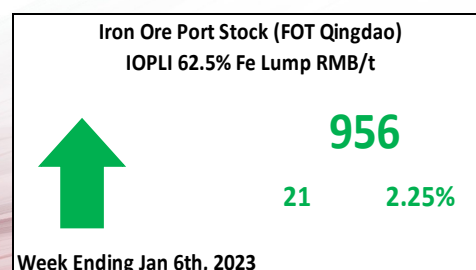
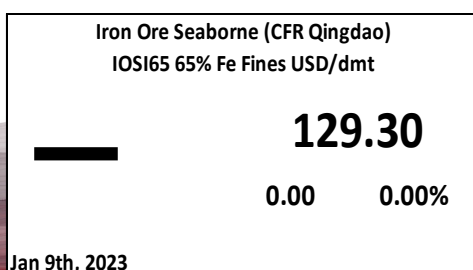
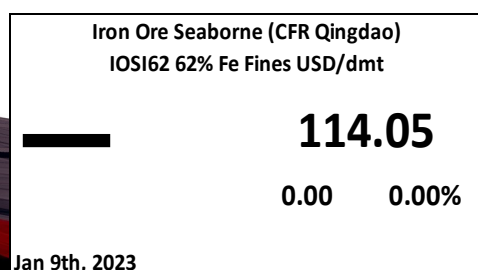
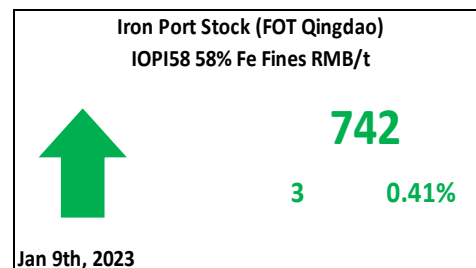
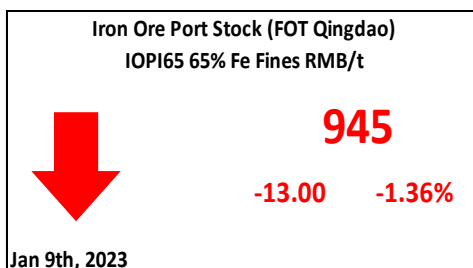
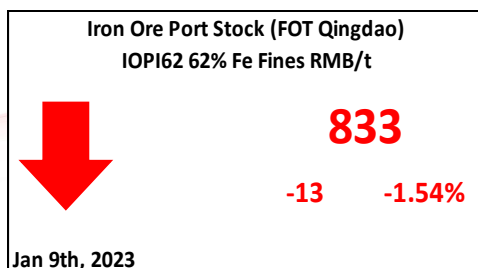


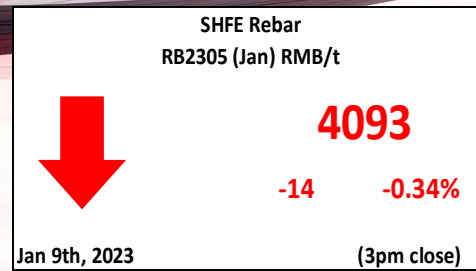
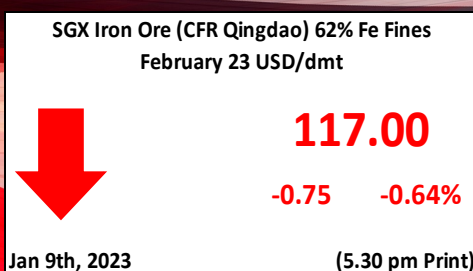
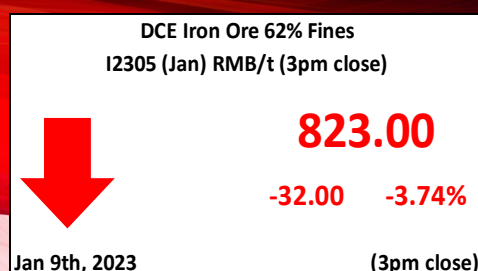


MMi Dashboard

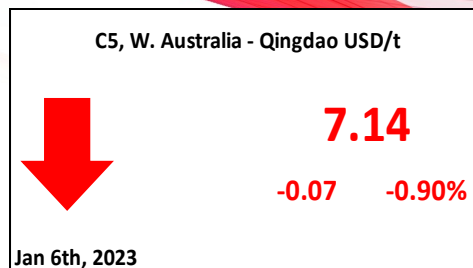
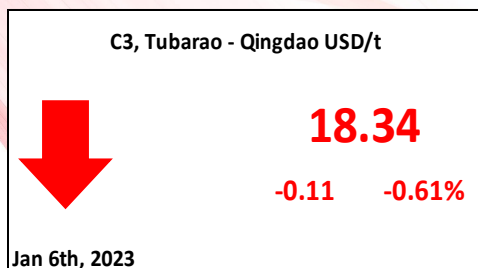
Iron Ore Price Indices



