AGRICULTURE

Trading at Settlement (TAS) for Agricultural Futures

A FLEXIBLE AND CONVENIENT WAY TO MANAGE SETTLEMENT PRICE UNCERTAINTY

Trading at Settlement (TAS) is an order type that allows a market participant to buy or sell futures contracts during the trading day equal to the yet-to-be determined settlement price, or at a price up to 4 ticks above or below that price.

Example:

- For Corn, Soybean, Chicago Wheat or Kansas City Wheat futures, the minimum price fluctuation or tick size is ¼ cent per bushel. A trader seeking to lock in the settlement price before it has been determined may enter any of the following TAS orders at any time during that trading day:
- A buyer may bid TAS 0 or a seller may offer TAS 0 to trade at the settlement price.
- A buyer may bid TAS +1, +2, +3 or +4 in an effort to incentivize the other side of the trade. Depending on the differential, these options would result in an assigned price equal to the settlement price plus $.0025, $.005, $.0075, or $.01 per bushel. The order book will show TAS ticks in the same units as the underlying futures.
- A seller may offer TAS -1, -2, -3 or -4 in an effort to incentivize the other side of the trade. Depending on the differential, these options would result in an assigned price equal to the settlement price minus $.0025, $.005, $.0075 or $.01 per bushel. The order book will show TAS ticks in the same units as the underlying futures.

Why TAS?

- Reduce uncertainty related to pricing around settlement
- Grain elevators and processors may use TAS orders to price forward contracts at or near the settlement value

Key Features

- Available on CME Globex
- Quotes will be published in real time on the screen throughout the trading day
- TAS will be available for outrights and spreads
- TAS order entry is not allowed prior to the beginning of each group's pre-open state, just like other order types
- TAS is traded in the same tick value as the underlying futures
- The matching algorithm will match that of the underlying future

Which CBOT/CME Agricultural futures contracts are eligible for TAS?

	CONTRACTS (GLOBEX CODE)	TAS TRADING HOURS	CONTRACT TYPE	TAS RANGE	AVAILABLE CONTRACTS
GRAINS & OILSEEDS	Corn TAS (ZCT) Soybean TAS (SBT) Soybean Oil TAS (ZLT) Soybean Meal TAS (ZMT) Chicago Wheat TAS (ZWT) KC Wheat TAS (KET)	Sunday – Friday, 7:00 p.m. – 7:45 a.m. CT Monday – Friday, 8:30 a.m. – 1:15 p.m. CT	Outrights	+/- 4 ticks	See Cycle Guide: https://www.cmegroup.com/trading/trade-at-settlement-outright-calendar-spread-availability.html
			Spreads	+/- 8 Ticks	
LIVESTOCK	Live Cattle TAS (LET) Feeder Cattle TAS (GFT) Lean Hogs TAS (HET)	Monday – Friday 8:30 a.m. – 1:00 p.m. CT	Outrights	+/- 4 ticks	
			Spreads	+/- 8 Ticks	

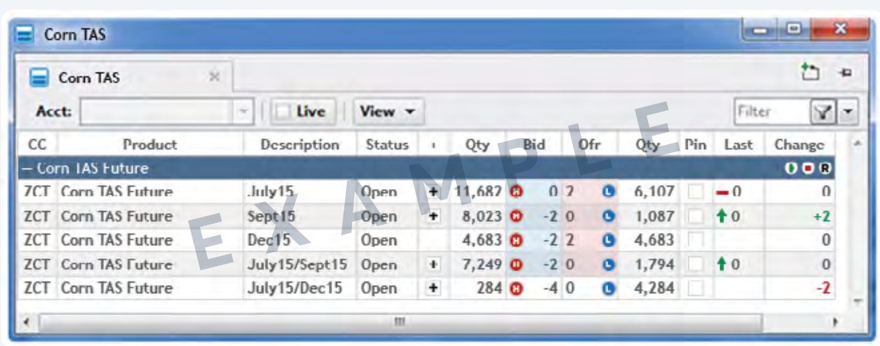
What do values represent in the TAS Order Book?

