

# The Controller's Handbook



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## The Basics – How SCS Works



## The Basics – How SCS Works

What exactly is a structured grain contract?

A structured grain contract works, looks, and feels exactly like a standard HTA, with the flexibility of adding features such as averaging, stop protect levels, resets, and additional quantities to the contract.

### The Basics - How SCS Works



### The SCS Process

- 1. SCS provides the aggregator/consumer with a wide variety of structured grain solutions for marketing and hedging. They then originate/hedge grain using these solutions, according to their or their customer's needs.
- 2. SCS hedges the resultant exposure using futures and options inside of a segregated brokerage account, with a view to extracting the edge in the trade.
- When structures expire, the accummulated futures are transferred from the segregated brokerage account to the main brokerage account of the entity.
- 4. Every six months, the profits in the SCS account\* are divided between SCS and the aggregator/consumer, with SCS absorbing all losses, if any.

### The Basics - How SCS Works



#### The SCS Process

Note that the value of the SCS sub-account is defined as:

- 1. The marked-to-market value of all structures, plus...
- 2. The marked-to-market of the options and future hedges (valued using the same market data as the structures), which...
- 3. Include all cash transfers of any premiums and structure settlements between the sub-account and main account, minus...
- 4. Any trading commissions

SCS Account Value = (structure Mk2Mkt) + (future and options Mk2Mkt) +/- (cash transfers) – (trading commissions)



# Margin/Cash – When Money Moves



## Cash – When it Moves

- Because the segregated brokerage account is cross margined with the entity's main account, cash never has to move between accounts for margin purposes.
- When an elevator's account is reconciled semi-annually, all
  cash owed between the segregated account and the main
  account is settled. If any profits are then simultaneously
  dispersed to the elevator and SCS, the Mk2Mkt of the account
  is reduced by the total amount of cash dispersed.





- There is no commission charged by SCS on OTC structures.
- Commissions are charged to the segregated account for futures and options used to hedge structures by executing brokerage (not by SCS).

\*SCS has pre-negotiated rates for clearing that may be advantageous. For more details, talk to your SCS representative.



- Commissions paid for futures and options therefore reduce the value of the entire SCS sub-account.
- Because SCS is compensated based on the value of the SCS sub-account (and any losses in the sub-account are covered by SCS), SCS is essence shares in the cost of those commissions.



 Because SCS does not benefit from commissions, and in fact ends up having its compensation reduced by any commissions paid...

...SCS is incentivized to keep transactions to a minimum!





- A key feature of the SCS Program is the daily computation of a marked-to-market (Mk2Mkt) value for each partner's entire portfolio.
- The Mk2Mkt value is intended to be an accurate, objective, and impartial reflection of the worth of each partner's account.
- It is based as much as possible on prices readily observed on publicly traded exchanges.





#### Elevator XYZ

Account: 12345678

#### SCS Open Positions as of September 22, 2015

#### Account Value, Marked-to-Market

		-10%	-7.5%	-5%	-2.5%	100%	+2.5%	+5%	+7.5%	+10%
	CZ15	\$3.481	\$3.557	\$3.653	\$3.749	\$3.845	\$3.941	\$4.037	\$4.133	\$4.230
Corn	M2M	\$141,925	\$148,840	\$152,775	\$155,600	\$157,321	\$157,838	\$157,242	\$155,911	\$154,498
	SX15	\$7.868	\$8.087	\$8.305	\$8.524	\$8.743	\$8.961	\$9.180	\$9.398	\$9.617

#### Structured Product Totals

Total Open Structures	Total Bushels	Bushels Accumulated
15	1,300,000	830,568
7	145,000	132 541



- The Mk2Mkt value of each partner's portfolio is comprised of 3 components:
  - 1. Structured Products
  - 2. Futures & Options
  - 3. Cash



### **Structured Products**

- Structured Products are valued using proprietary models. Though proprietary, these models are fairly standard and commonplace within the industry.
- These models assume a flat volatility (without skew). This is the
  conservative approach, as these models are more stable and
  consistent over time than equivalent skewed models. The
  volatility used is that of the ATM option of each expiry.



### **Structured Products**

- Inputs to the models (such as commodity prices and volatilities) are based on the closing prices of Exchange-Traded Instruments extracted through automated market feeds.
- Any values not available in the market are extrapolated from those which are readily available on the Board.

