

Indian companies valuation

	Price (INR)	EV/ EBITDA (x)		P/B (x)	
		FY23	FY24E	FY23	FY24E
Steel					
Tata	135	7.2	10.6	1.7	1.8
JSW	812	13.7	8.6	3.0	2.7
JSP	731	8.1	8.8	1.9	1.7
SAIL	120	9.9	9.5	0.9	0.9
Non-ferrous					
Vedanta	268	5.2	7.1	2.5	3.8
Hindalco	568	7.2	6.7	1.8	1.6
Nalco	145	10.0	11.4	2.0	2.0
Mining					
Coal	413	5.3	5.8	4.4	3.6
HZL	314	7.6	9.6	10.3	9.3
NMDC	221	9.6	8.7	2.9	2.5

Global companies valuation

Company	M.Cap USD b	EV/EBITDA (x)			P/B (x)
		CY22/ FY23	CY23/ FY24	CY22/ FY23	
Steel					
AM	23	3.8	4.0	0.4	
SSAB	7	3.0	4.4	1.1	
Nucor	43	6.0	7.9	2.1	
POSCO	27	5.8	5.5	0.6	
JFE	10	7.2	6.0	0.6	
Aluminum					
Norsk Hydro	12	6.3	5.3	1.2	
Alcoa	5	14.9	8.6	1.3	
Zinc					
Teck	21	5.5	4.5	1.0	
Korea Zinc	7	9.5	8.4	1.0	
Iron ore					
Vale	63	4.1	3.9	1.6	
Diversified					
BHP	157	6.1	5.8	3.6	
Rio	121	5.3	4.7	2.1	

Ferrous prices remain in a tight range ahead of Union Budget

- Though Tier-I mills announced a price hike of INR1,000-1,500/t in the second week of Jan'24, trade-level HRC and rebar prices remained range bound at INR54,000/t and INR51,400/t, respectively.
- A ban on non-essential construction in certain parts of North India during the winter season, higher inventory levels, volatility between IF and BF prices, and a liquidity crunch among vendors have collectively contributed to keeping long steel prices subdued. Currently, these prices are at their lowest levels since Aug'23.
- The price parity between the IF and BF routes increased to ~INR7,300/t in Oct'23, adversely affecting the demand for primary long steel products during the winter season. However, the gap has subsequently narrowed to INR2,700/t.
- India experienced higher imports between Oct'23 and Dec'23, which led to inventory built-up across channels. Though Tier-I mills recently undertook a price hike, it was offset by higher imports and vendor-level inventory.
- We believe, with the upcoming Union Budget this week, ferrous prices would remain range bound as mills-vendors-customers enter the 'wait and watch' mode.

Share of China in world steel production drops to 25 months' low

- China, which dominates the world steel sector, witnessed a contraction in market share in Dec'23 at 50% (lowest since Nov'21). Crude steel production was down 13.5% YoY and 11.4% MoM at 67.4mt, the lowest since Feb'18.
- For CY23, Chinese crude steel production stood flat at 1,011mt with a market share of over 55%.
- India, Turkey, and the US are the only three countries among the top 10 steel manufacturers that witnessed an increase in steel production in Dec'23.
- Crude steel production in India stood at record levels, surpassing the 12mt mark (up 3.4% MoM), while Turkey reported the healthiest growth of 6.7% MoM (3.2mt in Dec'23).
- For CY23, India outperformed the global steel sector and crude steel production grew ~12% YoY at ~140mt. Despite India possessing a global installed steel capacity of ~6%, the total global market share stood at ~8% (CY22 market share was ~7%).
- Globally, ~46mt of gross capacity additions are expected over the next four years and over 75mt of additional capacities are under the planning stage with a majority of the incremental capacity coming up in India.

Commodities and forex tracker

	UoM	Spot	WoW (%)	MoM (%)
India HRC (ex-Mum)	INR/t	54,000	0	-2
India TMT Prime (ex-Mum)	INR/t	51,400	0	-2
India TMT Secondary (ex-Mum)	INR/t	48,700	0	0
Korea HRC - FoB	USD/t	625	0	0
China HRC Dom.	USD/t	569	1	-1
China HRC - FoB	USD/t	570	0	-1
India Prem HCC CNF	USD/t	346	-1	1
India 64 Mid Vols CNF	USD/t	287	0	-2
India Low Vols PCI CNF	USD/t	186	1	-4
Iron Ore Fines (Odisha Index) Fe 62%	INR/t	5,800	-1	5
Iron Ore Fines (China - CNF) Fe 62%	USD/t	136	4	-2
Europe Scrap HMS 1&2(80:20)	USD/t	395	-1	1
C-DRI (ex-Raipur)	INR/t	28,000	1	1
RB1 (6000 NAR) SA FoB	USD/t	112	0	-3
RB2 (5500 NAR), SA FoB	USD/t	97	0	-10
Indonesia (4200 GAR) Futures	USD/t	57	0	-1
Copper	USD/t	8,447	2	0
Aluminum	USD/t	2,212	5	-5
Zinc	USD/t	2,582	6	-2
Lead	USD/t	2,149	3	6
Nickel	USD/t	16,538	5	1
Alumina	USD/t	333	0	0
Ali UBC Scrap	USD/t	1,587	3	0
Ali UBC Scrap Spread	USD/t	625	10	-17
INR:USD	x	83.1	0	0
USD:EUR	"	1.08	0	-2
USD:GBP	"	1.27	0	0
CNY:USD	"	7.18	0	1
JPY:USD	"	148	0	5

CONTENTS

Ferrous	4-12
Indian steel prices	4
Domestic spreads	6
China prices/spreads	9
Global prices	11
Inventories	12
Non-ferrous	13-18
Aluminum	13
Copper	15
Zinc	18
Lead	19
Nickel	20
India steel production, consumption, EXIM, and inventory	19-20
Global steel production	21-22
China macro data	23-25
Commodity heat map	26-27
Metals valuation matrix	28-29

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

FERROUS: India – prices

Exhibit 1: HRC - Mumbai (INR/t)

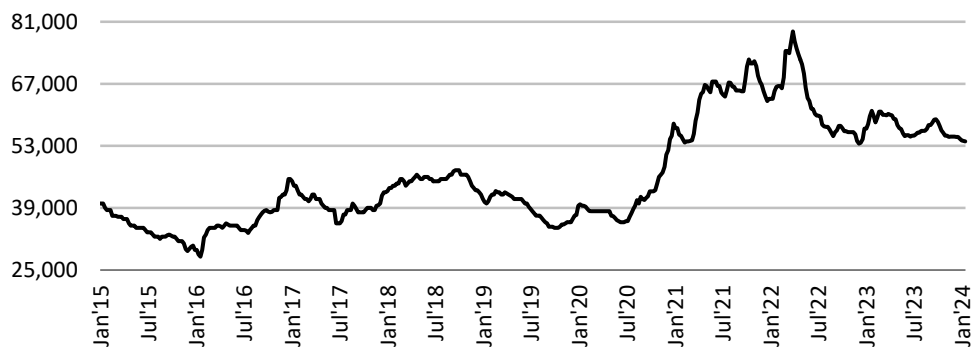


Exhibit 2: TMT Primary – Mumbai (INR/t)

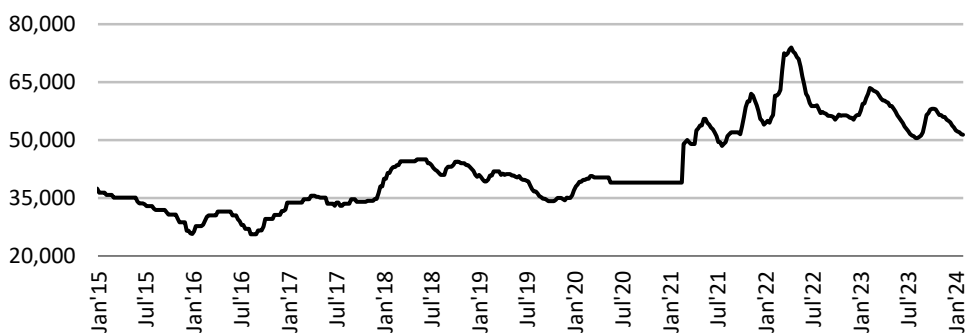


Exhibit 3: C-DRI (sponge iron), ExW-Raipur (INR/t)

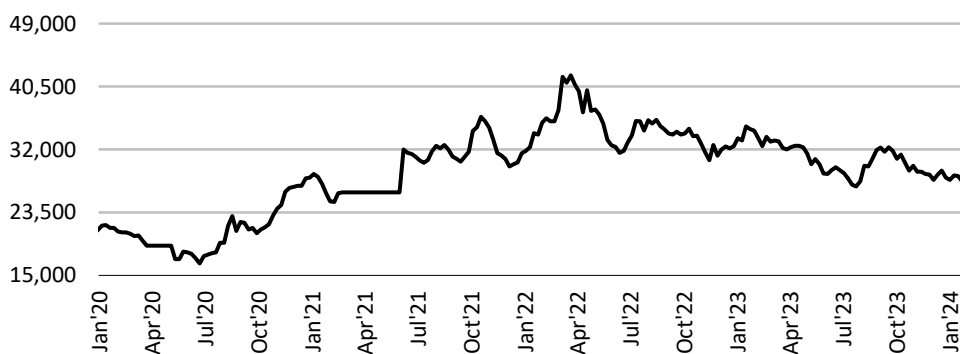


Exhibit 4: Domestic Pellet – Barbil – 63% Fe (INR/t)

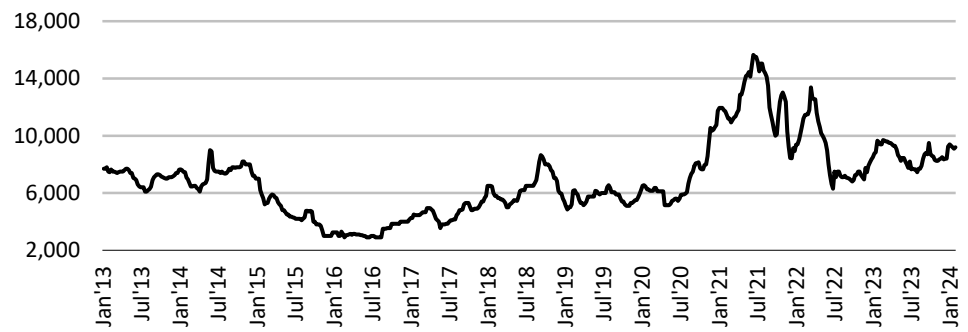


Exhibit 5: Iron Ore Fines Odisha – Fe 62% (INR/t)