	CORN, SOYBEANS, CHICAGO WHEAT, KC WHEAT		SOYBEAN MEAL		SOYBEAN OIL		LIVE CATTLE, LEAN HOGS, FEEDER CATTLE	
	ORDER BOOK	VALUE	ORDER BOOK	VALUE	ORDER BOOK	VALUE	ORDER BOOK	VALUE
TAS -4	-10	-$.01	-4	-$.40	-4	-$.0004	-100	-$.10
TAS -3	-6	-$.0075	-3	-$.30	-3	-$.0003	-75	-$.075
TAS -2	-4	-$.005	-2	-$.20	-2	-$.0002	-50	-$.050
TAS -1	-2	-$.0025	-1	-$.10	-1	-$.0001	-25	-$.025
TAS 0	0	0	0	0	0	0	0	0
TAS +1	2	$.0025	1	$.10	1	$.0001	25	$.025
TAS +2	4	$.005	2	$.20	2	$.0002	50	$.050
TAS +3	6	$.0075	3	$.30	3	$.0003	75	$.075
TAS +4	10	$.01	4	$.40	4	$.0004	100	$.10

What Does the TAS Order Book for Agricultural Futures Look Like?

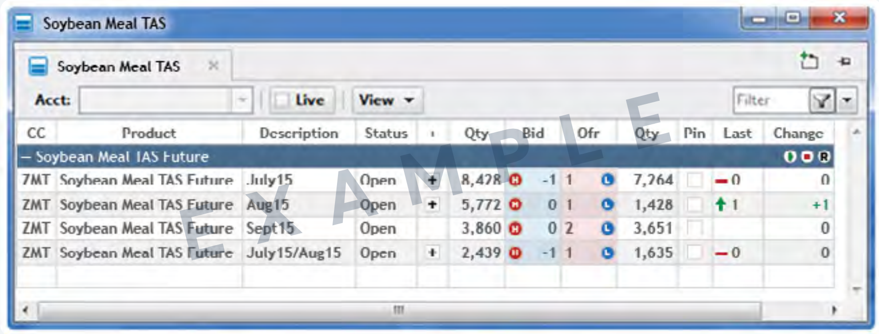
CORN, SOYBEANS, CHICAGO WHEAT, KC WHEAT

- The number in the "Bid" and "Ofr" columns represent the differential from the settlement price in number of ticks. That may say -10, -6, -4, -2, 0, 2, 4, 6, 10.
- In this instance, TAS 0 or "TAS flat" is the best bid for the July contract, while TAS +1 (which is represented by the "2") is the best offer for the same contract.



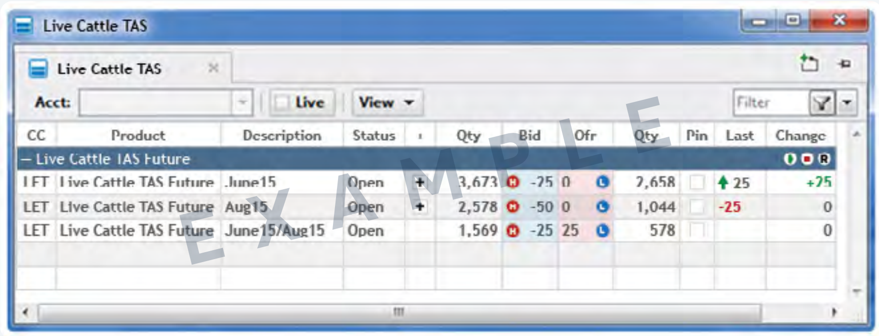
Soybean Meal, Soybean Oil

- The number in the "Bid" and "Ofr" columns represent the differential from the settlement price in number of ticks. That may say -4, -3, -2, -1, 0, 1, 2, 3 or 4.
- In this instance, TAS -1 (which is represented by the "-1") is the best bid for the July contract, while TAS +1 (which is represented by the "1") is the best offer for the same contract.



