

Indian companies' valuations

	Price (INR)	EV/ EBITDA (x)		P/B (x)	
		FY23E	FY24E	FY23E	FY24E
Steel					
Tata	1,079	3.9	3.9	1.0	0.9
JSW	578	5.8	4.7	1.8	1.4
JSP	368	3.8	2.7	0.9	0.8
SAIL	75	4.5	2.8	0.6	0.5
Non-ferrous					
Vedanta	321	4.0	4.6	1.6	1.5
Hindalco	408	4.6	4.3	1.4	1.2
Nalco	92	3.6	5.0	1.2	1.1
Mining					
Coal	195	3.4	3.7	2.4	2.1
HZL	300	5.5	5.6	3.7	3.8
NMDC	124	5.5	5.0	1.0	0.9

Global companies' valuations

Company	M-cap USD b	EV/EBITDA (x)			P/B (x)
		CY22/ FY23	CY23/ FY24	CY22/ FY23	
Steel					
AM	29	2.6	3.1	0.4	
SSAB	6	3.3	4.1	0.7	
Nucor	34	6.3	6.7	1.4	
POSCO	20	2.9	2.8	0.4	
JFE	7	6.0	6.1	0.4	
Aluminum					
Norsk Hydro	16	3.9	4.0	1.5	
Alcoa	11	2.6	2.7	1.5	
Zinc					
Teck	24	3.3	3.6	1.0	
Korea Zinc	9	6.0	5.8	1.2	
Iron ore					
Vale	93	3.8	4.2	1.8	
FMG	48	5.3	6.8	2.6	
Diversified					
BHP	170	4.6	5.8	3.2	
Rio	124	4.7	5.2	2.1	

Steel prices correct, while input costs follow suit

- Domestic HRC prices corrected further by 3.5% last week to INR63,800/t. The total correction in domestic HRC prices is now about 13.4%, down from INR73,700/t a fortnight ago.
- Prices for coking coal and iron ore have also followed the correction in steel prices. NMDC announced a correction of INR1,100-1,320/t over the weekend in response to dull demand. This was in addition to the INR720-750/t reduction announced last week. The total correction in iron ore fines is INR1,850/t.
- Coking coal prices have also corrected due to the dull demand from Indian mills and improving supply situation (highlighted in our last week's edition). Premium HCC have corrected 17.5% over the last fortnight to USD448/t.
- Shanghai has started easing lockdown curbs as Covid cases continue to ebb, though maintaining strict vigil on the cases and adhering to its Zero Covid Strategy (ZCS).
- China's Tangshan plans to close all blast furnaces with working volume of sub-1,000 cubic meters and converters below 100 tons by end-CY22, to reduce pollution and curb coal consumption. This should restrict steel oversupply.

Commodities/forex tracker

		UoM	Spot	WoW (%)	MoM (%)	
Steel	India HRC (ex-Mum)	INR/t	63,800	-3	-13	
	India TMT Prime (ex-Mum)	INR/t	62,000	-4	-13	
	India TMT Secondary (ex-Mum)	INR/t	55,200	0	-12	
	Korea HRC - FoB	USD/t	838	0	-9	
	Dom. HRC (Prem/(Disc) vs FTA	INR/t	-5,102	-2,223 INR		-3,815 INR
	China HRC Dom.	USD/t	730	1	-5	
	China HRC - FoB	USD/t	780	-1	-8	
Coking coal	India Prem HCC CNF	USD/t	448	-9	-17	
	India 64 Mid Vols CNF	USD/t	412	-10	-19	
	India Low Vols PCI CNF	USD/t	448	-13	-8	
Metals	Iron Ore Fines (Odisha Index) Fe 62%	INR/t	3,600	-10	-37	
	Iron Ore Fines (China - CNF) Fe 62%	USD/t	144	10	1	
	Europe Scrap HMS 1&2(80:20)	USD/t	455	-4	-17	
	C-DRI (ex-Raipur)	INR/t	32,550	2	-11	
Thermal Coal	RB1 (6000 NAR) SA FoB	USD/t	333	2	11	
	RB2 (5500 NAR), SA FoB	USD/t	267	-2	-1	
	Indonesia (4200 GAR) Futures	USD/t	87	-1	-10	
Non-Ferrous	Copper	USD/t	9,455	-1	0	
	Aluminum	USD/t	2,702	-6	-5	
	Zinc	USD/t	3,896	-2	2	
	Lead	USD/t	2,144	-2	-4	
	Nickel	USD/t	28,062	-4	-6	
	Alumina	USD/t	355	-2	-4	
	Ali UBC Scrap	USD/t	1,896	-1	0	
	Ali UBC Scrap Spread	USD/t	806	-15	-14	
	Bullion	Gold	USD/Oz	1,846	-1	-2
Silver		"	21.9	-1	-2	
FX	INR:USD	x	77.6	0	1	
	USD:EUR	"	1.07	-1	2	
	USD:GBP	"	1.25	-1	1	
	CNY:USD	"	6.65	0	0	
	JPY:USD	"	131	2	0	

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Investors are advised to refer through important disclosures made at the last page of the Research Report.

Motilal Oswal research is available on www.motilaloswal.com/Institutional-Equities, Bloomberg, Thomson Reuters, Factset and S&P Capital.

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

FERROUS: India – prices

Exhibit 1: HRC - Mumbai (INR/t)

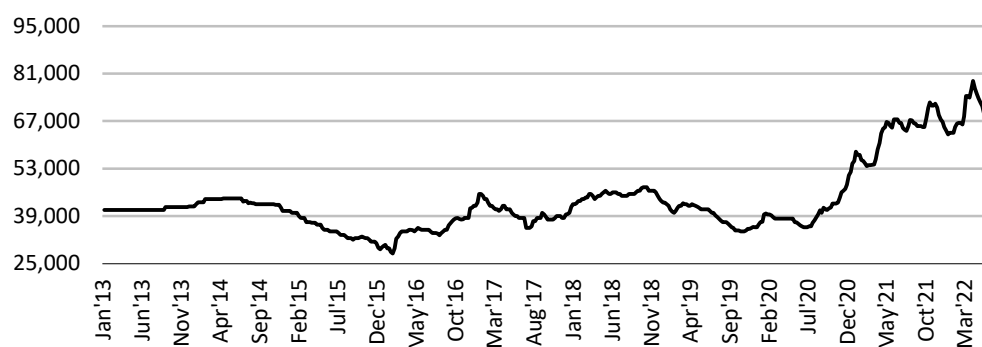


Exhibit 2: TMT Primary – Mumbai (INR/t)

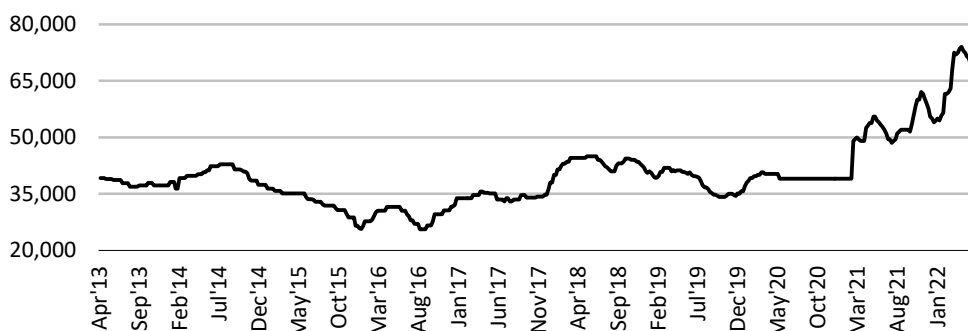


Exhibit 3: C-DRI (sponge iron), ExW-Raipur (INR/t)

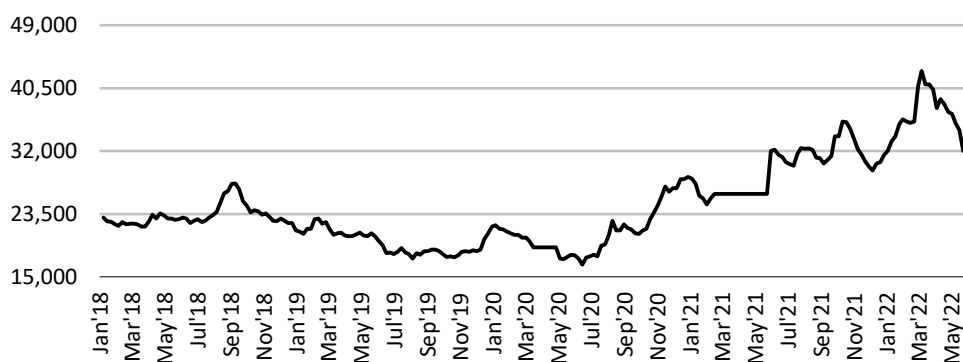


Exhibit 4: Domestic Pellet – Barbil – 63% Fe (INR/t)

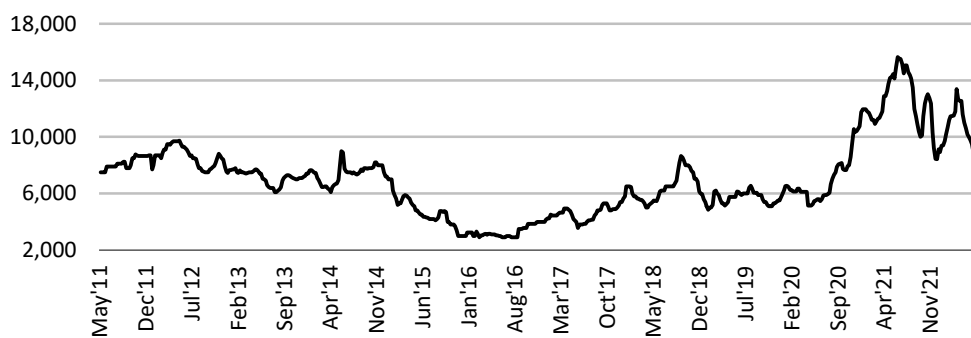


Exhibit 5: Pellet export – FoB Fe 64% (USD/t)

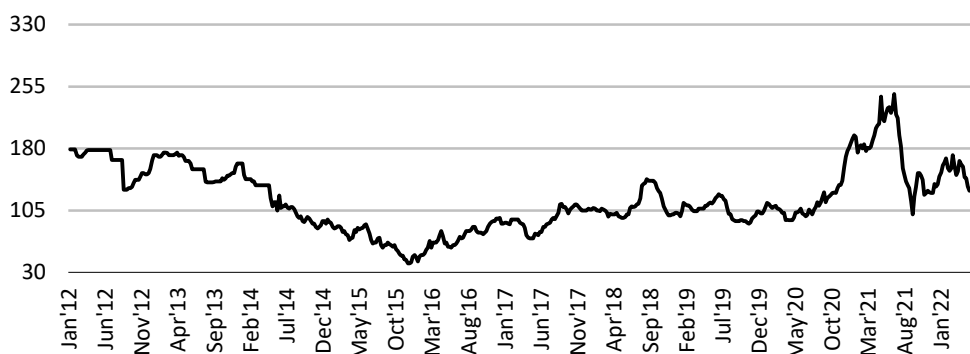


Exhibit 6: Iron Ore Fines Odisha – Fe 62% (INR/t)

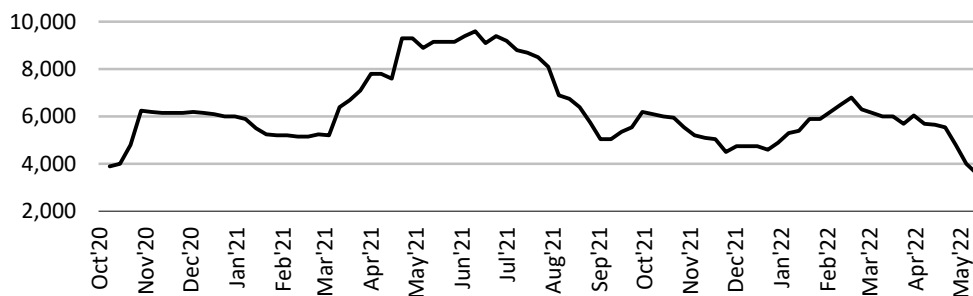


Exhibit 7: NMDC Fines – Fe 64% (INR/t)

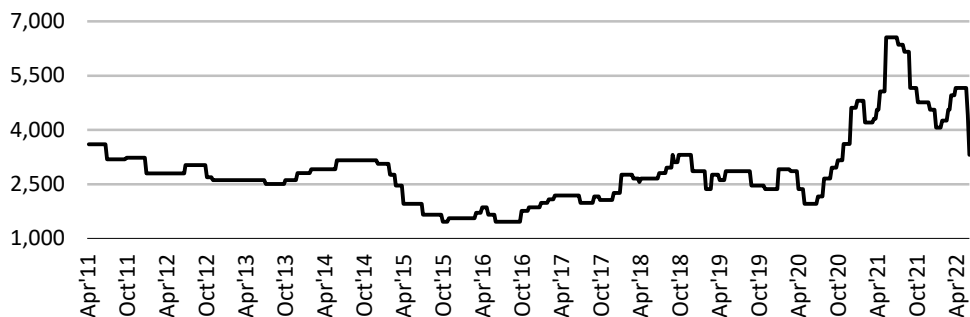
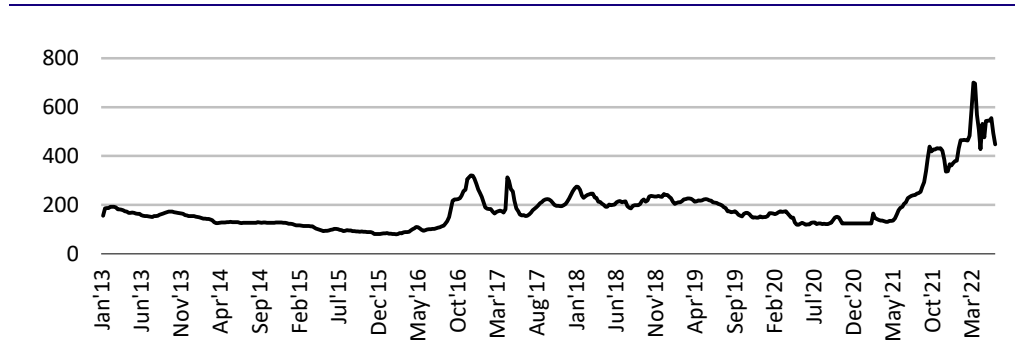


Exhibit 8: Premium HCC CNF Paradip (USD/t)



Domestic spreads

Exhibit 9: Prime HRC v/s primary TMT (INR/t)

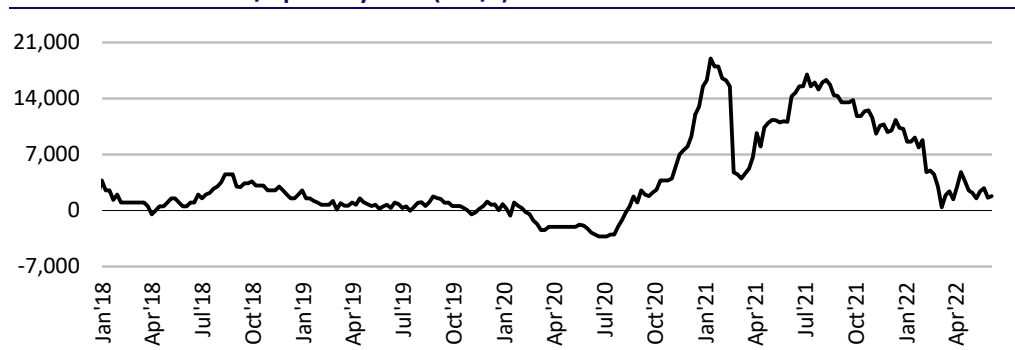


Exhibit 10: Primary TMT v/s secondary TMT (INR/t)