CZ15	12/14/2015	3.845
CH16	3/14/2016	3.96
CK16	5/13/2016	4.035
CN16	7/14/2016	4.09
CU16	9/14/2016	4.0375
CZ16	12/14/2016	4.095
CH17	3/14/2017	4.195
CK17	5/12/2017	4.255
CN17	7/14/2017	4.2925
CU17	9/14/2017	4.1725
CZ17	12/14/2017	4.1175

SX15	11/13/2015	8.7425
SF16	1/14/2016	8.7875
SH16	3/14/2016	8.8225
SK16	5/13/2016	8.85
SN16	7/14/2016	8.8975
SQ16	8/12/2016	8.89
SU16	9/14/2016	8.8075
SX16	11/14/2016	8.78
SF17	1/13/2017	8.8375
SH17	3/14/2017	8.8825
SK17	5/12/2017	8.9175
SN17	7/14/2017	8.97
SQ17	8/14/2017	8.9475
SU17	9/14/2017	8.9075
SX17	11/14/2017	8.8425



### **Futures and Options**

 Futures and Options – the mk2mkt of the futures and options used to hedge Structured Products are determined by market data extracted from closing prices on the Chicago Board of Trade. This is the same market data used to compute the mk2mkt of the corresponding Structured Products.



### **Futures and Options**

- Options used as hedges are also valued using a flat volatility, just like the Structured Products they hedge. This is the conservative approach (and often used within the industry) as it ensures structures and their option hedges are marked-to-market using the same market data, and under the same assumptions.
- Note that because options are being valued on a flat volatility, their valuations may not exactly match the closing price of options on the Exchange.



### Cash

- Cash has 4 components:
  - 1. Residual profit/loss from expired futures and options
  - 2. Residual profit/loss from expired OTCs (this includes cash settlement of the difference between settlement futures price and accumulated futures price)
    - 3. Premiums paid/received for Structured Products
    - 4. Commission expenses
- Cash not yet collected or paid out is still accounted for in the mk2mkt value of the portfolio.



• SCS has every incentive to calculate accurate, objective, and impartial mk2mkt values under our Structured Products Program. Besides fostering the good working relations with our partners which is key to our business, accurate mk2mkt numbers help us avoid a loss in a partner's account.



... SCS is 100% responsible for any losses that occur at all – we can't be more incentivized than that to ensure accurate mk2mkt evaluations!



# The Report – How to Read It

### Report - How to Read It



### The SCS Statement

 The SCS Daily Statement shows the current mk2mkt value of the account for each commodity. It also shows a slide of the mk2mkt for a change in the commodity price.

Account Value, Marked-to-Market					Mk2mkt					
		-10%	-7.5%	-5%	-2.5%	100%	+2,5%	+5%	+7.5%	+10%
	CZ15	\$3.461	\$3.557	\$3.653	\$3.749	\$3.845	\$3.941	\$4.037	\$4.133	\$4.230
Corn	M2M	\$141,925	\$148,840	\$152,775	\$155,600	\$157,321	\$157,838	\$157,242	\$155,911	\$154,498
	SX15	\$7.868	\$8.087	\$8.305	\$8.524	\$8.743	\$8.961	\$9.180	\$9.398	\$9.617
Soybeans	M2M	\$5,365	\$5,365	\$5,365	\$5,365	\$5,365	\$5,365	\$5,365	\$5,365	\$5,365

### Report - How to Read It



### The SCS Statement

• The daily report also shows the details of each structure, their average price, and their theoretical value (mk2mkt + cost).

