Blocks & Crosses in Ag Markets

Analysis of trade between 01/08/2018 - 03/23/2018

April 5th, 2018

Tim Andriesen, Managing Director, Agricultural Products Andrew Vrabel, Executive Director, Market Regulation Fred Seamon, Executive Director, Research & Product Development



What is Relationship Based Trading?

Relationship Based Trading allows for brokers and market participants to have pre-execution discussions around the size, direction and price prior to the execution of a trade. The trade itself can take 2 forms:

Crosses:

A Cross is a transaction type allowed on CME Globex which gives brokers who engage in allowable pre-execution communications the ability to enter a two-sided order on CME Globex. Customers may benefiting from improvements to the market in the central limit order book. There is no minimum transaction size or additional eligibility requirement for doing a cross.

Blocks:

A Block is a privately negotiated future, option or combination transaction that is permitted to be executed apart from the central limit order book. Buyer and Seller are matched by a broker and the trade is submitted to CME ClearPort. Block trades must be above a certain threshold size, are restricted to Eligible Contract Participants and must be reported within a short time period after they are executed.

Why Relationship Based Trading?

What are the benefits of RBT to our commercial customers

- A consistent complaint we have received from our commercial grain customers is a lack of liquidity to execute hedges further back on the curve and orders in less liquid products. RBT's allow brokers and traders to communicate and source liquidity to facilitate execution of these trades
- Recently, some of our large commercial customers have expressed an interest in being able to execute and roll spreads in greater size than our existing max order size (2,500 contracts). Blocks allow customer to execute transactions in excess of that limit.
- In some new and nascent contracts, building liquidity through a CLOB has been difficult. Allowing block trades has brought brokers into the market who are building liquidity in these products.

RBT & Price Transparency

Some customer have expressed concerns about price transparency

- Today there is a "dark" market in ags the OTC Swap market. These trades are not reported to the broader market in a timely manner* and only larger market participants with ISDA agreements in place with other counterparties can access these markets. We want to bring these trades into the more transparent block market.
- While blocks are executed off the CLOB, they must be reported within a short period of time. All of these trades are seen by the marketplace within 5 or 15 minutes of the time of execution.
- In many cases, block trades are executed between a principal and a market maker. The market maker will frequently hedge the transaction in the CLOB market so the flow from that transaction will also be seen and can be interacted with by market participants.

* OTC Swaps must be reported to a Swaps Depository within 2 hours

Overall Number and Percent of Transactions

Are blocks and crosses a significant percentage of the transaction?

	Total Trades	Block Trades	% Total Trades	Cross Trades	% Total Trades
Corn	7,151,953	80	0.001%	345	0.005%
Soybeans	7,489,385	27	0.000%	350	0.005%
Wheat, SRW	4,306,779	22	0.001%	268	0.006%
Wheat, HRW	2,057,518	21	0.001%	27	0.001%
Soybean Oil	3,374,865	12	0.000%	84	0.002%
Soybean Meal	4,243,457	22	0.001%	534	0.013%
Live Cattle	2,864,877	15	0.001%	36	0.001%
Lean Hog	2,103,896	21	0.001%	19	0.001%
Feeder Cattle	725,459	0	0.000%	4	0.001%
TOTAL	34,318,189	220	0.001%	1667	0.005%

Trade Dates: 01/08/2018 - 03/23/2018

Total Trades: Total # transactions across all venues (Futures and Options)

Overall Volume and Percent of Volume

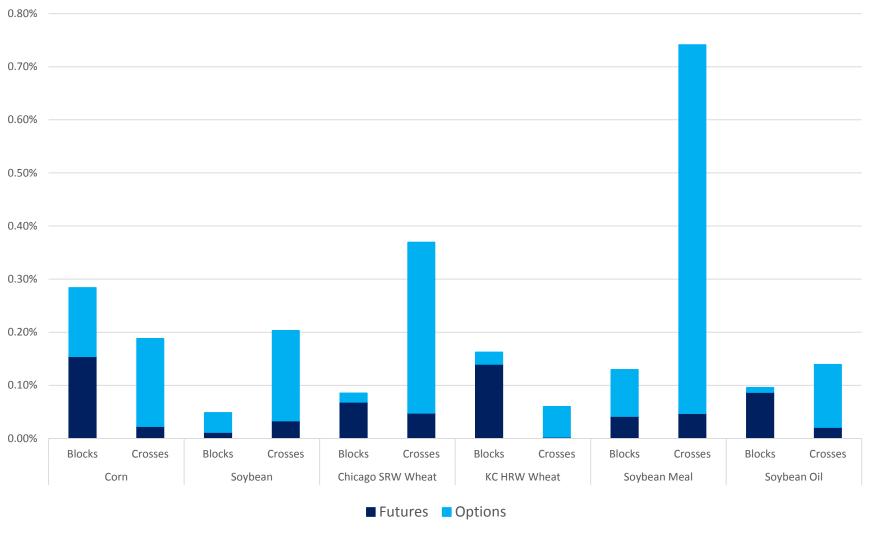
Are blocks and crosses a significant percentage of the volume?

