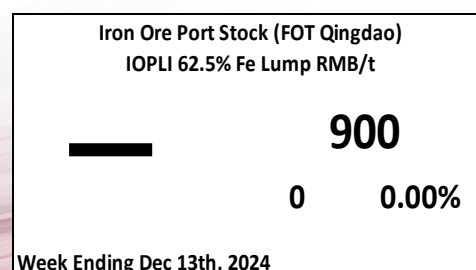
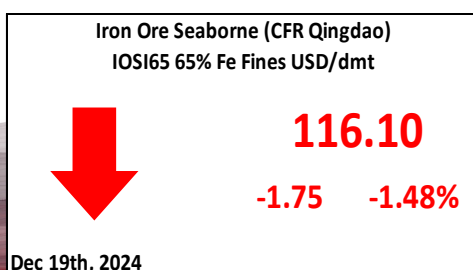
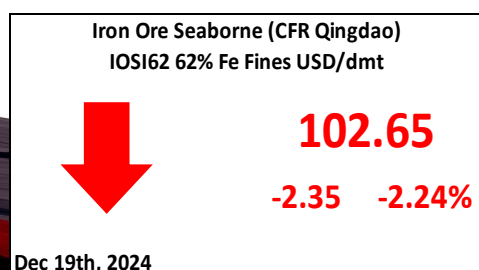
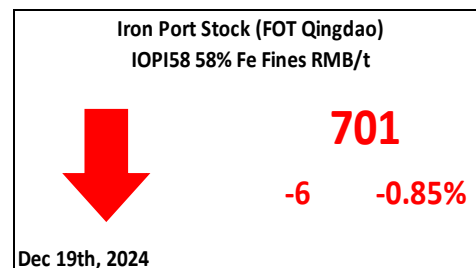
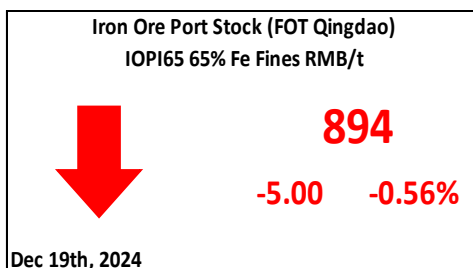
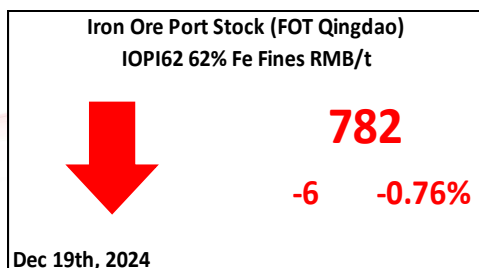


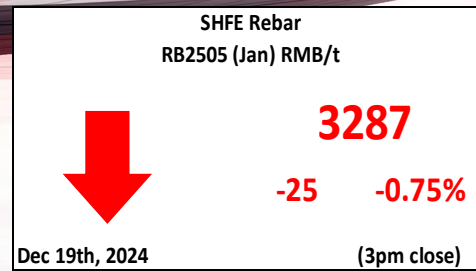
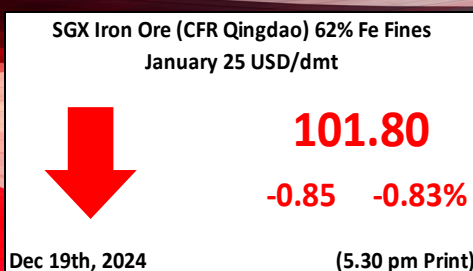
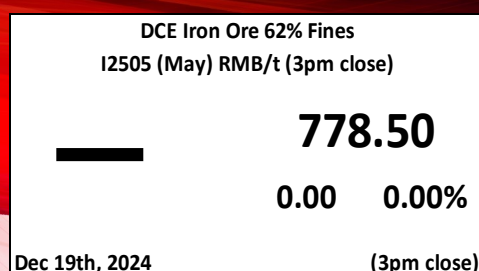


MMi Dashboard

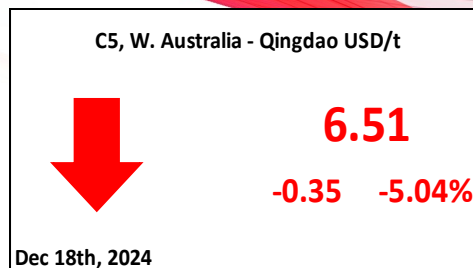
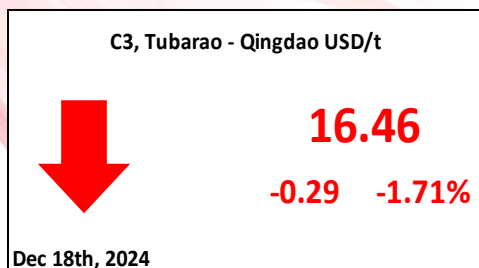
Iron Ore Price Indices



