

Tools For a Carry Market



Tregg Cronin

Cronin Farms, Inc.

Halo Commodities

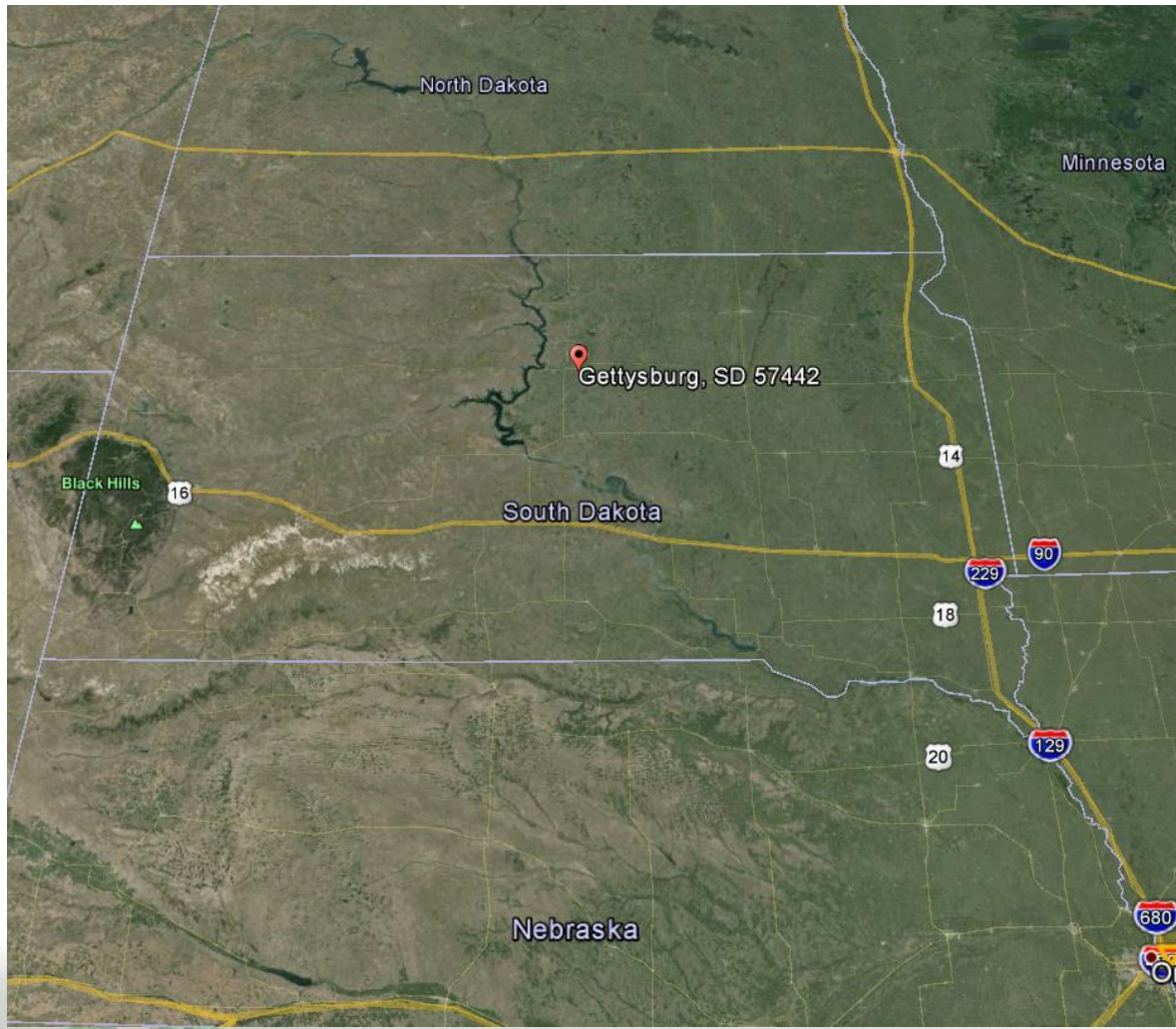
Background

Fourth Generation, Century Farm in Gettysburg, SD

- 8,500 acres of corn, soybeans, spring and winter wheat, sunflowers, field peas, lentils
- 100% no-till since 1996
- 700,000 bushels of on-farm storage
- Ranch 700 black angus cow/calf pairs along the Missouri River
- Spent four years with CHS and CHS Hedging buying cash grain and analyzing futures markets