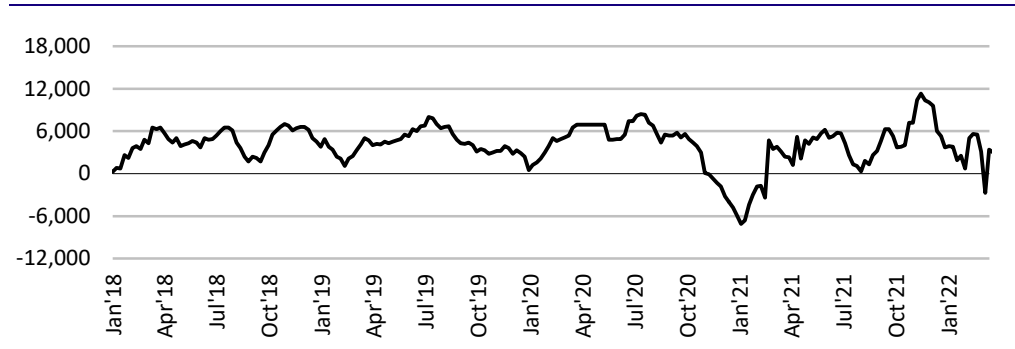


Exhibit 11: Secondary TMT v/s domestic scrap (INR/t)

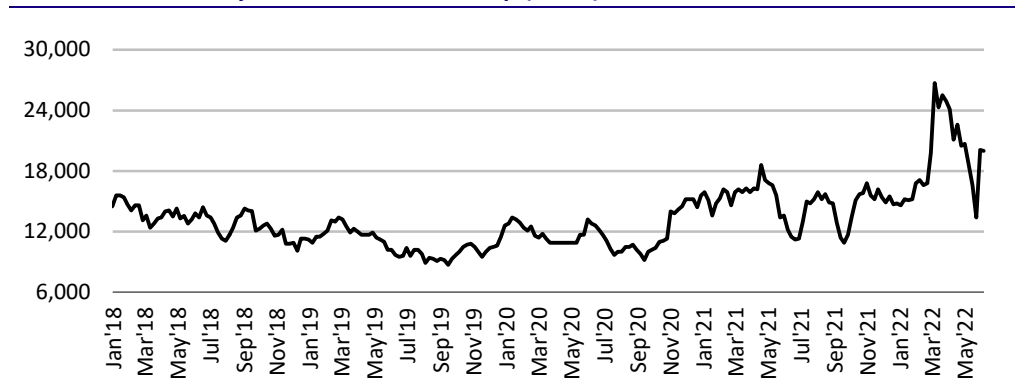


Exhibit 12: HRC v/s CRC (INR/t)

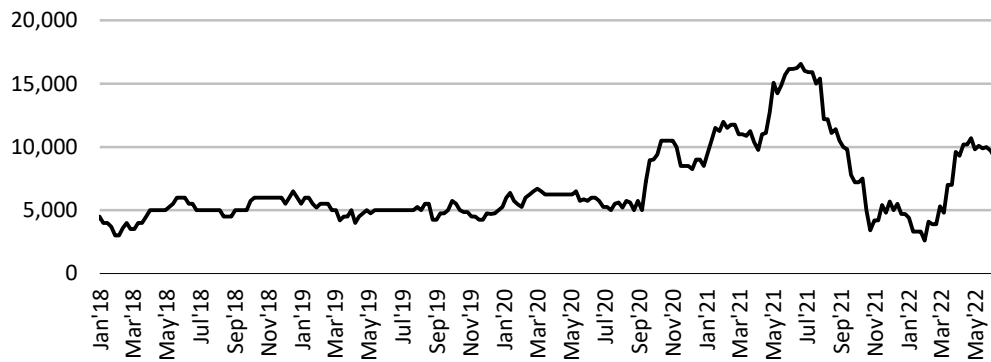


Exhibit 13: HRC – galvanized (INR/t)

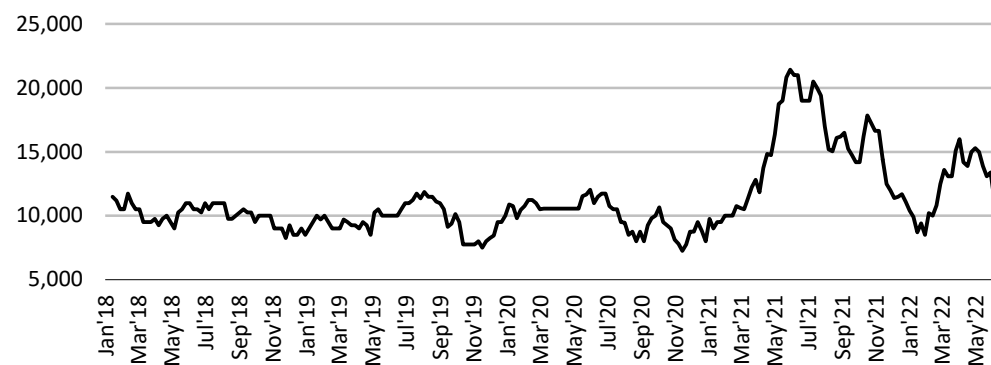


Exhibit 14: HRC – color coated (INR/t)

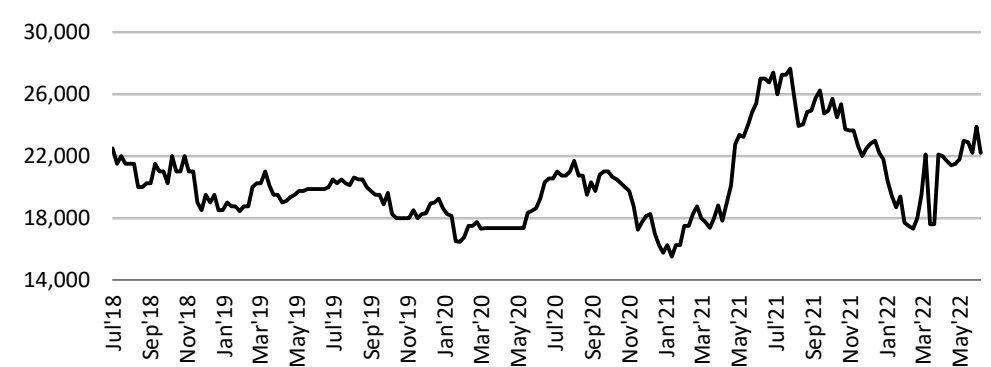


Exhibit 15: DRI v/s NMDC lumps (INR/t)

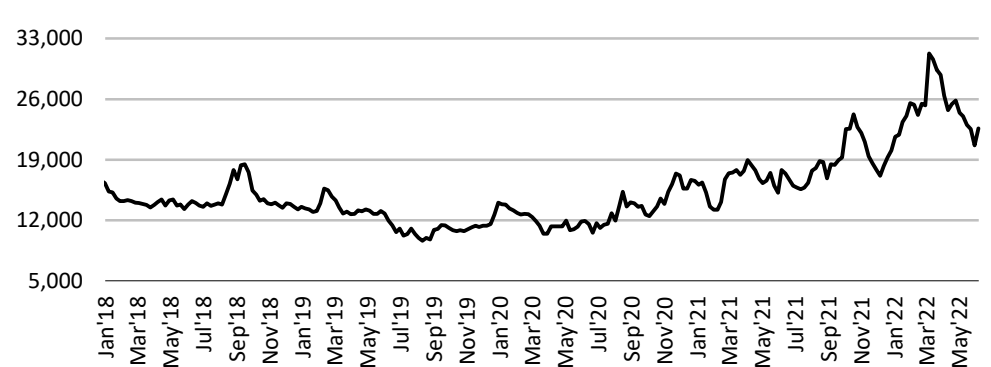


Exhibit 16: Secondary TMT v/s DRI (INR/t)

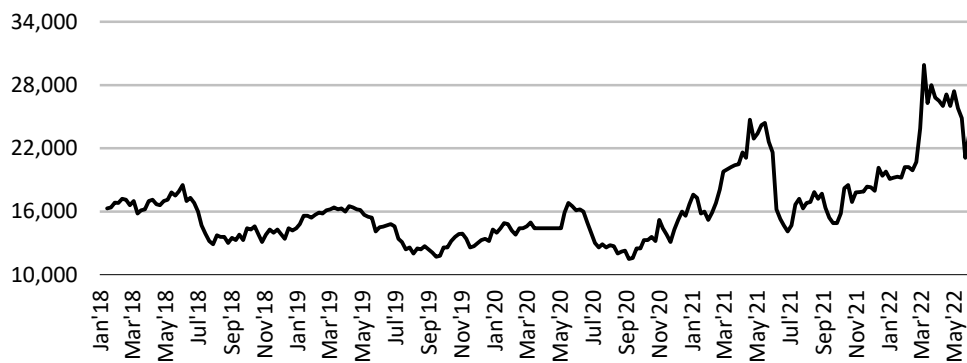
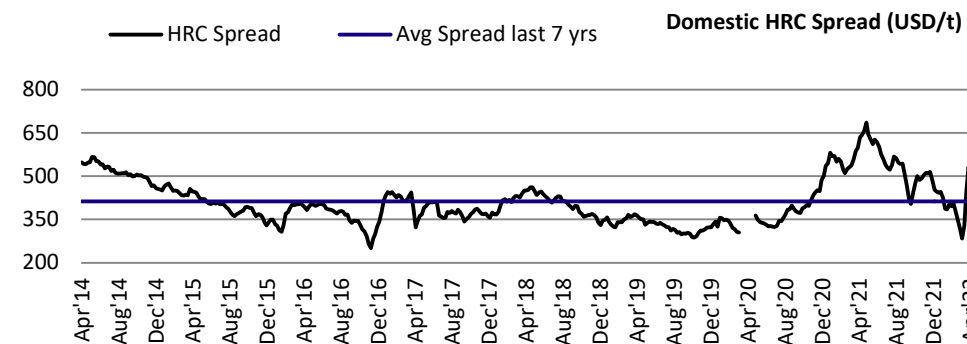


Exhibit 17: DRI v/s pellet (INR/t)



Exhibit 18: India HRC spread (1.6x IO and 0.85x HCC; 1.5 month lag in HCC)



China prices/spreads

Exhibit 19: China HRC FoB (USD/t)



Exhibit 20: China HRC domestic (USD/t)

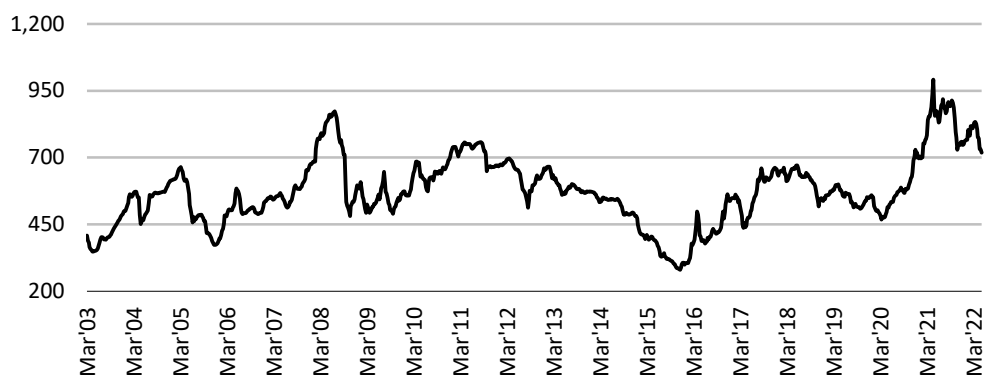


Exhibit 21: China domestic TMT (USD/t)

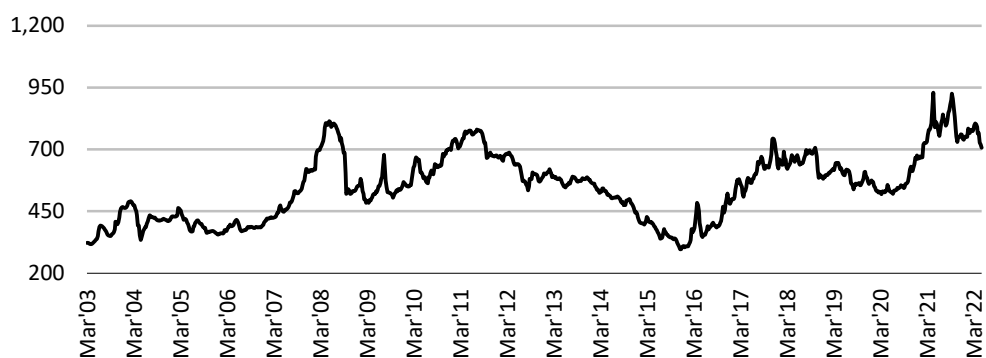


Exhibit 22: China domestic wire rod (USD/t)

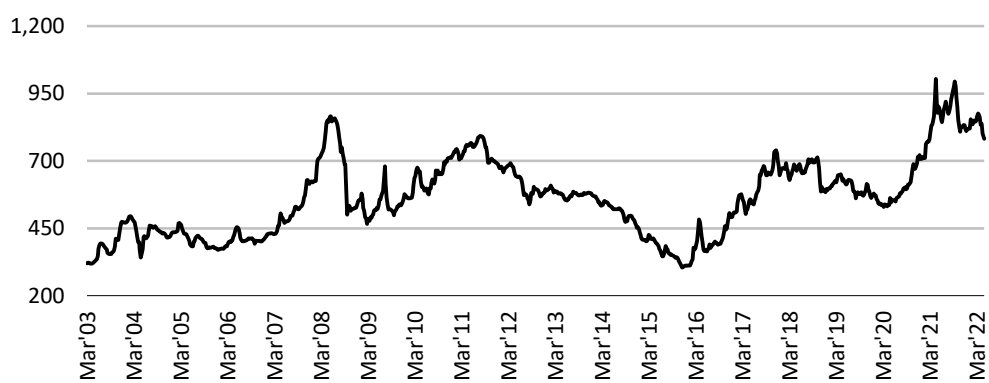
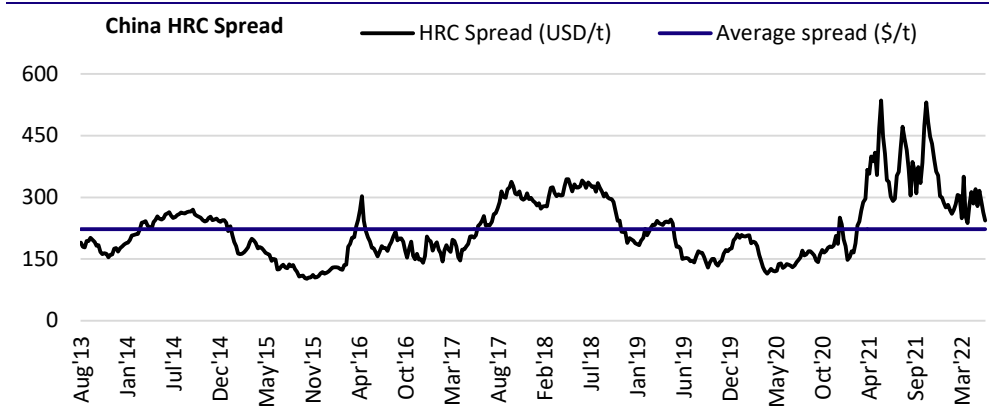