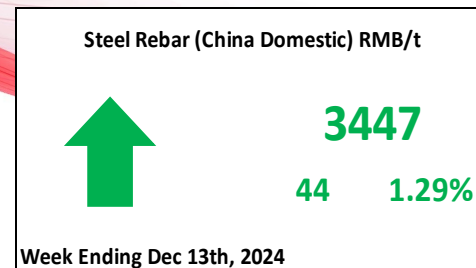
Exchange Traded Contracts



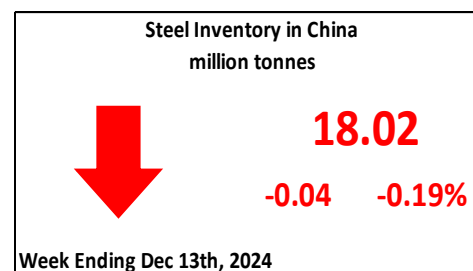
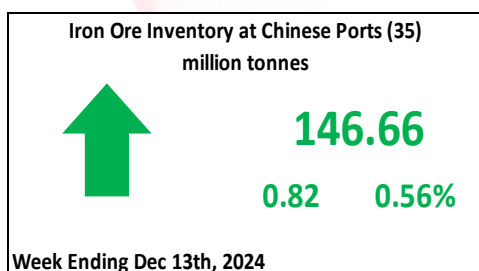
Freight Rates



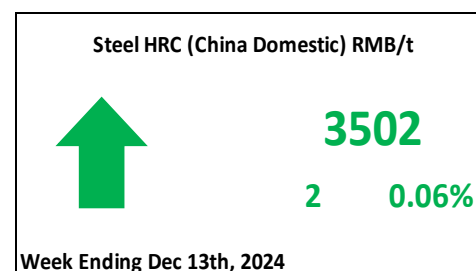
Steel Price



Inventory Levels



Steel Price



IRON ORE PORT STOCK INDEX (IOPI)

Dec 19th, 2024		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	782	-6	-0.8%	784	870	683	1063	100.86	-0.84	-0.8%	101.50	113.82	89.33	140.24
IOPI58	58% Fe Fines	701	-6	-0.8%	696	764	610	963	91.01	-0.85	-0.9%	90.58	100.47	80.25	128.13
IOPI65	65% Fe Fines	894	-5	-0.6%	896	982	794	1175	115.84	-0.72	-0.6%	116.52	128.89	104.47	155.37

IRON ORE SEABORNE INDEX (IOSI)

MARKET COMMENTARY

Dec 19th, 2024		CFR Qingdao, USD/dry tonne							MARKET COMMENTARY							
Index	Fe Content	Price	Change	Change %	MTD	YTD	Low ²	High ²	Today, iron ore futures fluctuated downward. The most-traded I2505 contract finally closed at 778.5 yuan/mt, down 2.63% throughout the day. Traders showed a weak willingness to sell, while steel mills were cautiously observing, with a slight increase in purchase willingness. Market transactions were average today. In Shandong, the mainstream transaction prices of PB fines were 715-780 yuan/mt, down 10-15 yuan/mt from yesterday. In Tangshan, the transaction prices of PB fines were around 790 yuan/mt, also down 10-15 yuan/mt from yesterday.							
IOSI62	62% Fe Fines	102.65	-2.35	-2.24%	104.36	115.16	89.79	142.65	This week, iron ore demand declined again. According to an SMM survey, as of December 18, the operating rate of blast furnaces at 242 steel mills surveyed by SMM was 85.47%, down 0.76 percentage points WoW. The capacity utilisation rate of blast furnaces was 87.01%, down 0.56 percentage points WoW. The daily pig iron production of the sample steel mills was 2.3476 million mt, down 15,000 mt WoW. The number of blast furnace maintenance cases continued to increase this week, mainly due to annual plans and environmental protection-driven production restrictions. In the short term, this situation is expected to persist, with a slight decline in pig iron production still possible in the near term.							
IOSI65	65% Fe Fines	116.10	-1.75	-1.48%	117.22	132.50	98.28	171.65								

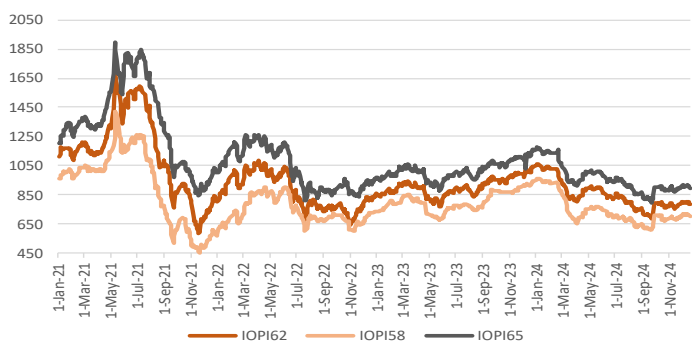
IRON ORE PORT LUMP INDEX (IOPLI)