#### Structured Product Details

Trade ID	Reference Futures	Structure Detail	Structure Strikes	Cost per Bushel	End Date	Total Quantity	Quantity Accumulated		Observations to Date	Average Price per Bushel	Theoretical Value
XYZ-1011	CZ15	Master Producer Range Plus Plan	4.565; 5.08; 5.08	\$0.000	11/25/2015	85,000	73,514	74	64	\$4.565	-\$61,173
XYZ-1012	CZ15	Master Producer Range Plus Plan	4.5575; 5.0725; 5.0725	\$0.000	11/25/2015	100,000	86,487	74	64	\$4.558	-\$71,217
XYZ-1013	SX15	Master Producer Range Plus Plan	11.96; 12.76; 12.76	\$0.000	10/28/2015	10,000	9,143	70	64	\$11.960	-\$32,175
XYZ-1014	SX15	Master Producer Range Plus Plan	11.9775; 12.7775; 12.7775	\$0.000	10/28/2015	20,000	18,286	70	64	\$11.978	-\$64,700
XYZ-1015	CZ15	Master Producer Range Plus Plan	4.57;5.085;5.085	\$0.000	11/26/2015	30,000	25,946	74	64	\$4.750	-\$26,410
XYZ-1016	SX15	Master Producer Range Plus Plan	11.9975;12.7975;12.7975	\$0.000	10/29/2015	10,000	9,143	70	64	\$11.998	-\$32,550
XYZ-1017	CZ15	Master Producer Range Plus Plan	4.5975;5.1125;5.1125	\$0.000	11/26/2015	75,000	64,865	74	64	\$4.598	-\$56,415
XYZ-1018	SX15	Master Producer Range Plus Plan	12.02;12.82;12.82	\$0.000	10/29/2015	30,000	27,429	70	64	\$12.020	-\$98,326
XYZ-1019	CZ15	Master Producer Range Plus Plan	4.58;5.095;5.095	\$0.000	11/27/2015	200,000	172,973	74	64	\$4.580	-\$146,928
XYZ-1020	SX15	Master Producer Range Plus Plan	12.03;12.83;12.83	\$0.000	10/30/2015	50,000	45,714	70	64	\$12.030	-\$164,374
XYZ-1021	CZ15	Master Producer Range Plus Plan	4.565;5.08;5.08	\$0.000	11/23/2015	30,000	25,890	73	63	\$4.565	-\$21,592
XYZ-1022	CZ15	Master Producer Range Plus Plan	4.56;5.075;5.075	\$0.000	11/23/2015	50,000	43,151	73	63	\$4.560	-\$35,737
XYZ-1024	CZ15	Master Producer Range Plus Plan	4.5575;5.0725;5.0725	\$0.000	11/23/2015	5,000	4,315	73	63	\$4.558	-\$3,561
XYZ-1025	SX15	Master Producer Range Plus Plan	11.93;12.73;12.73	\$0.000	10/26/2015	15,000	13,696	69	63	\$11.930	-\$47,813
XYZ-1026	CZ15	Master Producer Range Plus Plan	4.57;5.085;5.085	\$0.000	11/23/2015	15,000	12,945	73	63	\$4.570	-\$10,871
XYZ-1027	SX15	Master Producer Range Plus Plan	11.9175;12.7175;12.7175	\$0.000	10/26/2015	10,000	9,130	69	63	\$11.918	-\$31,748
XYZ-1030	CZ15	Master Producer Range Plus Plan	4.15; 4.54875; 4.54875	\$0.000	11/26/2015	10,000	7,500	40	30	\$4.174	-\$3,175
XYZ-1031	CZ15	Master Consumer Assurance Plus Plan	3.8625;3.8625	\$0.000	11/19/2015	100,000	71,875	32	23	\$3.863	\$18,460
XYZ-1034	CZ16	Master Producer Enhancer Plus Plan	4.85;4.85;3.75	\$0.000	11/17/2016	100,000	14,085	71	10	\$4.850	-\$11,014
XYZ-1035	CZ15	Master Consumer Enhancer Plus Plan	3.9;3.9;4.5	\$0.000	11/18/2015	250,000	117,647	17	8	\$3.900	\$63,890
XYZ-1036	CZ15	Master Consumer Enhancer Plus Plan	3.64;3.64;4.3	\$0.000	11/18/2015	100,000	43,750	16	7	\$3.640	-\$8,610
XYZ-1037	CZ15	Master Consumer Enhancer Plus Plan	3.63;3.63;4.3	\$0.000	11/18/2015	150,000	65,625	16	7	\$3.630	-\$14,764

Theoretical Value

### Report - How to Read It



### The SCS Statement

 Lastly, the SCS Statement shows the total amount of structures open per each commodity, as well as total bushels done, and the amount of bushels accumulated to date.

#### Structured Product Totals

Total Open Structures	Total Bushels	Bushels Accumulated
15	1,300,000	830,568
7	145,000	132,541



# Questions? Comments?

# Contact the SCS Desk at: structureddesk@structuredcommoditysolutions.com

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