

# Anticipating the USDA Prospective Plantings 2012 Outlook for Corn, Soybeans and Wheat

**March 27, 2012**



# **2012 Agricultural Outlook & Expectations for March Stocks and Plantings Reports**

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**Chief Economist**

**AgResource Company, Chicago IL.**

**Sponsored By:**

**CME**

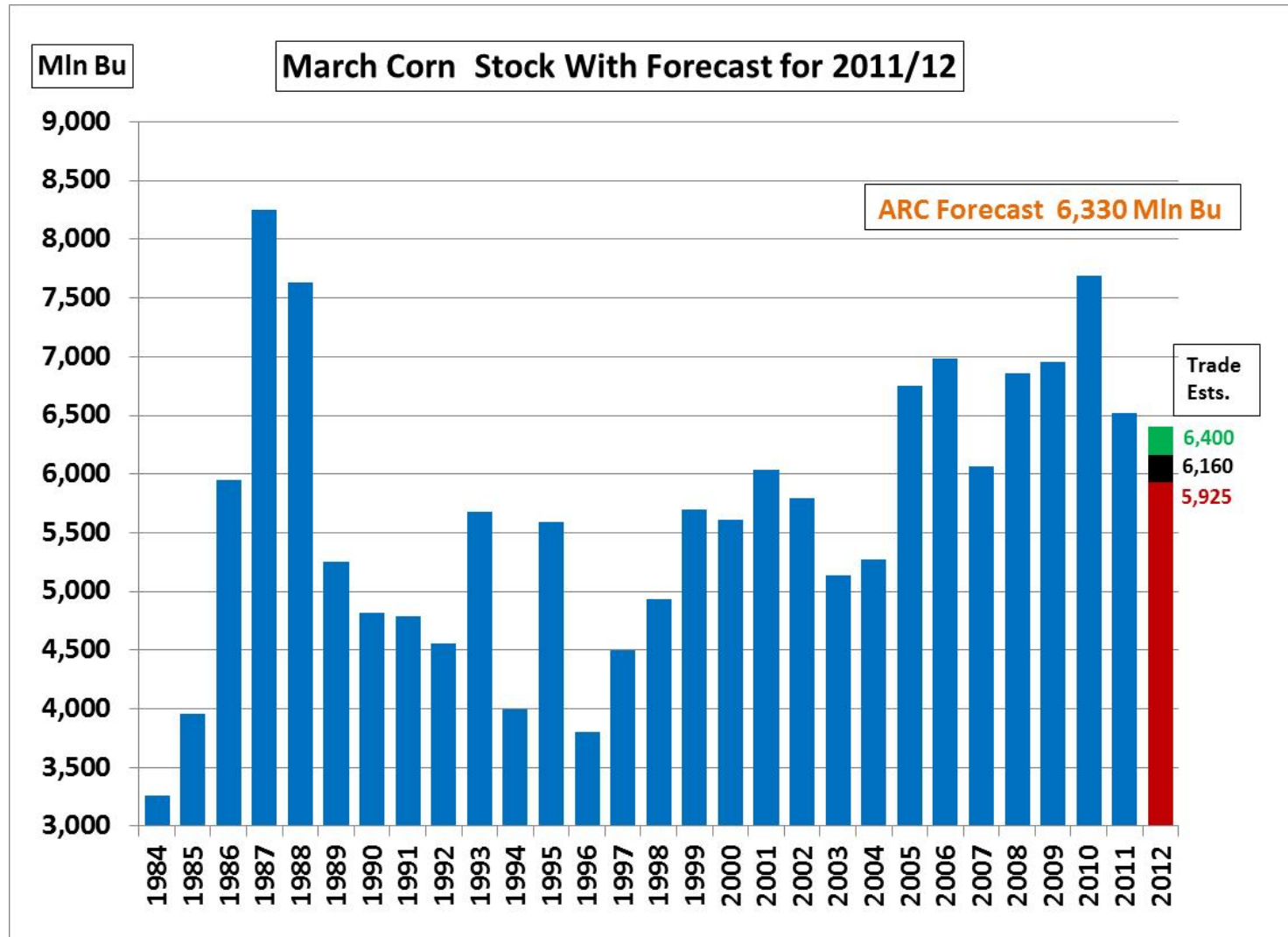
**March 27, 2012**

# The Causes of The Ag Bull Market Are Transitory as Well as Structural

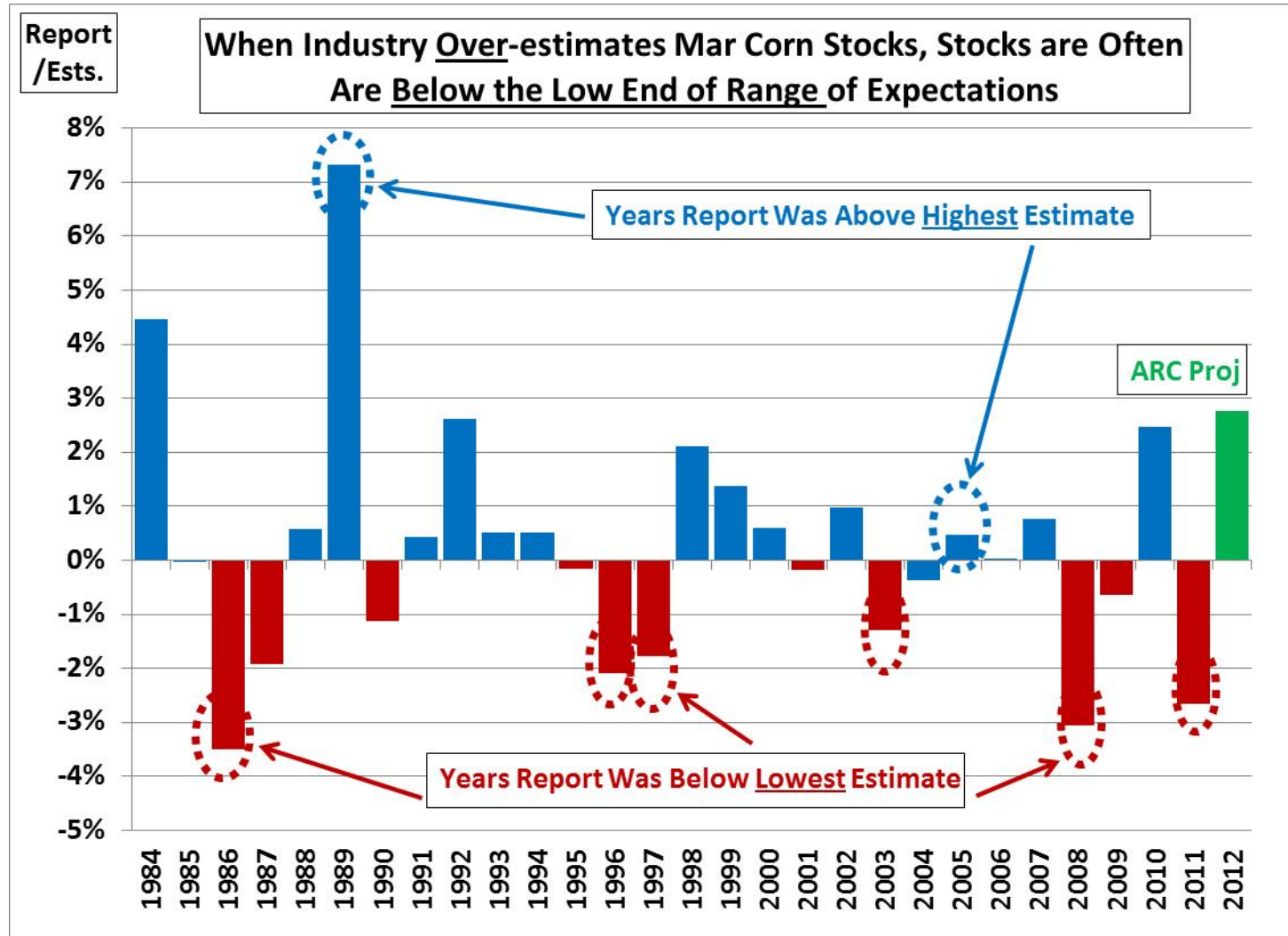