Week Ending Dec 13th, 2024		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	900	0	0.0%	885	1010	820	1210	111.85	0.37	0.33%	110.42	127.03	102.77	153.57

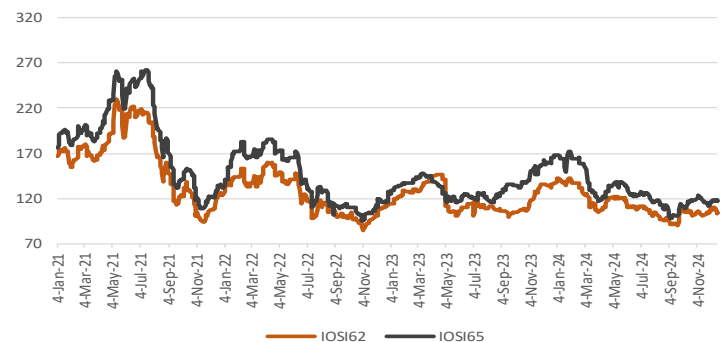
IRON ORE DOMESTIC CONCENTRATE SPOT PRICE ASSESSMENTS AND COMPOSITE INDEX

Week Ending Dec 13th, 2024				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	971	0.8%	861	1226	135.11	0.88%	122.41	172.59
Hebei	Qian'an	65% Fe Concentrate	Dry	990	0.0%	965	1300	137.75	0.05%	135.54	183.23
Liaoning	Anshan	65% Fe Concentrate	Wet	745	0.7%	715	970	103.66	0.73%	100.77	136.72
Shandong	Zibo	65% Fe Concentrate	Dry	1005	0.9%	905	1294	139.84	0.96%	128.66	182.16
Week Ending Dec 13th, 2024				This week	Change %	Low ²	High ²	¹ Exchange rate applied: RMB/USD = 7.191 ² Last 12 months ³ Weekly exchange rate applied: RMB/USD = 7.19258			
China Mines Concentrate Composite Index RMB/WT				892.91	0.99%	854.16	905.40				

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

Dec 19th, 2024		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne						
Index	Fe Content	August	September	October	November	MTD	QTD	YTD	August	September	October	November	MTD	QTD	YTD
IOPI62	62% Fe Fines	765	718	781	779	784	765	870	99.33	93.70	102.03	100.71	101.50	99.33	113.82
IOPI58	58% Fe Fines	656	630	690	692	696	673	764	85.58	82.73	90.61	89.97	90.58	87.86	100.47
IOPI65	65% Fe Fines	876	829	894	891	896	877	982	114.39	108.89	117.10	115.71	116.52	114.41	128.89

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

FREIGHT RATES

Dec 19th, 2024		CFR Qingdao, USD/dry tonne							Dec 18th, 2024						
Index	Fe Content	August	September	October	November	MTD	QTD	YTD	FREIGHT RATES - DRY BULK US\$/wet tonne						
Index	Fe Content	August	September	October	November	MTD	QTD	YTD	Route	Designation	Change	Change %	Low ²	High ²	
IOSI62	62% Fe Fines	99.33	94.36	104.02	103.09	104.36	101.12	115.16	W. Australia - Qingdao	C5	6.51	-0.35	-5.04%	6.51	14.89
IOSI65	65% Fe Fines	114.06	102.24	115.31	117.71	117.22	113.03	132.50	Tubarao - Qingdao	C3	16.46	-0.29	-1.71%	16.21	35.02

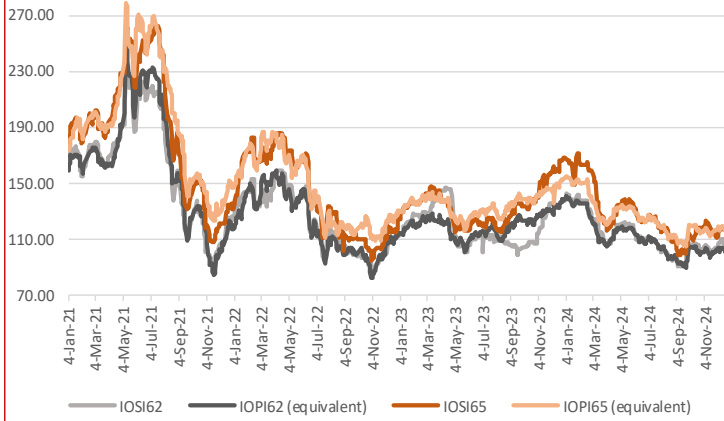
IRON ORE PORT LUMP INDEX MONTHLY, QUARTERLY AND YEAR-TO-DATE AVERAGES

Week Ending Dec 13th, 2024		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne ¹						
Index	Fe Content	August	September	October	November	MTD	QTD	YTD	August	September	October	November	MTD	QTD	YTD
IOPLI62	62.5% Fe Lump	911	830	888	876	885	869	1010	114.10	104.46	111.82	109.09	110.42	108.72	127.03