Farm Location



25 miles to nearest rail

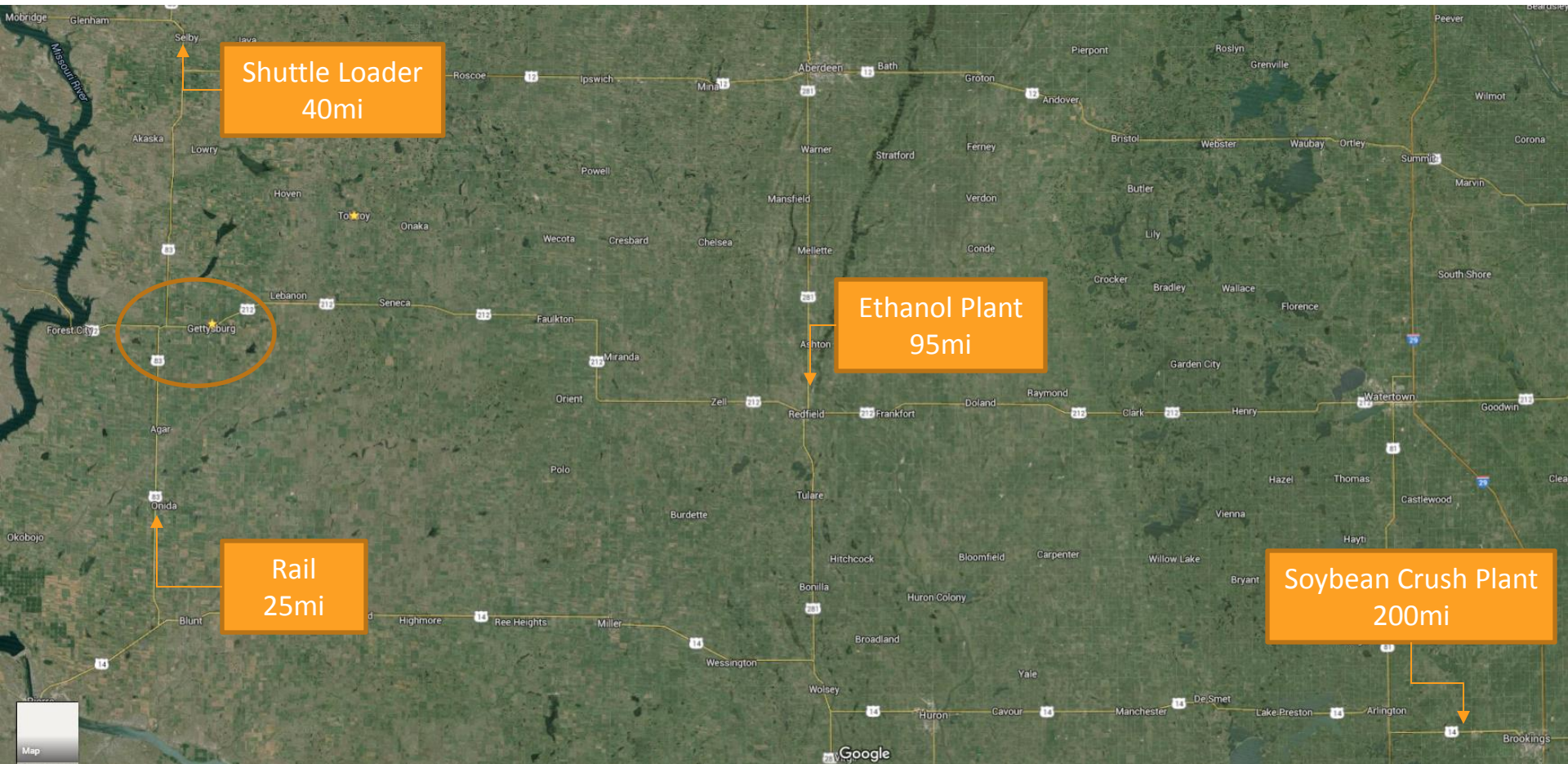
40 miles to nearest Mainline Shuttle Loader

91 miles to nearest Ethanol Plant

Plans for greenfield ethanol plant 30 miles away in 2016

198 miles to nearest Soybean Crush Plant

Farm Location



Agenda

- Asking the Necessary Storage Questions
 - What's our Objective?
 - Basis and Carries or Futures Exposure?
 - Is the Market Paying to Store Grain?
 - Corn vs. Wheat vs. Soybeans
 - The Components of a Carry
 - Tracking Basis Outside of Home Base
 - What's the Cheapest Form of Storage?
 - When Do We Stop Storing?
 - Market Conditions, Logistics, Spreading Risk
- Final Thoughts