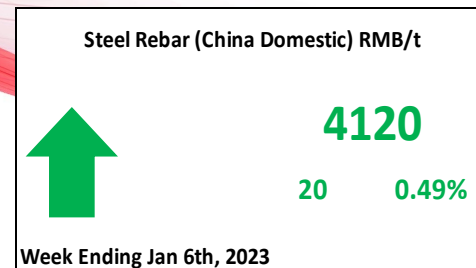
Exchange Traded Contracts



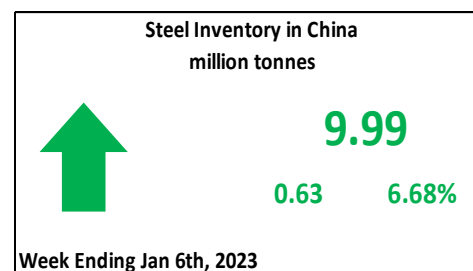
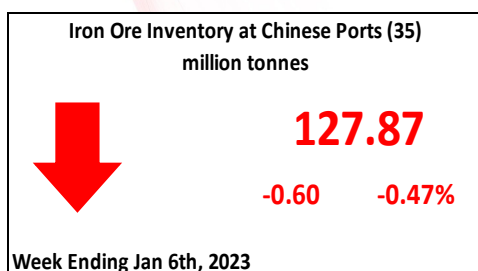
Freight Rates



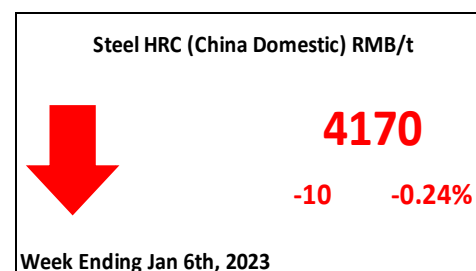
Steel Price



Inventory Levels



Steel Price



IRON ORE PORT STOCK INDEX (IOPI)

Jan 9th, 2023		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne ¹						
Index	Fe Content	Price	Change	Change %	MTD	YTD	Low ²	High ²	Price	Change	Change %	MTD	YTD	Low ²	High ²
IOPI62	62% Fe Fines	833	-13	-1.5%	768	862	643	1083	113.43	-0.75	-0.7%	101.94	119.98	62.21	159.06
IOPI58	58% Fe Fines	742	3	0.4%	685	732	604	907	101.71	1.37	1.4%	91.42	102.12	41.71	134.15
IOPI65	65% Fe Fines	945	-13	-1.4%	896	1016	811	1265	129.21	-0.60	-0.5%	119.43	142.16	83.25	187.25

IRON ORE SEABORNE INDEX (IOSI)

Jan 9th, 2023		CFR Qingdao, USD/dry tonne						
Index	Fe Content	Price	Change	Change %	MTD	YTD	Low ²	High ²
IOSI62	62% Fe Fines	114.05	0.00	0.00%	102.68	122.10	83.90	159.45
IOSI65	65% Fe Fines	129.30	0.00	0.00%	112.85	139.96	94.45	185.82

MARKET COMMENTARY

DCE iron ore futures declined by 2.49% today, the main contract closed 823. The traders' willingness to ship is general. The steel mills are waiting and see. The overall trading sentiment of the market is better. PBF at Shandong port deal 820-825 yuan/mt, decrease 15-20 yuan/mt; PBF at Tangshan port deal 825-830 yuan/mt, decrease 15-20 yuan/mt. From a macro perspective, the price of iron ore has risen rapidly in the near future. The National Development and Reform Commission announced that it will pay close attention to the change of iron ore market price, strengthen supervision and ensure the stable operation of iron ore price, and the price of iron ore will fall back. In terms of fundamentals, SMM shipped 29.13 million tons of iron ore globally last week, down 12.1% month on month. Recently, Western Australia suffered the worst flood in history, with a huge area affected. The flood affected areas are concentrated in Kimberley region. According to the map of Australia, Pilbara and other central and western regions where iron ore is relatively concentrated are a certain distance from Kimberley region, Australia. At present, there is no impact on iron ore production and shipment. On the demand side, with the profit recovery of steel mills and the

IRON ORE PORT LUMP INDEX (IOPLI)

Week Ending Jan 6th, 2023		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne ³						
Index	Fe Content	Price	W-o-W	Change %	MTD	YTD	Low ²	High ²	Price	W-o-W	Change %	MTD	YTD	Low ²	High ²
IOPLI62	62.5% Fe Lump	956	21	2.2%	882	1042	770	1405	123.78	3.82	3.18%	112.72	139.90	94.72	199.13

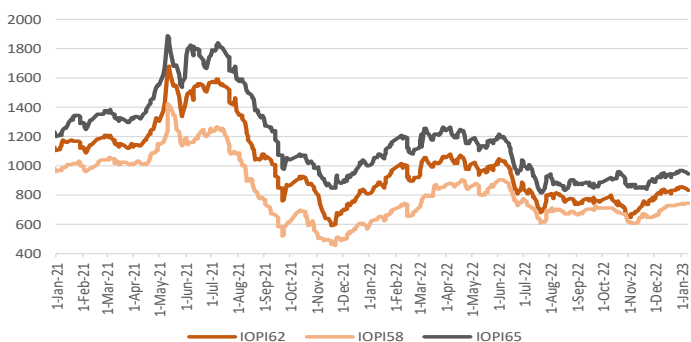
IRON ORE DOMESTIC CONCENTRATE SPOT PRICE ASSESSMENTS AND COMPOSITE INDEX

Week Ending Jan 6th, 2023				RMB/tonne (excluding tax) ³				USD/tonne (excluding tax) ³			
Province	Region	Product	Basis	This week	Change %	Low ²	High ²	This week	Change %	Low ²	High ²
Hebei	Hanxing	66% Fe Concentrate	Dry	1030	2.7%	779	1645	149.04	3.56%	110.31	255.69
Hebei	Qian'an	65% Fe Concentrate	Dry	1065	1.4%	780	1630	154.10	2.29%	110.51	251.57
Liaoning	Anshan	65% Fe Concentrate	Wet	750	1.4%	620	1310	108.52	2.21%	87.40	202.32
Shandong	Zibo	65% Fe Concentrate	Dry	1053	2.6%	800	1752	152.36	3.50%	117.19	272.32