IRON ORE INDEX PREMIUMS/DISCOUNTS

Dec 19th, 2024		PORT STOCK INDEX (RMB/WT)				Dec 19th, 2024		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	-81		-10.36%		IOSI65	65% Fe Fines	13.45		13.10%	
IOPI65	65% Fe Fines	112		14.32%							

IRON ORE INDEX COMPARISONS (USD/DMT)



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



IRON ORE BRAND SPOT PRICE ASSESSMENTS

Dec 19th, 2024				Dec 19th, 2024			
PORT STOCK INDEX (RMB/WT)				SEABORNE INDEX (USD/DMT)			
	Price	Change	Diff to IOPI62		Price	Change	Diff to IOSI62
Roy Hill	725	-6	-57	Roy Hill	98.15	-2.35	-4.50
SIMEC Fines	653	-6	-129	SIMEC Fines	94.65	-2.35	-8.00
PB Fines	751	-6	-31	PB Fines	98.90	-2.35	-3.75
Newman Fines	750	-6	-32	Newman Fines	101.75	-2.40	-0.90
MAC Fines	732	-6	-50	MAC Fines	98.90	-2.35	-3.75
Jimblebar Blended Fines	646	-6	-136	Jimblebar Blended Fines	91.25	-2.40	-11.40
Carajas Fines	962	-6	180	Carajas Fines	132.20	-2.35	29.55
Brazilian SSF	744	-6	-38	Brazilian SSF	106.40	-2.35	3.75
Brazilian Blend Fines	764	-6	-18	Brazilian Blend Fines	108.05	-2.30	5.40
RTX Fines	665	-6	-117	RTX Fines	92.55	-2.30	-10.10
West Pilbara Fines	694	-6	-88	West Pilbara Fines	96.90	-2.35	-5.75

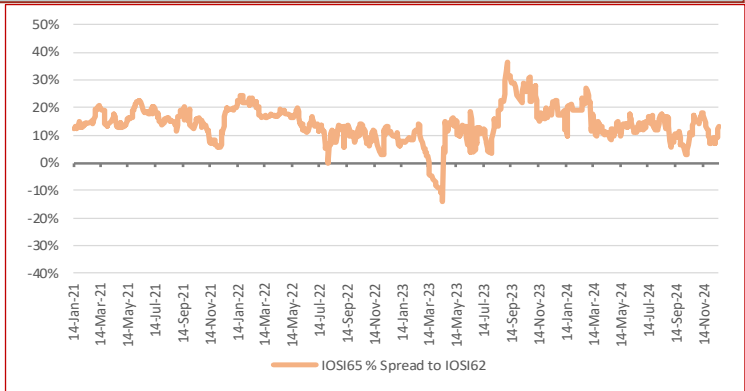
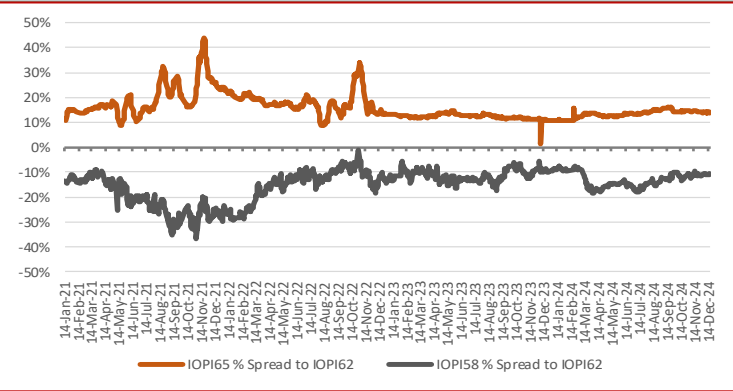
Dec 19th, 2024			
PORT STOCK INDEX (RMB/WT)			
	Price	Change	Diff to IOPI58
SSF	701	-6	0
FMG Blended Fines	710	-6	9
Robe River	710	-6	9
Western Fines	713	-6	12
Atlas Fines	707	-6	6
Yandi	694	-6	-7