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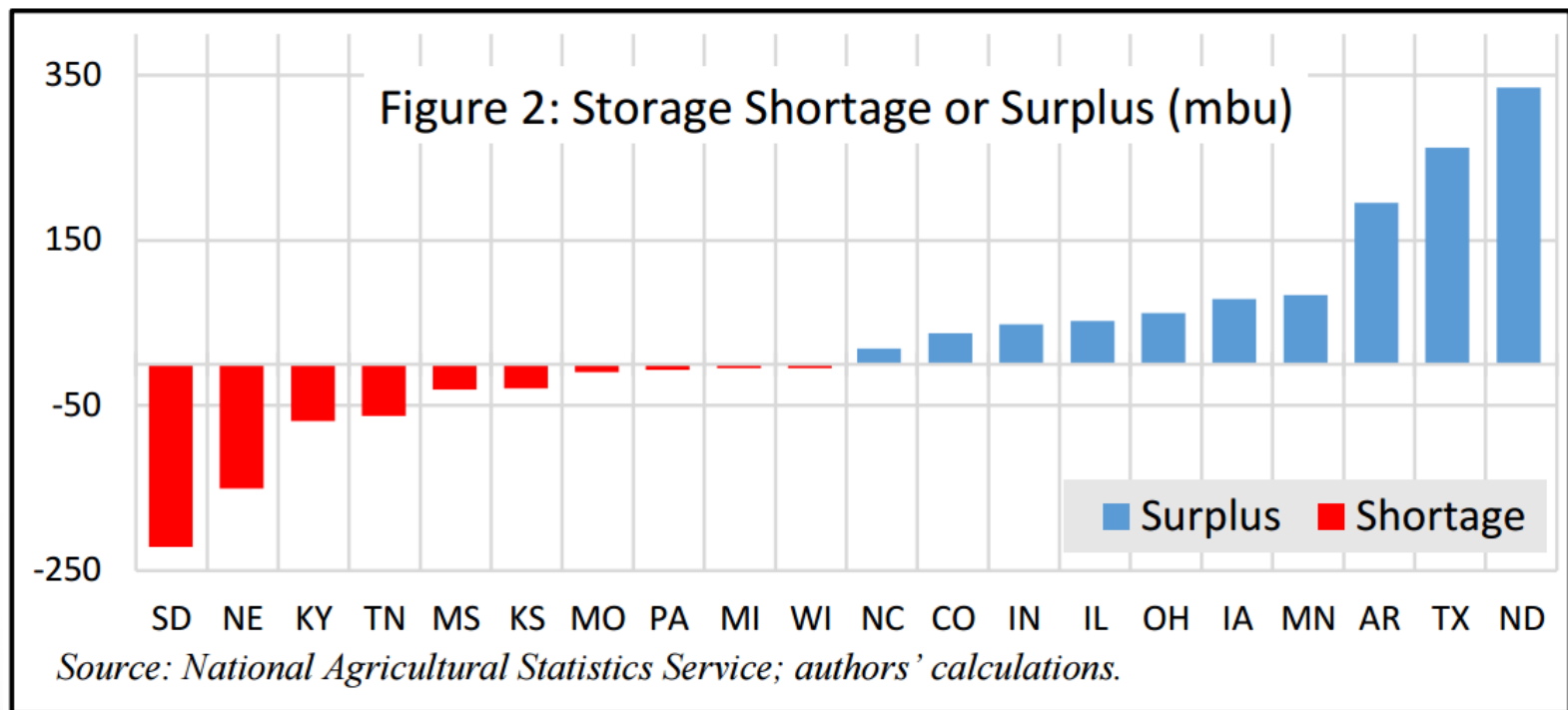




