

Indian companies valuation

Indian companies valuation					
	Price (INR)	EV/ EBITDA (x)		P/B (x)	
		FY23	FY24E	FY23	FY24E
Steel					
Tata	119	6.6	9.5	1.5	1.5
JSW	735	12.7	7.6	2.7	2.4
JSP	642	7.2	6.3	1.7	1.5
SAIL	84	8.1	5.5	0.6	0.6
Non-ferrous					
Vedanta	216	4.5	6.2	2.0	2.5
Hindalco	458	6.1	5.5	1.5	1.3
Nalco	92	6.0	4.4	1.3	1.2
Mining					
Coal	315	3.7	5.3	3.4	2.9
HZL	294	7.1	8.4	9.6	7.3
NMDC	156	6.4	5.9	2.0	1.8

Global companies valuation

Company	M.Cap USD b	EV/EBITDA (x)		P/B (x)
		CY22/ FY23	CY23/ FY24	
Steel				
AM	19	3.3	3.5	0.3
SSAB	6	2.4	3.5	0.9
Nucor	37	5.2	7.1	1.7
POSCO	27	5.7	5.1	0.6
JFE	9	6.9	5.9	0.6
Aluminum				
Norsk Hydro	11	5.6	4.9	1.2
Alcoa	4	12.0	5.5	1.0
Zinc				
Teck	19	5.0	3.9	0.9
Korea Zinc	8	9.8	8.4	1.1
Iron ore				
Vale	60	4.1	4.0	1.4
FMG	44	4.6	5.1	2.3
Diversified				
BHP	146	5.7	5.6	3.3
Rio	107	4.7	4.7	1.9

Global macro scenario, upcoming festive season, and low export volumes keep HRC prices in check

Long steel and VAP prices fare better

- Though Tier-I mills continue to remain focused on the domestic market, trade-level HRC prices have been correcting over the last three weeks and is currently hovering in the range of INR56,250-56,750/t.
- Tier-I mills have remained virtually absent from export markets since mid Sept'23 due to global macro scenario in the Middle East, slower-than-expected pickup in Europe, and non-viability compared to Chinese export prices.
- The performance of Longs and VAP has been better than HRC. Long steel prices have corrected ~INR1,500/t over the last three weeks and now in line with flat steel prices.
- Similarly, prices for galvanized steel have remained stable, driven by higher demand from the auto and infrastructure sector.
- The recent price correction was mentioned in our previous publications. Our channel checks indicates that there is a significant inventory buildup at vendors'/traders' level, which occurred before the Diwali holidays. Additionally, the influx of cheaper imports has created uncertainty in the domestic HRC market.
- Our channel checks have confirmed that Tier-I mills are offering HRC ~INR56,000/t, while imported HRC is being offered ~INR54,500-55,000/t (ex-Mumbai).
- We believe, with Diwali around the corner, higher buying interest for longs and VAP and increase in flat steel imports should keep the domestic long steel and VAP prices range bound, while keeping the outlook for flats uncertain with mixed outlook.

Evolving safety and emission norms to drive AHSS demand – ACMA Conclave

- India produced over 5.6m PV and CV in FY23 and over 2m PVs in 1HFY24.
- In order to adhere to decarbonization target, ACMA, in association with Alloy Steel Producers Association (ASPA), highlighted the importance of AHSS steel and new materials to improve the emission norms and safety standard for Indian vehicles.
- Increase in EVs, hybrid fuel automobiles, stricter emission norms and light weight vehicles will change the landscape of low carbon steel usage while the driving the demand for higher VAP such as AHSS and UHSS steel.
- Though India is the second largest ferrous producer, it relies heavily on imports for AHSS and UHSS.
- However, companies such as JSTL and TATA have taken the lead in developing various grades of specialized AHSS steel. These advancements help auto OEMs to meet stringent safety and emission norms effectively.

Commodities and forex tracker

	UoM	Spot	WoW (%)	MoM (%)
India HRC (ex-Mum)	INR/t	56,500	-2	-4
India TMT Prime (ex-Mum)	INR/t	56,500	-1	-3
India TMT Secondary (ex-Mum)	INR/t	49,900	0	-4
Korea HRC - FoB	USD/t	590	0	-2
China HRC Dom.	USD/t	525	2	-1
China HRC - FoB	USD/t	520	0	-5
India Prem HCC CNF	USD/t	366	2	5
India 64 Mid Vols CNF	USD/t	288	1	4
India Low Vols PCI CNF	USD/t	213	-2	-2
Iron Ore Fines (Odisha Index) Fe 62%	INR/t	4,700	-8	-11
Iron Ore Fines (China - CNF) Fe 62%	USD/t	119	3	1
Europe Scrap HMS 1&2(80:20)	USD/t	375	-1	-9
C-DRI (ex-Raipur)	INR/t	29,800	2	-3
RB1 (6000 NAR) SA FoB	USD/t	145	-1	8
RB2 (5500 NAR), SA FoB	USD/t	130	0	14
Indonesia (4200 GAR) Futures	USD/t	58	-9	-10
Copper	USD/t	7,964	2	-3
Aluminum	USD/t	2,171	1	-6
Zinc	USD/t	2,446	2	-7
Lead	USD/t	2,141	-1	-3
Nickel	USD/t	18,152	1	-2
Alumina	USD/t	338	0	-1
Ali UBC Scrap	USD/t	1,565	1	-1
Ali UBC Scrap Spread	USD/t	605	1	-16
INR:USD	x	83.2	0	0
USD:EUR	"	1.06	-1	0
USD:GBP	"	1.21	-1	-1
CNY:USD	"	7.32	0	0
JPY:USD	"	150	0	0

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

FERROUS: India – prices

Exhibit 1: HRC - Mumbai (INR/t)

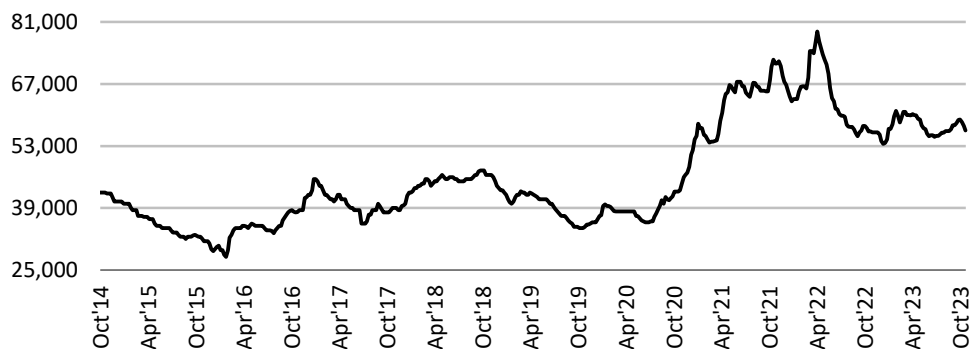


Exhibit 2: TMT Primary – Mumbai (INR/t)

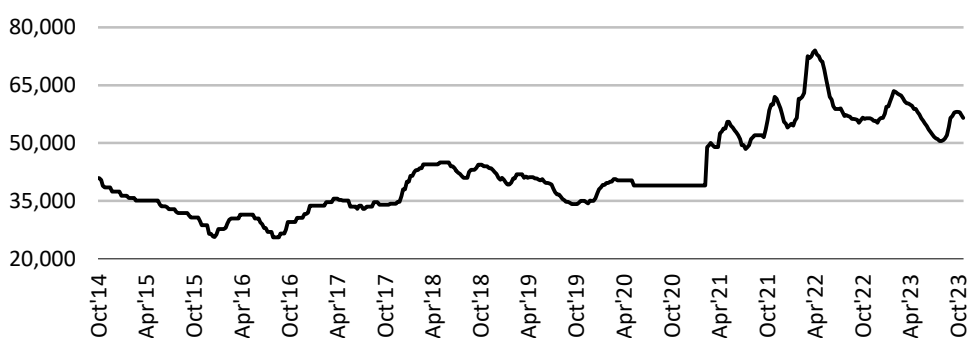


Exhibit 3: C-DRI (sponge iron), ExW-Raipur (INR/t)

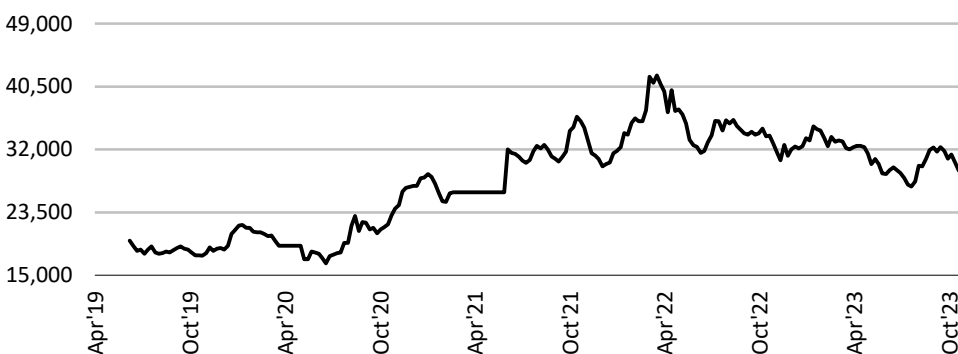


Exhibit 4: Domestic Pellet – Barbil – 63% Fe (INR/t)

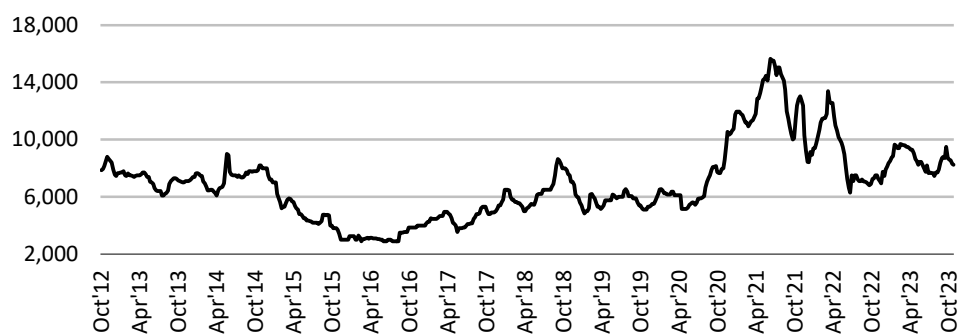


Exhibit 5: Iron Ore Fines Odisha – Fe 62% (INR/t)

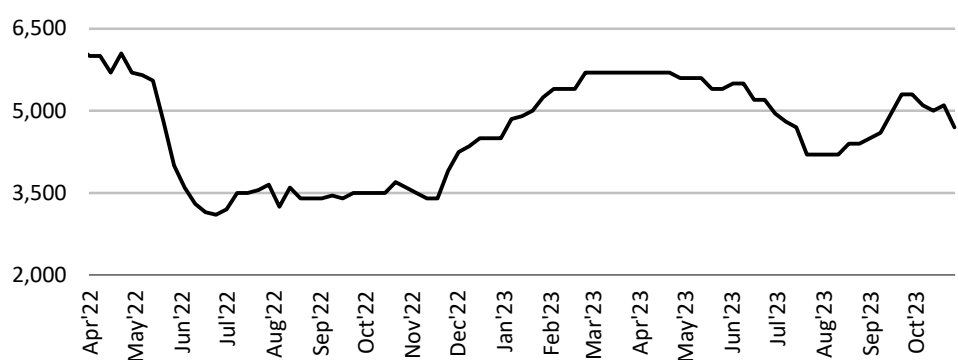


Exhibit 6: NMDC Fines – Fe 64% (INR/t)

