

Indian companies valuation

	Price	EV/ EBITDA (x)		P/B (x)	
		FY23E	FY24E	FY23E	FY24E
	(INR)				
Steel					
Tata	108	6.2	5.6	1.3	1.3
JSW	705	12.8	6.5	2.6	2.1
JSP	575	6.0	4.7	1.4	1.3
SAIL	84	7.0	5.0	0.6	0.6
Non-ferrous					
Vedanta	277	5.3	5.2	2.6	2.2
Hindalco	411	5.5	4.6	1.5	1.3
Nalco	82	5.5	4.0	1.2	1.1
Mining					
Coal	238	2.5	3.8	2.6	2.2
HZL	310	7.5	6.2	10.1	6.4
NMDC	107	4.0	3.1	1.6	1.4

Global companies valuation

Company	M.Cap USD b	EV/EBITDA (x)		P/B (x)
		CY22/ FY23	CY23/ FY24	
Steel				
AM	23	3.6	3.5	0.4
SSAB	7	3.0	4.4	1.0
Nucor	35	5.1	6.7	1.7
POSCO	23	5.2	4.5	0.5
JFE	8	6.4	6.4	0.5
Aluminum				
Norsk Hydro	13	5.3	4.6	1.3
Alcoa	6	7.1	3.6	1.3
Zinc				
Teck	23	4.5	4.3	1.1
Korea Zinc	7	7.9	7.0	1.0
Iron ore				
Vale	61	3.5	3.8	1.6
FMG	42	4.4	5.3	2.2
Diversified				
BHP	148	5.2	5.2	3.2
Rio	105	4.4	4.6	1.8

Weak global demand and bearish sentiment continues to weigh on metal sector
Indian Steel prices under pressure for seventh consecutive week

- Indian steel prices have been under pressure since Mar'23 and the pricing pressure has intensified. Indian steel manufacturers are currently facing double whammy with slower-than-expected demand pickup and a decrease in realizations.
- Indian steel prices have continued on their downward trajectory for the seventh consecutive week and the HRC prices have corrected by INR700/t WoW to INR58,100/t and rebar prices too have corrected by INR700/t WoW to INR57,400/t.
- Post-mid Mar'23, the infrastructure, projects, and construction sector experienced a period of slowdown. This was primarily due to liquidity crunch during the end of the financial year, multiple holidays and long weekends, extreme climatic conditions and heat waves, low availability of labor, etc. As a result, the pickup of inventory from the warehouses was significantly affected.
- The domestic market has been subdued and prices have been on a decline with buyers keeping their need-based buying stance unchanged.

India faces competition from imported steel

- Over the last few weeks, India steel majors are facing tough competition from cheap Chinese, Japanese, and Vietnamese imports. Though India has been a net exporter in Apr '23, there has been a gradual decline in the intensity of exports, with the trend shifting in favor of imports.
- China is following the 'If you can't sell it at home, stick it on the boat' policy. Imported HRC prices from China works out to USD610/t on a CFR basis. This translates to a landed price of INR55,700/t (USD675-680/t). Even after considering the customs duty, insurance and freight, the imports are proving to be much cheaper than domestic steel prices. China in Apr'23 exported 7.9mt of steel, the highest since Apr'21.
- The export market for Indian manufacturers is currently facing a challenging outlook, leading them to reduce the export prices by USD45-50/t last week. As a result, the current export prices have reached around USD597-600/t.
- Recently, the deal in the MENA region was concluded at USD632/t on a CFR basis, which was on par with Chinese steel prices in the MENA region.
- We believe slashing export prices will not adversely impact the financials of Indian steel majors. This is because they have limited their exports to a small percentage of their overall sales. However, if domestic steel prices continue to remain higher than landed steel prices, there is a risk of import substitution, as imported steel becomes more attractive due to its lower cost.

Coal prices remains under pressure

- Premium HCC prices increased last week by USD6-8/t to USD261/t, on the back of improved demand from India; however, the demand pickup was short lived with prices correcting back to USD256/t.
- The decline in export markets, softening of list prices by steel majors, and subdued demand have led to a cautious approach by merchants, resulting in

limited buying activity. This has consequently exerted downward pressure on coal prices.

- Subdued steel demand and increase in coal availability to non-power sectors by COAL will further have a cascading effect on the coal prices, driving them down even further.
- Until the Chinese economy shows any signs of recovery and there is a reduction in price volatility of key input raw materials, steel manufacturers worldwide will remain under pressure and in a constant struggle to maintain profitability.

China's housing market fails to keep the enthusiasm alive

- The Chinese construction sector accounts for nearly 20% of Chinese GDP. However, the key indicators are currently signaling a slowdown in the property market in China.
- Despite the government rolling out a number of measures to support the sector, property investment continues to contract and home buyers have been reluctant towards taking on mortgages.
- New home purchases across the four major cities have shown a sustainable recovery of 59%; however, the sales in smaller and regional cities are down 42% and 28%, respectively. New home sales across 40 major cities in China has plunged 22% below the pre-covid levels. Multiple issues faced by property developers in China have adversely impacted investors' confidence, thereby dragging the recovery across cities.
- Housing prices in China have been on a decline for the fourth consecutive month. Slower-than-expected sales has resulted in an increase in inventory levels, which has risen to 43% from a recent low in Nov'21. The new home inventory across the major cities could take considerable amount of time, even as long as 17.5 months, to clear/sell.
- Investment in real estate too has contracted, which indicates that the rebound witnessed in 1QCY23 was not buoyant and has failed to excite home buyers.
- The second-hand residence witnessed poorer performance with sales down 44% MoM across 15 major cities. China's property and real estate sector influences the global metal demand and prices. Any negative news would further drag down the prices for steel, iron ore, copper, aluminum, etc.
- Recently, another Chinese real estate company defaulted on its debt payment. KWG Group Holdings Ltd., which constructs high end – high rise residential and commercial properties defaulted on USD119m payment. The default of KWG Group illustrates the ongoing difficulties for the real estate developers.

Iron ore prices – a key indicator to watch out

- The recent auction by NMDC from Donimalai mines witnessed a weak response. The average auction prices for fines were INR100/t lower than the previous auction, and prices for lumps witnessed a further decline of INR300/t.
- Market participants are under wait-and-watch mode to gain better price clarity. If the offtake from the auction remains weak, there is a high possibility of prices correcting in the near term. Similarly, iron ore prices in

the international market have also been under pressure.

- As iron ore is a key input raw material for steel, one needs to closely monitor the prices in the international market.
- China's BF capacity utilization retreated for the fourth consecutive week to 89.03% (down 46bp WoW).
- Utilization has been declining as many steel mills are reducing their production due to subdued domestic downstream demand and thin margins.
- Lower BF capacity utilization also affected the demand for iron ore, down ~USD7/t WoW.

Commodities and forex tracker

		UoM	Spot	WoW (%)	MoM (%)
Steel	India HRC (ex-Mum)	INR/t	58,100	-2	-3
	India TMT Prime (ex-Mum)	INR/t	57,400	-1	-4
	India TMT Secondary (ex-Mum)	INR/t	54,100	3	-1
	Korea HRC - FoB	USD/t	685	0	-1
	China HRC Dom.	USD/t	545	-3	-11
	China HRC - FoB	USD/t	580	0	-13
Coking coal	India Prem HCC CNF	USD/t	256	0	-16
	India 64 Mid Vols CNF	USD/t	232	2	-14
	India Low Vols PCI CNF	USD/t	228	1	-14
Metals	Iron Ore Fines (Odisha Index) Fe 62%	INR/t	5,600	0	-2
	Iron Ore Fines (China - CNF) Fe 62%	USD/t	103	-1	-13
	Europe Scrap HMS 1&2(80:20)	USD/t	425	2	-4
	C-DRI (ex-Raipur)	INR/t	30,700	2	-6
Thermal Coal	RB1 (6000 NAR) SA FoB	USD/t	131	-8	-13
	RB2 (5500 NAR), SA FoB	USD/t	114	-5	-11
	Indonesia (4200 GAR) Futures	USD/t	69	-4	-6
Non-Ferrous	Copper	USD/t	8,240	-3	-9
	Aluminum	USD/t	2,231	-2	-5
	Zinc	USD/t	2,516	-4	-13
	Lead	USD/t	2,094	0	-4
	Nickel	USD/t	22,110	-10	-8
	Alumina	USD/t	347	-2	-3
	Ali UBC Scrap	USD/t	1,587	-5	-8
	Ali UBC Scrap Spread	USD/t	643	7	1
FX	INR:USD	x	82.2	0	0
	USD:EUR	"	1.09	-1	-1
	USD:GBP	"	1.25	-1	0
	CNY:USD	"	6.96	1	1
	JPY:USD	"	136	1	2

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Source: SteelMint, JPC, Bloomberg, Company and MOFSL estimates

FERROUS: India – prices

Exhibit 1: HRC - Mumbai (INR/t)

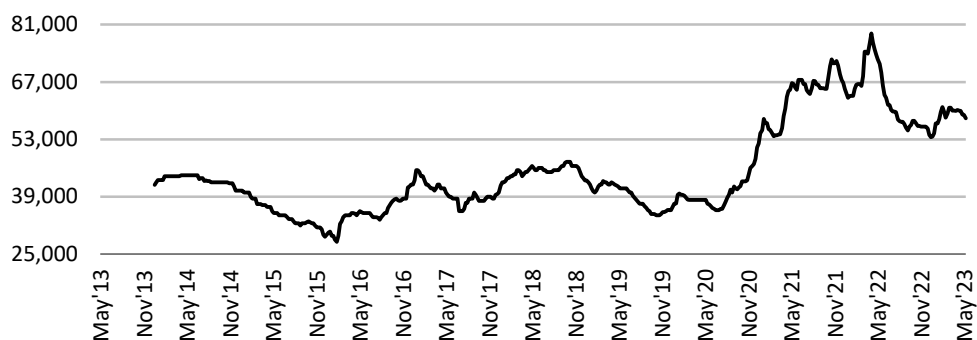


Exhibit 2: TMT Primary – Mumbai (INR/t)

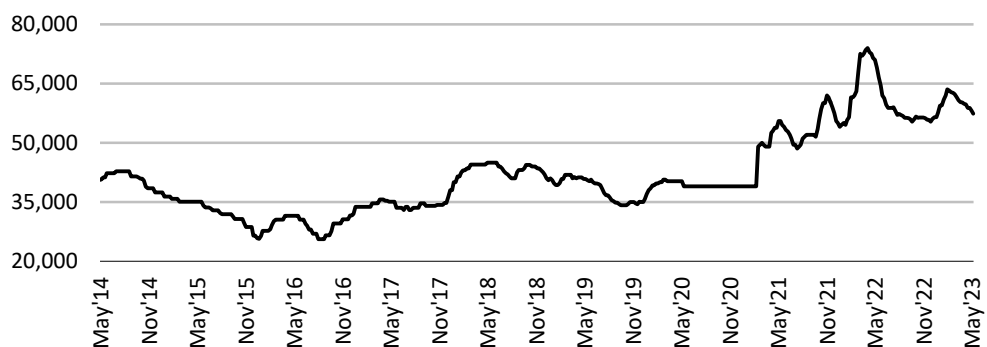


Exhibit 3: C-DRI (sponge iron), ExW-Raipur (INR/t)

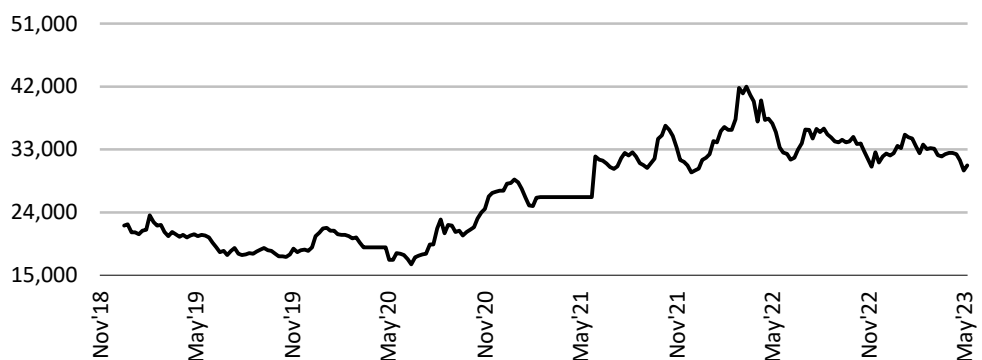


Exhibit 4: Domestic Pellet – Barbil – 63% Fe (INR/t)

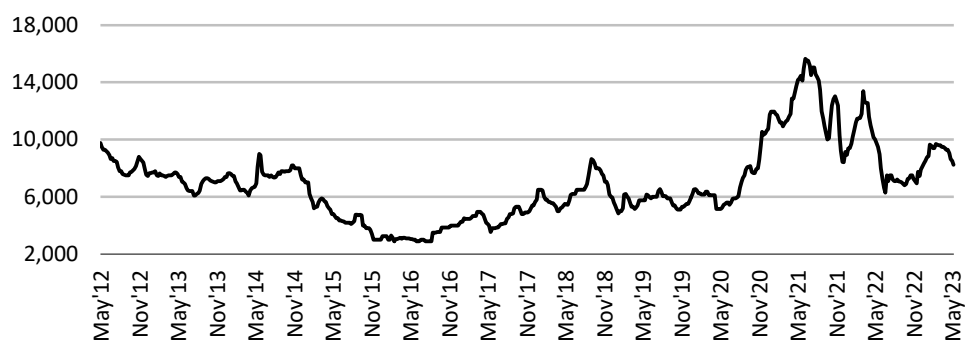


Exhibit 5: Iron Ore Fines Odisha – Fe 62% (INR/t)

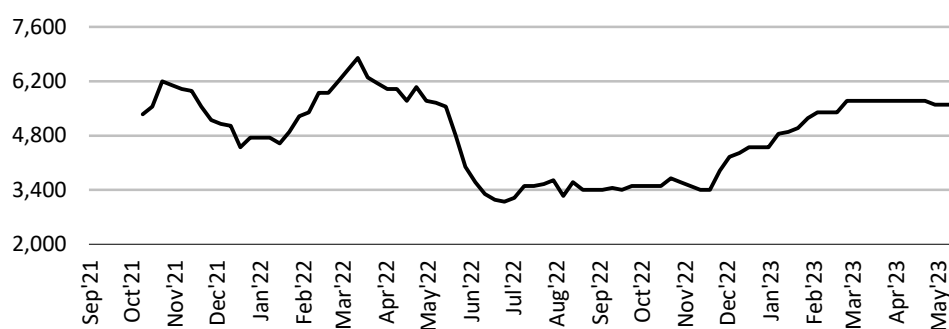


Exhibit 6: NMDC Fines – Fe 64% (INR/t)

