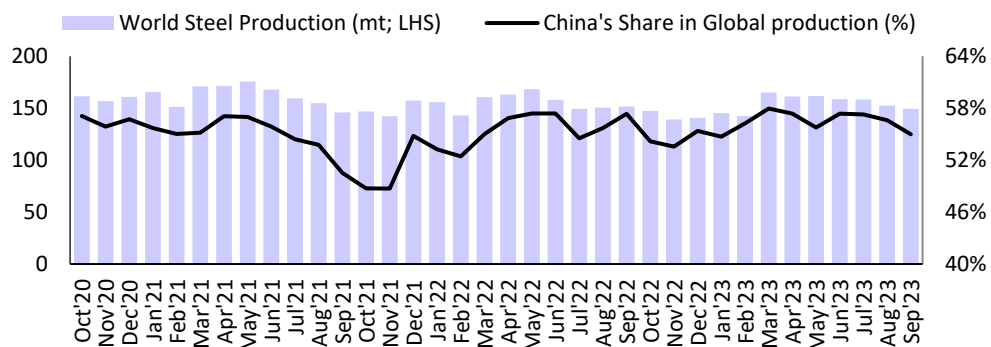


Exhibit 46: Steel consumption (mt)

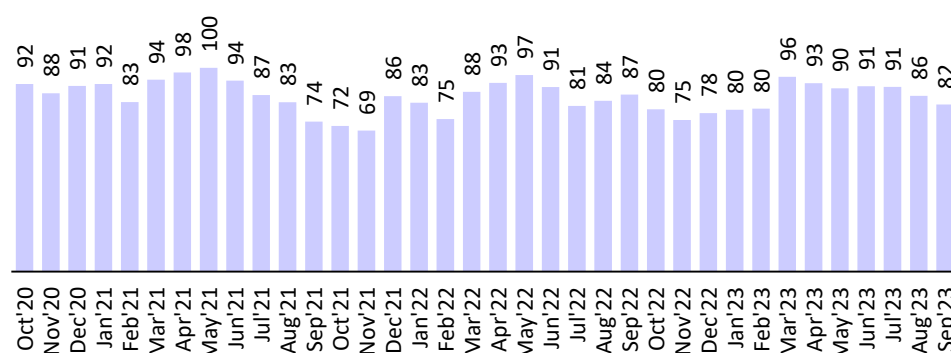


## Global production trends

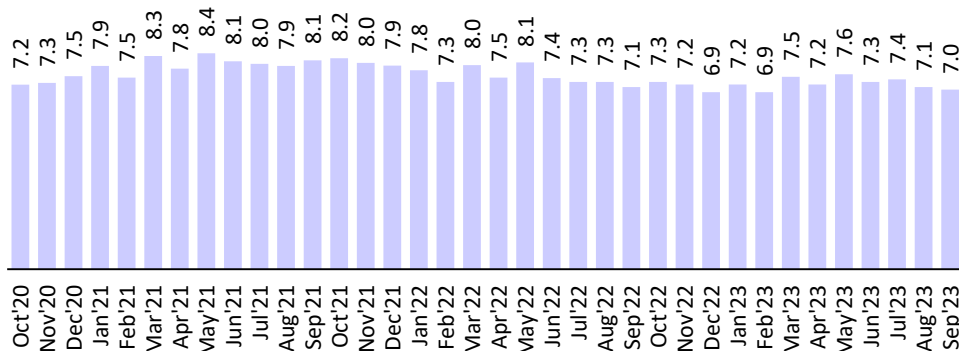
**Exhibit 47: World crude steel production and China's share**