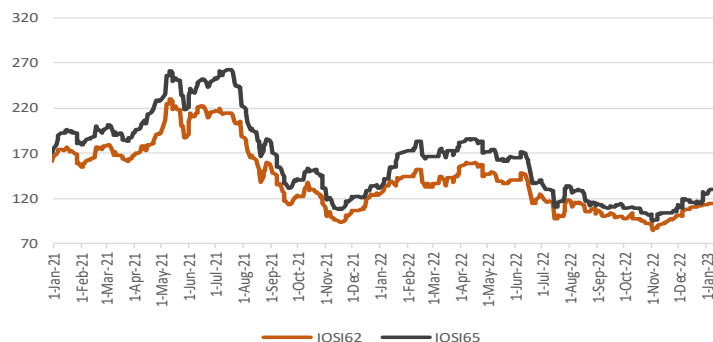
Week Ending Jan 6th, 2023	This week	Change %	Low ²	High ²
China Mines Concentrate Composite Index RMB/WT	917.88	1.37%	706.36	1511.22

¹ Exchange rate applied: RMB/USD = 6.7522 ² Last 12 months
³ Weekly exchange rate applied: RMB/USD = 6.9111

IRON ORE PORT INDEX, FOT QINGDAO (RMB/WT)



IRON ORE SEABORNE INDEX, CFR QINGDAO (USD/DMT)



IRON ORE PORT STOCK INDEX MONTHLY, QUARTERLY AND YEAR-TO-DATE AVERAGES

Jan 9th, 2023		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne						
Index	Fe Content	September	October	November	December	MTD	QTD	YTD	September	October	November	December	MTD	QTD	YTD
IOPI62	62% Fe Fines	759	736	714	822	768	768	862	101.14	95.56	92.18	109.43	101.94	102.59	119.98
IOPI58	58% Fe Fines	697	683	635	711	685	684	732	93.56	89.34	82.39	95.17	91.42	91.91	102.12
IOPI65	65% Fe Fines	875	918	865	935	896	899	1016	117.19	120.08	112.37	124.90	119.43	120.61	142.16

IRON ORE SEABORNE INDEX MONTHLY, QUARTERLY AND YEAR-TO-DATE AVERAGES

Jan 9th, 2023		CFR Qingdao, USD/dry tonne							FREIGHT RATES - DRY BULK US\$/wet tonne						
Index	Fe Content	September	October	November	December	MTD	QTD	YTD	Route	Designation	Change	Change %	Low ²	High ²	
IOSI62	62% Fe Fines	101.12	95.80	93.05	108.92	102.68	103.82	122.10	W. Australia - Qingdao	C5	7.14	-0.07	-0.90%	3.57	16.77
IOSI65	65% Fe Fines	111.57	106.70	102.40	116.83	112.85	114.66	139.96	Tubarao - Qingdao	C3	18.34	-0.11	-0.61%	6.70	36.40

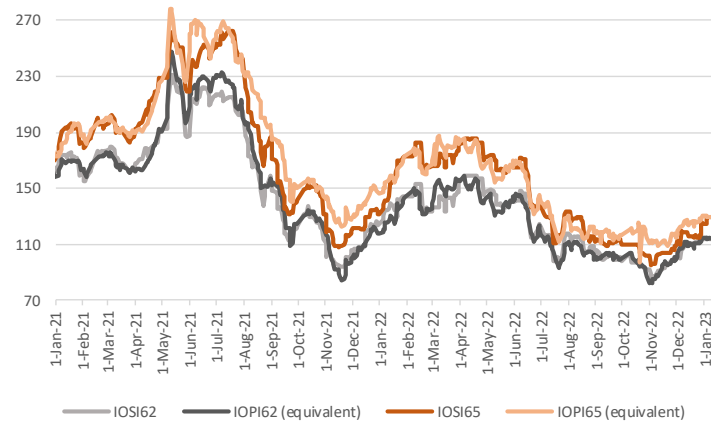
IRON ORE PORT LUMP INDEX MONTHLY, QUARTERLY AND YEAR-TO-DATE AVERAGES

Week Ending Jan 6th, 2023		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne ¹						
Index	Fe Content	September	October	November	December	MTD	QTD	YTD	October	October	November	December	MTD	QTD	YTD
IOPLI62	62.5% Fe Lump	873	877	811	922	882	886	1042	112.75	109.81	100.83	117.06	112.72	114.13	139.90

IRON ORE INDEX PREMIUMS/DISCOUNTS

Jan 9th, 2023		PORT STOCK INDEX (RMB/WT)		SEABORNE INDEX (USD/DMT)			
Index	Fe Content	Spread to IOPI62	% Spread to IOPI62	Index	Fe Content	Spread to IOSI62	% Spread to IOSI62
IOPI58	58% Fe Fines	-91	-10.92%	IOSI65	65% Fe Fines	15.25	13.37%
IOPI65	65% Fe Fines	112	13.45%				

IRON ORE INDEX COMPARISONS (USD/DMT)



CHINA DOMESTIC COMPOSITE MINES INDEX (RMB/Wet Tonne, including VAT)