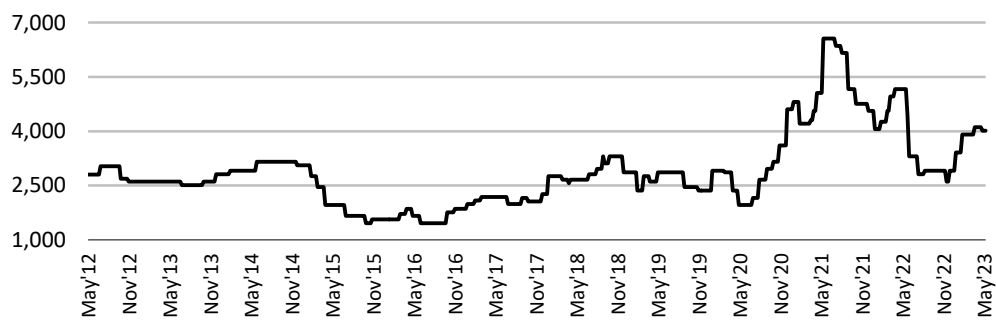
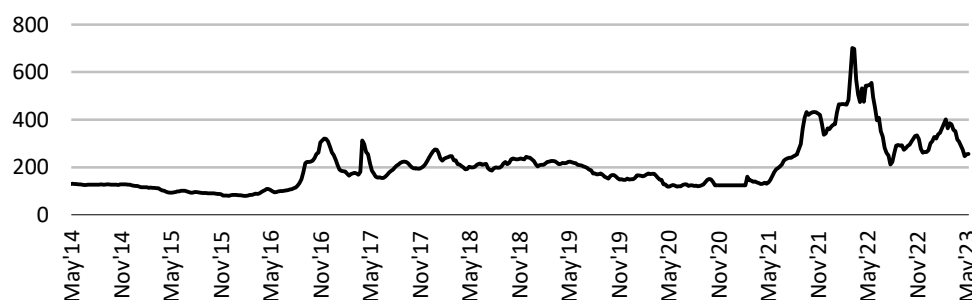


Exhibit 7: Premium HCC CNF Paradip (USD/t)



Domestic spreads

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

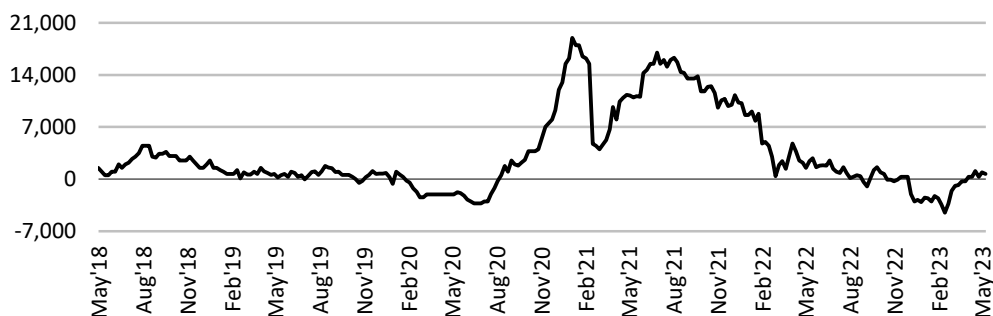


Exhibit 9: Primary TMT v/s secondary TMT (INR/t)

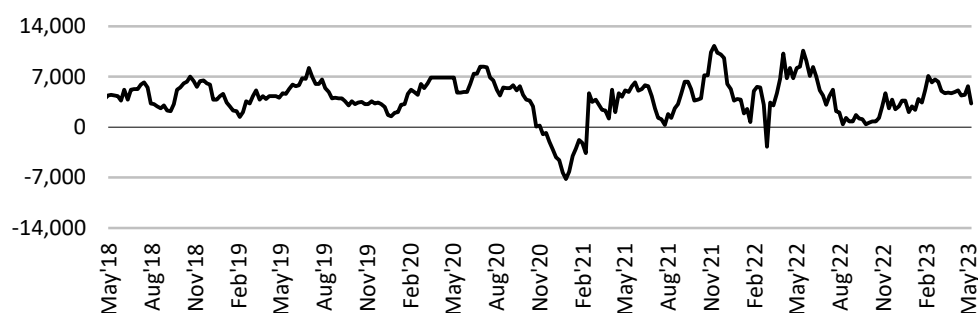


Exhibit 10: Secondary TMT v/s domestic scrap (INR/t)

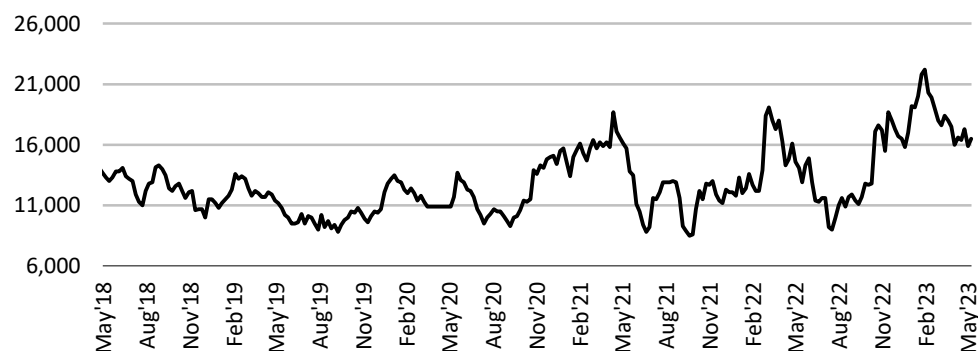


Exhibit 11: HRC v/s CRC (INR/t)

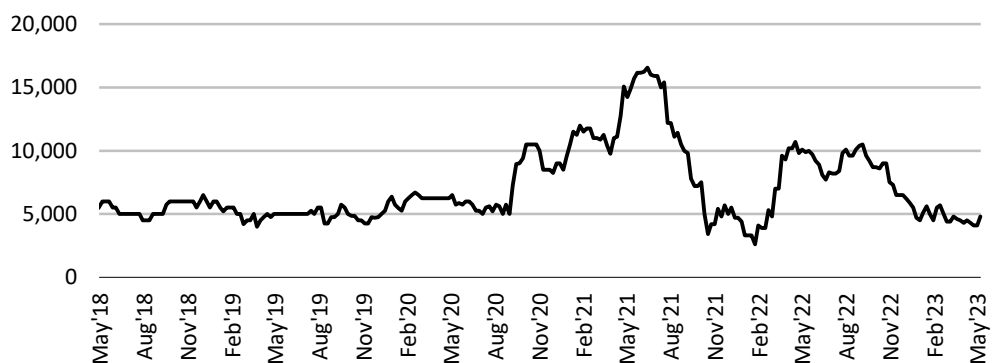


Exhibit 12: HRC – galvanized (INR/t)

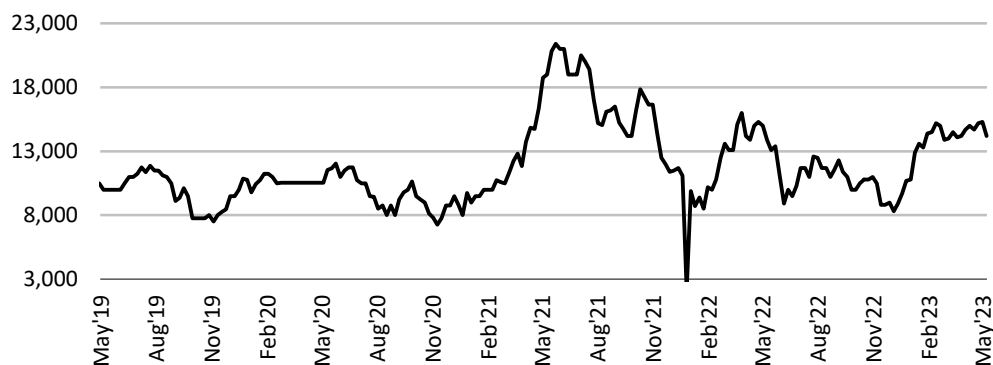


Exhibit 13: HRC – color coated (INR/t)

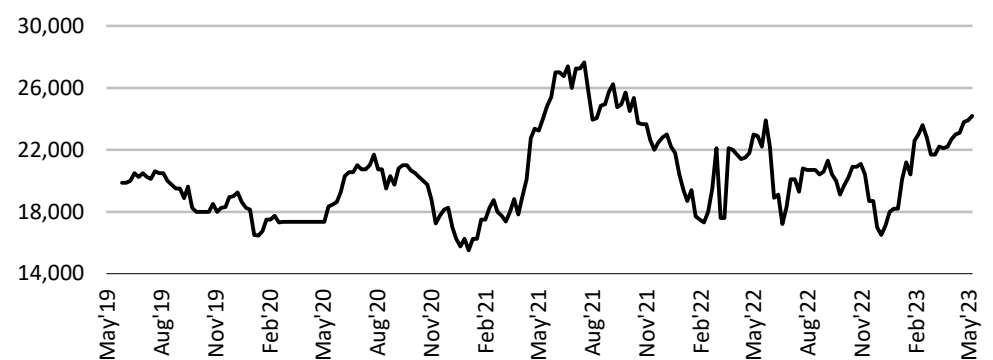


Exhibit 14: DRI v/s NMDC lumps (INR/t)

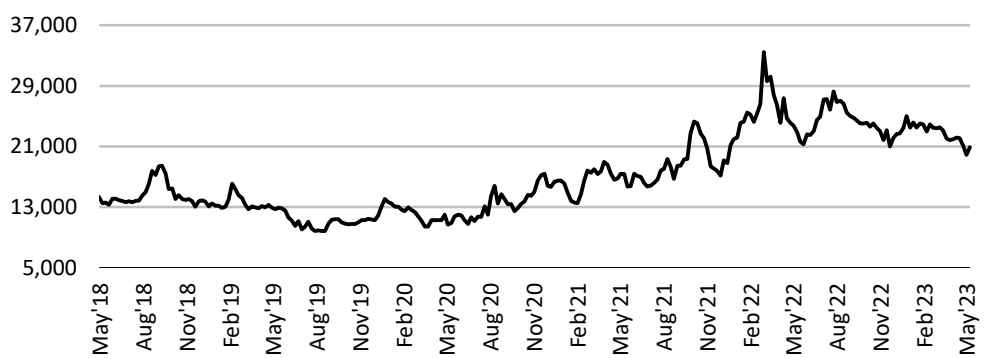


Exhibit 15: Secondary TMT v/s DRI (INR/t)

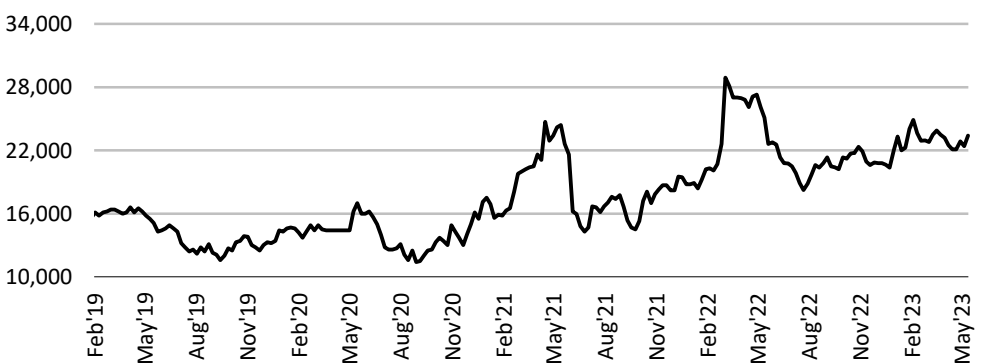


Exhibit 16: DRI v/s pellet (INR/t)

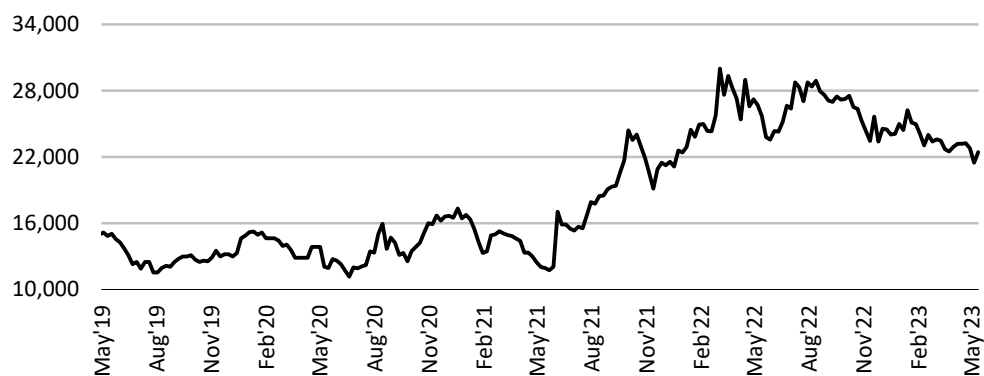
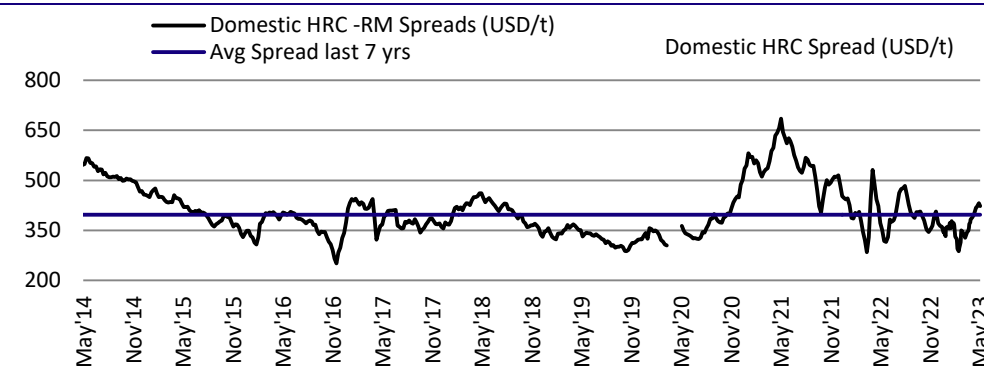


Exhibit 17: India HRC spread (1.6x IO and 0.85x HCC; 1.5-month lag in HCC)



China prices/spreads

Exhibit 18: China HRC FoB (USD/t)

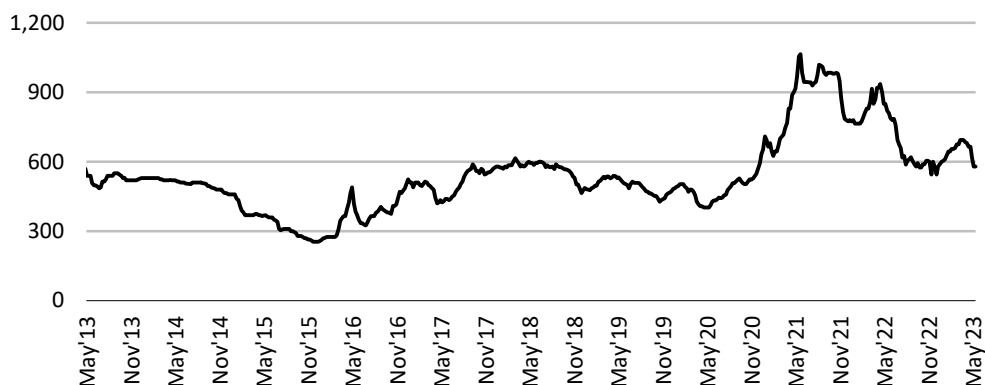


Exhibit 19: China HRC domestic (USD/t)

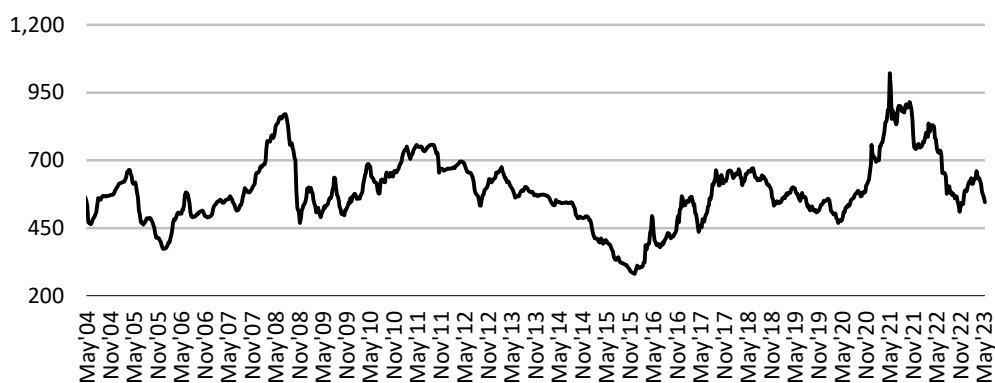


Exhibit 20: China domestic TMT (USD/t)