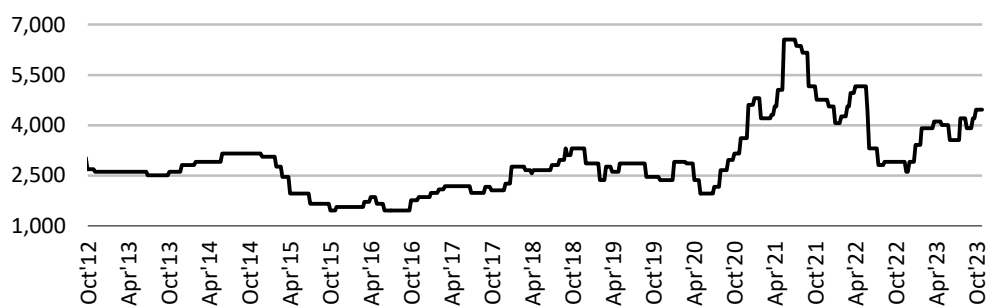
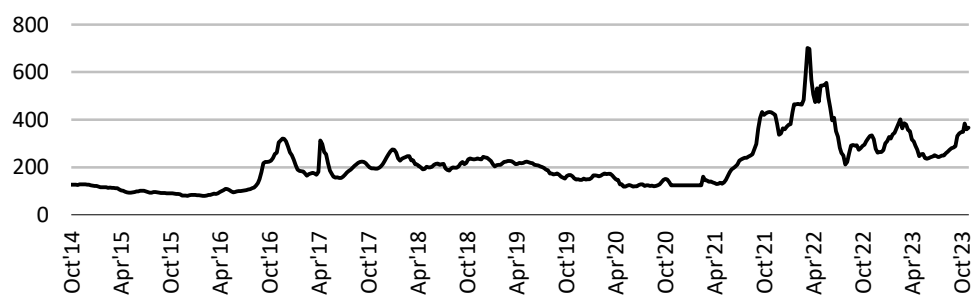


Exhibit 7: Premium HCC CNF Paradip (USD/t)



Domestic spreads

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

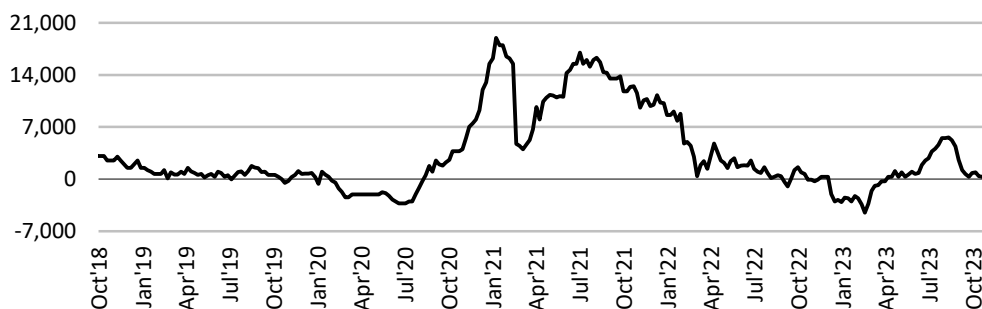


Exhibit 9: Primary TMT v/s secondary TMT (INR/t)

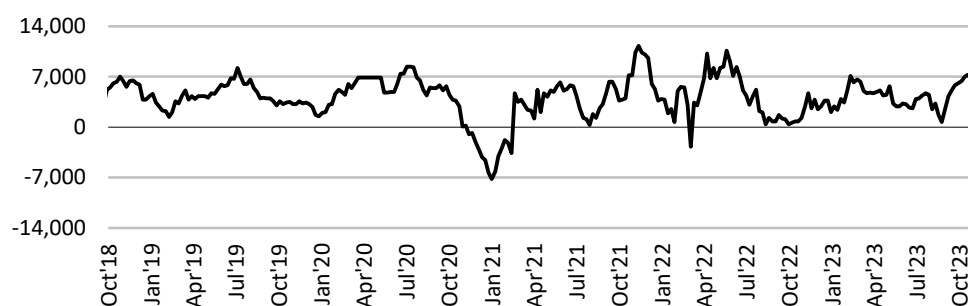


Exhibit 10: Secondary TMT v/s domestic scrap (INR/t)

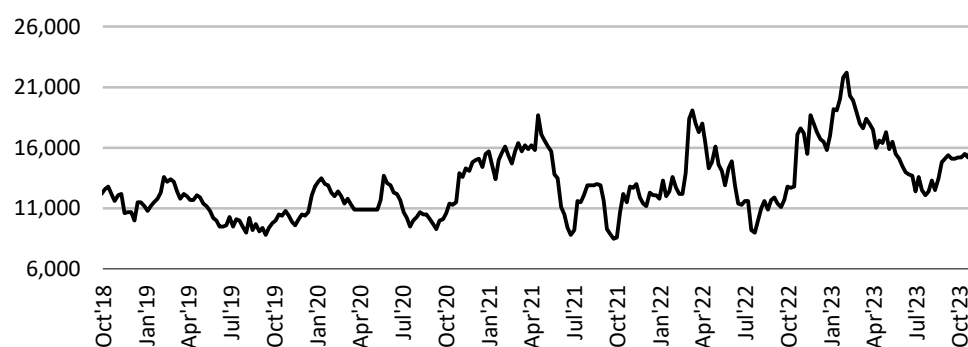


Exhibit 11: HRC v/s CRC (INR/t)

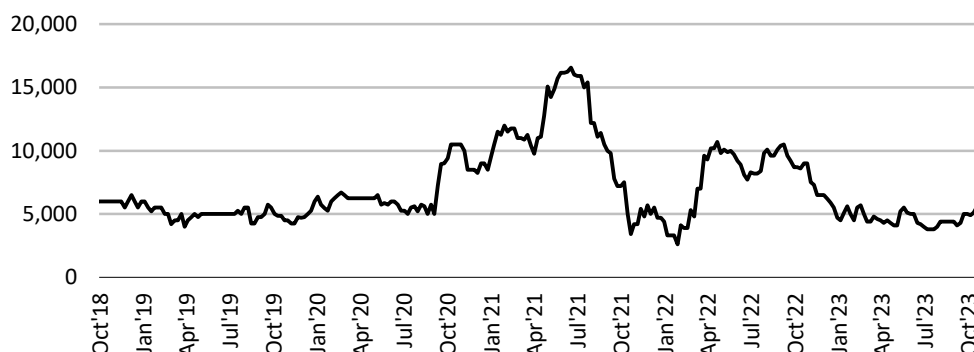


Exhibit 12: HRC – galvanized (INR/t)

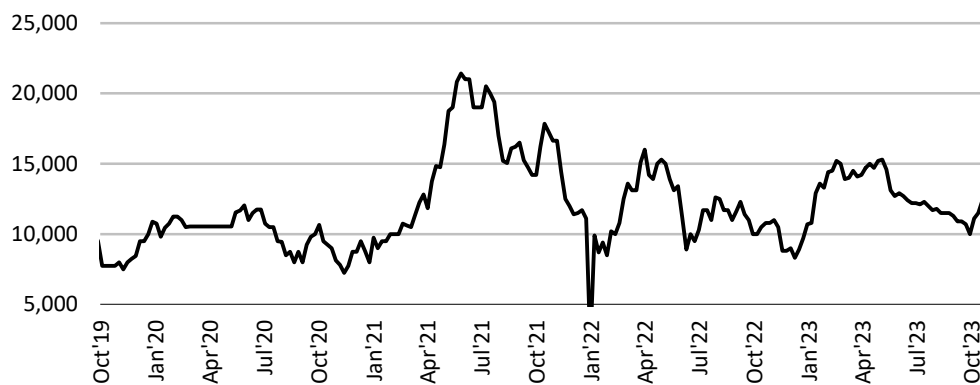


Exhibit 13: HRC – color coated (INR/t)

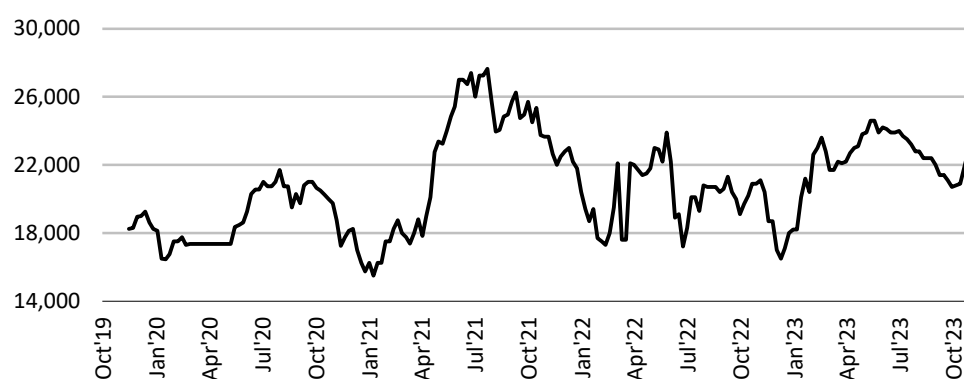


Exhibit 14: DRI v/s NMDC lumps (INR/t)

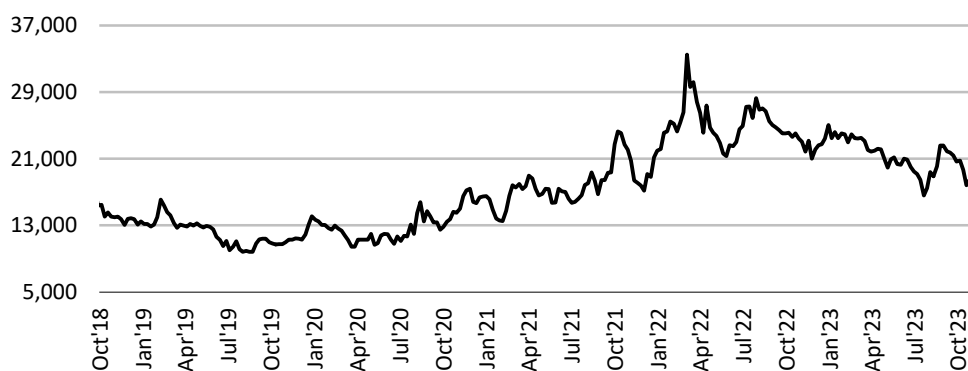


Exhibit 15: Secondary TMT v/s DRI (INR/t)