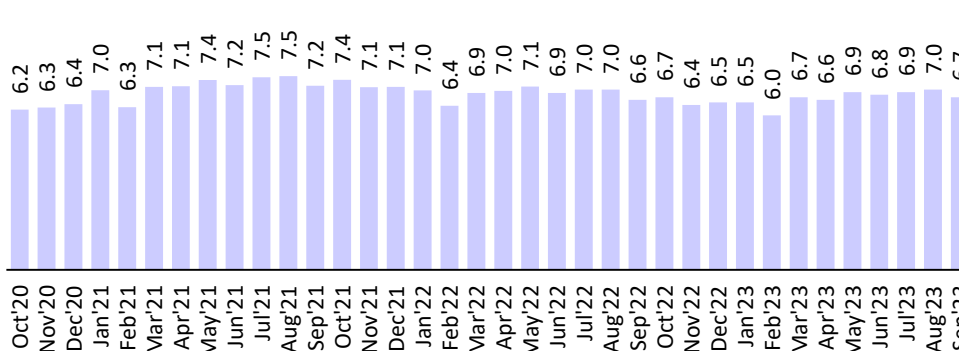
**Exhibit 48: Crude steel production in China (mt)**



**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)

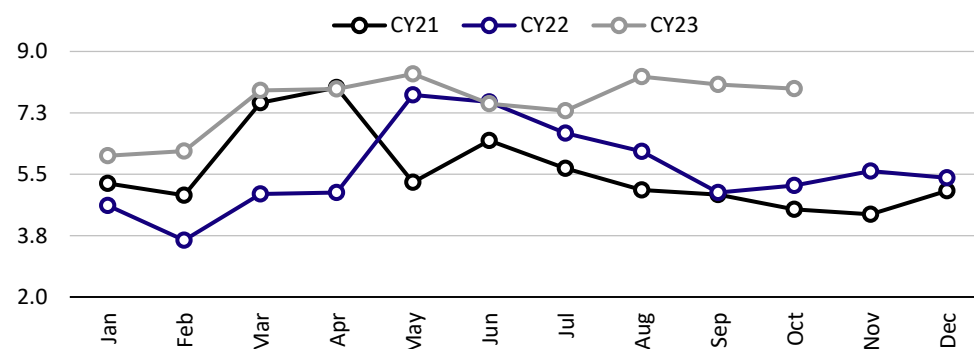


Exhibit 52: China's gross steel imports (mt)

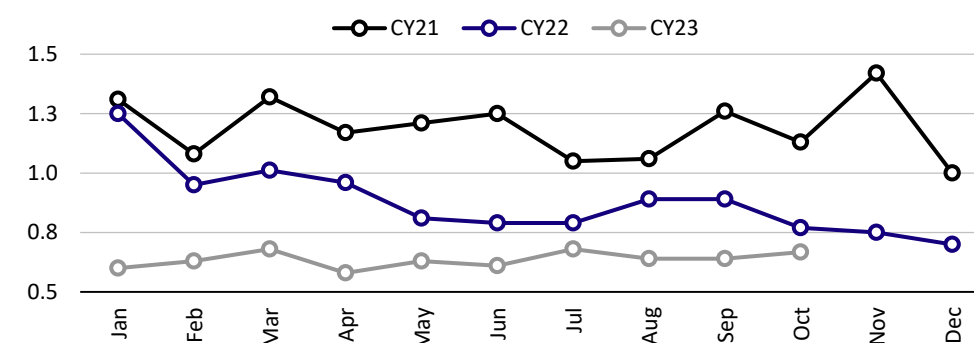


Exhibit 53: China's net steel exports/(imports) (mt)

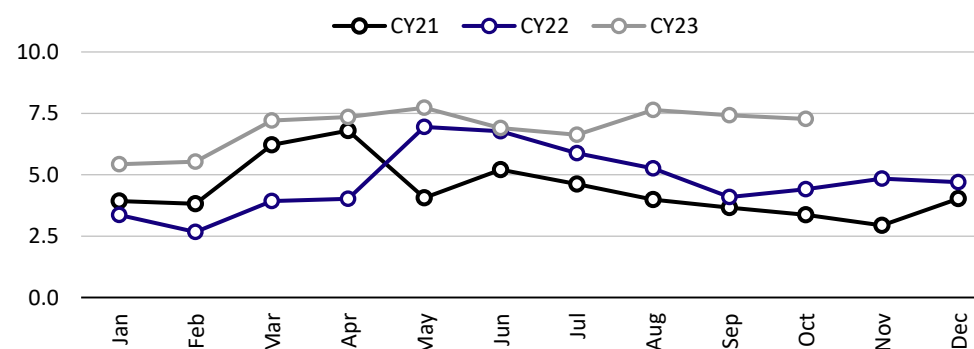


Exhibit 54: China's GDP growth YoY (constant prices)