Exhibit 23: China HRC spread (1.6x IO and 0.85x HCC)



Global prices

Exhibit 24: Northern Europe HRC domestic (USD/t)

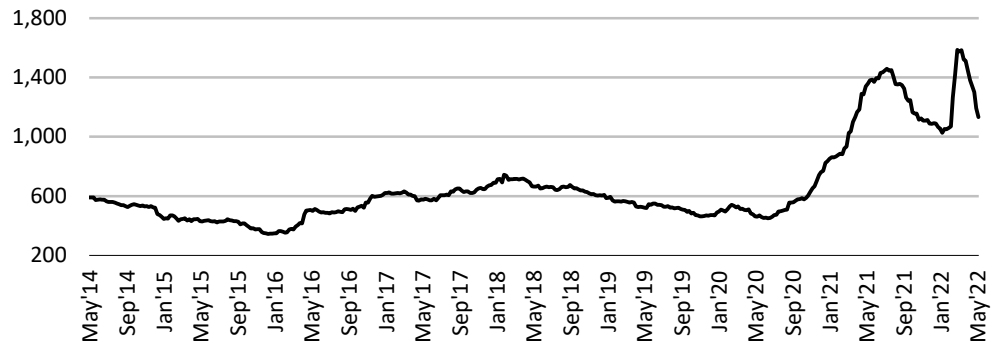


Exhibit 25: North America HRC domestic (USD/short ton)

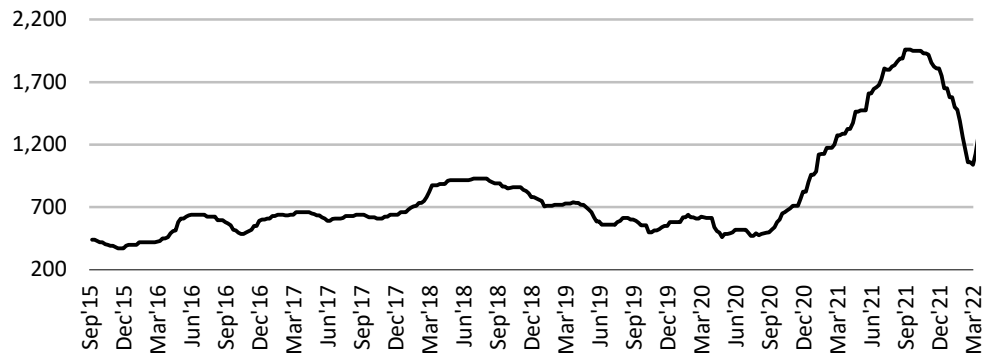


Exhibit 26: Korea HRC FOB (USD/t)



Inventories

Exhibit 27: India steel inventory (mt)

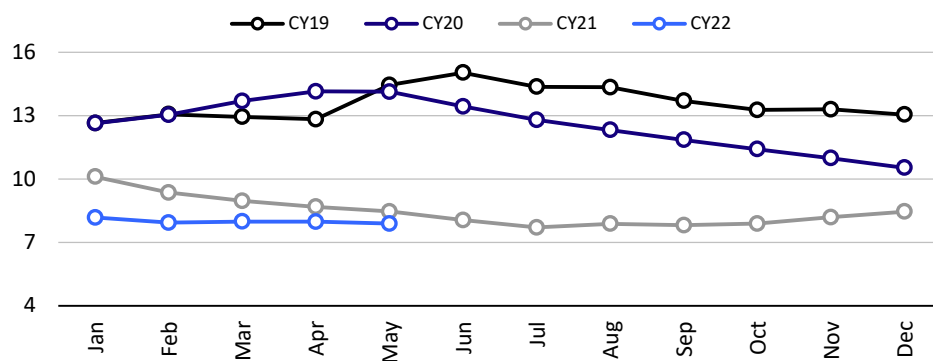


Exhibit 28: China wire rod and TMT inventory (mt)

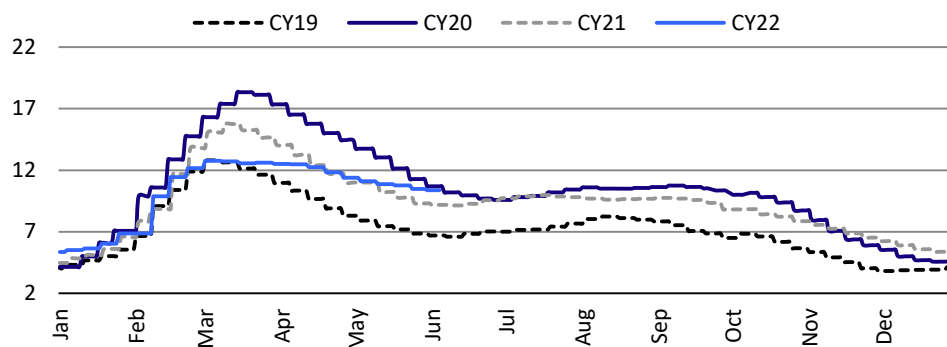
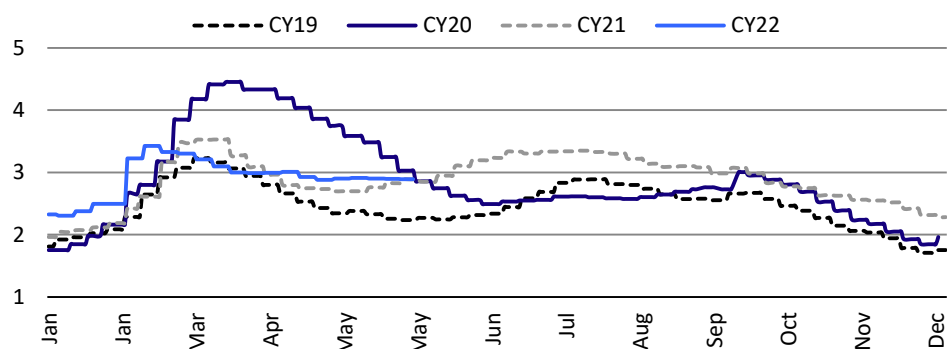


Exhibit 29: China HRC inventory (mt)



NON-FERROUS: Aluminum

Exhibit 30: LME spot (USD/t)

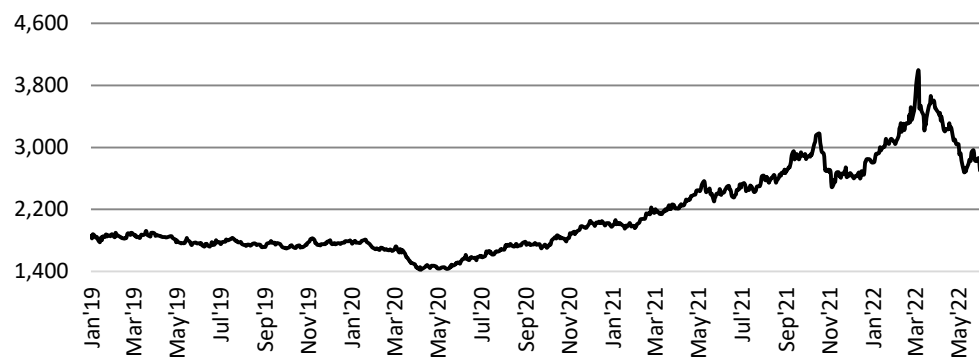


Exhibit 31: Alumina FoB Australia (USD/t)

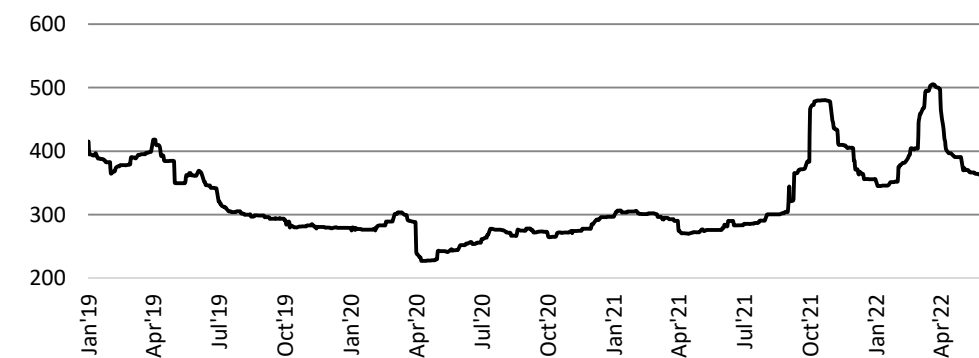


Exhibit 32: Caustic soda (USD/t)

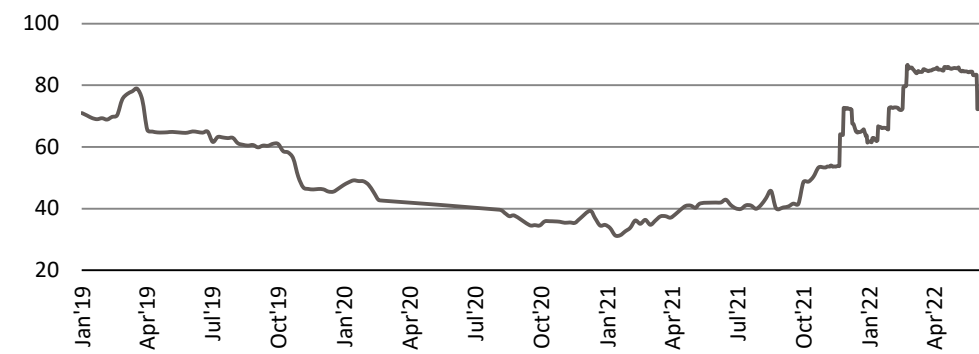


Exhibit 33: Total inventory (LME + SHFE, mt)

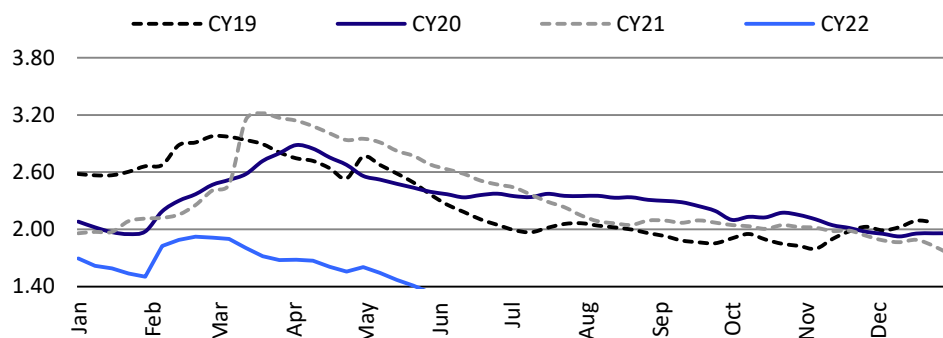


Exhibit 34: Ingot premiums (mt)

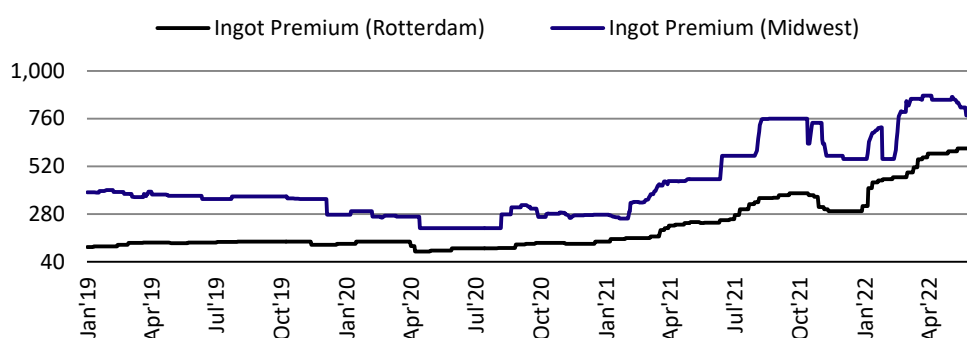
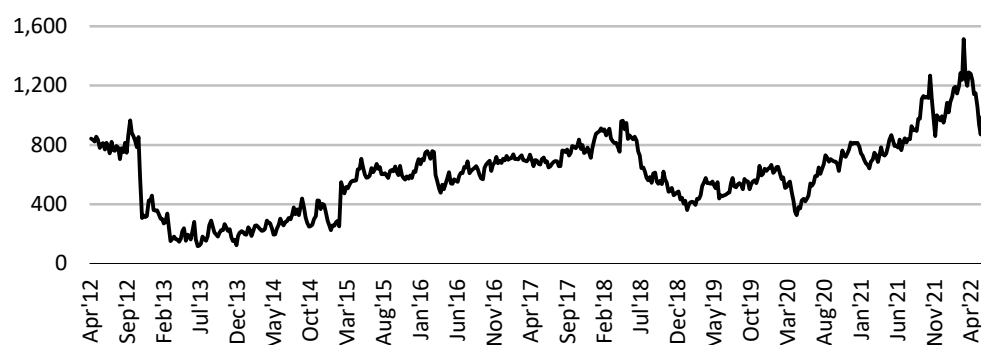


Exhibit 35: Aluminum scrap spread (USD/t)



Copper

Exhibit 36: LME spot (USD/t)

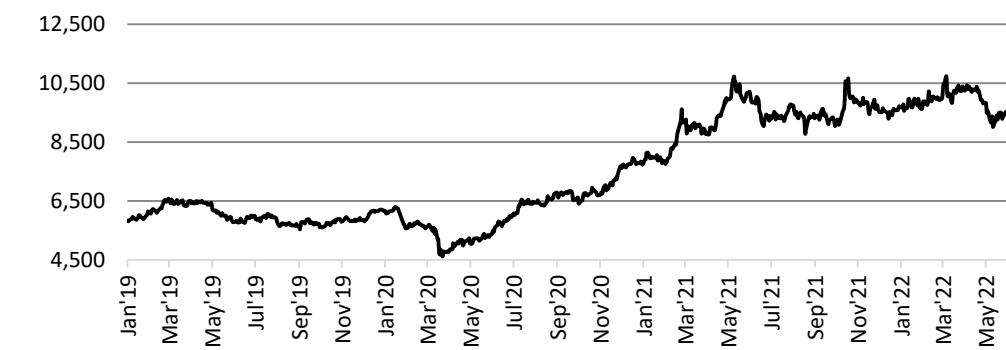
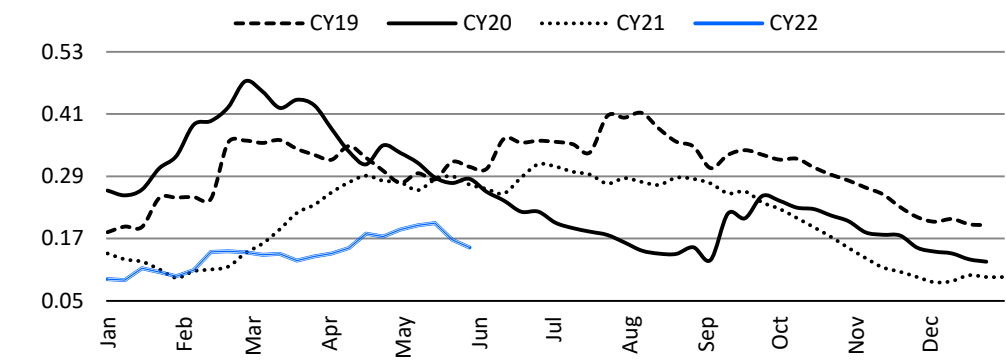