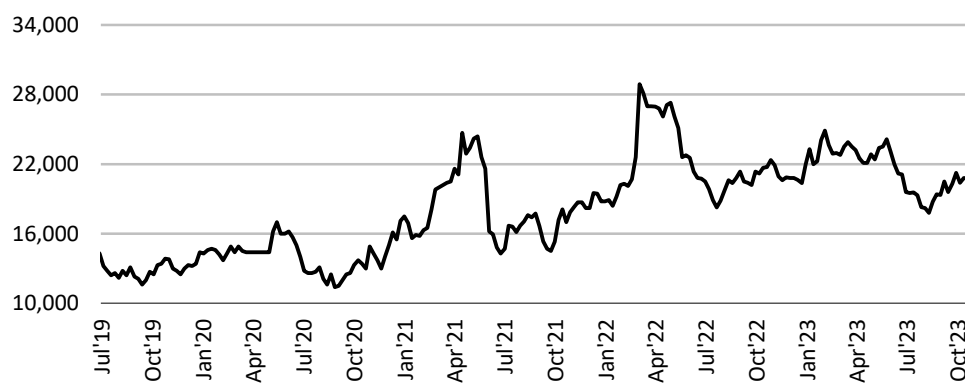
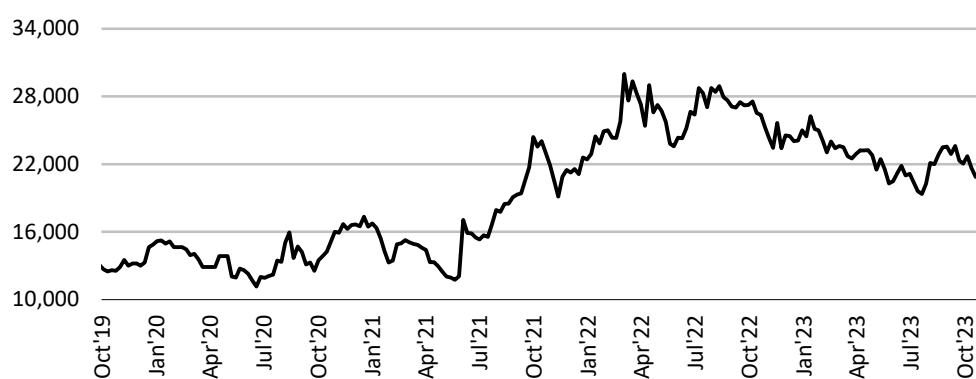


Exhibit 16: DRI v/s pellet (INR/t)



China prices/spreads

Exhibit 17: China HRC FoB (USD/t)

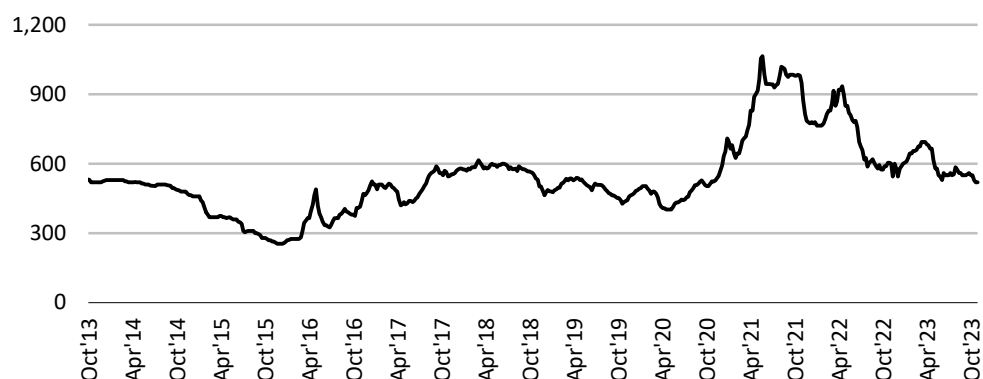


Exhibit 18: China HRC domestic (USD/t)



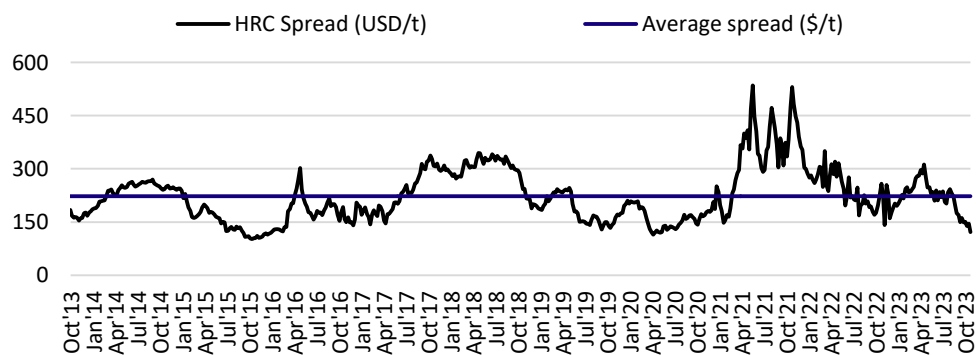
Exhibit 19: China domestic TMT (USD/t)



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



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



Global prices

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

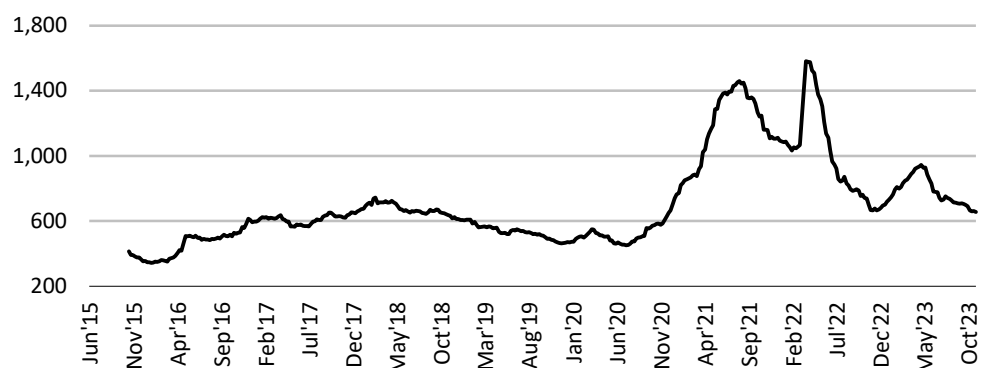


Exhibit 23: North America HRC domestic (USD/short ton)

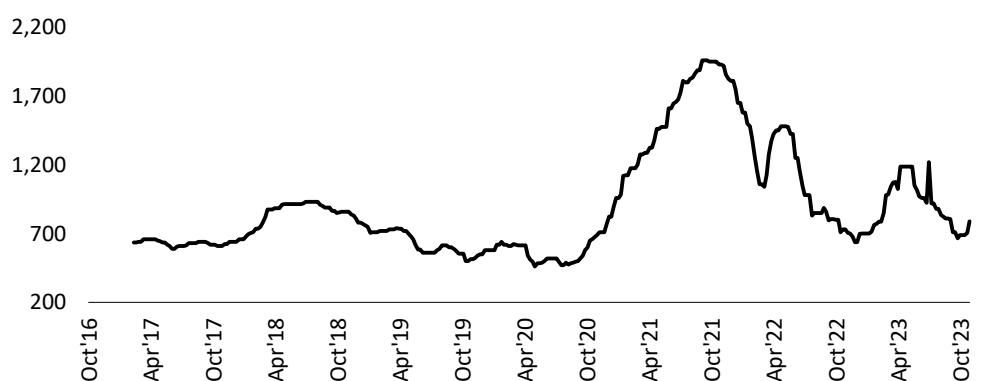
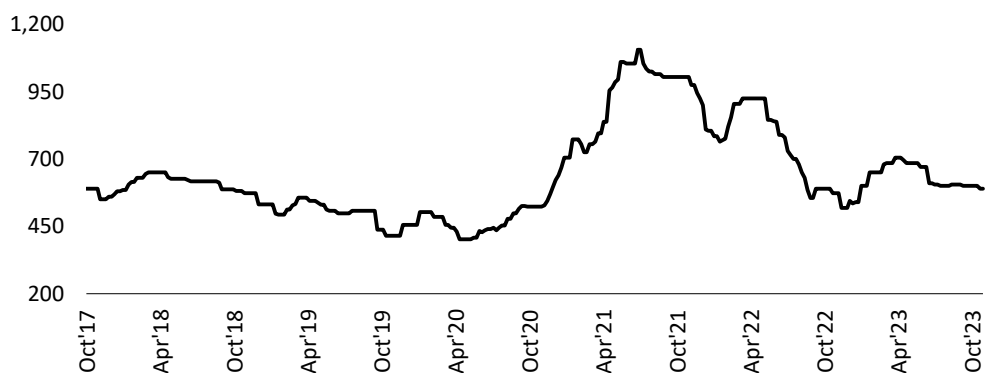


Exhibit 24: Korea HRC FOB (USD/t)



Inventories

Exhibit 25: India steel inventory (mt)

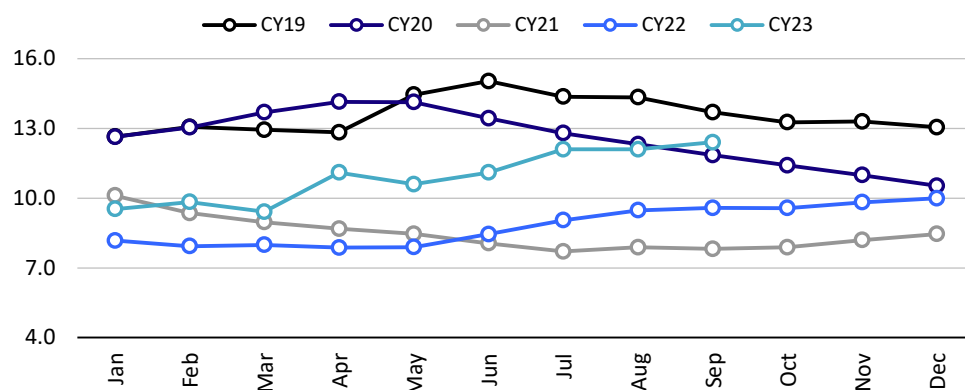


Exhibit 26: China wire rod and TMT inventory (mt)

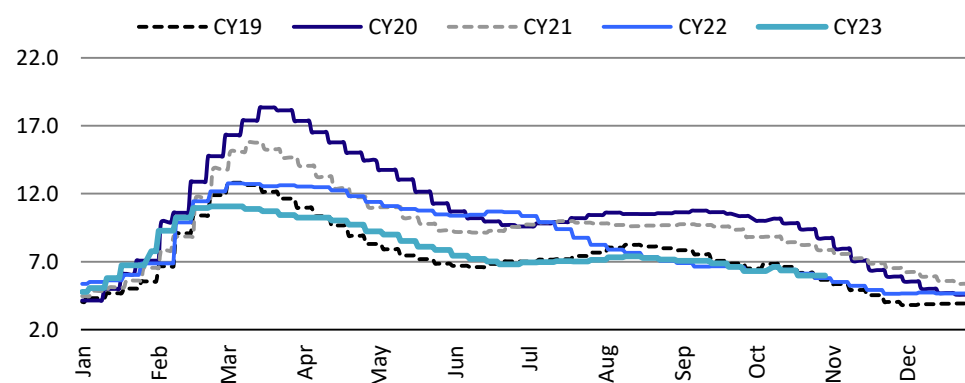
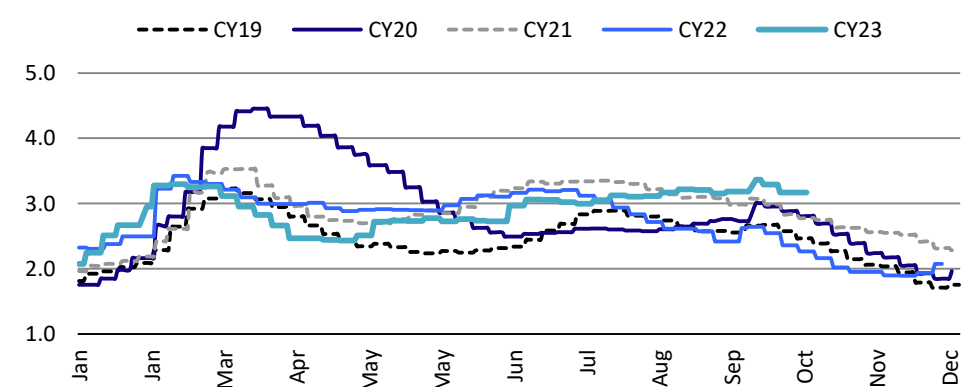