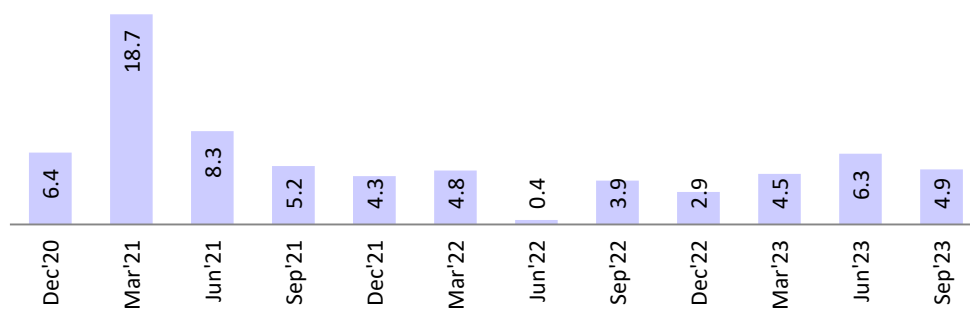


Exhibit 55: Automobile registration (m units)

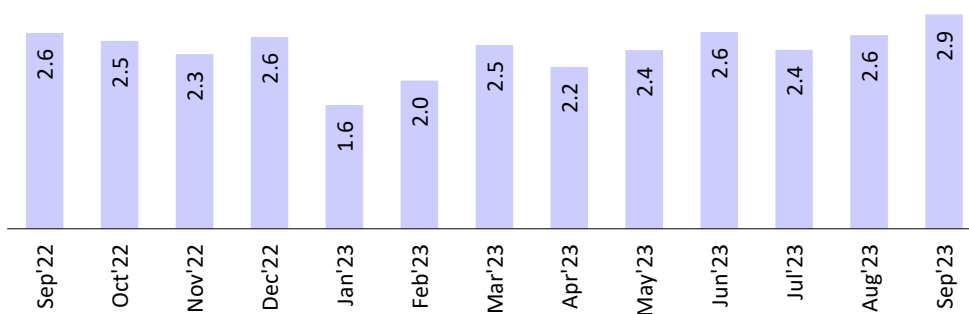


Exhibit 56: Floor space sold (m square meters)

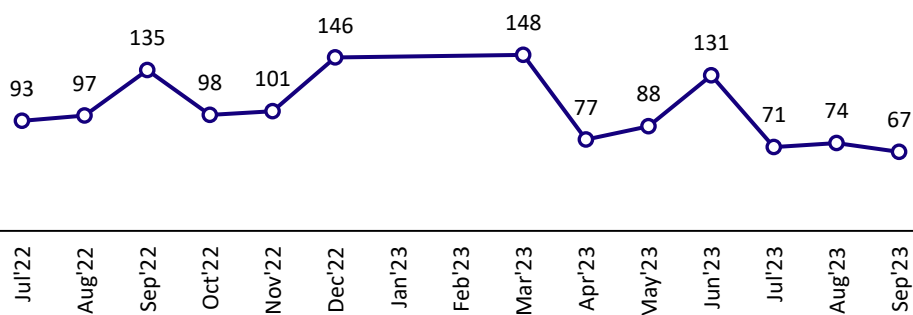


Exhibit 57: Floor space starts (m square meters)