IRON ORE BRAND SPOT PRICE ASSESSMENTS

Jan 9th, 2023				Jan 9th, 2023			
PORT STOCK INDEX (RMB/WT)				SEABORNE INDEX (USD/DMT)			
	Price	Change	Diff to IOPI62		Price	Change	Diff to IOSI62
Roy Hill	776	-13	-57	Roy Hill	109.55	0.00	-4.50
SIMEC Fines	704	-14	-129	SIMEC Fines	106.05	0.00	-8.00
PB Fines	802	-12	-31	PB Fines	110.30	0.00	-3.75
Newman Fines	801	-14	-32	Newman Fines	113.20	0.00	-0.85
MAC Fines	783	-13	-50	MAC Fines	110.30	0.00	-3.75
Jimblebar Blended Fines	698	-13	-135	Jimblebar Blended Fines	102.70	0.00	-11.35
Carajas Fines	1013	-13	180	Carajas Fines	143.60	0.00	29.55
Brazilian SSF	796	-13	-37	Brazilian SSF	117.80	0.00	3.75
Brazilian Blend Fines	815	-13	-18	Brazilian Blend Fines	119.45	0.00	5.40
RTX Fines	716	-13	-117	RTX Fines	103.95	0.00	-10.10
West Pilbara Fines	744	-13	-89	West Pilbara Fines	108.30	0.00	-5.75

Jan 9th, 2023			
PORT STOCK INDEX (RMB/WT)			
	Price	Change	Diff to IOPI58
SSF	742	3	0
FMG Blended Fines	751	3	9
Robe River	752	3	10
Western Fines	755	3	13
Atlas Fines	749	3	7
Yandi	735	3	-7

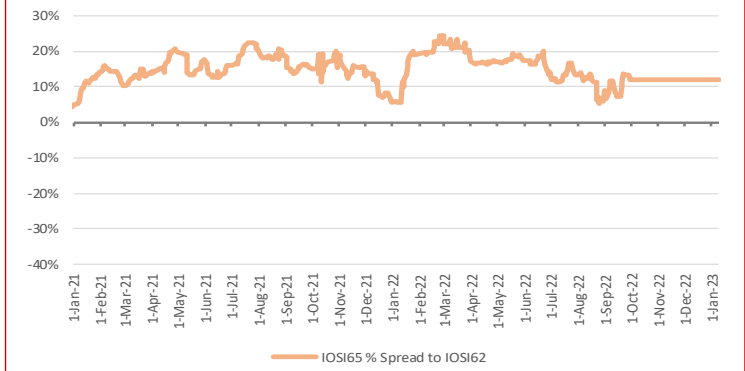
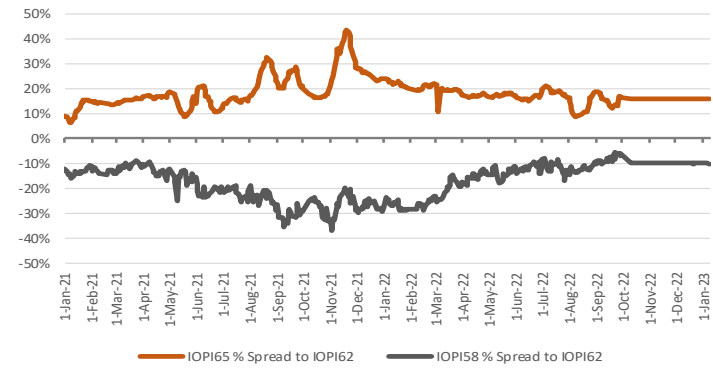
IRON ORE INDEX NORMALISATION DIFFERENTIALS

Port Stock Index Product Differentials (RMB/wet tonne)				Seaborne Index Product Differentials (USD/dry tonne)			
	Applicable range	Value	Change		Applicable range	Value	Change
1% Fe	High Grade Fe 60 - 63%	25.00	-3.00	1% Fe	High Grade Fe 60 - 63%	0.75	-0.50
	High Grade Fe 63 - 64%	31.00	-2.00		High Grade Fe 63 - 64%	2.00	-0.50
	High Grade Fe 64 - 65%	31.00	-2.00		High Grade Fe 64 - 65%	2.00	-0.50
	High Grade Fe 65 - 65.5%	31.00	-2.00		High Grade Fe 65 - 65.5%	2.00	-0.50
1% Alumina	Low Grade Fe	24.00	2.00	1% Alumina	High Fe Grade Al <2.25%	3.25	-0.50
	High Fe Grade Al <2.25%	106.00	5.00		High Fe Grade Al 2.25-4%	0.25	0.00
	High Fe Grade Al 2.25-4%	36.00	0.00				
	Low Fe Grade Al <2.25%	17.00	0.00				
1% Silica	Low Fe Grade Al 2.25-4%	26.00	5.00	1% Silica	High Fe Grade Si <4%	1.75	-0.50
	High Fe Grade Si <4%	39.00	0.00		High Fe Grade Si 4 - 6.5%	0.25	-0.25
	High Fe Grade Si 4-6.5%	36.00	-1.00				
0.01% Phosphorus	Low Fe Grade	24.00	5.00	0.01% Phosphorus	High Fe Grade 0.09%<P<0.115%	1.50	-0.25
	High Fe Grade 0.09%<P<0.115%	18.00	-2.00		High Fe Grade 0.115%<P<0.15%	5.50	0.00
	High Fe Grade 0.115%<P<0.15%	18.00	-2.00				
	Low Fe Grade 0.09<P<0.1%	5.00	0.00				