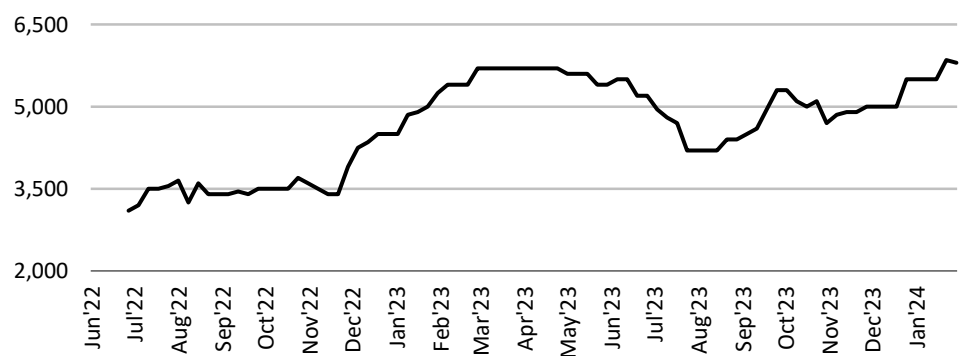


Exhibit 6: NMDC Fines – Fe 64% (INR/t)

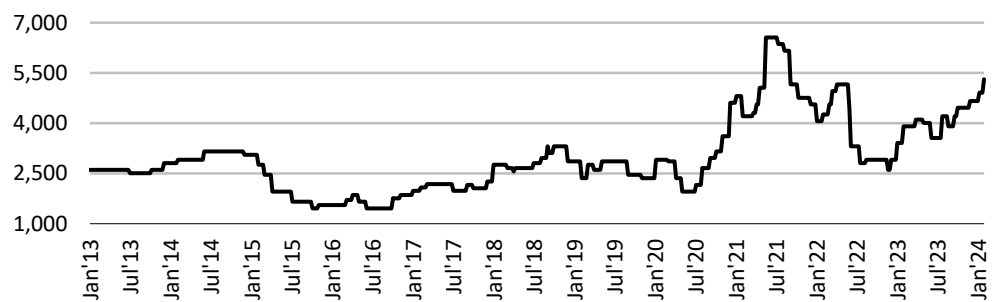
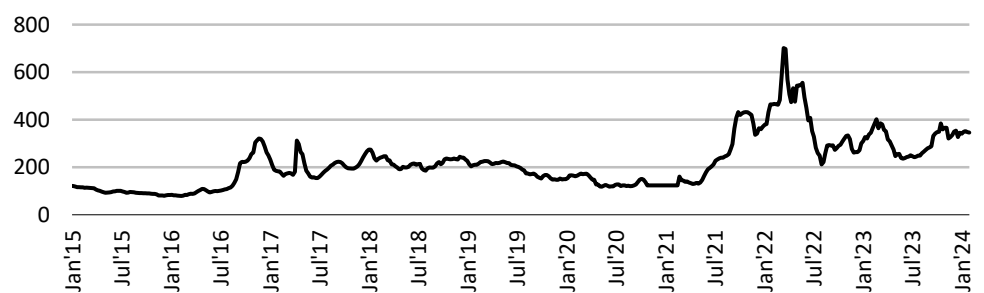


Exhibit 7: Premium HCC CNF Paradip (USD/t)



Domestic spreads

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

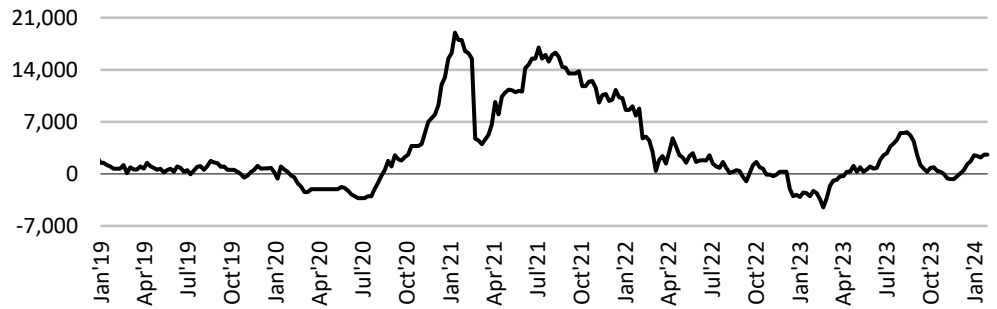


Exhibit 9: Primary TMT v/s secondary TMT (INR/t)

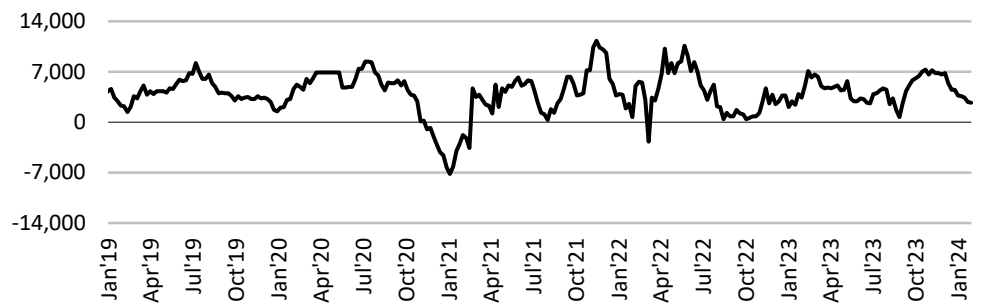


Exhibit 10: Secondary TMT v/s domestic scrap (INR/t)

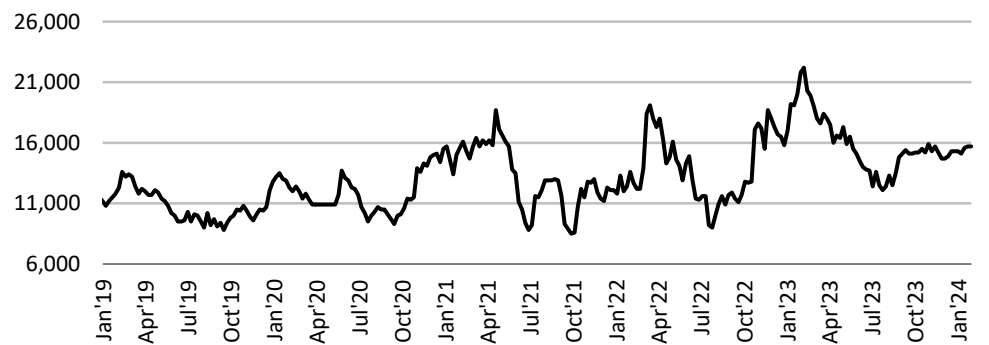


Exhibit 11: HRC v/s CRC (INR/t)

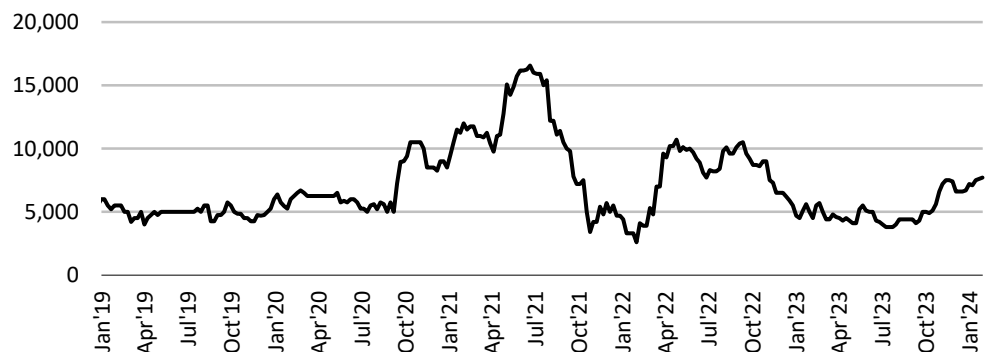


Exhibit 12: HRC – galvanized (INR/t)

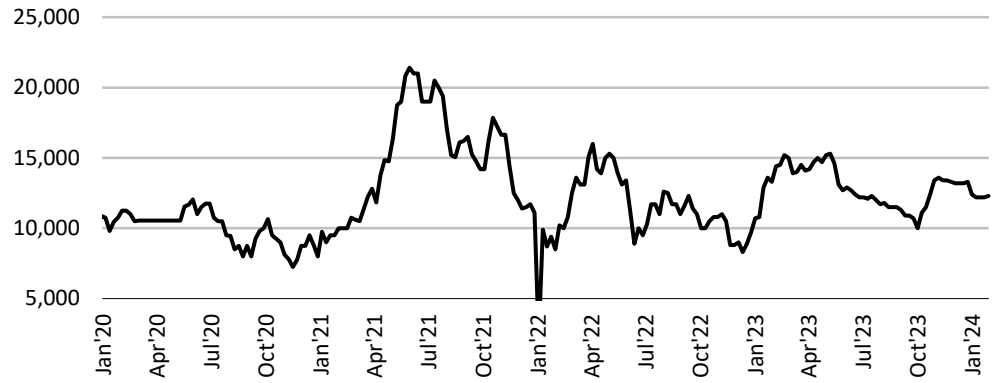


Exhibit 13: HRC – color coated (INR/t)

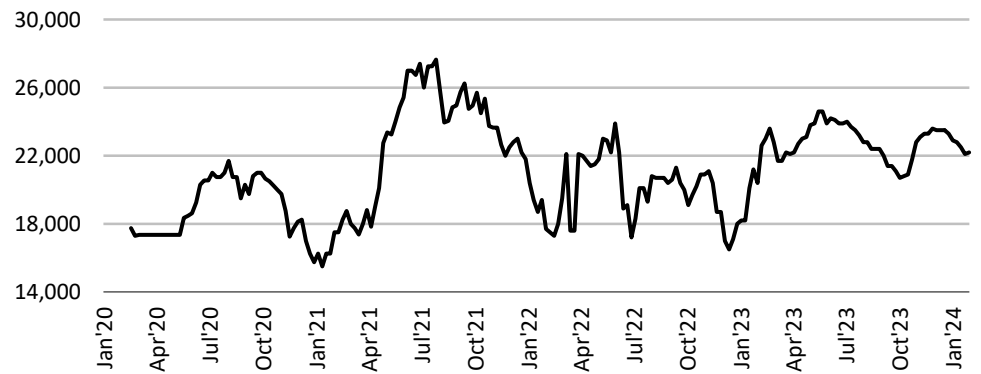


Exhibit 14: DRI v/s NMDC lumps (INR/t)