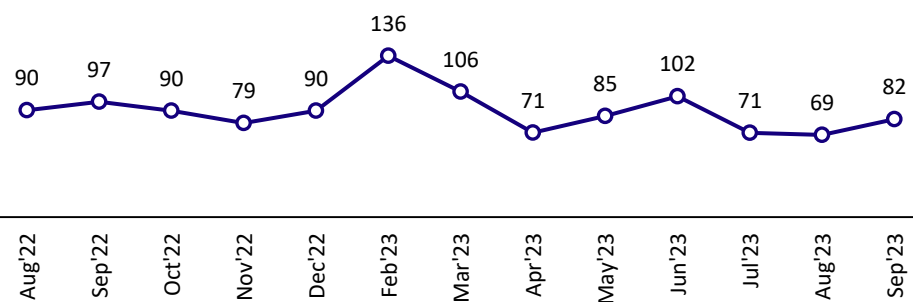


Exhibit 58: Manufacturing PMI

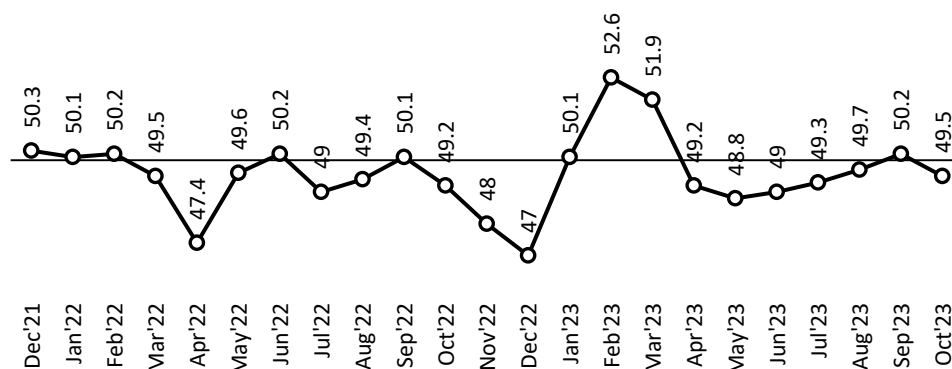
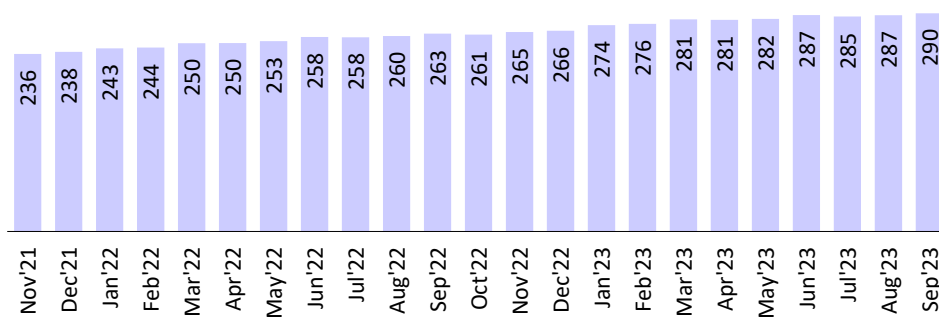


Exhibit 59: M2 money supply (CNY t)