Exhibit 27: China HRC inventory (mt)



NON-FERROUS: Aluminum

Exhibit 28: LME spot (USD/t)

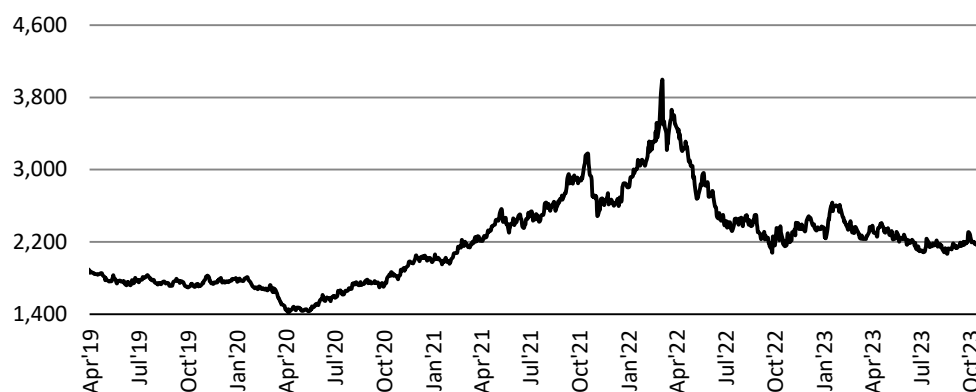


Exhibit 29: Alumina FoB Australia (USD/t)

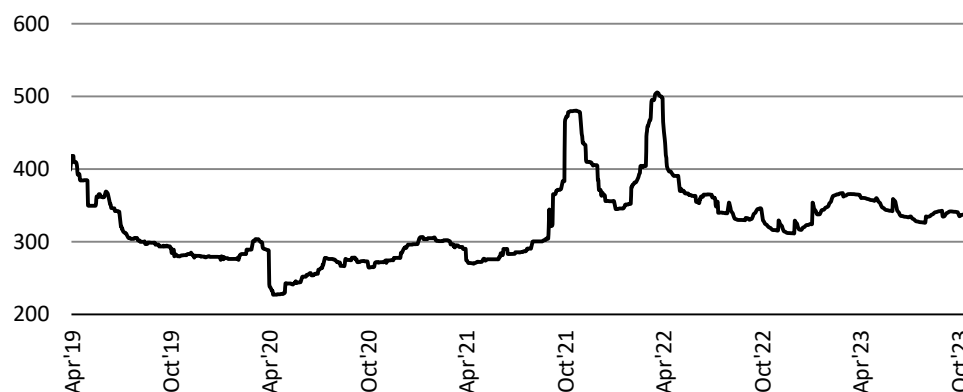


Exhibit 30: Caustic soda (USD/t)

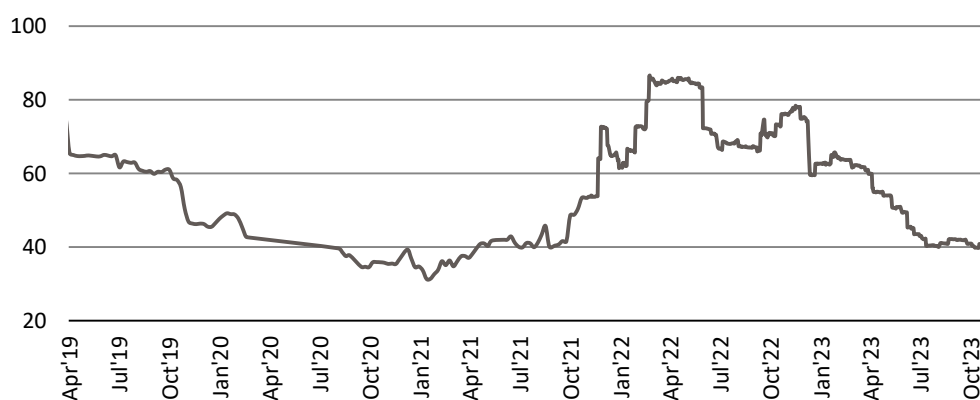


Exhibit 31: Total inventory (LME + SHFE, mt)

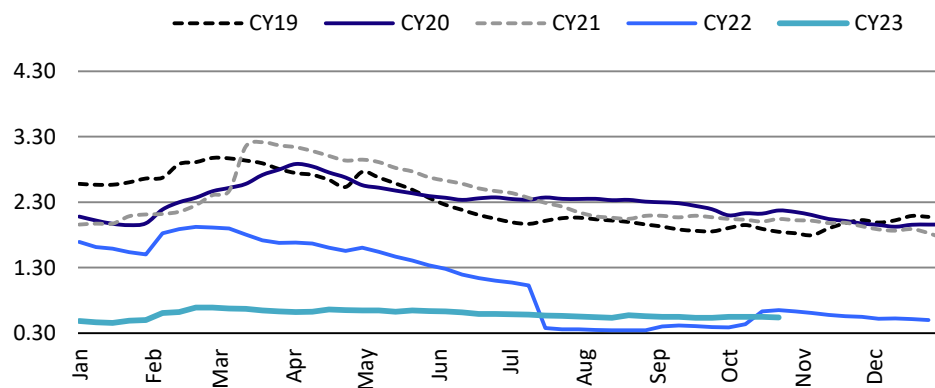
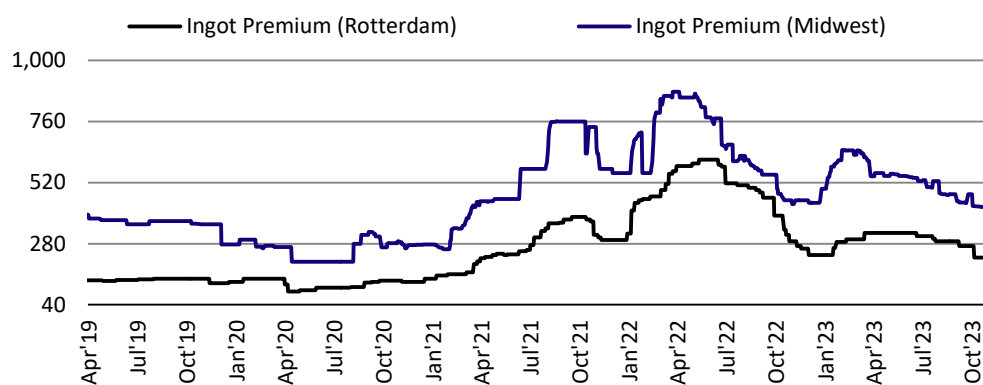


Exhibit 32: Ingot premiums (mt)



Copper

Exhibit 33: LME spot (USD/t)

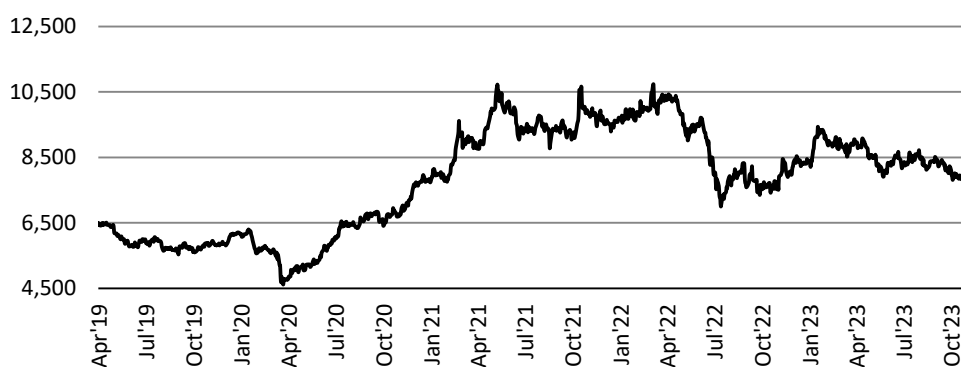
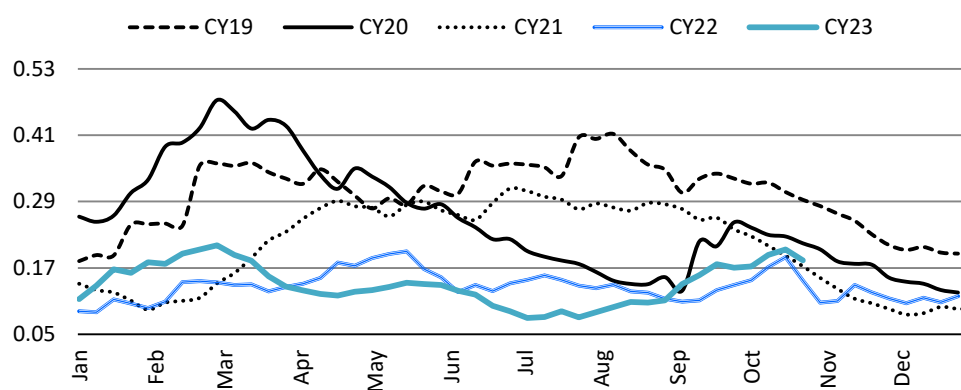


Exhibit 34: Total inventory (LME+SHFE, mt)



Zinc

Exhibit 35: LME spot (USD/t)