Exhibit 37: Total inventory (LME+SHFE, mt)

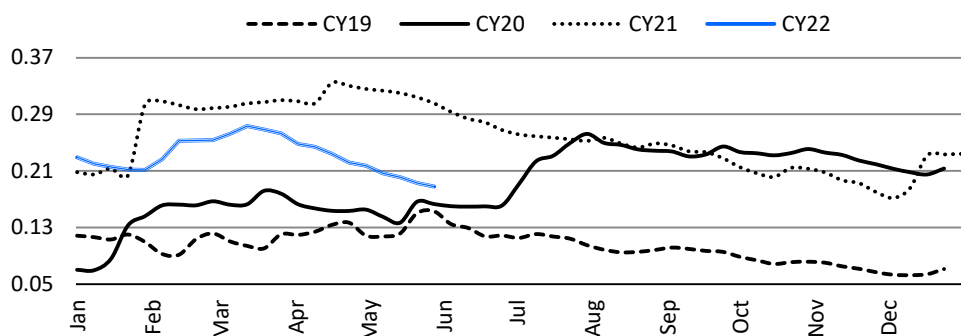


Zinc

Exhibit 38: LME spot (USD/t)



Exhibit 39: Total inventory (LME+SHFE, mt)



Lead

Exhibit 40: LME spot (USD/t)

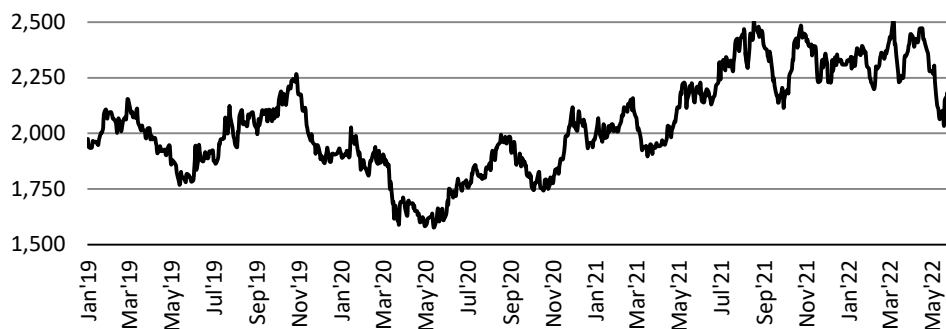
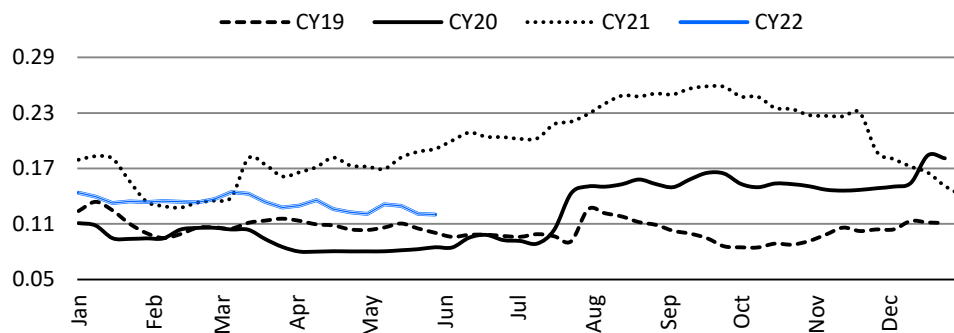


Exhibit 41: Total inventory (LME+SHFE, mt)



Nickel

Exhibit 42: Nickel spot (USD/t)

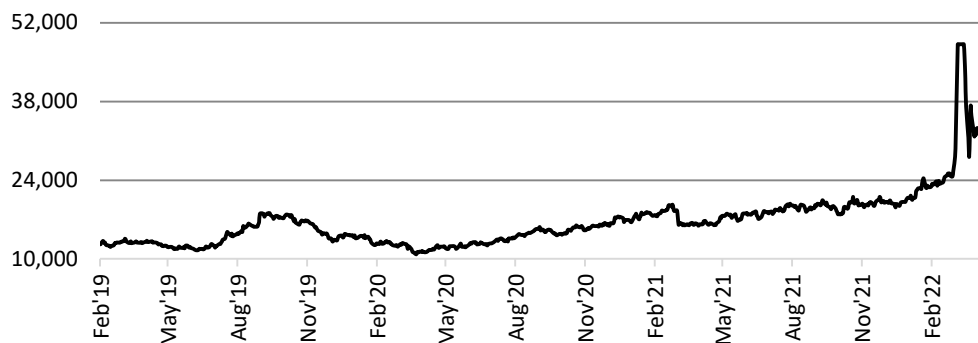
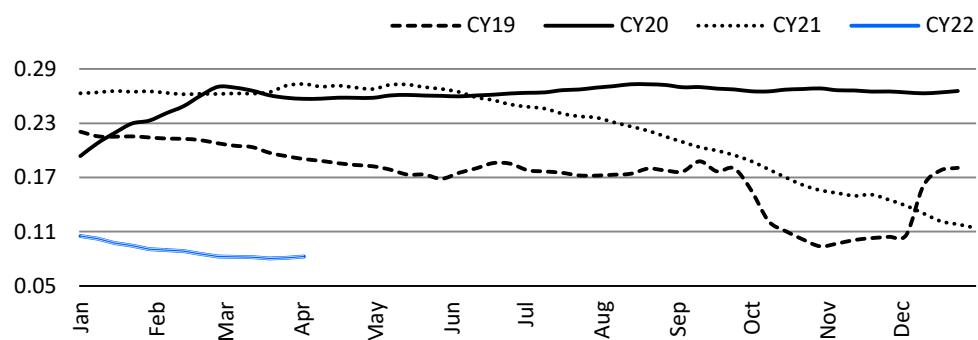


Exhibit 43: Total inventory (LME+SHFE, mt)



India steel production, consumption, EXIM, and inventory

Exhibit 44: Crude steel production (mt)

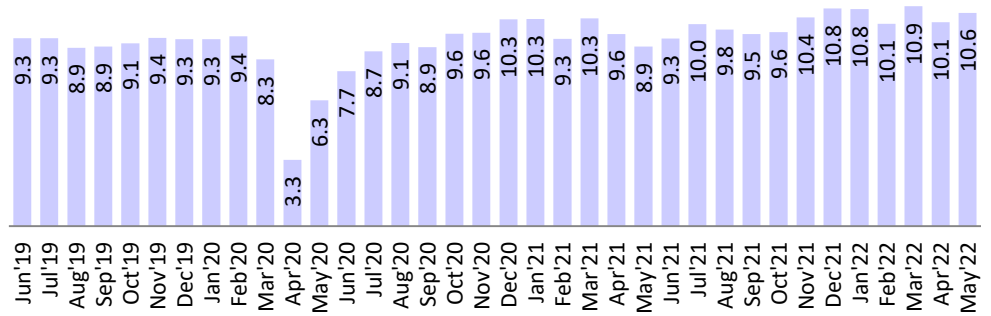


Exhibit 45: Finished steel production (mt)

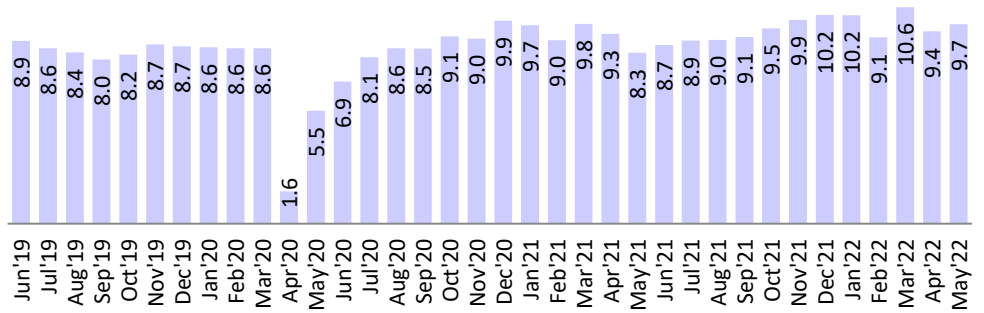


Exhibit 46: Imports including semis (kt)

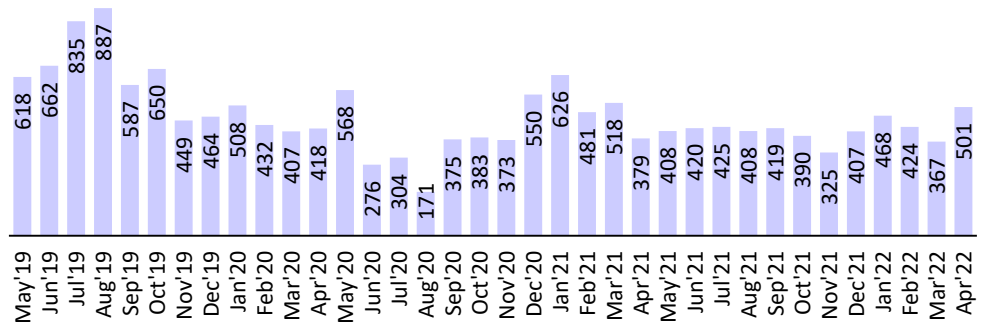


Exhibit 47: Exports including semis (kt)

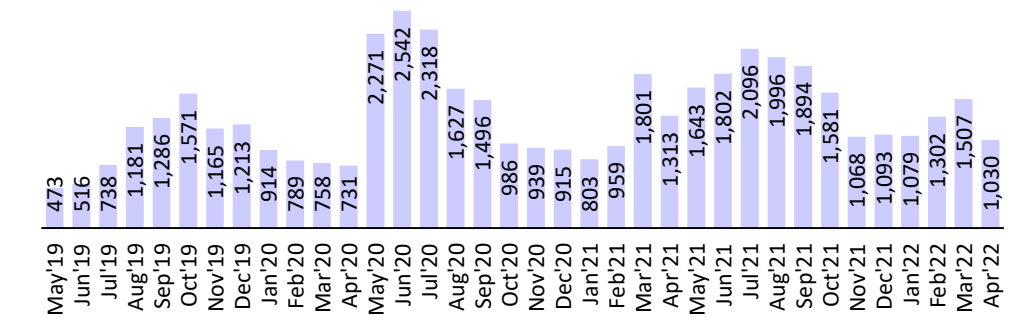


Exhibit 48: Net imports/(exports) (kt)

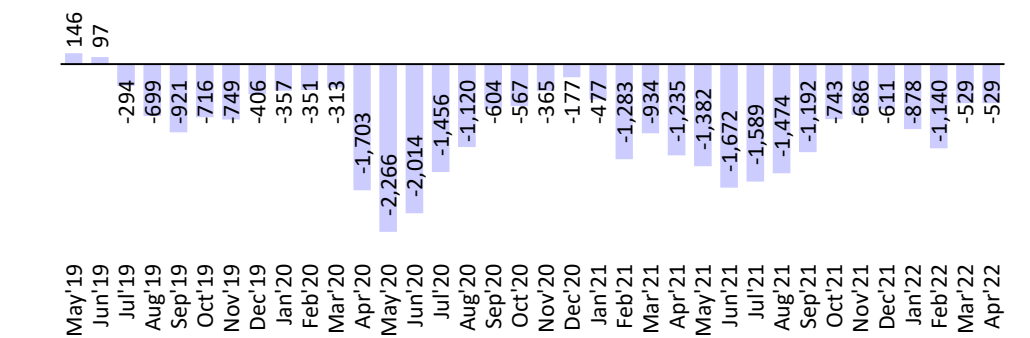
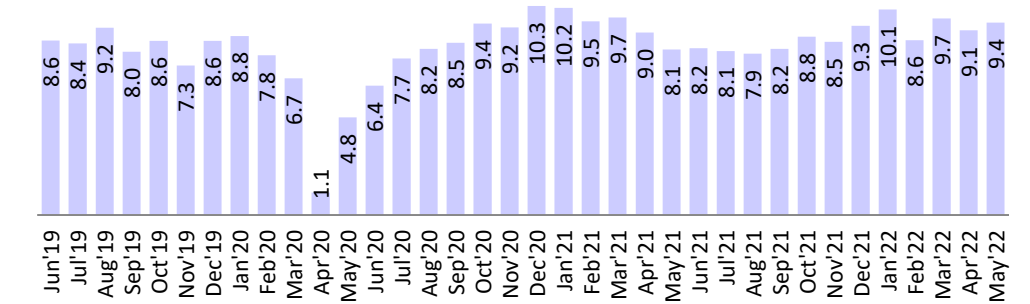


Exhibit 49: Steel consumption (mt)



Global production trends

Exhibit 50: World crude steel production and China's share

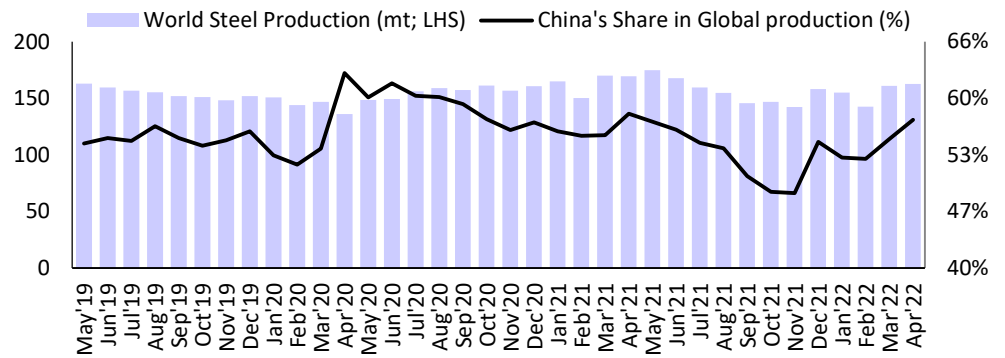


Exhibit 51: Crude steel production in China (mt)

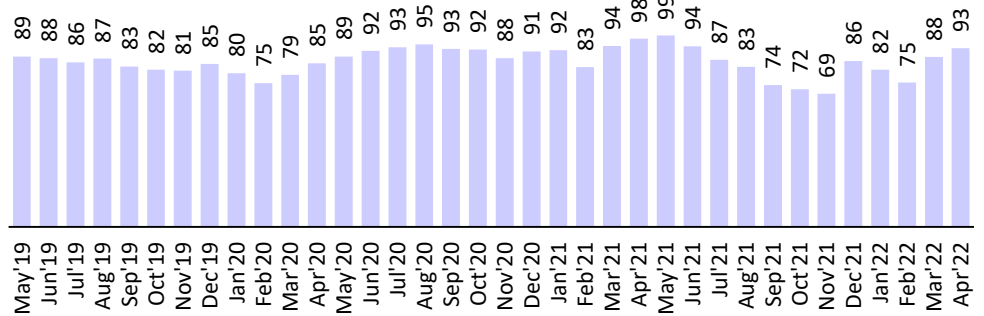


Exhibit 52: Crude steel production in Japan (mt)

