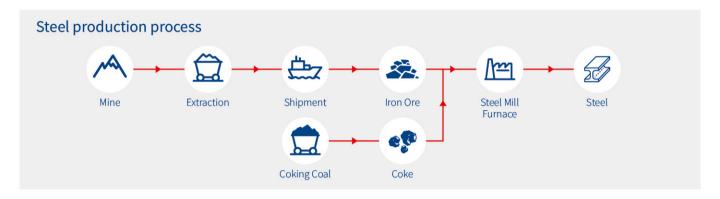


Iron Ore Physical Market

Overview of Iron Ore

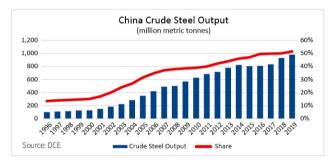
Iron ore refers to the ore that has use value and contains iron element or iron compounds. It is the important raw material for iron and steel production. There are many varieties of iron ore, and those for iron-making mainly including magnetite (Fe_3O_4), hematite (Fe_2O_3) and siderite ($FeCO_3$).

Grade of iron ore represents the content of iron element in the ores. According to different physical forms, the iron ore family is divided into raw ore, lump ore, fine ore, ore concentrate, sintering ore, and pellet ore. The fine ore is selected as the underlying for futures trading of iron ore on Dalian Commodity Exchange.

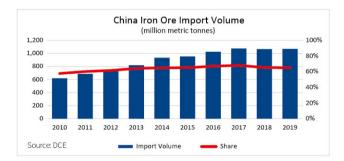


Largest Iron Ore Importer

China has become the largest steel producer since 1990s, which resulted in a strong need for high-grade iron ore imports. China also remained as the largest importer of iron ore and consumed over 60% of iron ore

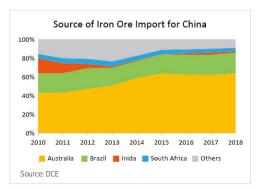


worldwide during the past few years. The import volume has reached 1 billion metric tonnes since 2016, China imported around 1.069 billion metric tonnes of iron ore in 2019.



Main Sources of Iron Ore Import

Australia, Brazil and South Africa are main sources of China iron ore imports. Over the past few years, over 80% of China iron ore imports were exported by Australia and Brazil.





*based on 2018 China iron ore import volumes



World's Leading and Largest Iron Ore Futures Market

Contract Specifications

Product	Iron Ore Futures	
Underlying	Iron Ore	
Trading Unit	100 MT/Lot	
Price Quote Unit	CNY/MT	
Minimum Tick Size	0.5 CNY/MT	
Daily Price Limit Range*	4% of last settlement price	
Contract Months	Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec	
Trading Hours	9:00 - 11:30 a.m., 1:30 - 3:00 p.m., Beijing Time, Monday to Friday, and other trading hours announced by DCE	
Last Trading Day	The 10th trading day of the contract month	
Last Delivery Day	The 3rd trading day after the last trading day	
Deliverable Grades	Iron Ore Delivery Quality Standard of DCE (F/DCE 1001-2019)	
Delivery Point	The delivery warehouses and delivery locations of iron ore designated by DCE	
Minimum Trading Margin*	5% of the contract value	
Delivery Form	Physical delivery	
Ticker Symbol	1	
Listed Exchange	DCE	

Product	Iron Ore Options	
Underlying	Iron Ore Futures Contract	
Contract Type	Call Options, Put Options	
Trading Unit	One lot (100 MT) iron ore futures contract	
Quote Unit	CNY/MT	
Minimum Tick Size	0.1 CNY / MT	
Price Limit	The same with that of iron ore futures contract	
Contract Months	January, February, March, April, May, June, July, August, September, October, November, and December	
Trading Time	09:00 - 11:30 and 13:30 - 15:00 every Monday to Friday, other time specified by the Exchange	
Last Trading Day	The 5th trading day in the month preceding the delivery month of the underlying futures contract	
Expiration Day	The same with the last trading day	
Exercise Prices	The exercise price is the settlement price of iron ore futures contract on the last trading day plus or minus 1.5 times of the price limit on that day. When the exercise price is no more than 300 CNY / MT, the exercise price interval is 5 CNY / MT; when the exercise price is no more than 1,000 CNY / MT but no less than 300 CNY / MT, the exercise price interval is 10 CNY / MT; when the exercise price is more than 1,000 CNY / MT, the exercise price interval is 20 CNY / MT.	
Exercise Style	American Style: the buyer can exercise at any trading time before the expiration day or before 15:30 on the expiration day.	
Trading Code	Call Options: I-Contract Month-C-Exercise Price Put Options: I-Contract Month-P-Exercise Price	
Listed Exchange	DCE	

*DCE may adjust the daily price limit ranges and the trading margins of each contract according to market conditions. The F/DCE 1001-2019 quality standard takes effect from the i2009 contract.



