Product Specification:

CFE Futures Trades

Product Link

https://datashop.cboe.com/cfe-futures-trades

Description

This report covers all CFE futures trades, including Trades at Settlement (TAS) and Block trades.

Trades from Global Trading Hours (GTH) can be included as an additional purchase option.

Each trade contains basic transaction details, the prevailing market at trade time, and insights into matched orders:

- Side Added Liquidity: Reports whether Buyer or Seller initially posted liquidity
- Complex Orders/Spreads: Each trade record contains a Buy and Sell Order ID that can be used to link legs of complex orders
- Multi-Fill Orders: Orders that were matched with multiple orders will contain a record for each fill with trade size and price at each point

Trading Hours & Holidays

Please refer to Cboe's CFE Hours & Holidays for more information on GTH and RTH sessions, and modified hours around U.S. Holidays.

Product Files

- Regular Trading Hours (RTH)
    - One zipped file per trade date
    - File name pattern: Cboe_CFE_Trades_RTH_YYYMMDD.csv.zip
    - A record of all trades which occurred during Regular Trading Hours for the specified trading date
- Global Trading Hours (GTH)
    - Available as an additional purchase option
    - One zipped file per trade date
    - File name pattern: Cboe_CFE_Trades_GTH_YYYMMDD.csv.zip
    - A record of all trades which occurred during Global Trading Hours for the specified trading date. Note that Global Trading Hours for a reported trade date may technically begin on the prior calendar date, which will be indicated in the 'trade_datetime' field for each trade record.

Subscription

Subscribers will receive a daily RTH file and an optional GTH file. Files are expected to be delivered before midnight (U.S. Central Time) on the trade date.

History

Available from March 2018 to present

File Layout

Field	Data Type	Description
trade_datetime	datetime	yyyy-mm-dd hh:mm:ss.000000 (U.S. Central Time)
session	string	GTH = Global Trading Hours | RTH = Regular Trading Hours
symbol_id	string	Unique identifier of futures contract, Example: "0006SE"
symbol	string	Symbol of futures contract, Example: "VX/K2"
futures_root	string	Symbol of futures product, Example: "VX"
is_tas_trade	boolean	T | F For TAS trades, 'symbol' reflects the contract traded at settlement and 'trade_price' reflects the full transaction price. Relative TAS price = 'trade_price' - 'contract_settlement_price'
contract_settlement_date	date	yyyy-mm-dd
contract_settlement_price	decimal	End-of-day settlement price of the futures contract
trade_id	string	Unique exchange identifier for transaction
side_added_liquidity	char	B = Buyer | S = Seller Reflects the side that first posted an order
was_canceled	boolean	T | F
canceled_at_datetime	datetime	If 'was_canceled' = T, this field will contain the timestamp when the trade was busted: yyyy-mm-dd hh:mm:ss.000000 (U.S. Central Time)
trade_price	decimal	Price at which the futures contract was transacted
trade_size	integer	Number of futures contracts transacted
bid	decimal	Best bid at time of trade. If no bid available, field will be empty
ask	decimal	Best ask at time of trade. If no ask available, field will be empty
off_order_book_type	string	For trade done off order book: BLOCK | ECRP, otherwise empty
buy_order_datetime	datetime	Time when the buy-side order was received by the exchange. Note that the order may have been submitted outside the current session file (ex: order placed in GTH but still active in RTH)
sell_order_datetime	datetime	Time when the sell-side order was received by the exchange. Note that the order may have been submitted outside the current session file (ex: order placed in GTH but still active in RTH)
buy_order_id	string	Buy-side order identifier
sell_order_id	string	Sell-side order identifier
buy_order_num_legs	integer	1 for simple orders, [N] for complex orders. When > 1, the buy_order_id of this trade can be used to tie other legs of the spread together. Related trade records will match on their buy_order_id or sell_order_id
sell_order_num_legs	integer	1 for simple orders, [N] for complex orders. When > 1, the sell_order_id of this trade can be used to tie other legs of the spread together. Related trade records will match on their buy_order_id or sell_order_id
buy_order_fill_count	integer	Number of trade prints resulting from the buy-side order. One order may match multiple orders to fill order size. For spread orders, fill count will be >= leg count
sell_order_fill_count	integer	Number of trade prints resulting from the sell-side order. One order may match multiple orders to fill order size. For spread orders, fill count will be >= leg count

Multi-Fill Orders

An order may match with more than one order, resulting in multiple trade prints. The [buy|sell]_order_fill_count field indicates the number of trade prints stemming from the order. For a given order id, the number of fills will match the number of trade records with that order id on the trade date. Note that orders may be filled across sessions so both RTH and GTH files may be needed to locate all trades for a given order.

Multi-Fill Example: Buy order matched to multiple sell orders
-ORD1 (10:00): Buy 25 VX/X2

-ORD2 (10:01): Sell 20 VX/X2

-ORD3 (10:02): Sell 5 VX/X2

Resulting trades (selected fields, abridged formats):

Field	Record1	Record2
trade_id	TRD1	TRD2
symbol	VX/X2	VX/X2
side_added_liquidity	B	B
trade_datetime	10:01	10:02
trade_size	20	5
buy_order_datetime	10:00	10:00
sell_order_datetime	10:01	10:02
buy_order_id	ORD1	ORD1
sell_order_id	ORD2	ORD3
buy_order_num_legs	1	1
sell_order_num_legs	1	1
buy_order_fill_count	2	2
sell_order_fill_count	1	1

Complex Orders (Spreads)

Trades that were part of a complex order (spread) can be linked together using the buy_order_id and sell_order_id fields. Note that buy/sell order ids are relative to the side of each trade (i.e. for a calendar spread, the order id will be on the buy-side for one leg and the sell-side for the other).

Spread Example #1: Matching spread orders
-ORD1 (10:00): Spread [Buy VX/X2, Sell VX/V2]

-ORD2 (10:01): Spread [Sell VX/X2, Buy VX/V2]

Resulting trades (selected fields, abridged formats):

Fields	Record1	Record2
trade_id	TRD1	TRD2
symbol	VX/X2	VX/V2
side_added_liquidity	B	S

trade_datetime	10:01	10:01
buy_order_datetime	10:00	10:01
sell_order_datetime	10:01	10:00
buy_order_id	ORD1	ORD2
sell_order_id	ORD2	ORD1
buy_order_num_legs	2	2
sell_order_num_legs	2	2

#Spread Example #2: Spread matches simple orders (single leg)

-ORD1 (10:00): Sell VX/X2

-ORD2 (10:01): Spread [Buy VX/X2, Sell VX/V2]

-ORD3(10:02): Buy VX/V2

Resulting trades (selected fields, abridged formats):

Field	Record1	Record2
trade_id	TRD1	TRD2
symbol	VX/X2	VX/V2
side_added_liquidity	S	S
trade_datetime	10:02	10:02
buy_order_datetime	10:01	10:02
sell_order_datetime	10:00	10:01
buy_order_id	ORD2	ORD3
sell_order_id	ORD1	ORD2
buy_order_num_legs	2	1
sell_order_num_legs	1	2