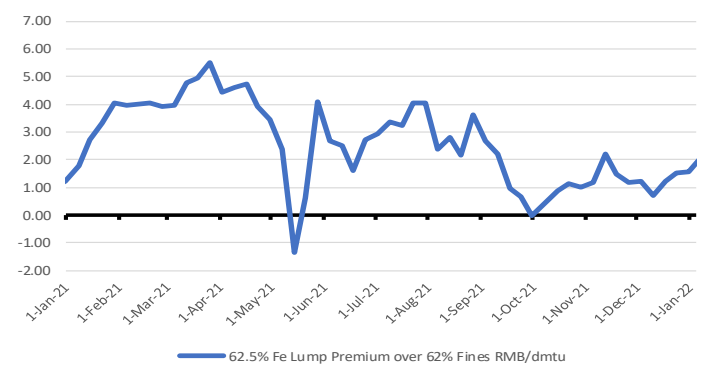
Port Stock Price Differentials to Qingdao Port for PB Fines (RMB/wet tonne)

Port	Value	Change	Port	Value	Change	Port	Value	Change	Port	Value	Change
Bayuquan	-100.00	0.00	Fangcheng	-25.00	0.00	Lanshan	0.00	0.00	Rizhao	0.00	0.00
Beilun	0.00	0.00	Jiangyin	-30.00	0.00	Lianyungang	0.00	0.00	Shekou	0.00	0.00
Caofeidian	-10.00	0.00	Jingtang	-20.00	0.00	Majishan	0.00	0.00	Taichang	-30.00	0.00
Dalian	0.00	0.00	Lanqiao	0.00	0.00	Qingdao	0.00	0.00	Tianjin	-10.00	0.00

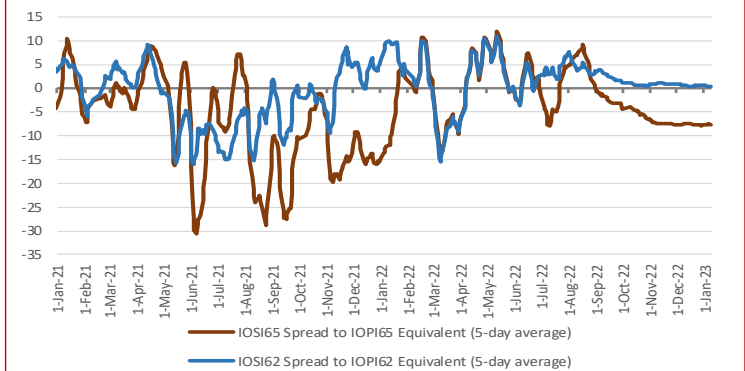
IRON ORE INDEX PREMIUMS/DISCOUNTS



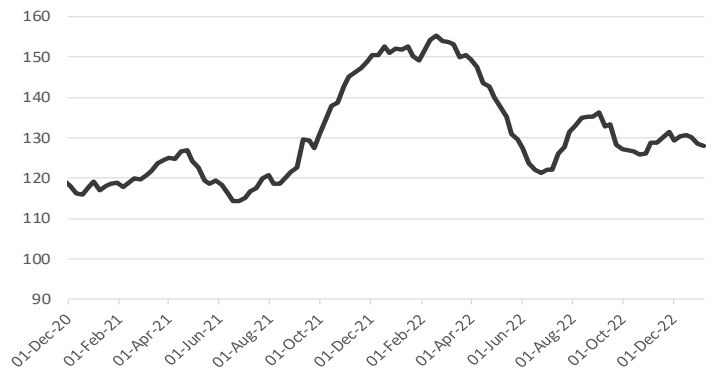
WEEKLY IRON ORE PORT STOCK LUMP PREMIUM (RMB/DMTU)



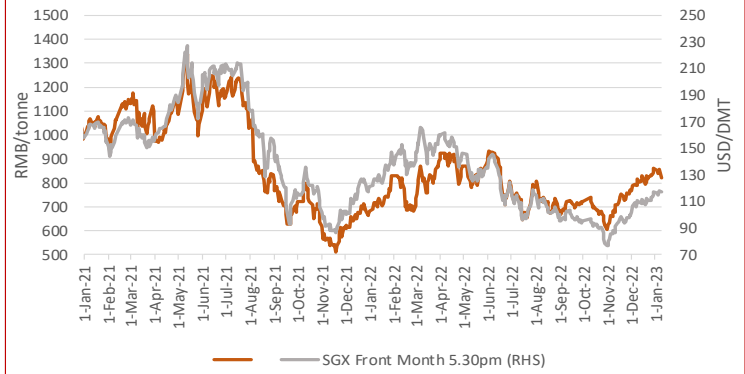
IRON ORE SEABORNE TO PORT STOCK PRICE SPREADS (USD/DMT)



TOTAL IRON ORE INVENTORIES AT CHINA PORTS (MILLION TONNES)



FUTURE TRADING—FRONT MONTH CLOSING PRICE



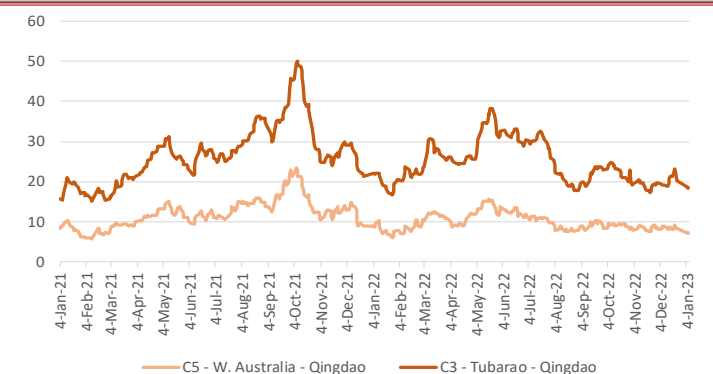
IRON ORE PORT INVENTORIES (MILLION TONNES)