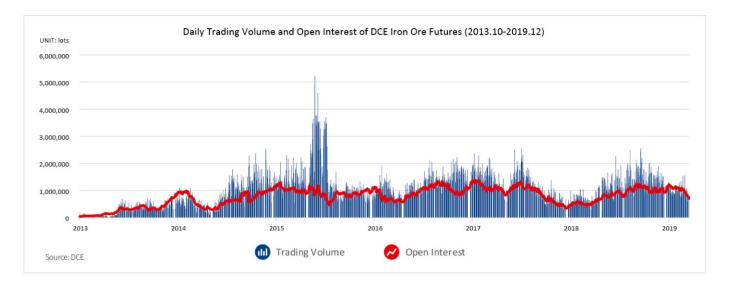
DCE Iron Ore Futures

Trading Statistics

Since its launch in 2013, DCE iron ore futures have evolved to be the most traded iron ore futures product worldwide. As the second most traded metal futures in 2019, DCE iron ore futures have provided industrial participants with a reliable hedging instrument.

Equipped with huge liquidity and extremely high correlations with iron ore spot market, the hedging efficiency of DCE iron ore futures could be as high as 95%. DCE launched iron ore options on futures in December 2019.

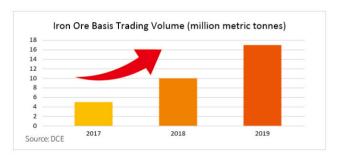
2019 Annual Trading		
29.6	0.98	
billion metric tonnes	correlation with spot market	
1.22	0.96	
million lots of daily trading volume	million lots of daily open interest	

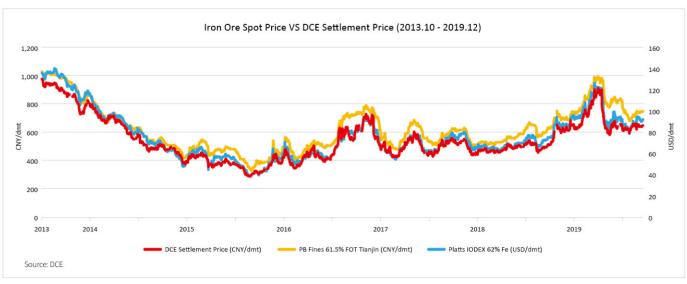


Reference Pricing

Prices discovered on DCE serve as important references for the iron ore physical market. DCE is reshaping trading patterns of the iron ore spot market, with increasing amount of iron ore priced with DCE prices in forms of basis trading.

Besides, the OTC swap platform as well as basis trading platform provided by DCE also help industrial participants with price risk management.



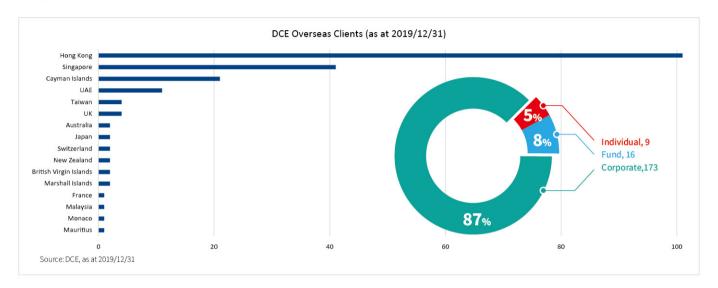


Internationalization

Overseas Clients: A Growing Force in DCE market

DCE introduced overseas clients into its iron ore futures in May 2018. At the end of December 2019, around 52 overseas brokers from 6 countries and regions have registered with DCE through 34 domestic futures companies. A total of 198 overseas clients from 16 countries and regions opened accounts, 121 of them have participated in iron ore futures trading by the end of December 2019.

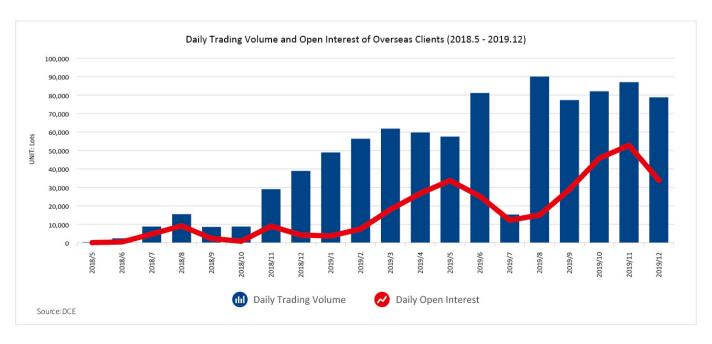
Overseas Clients (as at December 31st 2019)	
198 overseas clients	16 countries and regions
52 overseas brokers	87% corporate clients



Trading Statistics

In 2019, the daily trading volume contributed by overseas clients was around 6.6 million metric tonnes, which exceeded shipping capacity of 20 VLOC ships $\,$ (tonnage of 300,000 mt) $\,$.