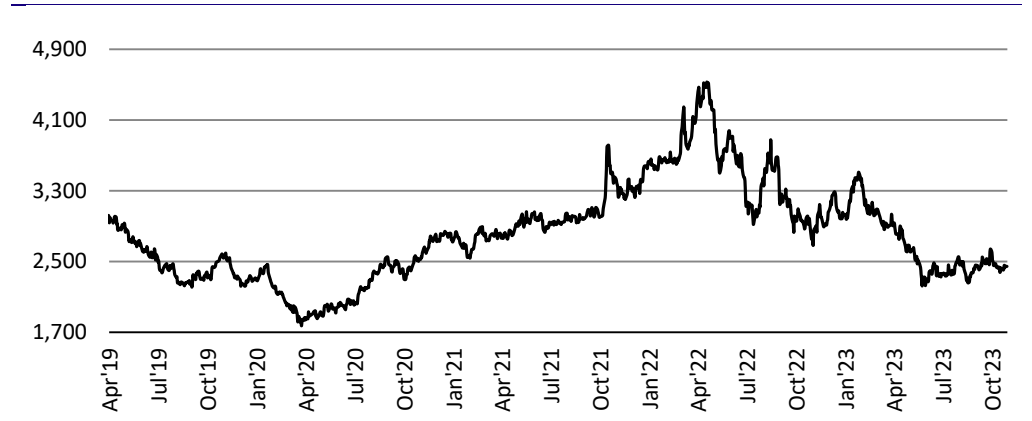
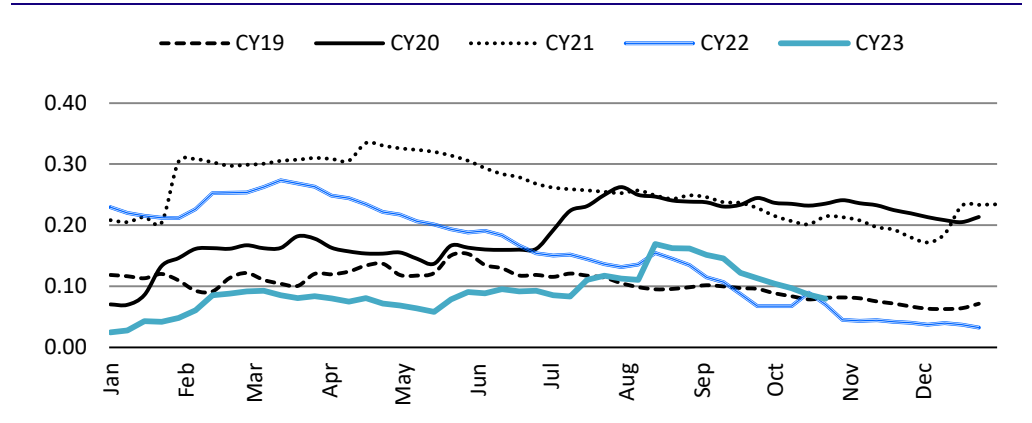


Exhibit 36: Total inventory (LME+SHFE, mt)



Lead

Exhibit 37: LME spot (USD/t)

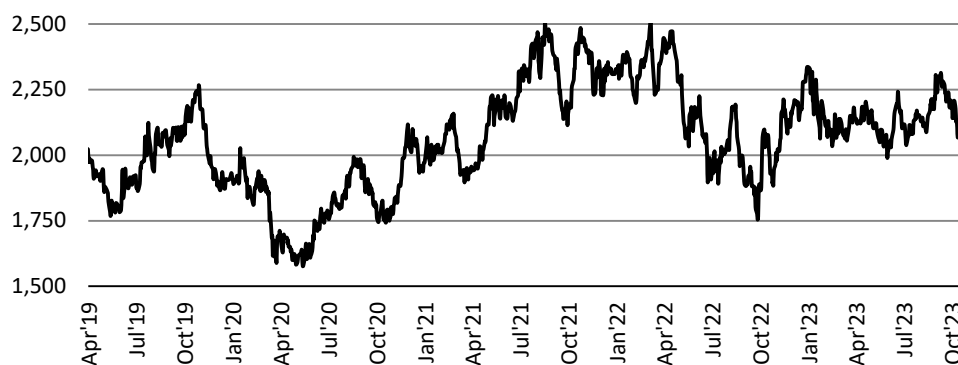
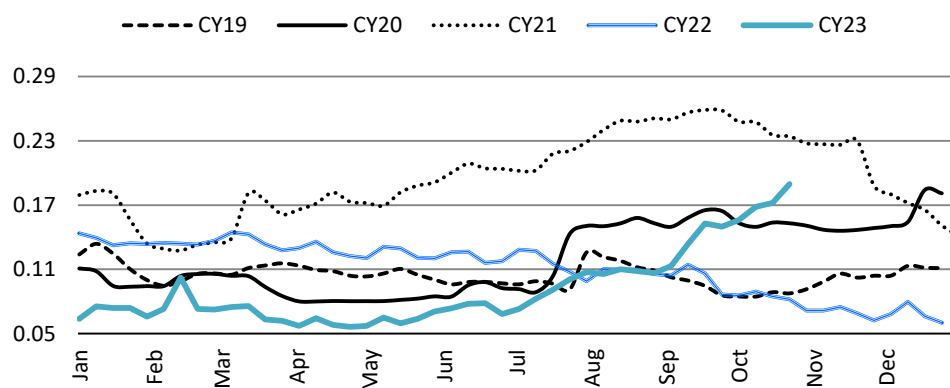


Exhibit 38: Total inventory (LME+SHFE, mt)



Nickel

Exhibit 39: Nickel spot (USD/t)

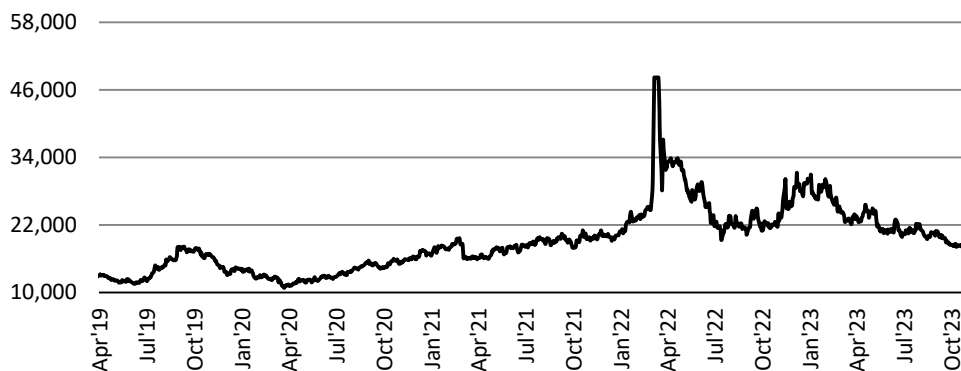
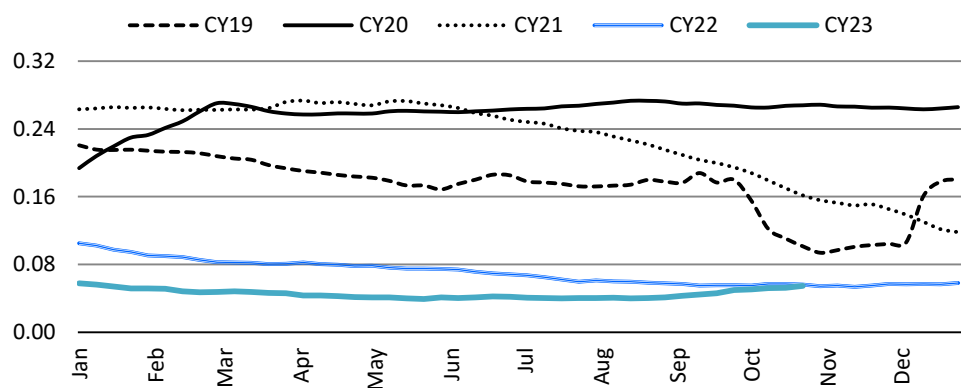


Exhibit 40: Total inventory (LME+SHFE, mt)



India steel production, consumption, EXIM, and inventory

Exhibit 41: Crude steel production (mt)

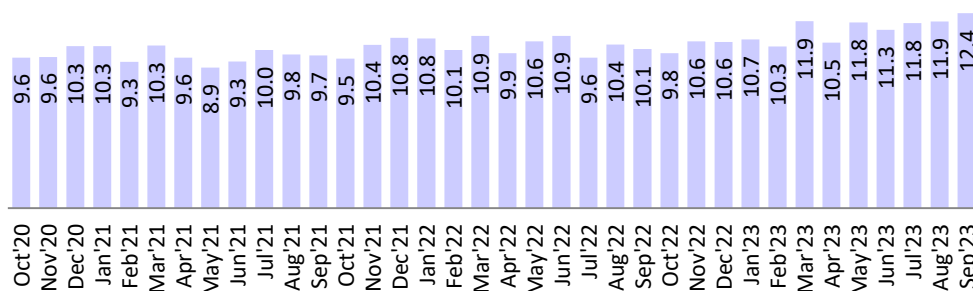


Exhibit 42: Finished steel production (mt)

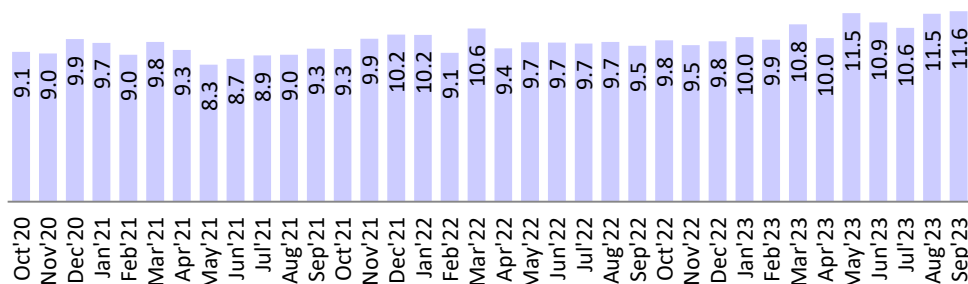


Exhibit 43: Imports including semis (kt)

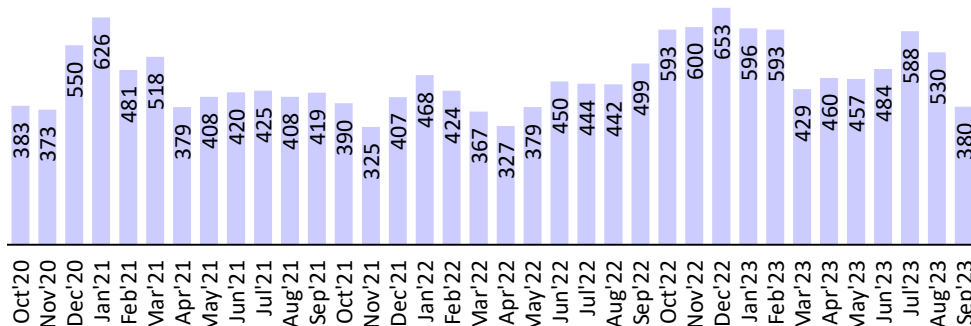


Exhibit 44: Exports including semis (kt)

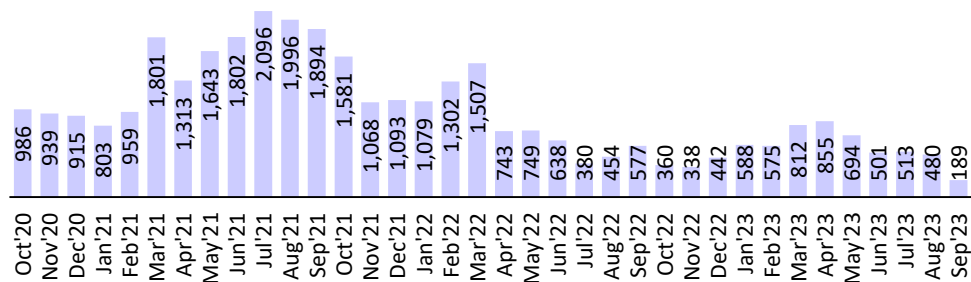


Exhibit 45: Net imports/(exports) of finished steel (kt)