Storage

SD leads the nation in storage deficit

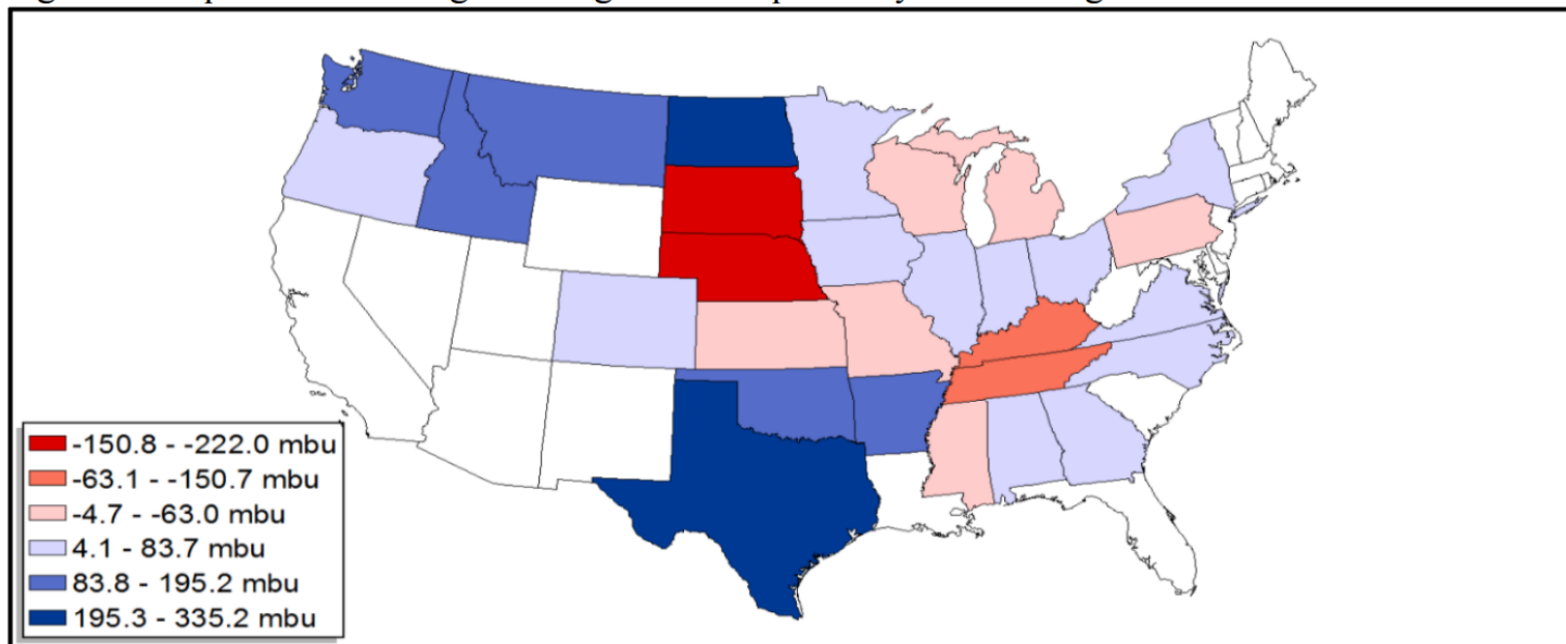
– Bags, Bunkers, Ground Piles, etc.



Storage

Back-to-back years of good small grain and row crop yields

Figure 3: Map of Grain Storage Shortages and Surpluses by State Going into 2015 Harvest²