Exhibit 21: China domestic wire rod (USD/t)

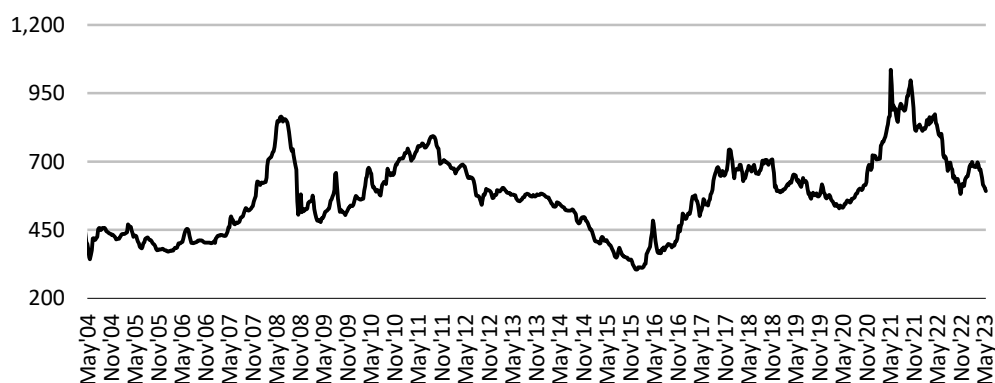
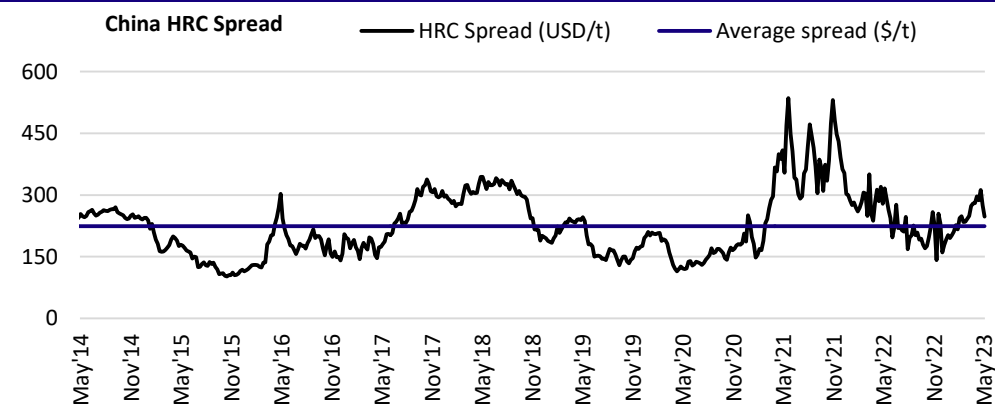


Exhibit 22: China HRC spread (1.6x IO and 0.85x HCC)



Global prices

Exhibit 23: Northern Europe HRC domestic (USD/t)

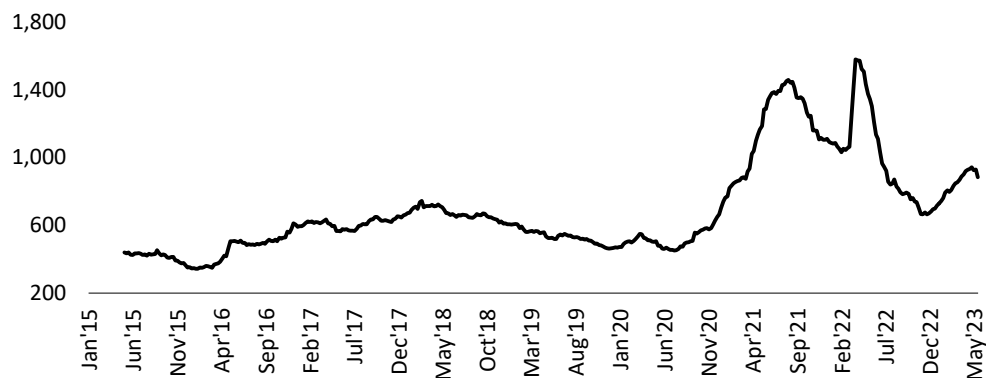


Exhibit 24: North America HRC domestic (USD/short ton)

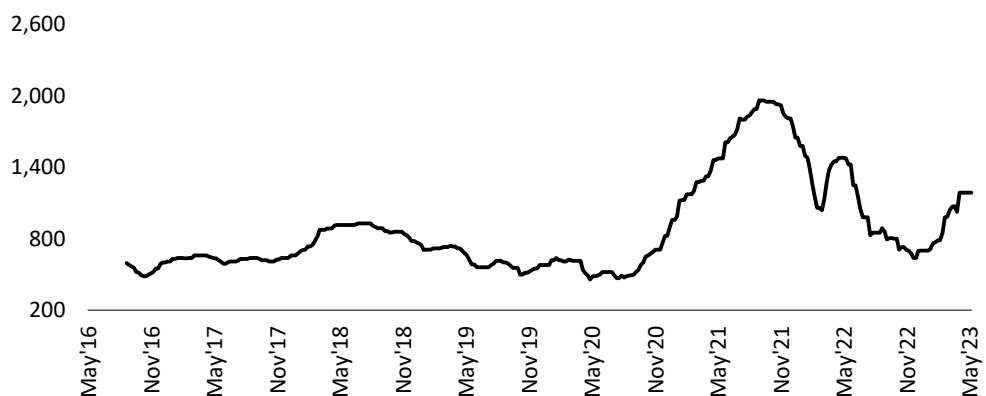
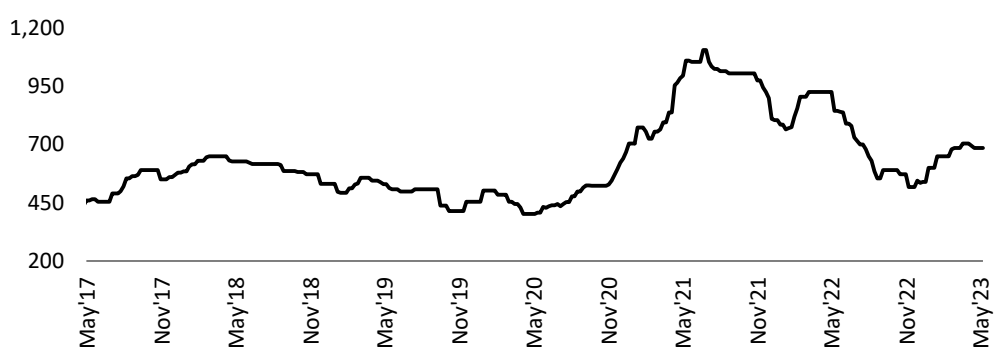


Exhibit 25: Korea HRC FOB (USD/t)



Inventories

Exhibit 26: India steel inventory (mt)

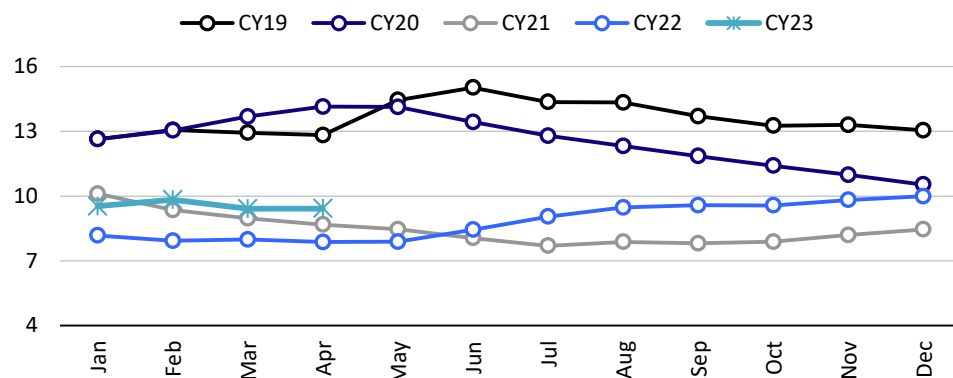


Exhibit 27: China wire rod and TMT inventory (mt)

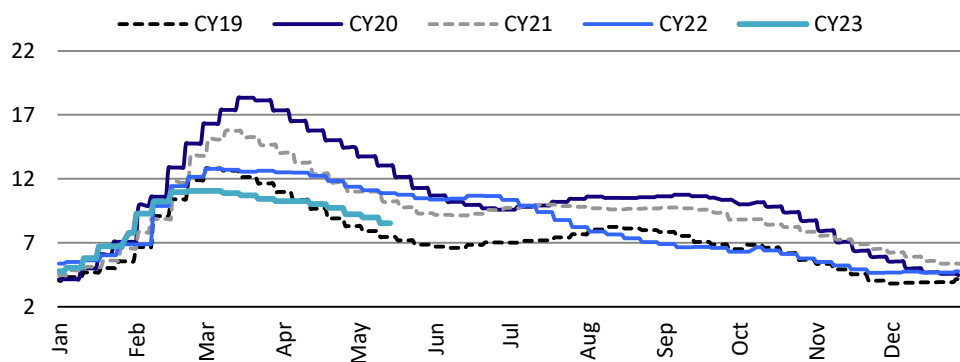
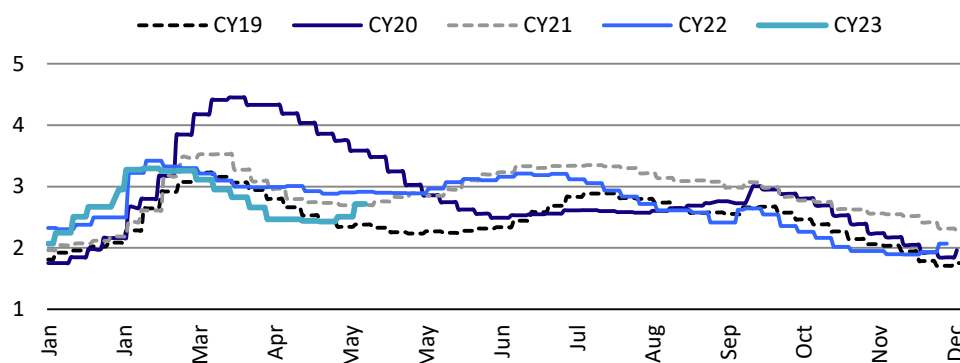


Exhibit 28: China HRC inventory (mt)



NON-FERROUS: Aluminum

Exhibit 29: LME spot (USD/t)

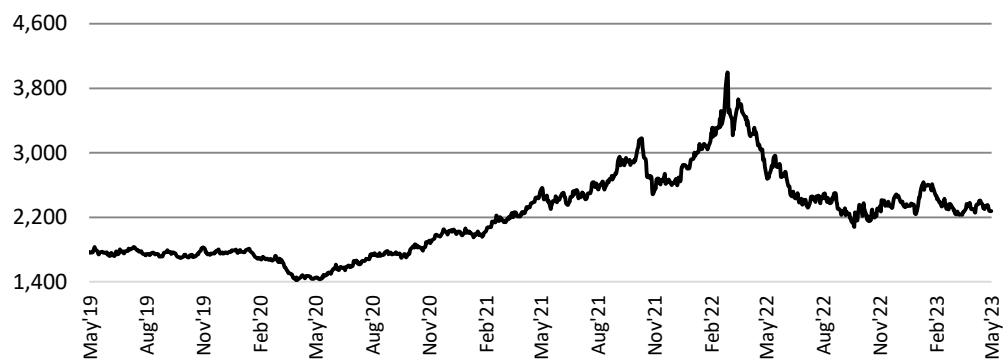


Exhibit 30: Alumina FoB Australia (USD/t)

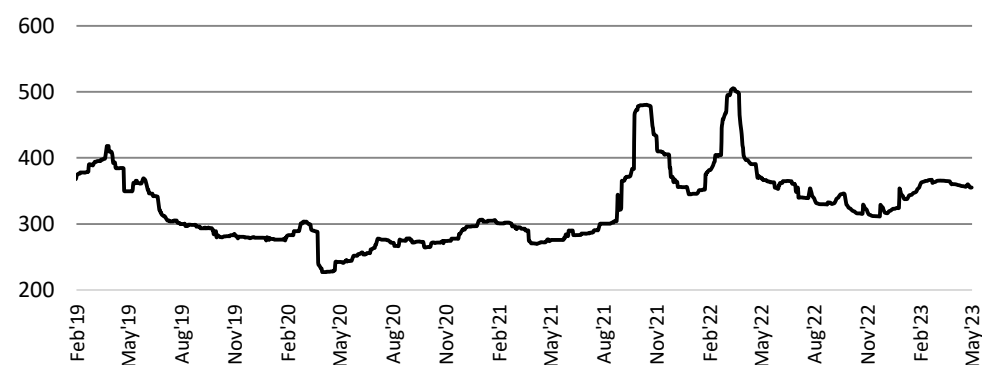


Exhibit 31: Caustic soda (USD/t)

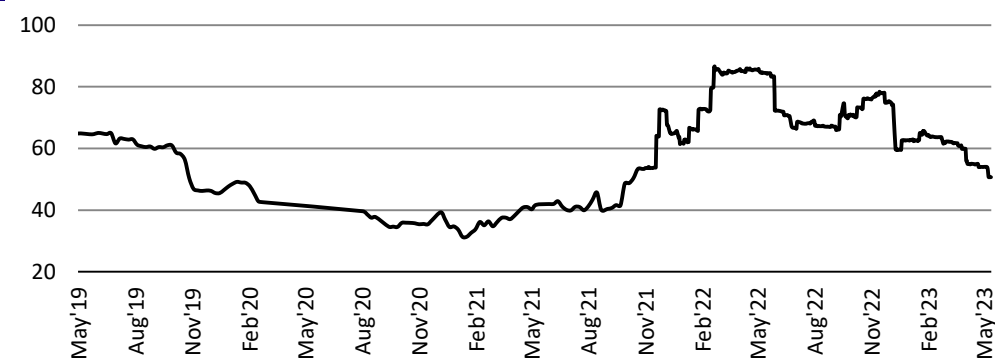


Exhibit 32: Total inventory (LME + SHFE, mt)

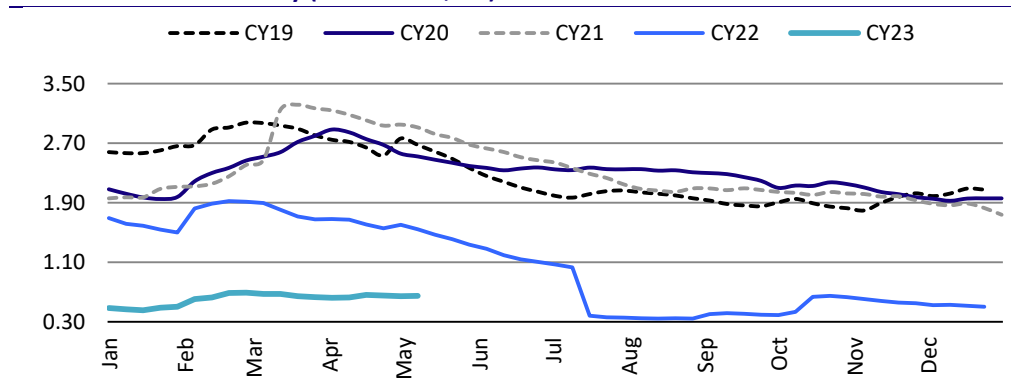


Exhibit 33: Ingot premiums (mt)