## Commodity monthly heat map

Commodity	UoM	Dec'22	Jan'23	Feb'23	Mar'23	Apr'23	May'23	Jun'23	Jul'23	Aug'23	Sep'23	Oct'23	Nov'23	MoM
<b>Oil and non-ferrous - prices</b>														
Brent Crude	USD/bbl	81	83	83	79	84	76	75	80	86	94	91	85	-6
Copper	USD/t	8,362	8,972	8,955	8,836	8,816	8,253	8,386	8,445	8,353	8,271	7,940	8,057	1
Aluminum	USD/t	2,390	2,483	2,417	2,290	2,337	2,270	2,181	2,152	2,134	2,178	2,192	2,229	2
Zinc	USD/t	3,115	3,277	3,144	2,956	2,777	2,486	2,368	2,397	2,400	2,488	2,449	2,550	4
Lead	USD/t	2,219	2,214	2,099	2,115	2,147	2,090	2,118	2,107	2,153	2,253	2,136	2,162	1
Nickel	USD/t	28,986	28,271	26,728	23,289	23,771	22,135	21,233	21,091	20,446	19,645	18,264	17,654	-3
Alumina	USD/t	322	343	362	365	359	348	341	329	339	340	337	335	-1
Aluminum Ingot Premium (Asia - MJP)	USD/t	90	86	82	88	99	124	122	119	117	103	104	94	-10
Aluminum Ingot Premium (EU - Rotterdam)	USD/t	236	257	294	311	323	323	318	305	290	275	233	225	-4
Aluminum Ingot Premium (US midwest)	USD/t	454	569	642	609	553	550	537	516	476	451	434	422	-3
Aluminum scrap	USD/t	1,739	1,759	1,738	1,665	1,715	1,608	1,536	1,515	1,532	1,521	1,552	1,578	2
Aluminum scrap spread	USD/t	651	725	679	625	622	662	645	638	602	656	640	651	2
Silver	USD/t	825	841	758	775	886	860	830	861	831	828	795	795	0
USD:INR (Bloomberg)	INR	83	82	83	82	82	82	82	82	83	83	83	83	0
<b>Ferrous- International Prices</b>														
China HRC domestic	RMB/t	4,069	4,187	4,262	4,415	4,185	3,838	3,846	3,916	3,960	3,934	3,829	3,905	2
China HRC domestic	USD/t	583	616	623	640	608	549	537	545	546	539	524	536	2
China TMT domestic	RMB/t	4,005	4,196	4,315	4,356	4,023	3,748	3,774	3,796	3,765	3,910	3,928	3,936	0
China TMT domestic	USD/t	574	618	631	632	584	536	527	528	519	536	537	540	0
China HRC FoB	USD/t	593	636	660	688	661	562	551	563	569	555	532	545	2
Korea HRC FoB	USD/t	559	629	662	698	689	681	624	601	605	600	595	590	-1
North Europe HRC domestic	EUR/t	666	714	770	824	853	806	702	669	656	659	624	638	2
North America HRC domestic (USD/short ton)	USD/st	682	727	830	1,036	1,155	1,128	969	964	828	721	707	856	21
India HRC Export FoB (USD/t)	USD/t	563	639	707	712	700	598	567	570	575	580	580	580	0
Australia Fe 62% iron ore CNF	USD/t	111	122	126	127	118	105	111	112	109	121	119	127	7
<b>Chinese steel futures</b>														
TMT - Shanghai futures	RMB/t	3,939	4,131	4,116	4,212	3,885	3,607	3,691	3,764	3,720	3,731	3,649	3,807	4
HRC - Shanghai futures	RMB/t	4,010	4,168	4,180	4,316	3,962	3,681	3,794	3,892	3,904	3,883	3,775	3,907	4
Iron ore - Dalian Commodity Exchange	RMB/t	807	851	873	899	768	712	794	806	765	854	854	931	9
Coking coal - Dalian Commodity Exchange	RMB/t	1,871	1,863	1,888	1,913	1,561	1,336	1,317	1,419	1,441	1,781	1,777	1,905	7
China HRC FOB spread over RM (HRC - 1.7x iron ore -.85x HCC)	RMB/t	1,049	1,138	1,092	1,161	1,329	1,334	1,324	1,317	1,378	917	812	706	-13
<b>India steel and metallics prices</b>														
India HRC ex-Mumbai 5-10mm	INR/t	53,900	57,589	59,600	60,260	59,900	57,575	55,422	55,560	56,367	57,827	58,010	55,500	-4
Dom HRC prem to India export FoB price	INR/t	7,442	5,255	1,161	1,640	2,468	8,354	8,785	8,734	8,759	9,647	9,740	7,195	-26