Week Ending Jan 6th, 2023				
Province	This week	Change %	Low ²	High ²
Jingtang	12.27	-1.37%	9.84	19.20
Qingdao	25.54	0.79%	9.41	26.24
Caofeidian	11.10	-4.15%	9.05	16.29
Tianjin	10.44	4.61%	7.14	12.97
Rizhao	17.14	-1.10%	9.44	19.26
Total (35 Ports)	127.87	-0.47%	98.80	155.39

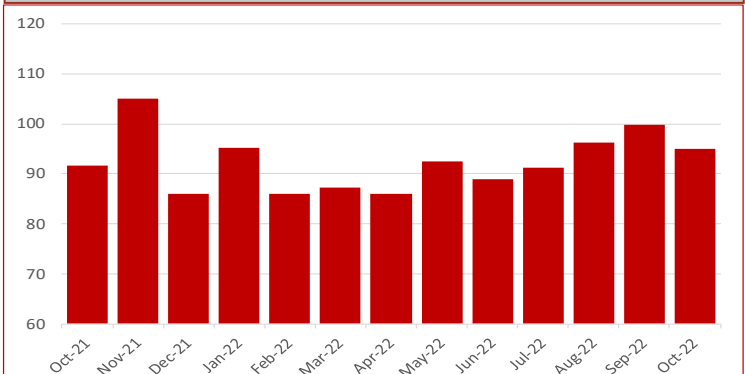
IRON ORE FUTURES CONTRACTS

Closing Date	DCE (RMB/WMT)			SGX (USD/DMT)		
	Jan 9th, 3pm close			Jan 9th, 5:30pm		
Contract	12305	Change	Change %	Feb. 23	Change	Change %
Closing Price	823.00	-32.00	-3.74%	117.00	-0.75	-0.64%
Vol traded ('000 lots)	115.28	35.24	44.03%	5.58	0.47	9.18%
Open positions ('000 lots)	84.77	-2.41	-2.76%	25.22	0.50	2.02%
Day Low	815.5	-16.50	-1.98%	115.35	1.40	1.23%
Day High	846.5	-9.50	-1.11%	118.35	0.40	0.34%

DRY BULK FREIGHT RATES (USD/MT)



TOTAL CHINA IRON ORE IMPORT VOLUMES (MILLION TONNES)



STEEL SPOT MARKET PRICES—CHINA

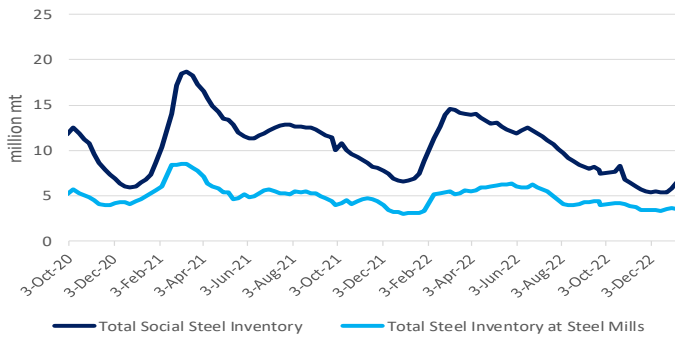
Product	2023/1/6	Change	Change %
ReBar HRB400 φ18mm	4,120	20	0.49%
Wirerod Q300 φ6.5mm	4,380	20	0.46%
HRC Q235/SS400 5.5mm*1500*C	4,170	-10	-0.24%
CRC SPCC/ST12 1.0mm*1250*2500	4,550	0	0.00%
Medium & Heavy Plate Q235B 20mm	4,150	20	0.48%
GI ST02Z 1.0mm*1000*C	4,780	-10	-0.21%
Colour Coated Plate	7,530	0	0.00%

CHINESE STEEL MILL PROFITABILITY

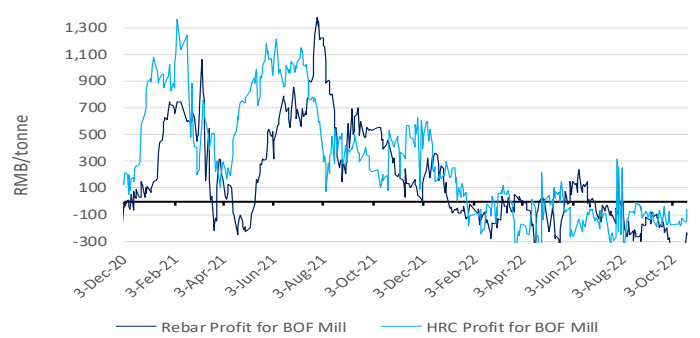
SMM Tracking of Steel Mill P&L - Rebar and Hot-rolled Coil (RMB/tonne)			
Category	Price	Change (WoW)	Note
MMi (Fe 62%), USD/mt excluding tax	114.25	1	Mmi CFR Equivalent index for 1st Feb
Coke	3,070	-110	2nd grade met coke, Tangshan, incl. tax
Steel Scrap	3,120	0	steel scrap (6mm) in Zhangjiagang, ext. tax
Billet Cost	3,747	-61	Q234, incl. tax
Rebar cost - Blast furnace	4,268	-69	calculated based on theoretical weight, incl. tax
Rebar profit - Blast furnace	-178	59	based on Shanghai prices, incl. tax
Hot-rolled coil cost - Blast furnace	4,227	-69	based on actual weight, incl. tax
Hot-rolled coil profit - Blast furnace	-57	69	based on Shanghai prices, incl. tax

Note: 1. Costs in the table are calculated based on today's market prices and factored our management, sales, financial and depreciations fees.
2. The cost refers to average cost in the industry based on SMM's survey of small, medium and large mills in China