IRON ORE INDEX NORMALISATION DIFFERENTIALS

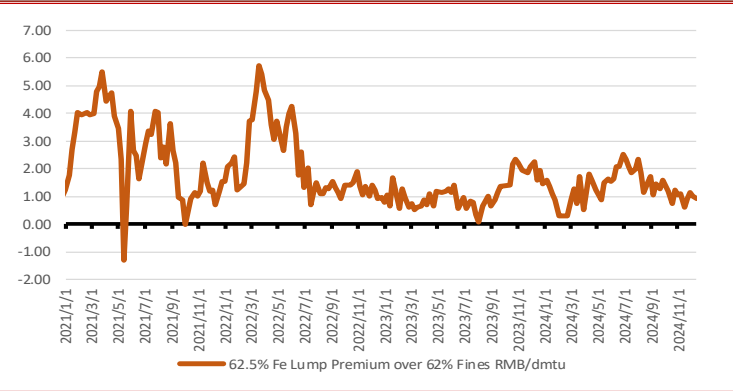
Port Stock Index Product Differentials (RMB/wet tonne)				Seaborne Index Product Differentials (USD/dry tonne)			
	Applicable range	Value	Change		Applicable range	Value	Change
1% Fe	High Grade Fe 60 - 63%	5.00	0.00	1% Fe	High Grade Fe 60 - 63%	0.75	0.00
	High Grade Fe 63 - 64%	5.00	0.00		High Grade Fe 63 - 64%	3.50	0.00
	High Grade Fe 64 - 65%	5.00	0.00		High Grade Fe 64 - 65%	3.50	0.00
	High Grade Fe 65 - 65.5%	5.00	0.00		High Grade Fe 65 - 65.5%	3.50	0.00
1% Alumina	Low Grade Fe	21.00	0.00	1% Alumina	High Fe Grade Al <2.25%	5.75	0.00
	High Fe Grade Al <2.25%	20.00	0.00		High Fe Grade Al 2.25-4%	0.75	0.00
	High Fe Grade Al 2.25-4%	5.00	0.00				
	Low Fe Grade Al <2.25%	35.00	0.00				
1% Silica	Low Fe Grade Al 2.25-4%	18.00	0.00	1% Silica	High Fe Grade Si <4%	0.25	0.00
	High Fe Grade Si <4%	30.00	0.00		High Fe Grade Si 4 - 6.5%	0.25	0.00
0.01% Phosphorus	High Fe Grade Si 4 - 6.5%	8.00	0.00	0.01% Phosphorus	High Fe Grade 0.09%<P<0.115%	0.25	0.00
	Low Fe Grade	22.00	1.00		High Fe Grade 0.115%<P<0.15%	0.25	0.00
	High Fe Grade 0.09%<P<0.115%	7.00	0.00		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	-50.00	0.00	Fangcheng	-25.00	0.00	Lanshan	0.00	0.00	Rizhao	0.00	0.00
Beilun	0.00	0.00	Jiangyin	-25.00	0.00	Lianyungang	0.00	0.00	Shekou	0.00	0.00
Caofeidian	-15.00	0.00	Jingtang	-10.00	0.00	Majishan	0.00	0.00	Taicang	-20.00	0.00
Dalian	0.00	0.00	Lanqiao	0.00	0.00	Qingdao	0.00	0.00	Tianjin	-30.00	0.00

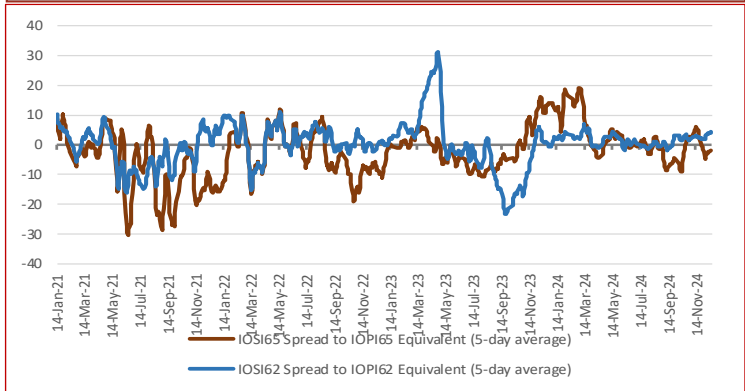
IRON ORE INDEX PREMIUMS/DISCOUNTS



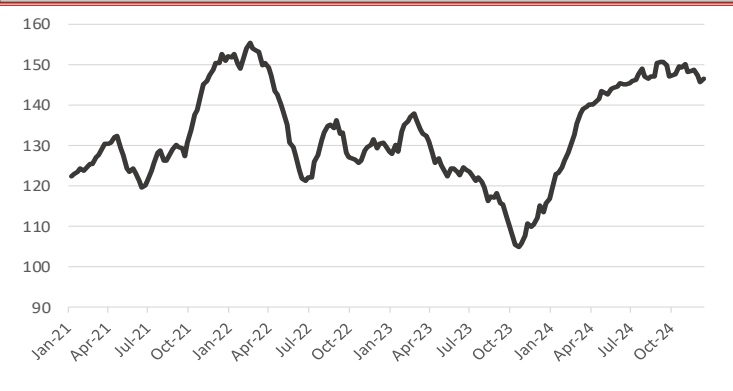
WEEKLY IRON ORE PORT STOCK LUMP PREMIUM (RMB/DMTU)