Commodity	UoM	Dec'22	Jan'23	Feb'23	Mar'23	Apr'23	May'23	Jun'23	Jul'23	Aug'23	Sep'23	Oct'23	Nov'23	MoM
CRC ex-Mumbai - 0.9mm	INR/t	59,525	62,722	64,733	64,875	64,186	62,500	59,888	59,443	60,800	62,244	63,450	62,800	-1
Galvanized plain - 120 GSM	INR/t	63,600	70,500	74,214	74,529	74,643	70,500	67,943	67,538	67,925	68,617	69,980	68,967	-1
Color coated /PPGI ex-Mumbai 90GSM	INR/t	71,467	77,256	82,443	82,260	82,725	81,550	79,540	78,900	78,800	79,200	79,500	78,733	-1
Wire rod - Primary Producers	INR/t	54,000	56,807	59,167	58,178	56,383	54,525	51,843	50,343	50,250	53,400	55,833	54,300	-3
TMT primary - Mumbai	INR/t	56,417	60,210	62,957	60,967	59,780	57,225	53,713	51,211	51,060	56,538	57,486	56,000	-3
TMT secondary - Mumbai	INR/t	53,308	57,154	56,896	56,065	54,929	53,458	50,857	46,977	48,926	51,977	50,835	49,277	-3
Domestic scrap-HMS(80:20) - Mumbai	INR/t	36,350	37,475	36,493	38,084	38,177	37,442	36,987	34,268	35,503	36,807	35,442	33,746	-5
Sponge iron (DRI)	INR/t	29,873	31,567	31,067	30,408	29,540	27,885	27,155	25,518	28,318	30,023	28,248	26,696	-5
Domestic pellet prices- Barbil - 63% Fe	INR/t	7,861	9,085	9,621	9,525	9,064	8,417	7,925	7,613	8,067	8,989	8,470	8,350	-1
Pellet Export Prices - FoB 64%Fe	USD/t	107	116	123	118	109	97	108	107	103	111	112	123	10
<b>Domestic ferrous spreads</b>														
Primary HRC v/s primary TMT	INR/t	-2,517	-2,621	-3,357	-707	120	350	1,710	4,349	5,307	1,290	524	-500	-195
Primary TMT v/s secondary TMT	INR/t	3,109	3,056	6,061	4,901	4,851	3,767	2,856	4,234	2,134	4,561	6,650	6,723	1
Secondary TMT v/s domestic Scrap	INR/t	16,958	19,679	20,404	17,982	16,752	16,016	13,870	12,710	13,423	15,170	15,394	15,531	1
Hot rolled v/s cold rolled	INR/t	5,625	5,133	5,133	4,615	4,286	4,925	4,465	3,883	4,433	4,417	5,440	7,300	34
Hot rolled - galvanized Plan	INR/t	9,700	12,911	14,614	14,269	14,743	12,925	12,521	11,978	11,558	10,789	11,970	13,467	13
Hot rolled - color coated	INR/t	17,567	19,667	22,843	22,000	22,825	23,975	24,118	23,340	22,433	21,373	21,490	23,233	8
<b>Coking coal</b>														
India premium HCC CNF	USD/t	277	328	380	365	290	246	244	245	267	316	364	347	-5
India 64 mid vols coking coal CNF	USD/t	256	306	349	328	258	222	216	213	234	264	286	278	-3
<b>NMDC iron ore - Chhattisgarh</b>														
64% Bailadila fines	INR/t	2,910	3,510	NA	4,010	4,010	3,785	3,560	3,950	3,910	4,110	4,460	4,460	0
Iron ore lump	INR/t	4,100	4,550	NA	4,450	4,200	4,050	3,900	4,530	4,650	4,850	5,200	5,200	0
<b>Domestic ferro alloys</b>														
Silico manganese	INR/t	75,420	79,583	76,496	74,145	75,048	73,510	70,979	67,184	67,313	69,760	65,777	63,431	-4
Ferro manganese	INR/t	74,545	79,820	79,428	77,019	77,500	75,456	73,392	69,539	67,982	69,898	66,805	64,246	-4
Ferro chrome	INR/t	36,350	37,475	36,493	38,084	38,177	37,442	36,987	34,268	35,503	36,807	35,442	33,746	-5
<b>Ferrous - inventory</b>														
China HRC	mt	2	2	3	3	2	3	3	3	3	3	3	3	-8
China wire rod	mt	1	1	2	3	3	2	2	2	2	1	1	1	-11
China TMT	mt	4	5	8	8	7	6	5	5	6	5	5	4	-17
<b>Non-ferrous - inventory</b>														
<b>Aluminum</b>														
LME	kt	479	410	521	542	544	568	563	524	506	495	489	470	-4
SHFE	kt	49	71	110	120	96	74	54	54	50	52	63	68	9
<b>Total</b>	<b>kt</b>	<b>528</b>	<b>481</b>	<b>631</b>	<b>662</b>	<b>640</b>	<b>642</b>	<b>617</b>	<b>578</b>	<b>556</b>	<b>547</b>	<b>552</b>	<b>538</b>	<b>-3</b>
<b>Zinc</b>														
LME	kt	37	22	25	38	48	55	83	82	122	126	86	76	-11
SHFE	kt	1	8	44	48	28	12	9	16	18	13	7	3	-55
<b>Total</b>	<b>kt</b>	<b>38</b>	<b>29</b>	<b>70</b>	<b>86</b>	<b>76</b>	<b>67</b>	<b>92</b>	<b>98</b>	<b>141</b>	<b>139</b>	<b>93</b>	<b>79</b>	<b>-15</b>