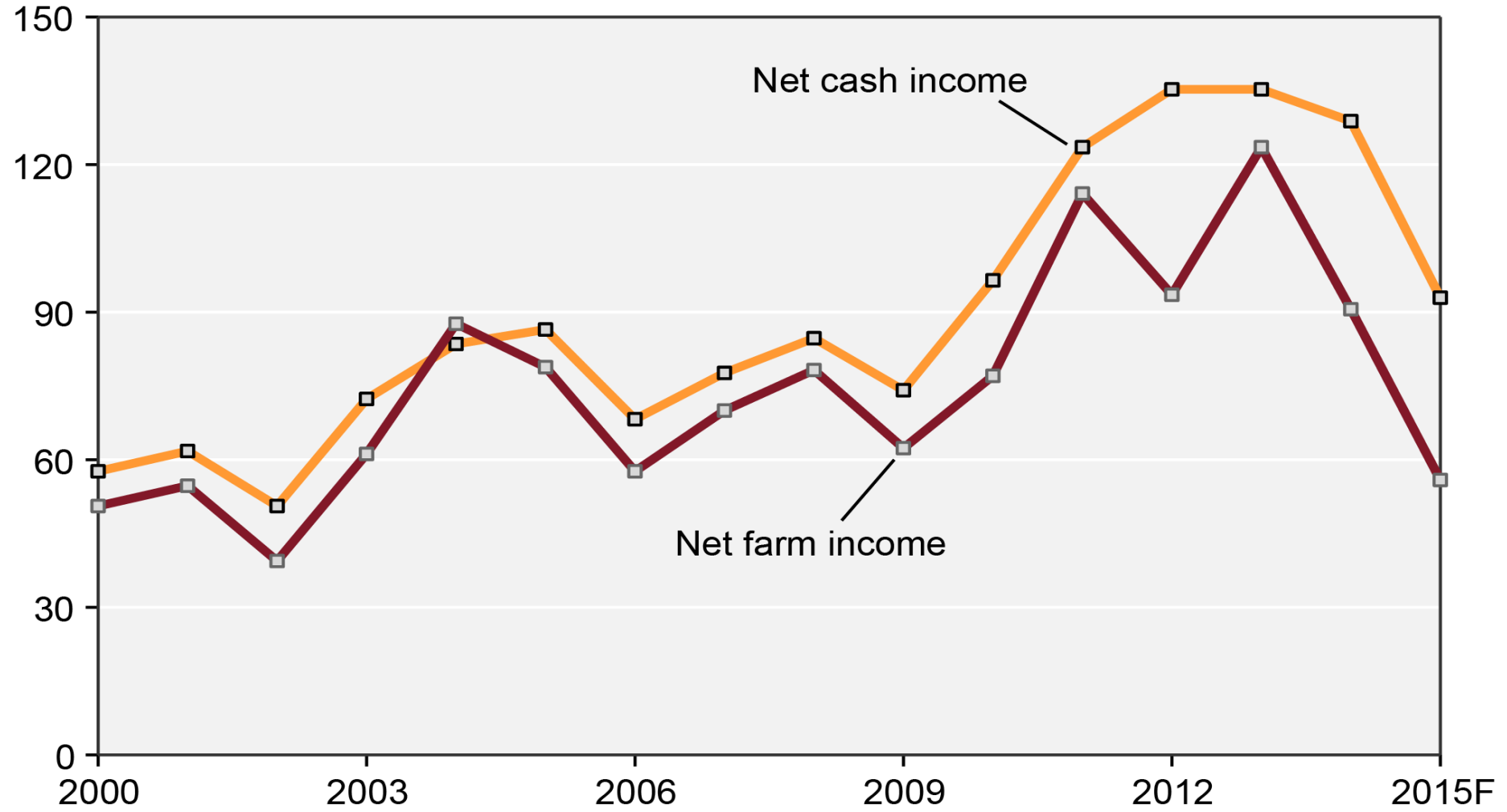


Source: National Agricultural Statistics Service; authors' calculations.



Net farm income and net cash farm income, 2000-2015F

\$ billion, nominal



Note: F = forecast.

Source: USDA, Economic Research Service, Farm Income and Wealth Statistics.

Data as of November 24, 2015.

Basis/Carries or Futures?



Basis/Carries or Futures?

First questions to be asked and answered:

- Why are we storing?
- Is flat price high enough?
- One requires a hedge, the other doesn't
- A blend of hedged/un-hedged grain most common



Is the Market Paying to Store Grain?



Is the Market Paying to Store?

- Storing grain for cash appreciation is two-fold:
 - Expectation is for basis to strengthen
- Spread has to cover the cost of storage and interest
 - 0.00165c/day for corn and soybeans (5c/mo)
 - CME wheat (uses Variable Storage Rate; Currently 5c/mo)
- Input applicable interest rate
 - Assuming LIBOR plus 200bp (2.33%)



Is the Market Paying to Store?

Current corn spreads paying 44-48% of commercial storage expense

	Month	Price		@CH16	@CK16	@CN16	@CU16	@CZ16
@CZ15	Dec 15	359' 2s	Market Carry	8.00	13.75	19.25	23.50	31.00
			Cost of Carry	17.13	28.43	40.10	51.77	68.90
			% Full Carry	46.70%	48.37%	48.01%	45.39%	44.99%
@CH16	Mar 16	367' 2s	Market Carry		5.75	11.25	15.50	23.00
			Cost of Carry		11.33	23.03	34.73	51.91
			% Full Carry		50.77%	48.85%	44.63%	44.31%
@CK16	May 16	373' 0s	Market Carry			5.50	9.75	17.25
			Cost of Carry			11.73	23.45	40.67
			% Full Carry			46.90%	41.57%	42.42%
@CN16	Jul 16	378' 4s	Market Carry				4.25	11.75
			Cost of Carry				11.75	28.99
			% Full Carry				36.17%	40.53%



Is the Market Paying to Store?