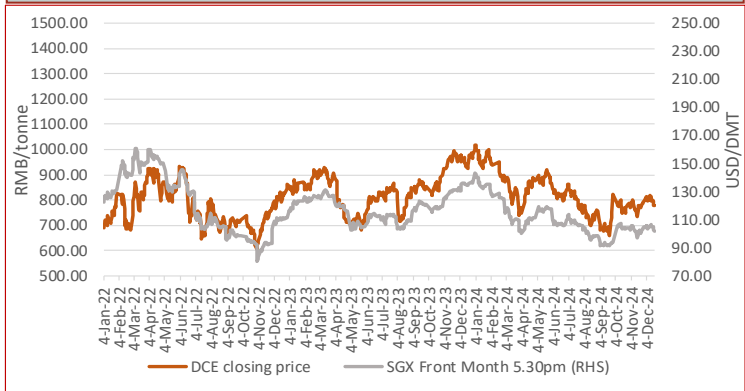
IRON ORE SEABORNE TO PORT STOCK PRICE SPREADS (USD/DMT)



TOTAL IRON ORE INVENTORIES AT CHINA PORTS (MILLION TONNES)



FUTURE TRADING—FRONT MONTH CLOSING PRICE



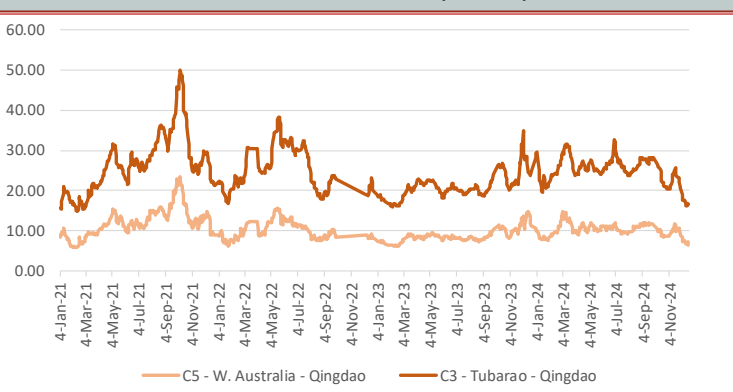
IRON ORE PORT INVENTORIES (MILLION TONNES)

Week Ending Dec 13th, 2024				
Province	This week	Change %	Low ²	High ²
Jingtang	13.22	-1.42%	8.29	17.20
Qingdao	25.36	1.36%	22.28	25.81
Caofeidian	18.86	1.18%	7.56	20.28
Tianjin	11.86	4.31%	6.64	12.16
Rizhao	19.21	-2.09%	11.52	21.35
Total (35 Ports)	146.66	0.56%	105.01	150.72

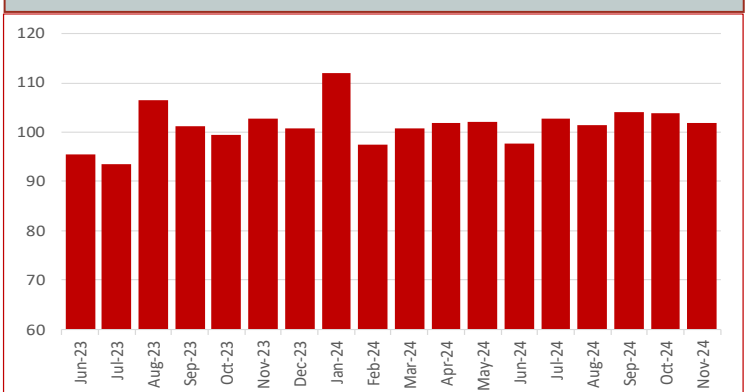
IRON ORE FUTURES CONTRACTS

Closing Date	DCE (RMB/WMT)			SGX (USD/DMT)		
	Dec 19th, 3pm close	Change	Change %	Dec 19th, 5:30pm	Change	Change %
Contract	12505			Jan. 25		
Closing Price	778.50	0.00	0.00%	101.80	-0.85	-0.83%
Vol traded ('000 lots)	37.76	2.62	7.47%	8.36	0.29	3.59%
Open positions ('000 lots)	37.75	-0.27	-0.72%	34.67	-0.92	-2.58%
Day Low	767.5	-9.00	-1.16%	100.90	-1.70	-1.66%
Day High	782.5	-14.50	-1.82%	102.95	-1.65	-1.58%