Commodity	UoM	Dec'22	Jan'23	Feb'23	Mar'23	Apr'23	May'23	Jun'23	Jul'23	Aug'23	Sep'23	Oct'23	Nov'23	MoM
<b>Lead</b>														
LME	kt	24	22	23	25	29	34	39	48	56	64	101	131	30
SHFE	kt	45	47	56	46	32	27	36	34	51	67	69	67	-4
<b>Total</b>	<b>kt</b>	<b>69</b>	<b>69</b>	<b>79</b>	<b>71</b>	<b>61</b>	<b>61</b>	<b>75</b>	<b>82</b>	<b>107</b>	<b>131</b>	<b>171</b>	<b>198</b>	<b>16</b>
<b>Copper</b>														
LME	kt	85	82	66	71	59	83	88	61	89	143	179	178	-1
SHFE	kt	27	49	124	105	66	53	29	22	13	9	9	1	-90
<b>Total</b>	<b>kt</b>	<b>112</b>	<b>131</b>	<b>190</b>	<b>176</b>	<b>125</b>	<b>136</b>	<b>117</b>	<b>83</b>	<b>101</b>	<b>152</b>	<b>188</b>	<b>179</b>	<b>-5</b>
<b>Nickel</b>														
LME	kt	54	53	47	44	42	39	38	38	37	40	44	42	-4
SHFE	kt	3	3	3	3	2	1	3	3	3	5	9	10	16
<b>Total</b>	<b>kt</b>	<b>57</b>	<b>55</b>	<b>50</b>	<b>47</b>	<b>43</b>	<b>40</b>	<b>41</b>	<b>40</b>	<b>40</b>	<b>45</b>	<b>52</b>	<b>52</b>	<b>-1</b>

# Metals valuation matrix

Exhibit 60: Global steel comparative valuation

Exhibit 66: 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
India									
Tata*	17,716	17.1	20.3	6.7	9.3	1.5	1.6	8.3	7.7
JSW*	22,277	51.6	15.3	13.0	7.8	2.8	2.4	5.3	17.0
JSP*	7,801	17.5	12.5	7.1	7.4	1.7	1.5	9.9	12.5
SAIL*	4,368	18.9	10.8	8.3	6.5	0.7	0.6	3.5	6.0
Japan									
JFE	9,091	8.3	6.7	7.0	6.0	0.6	0.6	7.4	8.6
Nippon Steel	20,498	4.7	7.3	5.2	5.9	0.8	0.7	17.3	9.8
Kobe Steel	4,506	10.9	5.7	7.9	5.1	0.8	0.7	7.5	12.2
Korea									
POSCO	28,892	13.3	11.1	6.0	5.4	0.7	0.6	5.2	5.9
Hyundai Steel	3,404	5.4	5.2	5.2	4.1	0.2	0.2	4.4	4.4
US									
Nucor	37,520	8.5	12.9	5.3	7.3	1.8	1.7	21.8	12.8
US Steel	7,661	8.3	14.4	4.6	5.8	0.7	0.7	9.3	5.4
Steel Dynamics	17,641	7.5	11.9	5.2	7.7	2.0	1.8	27.6	15.9
Europe									
AM	18,618	4.4	5.1	3.2	3.4	0.3	0.3	7.8	6.8
SSAB	6,640	5.8	9.3	2.7	4.0	1.0	1.0	18.3	11.1
TKA	4,387	24.4	9.1	0.4	0.4	0.3	0.3	0.8	3.4
VOE	4,780	4.5	8.5	2.7	3.7	0.6	0.6	13.8	6.8
China									
Baosteel	18,744	12.3	10.1	5.3	4.4	0.7	0.7	5.5	6.4