	Total Volume	Block Volume	% Total Volume	Cross Volume	% Total Volume
Corn	28,321,805	80,483	0.28%	53,333	0.19%
Soybeans	19,057,698	9,284	0.05%	38,733	0.20%
Wheat, SRW	10,743,298	9,172	0.09%	39,713	0.37%
Wheat, HRW	4,395,285	7,146	0.16%	2,645	0.06%
Soybean Oil	7,467,915	7,173	0.10%	10,418	0.14%
Soybean Meal	8,426,519	10,929	0.13%	62,475	0.74%
Live Cattle	4,365,988	1,350	0.03%	1,053	0.02%
Lean Hog	3,245,136	3,038	0.10%	1004	0.03%
Feeder Cattle	862,086	0	0.00%	8	0.001%
TOTAL	86,885,730	128,575	0.15%	209,382	0.24%

Trade Dates: 01/08/2018 - 03/23/2018

Total Volume: Total volume across all venues (Futures and Options)

Grains: % of Blocks and Crosses Traded by Product



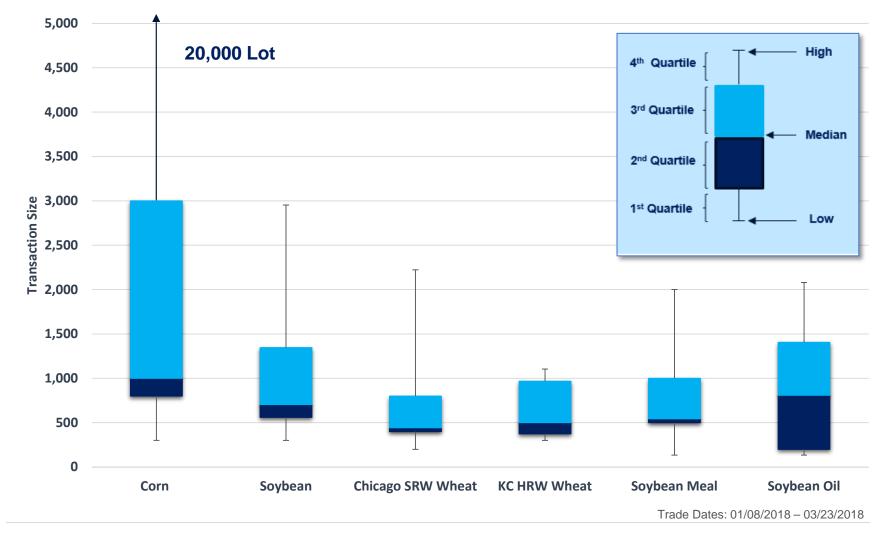
Trade Dates: 01/08/2018 - 03/23/2018

Livestock: % of Blocks and Crosses Traded by Product

0.80%						
0.70%						
0.60%						
0.50%						
0.40%						
0.30%						
0.20%						
0.10%						
0.00%						
	Blocks Live Ca	Crosses	Blocks Lean	Crosses	Blocks Feeder	Crosses Cattle
			Futures	Options		
					Trade Dates: 0	1/08/2018 - 03/23/2018

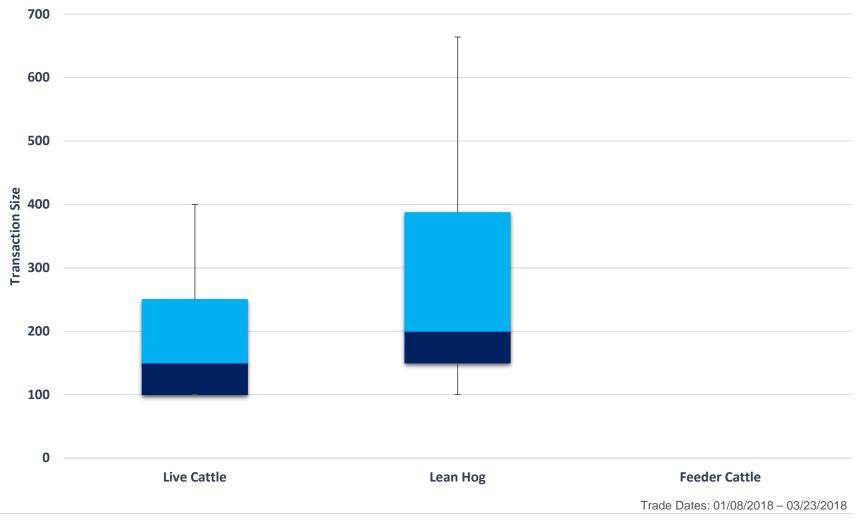
Grains: Distribution of Order Sizes by Commodity

Note: In this chart the legs of a spread are summed to come up with the block size e.g. 500 CN-CZ would count as a block of 1,000



Livestock: Distribution of Order Sizes by Commodity

Note: In this chart the legs of a spread are summed to come up with the block size.