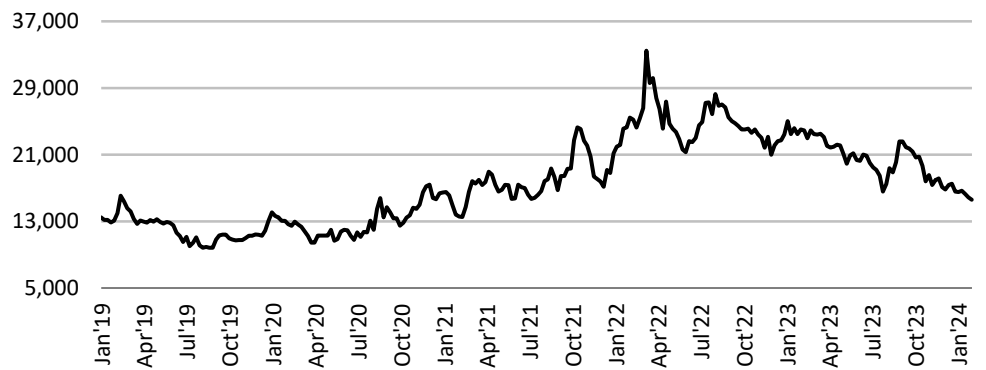


Exhibit 15: Secondary TMT v/s DRI (INR/t)

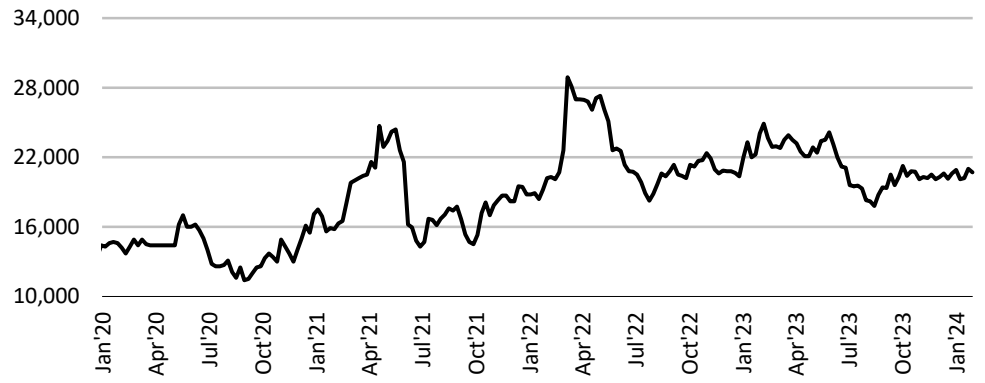
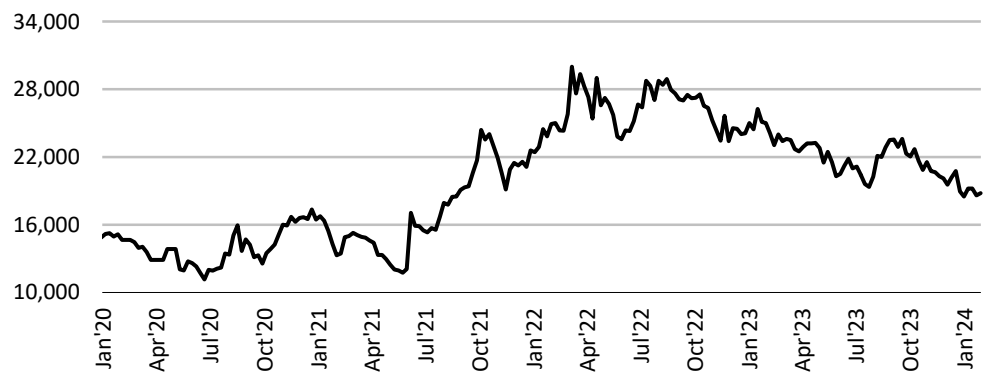


Exhibit 16: DRI v/s pellet (INR/t)



China prices/spreads

Exhibit 17: China HRC FoB (USD/t)

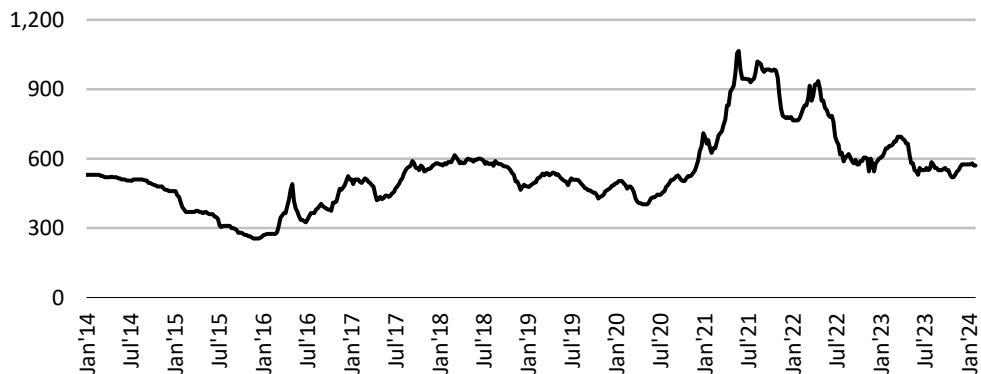


Exhibit 18: China HRC domestic (USD/t)

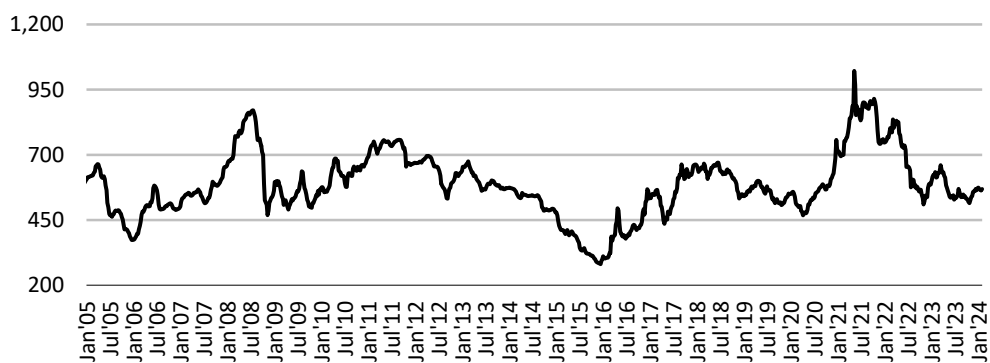


Exhibit 19: China domestic TMT (USD/t)

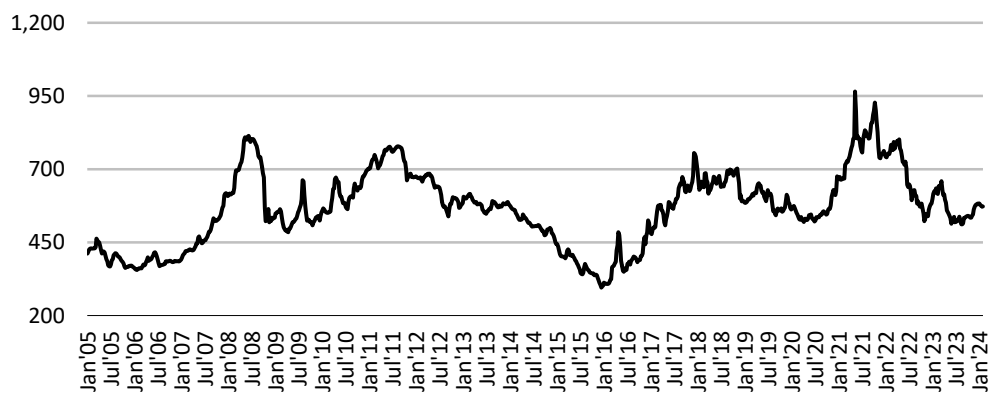
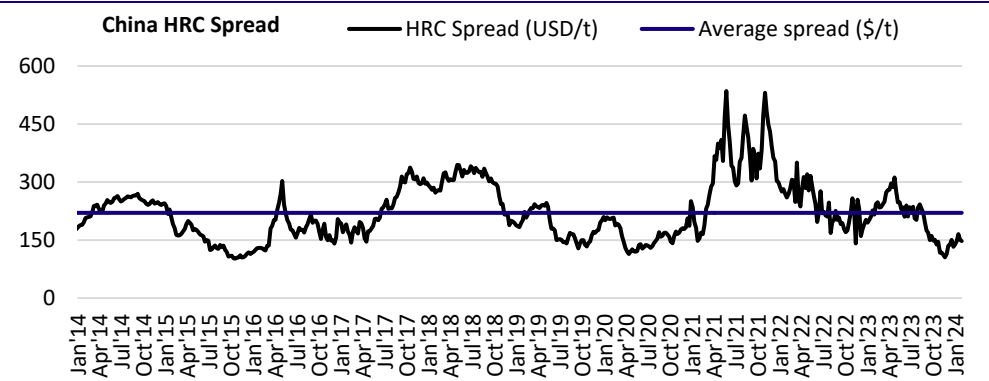


Exhibit 20: China domestic wire rod (USD/t)



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)

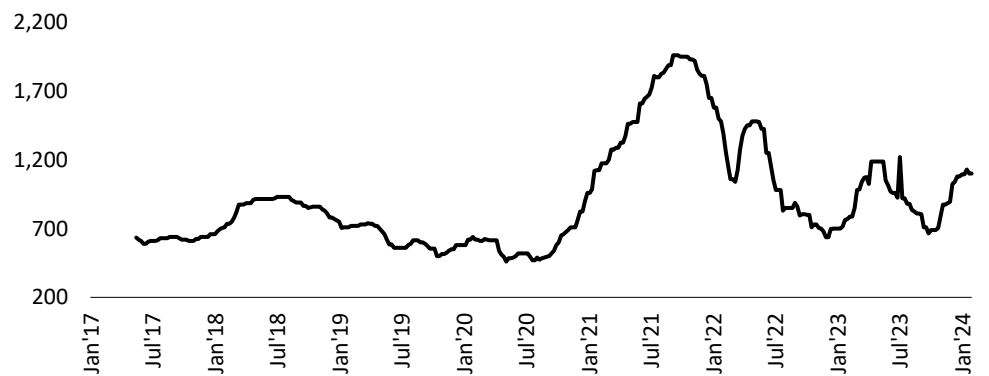
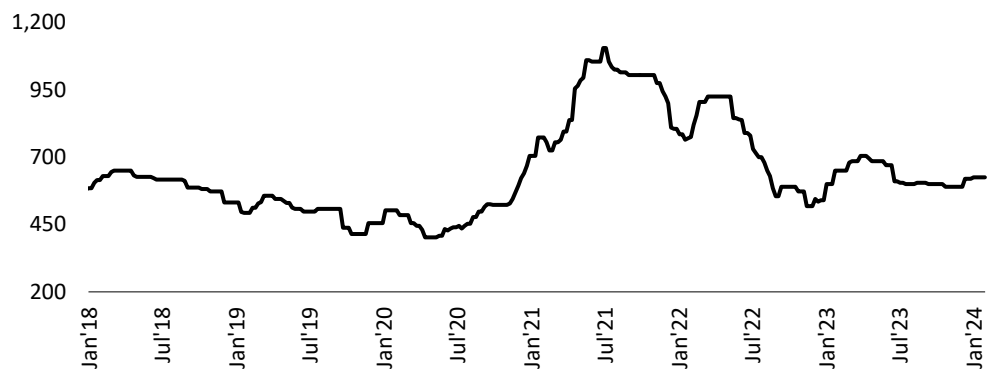