DRY BULK FREIGHT RATES (USD/MT)



TOTAL CHINA IRON ORE IMPORT VOLUMES (MILLION TONNES)



STEEL SPOT MARKET PRICES—CHINA

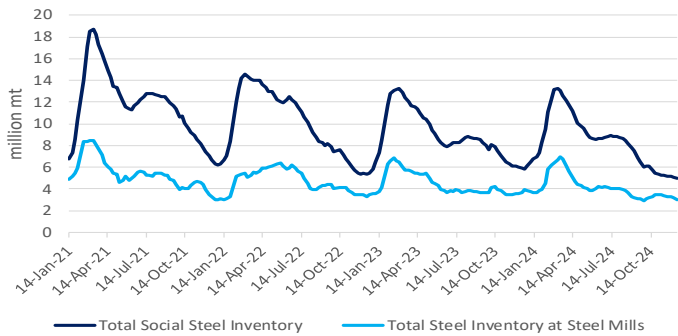
Steel Spot Market RMB/tonne			
Product	2024/12/13	Change	Change %
ReBar HRB400 φ18mm	3,447	44	1.29%
Wirerod Q300 φ6.5mm	3,616	40	1.11%
HRC Q235/SS400 5.5mm*1500*C	3,502	2	0.06%
CRC SPCC/ST12 1.0mm*1250*2500	4,200	47	1.13%
Medium & Heavy Plate Q235B 20mm	3,677	47	1.29%
GI ST02Z 1.0mm*1000*C	4,460	20	0.45%
Colour Coated Plate	6,850	100	1.48%

CHINESE STEEL MILL PROFITABILITY

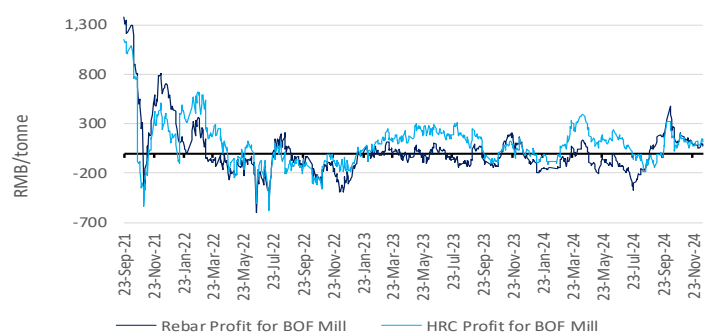
SMM Tracking of Steel Mill P&L - Rebar and Hot-rolled Coil (RMB/tonne)			
Category	Price	Change (WoW)	Note
MMi (Fe 62%), USD/mt excluding tax	103.58	1.16	Mmi CFR Equivalent index for 1st Feb
Coke	1,900	-55	2nd grade met coke, Tangshan, incl. tax
Steel Scrap	2,560	0	steel scrap (6mm) in Zhangjiagang, ext. tax
Billet Cost	2,713	-10	Q234, incl. tax
Rebar cost - Blast furnace	3,292	-12	calculated based on theoretical weight, incl. tax
Rebar profit - Blast furnace	78	22	based on Shanghai prices, incl. tax
Hot-rolled coil cost - Blast furnace	3,363	-11	based on actual weight, incl. tax
Hot-rolled coil profit - Blast furnace	117	31	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