Example of Block Trades

February 28th, 2018 Block of 250 September SRW Wheat Futures @ 522'4	At the time the block was executed the top of book depth was 43 contracts. The block was executed at the 2 nd level price of the book. Had this order been put into the book as a market order, it would have needed to go through 10 levels of the book to be filled with existing liquidity shown
March 9th, 2018 Block of 250 July- Dec Corn CSO -10,0 call spread @ 1/4	Historically, Calendar Spread Options have been challenged in sourcing liquidity. Since Jan. 1, the Jul-Dec Corn CSO had traded only 419 contracts Here the broker was able to source liquidity to allow the commercial customer to execute a larger order.
March 14th, 2018 Block of 300 July Corn Future @ 399'4	At the time the block was executed the book showed 326 contracts. This block however was one leg of a ethanol crush trade where the counterparty also blocked 107 NYMEX Ethanol futures
March 27th, 2018 Block of 2,000 CU8 390C / CH9 410C @ 5'3	At the time of the trade the CU8 leg was offer roughly 1,100 contracts deep but at no time during the 27 th was there a bid or offer in the book for the CH9 leg

Corn



Corn – Distribution Across the Curve

Note: The legs of a spread are included in the respective contracts e.g. a CH-CK spread would contribute to both the CH and CK volumes below

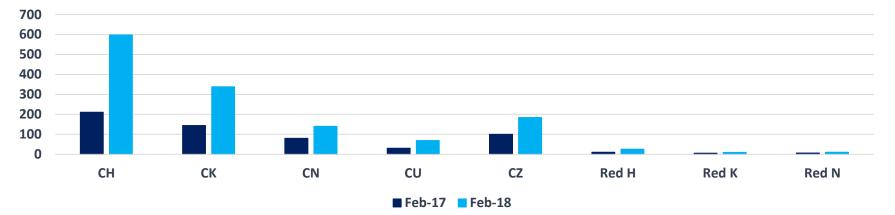


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Trade Dates: 01/08/2018 - 03/23/2018

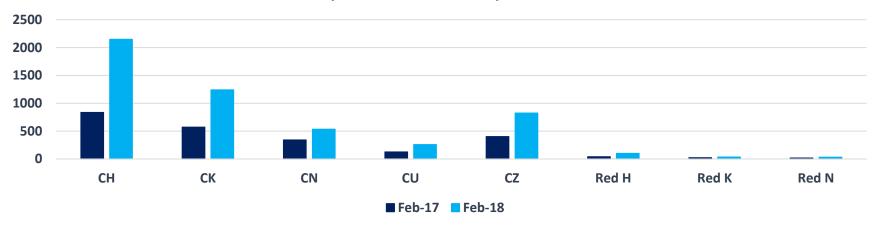
Corn – Impact on Liquidity

For a variety of reasons the liquidity of the market is greater in Feb '18 than Feb '17



Top Level Book Depth - Corn

Top 3 Levels of Book Depth - Corn



Soybeans



Soybeans – Distribution Across the Curve



Total Soybean Futures % Blocked by Contract Month

Trade Dates: 01/08/2018 - 03/23/2018

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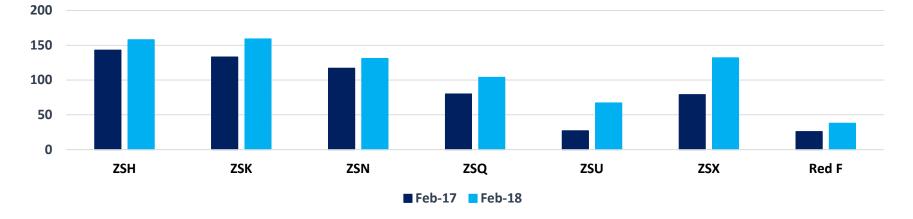
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Soybean – Impact on Liquidity

For a variety of reasons the liquidity of the market is greater in Feb '18 than Feb '17