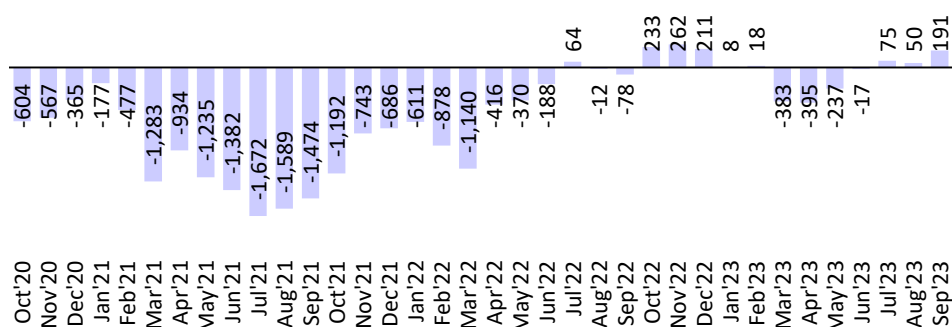
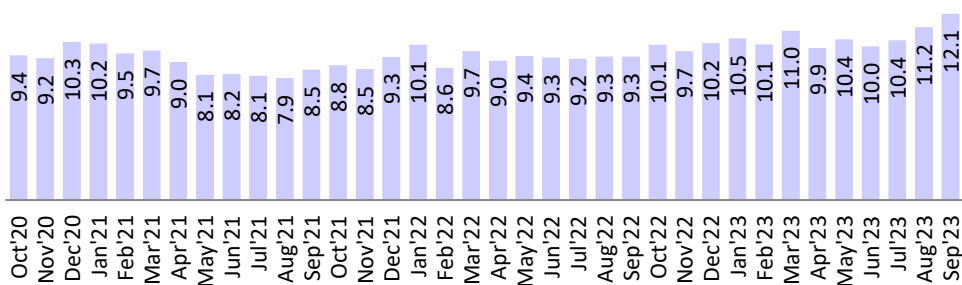


Exhibit 46: Steel consumption (mt)



Global production trends

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

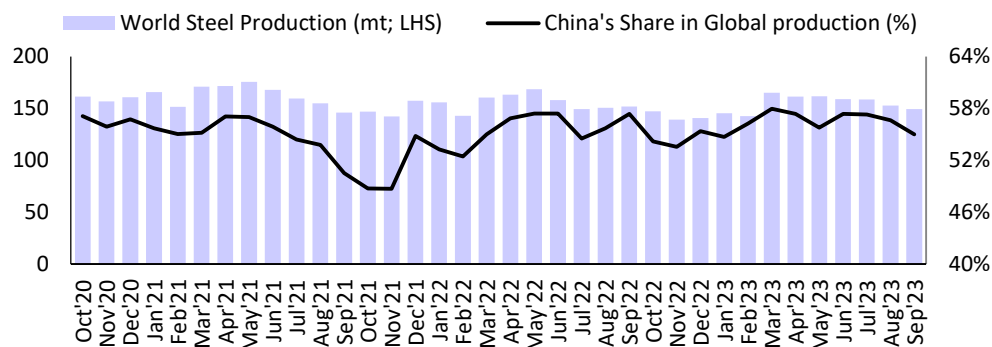


Exhibit 48: Crude steel production in China (mt)

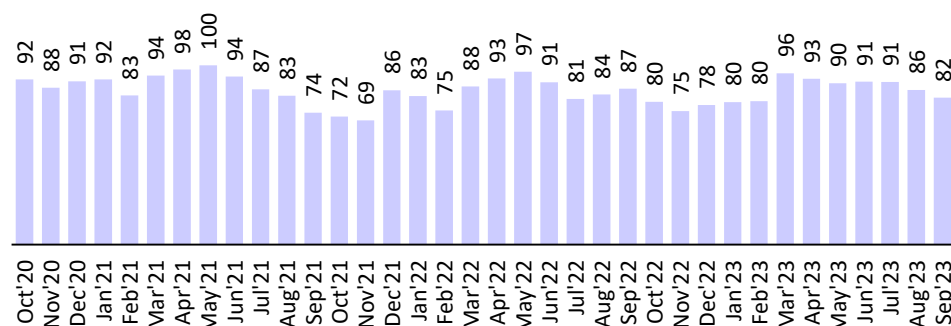


Exhibit 49: Crude steel production in Japan (mt)

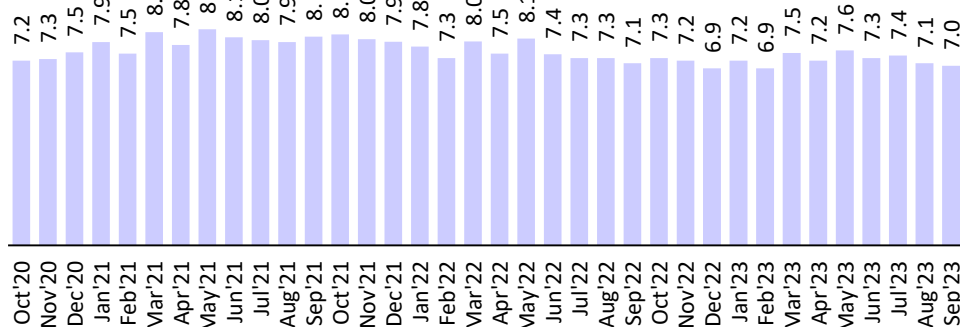
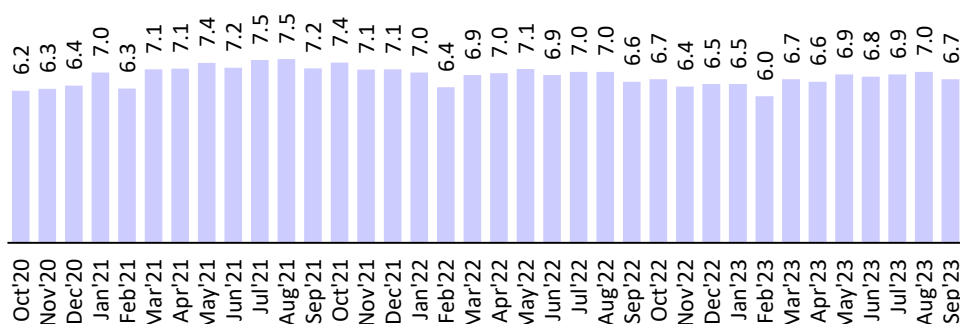


Exhibit 50: Crude steel production in the US (mt)



China steel and macro

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

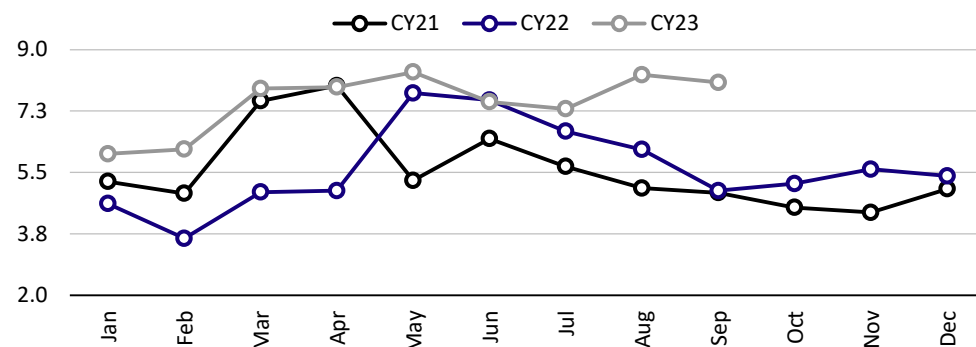


Exhibit 52: China's gross steel imports (mt)

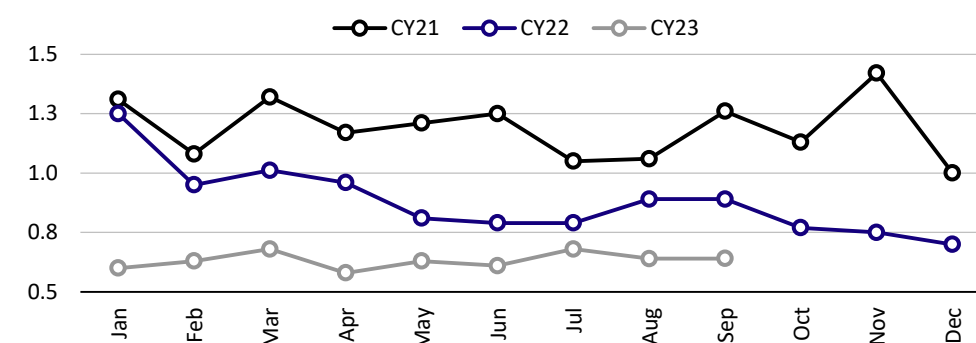


Exhibit 53: China's net steel exports/(imports) (mt)

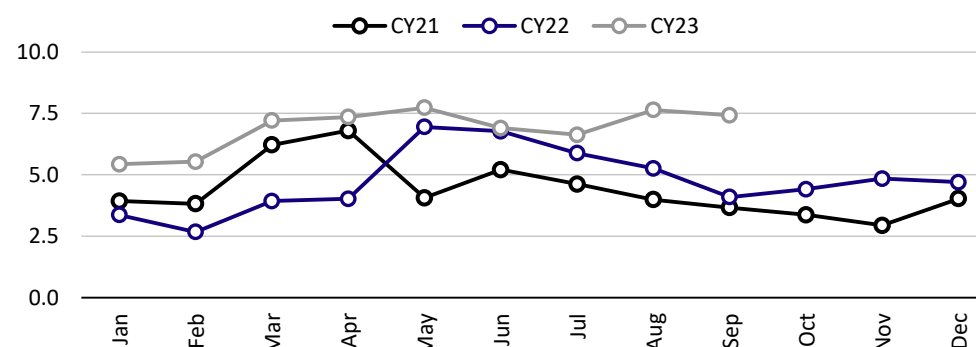


Exhibit 54: China's GDP growth YoY (constant prices)

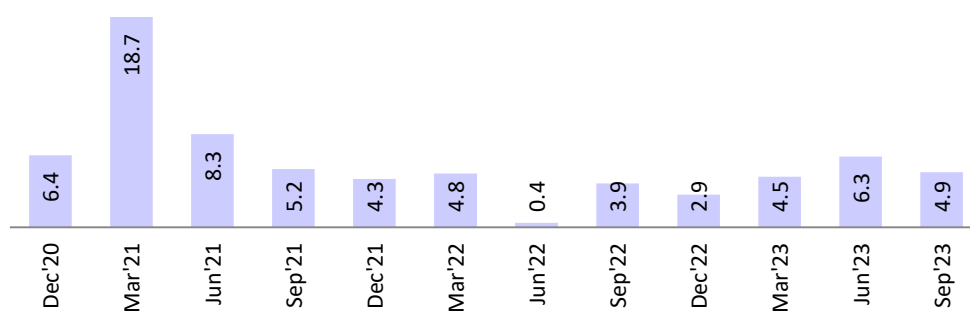


Exhibit 55: Automobile registration (m units)