Exhibit 24: Korea HRC FOB (USD/t)



Inventories

Exhibit 25: India steel inventory (mt)

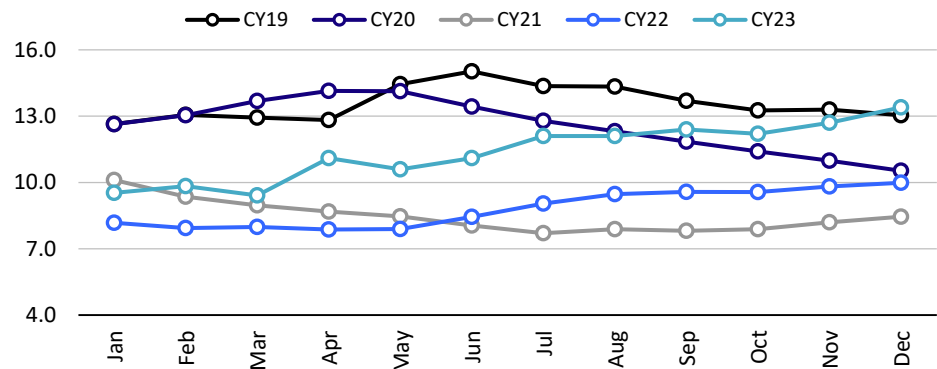


Exhibit 26: China wire rod and TMT inventory (mt)

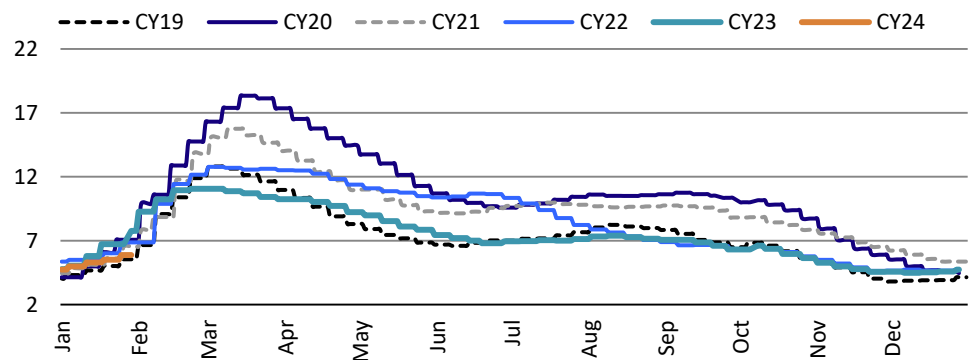
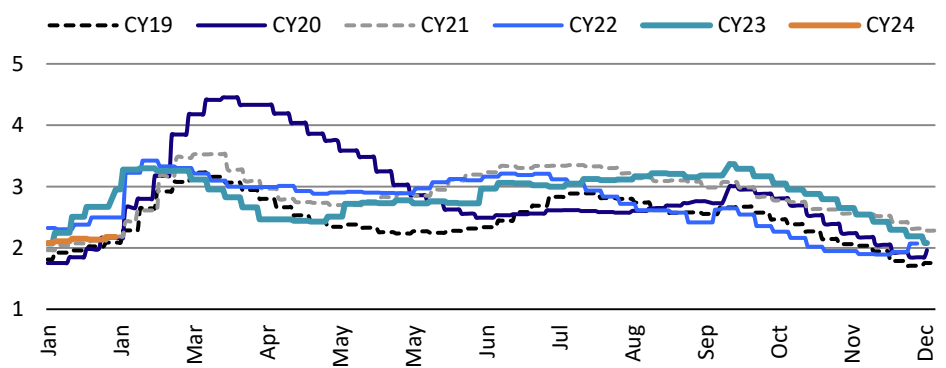


Exhibit 27: China HRC inventory (mt)



NON-FERROUS: Aluminum

Exhibit 28: LME spot (USD/t)

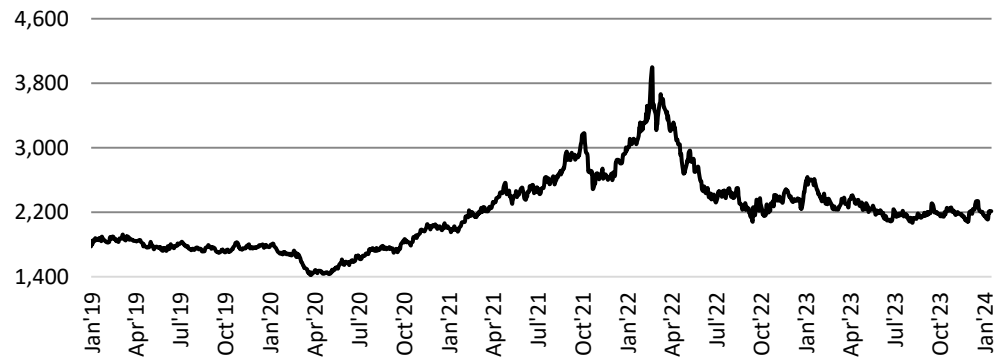


Exhibit 29: Alumina FoB Australia (USD/t)

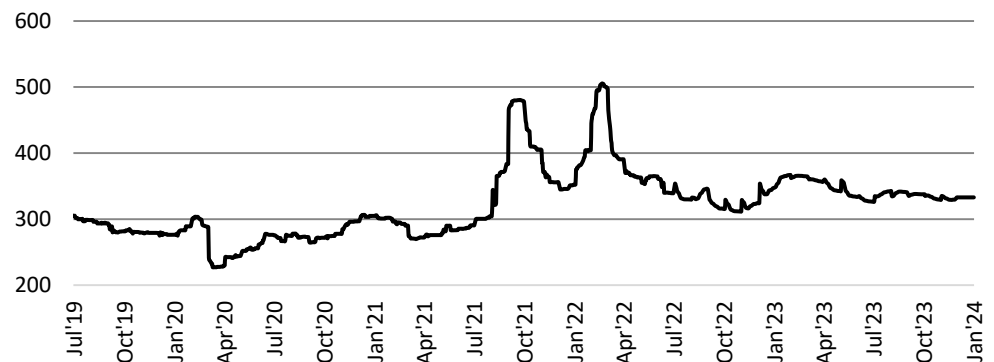


Exhibit 30: Caustic soda (USD/t)

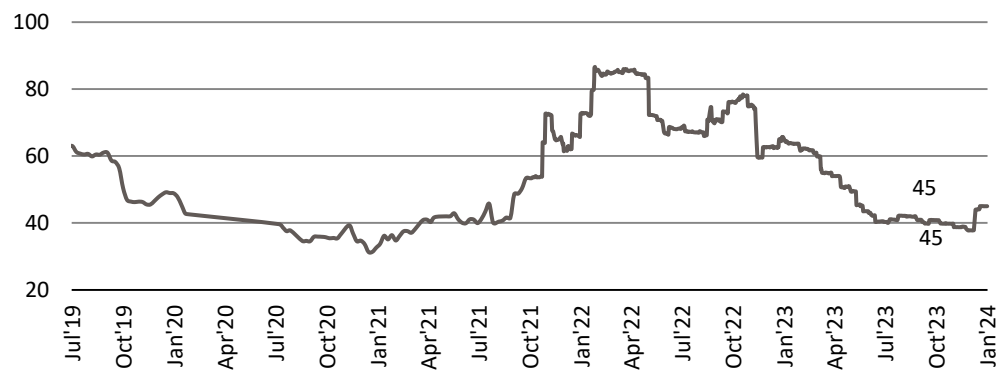


Exhibit 31: Total inventory (LME + SHFE, mt)

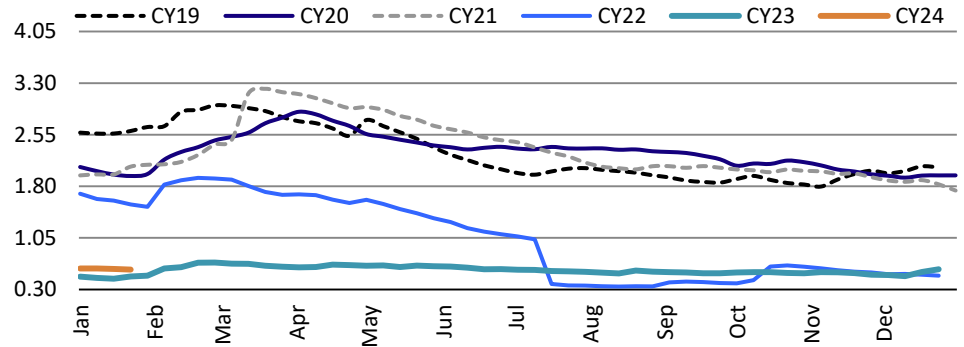
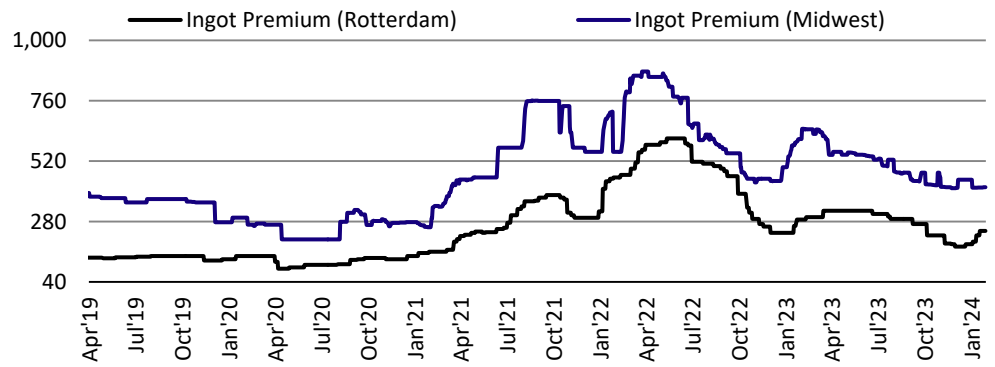


Exhibit 32: Ingot premiums (mt)