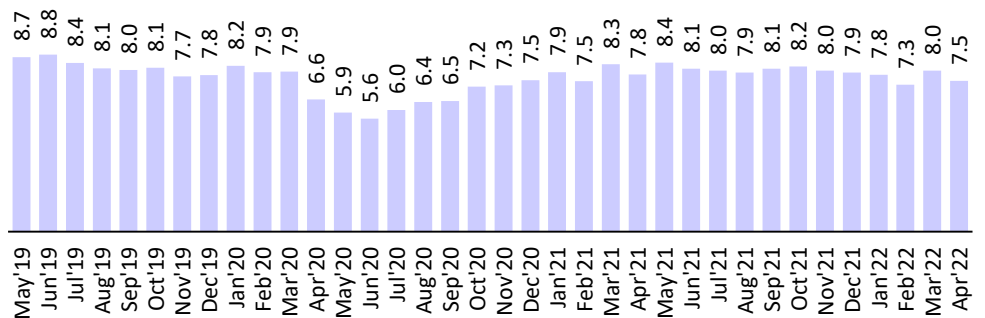


Exhibit 53: Crude steel production in the US (mt)

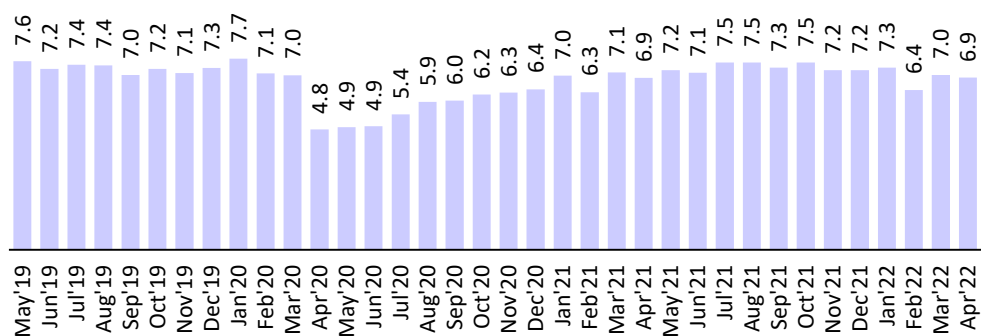


Exhibit 54: Crude steel production in Russia (mt)

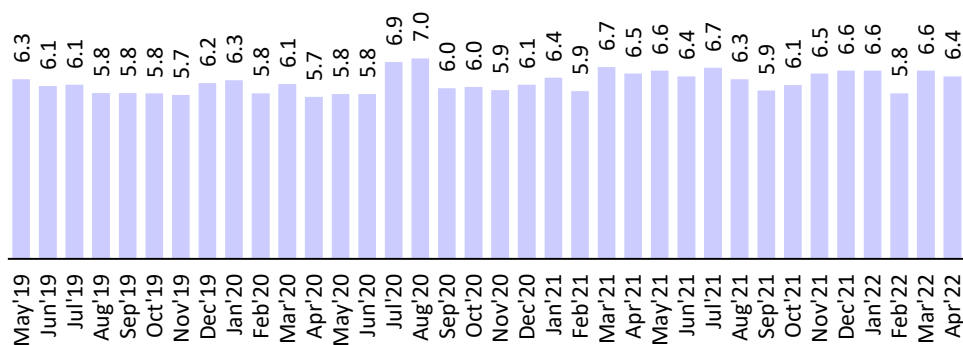
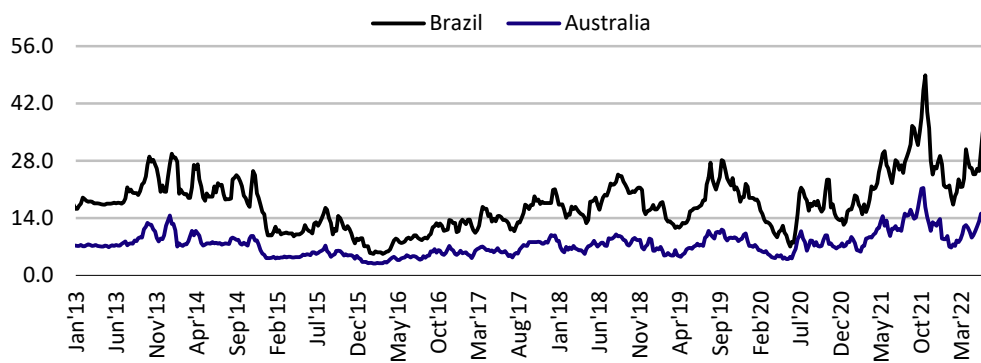


Exhibit 55: Dry bulk freight rates to China (USD/t)



China steel and macro

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

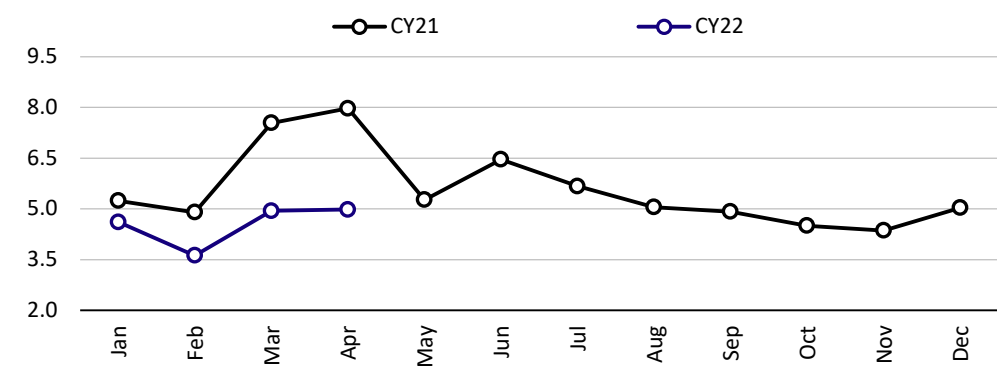


Exhibit 57: China's gross steel imports (mt)

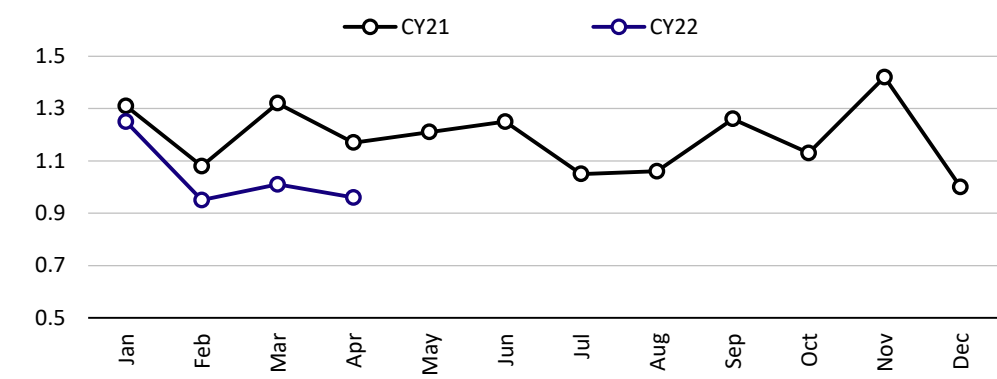


Exhibit 58: China's net steel exports/(imports) (mt)

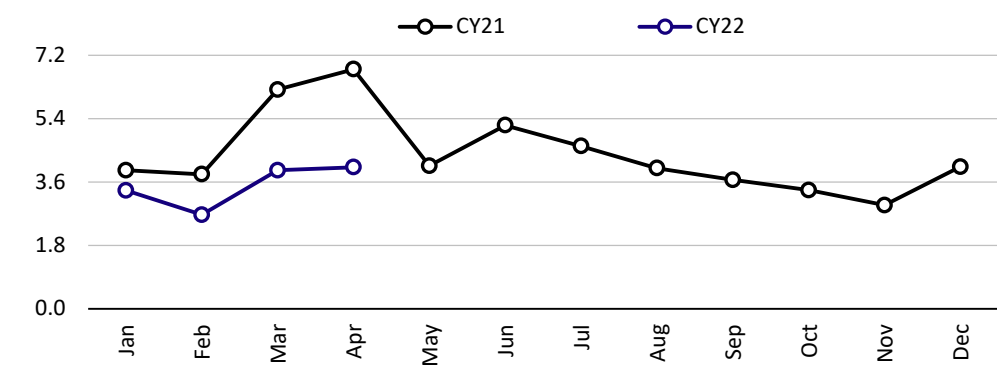


Exhibit 59: China's GDP growth YoY (constant prices)

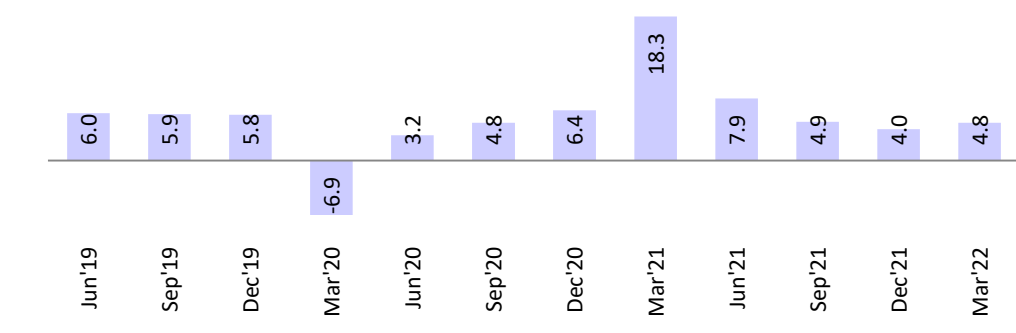


Exhibit 60: Total FAI investments (CNY b)

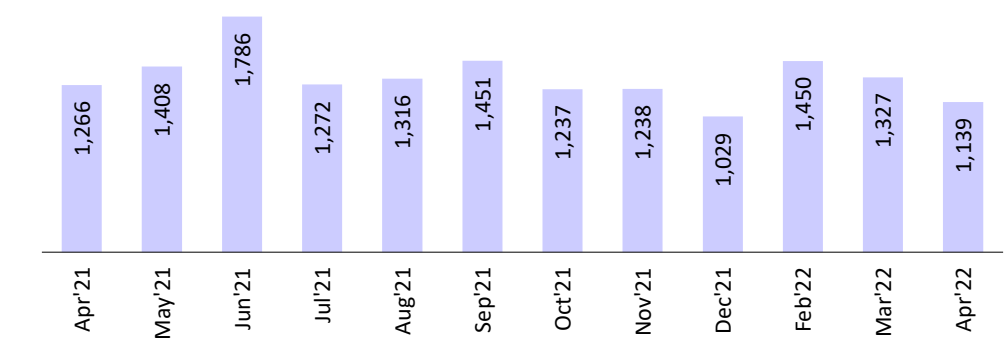


Exhibit 61: Automobile registration (m units)

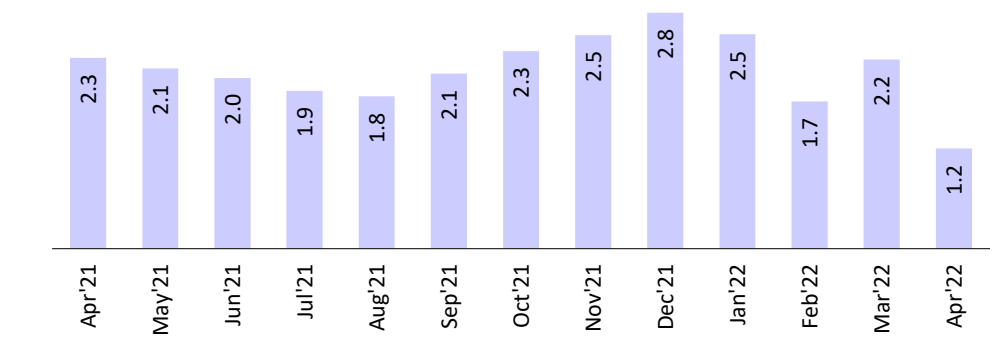


Exhibit 62: Floor space sold (m square meters)

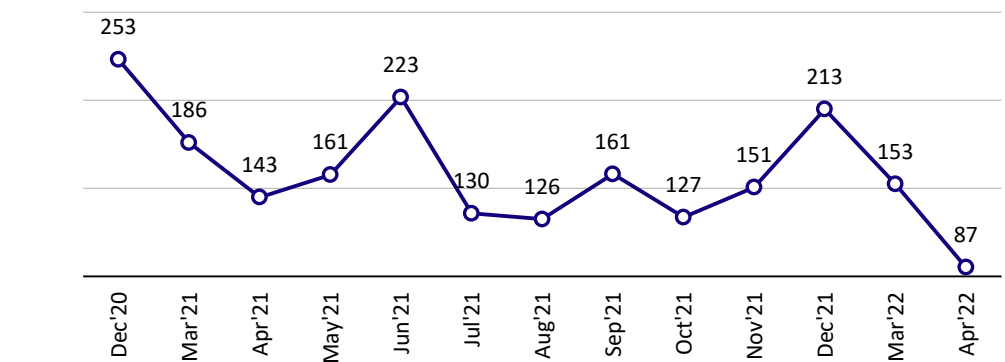


Exhibit 63: Floor space starts (m square meters)

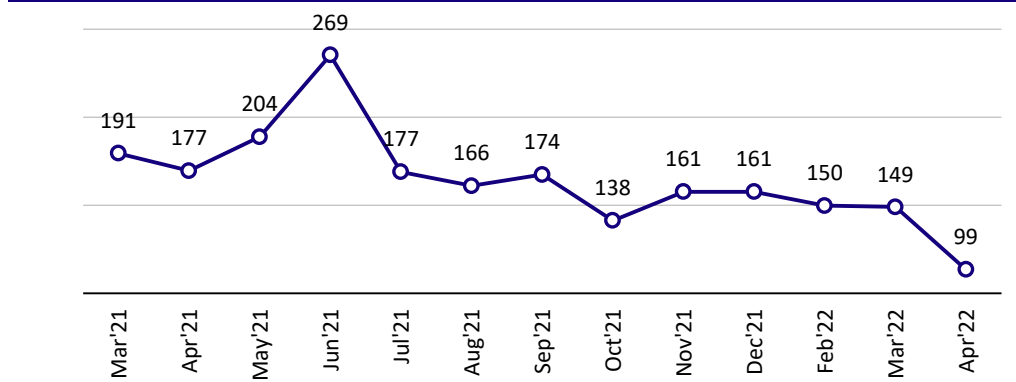


Exhibit 64: Land sales (m square meters)