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

Exhibit 61: Iron ore mining 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
NMDC*	6,227	10.7	9.5	7.5	6.6	2.3	2.0	23.8	22.6
Vale	64,820	6.8	6.1	4.4	4.2	1.5	1.3	22.4	21.8
FMG	46,471	8.4	10.0	4.9	5.5	2.5	2.4	30.8	26.2

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

**Exhibit 62: 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>10,819</b>	<b>8.6</b>	<b>19.8</b>	<b>4.8</b>	<b>7.4</b>	<b>2.3</b>	<b>3.3</b>	<b>20.1</b>	<b>13.7</b>
BHP	1,46,610	10.6	11.1	5.7	5.7	3.3	3.0	31.1	28.2
Rio	1,09,813	9.3	9.4	4.9	4.8	1.9	1.8	21.7	19.8
Glencore	64,829	9.4	9.9	4.7	3.9	1.5	1.4	15.3	14.0
Anglo	30,582	9.3	8.2	4.5	4.0	1.1	1.0	11.6	13.1
South 32	8,830	9.4	11.0	3.5	4.2	0.9	0.9	9.7	8.3

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

**Exhibit 63: 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>15,362</b>	<b>12.8</b>	<b>16.2</b>	<b>7.7</b>	<b>9.1</b>	<b>10.4</b>	<b>7.9</b>	<b>44.5</b>	<b>55.3</b>
Korea Zinc	7,593	18.3	15.5	9.8	8.4	1.0	1.0	5.7	6.7
Teck	18,372	9.4	7.8	4.9	3.8	0.9	0.8	10.5	11.4

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

**Exhibit 64: 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>25,708</b>	<b>7.1</b>	<b>7.9</b>	<b>3.9</b>	<b>4.3</b>	<b>3.5</b>	<b>2.8</b>	<b>49.2</b>	<b>36.2</b>
China Shenhua	80,490	7.1	7.3	5.6	5.6	1.1	1.1	14.9	14.1
Banpu	2,198	8.3	8.3	5.3	5.0	0.6	0.6	7.8	6.2
Bukit Asam	1,715	4.5	5.0	2.8	3.1	1.2	1.1	23.8	21.9
Adaro Energy	5,007	3.2	4.5	1.4	1.7	0.7	0.7	22.7	14.7

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

**Exhibit 65: 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>13,138</b>	<b>10.8</b>	<b>10.5</b>	<b>6.4</b>	<b>6.0</b>	<b>1.6</b>	<b>1.4</b>	<b>16.3</b>	<b>13.9</b>
<b>Nalco*</b>	<b>2,036</b>	<b>11.8</b>	<b>14.6</b>	<b>6.0</b>	<b>6.3</b>	<b>1.3</b>	<b>1.2</b>	<b>11.2</b>	<b>8.7</b>
Alcoa	4,398	NA	22.9	12.4	5.7	1.0	1.0	-9.1	2.2
Norsk Hydro	11,174	13.3	10.3	5.9	5.0	1.2	1.1	8.6	11.2
CHALCO	12,314	9.8	8.6	6.0	4.9	1.1	0.9	11.2	11.7
RUSAL	5,214	3.8	2.6	6.5	4.6	0.4	0.3	10.6	14.1
Alumina	1,359	NA	18.7	NA	13.9	0.9	0.9	-3.2	4.3

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

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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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