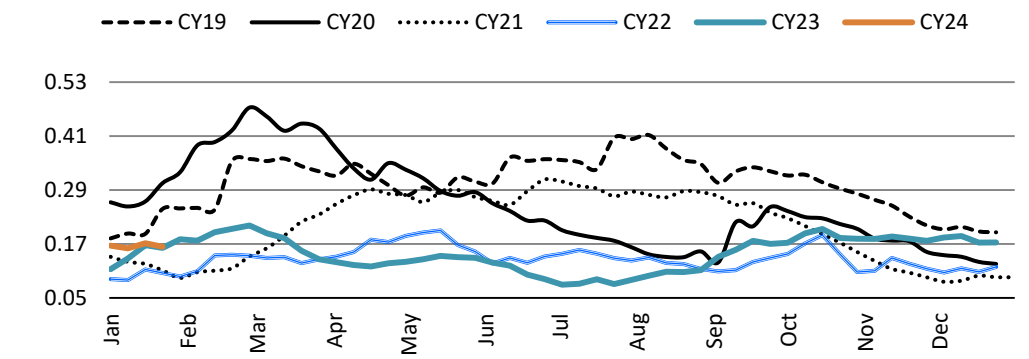


Copper

Exhibit 33: LME spot (USD/t)



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

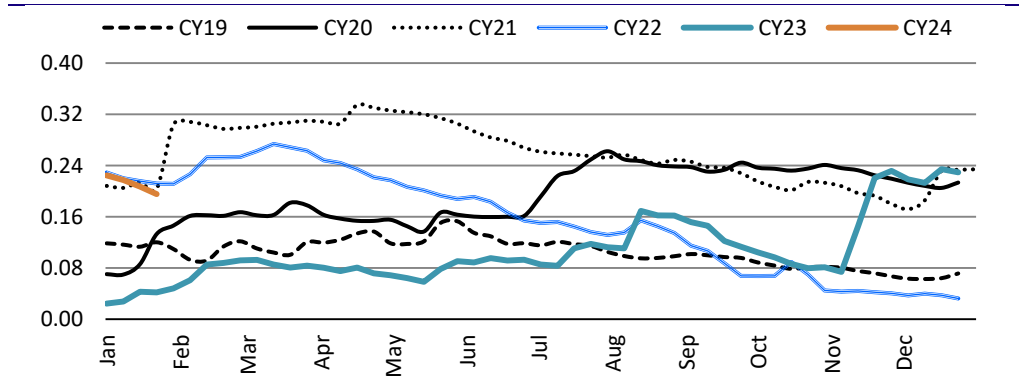


Zinc

Exhibit 35: LME spot (USD/t)



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



Lead

Exhibit 37: LME spot (USD/t)

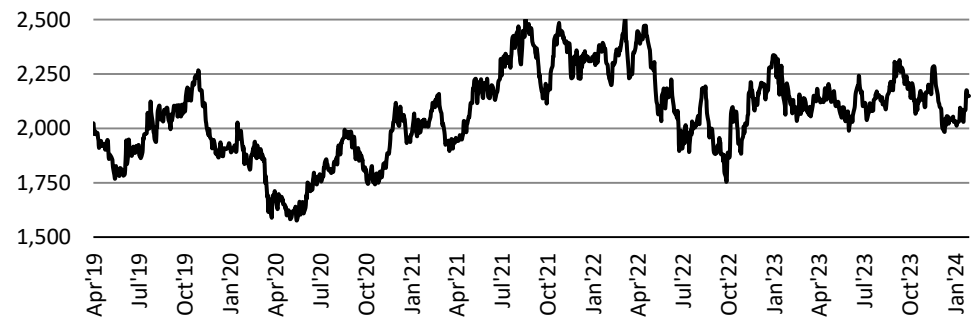
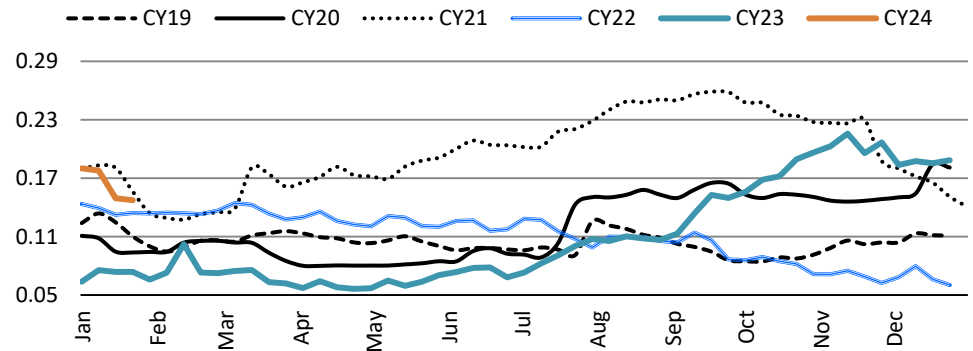


Exhibit 38: Total inventory (LME+SHFE, mt)



Nickel

Exhibit 39: Nickel spot (USD/t)

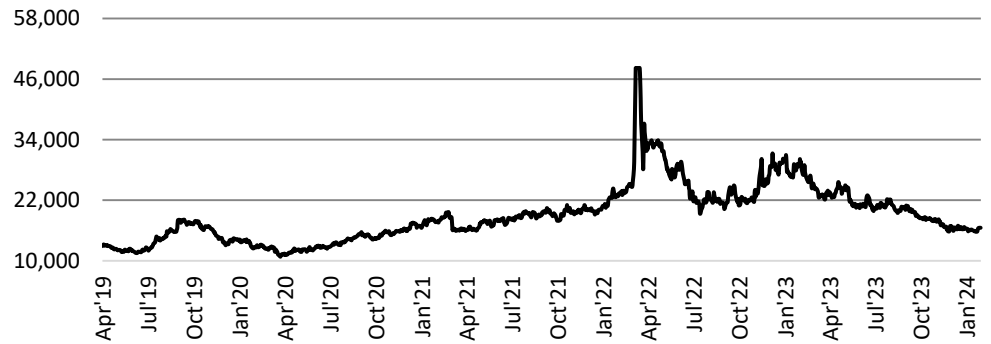
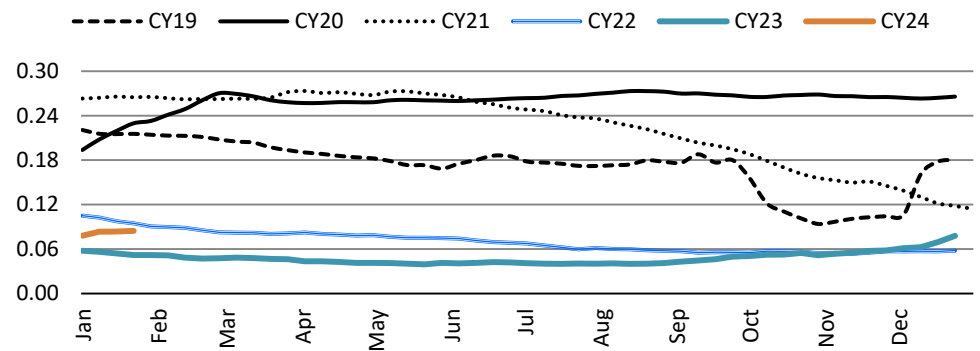


Exhibit 40: Total inventory (LME+SHFE, mt)



India steel production, consumption, EXIM, and inventory

Exhibit 41: Crude steel production (mt)

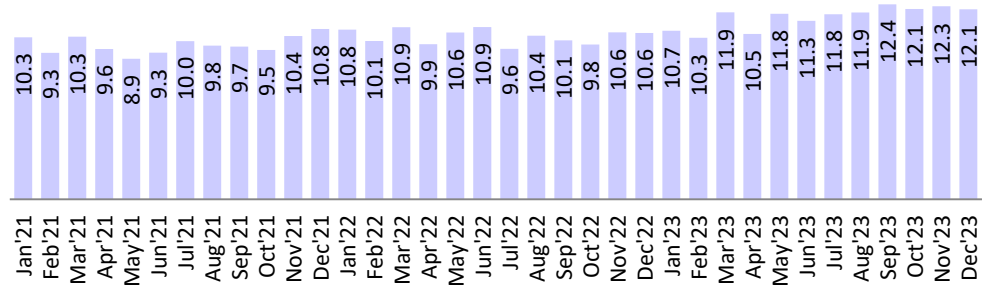


Exhibit 42: Finished steel production (mt)

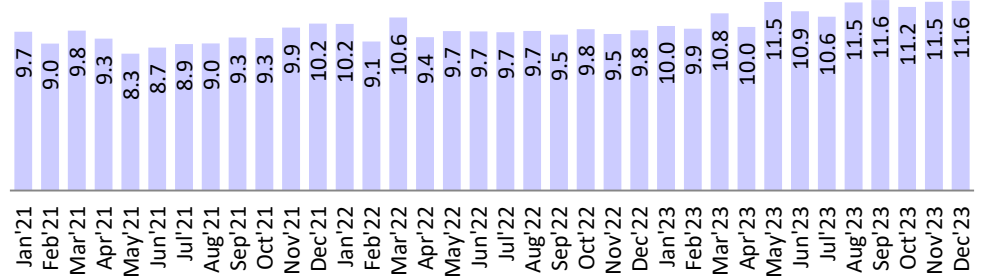


Exhibit 43: Imports including semis (kt)

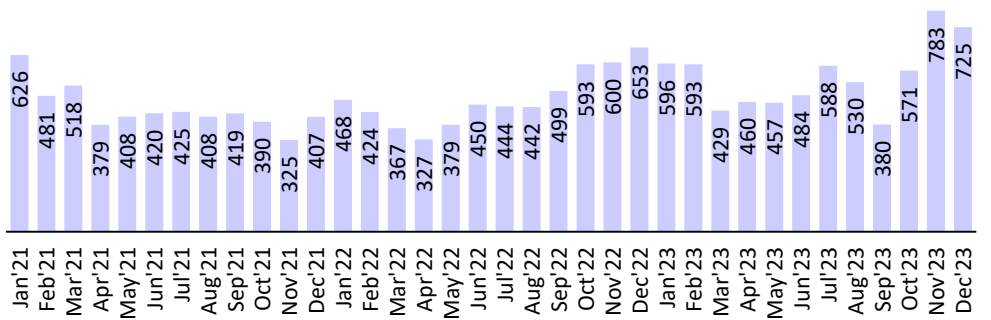


Exhibit 44: Exports including semis (kt)

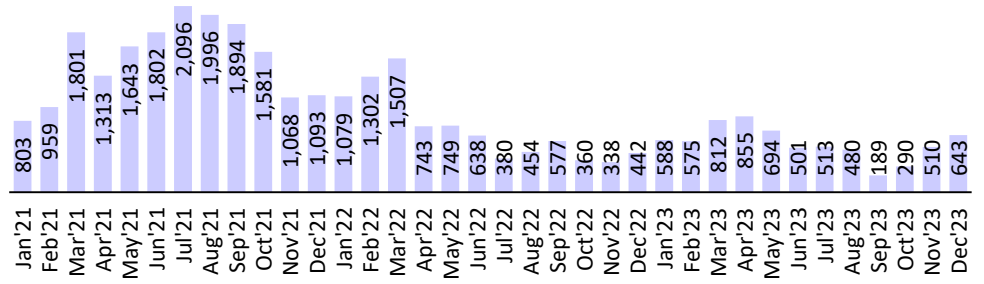


Exhibit 45: Net imports/(exports) of finished steel (kt)