- Two years in-a-row of below trend yields boosted corn prices.
- Higher corn prices supported wheat prices even though the Black Sea returned as world's largest and cheapest source of wheat.
- 2011/12 crop markets were headed lower into 2012/13 BUT then a La-Nina induced drought struck the S. American crops in Dec-Jan. It will still be another month or two before the extent of crop losses are determined. This is supportive for "old crop" soybean and corn prices and for 2012/13 soybean price (but not corn).
- Assuming increased corn area planted and a return to trend yield, 2012/13 corn crop will be a record; stocks will double, prices will fall.
- Underlying food demand for agricultural products will continue to grow at a rate that most analysts believe requires both productivity advances AND increased area brought into production.
- Biofuel demand appears to be plateauing but energy price outlook and policy developments could have a significant impact on the markets in 2012/13 and beyond.

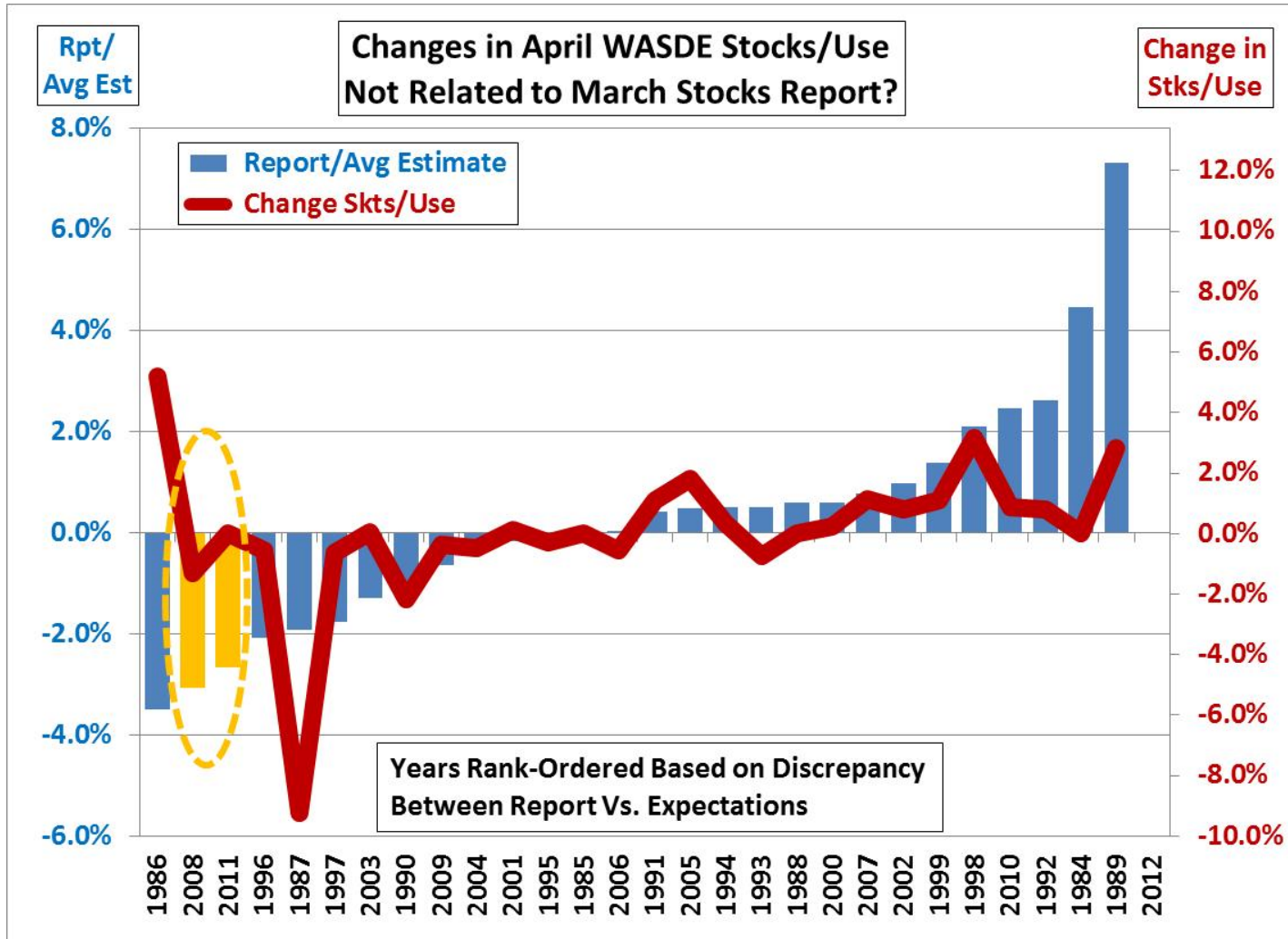
# March Corn Stocks Expected to Be Higher Than Industry Expectations