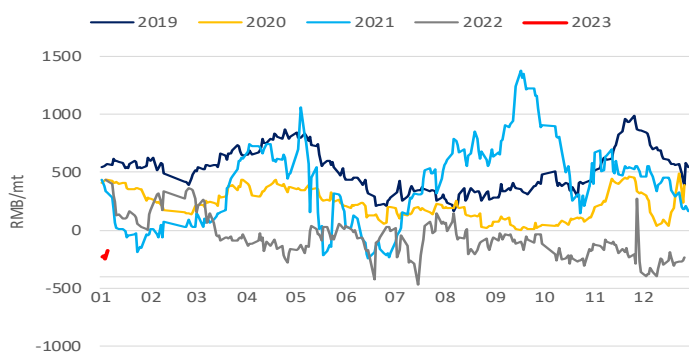
CHINESE STEEL INVENTORIES



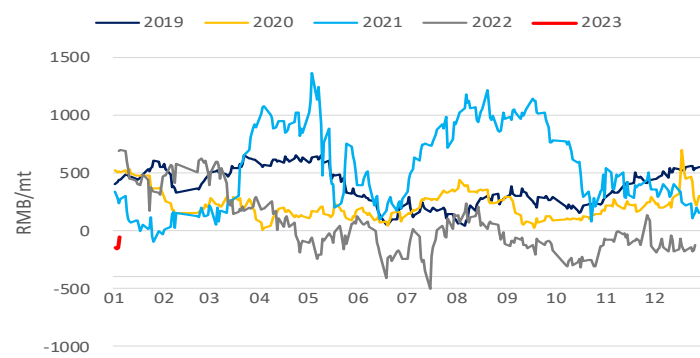
CHINESE STEEL MILL PROFITABILITY



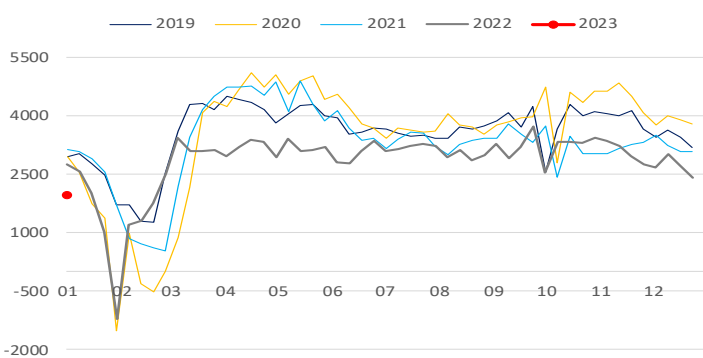
CHINESE STEEL MILL PROFITABILITY—Rebar



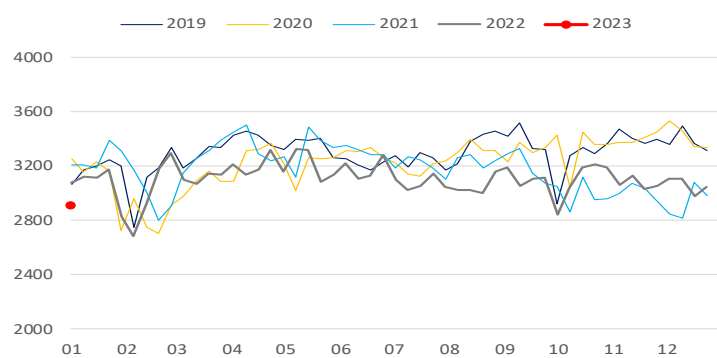
CHINESE STEEL MILL PROFITABILITY—Hot-rolled Coil



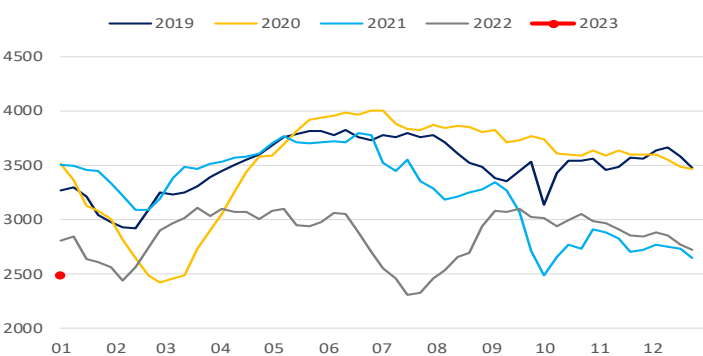
CHINESE STEEL CONSUMPTION—Rebar



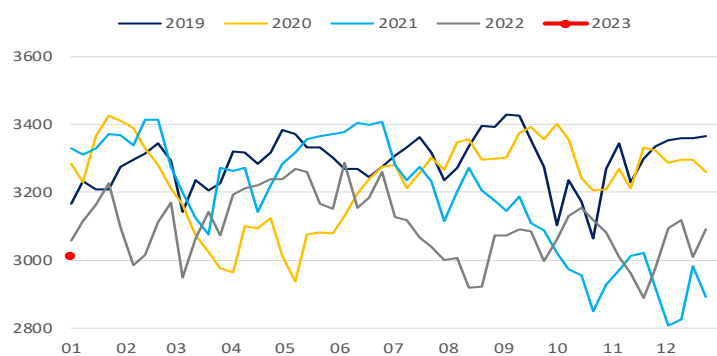
CHINESE STEEL CONSUMPTION—Hot-rolled Coil