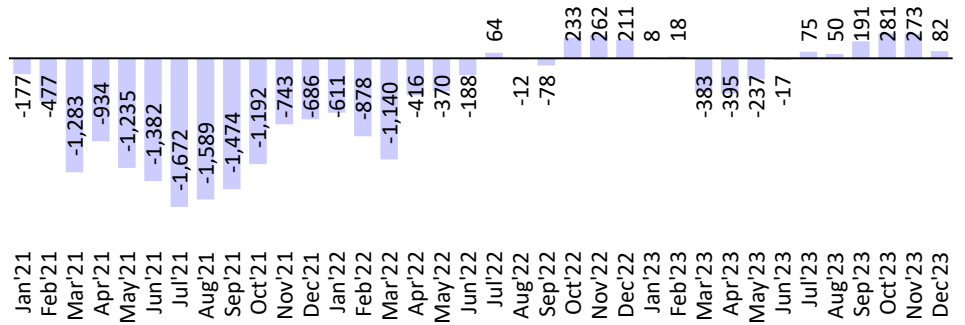
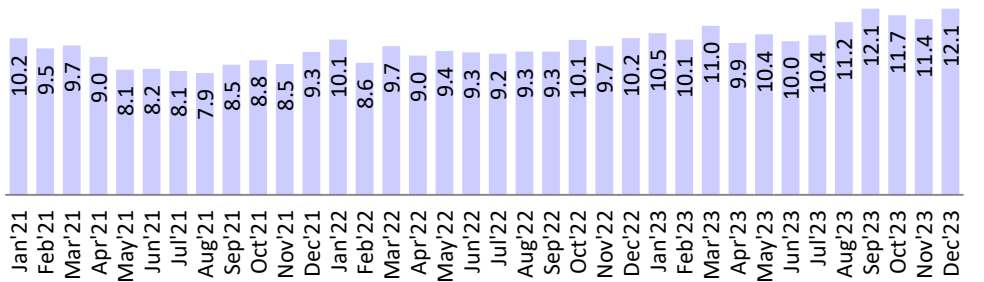


Exhibit 46: Steel consumption (mt)



Global production trends

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

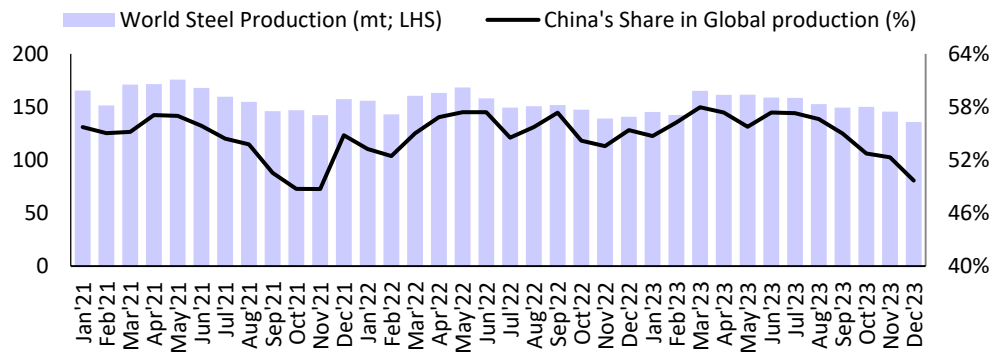


Exhibit 48: Crude steel production in China (mt)

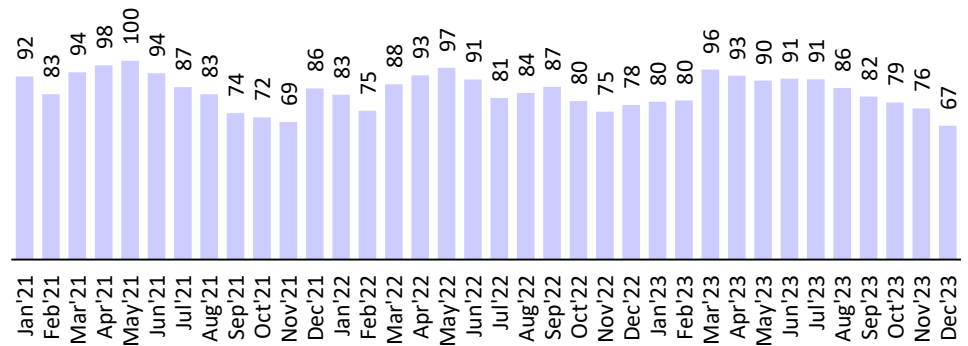


Exhibit 49: Crude steel production in Japan (mt)

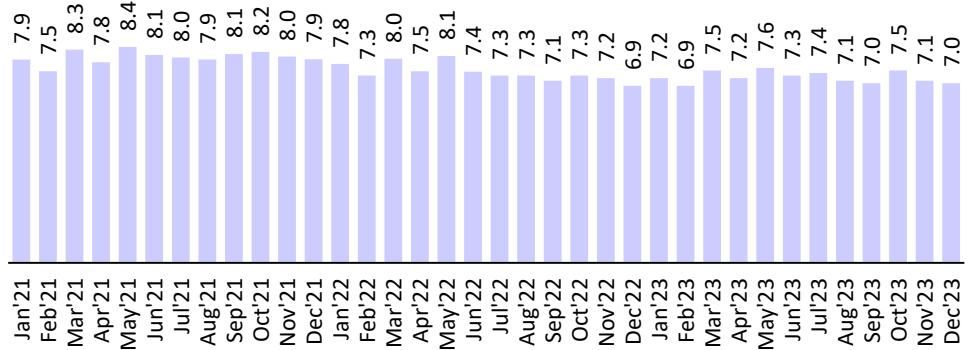
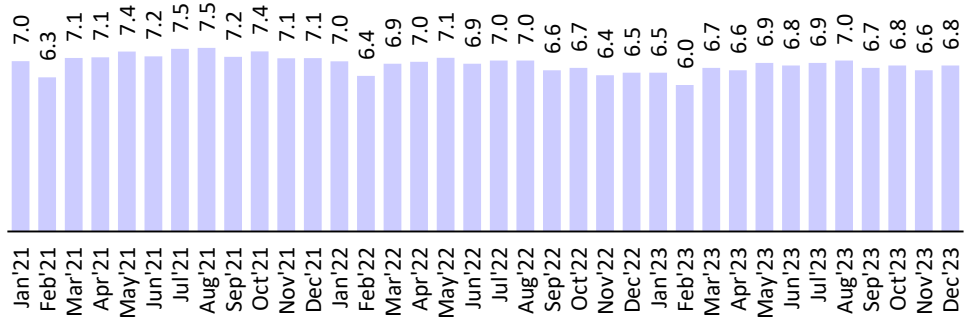


Exhibit 50: Crude steel production in the US (mt)



China steel and macro

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

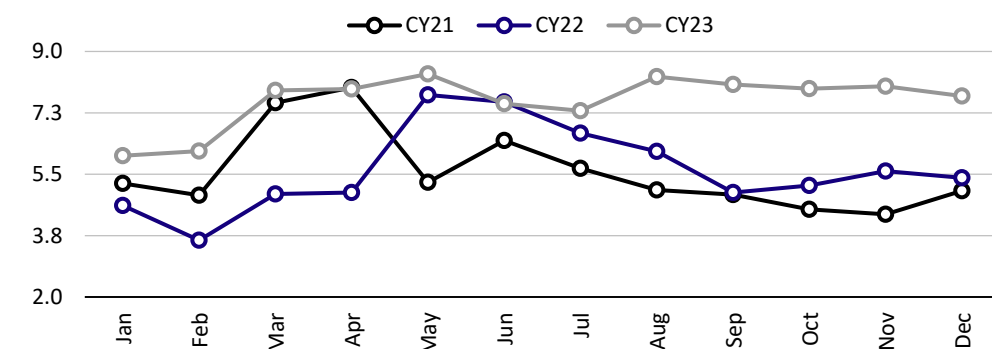


Exhibit 52: China's gross steel imports (mt)

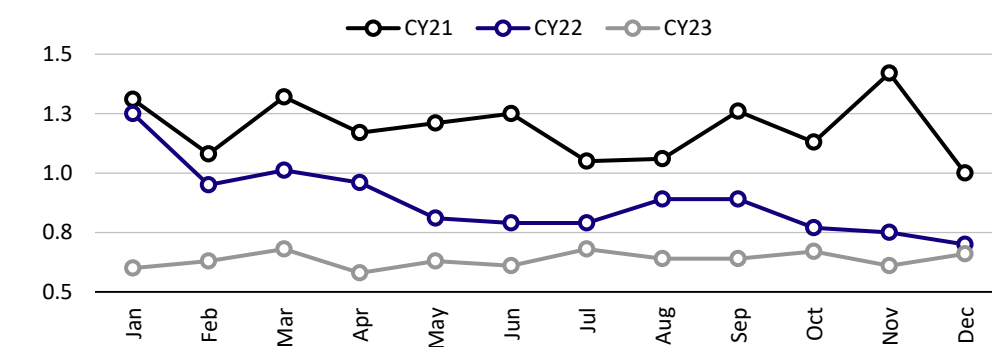


Exhibit 53: China's net steel exports/(imports) (mt)

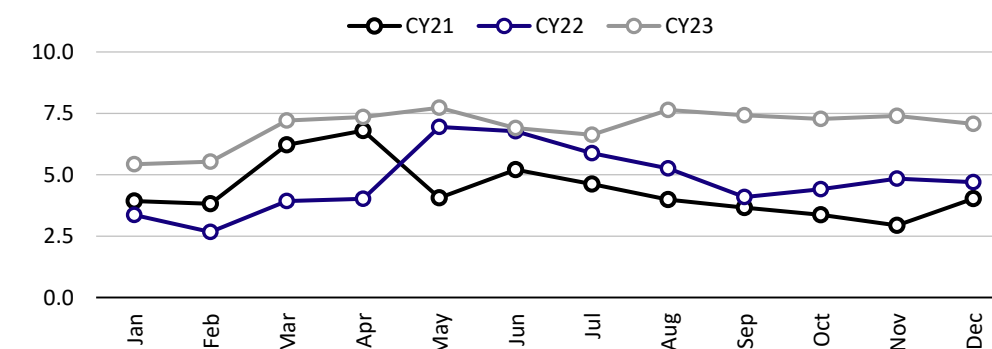


Exhibit 54: China's GDP growth YoY (constant prices)