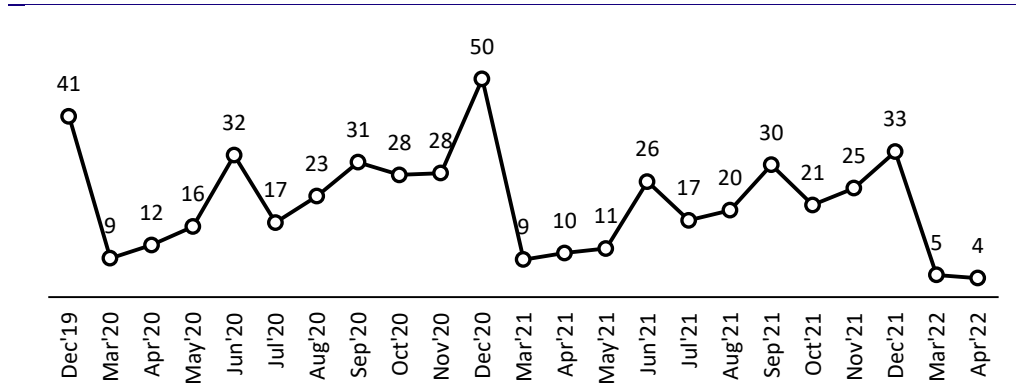


Exhibit 65: Manufacturing PMI

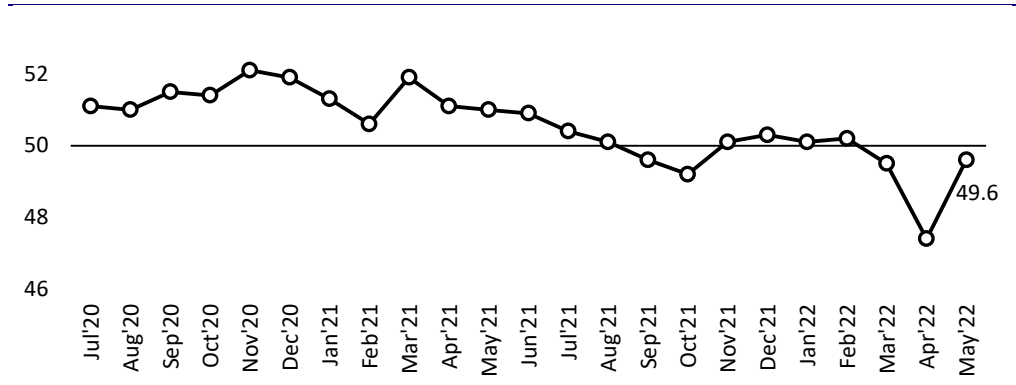
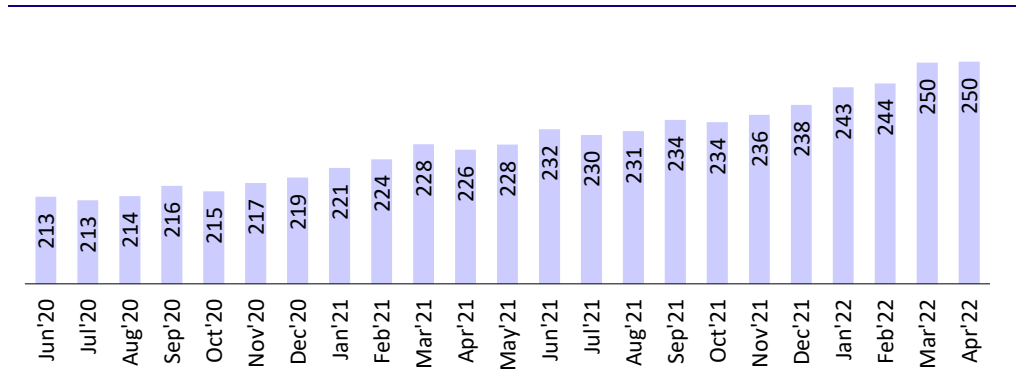


Exhibit 66: M2 money supply (CNY t)



Commodity monthly heat map

Commodity	UoM	Jul'21	Aug'21	Sep'21	Oct'21	Nov'21	Dec'21	Jan'22	Feb'22	Mar'22	Apr'22	May'22	Jun'22	MoM
Oil and non-ferrous - prices														
Brent Crude	USD/bbl	74	70	75	84	81	74	86	96	116	106	112	123	9
Copper	USD/t	9,434	9,357	9,324	9,779	9,765	9,553	9,772	9,941	10,238	10,192	9,384	9,455	1
Aluminum	USD/t	2,492	2,614	2,840	2,955	2,641	2,709	2,994	3,261	3,538	3,255	2,836	2,702	-5
Zinc	USD/t	2,943	2,989	3,042	3,370	3,317	3,423	3,611	3,644	3,974	4,381	3,780	3,896	3
Lead	USD/t	2,337	2,430	2,257	2,339	2,348	2,305	2,342	2,300	2,359	2,404	2,151	2,144	0
Nickel	USD/t	18,819	19,137	19,377	19,362	19,933	20,026	22,285	24,016	37,649	33,134	28,229	28,062	-1
Alumina	USD/t	287	301	360	478	416	362	348	391	487	403	366	355	-3
Aluminum Ingot Premium (Asia - MJP)	USD/t	170	158	171	180	150	164	170	164	141	140	120	110	-8
Aluminum Ingot Premium (EU - Rotterdam)	USD/t	304	358	379	372	300	298	422	462	528	585	605	610	1
Aluminum Ingot Premium (US midwest)	USD/t	573	737	759	731	593	557	557	661	859	857	822	776	-6
Aluminum scrap	USD/t	1,664	1,701	1,751	1,811	1,664	1,708	1,868	2,016	2,240	2,103	1,903	1,896	0
Aluminum scrap spread	USD/t	827	913	1,089	1,144	977	1,001	1,126	1,245	1,298	1,152	933	806	-14
Silver	USD/t	906	846	821	825	850	794	817	830	891	866	771	771	0
USD:INR (Bloomberg)	INR	75	74	74	75	74	75	74	75	76	76	77	78	0
Ferrous- International Prices														
China HRC domestic	RMB/t	5,719	5,727	5,786	5,743	4,902	4,792	4,822	4,978	5,176	5,235	4,957	4,854	-2
China HRC domestic	USD/t	883	884	896	895	767	752	759	785	816	814	740	728	-2
China TMT domestic	RMB/t	5,196	5,262	5,527	5,714	4,846	4,804	4,745	4,875	4,950	5,090	4,901	4,782	-2
China TMT domestic	USD/t	802	812	856	890	758	754	747	769	780	791	732	718	-2
China HRC FoB	USD/t	940	1,001	983	975	814	778	767	817	874	919	824	780	-5
Korea HRC FoB	USD/t	1,055	1,015	1,005	1,005	955	830	776	871	920	925	876	838	-4
North Europe HRC domestic	EUR/t	1,211	1,204	1,143	1,048	988	971	936	933	1,333	1,377	1,178	1,040	-12
North America HRC domestic (USD/short ton)	USD/st	1,781	1,859	1,951	1,944	1,870	1,717	1,519	1,185	1,185	1,453	1,459	1,338	-8
India HRC Export FoB (USD/t)	USD/t	903	906	879	872	852	778	734	850	864	1,006	866	821	-5
Australia Fe 62% iron ore CNF	USD/t	214	160	121	121	95	112	130	142	150	152	134	139	4
Chinese steel futures														
TMT - Shanghai futures	RMB/t	5,261	5,247	5,531	5,092	4,063	4,391	4,574	4,602	4,810	4,999	4,662	4,735	2
HRC - Shanghai futures	RMB/t	5,835	5,735	5,785	5,408	4,308	4,544	4,717	4,781	5,023	5,133	4,775	4,835	1
Iron ore - Dalian Commodity Exchange	RMB/t	1,274	1,020	778	704	568	663	725	723	805	887	837	919	10
Coking coal - Dalian Commodity Exchange	RMB/t	2,102	2,446	3,294	2,835	1,765	2,102	2,273	2,362	2,782	2,987	2,645	2,787	5
China HRC FOB spread over RM (HRC - 1.7x iron ore -.85x HCC)	RMB/t	1,882	1,922	1,664	1,801	1,842	1,631	1,553	1,544	1,290	1,086	1,104	903	-18

Commodity	UoM	Jul'21	Aug'21	Sep'21	Oct'21	Nov'21	Dec'21	Jan'22	Feb'22	Mar'22	Apr'22	May'22	Jun'22	MoM
India steel and metallics prices														
India HRC ex-Mumbai 5-10mm	INR/t	65,025	66,540	65,450	69,620	70,875	65,950	63,840	66,325	72,775	76,725	70,600	63,800	-10
Dom HRC prem to India export FoB price	INR/t	-2,246	-647	782	4,251	7,427	7,304	9,226	2,621	6,939	93	3,636	89	-98
Domestic CRC ex-Mumbai - 0.9mm	INR/t	80,575	78,020	74,150	75,080	75,900	70,925	67,220	70,625	79,875	86,825	80,500	73,000	-9
Galvanized plain - 120 GSM	INR/t	84,750	82,450	80,625	86,050	84,763	77,375	73,220	77,200	86,500	91,500	84,740	75,000	-11
Color coated /PPGI ex-Mumbai 90GSM	INR/t	92,063	91,250	90,875	94,210	93,575	88,400	82,960	84,400	92,625	98,375	93,360	86,000	-8
Wire rod - Primary Producers	INR/t	49,326	50,819	52,153	56,226	58,817	54,484	53,306	57,321	66,629	70,433	67,500	62,750	-7
TMT primary - Mumbai	INR/t	49,125	51,200	51,875	57,600	60,688	55,500	55,250	62,000	71,250	73,225	68,500	62,000	-9
TMT secondary - Mumbai	INR/t	47,106	49,432	46,440	52,487	50,463	49,510	52,606	57,007	68,513	64,897	59,419	55,375	-7
Domestic scrap-HMS(80:20) - Mumbai	INR/t	32,384	34,258	34,507	37,474	34,620	34,645	37,361	39,593	43,600	43,213	41,802	35,288	-16
Sponge iron (DRI)	INR/t	28,792	30,413	29,398	33,235	29,428	27,910	31,756	34,023	39,781	35,843	32,881	29,988	-9
Domestic pellet prices- Barbil - 63% Fe	INR/t	14,944	13,710	10,700	11,955	11,163	8,731	9,870	11,406	12,594	11,444	9,683	8,000	-17
Pellet Export Prices - FoB 64%Fe	USD/t	228	165	121	140	130	129	145	160	159	159	136	129	-5
Domestic ferrous spreads														
Primary HRC v/s primary TMT	INR/t	15,900	15,340	13,575	12,020	10,188	10,450	8,590	4,325	1,525	3,500	2,100	1,800	-14
Primary TMT v/s secondary TMT	INR/t	2,019	1,768	5,435	5,113	10,224	5,990	2,644	4,993	2,737	8,328	9,081	6,625	-27
Secondary TMT v/s domestic Scrap	INR/t	14,723	15,174	11,933	15,013	15,843	14,865	15,245	17,414	24,913	21,683	17,618	20,088	14
Hot rolled v/s cold rolled	INR/t	15,550	11,480	8,700	5,460	5,025	4,975	3,380	4,300	7,100	10,100	9,900	9,200	-7
Hot rolled - galvanized Plan	INR/t	19,725	15,910	15,175	16,430	13,888	11,425	9,380	10,875	13,725	14,775	14,140	11,200	-21
Hot rolled - color coated	INR/t	27,038	24,710	25,425	24,590	22,700	22,450	19,120	18,075	19,850	21,650	22,760	22,200	-2
Sponge iron -NMDC lumps spread	INR/t	16,127	18,258	18,943	23,120	19,951	19,580	22,916	24,503	29,581	25,473	23,531	22,508	-4
Coking coal														
India premium HCC CNF	USD/t	234	252	364	427	398	361	424	467	625	500	536	458	-14
India 64 mid vols coking coal CNF	USD/t	206	224	318	364	337	313	377	420	591	463	499	421	-16
NMDC iron ore - Chhattisgarh														
64% Bailadila fines	INR/t	6,360	6,160	5,160	4,760	4,660	4,060	4,260	4,560	4,960	5,160	4,410	3,310	-25
Iron ore lump	INR/t	7,450	7,150	6,150	5,950	5,575	4,900	5,200	5,600	6,000	6,100	5,500	4,400	-20
Manganese ore														
Manganese ore, Balaghat Mn 37%, Fe 7.5%	INR/t	15,334	15,334	15,334	15,334	15,717	15,717	14,931	14,931	16,424	18,066	18,066	15,447	-14
Manganese ore, import India, Mn 37.5%	USD/dmtu	5	5	5	5	5	5	5	5	6	5	5	5	0
Domestic ferro alloys														
Silico manganese	INR/t	95,635	95,789	93,253	1,27,643	1,03,568	93,303	1,00,248	98,920	1,18,837	1,05,557	88,923	79,633	-10
Ferro manganese	INR/t	99,597	98,766	1,00,598	1,29,981	1,15,800	1,00,706	1,00,015	97,820	1,15,677	1,09,550	95,052	87,367	-8
Ferro chrome	INR/t	32,384	34,258	34,507	37,474	34,620	34,645	37,361	39,593	43,600	43,213	41,802	35,288	-16

Commodity	UoM	Jul'21	Aug'21	Sep'21	Oct'21	Nov'21	Dec'21	Jan'22	Feb'22	Mar'22	Apr'22	May'22	Jun'22	MoM
Freight rates														
Baltic Dry index	Points	3,188	3,743	4,288	4,820	2,780	2,698	1,783	1,835	2,464	2,212	2,919	2,633	-10
China steel exports (mt)														
China steel exports (mt)	mt	6	5	5	4	4	5	NA	4	5	5	ND	ND	NA
Ferrous - inventory														
China HRC	mt	3	3	3	3	3	2	2	3	3	3	3	3	0
China wire rod	mt	3	3	3	2	2	2	2	3	4	3	3	3	-8
China TMT	mt	7	7	7	6	5	4	4	7	9	9	8	8	-4
Total steel inventory	mt	13	13	13	11	10	8	8	13	16	15	14	13	-4
Non-ferrous - inventory														
Aluminum														
LME	kt	1,470	1,331	1,307	1,127	967	940	881	823	732	603	526	454	-14
SHFE	kt	827	741	775	921	1,017	906	744	1,021	1,090	1,038	977	882	-10
Total	kt	2,296	2,072	2,083	2,048	1,984	1,846	1,625	1,844	1,822	1,641	1,503	1,336	-11
Zinc														
LME	kt	249	240	226	197	181	186	179	150	143	116	89	84	-6
SHFE	kt	8	9	10	14	15	26	44	96	122	126	116	104	-10
Total	kt	257	250	236	211	196	212	223	246	265	242	205	188	-8
Lead														
LME	kt	68	57	52	52	56	55	54	49	40	39	38	39	1
SHFE	kt	142	185	202	189	158	112	84	84	98	90	87	82	-6
Total	kt	209	243	255	241	214	168	138	133	138	130	125	120	-4
Copper														
LME	kt	222	243	236	182	101	85	90	77	77	118	168	146	-13
SHFE	kt	69	37	18	11	13	8	10	59	62	36	18	7	-62
Total	kt	291	281	254	193	114	92	100	136	139	154	186	153	-18
Nickel														
LME	kt	224	202	174	147	128	107	97	84	75	73	73	71	-2
SHFE	kt	7	6	7	6	8	6	4	4	7	8	4	3	-22
Total	kt	231	208	181	153	136	113	101	89	81	81	77	75	-3