Top Level Book Depth - Soybean

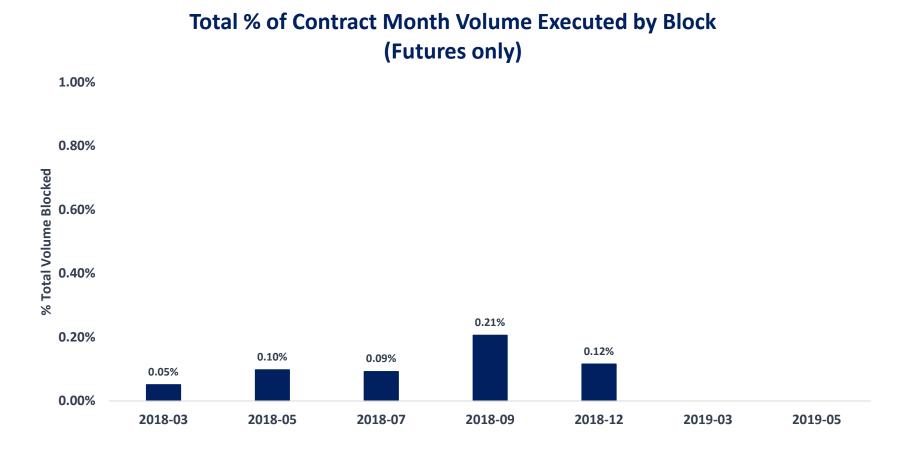


Top 3 Levels of Book Depth - Soybean

Wheat, SRW



Wheat (SRW) – Distribution Across the Curve



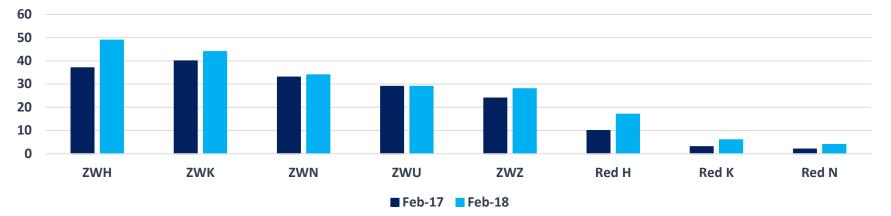
Trade Dates: 01/08/2018 - 03/23/2018

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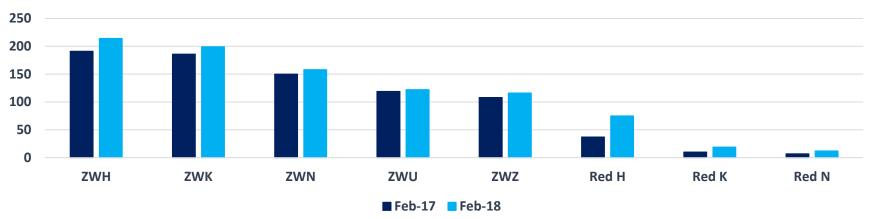
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Chicago SRW Wheat – Impact on Liquidity

For a variety of reasons the liquidity of the market is greater in Feb '18 than Feb '17



Top Level Book Depth - Chicago SRW Wheat



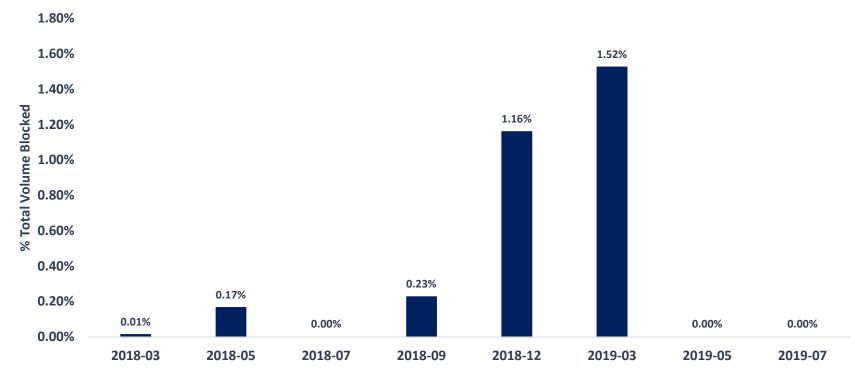
Top 3 Levels of Book Depth - Chicago SRW Wheat

Wheat, KC HRW



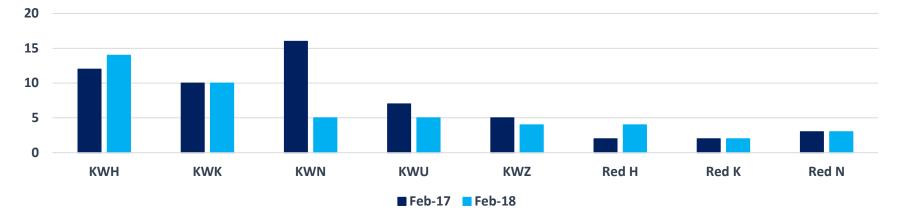
Wheat (KC HRW) – Distribution Across the Curve

Total % of Contract Month Volume Executed by Block (Futures only)