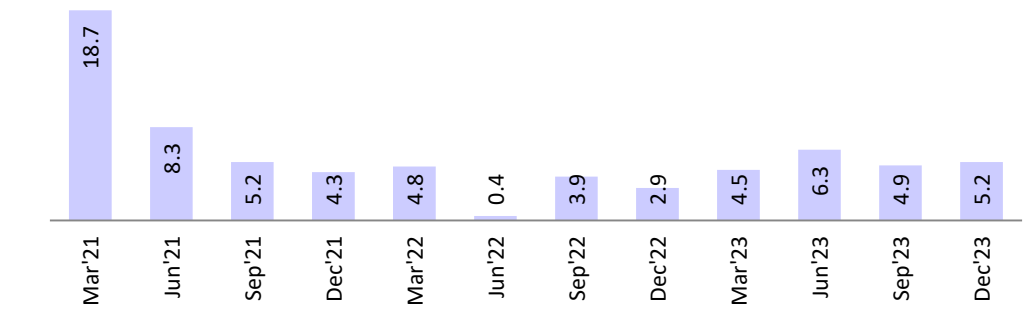


Exhibit 55: Automobile registration (m units)

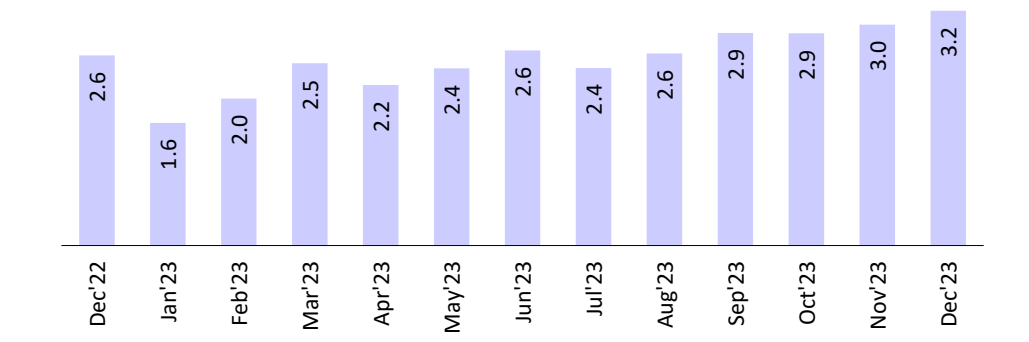


Exhibit 56: Manufacturing PMI

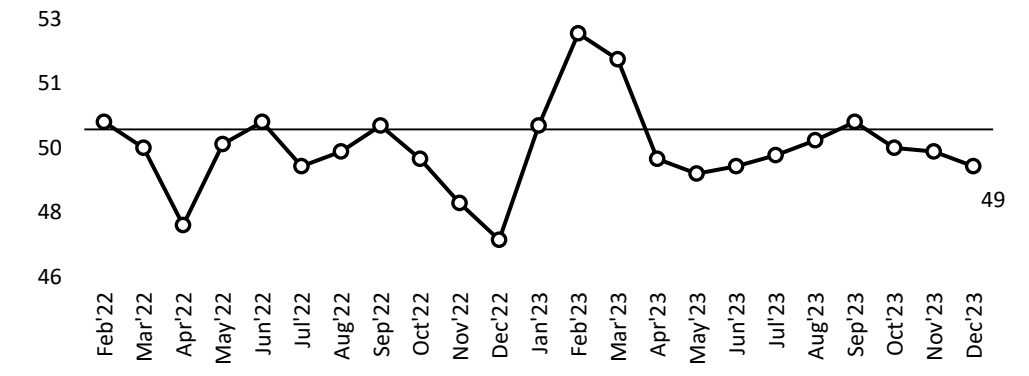


Exhibit 57: M2 money supply (CNY t)

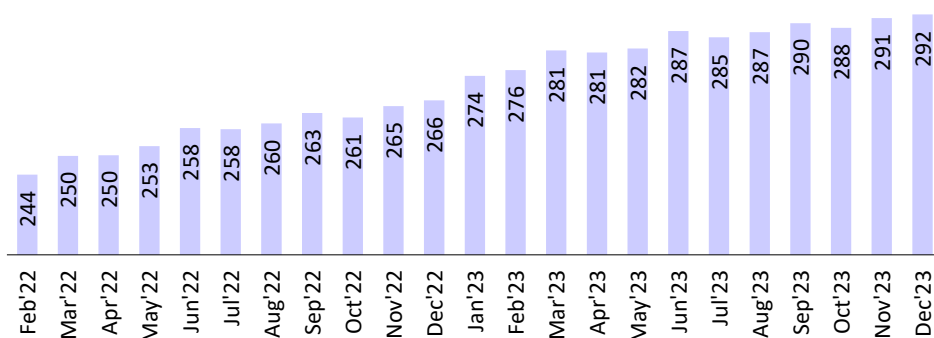


Exhibit 58: China floor space - start (mn. Sq. mts.)

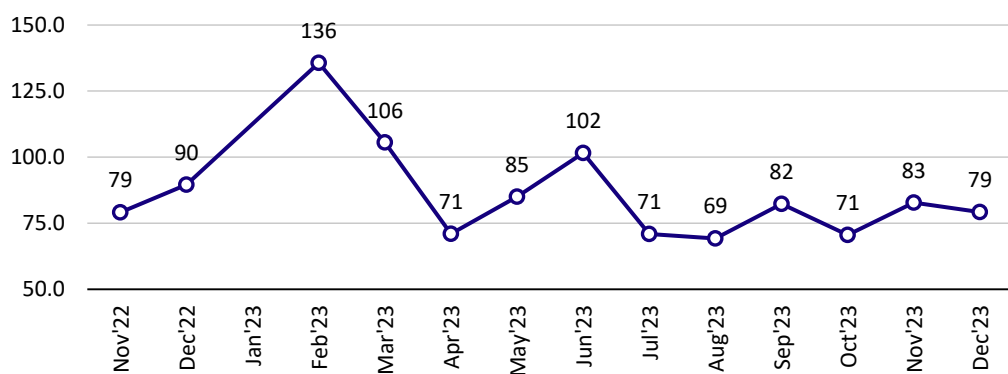
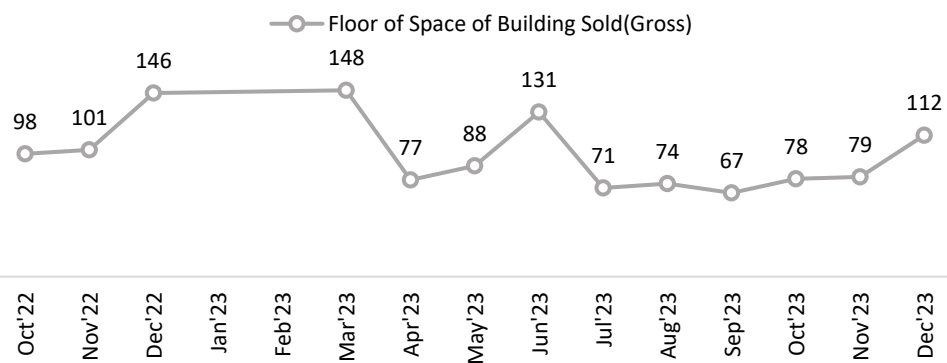


Exhibit 59: China floor space - sold (mn. Sq. mts.)



Commodity monthly heat map

Commodity	UoM	Feb'23	Mar'23	Apr'23	May'23	Jun'23	Jul'23	Aug'23	Sep'23	Oct'23	Nov'23	Dec'23	Jan'24	MoM
Oil and non-ferrous - prices														
Brent Crude	USD/bbl	83	79	84	76	75	80	86	94	91	83	78	80	2
Copper	USD/t	8,955	8,836	8,816	8,253	8,386	8,445	8,353	8,271	7,940	8,174	8,404	8,338	-1
Aluminum	USD/t	2,417	2,290	2,337	2,270	2,181	2,152	2,134	2,178	2,192	2,202	2,180	2,197	1
Zinc	USD/t	3,144	2,956	2,777	2,486	2,368	2,397	2,400	2,488	2,449	2,544	2,509	2,525	1
Lead	USD/t	2,099	2,115	2,147	2,090	2,118	2,107	2,153	2,253	2,136	2,185	2,037	2,076	2
Nickel	USD/t	26,728	23,289	23,771	22,135	21,233	21,091	20,446	19,645	18,264	17,027	16,444	16,127	-2
Alumina	USD/t	362	365	359	348	341	329	339	340	337	332	331	333	1
Aluminum Ingot Premium (Asia - MJP)	USD/t	82	88	99	124	122	119	117	103	104	108	99	NA	NA
Aluminum Ingot Premium (EU - Rotterdam)	USD/t	294	311	323	323	318	305	290	275	233	202	183	221	20
Aluminum Ingot Premium (US midwest)	USD/t	642	609	553	550	537	516	476	451	434	418	441	418	-5
Aluminum scrap	USD/t	1,738	1,665	1,715	1,608	1,536	1,515	1,532	1,521	1,552	1,570	1,561	1,567	0
Aluminum scrap spread	USD/t	679	625	622	662	645	638	602	656	640	632	619	630	2
Silver	USD/t	758	775	886	860	830	861	831	828	795	825	852	813	-5
USD:INR (Bloomberg)	INR	83	82	82	82	82	82	83	83	83	83	83	83	0
Ferrous- International Prices														
China HRC domestic	RMB/t	4,262	4,415	4,185	3,838	3,846	3,916	3,960	3,934	3,829	3,961	4,053	4,067	0
China HRC domestic	USD/t	623	640	608	549	537	545	546	539	524	548	568	567	0
China TMT domestic	RMB/t	4,315	4,356	4,023	3,748	3,774	3,796	3,765	3,910	3,928	4,003	4,143	4,128	0
China TMT domestic	USD/t	631	632	584	536	527	528	519	536	537	554	580	576	-1
China HRC FoB	USD/t	660	688	661	562	551	563	569	555	532	559	575	574	0
Korea HRC FoB	USD/t	662	698	689	681	624	601	605	600	595	NA	622	625	1
North Europe HRC domestic	EUR/t	770	824	853	806	702	669	656	659	624	648	678	729	8
North America HRC domestic (USD/short ton)	USD/st	830	1,036	1,155	1,128	969	964	828	721	707	874	1,057	1,105	5
India HRC Export FoB (USD/t)	USD/t	707	712	700	598	567	570	575	580	580	NA	NA	597	NA
Australia Fe 62% iron ore CNF	USD/t	126	127	118	105	111	112	109	121	119	130	136	136	0
Chinese steel futures														
TMT - Shanghai futures	RMB/t	4,116	4,212	3,885	3,607	3,691	3,764	3,720	3,731	3,649	3,890	3,974	3,949	-1
HRC - Shanghai futures	RMB/t	4,180	4,316	3,962	3,681	3,794	3,892	3,904	3,883	3,775	3,971	4,076	4,067	0
Iron ore - Dalian Commodity Exchange	RMB/t	873	899	768	712	794	806	765	854	854	942	948	974	3