Current soy spreads paying 18-37% of commercial storage expense

	Month	Price		@SH16	@SK16	@SN16	@SQ16	@SU16	@SX16
@SF16	Jan 16	873' 0s	Market Carry	2.50	8.75	15.00	16.50	16.00	19.75
			Cost of Carry	13.29	26.58	40.31	46.74	54.05	67.56
			% Full Carry	18.81%	32.92%	37.21%	35.30%	29.60%	29.23%
@SH16	Mar 16	875' 4s	Market Carry		6.25	12.50	14.00	13.50	17.25
			Cost of Carry		13.30	27.04	33.47	40.79	54.31
			% Full Carry		46.99%	46.22%	41.83%	33.10%	31.76%
@SK16	May 16	881' 6s	Market Carry			6.25	7.75	7.25	11.00
			Cost of Carry			13.77	20.21	27.54	41.08
			% Full Carry			45.39%	38.35%	26.33%	26.78%
@SN16	Jul 16	888' 0s	Market Carry				1.50	1.00	4.75
			Cost of Carry				6.45	13.79	27.36
			% Full Carry				23.25%	7.25%	17.36%



Is the Market Paying to Store?

Current wheat spreads paying 59-74% of commercial storage expense

– March forward much tighter

	Month	Price		@WH16	@WK16	@WN16	@WU16	@WZ16
@WZ15	Dec 15	465' 6s	Market Carry	13.25	19.00	24.75	34.50	49.00
			Cost of Carry	17.76	29.47	41.57	53.66	71.42
			% Full Carry	74.61%	64.48%	59.54%	64.29%	68.61%
@WH16	Mar 16	479' 0s	Market Carry		5.75	11.50	21.25	35.75
			Cost of Carry		11.76	23.91	36.06	53.90
			% Full Carry		48.89%	48.09%	58.92%	66.33%
@WK16	May 16	484' 6s	Market Carry			5.75	15.50	30.00
			Cost of Carry			12.18	24.35	42.22
			% Full Carry			47.23%	63.65%	71.06%
@WN16	Jul 16	490' 4s	Market Carry				9.75	24.25
			Cost of Carry				12.20	30.10
			% Full Carry				79.93%	80.56%



Is the Market Paying to Store?

CZ/CH Corn Spread rallied 58% in 6-weeks



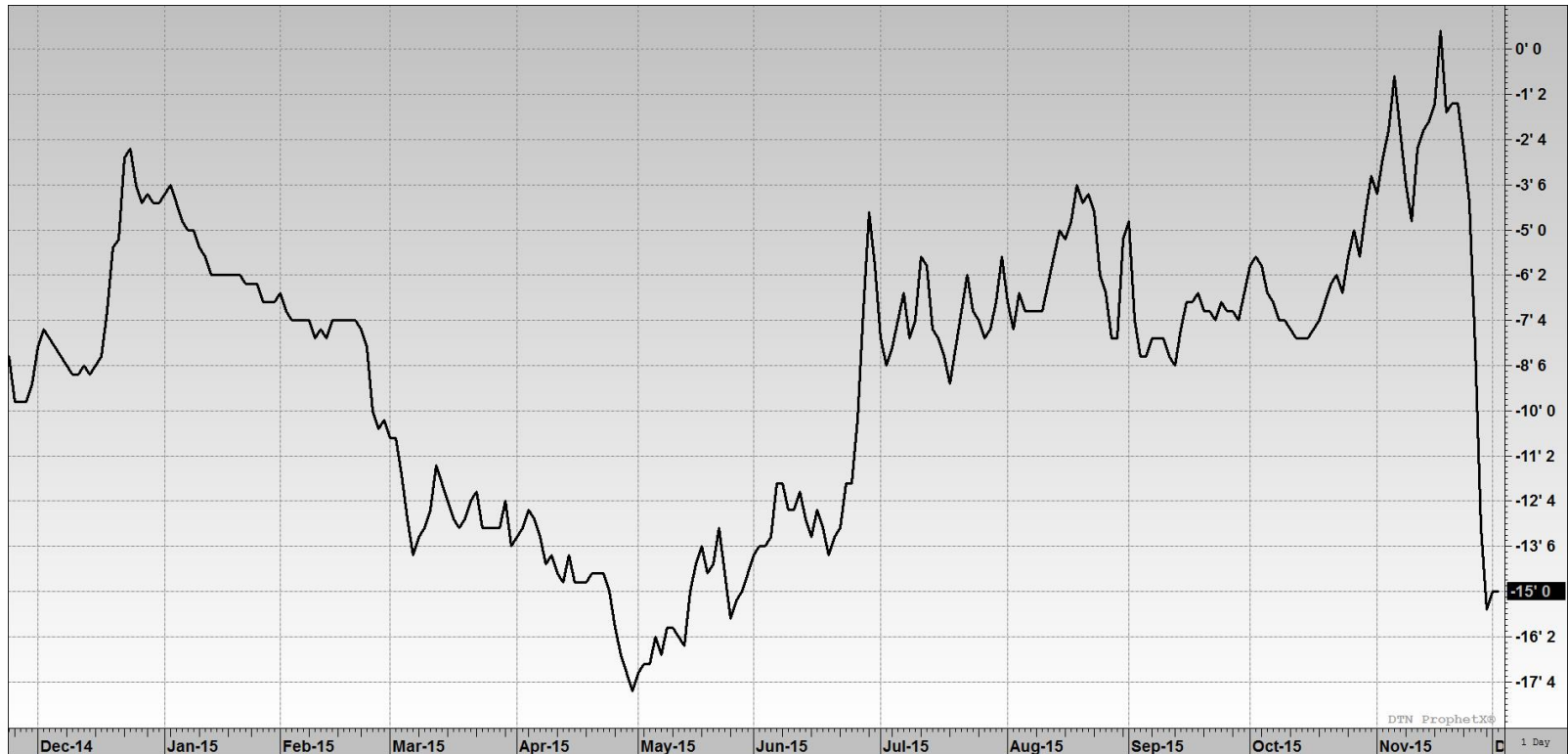
Is the Market Paying to Store?

