Iron Ore Futures Iron Ore Options



Dalian Commodity Exchange launched iron ore futures and options in 2013 and 2019 respectively. In 2018, iron ore futures became the first listed product on DCE that was opened up to overseas investors. Since listing, DCE iron ore futures and options have maintained stable operation and high liquidity and served as crucial tools for risk mitigation and hedging of related industrial enterprises.

Supply and Demand

Currently, Australia, Brazil are two major iron ore producers and exporters, which together accounted for over 50% of the global output. Iron ore consumption has been increasing along with the escalating steel output, while China, Japan and South Korea remained as the top 3 largest importers of iron ore.

In the past few years, China's steel industry has witness rapid development and has become the largest steel producer worldwide. China' demand for iron ore has climbed dramatically and is heavily dependent on imported iron ores. As the largest iron ore importer, China's import has reached over 1 billion MT per annum, which accounted for over 60% of the overall export with Australia, Brazil and India being main exporting sources.

Main **Applications**

Iron ore serves as one of the primary materials for steel manufacturing and the source of the ferrous elements in blast furnace ironmaking. Based on physical form, iron ore can be divided into fines, concentrates, lumps, pellets, etc. Based on iron content, iron ore then can be classified into low grade (58%), medium grade (62%) and high grade (65%). The underlying of the DCE iron ore futures is iron ore fines.



Key Price Influence Factors

Consumption

Industry Structure

Seaborne Shipping

Trading Statistics





Contract Specifications

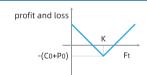
Iron Ore Futures (Applicable since I2205)	
Product	Iron Ore
Trading Unit	100 MT/Lot
Price Quote Unit	CNY/MT
Minimum Tick Size	0.5 CNY/MT
Daily Price Limit Range	4% of last settlement price
Contract Months	Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec
Trading Hours	9:00 - 11:30 a.m., 1:30 - 3:00 p.m., Beijing Time, 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 1004-2021), the deliverable brands and the brand discounts and/or premiums will be separately prescribed by DCE.
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

Iron Ore Options		
Underlying Instrument	Iron Ore Futures Contract	
Contract Type	Call option, Put option	
Trading Unit	One lot (100 MT) of iron ore futures contract	
Price Quote Unit	CNY / MT	
Minimum Tick Size	0.1 CNY / MT	
Daily Price Limit Range	The same as the daily price limit range of underlying futures contract	
Contract Months	January, February, March, April, May, June, July, August, September, October, November, and December	
Trading Hours	9:00 - 11:30 a.m., 1:30 - 3:00 p.m., Beijing Time, and other trading hours announced by DCE	
Last Trading Day	The 12th trading day of the month immediately preceding the delivery month of the underlying futures contract,DCE may adjust the last trading day according to national holidays	
Expiration Day	The same as the last trading day	
Exercise Price	The exercise price shall be in the range of the settlement price of the underlying futures on the last trading day ± (1.5 × daily price limit range of the same day) The option contracts corresponding to the immediate six calendar months: If exercise price ≤ 300 CNY/MT, exercise price interval = 5 CNY/MT; If 300 CNY/MT < exercise price ≤ 1,000 CNY/MT, exercise price interval = 10 CNY/MT; If exercise price > 1,000 CNY/MT, exercise price interval = 20 CNY/MT. The option contracts corresponding to the seventh and subsequent calendar months: If exercise price ≤ 300 CNY/MT, exercise price interval = 10 CNY/MT; If 300 CNY/MT < exercise price ≤ 1,000 CNY/MT, exercise price interval = 20 CNY/MT, exercise price > 1,000 CNY/MT, exercise price interval = 40 CNY/MT, exercise price > 1,000 CNY/MT, exercise price interval = 40 CNY/MT.	
Exercise Style	American style. The options buyer can apply to exercise the options in the trading hours of any trading day prior to the expiration date, and before 3:30 pm on the expiration date.	
Contract Symbol	Call Options: I-Contract Month-C-Exercise Price	
	Put Options: I-Contract Month-P-Exercise Price	

Establishing Flexible Trading Strategies Through Futures and Options

Investors could establish flexible trading strategies through combining various futures and options contracts, which would better help with price risk mitigation. Meanwhile, DCE portfolio margin system already supported multiple trading strategies including straddles, strangles, spreads, etc.

Long Straddle



Investors could establish this strategy through buying one call option (premium= Co) and one put option (premium = Po) which are based on the same underlying futures contract and have the same exercise price (K).

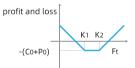
profit and loss: max(Ft-K,0)-C0+max(K-Ft)-P0

maximum profit: unlimited

maximum loss: -(C0+P0)

break-even price: K+(C0+P0)and K-(C0+P0)

Long Strangle



Investors could establish this strategy through buying one put (premium = Po) and one call option (premium = Co) which are based on the same underlying futures contract and have different exercise prices. The exercise price for the put option is K1 while that for the call option is K2.

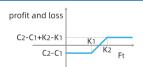
profit and loss: max(Ft-K2,0)+max(K1-Ft,0)-C0-P0

maximum profit: unlimited

maximum loss: -(C0+P0)

break-even price: K1-(C0+P0)and K2+(C0+P0)

Bull Call Spread

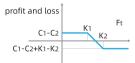


Investors could establish the bull spread through buying one call option (premium = C1) with a relatively low strike price (K1) while selling one call option (premium= C2) with a relatively high strike price K2, both options are based on the same underlying futures contract.

profit and loss: max(Ft-K1,0)-C1+C2-max(Ft-K2,0)

maximum profit: C2-C1+K2-K1 maximum loss: C2-C1 break-even price: K1+C1-C2

Bear Call Spread

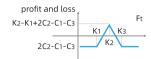


Investors could establish bear spread strategy through selling one call option (premium=C1) with a relatively low exercise price (K1) and buying one call option (premium=C2) with a relatively high exercise price (K2), both options should be based on the same underlying futures contract.

profit and loss: C1-C2-max(Ft-K1,0)+max(Ft-K2,0)

maximum profit: C1-C2 maximum loss: C1-C2+K1-K2 break-even price: C1-C2+K1

Long Butterfly Spread



Investors could establish long butterfly spreads through buying one call option (premium=C1) with low strike price (K1), buying one call option (premium=C3) with high strike price (K3) and simultaneously selling 2 call options (premium=C2) with middle strike price (K2).

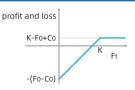
profit and loss: max(Ft-K1,0)+max(Ft-K3,0)-2max(

Ft-K2,0)+2C2-C1-C3

maximum profit: K2-K1+2C2-C1-C3 maximum loss: 2C2-C1-C3

break-even price: K1+(C1+C3-2C2)and K3-(C1+C3-2C2)

Covered Call



Investors could establish the covered call strategy via buying one futures contract (price = Fo) and simultaneously selling one call option (premium=Co) based on the corresponding futures contract.

profit and loss: (Ft-F0)+C0-max(Ft-K,0)

maximum profit: K-F0+C0 maximum loss: -(F0-C0) break-even price: F0-C0