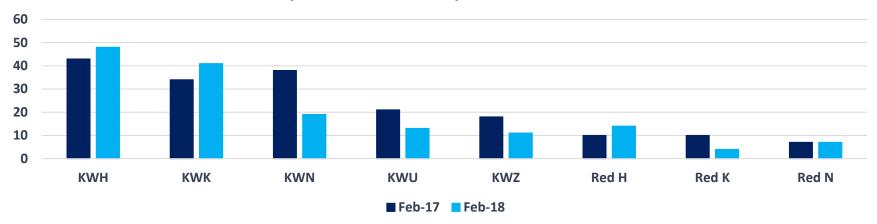
Trade Dates: 01/08/2018 - 03/23/2018

KC HRW Wheat – Impact on Liquidity



Top Level Book Depth - KC HRW Wheat

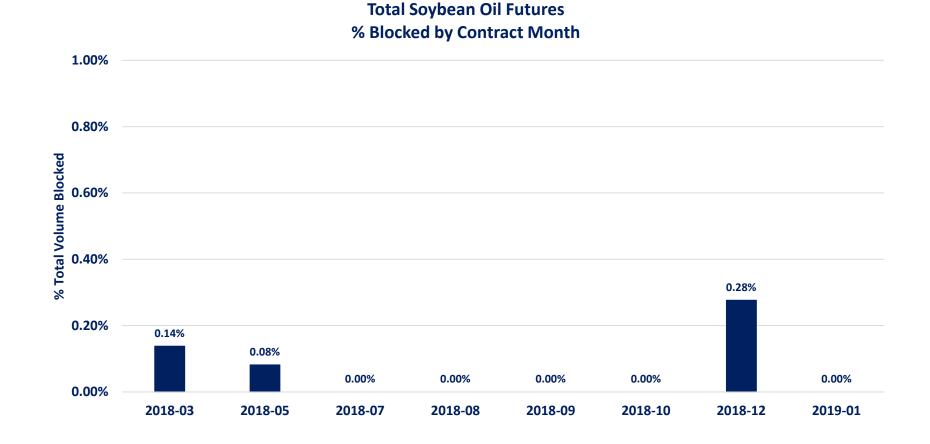
Top 3 Levels of Book Depth - KC HRW Wheat



Soybean Oil



Soybean Oil – Distribution Across the Curve

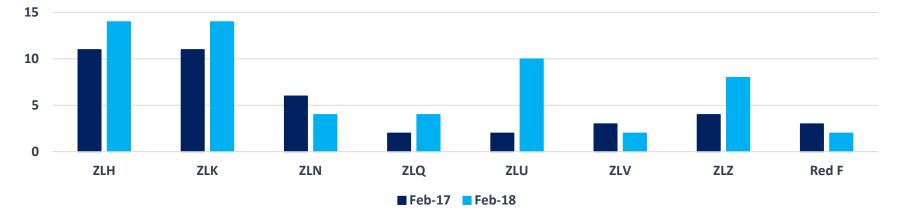


Trade Dates: 01/08/2018 - 03/23/2018

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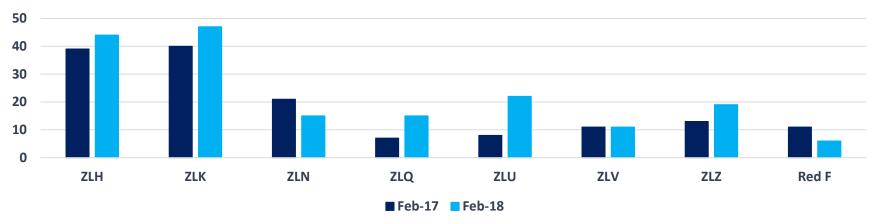
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Soybean Oil – Impact on Liquidity