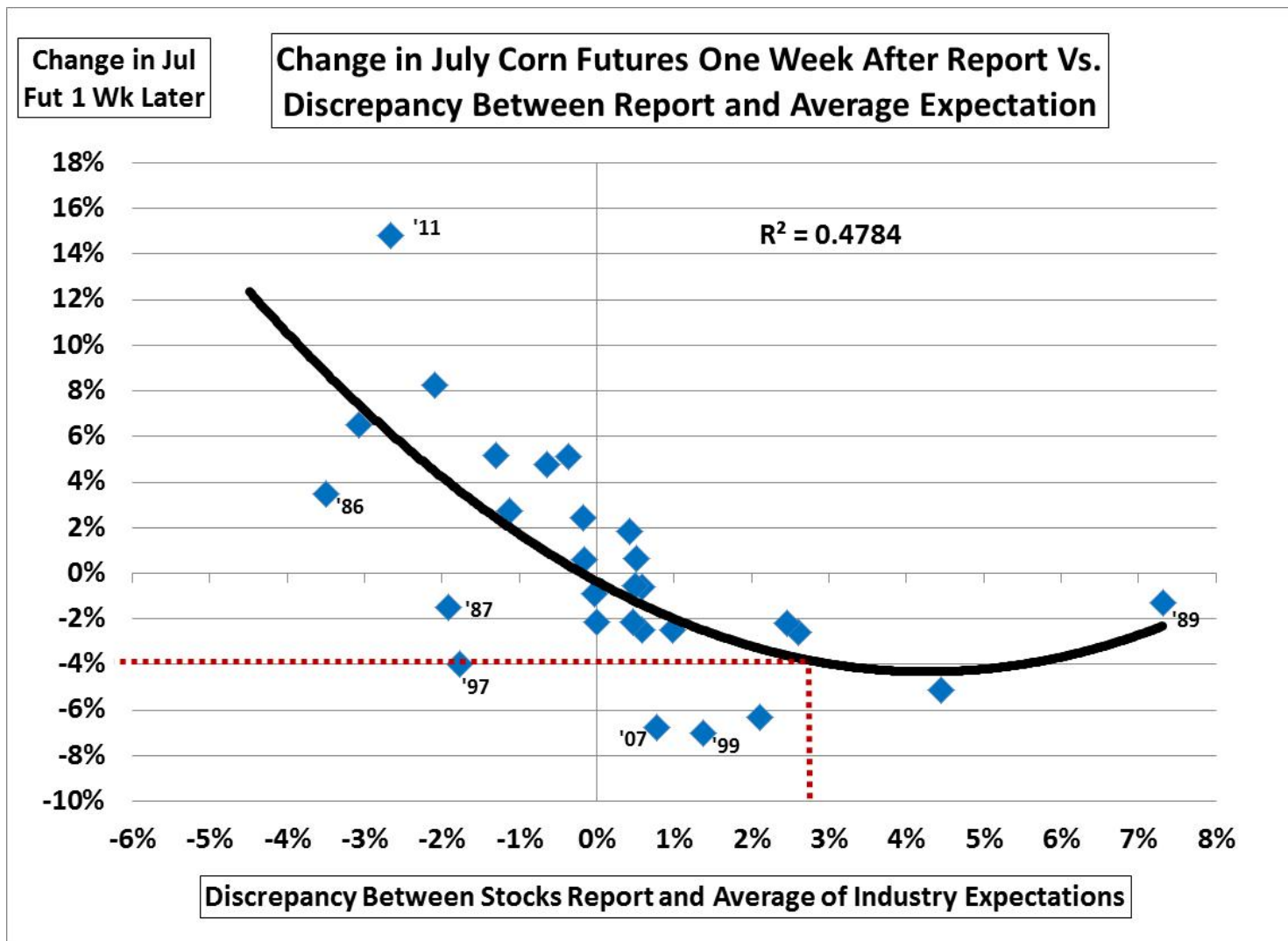
# The Industry Tends to Over-Estimate March Corn Stocks