Live Cattle, Lean Hogs, Feeder Cattle

- The number in the "Bid" and "Ofr" columns represent the differential from the settlement price in number of ticks. That may say -100, -75, -50, -25, 0, 25, 50, 75, 100.
- In this instance, TAS -1 (which is represented by the "-25") is the best bid for the June contract, while TAS 0 or "TAS flat" is the best offer for the same contract.



TAS on Outrights:

GRAIN AND OILSEEDS EXAMPLE:

- A producer wants to sell five new crop futures contracts of December Corn at the settlement price.
- The producer offers to sell 5 contracts at the settlement price – "TAS 0" or "TAS flat"
- At the same time, a grain processor wants to hedge his grain inputs by purchasing 5 December contracts and prefers to receive at or near the settlement price, so he places an order to buy 5 December contracts at TAS flat
- The trades are matched. Later that afternoon at 1:15, Dec corn settles at $4.00. The resulting executed price to the buyer and seller is therefore $4.00.

LIVESTOCK EXAMPLE:

A beef producer wants to sell one April live cattle futures contract at the settlement price.

- There is no bid at "TAS flat"
- He enters a TAS-1 offer in the order book in effort to incentivize the other side of the trade
- Meanwhile, a beef packer wants to buy one April Live Cattle futures contract at or near the settlement price, so she lifts the offer and buys one contract at TAS-1, the settlement price minus one tick, or 2 ½ cents per hundredweight.

The trades are matched. Later that afternoon at 1:00, April Live Cattle settles at $160.875 per hundredweight. The resulting executed price to the buyer and seller is therefore $160.850 (settlement price minus $.025)

TAS on Calendar Spreads

TAS may also be used in executing calendar spreads.

- If the TAS spread trades at a positive differential (i.e. TAS +1), the nearby leg of the spread will be priced at the settlement price for that contract month plus the applicable TAS differential. The deferred leg will be priced at the settlement price for that contract month.
- If the TAS spread trades at a negative differential (i.e. TAS -1), the nearby leg of the spread will be priced at the settlement price for that contract month. The deferred leg will be priced at the settlement price for that contract month plus the absolute value of the applicable TAS differential.

EXAMPLE:

A November-January soybean calendar spread trades at TAS +1. Later that afternoon, the November contract settles at $11.00 and the January contract settles at $11.08

- The November leg will be priced at $11.0025, which is the settlement price of $11.00 plus the TAS price increment of +1 ($.0025)
- The January leg will be priced at the contract settlement price of $11.08
- As a result, the TAS spread is -$.0775 versus -$.08 for the standard spread settlement

EXAMPLE:

A November-January soybean calendar spread trades at TAS -1. Later that afternoon, the November contract settles at $11.00 and the January contract settles at $11.08

- The November leg will be priced at the contract November settlement price of $11.00.
- The January leg will be priced at $11.0825, which is the settlement price of $11.08 plus the absolute value of the TAS differential of -1 (-$.0025)
- As a result, the TAS spread is -$.0825 versus -$.08 for the standard spread settlement

TAS Protocol on Limit or Near-Limit Daily Price Moves

- TAS orders will be filled at +/- up to 4 ticks above or below the settlement price regardless of daily price movements.
- On limit or near-limit days, the price assigned could potentially be outside of hard limits by up to one cent per bushel, or 4 ticks, in grain and oilseed futures.
- Price assignments in livestock futures may be outside of hard limits by up to 10 cents per hundredweight, or 4 ticks.

Why isn't TAS offered on further-deferred contracts, Rough Rice Futures, Oat Futures or Dairy Futures?

- In order to preserve the integrity of our markets, an extensive liquidity analysis was conducted to determine which instruments could support TAS. To prevent any possible adverse market impact, only contracts and spreads with appropriate liquidity have TAS order capability. The exchange updates these offerings on a regular basis in an effort to maximize the benefit to the entire market.

For more information about TAS for Agricultural Futures, please contact agtas@cmegroup.com or visit cmegroup.com/agtas.

cmegroup.com

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