Top Level Book Depth - Soybean Oil

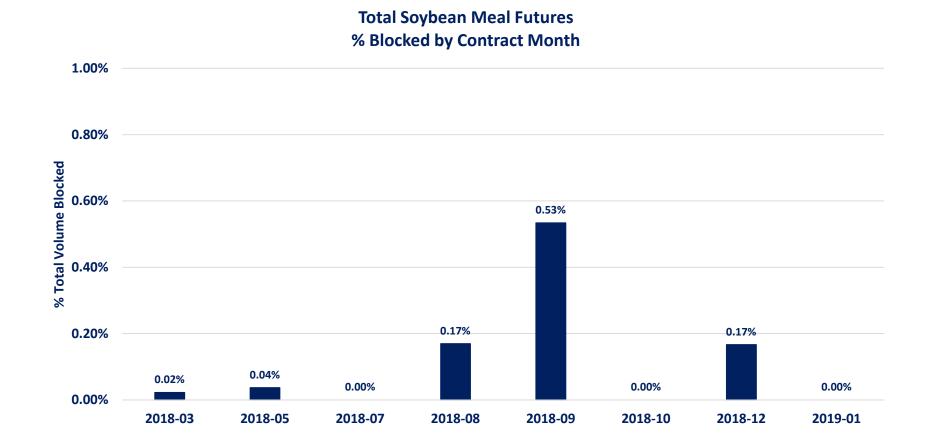




Soybean Meal



Soybean Meal – Distribution Across the Curve

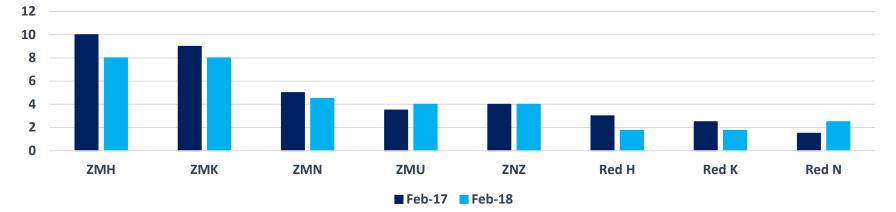


Trade Dates: 01/08/2018 - 03/23/2018

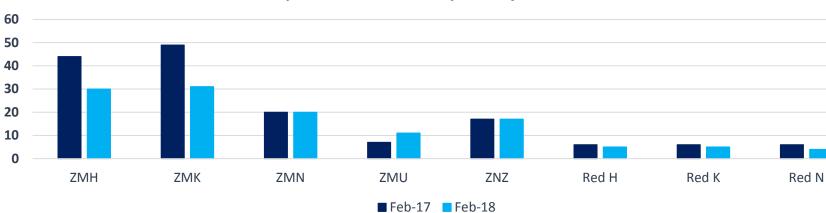
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Soybean Meal – Impact on Liquidity



Top Level Book Depth - Soybean Meal



Top 3 Levels of Book Depth - Soybean Meal

Live Cattle



Live Cattle – Distribution Across the Curve



Trade Dates: 01/08/2018 - 03/23/2018

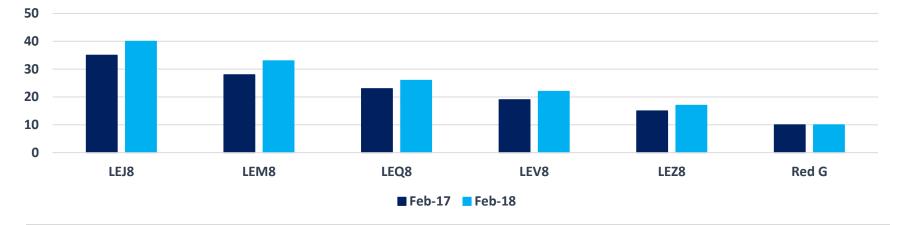
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Live Cattle – Impact on Liquidity



Top Level Book Depth – Live Cattle



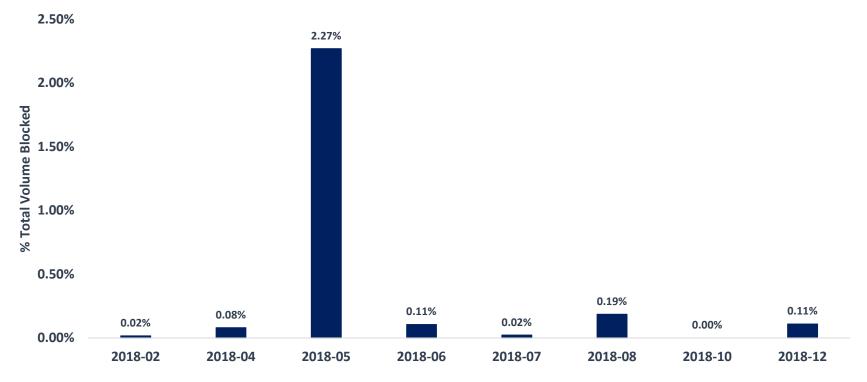
Top 3 Levels of Book Depth – Live Cattle

Lean Hogs



Lean Hog – Distribution Across the Curve

Total % of Contract Month Volume Executed by Block (Futures only)

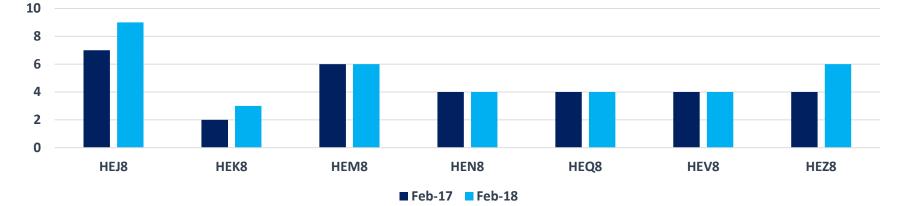


Trade Dates: 01/08/2018 – 03/23/2018

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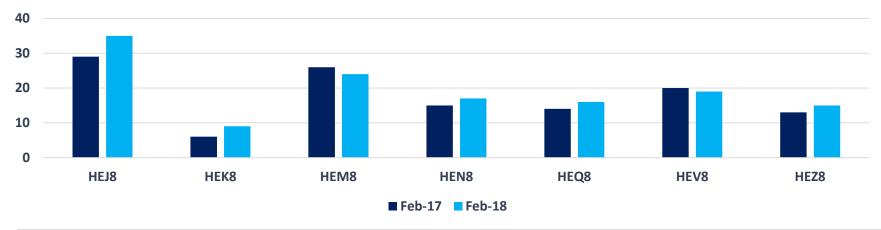
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Lean Hog – Impact on Liquidity