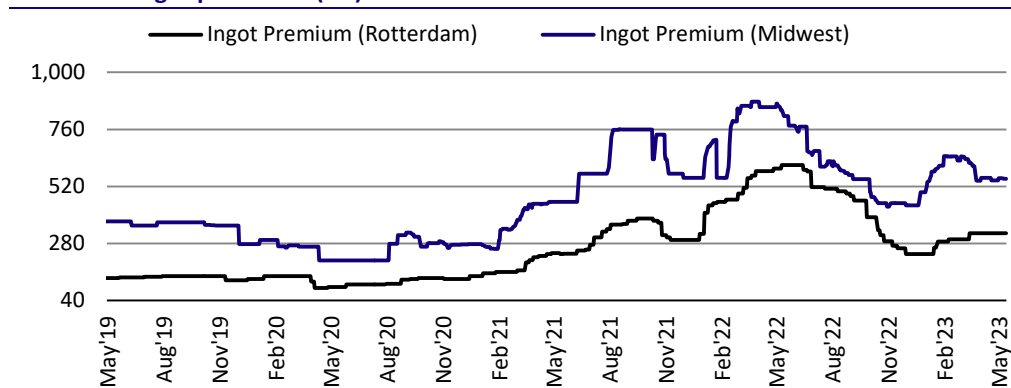
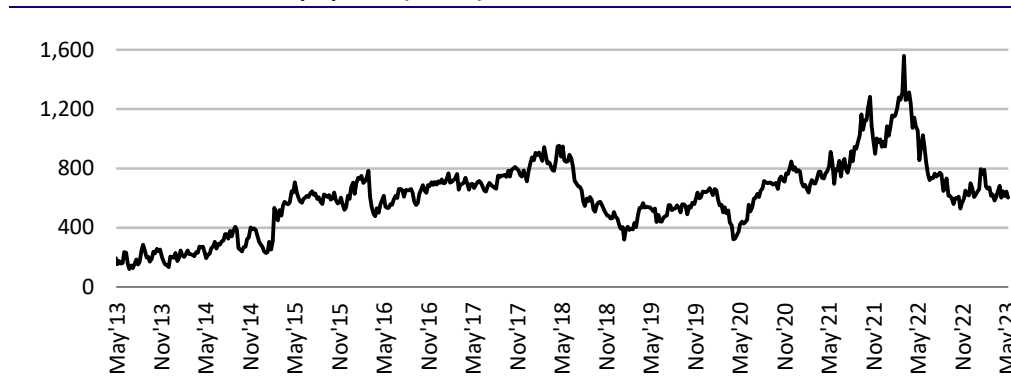


Exhibit 34: Aluminum scrap spread (USD/t)



Copper

Exhibit 35: LME spot (USD/t)

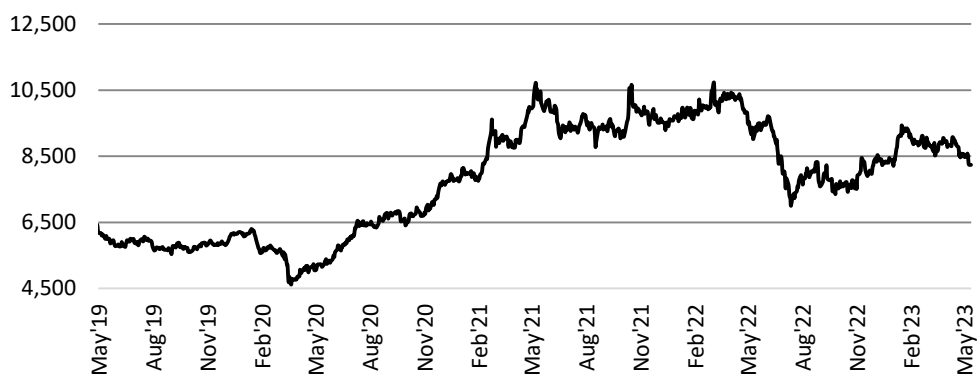
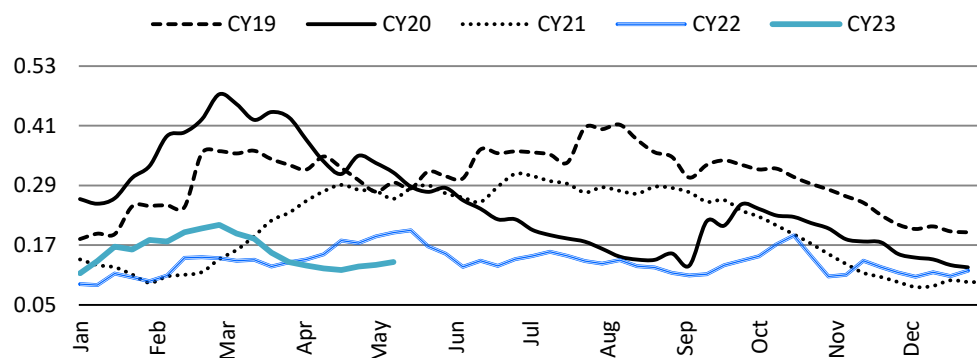


Exhibit 36: Total inventory (LME+SHFE, mt)



Zinc

Exhibit 37: LME spot (USD/t)

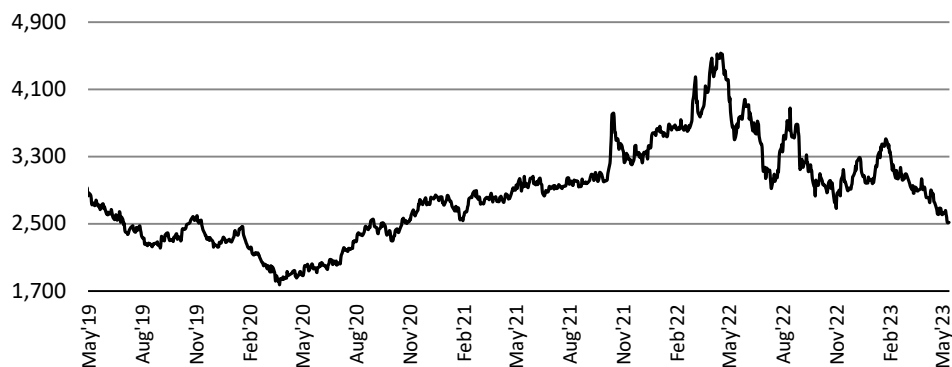
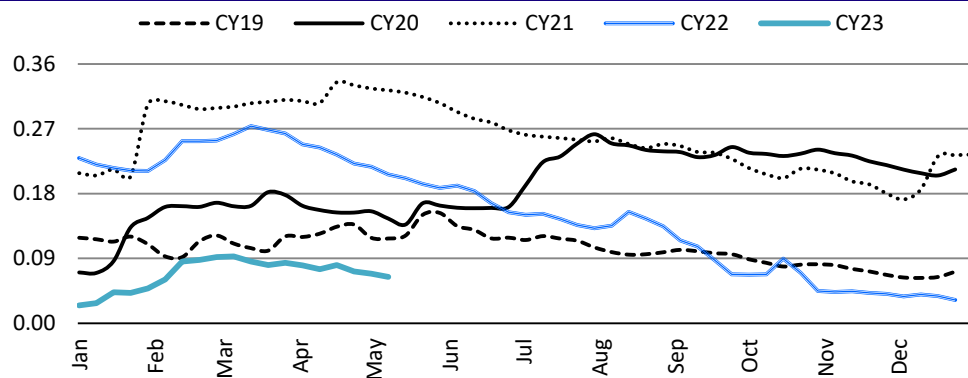


Exhibit 38: Total inventory (LME+SHFE, mt)



Lead

Exhibit 39: LME spot (USD/t)

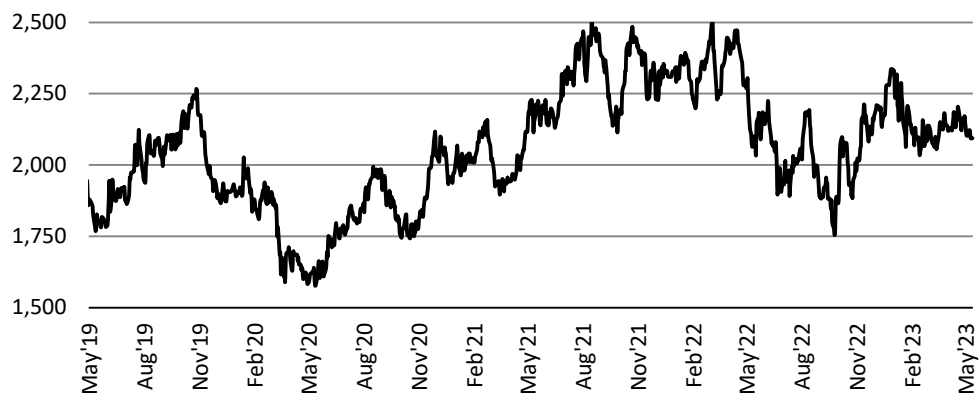
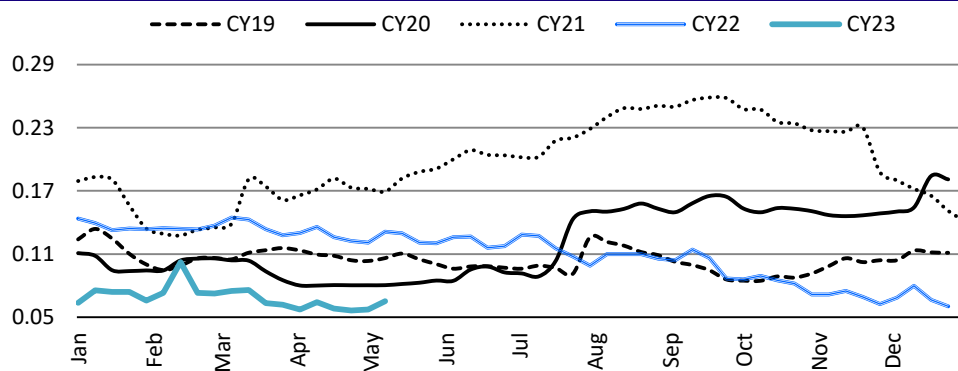


Exhibit 40: Total inventory (LME+SHFE, mt)



Nickel

Exhibit 41: Nickel spot (USD/t)

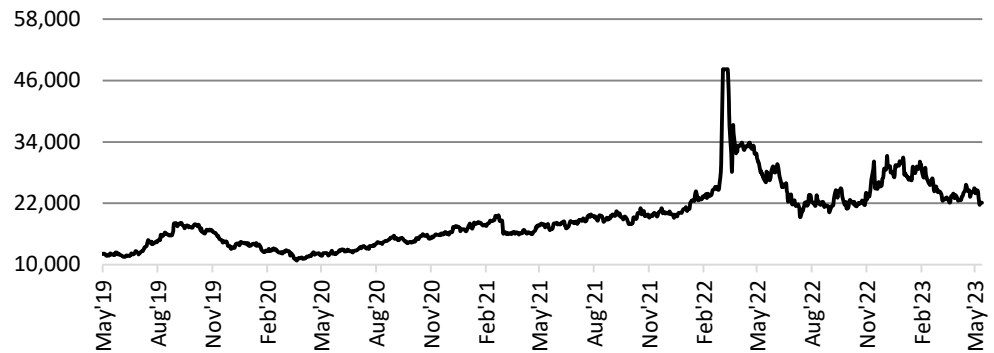
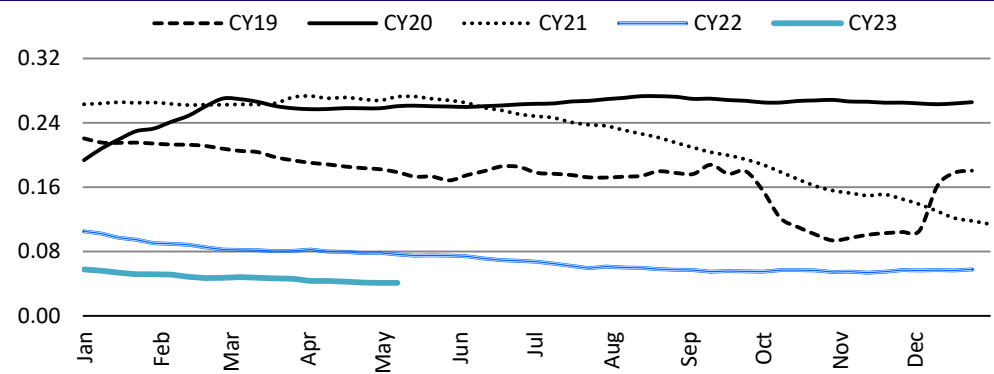


Exhibit 42: Total inventory (LME+SHFE, mt)



India steel production, consumption, EXIM, and inventory

Exhibit 43: Crude steel production (mt)

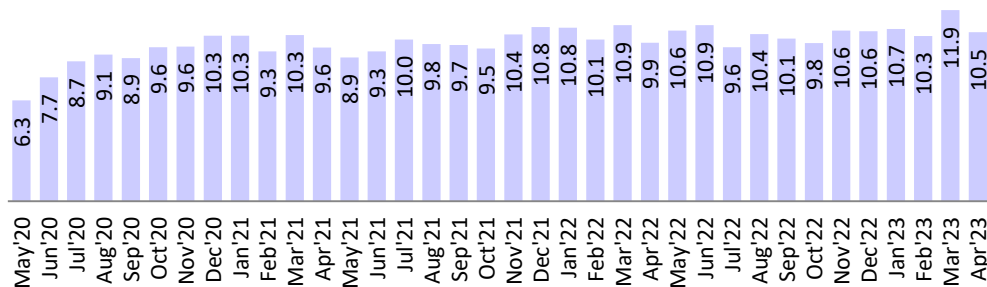


Exhibit 44: Finished steel production (mt)

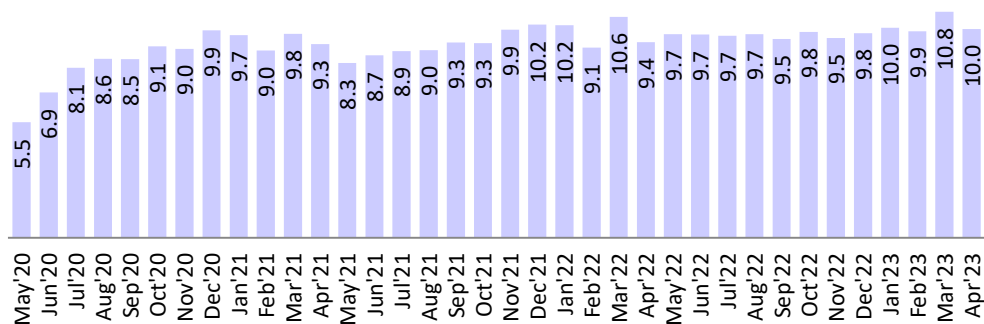


Exhibit 45: Imports including semis (kt)