SX/SF Soybean Spread inverted late



Is the Market Paying to Store?

WZ/WH has been incredibly erratic



Is the Market Paying to Store?

- But we're also counting on basis appreciation
 - Every region has different seasonal trends
 - DTN National Corn Basis up 12c since Oct. 15th
 - DTN National Soybean Basis up 11c
 - In NC-South Dakota this year, corn basis has rallied 15-20c since October 15th
 - Soybean basis up 30c from October 15th
- Have to be realistic with basis expectations



Is the Market Paying to Store?

- Our analysis will focus on two time frames:
 - October 15th - December 1st
 - October 15th – March 1st
- First time frame receives no contribution from futures spread
 - Storage gain focused solely on 15-30c in basis
- Second time frame adds in potential spread gain if one exists



What is the Cheapest Method of Storage?



Storing Grain

Storing physical grain is not a marketing plan or always the cheapest method

Estimated Costs of Owning Corn in South Dakota for 2015/16

	October 2015 through December 2015				October 2015 through March 2016			
	On-Farm	Off-Farm	Futures	ATM Calls	On-Farm	Off-Farm	Futures	ATM Calls
	c/bu				c/bu			
Drying 17.0%-14.5%	\$0.030	\$0.125			\$0.030	\$0.125		
Shrink 2.80%	\$0.087	\$0.087			\$0.087	\$0.087		
Interest 5%	\$0.039	\$0.039			\$0.104	\$0.104		
Handling/Conditioning	\$0.075				\$0.075			
Storage Charges		\$0.150				\$0.300		
Futures Commission			\$0.012	\$0.012			\$0.012	\$0.012
Call Premium				\$0.100				\$0.249
Basis Appreciation			\$0.200	\$0.200			\$0.300	\$0.300
Total	\$ 0.231	\$ 0.401	\$0.212	\$ 0.312	\$0.296	\$ 0.616	\$ 0.312	\$ 0.561

**On-farm costs do not take into account depreciation expense of any dryer or handling equipment



Storing Grain

Estimated Costs of Owning Soybeans in South Dakota for 2015/16

	October 2015 through December 2015				October 2015 through March 2016			
	On-Farm	Off-Farm	Futures	ATM Calls	On-Farm	Off-Farm	Futures	ATM Calls
	c/bu				c/bu			
Shrink	\$0.024				\$0.024			
Interest 5%	\$0.103	\$0.103			\$0.274	\$0.274		
Handling/Conditioning	\$0.075				\$0.075			
Storage Charges		\$0.150				\$0.300		
Futures Commission			\$0.012	\$0.012			\$0.012	\$0.012
Call Premium				\$0.260				\$0.431
Basis Appreciation			\$0.250	\$0.250			\$0.350	\$0.350
Total	\$0.202	\$ 0.253	\$ 0.262	\$ 0.522	\$ 0.373	\$ 0.574	\$0.362	\$ 0.793