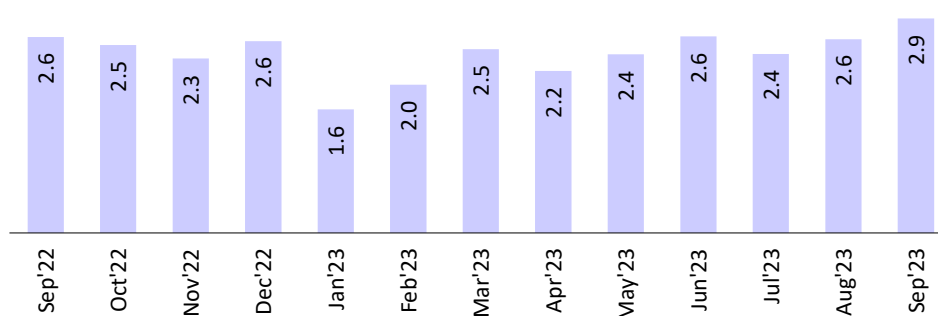


Exhibit 56: Floor space sold (m square meters)

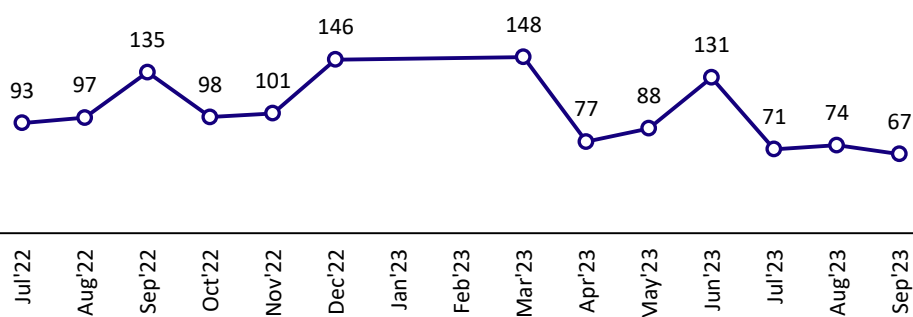


Exhibit 57: Floor space starts (m square meters)

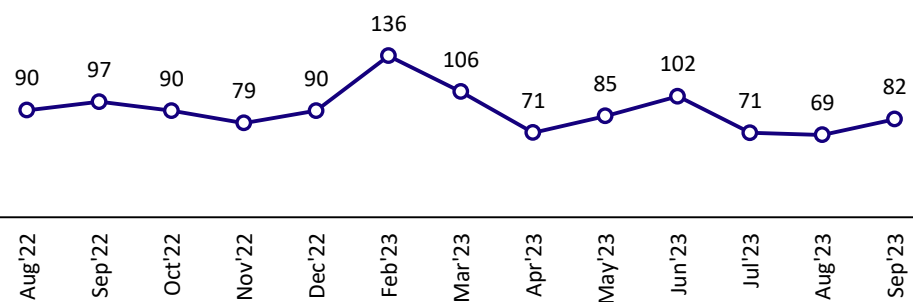


Exhibit 58: Manufacturing PMI

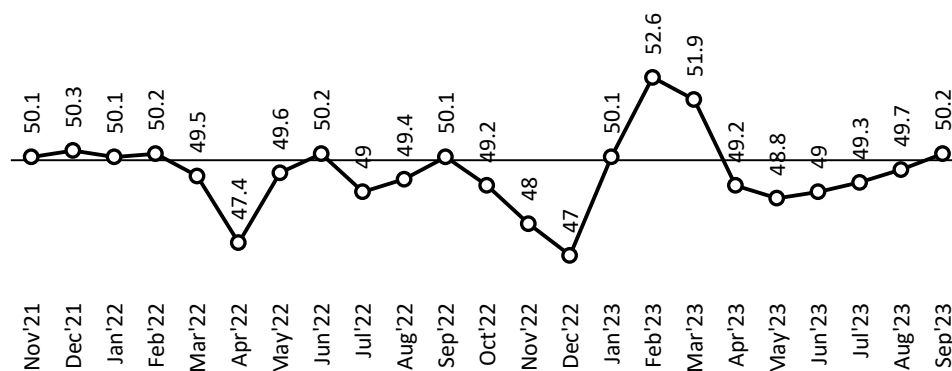
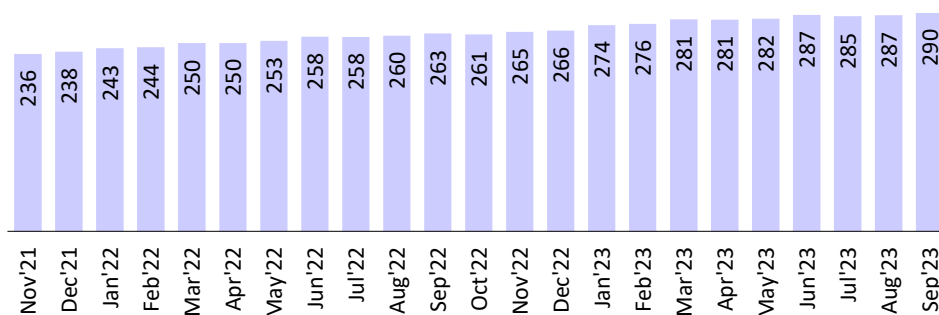


Exhibit 59: M2 money supply (CNY t)



Commodity monthly heat map

Commodity	UoM	Nov'22	Dec'22	Jan'23	Feb'23	Mar'23	Apr'23	May'23	Jun'23	Jul'23	Aug'23	Sep'23	Oct'23	MoM
Oil and non-ferrous - prices														
Brent Crude	USD/bbl	91	81	83	83	79	84	76	75	80	86	94	91	-3
Copper	USD/t	8,030	8,362	8,972	8,955	8,836	8,816	8,253	8,386	8,445	8,353	8,271	7,928	-4
Aluminum	USD/t	2,335	2,390	2,483	2,417	2,290	2,337	2,270	2,181	2,152	2,134	2,178	2,187	0
Zinc	USD/t	2,924	3,115	3,277	3,144	2,956	2,777	2,486	2,368	2,397	2,400	2,488	2,449	-2
Lead	USD/t	2,099	2,219	2,214	2,099	2,115	2,147	2,090	2,118	2,107	2,153	2,253	2,137	-5
Nickel	USD/t	25,563	28,986	28,271	26,728	23,289	23,771	22,135	21,233	21,091	20,446	19,645	18,276	-7
Alumina	USD/t	316	322	343	362	365	359	348	341	329	339	340	337	-1
Aluminum Ingot Premium (Asia - MJP)	USD/t	114	90	86	82	88	99	124	122	119	117	103	90	-13
Aluminum Ingot Premium (EU - Rotterdam)	USD/t	272	236	257	294	311	323	323	318	305	290	275	234	-15
Aluminum Ingot Premium (US midwest)	USD/t	447	454	569	642	609	553	550	537	516	476	451	428	-5
Aluminum scrap	USD/t	1,710	1,739	1,759	1,738	1,665	1,715	1,608	1,536	1,515	1,532	1,521	1,550	2
Aluminum scrap spread	USD/t	626	651	725	679	625	622	662	645	638	602	656	637	-3
Silver	USD/t	743	825	841	758	775	886	860	830	861	831	828	795	-4
USD:INR (Bloomberg)	INR	82	83	82	83	82	82	82	82	82	83	83	83	0
Ferrous- International Prices														
China HRC domestic	RMB/t	3,821	4,069	4,187	4,262	4,415	4,185	3,838	3,846	3,916	3,960	3,934	3,827	-3
China HRC domestic	USD/t	533	583	616	623	640	608	549	537	545	546	539	524	-3
China TMT domestic	RMB/t	3,859	4,005	4,196	4,315	4,356	4,023	3,748	3,774	3,796	3,765	3,910	3,928	0
China TMT domestic	USD/t	538	574	618	631	632	584	536	527	528	519	536	538	0
China HRC FoB	USD/t	574	593	636	660	688	661	562	551	563	569	555	530	-5
Korea HRC FoB	USD/t	534	559	629	662	698	689	681	624	601	605	600	593	-1
North Europe HRC domestic	EUR/t	655	666	714	770	824	853	806	702	669	656	659	624	-5
North America HRC domestic (USD/short ton)	USD/st	689	682	727	830	1,036	1,155	1,128	969	964	828	721	703	-2
India HRC Export FoB (USD/t)	USD/t	534	563	639	707	712	700	598	567	570	575	580	580	0
Australia Fe 62% iron ore CNF	USD/t	92	111	122	126	127	118	105	111	112	109	121	118	-2
Chinese steel futures														
TMT - Shanghai futures	RMB/t	3,598	3,939	4,131	4,116	4,212	3,885	3,607	3,691	3,764	3,720	3,731	3,646	-2
HRC - Shanghai futures	RMB/t	3,696	4,010	4,168	4,180	4,316	3,962	3,681	3,794	3,892	3,904	3,883	3,772	-3
Iron ore - Dalian Commodity Exchange	RMB/t	696	807	851	873	899	768	712	794	806	765	854	852	0
Coking coal - Dalian Commodity Exchange	RMB/t	1,925	1,871	1,863	1,888	1,913	1,561	1,336	1,317	1,419	1,441	1,781	1,776	0
China HRC FOB spread over RM (HRC - 1.7x iron ore -.85x HCC)	RMB/t	876	1,049	1,138	1,092	1,161	1,329	1,334	1,324	1,317	1,378	917	813	-11
India steel and metallics prices														
India HRC ex-Mumbai 5-10mm	INR/t	56,000	53,900	57,589	59,600	60,260	59,900	57,575	55,422	55,560	56,367	57,827	58,060	0
Dom HRC prem to India export FoB price	INR/t	12,295	7,442	5,255	1,161	1,640	2,468	8,354	8,785	8,734	8,759	9,647	9,791	1