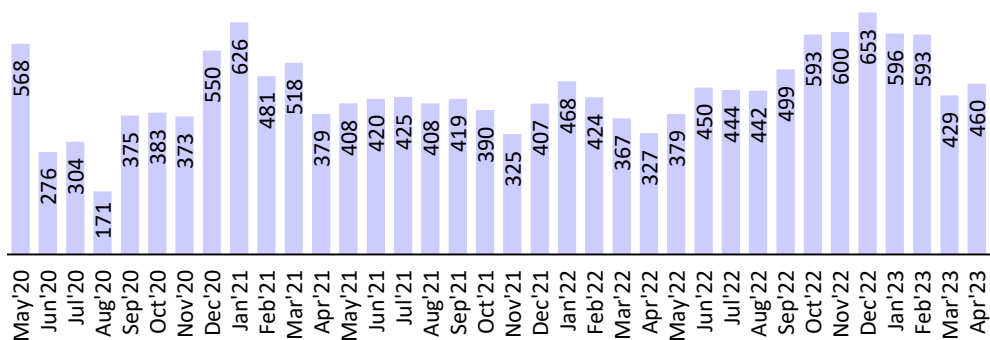


Exhibit 46: Exports including semis (kt)

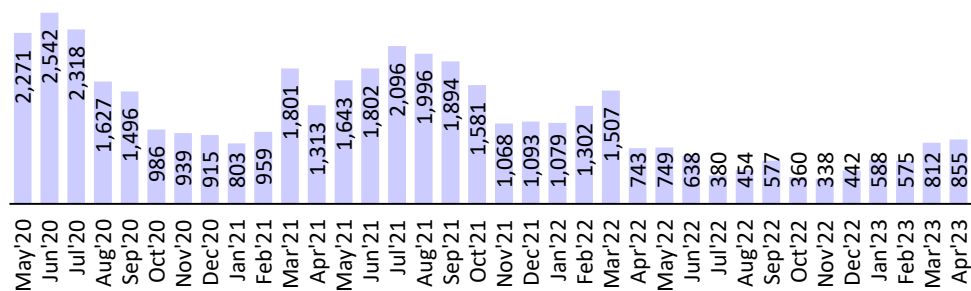


Exhibit 47: Net imports/(exports) of finished steel (kt)

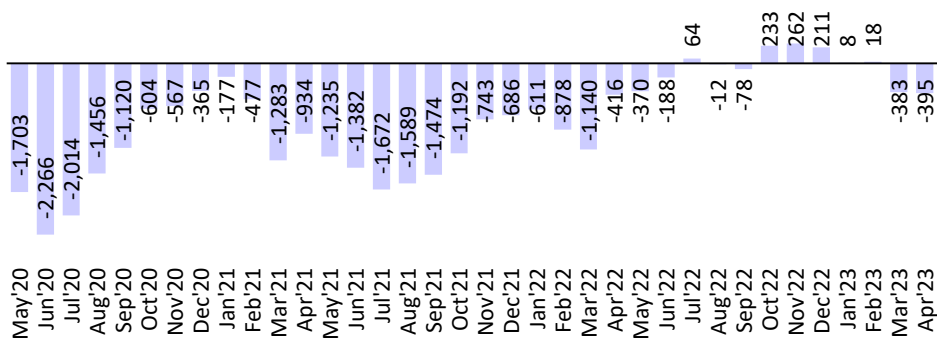
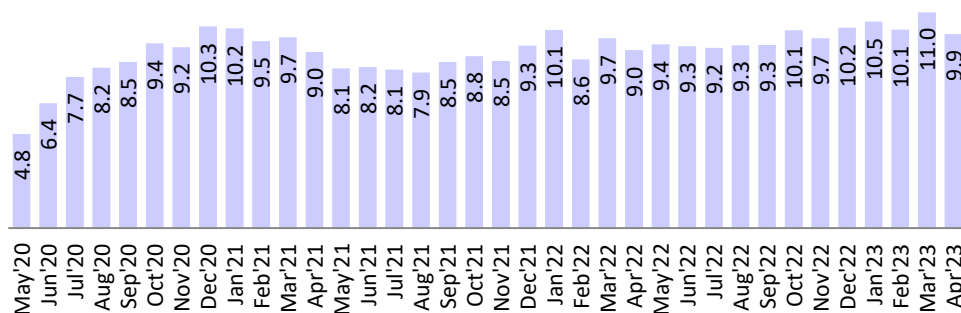


Exhibit 48: Steel consumption (mt)



Global production trends

Exhibit 49: World crude steel production and China's share

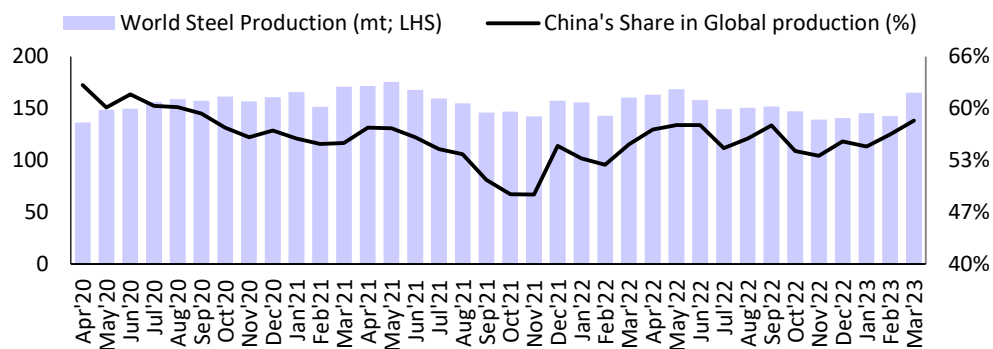


Exhibit 50: Crude steel production in China (mt)

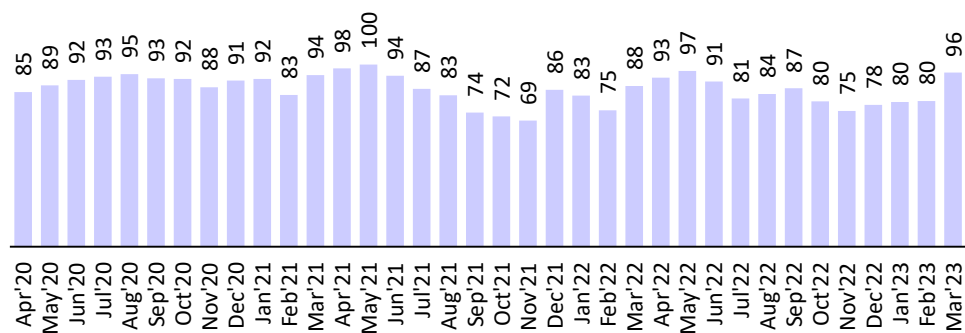


Exhibit 51: Crude steel production in Japan (mt)

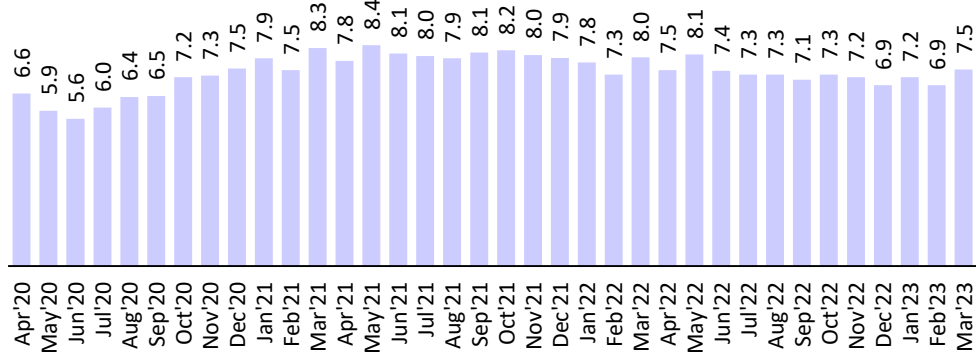


Exhibit 52: Crude steel production in the US (mt)

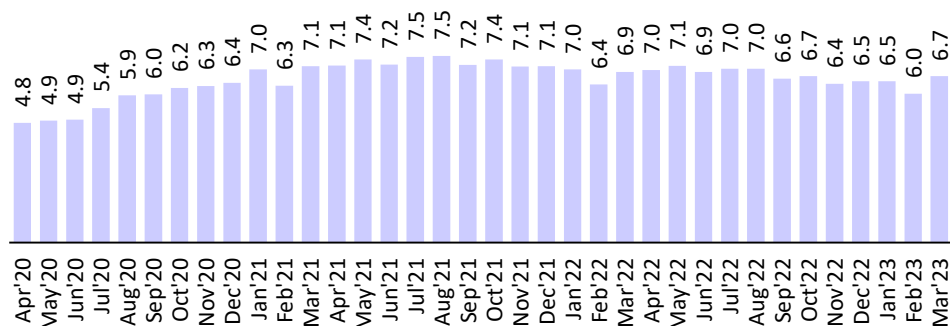


Exhibit 53: Crude steel production in Russia (mt) (estimates)

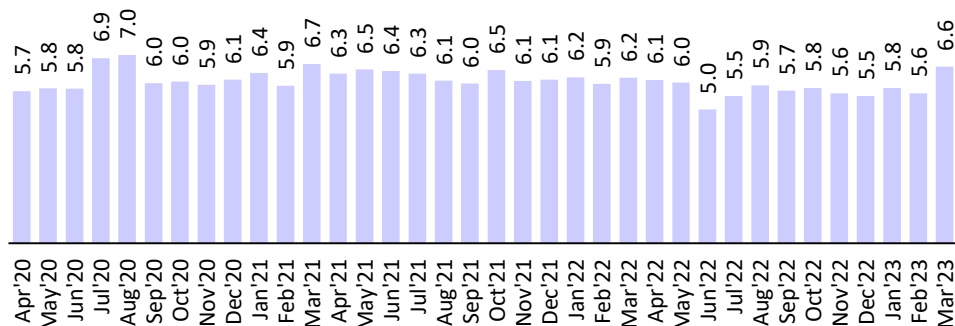
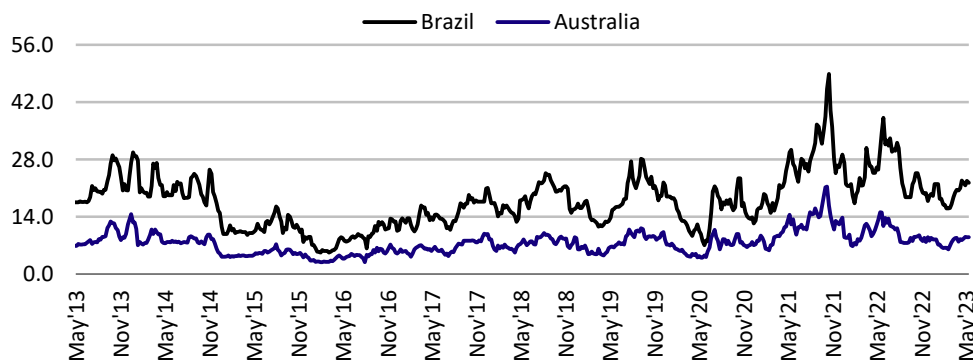


Exhibit 54: Dry bulk freight rates to China (USD/t)



China steel and macro

Exhibit 55: China's gross steel exports (mt)

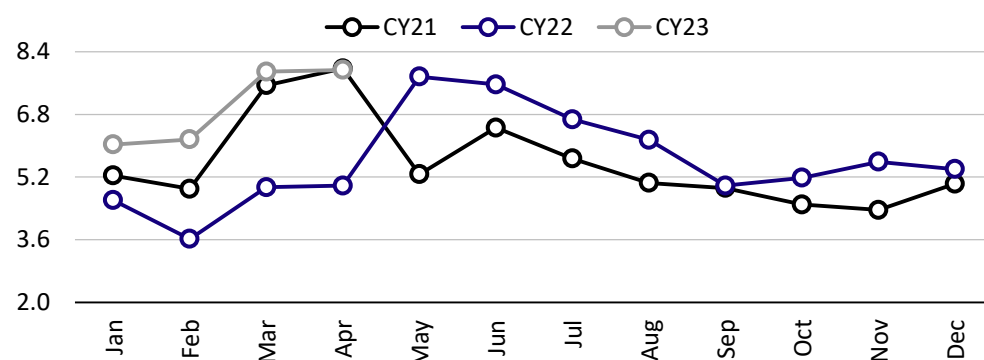


Exhibit 56: China's gross steel imports (mt)

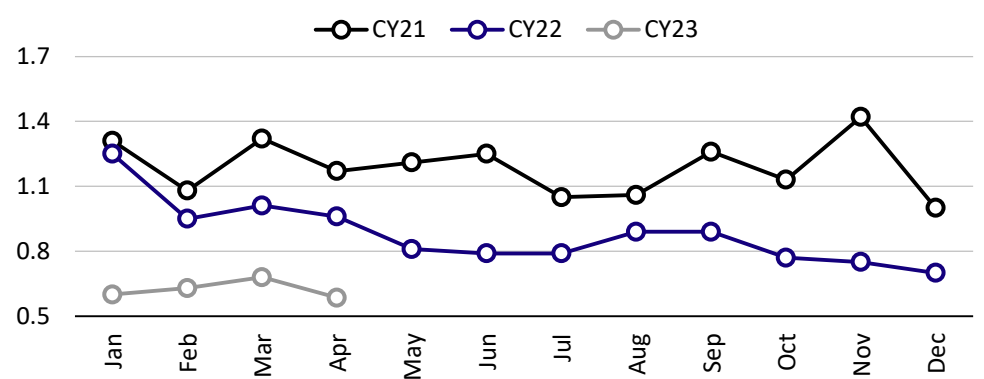


Exhibit 57: China's net steel exports/(imports) (mt)

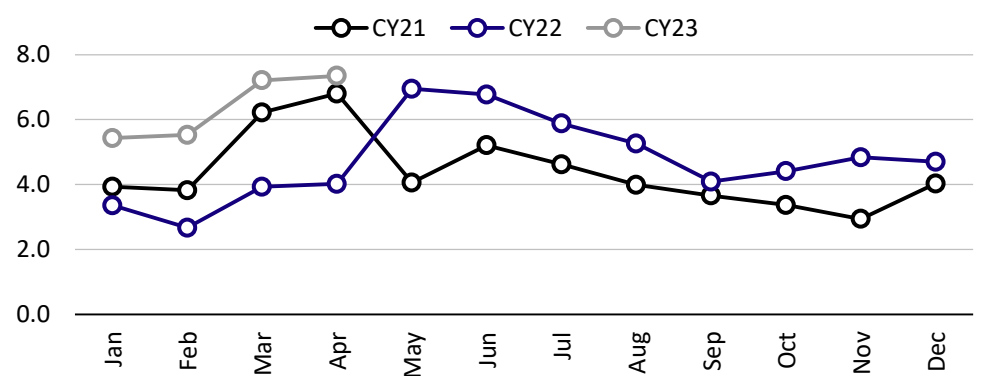


Exhibit 58: China's GDP growth YoY (constant prices)

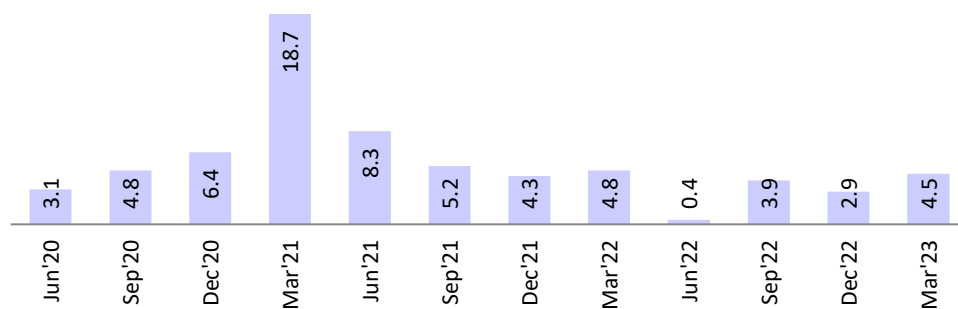


Exhibit 59: Total FAI investments (CNY b)