CHINESE STEEL PRODUCTION—Rebar



CHINESE STEEL PRODUCTION—Hot-rolled Coil



IRON ORE INDEX SPECIFICATIONS, COMPILATION RATIONALE AND DATA EXCLUSIONS

Iron Ore Index Specifications (Port and Seaborne)					Iron Ore Index Compilation Rationale and Data Exclusions
	65% Fe Fines	62% Fe Fines	58% Fe Fines	62.5% Fe Lump	MMi iron ore indices are compiled from data provided by companies that are part of the iron ore supply chain and involved in spot market transactions. The indices are calculated using detailed transaction-level data submitted to MMi by these companies. This data is normalised to the appropriate specifications and screened to remove outliers before volume-weighted average prices are calculated from the remaining core set of data. For more details on MMi's iron ore methodology please download the guide published on our website at: www.mmiprices.com
Fe %	65.00	62.00	58.00	62.50	
Alumina %	1.40	2.25	2.25	1.50	
Silica%	1.50	4.00	5.50	3.50	
Phosphorus %	0.06	0.09	0.05	0.08	
Sulphur %	0.01	0.02	0.02	0.02	
Moisture %	8.00	8.00	9.00	4.00	
Sizing	Granular size below 10mm for at least 90% of cargo; maximum of 40% below 150 micron		Size below 6.3mm max 15% Size above 31.15mm max 25%		
Pricing Point	Qingdao Port (FOT and CFR respectively)		FOT Qingdao Port		
Timing (Seaborne)	Loading within 4 weeks, Delivery within 8 weeks		Delivery within 2 weeks		
Payment Terms	L/C at sight		L/C at sight or CAD		

Data Exclusions*			
Port Index	62%	58%	65%
Seaborne index	0	0	0
Lump Index 62.5	0		

* Number of price submissions for iron ore indices that were excluded from index calculations today as they were anomalous and could not be verified

IRON ORE DOMESTIC CONCENTRATE INDEX CALCULATION METHODOLOGY

The compilation method for price index generally refers to the compilation method of CPI price index and other price indices, breakdown the price data and calculate the average value according to a certain method, taking the vertical axis as the regional composite index (average of different grade index) and the horizontal axis as the grade composite index (average of different regional index), a total composite index for domestic ore can be output ultimately. The process system is also adopted in the calculation i.e. each sub-index can be obtained as well.

AVERAGE IRON ORE SPECIFICATIONS APPLIED FOR BRAND PRICE ASSESSMENTS

PORT STOCK BRANDS						SEABORNE BRANDS					
Jan 9th, 2023	Specifications applied for 62% brand assessments						Specifications applied for 62% brand assessments				
	Fe	Alumina	Silica	Phos	Moisture		Fe	Alumina	Silica	Phos	Moisture
Roy Hill	60.88%	2.35%	4.45%	0.055%	9.26%	Roy Hill	60.70%	2.30%	4.90%	0.055%	8.00%
SIMEC Fines	60.00%	2.30%	6.30%	0.060%	6.00%	SIMEC Fines	60.00%	2.30%	6.30%	0.060%	6.00%
PB Fines	61.64%	2.31%	3.87%	0.099%	9.45%	PB Fines 62%	62.00%	2.60%	4.30%	0.090%	9.50%
Newman Fines	62.49%	2.31%	3.98%	0.090%	7.72%	Newman Fines	62.30%	2.40%	4.30%	0.095%	8.00%
MAC Fines	60.43%	2.38%	4.64%	0.078%	7.57%	MAC Fines	60.80%	2.35%	4.40%	0.075%	7.80%
Jimblebar Blended Fines	60.87%	2.95%	4.53%	0.111%	7.32%	Jimblebar Blended Fines	60.50%	3.10%	4.80%	0.120%	7.80%
Carajas Fines	64.90%	1.39%	1.82%	0.080%	7.78%	Carajas Fines	65.10%	1.50%	1.70%	0.080%	8.50%
Brazilian SSF	62.00%	1.00%	6.50%	0.040%	6.00%	Brazilian SSF	62.00%	1.00%	6.50%	0.040%	6.00%
Brazilian Blend Fines	62.56%	1.58%	4.79%	0.091%	8.72%	Brazilian Blend Fines	63.00%	1.50%	5.00%	0.070%	7.00%
RTX Fines	61.00%	3.10%	4.50%	0.135%	7.50%	RTX Fines	61.00%	3.10%	4.50%	0.135%	7.50%
West Pilbara Fines	60.10%	2.30%	4.70%	0.075%	8.50%	West Pilbara Fines	60.10%	2.30%	4.70%	0.075%	8.50%

Jan 9th, 2023	Specifications applied for 58% brand assessments				
	Fe	Alumina	Silica	Phos	Moisture
SSF	56.49%	3.20%	6.19%	0.065%	9.18%
FMG Blended Fines	58.20%	2.43%	5.54%	0.057%	8.29%
Robe River	56.44%	3.16%	5.73%	0.042%	8.44%
Western Fines	57.88%	2.87%	7.50%	0.062%	7.45%
Atlas Fines	58.00%	1.85%	5.50%	0.090%	9.00%
Yandi	56.87%	1.58%	6.41%	0.042%	9.53%

BLOOMBERG TICKERS

PORT STOCK INDICES				SEABORNE INDICES	
	FOT Qingdao (RMB/wet tonne)		CFR Qingdao Equivalent (USD/dry tonne)		CFR Qingdao (USD/DMT)
IOPI62	IRCNQ001		IRCNQ004		IRCN0034
IOPI58	IRCNQ002		IRCNQ005		IRCN0035
IOPI65	IRCNQ003		IRCNQ006		
IOPLI62	IRCN0036		IRCN0037		

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