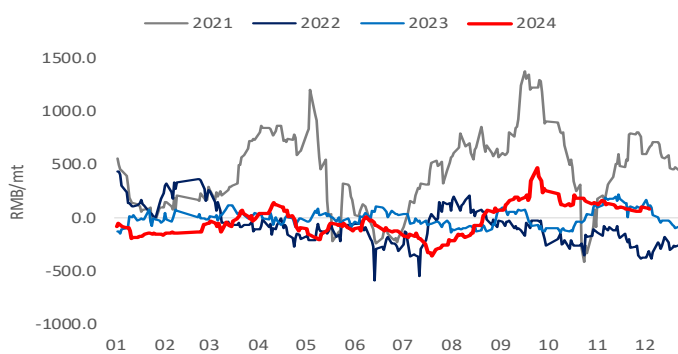
CHINESE STEEL INVENTORIES



CHINESE STEEL MILL PROFITABILITY



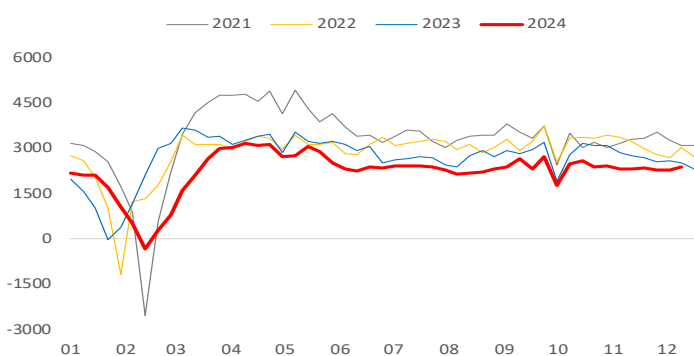
CHINESE STEEL MILL PROFITABILITY—Rebar



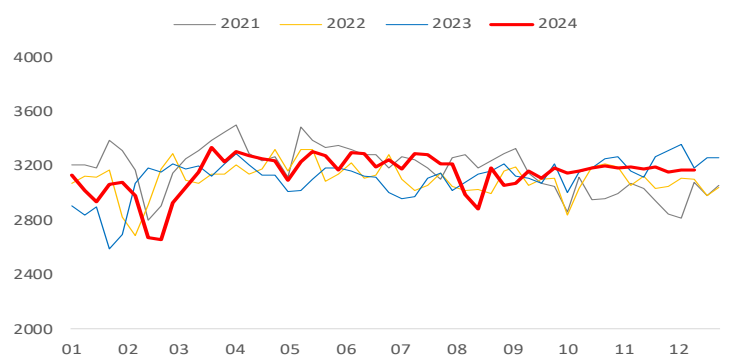
CHINESE STEEL MILL PROFITABILITY—Hot-rolled Coil



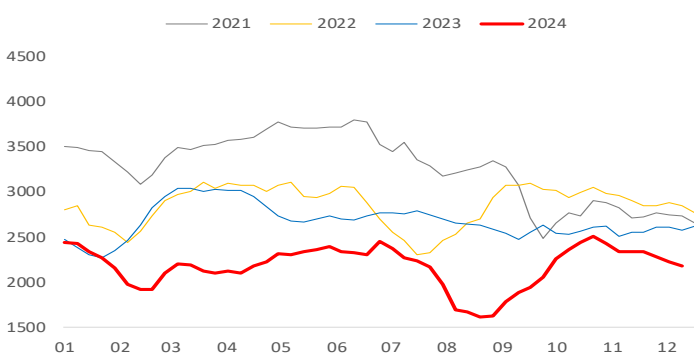
CHINESE STEEL CONSUMPTION—Rebar



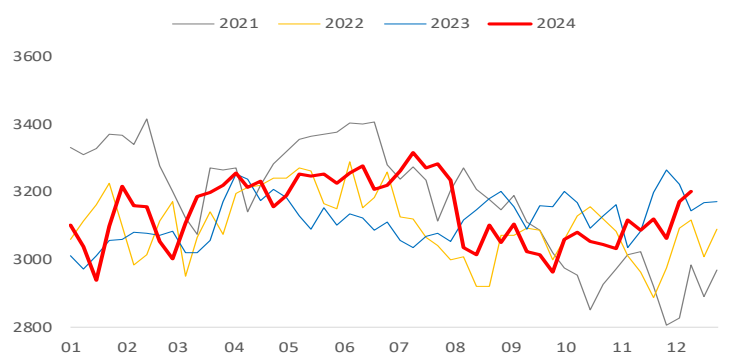
CHINESE STEEL CONSUMPTION—Hot-rolled Coil



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*					
	62%	58%	65%		
Port Index	0	0	0		
Seaborne index	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					
Dec 19th, 2024	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%	4.40%	0.090%	8.00%
MAC Fines	60.43%	2.38%	4.64%	0.078%	7.57%	MAC Fines	60.80%	2.35%	4.70%	0.080%	7.80%
Jimblebar Blended Fines	60.87%	2.95%	4.53%	0.111%	7.32%	Jimblebar Blended Fines	60.50%	3.00%	4.50%	0.120%	8.00%
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%
Dec 19th, 2024	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	IOSI62	IRCN0034	
IOPI58	IRCNQ002	IRCNQ005	IOSI65	IRCN0035	
IOPI65	IRCNQ003	IRCNQ006			
IOPLI62	IRCN0036	IRCN0037			

CONTACT US

MMI Singapore Office Details: Level 28, Manulife Tower, 8 Cross Street Singapore. Tel: + 65 6850 7629 E: prices@mmiprices.com
SMM Singapore Office Details: Level 28, Manulife Tower, 8 Cross Street Singapore. Tel: + 65 6850 7630 E: service.en@smm.cn
SMM Shanghai Office Details: 9th FL, Building 9, Lujiazui Software Park, No.20, Lane 91, Pudong, Shanghai Tel: +86 021 5155 0306 E: service.en@smm.cn

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