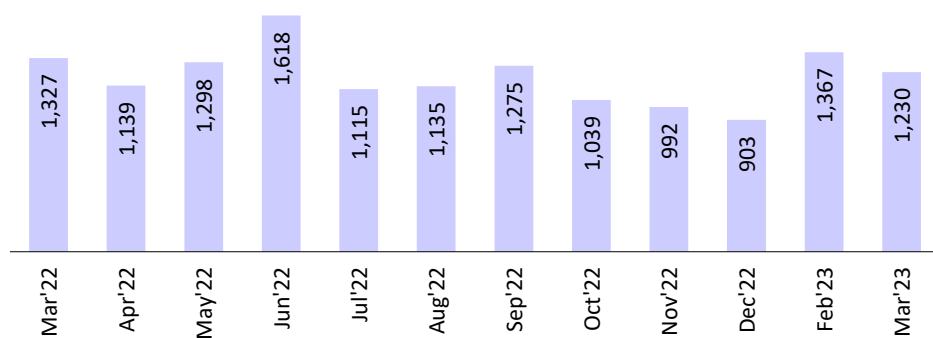


Exhibit 60: Automobile registration (m units)

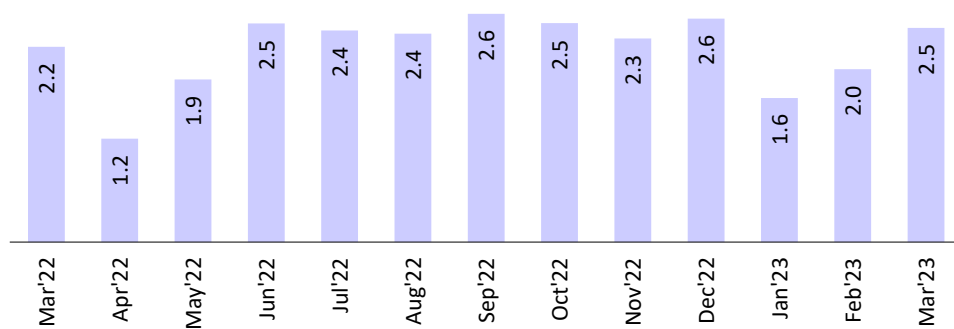


Exhibit 61: Floor space sold (m square meters)

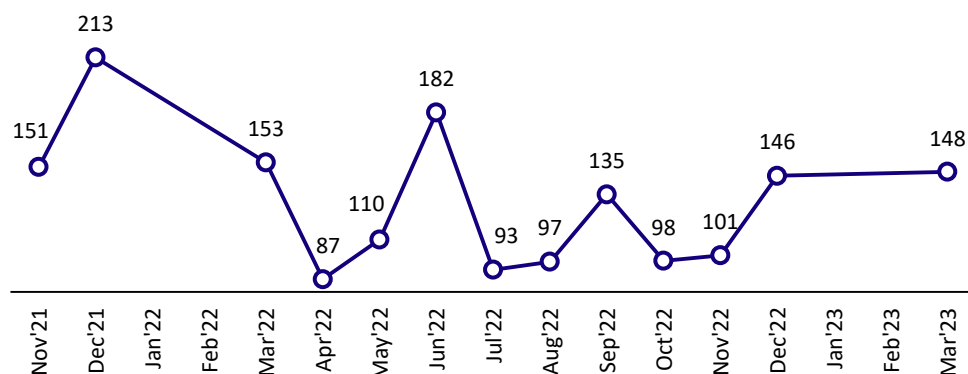


Exhibit 62: Floor space starts (m square meters)

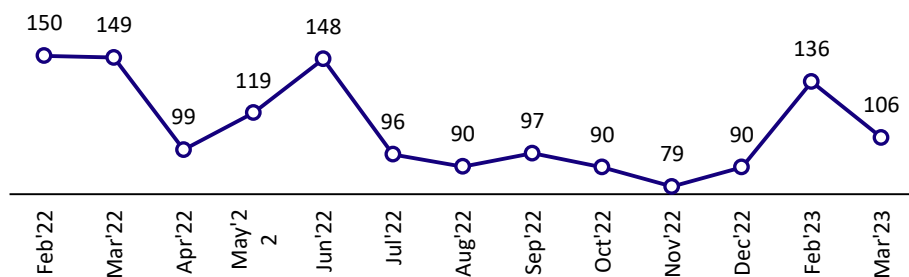


Exhibit 63: Land sales (m square meters)

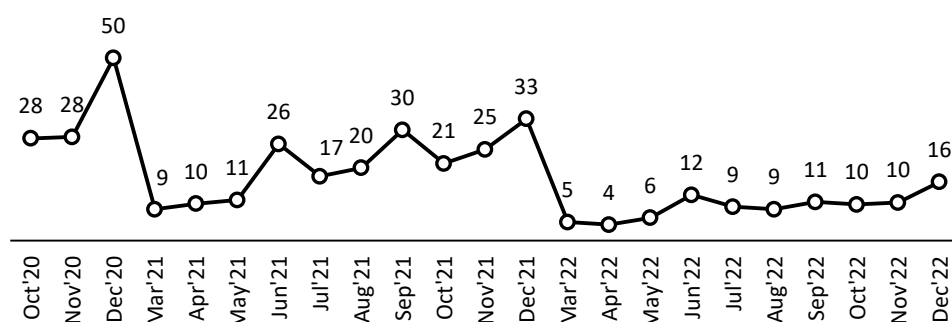


Exhibit 64: Manufacturing PMI

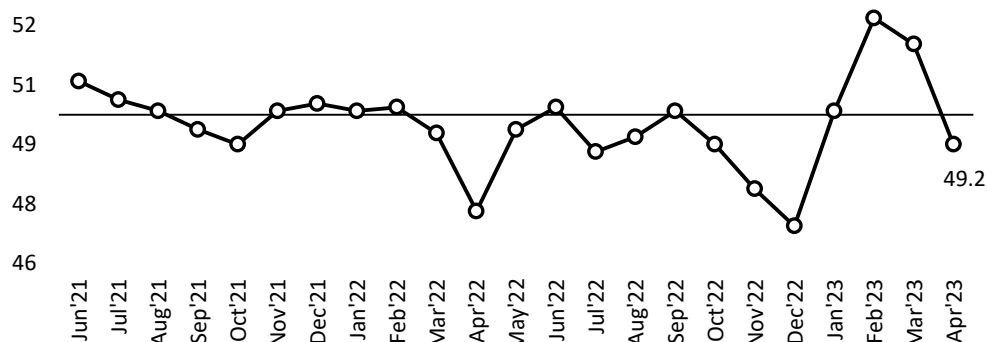
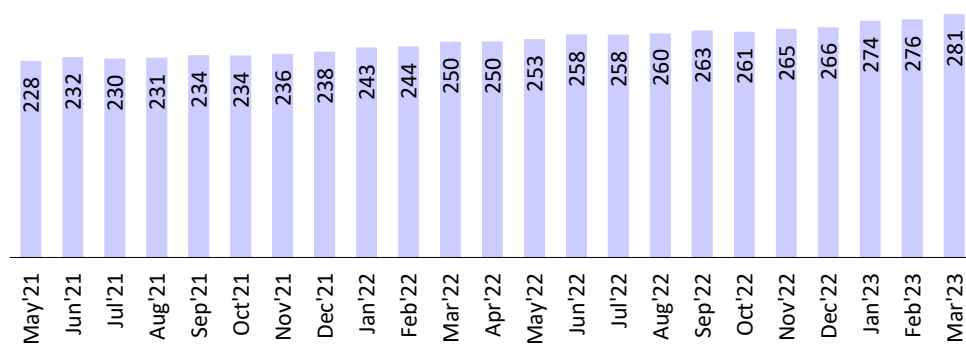


Exhibit 65: M2 money supply (CNY t)



Commodity monthly heat map

Commodity	UoM	Jun'22	Jul'22	Aug'22	Sep'22	Oct'22	Nov'22	Dec'22	Jan'23	Feb'23	Mar'23	Apr'23	May'23	MoM
Oil and non-ferrous - prices														
Brent Crude	USD/bbl	120	109	99	90	93	91	81	83	83	79	84	75	-10
Copper	USD/t	9,071	7,530	7,976	7,735	7,621	8,030	8,362	8,972	8,955	8,836	8,816	8,449	-4
Aluminum	USD/t	2,576	2,402	2,434	2,230	2,243	2,335	2,390	2,483	2,417	2,290	2,337	2,288	-2
Zinc	USD/t	3,667	3,097	3,577	3,136	2,960	2,924	3,115	3,277	3,144	2,956	2,777	2,605	-6
Lead	USD/t	2,074	1,976	2,074	1,874	1,988	2,099	2,219	2,214	2,099	2,115	2,147	2,124	-1
Nickel	USD/t	25,877	21,482	22,035	22,774	22,033	25,563	28,986	28,271	26,728	23,289	23,771	23,499	-1
Alumina	USD/t	362	346	335	338	320	316	322	343	362	365	359	353	-1
Aluminum Ingot Premium (Asia - MJP)	USD/t	119	123	121	115	114	114	90	86	82	88	99	104	6
Aluminum Ingot Premium (EU - Rotterdam)	USD/t	596	515	502	459	351	272	236	257	294	311	323	323	0
Aluminum Ingot Premium (US midwest)	USD/t	740	635	594	553	466	447	454	569	642	609	553	552	0
Aluminum scrap	USD/t	1,799	1,669	1,720	1,632	1,644	1,710	1,739	1,759	1,738	1,665	1,715	1,653	-4
Aluminum scrap spread	USD/t	777	732	714	598	599	626	651	725	679	625	622	634	2
Silver	USD/t	758	682	681	667	686	743	825	841	758	775	886	891	1
USD:INR (Bloomberg)	INR	78	80	80	80	82	82	83	82	83	82	82	82	0
Ferrous- International Prices														
China HRC domestic	RMB/t	4,645	4,223	4,027	3,991	3,931	3,821	4,069	4,187	4,262	4,415	4,185	3,901	-7
China HRC domestic	USD/t	694	627	592	569	547	533	583	616	623	640	608	563	-7
China TMT domestic	RMB/t	4,561	4,204	4,205	4,082	4,046	3,859	4,005	4,196	4,315	4,356	4,023	3,800	-6
China TMT domestic	USD/t	681	624	618	582	563	538	574	618	631	632	584	549	-6
China HRC FoB	USD/t	755	633	611	585	593	574	593	636	660	688	661	592	-11
Korea HRC FoB	USD/t	800	705	605	581	584	534	559	629	662	698	689	685	-1
North Europe HRC domestic	EUR/t	961	850	801	785	725	655	666	714	770	824	853	830	-3
North America HRC domestic (USD/short ton)	USD/st	1,198	938	857	819	760	689	682	727	830	1,036	1,155	1,188	3
India HRC Export FoB (USD/t)	USD/t	718	626	579	581	580	534	563	639	707	712	700	613	-12
Australia Fe 62% iron ore CNF	USD/t	131	107	105	99	93	92	111	122	126	127	118	105	-11
Chinese steel futures														
TMT - Shanghai futures	RMB/t	4,508	3,974	3,890	3,734	3,698	3,598	3,939	4,131	4,116	4,212	3,885	3,657	-6
HRC - Shanghai futures	RMB/t	4,588	3,968	3,904	3,793	3,726	3,696	4,010	4,168	4,180	4,316	3,962	3,716	-6
Iron ore - Dalian Commodity Exchange	RMB/t	849	678	712	707	693	696	807	851	873	899	768	710	-8
Coking coal - Dalian Commodity Exchange	RMB/t	2,627	2,056	1,945	1,978	2,067	1,925	1,871	1,863	1,888	1,913	1,561	1,359	-13

China HRC FOB spread over RM (HRC - 1.7x iron ore -.85x HCC)	RMB/t	912	1,068	1,040	910	791	876	1,049	1,138	1,092	1,161	1,329	1,354	2
India steel and metalics prices														
India HRC ex-Mumbai 5-10mm	INR/t	62,400	59,440	57,175	55,925	56,920	56,000	53,900	57,589	59,600	60,260	59,900	58,500	-2
Dom HRC prem to India export FoB price	INR/t	6,360	9,640	11,143	9,299	9,163	12,295	7,442	5,255	1,161	1,640	2,468	8,266	235
CRC ex-Mumbai - 0.9mm	INR/t	70,875	68,020	67,025	65,850	65,825	62,860	59,525	62,722	64,733	64,875	64,186	63,025	-2
Galvanized plain - 120 GSM	INR/t	72,300	70,900	68,900	67,500	67,340	65,467	63,600	70,500	74,214	74,529	74,643	72,300	-3
Color coated /PPGI ex-Mumbai 90GSM	INR/t	81,750	79,160	77,800	76,500	77,080	75,825	71,467	77,256	82,443	82,260	82,725	82,300	-1
Wire rod - Primary Producers	INR/t	59,338	58,740	57,775	56,440	55,750	55,200	54,000	56,807	59,167	58,178	56,383	54,933	-3
TMT primary - Mumbai	INR/t	60,413	58,320	56,838	55,950	56,300	56,000	56,417	60,210	62,957	60,967	59,780	57,960	-3
TMT secondary - Mumbai	INR/t	53,681	54,515	55,842	54,777	55,638	52,786	53,308	57,154	56,896	56,065	54,929	53,610	-2
Domestic scrap-HMS(80:20) - Mumbai	INR/t	40,827	44,400	44,508	43,169	41,088	35,300	36,350	37,475	36,493	38,084	38,177	37,007	-3
Sponge iron (DRI)	INR/t	30,488	33,413	33,810	31,598	30,804	28,696	29,873	31,567	31,067	30,408	29,540	27,760	-6
Domestic pellet prices- Barbil - 63% Fe	INR/t	7,044	7,360	7,119	6,938	7,231	7,320	7,861	9,085	9,621	9,525	9,064	8,413	-7
Pellet Export Prices - FoB 64%Fe	USD/t	NA	NA	NA	NA	NA	102	107	116	123	118	109	96	-12
Domestic ferrous spreads														
Primary HRC v/s primary TMT	INR/t	1,988	1,120	338	-25	620	-	-2,517	-2,621	-3,357	-707	120	540	350
Primary TMT v/s secondary TMT	INR/t	6,732	3,805	996	1,173	663	3,214	3,109	3,056	6,061	4,901	4,851	4,350	-10
Secondary TMT v/s domestic Scrap	INR/t	12,854	10,115	11,334	11,608	14,550	17,486	16,958	19,679	20,404	17,982	16,752	16,603	-1
Hot rolled v/s cold rolled	INR/t	8,475	8,580	9,850	9,925	8,905	6,860	5,625	5,133	5,133	4,615	4,286	4,525	6
Hot rolled - galvanized Plan	INR/t	9,900	11,460	11,725	11,575	10,420	9,467	9,700	12,911	14,614	14,269	14,743	13,800	-6
Hot rolled - color coated	INR/t	19,350	19,720	20,625	20,575	20,160	19,825	17,567	19,667	22,843	22,000	22,825	23,800	4
Coking coal														
India premium HCC CNF	USD/t	404	269	258	286	309	299	277	328	380	365	290	254	-12
India 64 mid vols coking coal CNF	USD/t	369	237	239	268	280	260	256	306	349	328	258	224	-13
NMDC iron ore - Chhattisgarh														
64% Bailadila fines	INR/t	3,310	2,810	2,910	2,910	2,910	2,760	2,910	3,510	NA	4,010	4,010	4,010	0
Iron ore lump	INR/t	4,400	3,900	4,100	4,100	4,100	3,950	4,100	4,550	NA	4,450	4,200	4,200	0
Domestic ferro alloys														
Silico manganese	INR/t	81,968	80,805	77,815	74,311	76,322	75,341	75,420	79,583	76,496	74,145	75,048	74,060	-1
Ferro manganese	INR/t	87,147	85,486	80,285	76,686	75,550	76,182	74,545	79,820	79,428	77,019	77,500	76,144	-2
Ferro chrome	INR/t	40,827	44,400	44,508	43,169	41,088	35,300	36,350	37,475	36,493	38,084	38,177	37,007	-3
Ferrous - inventory														
China HRC	mt	3	3	3	3	3	2	2	2	3	3	2	3	9