Metals valuation matrix

Exhibit 67: Indian companies valuation

	MCAP (INR b)	CMP (INR)	TP (INR)	Rating	EPS			P/E (x)			EV/EBITDA (x)			P/B(x)		
					FY22E	FY23E	FY24E	FY22E	FY23E	FY24E	FY22E	FY23E	FY24E	FY22E	FY23E	FY24E
Steel																
Tata	1,318	1,079	1,440	Neutral	329.5	203.6	181.3	3.3	5.3	6.0	2.9	3.9	3.9	1.2	1.0	0.9
JSW	1,397	578	600	Buy	89.5	71.1	86.3	6.5	8.1	6.7	5.0	5.8	4.7	2.1	1.8	1.4
JSP	372	368	440	Buy	86.0	57.3	75.0	4.3	6.4	4.9	3.0	3.8	2.7	1.0	0.9	0.8
SAIL	312	75	90	Buy	33.4	12.3	21.4	2.3	6.1	3.5	2.2	4.5	2.8	0.6	0.6	0.5
Non-Ferrous																
Vedanta	1,193	321	470	Neutral	46.7	59.9	47.6	6.9	5.4	6.7	4.0	4.0	4.6	1.8	1.6	1.5
Hindalco	907	408	555	Buy	61.3	55.6	57.4	6.7	7.4	7.1	4.6	4.6	4.3	1.7	1.4	1.2
Nalco	169	92	110	Buy	16.1	14.0	10.0	5.7	6.6	9.2	2.9	3.6	5.0	1.3	1.2	1.1
Mining																
Coal	1,200	195	230	Buy	28.2	34.6	31.8	6.9	5.6	6.1	3.1	3.4	3.7	2.8	2.4	2.1
HZL	1,269	300	370	Neutral	23.1	29.2	28.3	13.0	10.3	10.6	6.7	5.5	5.6	3.7	3.7	3.8
NMDC	364	124	130	Neutral	33.4	15.9	18.0	3.7	7.8	6.9	2.5	5.5	5.0	1.0	1.0	0.9

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

Exhibit 68: Global steel 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	CY22/ FY23	CY23/ FY24	CY21/ FY22	CY22/ FY23	CY23/ FY24	CY21/ FY22	CY22/ FY23	CY23/ FY24
India													
Tata*	16,979	3.3	5.3	6.0	2.9	3.9	3.9	1.2	1.0	0.9	44.6	20.9	16.4
JSW*	17,988	6.5	8.1	6.7	5.0	5.8	4.7	2.1	1.8	1.4	37.9	23.5	23.8
JSP*	4,839	4.3	6.4	4.9	3.0	3.8	2.7	1.0	0.9	0.8	25.9	15.1	16.9
SAIL*	4,013	2.3	6.1	3.5	2.2	4.5	2.8	0.6	0.6	0.5	27.7	9.2	15.0
Japan													
JFE	7,421	3.4	5.3	6.2	4.8	6.0	6.1	0.5	0.4	0.4	15.5	8.7	7.6
Nippon Steel	16,207	4.0	6.0	6.2	4.8	6.1	5.9	0.6	0.6	0.6	18.1	10.5	8.9
Kobe Steel	2,150	5.0	5.6	5.5	5.3	6.0	5.5	0.4	0.3	0.3	7.2	6.0	5.2
Korea													
POSCO	20,227	4.7	4.9	5.0	3.0	2.9	2.8	0.4	0.4	0.4	10.0	8.8	8.1
Hyundai Steel	4,452	3.7	4.1	4.2	3.9	3.7	3.4	0.3	0.3	0.3	7.9	6.7	6.3
US													
Nucor	34,237	4.9	10.1	12.1	3.3	6.3	6.7	1.7	1.4	1.2	45.4	17.1	11.8
US Steel	6,500	2.4	6.1	6.2	1.4	2.6	2.5	0.6	0.5	0.5	31.9	7.7	3.6
Steel Dynamics	15,650	4.3	7.9	11.6	2.7	4.0	5.1	1.6	1.3	1.1	50.7	20.9	12.2
Europe													
AM	29,032	2.6	4.7	5.2	1.8	2.6	3.1	0.5	0.4	0.4	22.7	10.8	7.8
SSAB	6,173	3.2	7.5	10.9	1.6	3.3	4.1	0.7	0.7	0.7	23.5	9.4	6.1
TKA	6,087	4.1	7.1	7.6	0.7	0.7	0.8	0.5	0.5	0.4	10.3	5.3	5.3
VOE	5,391	4.7	5.9	7.9	3.4	3.3	3.7	0.8	0.7	0.7	16.7	12.0	8.9
China													
Baosteel	21,940	6.7	6.5	5.9	3.7	3.3	2.9	0.7	0.7	0.6	11.0	10.7	10.7

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

Exhibit 69: 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	CY22/ FY23	CY23/ FY24	CY21/ FY22	CY22/ FY23	CY23/ FY24	CY21/ FY22	CY22/ FY23	CY23/ FY24
NMDC*	4,687	3.7	7.8	6.9	2.5	5.5	5.0	1.0	1.0	0.9	30.2	13.0	14.0
Vale	92,578	4.4	5.4	6.3	3.1	3.8	4.2	1.9	1.8	1.7	47.8	34.7	28.2
FMG	47,632	7.6	8.7	12.6	4.6	5.3	6.8	2.7	2.6	2.6	36.5	33.6	21.9

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

Exhibit 70: 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	CY22/ FY23	CY23/ FY24	CY21/ FY22	CY22/ FY23	CY23/ FY24	CY21/ FY22	CY22/ FY23	CY23/ FY24
Vedanta*	15,356	6.9	5.4	6.7	4.0	4.0	4.6	1.8	1.6	1.5	27.2	31.8	23.0
BHP	1,69,584	7.8	9.1	12.6	4.2	4.6	5.8	3.2	3.2	3.2	42.4	37.3	26.4
Rio	1,24,464	6.3	8.4	10.0	3.8	4.7	5.2	2.2	2.1	1.9	34.9	24.3	19.1
Glencore	89,102	5.0	7.2	9.4	3.3	4.1	4.8	1.9	1.9	1.9	39.6	24.8	17.3
Anglo	61,271	7.2	8.8	10.5	3.7	4.2	4.8	1.9	1.7	1.6	28.6	19.5	14.4
South 32	16,891	6.3	6.0	8.2	3.6	3.1	4.0	1.6	1.4	1.3	27.3	26.0	17.5

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

Exhibit 71: 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	CY22/ FY23	CY23/ FY24	CY21/ FY22	CY22/ FY23	CY23/ FY24	CY21/ FY22	CY22/ FY23	CY23/ FY24
Hind. Zinc*	16,346	13.0	10.3	10.6	6.7	5.5	5.6	3.7	3.7	3.8	29.3	36.1	35.6
Korea Zinc	8,635	12.5	12.4	12.1	6.3	6.0	5.8	1.3	1.2	1.1	10.9	10.2	9.9
Teck	23,746	5.1	7.5	9.9	2.9	3.3	3.6	1.1	1.0	0.9	24.4	13.2	7.3

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

Exhibit 72: 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	CY22/ FY23	CY23/ FY24	CY21/ FY22	CY22/ FY23	CY23/ FY24	CY21/ FY22	CY22/ FY23	CY23/ FY24
Coal*	15,460	6.9	5.6	6.1	3.1	3.4	3.7	2.8	2.4	2.1	40.3	42.1	34.1
China Shenhua	95,716	6.8	7.1	6.8	5.1	5.3	5.2	1.1	1.1	1.1	16.4	16.4	16.3
Banpu	2,542	3.5	5.6	6.3	3.0	3.0	2.6	1.0	0.9	0.9	29.0	18.2	14.2
Bukit Asam	3,444	4.2	5.8	6.9	2.8	3.3	3.8	1.6	1.5	1.4	41.2	27.2	20.5
Adaro Energy	7,676	4.8	7.3	8.0	2.2	2.6	2.7	1.6	1.4	1.3	39.7	23.4	18.1

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

Exhibit 73: 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	CY22/ FY23	CY23/ FY24	CY21/ FY22	CY22/ FY23	CY23/ FY24	CY21/ FY22	CY22/ FY23	CY23/ FY24
Hindalco*	11,819	6.7	7.4	7.1	4.6	4.6	4.3	1.7	1.4	1.2	28.0	20.8	18.2
Nalco*	2,180	5.7	6.6	9.2	2.9	3.6	5.0	1.3	1.2	1.1	25.4	19.5	12.9
Alcoa	11,404	5.1	5.7	6.3	2.7	2.6	2.7	1.9	1.5	1.3	37.9	23.4	15.3
Norsk Hydro	16,219	6.3	7.0	7.7	3.7	3.9	4.0	1.5	1.5	1.4	24.9	19.1	16.3
CHALCO	11,908	7.0	6.9	7.5	7.1	5.8	8.1	0.8	0.7	0.6	12.4	10.1	4.8
RUSAL	7,360	2.4	2.4	NA	2.5	NA	NA	0.6	0.5	NA	24.9	24.3	NA
Alumina	3,472	9.5	10.1	10.8	8.0	8.8	7.4	2.0	2.0	2.0	21.1	18.2	17.3

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

Exhibit 74: Stainless steel 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	CY22/ FY23	CY23/ FY24	CY21/ FY22	CY22/ FY23	CY23/ FY24	CY21/ FY22	CY22/ FY23	CY23/ FY24
JSL	744	3.8	4.7	3.4	2.6	3.1	1.8	1.2	0.9	0.8	32.8	20.4	21.8
JSHL	687	NA	4.1	4.5	NA	NA	NA	NA	0.9	0.8	NA	21.8	16.9
Acerinox	3,481	4.0	7.2	8.2	2.8	3.8	3.8	1.2	1.1	1.0	32.4	14.7	11.5
Outokumpu	2,779	3.3	6.6	7.9	2.0	3.1	2.9	0.7	0.6	0.6	22.2	10.1	8.3
Aperam	3,415	4.1	6.9	7.0	3.2	4.1	3.7	0.9	0.8	0.7	23.6	12.8	11.6