Physical Settlement

DCE Iron Ore Delivery Quality Standard (F/DCE 1001-2019)

In order to further satisfy the market needs and serve the real economy, DCE started to implement brand delivery of iron ore products. The amended contract and rules entered into force from the launch of i2009 contract.

Under the brand delivery system, only deliverable brands (currently 11

brands) would be allowed to be delivered in the physical settlement. The overall premiums/discounts would be the sum of quality premiums/discounts and brand premiums/discounts. DCE may adjust deliverable brands and relevant premiums/discounts according to market conditions.

Quality Requirements of Standard Products

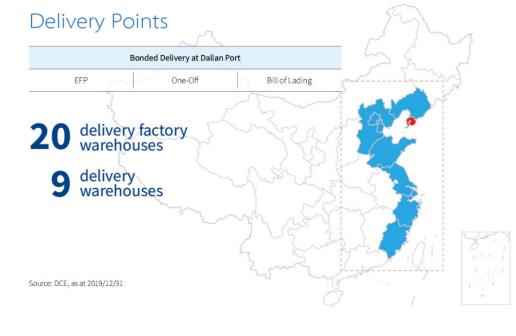
Item	Quality Standards
Iron (Fe)	=62.0%
Silicon Dioxide (SiO ₂)	≤5.0%
Aluminum Oxide (Al ₂ O ₃)	≤2.5%
Phosphorus (P)	≤0.10%
Sulfur (S)	≤0.03%

Item	Premium/Discount (CNY/MT)	
Iron (Fe)	Discount of 1.0 per 0.1% of decrease Premium of 1.0 per 0.1% of increase	
Silicon dioxide (SiO ₂)	Discount of 1.0 per 0.1% of increase	
Aluminum oxide (Al ₂ O ₃)	Discount of 1.0 per 0.1% of increase	
Phosphorus (P)	Discount of 5.0 per 0.01% of increase	
Sulfur (S)	Discount of 1.0 per 0.01% of increase	

Quality Premiums/Discounts of Substitute Products

Deliverable Brands and Relevant Premiums/Discounts

Deliverable Brand	Manufacturer	Premiums & Discounts (CNY/MT)
Pb Fines	RioTinto	0
Newman Fines	ВНР	0
MAC Fines	ВНР	-20
Jimblebar Fines	ВНР	-25
Roy Hill Fines	Mot wife	-20
BRBF	VALE	20
Super Special Fines	TMG	-90
FMG Blend Fines	GMG	-75
Carajas Fines	VALE	35
HBIS Concentrates	HBIS GROUP	15
Ansteel Concentrates	ANSTEEL	0



As at December 31st 2019, there are 9 iron ore delivery warehouses as well as 20 iron ore delivery factory warehouses within China. The location of those delivery points has been chosen specifically in order to be consistent with iron ore physical market.

For overseas clients, DCE offers iron ore bonded delivery at the Dalian port for all of the three delivery modes—EFP, one-off and bill of lading delivery.

Dalian Commodity Exchange (DCE)

Established in 1993, Dalian Commodity Exchange (DCE) is one of the four futures exchanges under the supervision and administration of the China Securities Regulatory Commission (CSRC) upon approval of the State Council. Currently DCE has 19 listed futures and 3 options approved by the CSRC. DCE futures products cover agricultural, petrochemical, energy and metal sectors, serving several important industries in China's national economy.

The DCE futures market helps in price discovery and risk management for market participants and facilitates the development of related industries. In 2019, DCE was ranked 11th by the Futures Industry Association (FIA) in terms of total trading volume.

Opening-up

On May 4th 2018, DCE introduced overseas clients into its iron ore futures unprecedentedly. There are two routes available for overseas clients who could open accounts either through DCE futures company members directly or through sub-delegation channel where they have access to DCE futures company members via registered overseas brokers. DCE is currently devoted to open up more products for overseas clients.





This brochure is prepared by DCE for the sole purpose of providing general information about the futures market in China.

Certain of the information contained in this brochure has been obtained from published sources prepared by other parties. Whilst sources are believed to be reliable, neither DCE nor any other person accepts responsibility for the accuracy or completeness of such information. No representation or warranty, express or implied is given in connection with any information given in this brochure and no responsibility is accepted by DCE, its associates or any of their directors, officers, employees or agents, in respect thereof. The delivery of this brochure does not imply that the information herein is correct.

All statements of opinion and/or belief contained in this brochure and all views expressed and all projections, forecasts or statements relating to expectations regarding future events or the possible future performance of DCE represent its own assessment and interpretation of information available to it as at the date of this document. No representation is made or assurance given that such statements, views, projections or forecasts are correct or that the objectives of DCE will be achieved.

Address: No.129 Huizhan Road, Dalian 116023, China Tel: (86) 411-8480 8888 Fax: (86) 411-8480 8588 www.dce.com.cn