China wire rod	mt	3	2	2	2	2	1	1	1	2	3	3	2	-9
China TMT	mt	8	7	6	5	5	4	4	5	8	8	7	7	-11
Non-ferrous - inventory														
Aluminum														
LME	kt	415	331	281	327	450	539	479	410	521	542	544	566	4
SHFE	kt	801	393	68	67	64	55	49	71	110	120	96	81	-15
Total	kt	1,215	724	350	394	513	594	528	481	631	662	640	648	1
Zinc														
LME	kt	82	78	74	70	51	43	37	22	25	38	48	51	7
SHFE	kt	100	70	67	33	26	1	1	8	44	48	28	16	-43
Total	kt	183	148	141	103	77	44	38	29	70	86	76	67	-12
Lead														
LME	kt	39	39	39	35	30	27	24	22	23	25	29	33	12
SHFE	kt	83	82	68	71	55	46	45	47	56	46	32	26	-20
Total	kt	122	121	107	106	86	73	69	69	79	71	61	58	-5
Copper														
LME	kt	124	133	126	114	137	90	85	82	66	71	59	71	21
SHFE	kt	13	16	5	5	35	34	27	49	124	105	66	59	-11
Total	kt	137	148	132	119	172	123	112	131	190	176	125	131	4
Nickel														
LME	kt	69	63	56	53	53	51	54	53	47	44	42	40	-4
SHFE	kt	3	2	3	3	3	4	3	3	3	3	2	1	-23
Total	kt	72	64	60	56	56	55	57	55	50	47	43	41	-5

Metals valuation matrix

Exhibit 66: Indian companies valuation

	Rating	CMP (INR)	M-cap (INR b)	EPS (INR)		P/E (x)		EV/EBITDA (x)		P/B(x)	
				FY23E	FY24E	FY23E	FY24E	FY23E	FY24E	FY23E	FY24E
Steel											
Tata	Neutral	108	1,315	7.1	11.1	15.2	9.7	6.2	5.6	1.3	1.3
JSW	Neutral	705	1,704	11.5	69.7	61.5	10.1	12.8	6.5	2.6	2.1
JSP	Buy	575	581	43.5	64.9	13.2	8.9	6.0	4.7	1.4	1.3
SAIL	Neutral	84	349	4.7	10.2	17.8	8.3	7.0	5.0	0.6	0.6
Non-ferrous											
Vedanta	Neutral	277	1,032	29.0	39.1	9.6	7.1	5.3	5.2	2.6	2.2
Hindalco	Buy	411	911	45.5	49.3	9.0	8.3	5.5	4.6	1.5	1.3
Nalco	Neutral	82	151	6.7	10.5	12.2	7.8	5.5	4.0	1.2	1.1
Mining											
Coal	Buy	238	1,465	45.6	31.7	5.2	7.5	2.5	3.8	2.6	2.2
HZL	Neutral	310	1,308	24.9	27.6	12.4	11.2	7.5	6.2	10.1	6.4
NMDC	Buy	107	313	15.5	18.5	6.9	5.8	4.0	3.1	1.6	1.4

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

Exhibit 67: Global steel comparative valuation

Exhibit 9.1 Global steel comparative valuation													
Company	MCap USD m	P/E (x)			EV/EBITDA (x)			P/B (x)			RoE (%)		
		CY21/ FY22	CY22/ FY23	CY23/ FY24	CY21/ FY22	CY22/F Y23	CY23/ FY24	CY21/ FY22	CY22/ FY23	CY23/ FY24	CY21/ FY22	CY22/ FY23	CY23/ FY24
India													
Tata*	15,992	3.3	15.2	9.7	2.9	6.2	5.6	1.2	1.3	1.3	44.6	8.3	13.4
JSW*	20,691	8.0	61.5	10.1	5.8	12.8	6.5	2.5	2.6	2.1	37.5	4.2	23.3
JSP*	7,121	6.7	13.2	8.9	4.3	6.0	4.7	1.6	1.4	1.3	25.9	11.6	15.1
SAIL*	4,235	2.9	17.8	8.3	2.4	7.0	5.0	0.6	0.6	0.6	24.3	3.6	7.4
Japan													
JFE	8,053	3.8	6.9	6.8	5.0	6.4	6.4	0.5	0.5	0.5	15.5	7.4	7.1
Nippon Steel	19,948	5.1	4.1	6.5	5.4	4.8	5.5	0.8	0.7	0.6	18.1	17.3	10.1
Kobe Steel	3,329	8.0	7.2	7.4	6.3	6.7	5.8	0.6	0.5	0.5	7.2	7.5	6.9
Korea													
POSCO	23,257	7.2	9.6	7.8	4.4	5.2	4.5	0.6	0.5	0.5	8.3	5.9	6.8
Hyundai Steel	3,490	3.4	5.3	4.5	3.9	4.6	4.0	0.2	0.2	0.2	7.6	4.6	5.3
US													
Nucor	34,940	4.9	8.6	12.0	3.3	5.1	6.7	1.9	1.7	1.5	43.5	20.5	12.0
US Steel	4,785	2.2	5.1	12.8	1.4	2.9	4.0	0.5	0.5	0.4	26.2	9.1	4.6
Steel Dynamics	16,430	4.4	6.2	10.9	3.1	4.2	6.5	2.2	1.7	1.4	51.9	29.0	14.0
Europe													
AM	22,659	2.5	5.7	5.3	2.0	3.6	3.5	0.4	0.4	0.4	18.8	7.7	7.4
SSAB	6,732	3.2	6.1	10.0	1.8	3.0	4.4	0.7	1.0	1.0	26.0	16.7	9.9
TKA	4,270	4.1	13.5	7.2	0.4	0.4	0.3	0.3	0.3	0.3	8.4	2.4	4.1
VOE	5,966	5.1	5.4	8.6	3.7	3.0	3.9	0.8	0.7	0.7	16.7	13.9	8.0
China													
Baosteel	20,521	9.4	8.8	7.8	5.4	4.7	4.1	0.7	0.7	0.7	7.0	7.2	8.0

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

Exhibit 68: Iron ore mining global comparative valuation

Company	M-Cap USD m	P/E (x)			EV/EBITDA (x)			P/B (x)			RoE (%)		
		CY21/ FY22	CY22/ FY23	CY23/ FY24	CY21/ FY22	CY21/ FY22	CY22/ FY23	CY23/ FY24	CY21/ FY22	CY21/ FY22	CY22/ FY23	CY23/ FY24	CY21/ FY22
NMDC*	3,808	3.2	6.9	5.8	2.0	4.0	3.1	1.7	1.6	1.4	41.0	23.9	25.8
Vale	61,442	3.7	4.9	5.8	3.2	3.5	3.8	1.7	1.6	1.4	45.7	30.3	22.6
FMG	41,929	6.7	7.6	9.7	4.1	4.4	5.3	2.4	2.2	2.1	36.4	30.7	23.5

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

Exhibit 69: Diversified miners global comparative valuation

Company	M-Cap USD m	P/E (x)			EV/EBITDA (x)			P/B (x)			RoE (%)		
		CY21/ FY22	CY22/ FY23	CY23/ FY24	CY21/ FY22	CY21/ FY22	CY22/ FY23	CY23/ FY24	CY21/ FY22	CY21/ FY22	CY22/ FY23	CY23/ FY24	CY21/ FY22
Vedanta*	12,530	5.3	9.6	7.1	3.5	5.3	5.2	1.6	2.6	2.2	30.7	20.6	34.0
BHP	1,48,431	7.0	10.2	10.6	3.8	5.2	5.2	2.9	3.2	3.0	41.2	33.6	31.2
Rio	1,04,916	7.2	8.1	8.7	4.0	4.4	4.6	2.0	1.8	1.7	27.1	22.7	19.5
Glencore	68,817	3.8	6.9	7.6	2.6	3.5	3.6	1.5	1.5	1.4	43.0	20.1	19.4
Anglo	39,874	6.2	7.3	7.7	3.7	3.9	4.1	1.3	1.2	1.1	22.5	16.8	14.4
South 32	12,296	5.0	9.5	8.4	2.6	4.3	3.7	1.2	1.1	1.1	26.2	12.0	12.4

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

Exhibit 70: Zinc global comparative valuation

Company	M-Cap USD m	P/E (x)			EV/EBITDA (x)			P/B (x)			RoE (%)		
		CY21/ FY22	CY22/ FY23	CY23/ FY24	CY21/ FY22	CY21/ FY22	CY22/ FY23	CY23/ FY24	CY21/ FY22	CY21/ FY22	CY22/ FY23	CY23/ FY24	CY21/ FY22
HZL*	15,889	13.4	12.4	11.2	7.0	7.5	6.2	3.8	10.1	6.4	29.3	44.5	70.1
Korea Zinc	7,281	13.5	14.9	12.9	6.7	7.9	7.0	1.2	1.0	1.0	8.9	7.1	7.7
Teck	22,676	6.7	8.6	9.1	3.8	4.5	4.3	1.2	1.1	1.0	18.0	14.0	9.4

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

Exhibit 71: Coal global comparative valuation

Company	M-Cap USD m	P/E (x)			EV/EBITDA (x)			P/B (x)			RoE (%)		
		CY21/ FY22	CY22/ FY23	CY23/ FY24	CY21/ FY22	CY21/ FY22	CY22/ FY23	CY23/ FY24	CY21/ FY22	CY21/ FY22	CY22/ FY23	CY23/ FY24	CY21/ FY22
Coal*	17,802	8.4	5.2	7.5	3.9	2.5	3.8	3.4	2.6	2.2	40.3	49.1	29.1
China Shenhua	85,075	6.5	7.5	7.5	4.3	4.7	4.9	1.2	1.2	1.1	19.0	15.9	15.1
Banpu	2,040	1.2	4.4	6.3	1.7	3.5	4.2	0.6	0.6	0.5	47.1	13.3	7.8
Bukit Asam	2,652	3.0	4.8	5.2	2.0	2.7	2.9	1.3	1.4	1.3	45.8	29.2	23.2
Adaro Energy	5,743	2.5	3.9	5.4	1.1	1.4	1.5	0.9	0.9	0.9	43.8	25.2	17.3

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

Exhibit 72: Aluminum global comparative valuation

Company	M-Cap USD m	P/E (x)			EV/EBITDA (x)			P/B (x)			RoE (%)		
		CY21/ FY22	CY22/ FY23	CY23/ FY24	CY21/ FY22	CY21/ FY22	CY22/ FY23	CY23/ FY24	CY21/ FY22	CY21/ FY22	CY22/ FY23	CY23/ FY24	CY21/ FY22
Hindalco*	11,208	6.7	9.0	8.3	4.6	5.5	4.6	1.7	1.5	1.3	28.0	17.4	16.3
Nalco*	1,832	5.1	12.2	7.8	2.4	5.5	4.0	1.2	1.2	1.1	25.4	9.6	14.0
Alcoa	6,310	9.5	56.0	7.0	3.6	7.1	3.6	1.2	1.3	1.2	14.1	1.6	12.7
Norsk Hydro	13,444	6.0	10.6	9.0	3.6	5.3	4.6	1.3	1.3	1.3	26.4	12.4	14.2
CHALCO	13,015	10.8	11.5	8.9	7.8	6.4	5.2	1.0	1.0	0.9	9.1	9.2	11.2
RUSAL	6,454	2.7	2.7	3.5	3.1	NA	NA	0.5	0.4	0.4	25.3	17.5	11.5
Alumina	2,802	25.4	43.9	14.6	20.1	28.9	11.4	1.7	1.8	1.6	7.9	3.7	11.6