**On-farm costs do not take into account depreciation expense of any dryer or handling equipment



Results



Storing Grain

Storing Corn for Basis/Spread Appreciation

Corn Storage Results as of December 1st

	October 2015 through December 2015		October 2015 through March 2016	
	On-Farm	Off-Farm	On-Farm	Off-Farm
	c/bu		c/bu	
Basis Appreciation	\$ 0.200	\$ 0.200	\$ 0.300	\$ 0.300
Front-Month Spread	\$ -	\$ -	\$ 0.080	\$ 0.080
Futures Change				
Sum	\$ 0.200	\$ 0.200	\$ 0.380	\$ 0.380
Storage Expense	\$ 0.231	\$ 0.401	\$ 0.296	\$ 0.616
Difference	\$ (0.031)	\$ (0.201)	\$ 0.084	\$ (0.236)



Storing Grain

Storing Corn for Futures Appreciation

Corn Storage Results as of December 1st

	October 2015 through December 2015			
	On-Farm	Off-Farm	Futures	ATM Calls
	c/bu			
Futures Change	\$ (0.160)	\$ (0.160)	\$ (0.160)	
Sum	\$ (0.160)	\$ (0.160)	\$ (0.160)	\$ (0.100)
Storage Expense	\$ 0.231	\$ 0.401	\$ 0.012	\$ 0.112
Difference	\$ (0.391)	\$ (0.561)	\$ (0.172)	\$ (0.212)



Storing Grain

Storing Corn with No Hedge or Basis Sold

Corn Storage Results as of December 1st

	October 2015 through December 2015			
	On-Farm	Off-Farm	Futures	ATM Calls
	c/bu			
Basis Appreciation	\$ 0.200	\$ 0.200		
Front-Month Spread	\$ -	\$ -		
Futures Change	\$ (0.160)	\$ (0.160)	\$ (0.160)	
Sum	\$ 0.040	\$ 0.040	\$ (0.160)	\$ (0.100)
Storage Expense	\$ 0.231	\$ 0.401	\$ 0.212	\$ 0.312
Difference	\$ (0.191)	\$ (0.361)	\$ (0.372)	\$ (0.412)



Storing Grain

Storing Soybeans for Basis/Spread Appreciation

Soybean Storage Results as of December 1st

	October 2015 through December 2015				October 2015 through March 2016			
	On-Farm		Off-Farm		On-Farm		Off-Farm	
	c/bu				c/bu			
Basis Appreciation	\$ 0.250	\$ 0.250			\$ 0.350	\$ 0.350		
Front-Month Spread	\$ -	\$ -			\$ 0.045	\$ 0.045		
Futures Change								
Sum	\$ 0.250	\$ 0.250			\$ 0.395	\$ 0.395		
Storage Expense	\$ 0.231	\$ 0.401			\$ 0.296	\$ 0.616		
Difference	\$ 0.019	\$ (0.151)			\$ 0.099	\$ (0.221)		



Storing Grain

Storing Soybeans for Futures Appreciation

Soybean Storage Results as of December 1st

	October 2015 through December 2015			
	On-Farm	Off-Farm	Futures	ATM Calls
	c/bu			
Futures Change	\$ (0.320)	\$ (0.320)	\$ (0.320)	
Sum	\$ (0.320)	\$ (0.320)	\$ (0.320)	\$ (0.318)
Storage Expense	\$ 0.231	\$ 0.401	\$ 0.012	\$ 0.312
Difference	\$ (0.551)	\$ (0.721)	\$ (0.332)	\$ (0.630)



Storing Grain

Storing Soybeans with No Hedge or Basis Sold

Soybean Storage Results as of December 1st

October 2015 through December 2015

	On-Farm	Off-Farm	Futures	ATM Calls
	c/bu			
Basis Appreciation	\$ 0.250	\$ 0.250		
Front-Month Spread	\$ -	\$ -		
Futures Change	\$ (0.320)	\$ (0.320)	\$ (0.320)	
Sum	\$ (0.070)	\$ (0.070)	\$ (0.320)	\$ (0.318)
Storage Expense	\$ 0.231	\$ 0.401	\$ 0.212	\$ 0.312
Difference	\$ (0.301)	\$ (0.471)	\$ (0.532)	\$ (0.630)



Final Thoughts



Final Thoughts

- Storing grain is a tool, not a necessity
 - Objectives should be clear and defined
 - Era of storing grain to avoid taxes should be over
 - When the market stops paying to store, respond
 - Analyze all storage options for cheapest method
 - Be flexible and be honest with yourself
- Carries and basis should be reviewed constantly to achieve maximum cash price
- Develop great relationships with local merchandisers



Thank You

Questions?



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