Commodity	UoM	Nov'22	Dec'22	Jan'23	Feb'23	Mar'23	Apr'23	May'23	Jun'23	Jul'23	Aug'23	Sep'23	Oct'23	MoM
CRC ex-Mumbai - 0.9mm	INR/t	62,860	59,525	62,722	64,733	64,875	64,186	62,500	59,888	59,443	60,800	62,244	63,450	2
Galvanized plain - 120 GSM	INR/t	65,467	63,600	70,500	74,214	74,529	74,643	70,500	67,943	67,538	67,925	68,617	69,980	2
Color coated /PPGI ex-Mumbai 90GSM	INR/t	75,825	71,467	77,256	82,443	82,260	82,725	81,550	79,540	78,900	78,800	79,200	79,500	0
Wire rod - Primary Producers	INR/t	55,200	54,000	56,807	59,167	58,178	56,383	54,525	51,843	50,343	50,250	53,400	55,833	5
TMT primary - Mumbai	INR/t	56,000	56,417	60,210	62,957	60,967	59,780	57,225	53,713	51,211	51,060	56,538	57,486	2
TMT secondary - Mumbai	INR/t	52,786	53,308	57,154	56,896	56,065	54,929	53,458	50,857	46,977	48,926	51,977	50,867	-2
Domestic scrap-HMS(80:20) - Mumbai	INR/t	35,300	36,350	37,475	36,493	38,084	38,177	37,442	36,987	34,268	35,503	36,807	35,490	-4
Sponge iron (DRI)	INR/t	28,696	29,873	31,567	31,067	30,408	29,540	27,885	27,155	25,518	28,318	30,023	28,273	-6
Domestic pellet prices- Barbil - 63% Fe	INR/t	7,320	7,861	9,085	9,621	9,525	9,064	8,417	7,925	7,613	8,067	8,989	8,470	-6
Pellet Export Prices - FoB 64%Fe	USD/t	102	107	116	123	118	109	97	108	107	103	111	112	1
Domestic ferrous spreads														
Primary HRC v/s primary TMT	INR/t	-	-2,517	-2,621	-3,357	-707	120	350	1,710	4,349	5,307	1,290	574	-55
Primary TMT v/s secondary TMT	INR/t	3,214	3,109	3,056	6,061	4,901	4,851	3,767	2,856	4,234	2,134	4,561	6,619	45
Secondary TMT v/s domestic Scrap	INR/t	17,486	16,958	19,679	20,404	17,982	16,752	16,016	13,870	12,710	13,423	15,170	15,377	1
Hot rolled v/s cold rolled	INR/t	6,860	5,625	5,133	5,133	4,615	4,286	4,925	4,465	3,883	4,433	4,417	5,390	22
Hot rolled - galvanized Plan	INR/t	9,467	9,700	12,911	14,614	14,269	14,743	12,925	12,521	11,978	11,558	10,789	11,920	10
Hot rolled - color coated	INR/t	19,825	17,567	19,667	22,843	22,000	22,825	23,975	24,118	23,340	22,433	21,373	21,440	0
Coking coal														
India premium HCC CNF	USD/t	299	277	328	380	365	290	246	244	245	267	316	364	15
India 64 mid vols coking coal CNF	USD/t	260	256	306	349	328	258	222	216	213	234	264	286	8
NMDC iron ore - Chhattisgarh														
64% Bailadila fines	INR/t	2,760	2,910	3,510	NA	4,010	4,010	3,785	3,560	3,950	3,910	4,110	4,460	9
Iron ore lump	INR/t	3,950	4,100	4,550	NA	4,450	4,200	4,050	3,900	4,530	4,650	4,850	5,200	7
Domestic ferro alloys														
Silico manganese	INR/t	75,341	75,420	79,583	76,496	74,145	75,048	73,510	70,979	67,184	67,313	69,760	65,830	-6
Ferro manganese	INR/t	76,182	74,545	79,820	79,428	77,019	77,500	75,456	73,392	69,539	67,982	69,898	66,865	-4
Ferro chrome	INR/t	35,300	36,350	37,475	36,493	38,084	38,177	37,442	36,987	34,268	35,503	36,807	35,490	-4
Ferrous - inventory														
China HRC	mt	2	2	2	3	3	2	3	3	3	3	3	3	1
China wire rod	mt	1	1	1	2	3	3	2	2	2	2	1	1	-6
China TMT	mt	4	4	5	8	8	7	6	5	5	6	5	5	-9
Non-ferrous - inventory														
Aluminum														
LME	kt	539	479	410	521	542	544	568	563	524	506	495	490	-1
SHFE	kt	55	49	71	110	120	96	74	54	54	50	52	62	20
Total	kt	594	528	481	631	662	640	642	617	578	556	547	552	1
Zinc														
LME	kt	43	37	22	25	38	48	55	83	82	122	126	85	-32
SHFE	kt	1	1	8	44	48	28	12	9	16	18	13	7	-46
Total	kt	44	38	29	70	86	76	67	92	98	141	139	93	-33

Commodity	UoM	Nov'22	Dec'22	Jan'23	Feb'23	Mar'23	Apr'23	May'23	Jun'23	Jul'23	Aug'23	Sep'23	Oct'23	MoM
Lead														
LME	kt	27	24	22	23	25	29	34	39	48	56	64	100	57
SHFE	kt	46	45	47	56	46	32	27	36	34	51	67	70	3
Total	kt	73	69	69	79	71	61	61	75	82	107	131	170	29
Copper														
LME	kt	90	85	82	66	71	59	83	88	61	89	143	180	25
SHFE	kt	34	27	49	124	105	66	53	29	22	13	9	9	2
Total	kt	123	112	131	190	176	125	136	117	83	101	152	189	24
Nickel														
LME	kt	51	54	53	47	44	42	39	38	38	37	40	44	10
SHFE	kt	4	3	3	3	3	2	1	3	3	3	5	9	68
Total	kt	55	57	55	50	47	43	40	41	40	40	45	52	17

Metals valuation matrix

Exhibit 60: Indian companies valuation

	Rating	CMP (INR)	M-cap (INR b)	EPS (INR)		P/E (x)		EV/EBITDA (x)		P/B(x)	
				FY23	FY24E	FY23	FY24E	FY23	FY24E	FY23	FY24E
Steel											
Tata	Neutral	119	1,455	7.1	5.2	16.8	22.8	6.6	9.5	1.5	1.5
JSW	Neutral	735	1,777	14.7	49.6	50.0	14.8	12.7	7.6	2.7	2.4
JSP	Buy	642	649	36.4	54.7	17.6	11.7	7.2	6.3	1.7	1.5
SAIL	Neutral	84	347	4.8	9.5	17.3	8.8	8.1	5.5	0.6	0.6
Non-ferrous											
Vedanta	Neutral	216	805	29.0	16.7	7.5	12.9	4.5	6.2	2.0	2.5
Hindalco	Buy	458	1,017	45.3	41.6	10.1	11.0	6.1	5.5	1.5	1.3
Nalco	Neutral	92	169	8.3	9.9	11.0	9.3	6.0	4.4	1.3	1.2
Mining											
Coal	Buy	315	1,938	45.6	32.5	6.9	9.7	3.7	5.3	3.4	2.9
HZL	Neutral	294	1,240	24.9	19.6	11.8	15.0	7.1	8.4	9.6	7.3
NMDC	Buy	156	457	16.5	17.2	9.4	9.1	6.4	5.9	2.0	1.8

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

Exhibit 61: Global steel comparative valuation

Company	M-Cap USD m	P/E (x)		EV/EBITDA (x)		P/B (x)		RoE (%)	
		CY22/ FY23	CY23/ FY24	CY22/ FY23	CY23/ FY24	CY22/ FY23	CY23/ FY24	CY22/ FY23	CY23/ FY24
India									
Tata*	17,599	16.8	22.8	6.6	9.5	1.5	1.5	8.3	6.5
JSW*	21,497	50.0	14.8	12.7	7.6	2.7	2.4	5.3	17.0
JSP*	7,888	17.6	11.7	7.2	6.3	1.7	1.5	9.9	13.4
SAIL*	4,164	17.3	8.8	8.1	5.5	0.6	0.6	3.7	7.0
Japan									
JFE	8,894	8.0	6.4	6.9	5.9	0.6	0.5	7.4	8.6
Nippon Steel	20,617	4.7	7.5	5.1	6.0	0.7	0.7	17.3	9.5
Kobe Steel	4,677	11.1	5.8	8.0	5.1	0.8	0.7	7.5	11.9
Korea									
POSCO	26,621	12.5	10.4	5.7	5.1	0.6	0.6	5.2	5.9
Hyundai Steel	3,159	5.1	4.8	5.0	4.0	0.2	0.2	4.4	4.4
US									
Nucor	36,838	8.2	12.3	5.2	7.1	1.7	1.6	21.6	13.2
US Steel	7,492	8.1	15.5	4.5	6.0	0.7	0.7	9.5	5.0
Steel Dynamics	17,245	7.2	11.8	5.1	7.7	2.0	1.8	27.3	15.3
Europe									
AM	18,982	4.5	5.2	3.3	3.5	0.3	0.3	8.0	6.8
SSAB	5,885	5.2	8.5	2.4	3.5	0.9	0.9	18.3	10.8
TKA	4,184	31.3	8.3	0.3	0.3	0.3	0.3	0.8	3.4
VOE	4,365	4.1	7.7	2.6	3.5	0.5	0.5	13.8	6.9
China									
Baosteel	19,197	12.6	10.3	5.4	4.5	0.7	0.7	5.6	6.5

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

Exhibit 62: Iron ore mining global comparative valuation

Company	M-Cap USD m	P/E (x)		EV/EBITDA (x)		P/B (x)		RoE (%)	
		CY22/ FY23	CY23/ FY24	CY22/ FY23	CY23/ FY24	CY22/ FY23	CY23/ FY24	CY22/ FY23	CY23/ FY24
NMDC*	5,434	9.4	9.1	6.4	5.9	2.0	1.8	23.8	21.0
Vale	60,059	6.5	5.8	4.1	4.0	1.4	1.2	22.5	21.4
FMG	43,693	7.9	9.2	4.6	5.1	2.3	2.3	30.8	25.9

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

Exhibit 63: 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*	9,633	7.5	12.9	4.5	6.2	2.0	2.5	20.6	17.5
BHP	1,45,630	10.6	11.0	5.7	5.6	3.3	3.0	31.1	28.2
Rio	1,06,875	9.0	9.1	4.7	4.7	1.9	1.7	21.7	19.9
Glencore	66,332	9.3	10.3	4.8	4.4	1.5	1.4	15.0	13.8
Anglo	30,997	9.1	8.1	4.4	4.0	1.1	1.0	12.0	13.2
South 32	9,612	10.2	11.8	3.8	4.6	1.0	1.0	9.7	8.4

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

Exhibit 64: 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*	15,010	11.8	15.0	7.1	8.4	9.6	7.3	44.5	55.3
Korea Zinc	7,572	18.1	15.1	9.8	8.4	1.1	1.0	5.9	7.0
Teck	18,851	9.6	7.9	5.0	3.9	0.9	0.9	10.5	11.4

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

Exhibit 65: 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*	23,235	6.9	9.7	3.7	5.3	3.4	2.9	49.1	29.8
China Shenhua	77,993	7.1	7.2	5.3	5.3	1.1	1.1	14.8	14.1
Banpu	2,072	7.2	7.5	5.2	4.7	0.6	0.5	9.0	6.8
Bukit Asam	1,932	4.7	5.6	3.1	3.4	1.2	1.2	25.3	22.3
Adaro Energy	5,284	3.6	5.0	1.6	2.0	0.8	0.7	21.6	13.5

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

Exhibit 66: 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*	12,310	10.1	11.0	6.1	5.5	1.5	1.3	16.3	12.6
Nalco*	2,012	11.0	9.3	6.0	4.4	1.3	1.2	11.9	13.2
Alcoa	4,196	NA	21.8	12.0	5.5	1.0	0.9	-9.1	2.2
Norsk Hydro	11,089	12.8	10.1	5.6	4.9	1.2	1.1	9.0	11.2
CHALCO	13,181	10.4	9.0	6.1	4.9	1.1	1.0	11.1	11.7
RUSAL	5,633	4.1	2.9	6.7	4.8	0.4	0.4	10.6	14.1
Alumina	1,466	NA	18.7	158.3	14.9	1.0	0.9	-3.0	5.1

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

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