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

Metals valuation charts

Exhibit 73: Tata Steel EV/EBITDA

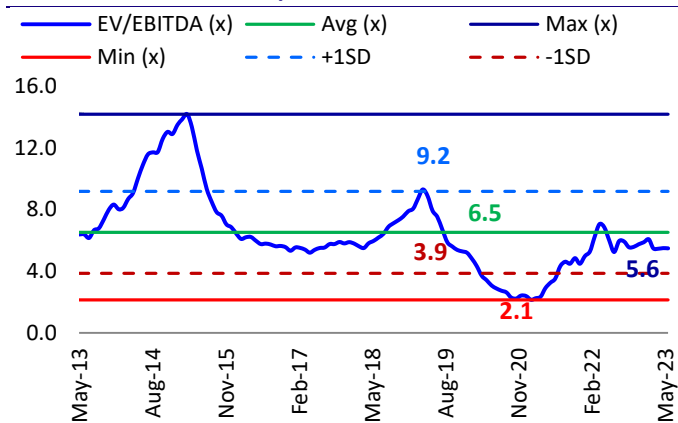


Exhibit 74: Tata Steel P/B

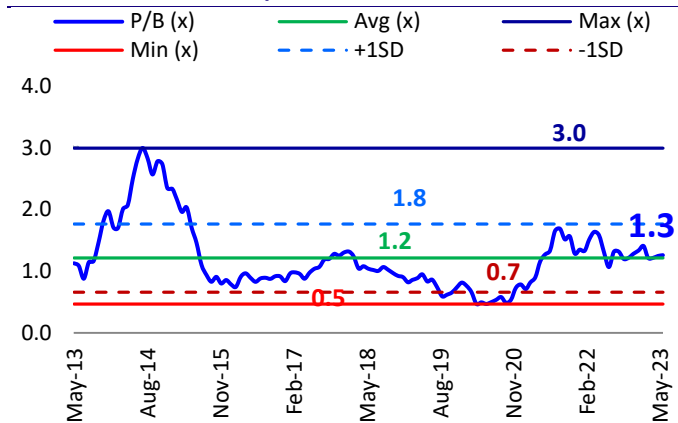


Exhibit 75: JSW Steel EV/EBITDA

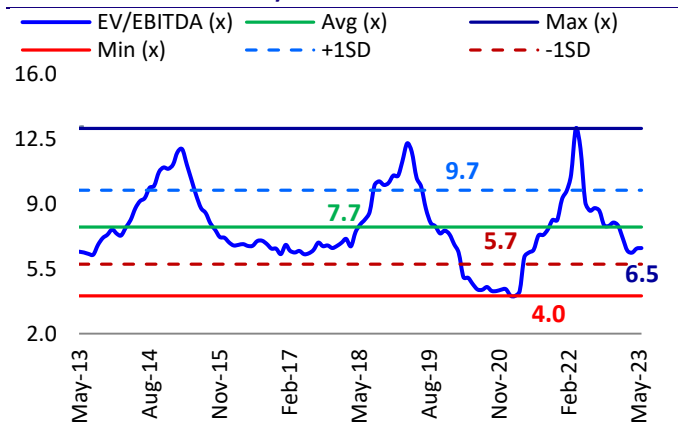


Exhibit 76: JSW Steel P/B

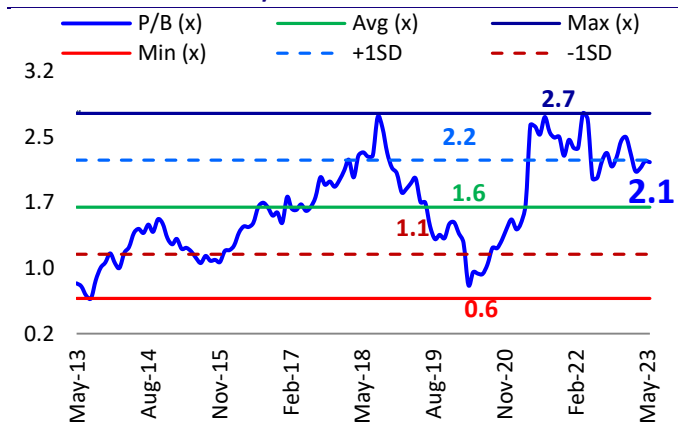


Exhibit 77: JSPL EV/EBITDA

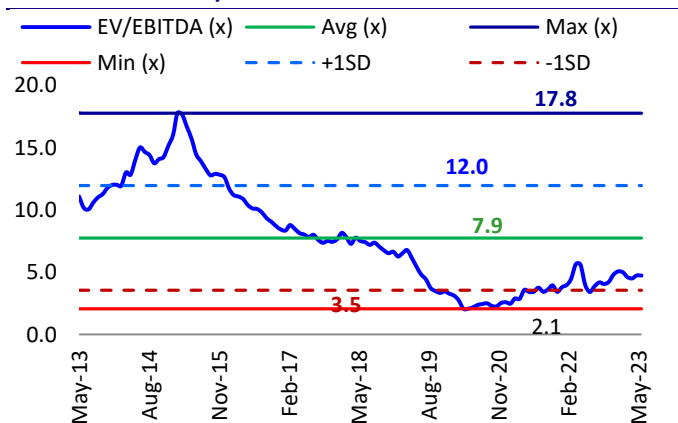


Exhibit 78: JSPL P/B

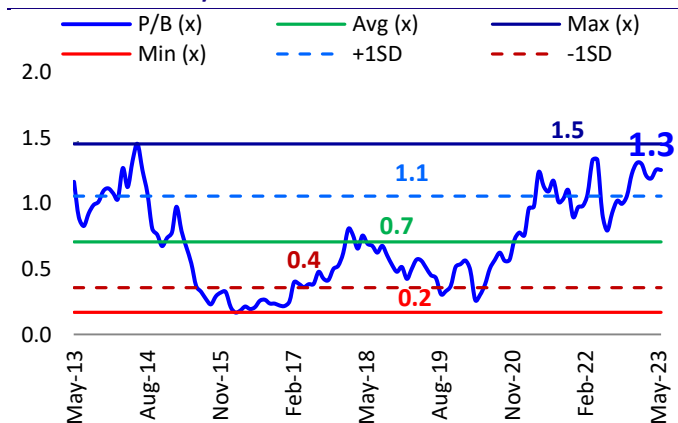


Exhibit 79: SAIL EV/EBITDA

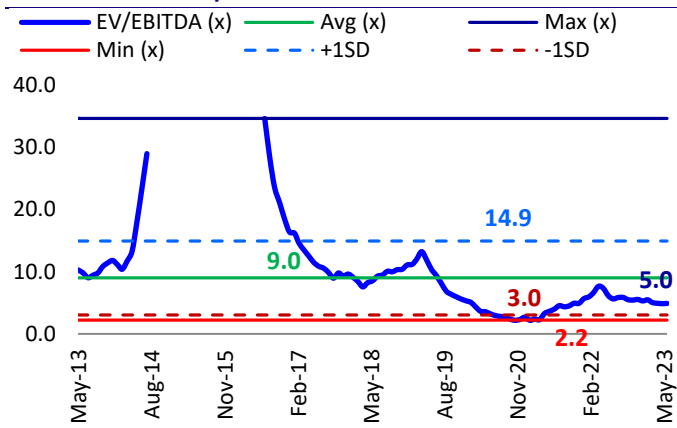


Exhibit 80: SAIL P/B

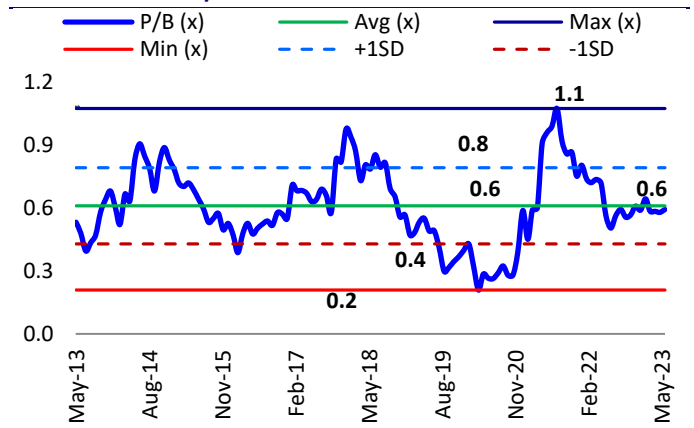


Exhibit 81: NMDC EV/EBITDA

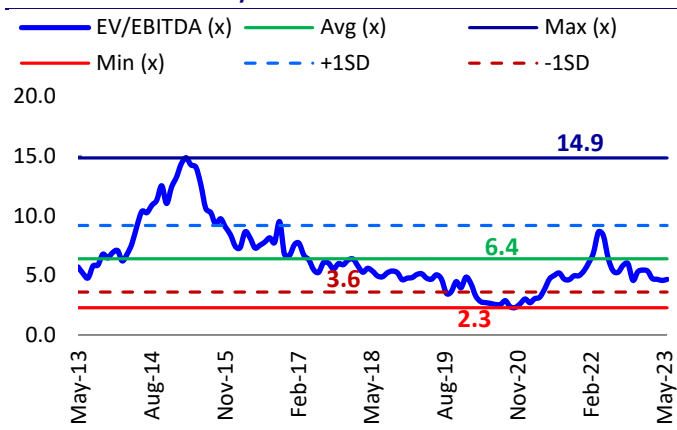


Exhibit 82: NMDC P/B

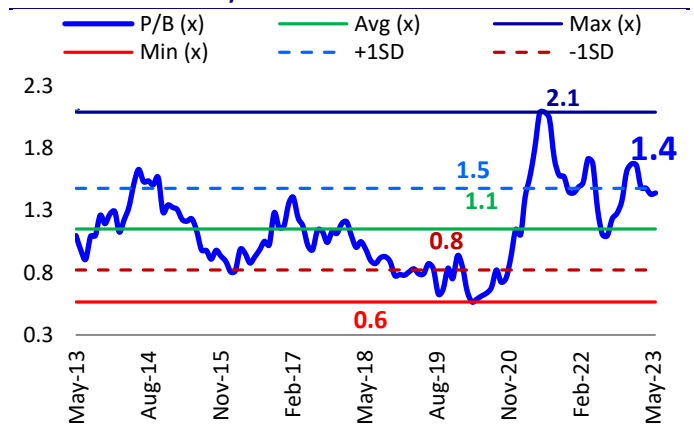


Exhibit 83: Vedanta EV/EBITDA

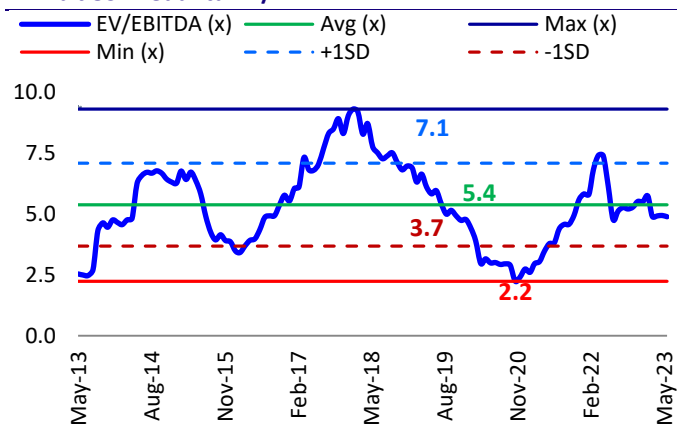


Exhibit 84: Vedanta P/B

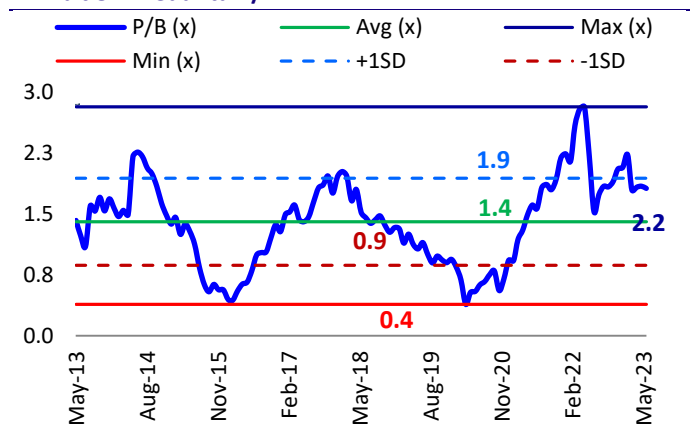


Exhibit 85: Hindustan Zinc EV/EBITDA

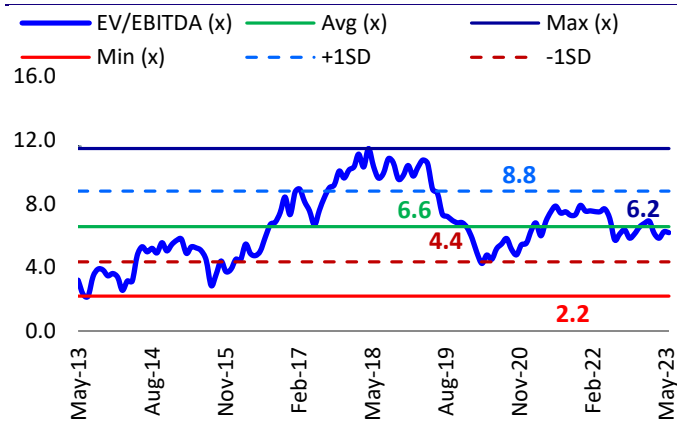


Exhibit 86: Hindustan Zinc P/B

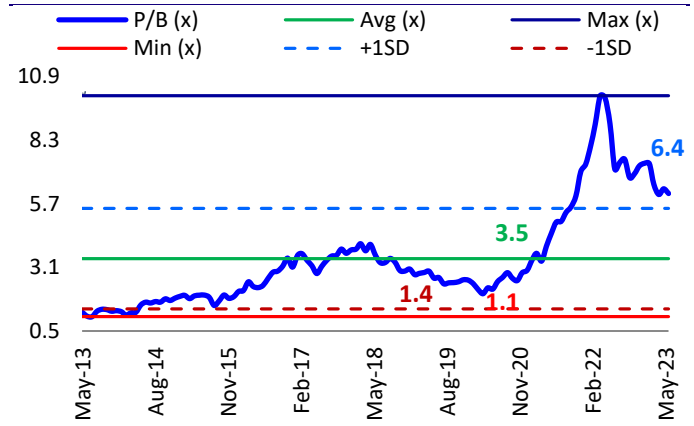


Exhibit 87: Hindalco EV/EBITDA

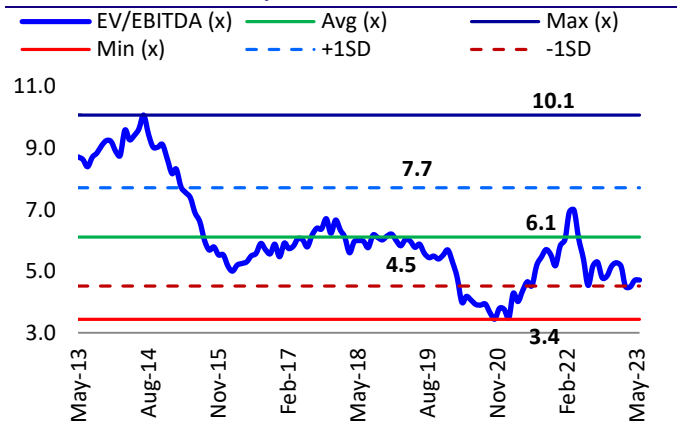


Exhibit 88: Hindalco P/B

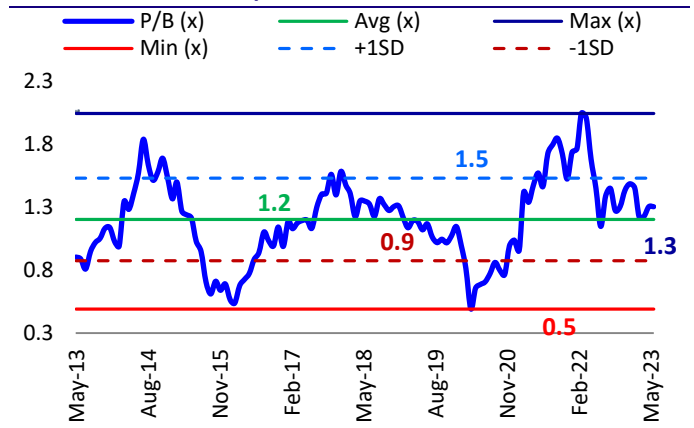


Exhibit 89: Nalco EV/EBITDA

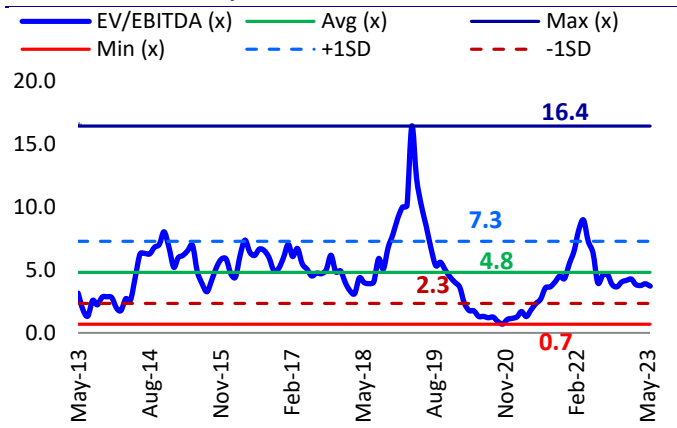
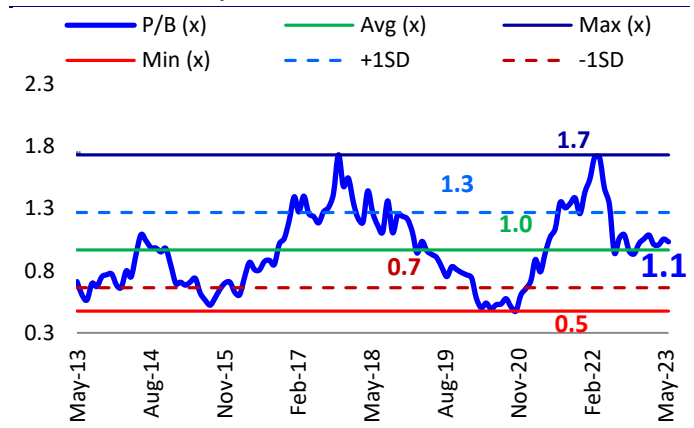


Exhibit 90: Nalco P/B



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Explanation of Investment Rating	
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SELL	< - 10%
NEUTRAL	> - 10 % to 15%
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