Top Level Book Depth – Lean Hog





Surveillance of Block Trades in Agricultural Products

Market Regulation Department

April 2018

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Protecting market integrity, enforcing rules, and proactively mitigating risks to the marketplace

~160 Employees in 4 Locations - Chicago, New York, London, and Singapore

5 Functional Groups

Rules & Regulatory Outreach

- Draft rules, rule revisions and associated regulatory guidance (MRANs and SERs); provide rules-based guidance to participants

Technology & Strategic Initiatives

- Data scientists and regulatory systems experts work across teams to provide robust and creative surveillance tools

Market Surveillance

- Analysts monitor position limits and exemptions, accountability levels, and large trader positions to detect, deter and prevent market manipulation

Investigations/Data Investigations

- Investigators analyze and investigate market activity to identify trade practice violations and audit trail inaccuracies

Enforcement

- Attorneys prosecute rule violations referred by Investigations and Market Surveillance

Protecting market integrity, enforcing rules, and proactively mitigating risks to the marketplace

Market Regulation Independence

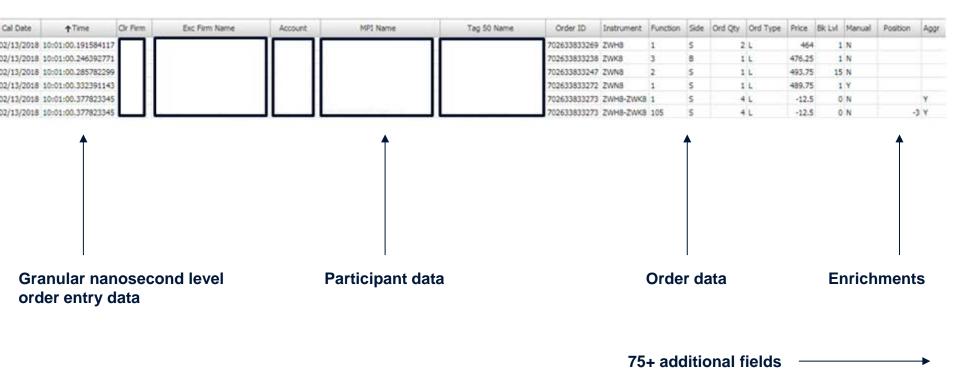
- CME Group Market Regulation Oversight Committee provides independent board-level oversight of the policies and programs of the company's regulatory functions, ensuring the Market Regulation Department is able to implement its regulatory responsibilities independent of any improper interference or conflict of interest.

Market Regulation Confidentiality

- Exchange Rule 537 provides that regulatory data may not be used by the Exchange for business or marketing purposes unless the market participant has clearly consented to the use of such data in such manner.
- Proprietary data or personal information collected or received by the Exchange for the purpose of fulfilling regulatory obligations may not be disclosed publicly other than on an aggregated or anonymized basis, or in a manner that does not directly or indirectly identify any market participant who has submitted such data.

Data & Tools for Surveillance

Enriched Order Messaging Data



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Data & Tools for Surveillance

Trade Data for All Cleared Transactions

Trade ID			Submit Date	0	03/21/2018 09:3	39:19		
Product	LIVE CATTLE FUTURES (48.CME)		Clearing Date	0	03/21/2018			
Clearing	· · · ·		Original Trade Date	• 0	03/21/2018			
Execution Time (Local)			Execution Time (CT)		09:35			
Status 💷 help	Cleared		Strategy Price	2	2.250			
Status Reason	Trade submitted for	or clearing	Strategy Type	S	Standard Calen	Idar		
Trade Type	ype BLOCK		Cleared contract(s)		150 / 150			
Voice Brokered:	YES		Aggressor:	B	BUYER			
Company Nam			mitter					
Allocation Info	rmation Name T	rading Account		Give-Up	Name	Quanti 150 All	1	
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CME Group CME ClearPort®