Commodity	UoM	Feb'23	Mar'23	Apr'23	May'23	Jun'23	Jul'23	Aug'23	Sep'23	Oct'23	Nov'23	Dec'23	Jan'24	MoM
Coking coal - Dalian Commodity Exchange	RMB/t	1,888	1,913	1,561	1,336	1,317	1,419	1,441	1,781	1,777	1,982	1,947	1,830	-6
China HRC FOB spread over RM (HRC - 1.7x iron ore - .85x HCC)	RMB/t	1,092	1,161	1,329	1,334	1,324	1,317	1,378	917	812	685	810	856	6
India steel and metallics prices														
India HRC ex-Mumbai 5-10mm	INR/t	59,600	60,260	59,900	57,575	55,422	55,560	56,367	57,827	58,010	55,300	55,089	54,317	-1
Dom HRC prem to India export FoB price	INR/t	1,161	1,640	2,468	8,354	8,785	8,734	8,759	9,647	9,740	NA	NA	4,696	NA
CRC ex-Mumbai - 0.9mm	INR/t	64,733	64,875	64,186	62,500	59,888	59,443	60,800	62,244	63,450	62,600	62,400	62,033	-1
Galvanized plain - 120 GSM	INR/t	74,214	74,529	74,643	70,500	67,943	67,538	67,925	68,617	69,980	68,700	67,850	66,600	-2
Color coated /PPGI ex-Mumbai 90GSM	INR/t	82,443	82,260	82,725	81,550	79,540	78,900	78,800	79,200	79,500	78,700	78,267	76,850	-2
Wire rod - Primary Producers	INR/t	59,167	58,178	56,383	54,525	51,843	50,343	50,250	53,400	55,833	54,100	52,900	51,000	-4
TMT primary - Mumbai	INR/t	62,957	60,967	59,780	57,225	53,713	51,211	51,060	56,538	57,486	55,650	53,967	51,857	-4
TMT secondary - Mumbai	INR/t	56,896	56,065	54,929	53,458	50,857	46,977	48,926	51,977	50,835	49,067	48,761	48,728	0
Domestic scrap-HMS(80:20) - Mumbai	INR/t	36,493	38,084	38,177	37,442	36,987	34,268	35,503	36,807	35,442	33,760	33,758	33,269	-1
Sponge iron (DRI)	INR/t	31,067	30,408	29,540	27,885	27,155	25,518	28,318	30,023	28,248	26,642	26,184	25,752	-2
Domestic pellet prices- Barbil - 63% Fe	INR/t	9,621	9,525	9,064	8,417	7,925	7,613	8,067	8,989	8,470	8,440	8,686	9,250	6
Pellet Export Prices - FoB 64%Fe	USD/t	123	118	109	97	108	107	103	111	112	125	128	125	-2
Domestic ferrous spreads														
Primary HRC v/s primary TMT	INR/t	-3,357	-707	120	350	1,710	4,349	5,307	1,290	524	-350	1,122	2,460	119
Primary TMT v/s secondary TMT	INR/t	6,061	4,901	4,851	3,767	2,856	4,234	2,134	4,561	6,650	6,583	5,205	3,130	-40
Secondary TMT v/s domestic Scrap	INR/t	20,404	17,982	16,752	16,016	13,870	12,710	13,423	15,170	15,394	15,307	15,003	15,459	3
Hot rolled v/s cold rolled	INR/t	5,133	4,615	4,286	4,925	4,465	3,883	4,433	4,417	5,440	7,300	7,311	7,717	6
Hot rolled - galvanized Plan	INR/t	14,614	14,269	14,743	12,925	12,521	11,978	11,558	10,789	11,970	13,400	12,761	12,283	-4
Hot rolled - color coated	INR/t	22,843	22,000	22,825	23,975	24,118	23,340	22,433	21,373	21,490	23,400	23,178	22,533	-3
Coking coal														
India premium HCC CNF	USD/t	380	365	290	246	244	245	267	316	364	337	345	348	1
India 64 mid vols coking coal CNF	USD/t	349	328	258	222	216	213	234	264	286	276	294	289	-1
NMDC iron ore - Chhattisgarh														
64% Bailadila fines	INR/t	NA	4,010	4,010	3,785	3,560	3,950	3,910	4,110	4,460	4,593	4,660	5,020	8
Iron ore lump	INR/t	NA	4,450	4,200	4,050	3,900	4,530	4,650	4,850	5,200	5,333	5,400	5,720	6
Domestic ferro alloys														
Silico manganese	INR/t	76,496	74,145	75,048	73,510	70,979	67,184	67,313	69,760	65,777	63,030	63,761	64,455	1
Ferro manganese	INR/t	79,428	77,019	77,500	75,456	73,392	69,539	67,982	69,898	66,805	63,648	63,726	65,069	2
Ferro chrome	INR/t	36,493	38,084	38,177	37,442	36,987	34,268	35,503	36,807	35,442	33,760	33,758	33,269	-1
Ferrous - inventory														
China HRC	mt	3	3	2	3	3	3	3	3	3	3	2	2	-8

Commodity	UoM	Feb'23	Mar'23	Apr'23	May'23	Jun'23	Jul'23	Aug'23	Sep'23	Oct'23	Nov'23	Dec'23	Jan'24	MoM
China wire rod	mt	2	3	3	2	2	2	2	1	1	1	1	1	18
China TMT	mt	8	8	7	6	5	5	6	5	5	4	4	4	15
Non-ferrous - inventory														
Aluminum														
LME	kt	521	542	544	568	563	524	506	495	489	473	482	556	15
SHFE	kt	110	120	96	74	54	54	50	52	63	66	49	45	-8
Total	kt	631	662	640	642	617	578	556	547	552	539	531	602	13
Zinc														
LME	kt	25	38	48	55	83	82	122	126	86	130	220	209	-5
SHFE	kt	44	48	28	12	9	16	18	13	7	7	5	5	2
Total	kt	70	86	76	67	92	98	141	139	93	137	225	214	-5
Lead														
LME	kt	23	25	29	34	39	48	56	64	101	135	131	120	-8
SHFE	kt	56	46	32	27	36	34	51	67	69	68	58	49	-16
Total	kt	79	71	61	61	75	82	107	131	171	203	189	168	-11
Copper														
LME	kt	66	71	59	83	88	61	89	143	179	178	174	159	-9
SHFE	kt	124	105	66	53	29	22	13	9	9	3	6	8	40
Total	kt	190	176	125	136	117	83	101	152	188	181	179	167	-7
Nickel														
LME	kt	47	44	42	39	38	38	37	40	44	44	52	68	31
SHFE	kt	3	3	2	1	3	3	3	5	9	11	13	14	9
Total	kt	50	47	43	40	41	40	40	45	52	54	65	82	26

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
India									
Tata*	19,965	18.9	33.6	7.2	10.6	1.7	1.8	8.3	5.2
JSW*	23,870	55.2	18.7	13.7	8.6	3.0	2.7	5.3	15.1
JSP*	8,964	20.1	15.2	8.1	8.8	1.9	1.7	9.9	11.8
SAIL*	5,982	25.8	47.0	9.9	9.5	0.9	0.9	3.5	1.9
Japan									
JFE	10,013	8.9	7.3	7.2	6.0	0.6	0.6	7.4	8.7
Nippon Steel	23,023	5.2	7.8	5.4	6.3	0.8	0.7	17.3	10.3
Kobe Steel	5,430	12.7	6.9	8.6	5.4	0.9	0.8	7.5	11.3
Korea									
POSCO	26,755	14.0	12.1	5.8	5.5	0.6	0.6	4.7	5.1
Hyundai Steel	3,563	6.6	6.8	5.1	4.6	0.2	0.2	3.7	3.6
US									
Nucor	43,046	9.8	14.0	6.0	7.9	2.1	1.8	21.7	13.6
US Steel	10,775	11.4	16.8	6.0	6.6	1.0	1.0	9.6	5.8
Steel Dynamics	18,771	7.9	11.3	5.4	7.6	2.1	1.9	28.1	17.4
Europe									
AM	23,459	6.9	6.2	3.8	4.0	0.4	0.4	6.7	7.0
SSAB	7,372	6.1	9.9	3.0	4.4	1.1	1.1	18.4	11.0
TKA	3,856	21.6	7.6	0.3	0.3	0.3	0.3	0.7	4.0
VOE	5,319	4.9	9.7	2.9	4.1	0.6	0.6	13.8	6.5
China									
Baosteel	19,096	12.5	10.5	5.2	4.7	0.7	0.7	5.4	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
Vedanta*	11,971	9.4	22.6	5.2	7.1	2.5	3.8	20.1	13.4
BHP	1,56,821	11.4	11.2	6.1	5.8	3.6	3.1	31.0	29.7
Rio	1,20,757	9.7	8.8	5.3	4.7	2.1	1.9	21.9	22.9
Glencore	65,208	10.0	11.1	4.5	4.5	1.5	1.4	14.5	12.5
Anglo	29,126	10.2	10.4	4.7	4.5	1.1	1.0	10.1	10.0
South 32	10,046	10.7	20.0	4.0	5.9	1.0	1.1	9.7	5.3

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
HZL*	15,955	12.7	17.2	7.6	9.6	10.3	9.3	44.5	56.7
Korea Zinc	7,303	19.2	16.5	9.5	8.4	1.0	1.0	5.3	6.2
Teck	20,925	10.3	9.8	5.5	4.5	1.0	0.9	9.9	9.7

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
Coal*	30,593	9.0	10.0	5.3	5.8	4.4	3.6	49.2	36.3
China Shenhua	94,743	8.4	8.7	5.5	5.6	1.3	1.3	15.8	14.2
Banpu	1,831	8.3	7.1	5.2	4.8	0.5	0.5	6.9	6.0
Bukit Asam	1,871	5.8	6.2	3.5	3.6	1.3	1.2	21.7	20.2
Adaro Energy	4,852	3.2	4.3	1.4	2.1	0.7	0.7	23.3	15.9

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
Hindalco*	15,347	12.5	12.0	7.2	6.7	1.8	1.6	16.3	14.2
Nalco*	3,210	18.6	25.2	10.0	11.4	2.0	2.0	11.2	7.9
Alcoa	5,463	NA	112.1	14.9	8.6	1.3	1.3	-9.5	0.5
Norsk Hydro	12,173	14.3	11.2	6.3	5.3	1.2	1.2	8.2	10.6
CHALCO	12,564	9.6	8.5	6.2	5.2	1.0	0.9	11.1	11.6
RUSAL	4,842	3.5	2.5	6.2	4.4	0.4	0.3	10.6	14.1
Alumina	2,231	NA	24.8	NA	17.5	1.5	1.4	-3.3	4.9

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

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