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

Metals valuation charts

Exhibit 75: Tata Steel EV/EBITDA

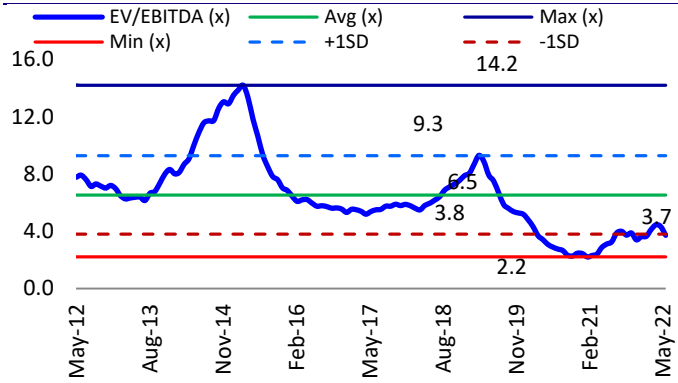


Exhibit 76: Tata Steel P/B

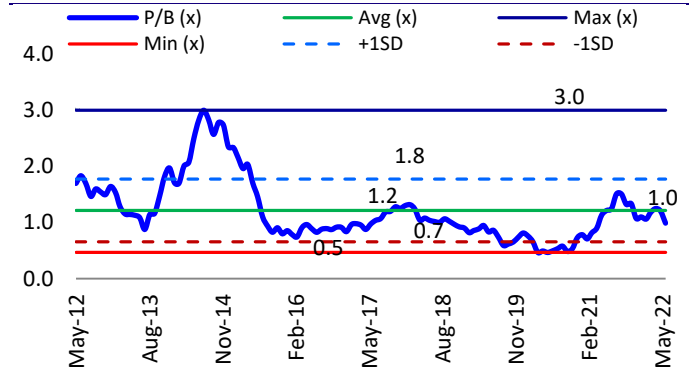


Exhibit 77: JSW Steel EV/EBITDA

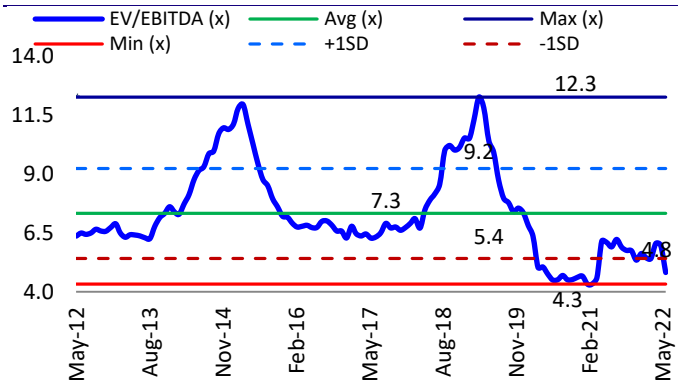


Exhibit 78: JSW Steel P/B

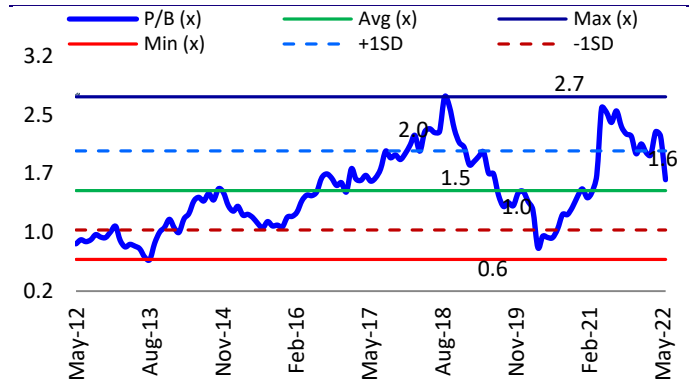


Exhibit 79: JSPL EV/EBITDA

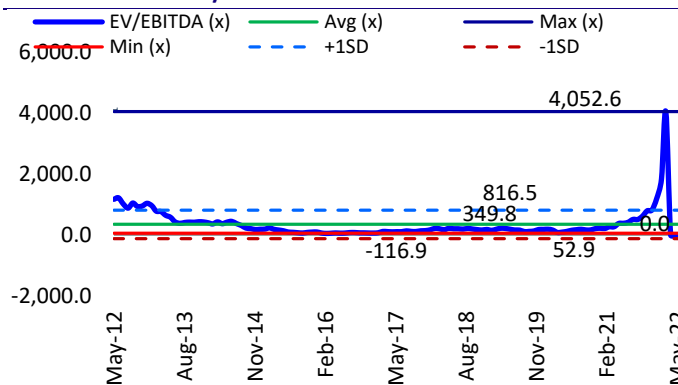


Exhibit 80: JSPL P/B

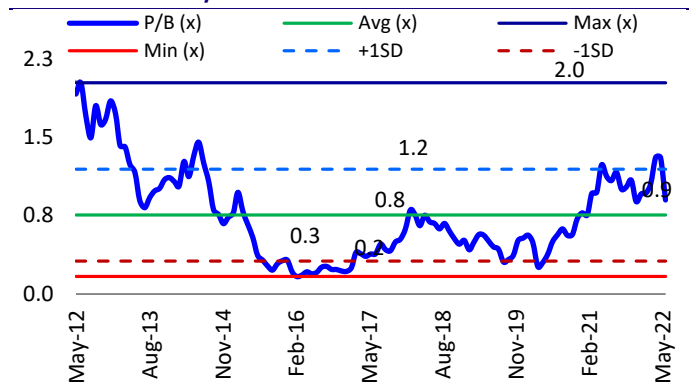


Exhibit 81: SAIL EV/EBITDA

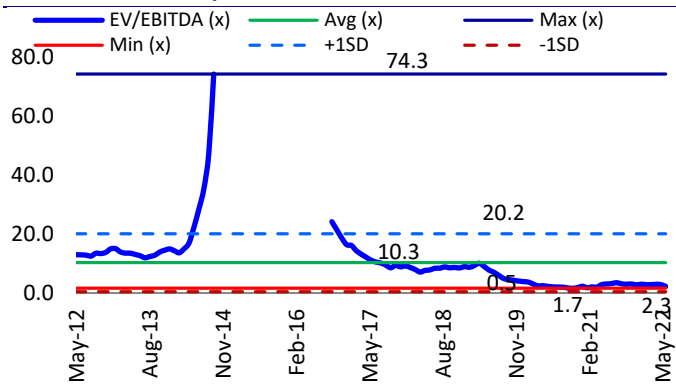


Exhibit 82: SAIL P/B

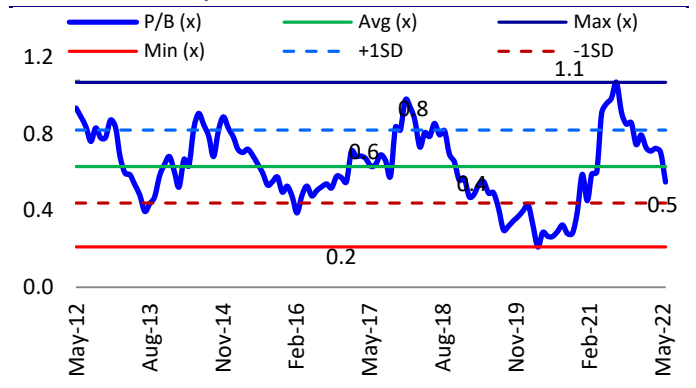


Exhibit 83: NMDC EV/EBITDA

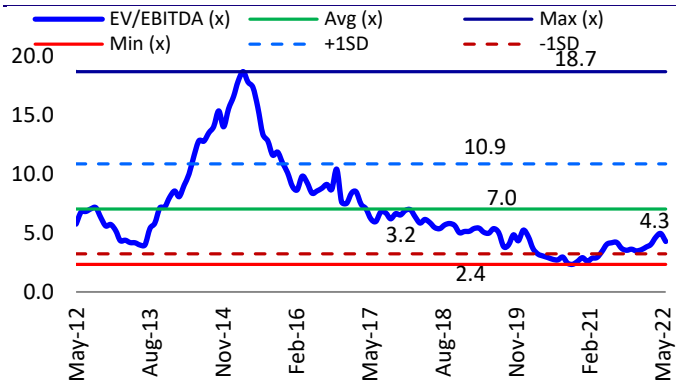


Exhibit 84: NMDC P/B

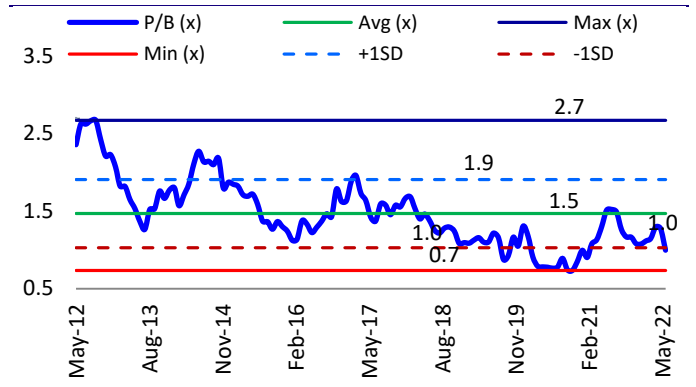


Exhibit 85: Vedanta EV/EBITDA

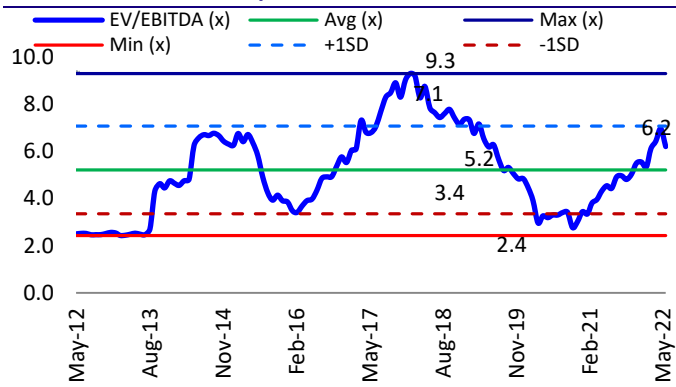


Exhibit 86: Vedanta P/B

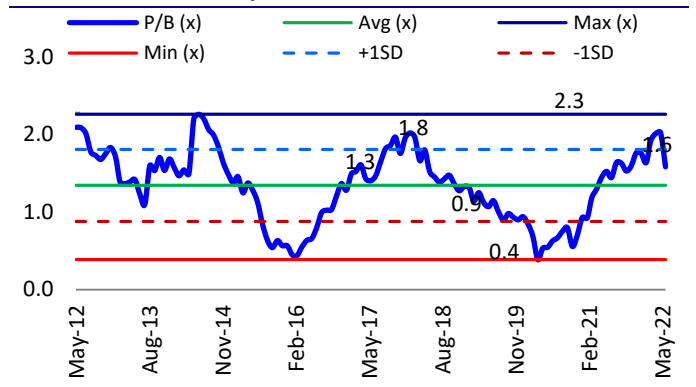


Exhibit 87: Hindustan Zinc EV/EBITDA

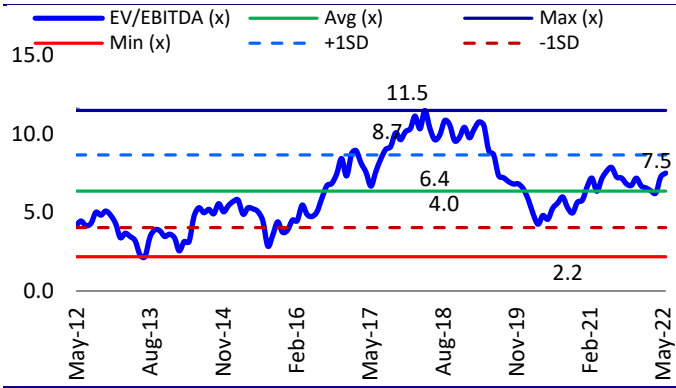


Exhibit 88: Hindustan Zinc P/B

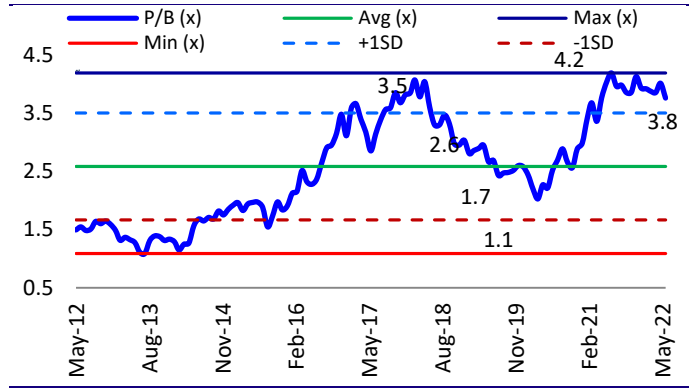


Exhibit 89: Hindalco EV/EBITDA

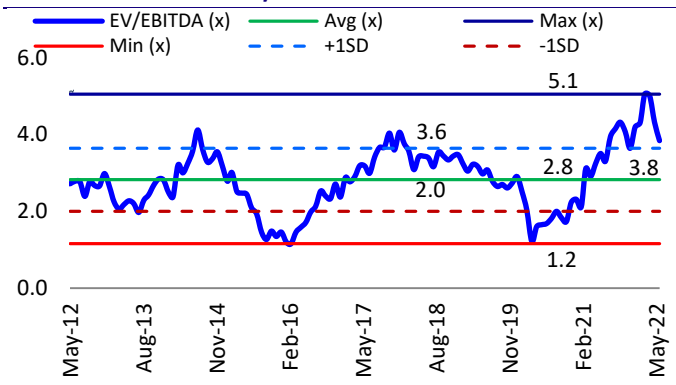


Exhibit 90: Hindalco P/B

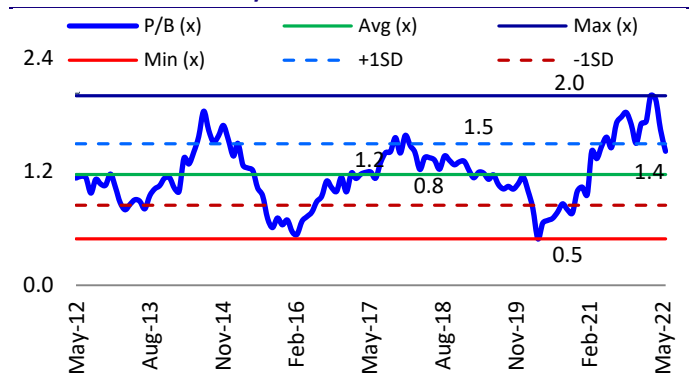


Exhibit 91: Nalco EV/EBITDA

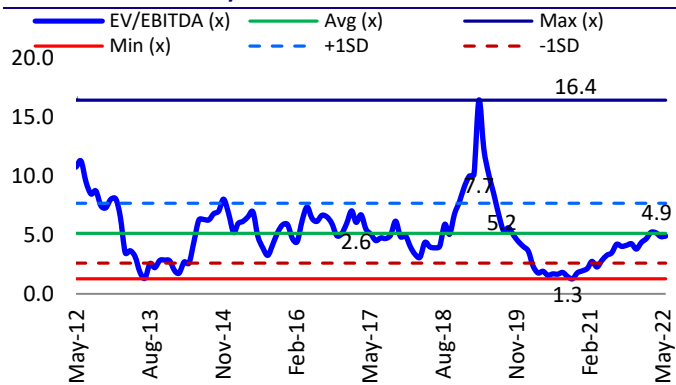
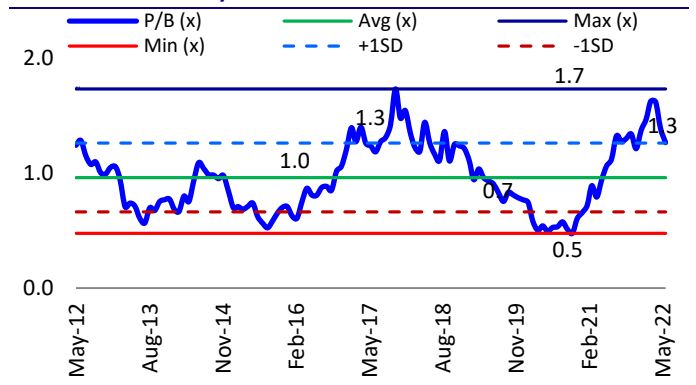


Exhibit 92: Nalco P/B



Performance of metal and mining shares

Exhibit 93: Performance of our Metals coverage on an absolute and relative basis (%)

Period	Absolute performance (%)						Relative performance to Sensex (%)					
	1D	1W	1M	3M	6M	12M	1D	1W	1M	3M	6M	12M
Steel												
Tata	-1	-11	-15	-3	-11	-5	-2	-12	-11	-4	-6	-12
JSW	-1	-13	-24	-4	-20	-20	-2	-14	-20	-4	-14	-27
JSP	0	-17	-25	7	3	0	-1	-18	-20	6	9	-7
SAIL	1	-11	-24	-13	-33	-39	0	-12	-20	-13	-27	-47
Non-ferrous												
Vedanta	-2	-2	-25	-9	-11	15	-3	-3	-21	-10	-5	8
Hindalco	0	-5	-17	-21	-10	6	-1	-6	-13	-22	-4	-1
Nalco	0	-6	-16	-17	-3	26	-1	-7	-11	-18	3	19
Mining												
Coal	-1	-2	-5	21	14	26	-2	-3	-1	21	20	18
Hind. Zinc	-1	1	-8	-1	-10	-10	-2	0	-4	-1	-4	-17
NMDC	-1	-15	-22	-7	-13	-30	-2	-16	-18	-8	-7	-37
SENSEX	1	1	-4	1	-6	7	-	-	-	-	-	-
NIFTY	1	1	-5	1	-6	7	-	-	-	-	-	-
BSE Metals index	0	-8	-18	-5	-10	-4	-	-	-	-	-	-

Exhibit 94: Performance of global Metal stocks on an absolute basis (%)

Period	Absolute performance (%)					
	1D	1W	1M	3M	6M	12M
Steel						
India						
Tata	-1	-11	-15	-3	-11	-5
JSW	-1	-13	-24	-4	-20	-20
JSP	0	-17	-25	7	3	0
SAIL	1	-11	-24	-13	-33	-39
Japan						
JFE	2	0	0	-7	9	9
Nippon Steel	3	2	9	9	19	9
Kobe Steel	2	-1	24	15	16	-6
Korea						
POSCO	0	1	4	6	5	-18
Hyundai Steel	0	2	-3	6	0	-22
US						
Nucor	4	15	-12	14	19	36
US Steel	3	12	-16	9	6	2
Steel Dynamics	4	16	0	39	35	42
Europe						
ArcelorMittal	3	11	13	22	16	15
SSAB	4	8	3	12	30	39
thyssenkrupp	3	5	27	3	-19	-11
voestalpine	1	5	19	2	-10	-25
China						
Baosteel	0	0	1	-11	-6	-19

Exhibit 95: Performance of global Metal stocks on an absolute basis (%)

Period	Absolute performance (%)					
	1D	1W	1M	3M	6M	12M
Iron ore mining						
NMDC	-1	-15	-22	-7	-13	-30
Vale	2	5	10	-2	21	-23
FMG	-2	-3	-1	6	11	-12
Diversified miners						
Vedanta	-2	-2	-25	-9	-11	15
BHP	2	4	7	10	28	5
Rio	1	5	5	4	21	-6
Glencore	1	6	13	25	40	64
Anglo	1	8	15	6	33	22
South 32	1	0	6	4	32	66
Zinc						
Hind. Zinc	-1	1	-8	-1	-10	-10
Korea Zinc	0	1	-2	10	15	28
Teck	2	7	23	24	60	75
Coal						
Coal	-1	-2	-5	21	14	26
China Shenhua	1	3	12	22	55	55
Banpu	-1	-1	4	12	5	14
Bukit Asam	1	9	21	39	66	103
Adaro Energy	2	-5	0	27	86	171
Aluminum						
Hindalco	0	-5	-17	-21	-10	6
Nalco	0	-6	-16	-17	-3	26
Alcoa	3	6	-4	-12	28	65
Norsk Hydro	2	2	-5	-10	20	39
CHALCO	0	-1	1	-36	-14	-21
RUSAL	-1	-3	-11	-48	-55	-41
Alumina	1	-1	-5	-15	-9	0
Stainless steel						
JSL	1	-23	-38	-33	-32	29
JSHL	2	-18	-36	-22	-25	35
Acerinox	7	13	27	12	12	2
Outokumpu	6	10	20	8	-2	17
Aperam	3	6	10	-20	-15	-15

Explanation of Investment Rating	
Investment Rating	Expected return (over 12-month)
BUY	>=15%
SELL	< - 10%
NEUTRAL	< - 10 % to 15%
UNDER REVIEW	Rating may undergo a change
NOT RATED	We have forward looking estimates for the stock but we refrain from assigning recommendation

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