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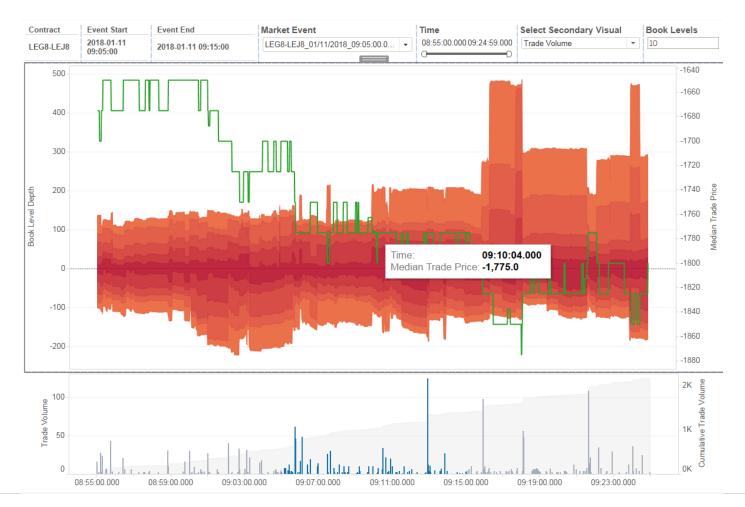
Data & Tools for Surveillance

Position Data

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Data & Tools for Surveillance

Market Data



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Sophisticated Market Surveillance Tools

ARES Block Timestamp Review 🖾 Help								
Queries New Q	uery	• =	Run Que	ery 👻	Layouts	- New Layout/Config	-	v =
Parameters [Data SQL							
Report Descript	ion							
This report provides for each block trade	s the execution, submit, and matc	h times, along with pa	articipant	t and contrac	t information,			
Version: 2	Modified: 11/18/2016, 3:46 PM	Da	nta Sour	ce: ORACLE	Ē			
* Start Date:	03/29/2018							
* End Date:	03/29/2018							
* Exchange:	ALL 👻]						
* Commodity:	ALL ×							
* MP ID:	ALL ×							
* Firm No:	ALL ×							
* Account No:	ALL ×							
* Card/Order No:	ALL ×		18					



Supplemental Information

Customer Center	Portfolio & Risk P	ost Trade R	Regulatory	Apps &	Analytics	Administr
¥ Firm Regulatory Portal ∡ [≉] ome						
Regulatory Matters - Status Inquiry						
Please enter the reference number and PIN for the reg	julatory matter that you would like to look	k up.				
Reference #:	PIN:		Lool	up Status	Clear	
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Status: Self-Report Delays/Changes for PNTs Portal * Clearing Ref #/Trade ID:		2				
Self-Report Delays/Changes for PNTs Portal	*	2				

Programmatic Reviews of Block Trading

Designated Market Regulation Department team assigned to analyze and review block trades for potential violations. The team performs:

- **Pricing analysis** to determine if block price was fair and reasonable at the time of execution. This includes a cost-to-fill analysis, a review of the high/low price range on Globex, and a review of other comparable block trade prices.
- **Timing analysis** to validate whether the block was reported within the appropriate reporting time window. Market Regulation will also incorporate information obtained from firms' self-reports into this analysis.
- **Pre-hedging analysis** to ascertain whether a prohibited party engaged in pre-hedging activity.
- Money pass and wash trade analysis is performed to determine if the block trades violated a trade practice rule.
- Reviews of complaints from market participants.

Programmatic Reviews of Block Trading



Block Trading Violations

- Summary fines for reporting infractions pursuant to exchange Rule 512
- Disciplinary sanctions for egregious reporting violations or other significant trade practice violations

NOTICE OF DISCIPLINARY ACTION

NYMEX 16-0541-BC

Effective Date 02 March 2018

FINDINGS:

Pursuant to an offer of settlement that	presented at a hearing
on February 28, 2018, in which r	either admitted nor denied the factual allegations or rule
violations upon which the penalty is bas	sed, a Panel of the NYMEX Business Conduct Committee
("Panel") found that from May 1, 2016 t	hrough May 1, 2017,was the executing broker for
various block trades in Gasoil, Naptha,	Fuel Oil and Argus Propane Far East Index contracts and
frequently misreported the true and acc	urate execution times of the block trades to the Exchange.
failed to diligently supervise its e	mployees or agents in its reporting of block trades to the
Exchange by failing to have established	I procedures to review block trades before and after
submission to the Exchange to ensure	that block trade execution times were accurate.

The Panel concluded that Ginga violated Exchange Rules 526.F. ("Block Trades") and 432.W ("General Offenses—Supervision").

PENALTY:

In accordance with the settlement offer, the Panel ordered **to** pay a fine to the Exchange in the amount of \$60,000.



Questions?



Disclaimer

Neither futures trading nor swaps trading are suitable for all investors, and each involves the risk of loss. Swaps trading should only be undertaken by investors who are Eligible Contract Participants (ECPs) within the meaning of Section 1a(18) of the Commodity Exchange Act. Futures and swaps each are leveraged investments and, because only a percentage of a contract's value is required to trade, it is possible to lose more than the amount of money deposited for either a futures or swaps position. Therefore, traders should only use funds that they can afford to lose without affecting their lifestyles and only a portion of those funds should be devoted to any one trade because traders cannot expect to profit on every trade. All references to options refer to options on futures.

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