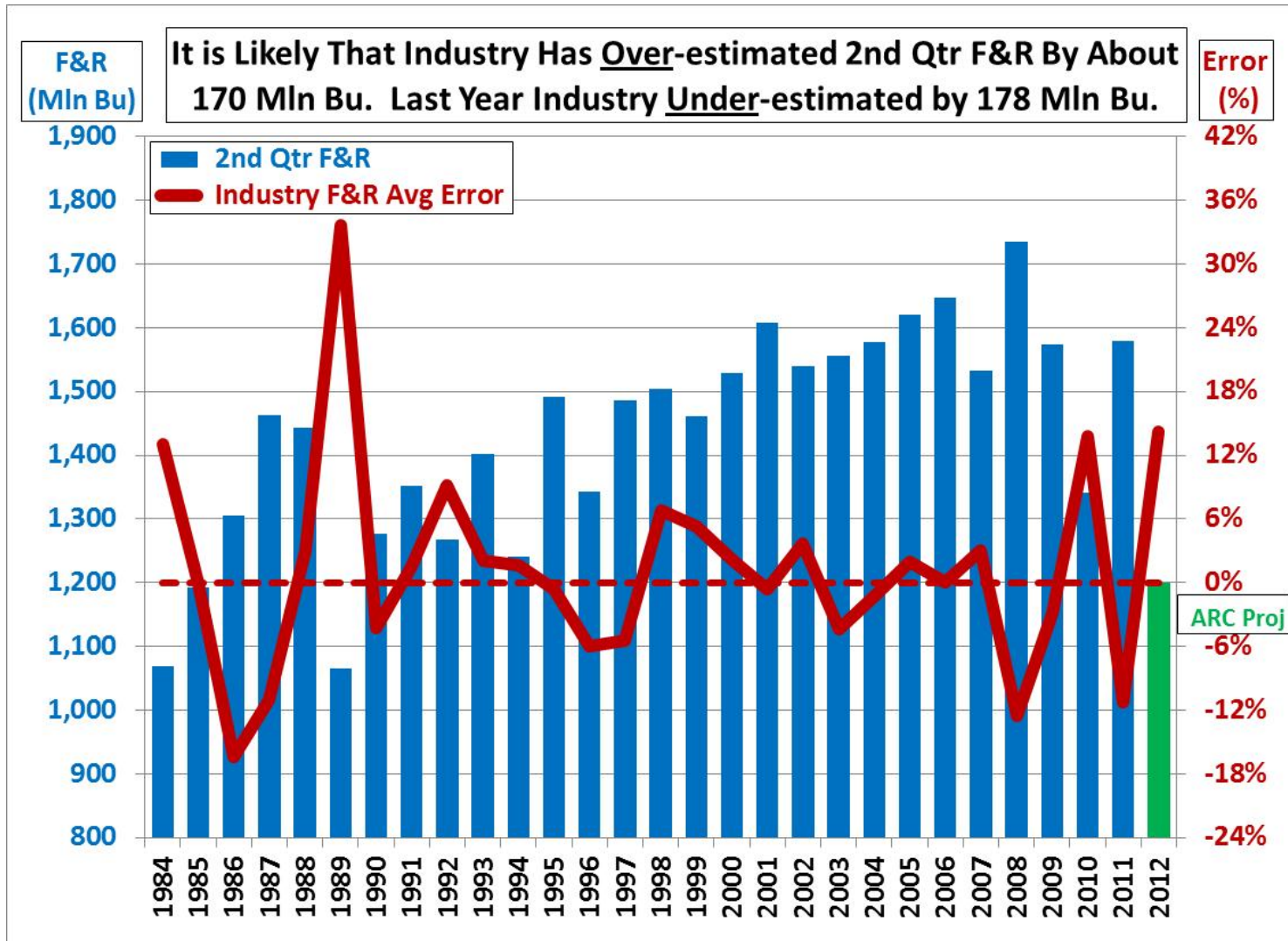
# USDA Not Expected to Change 4,600 Mln Bu Projection for Annual Corn F&R.



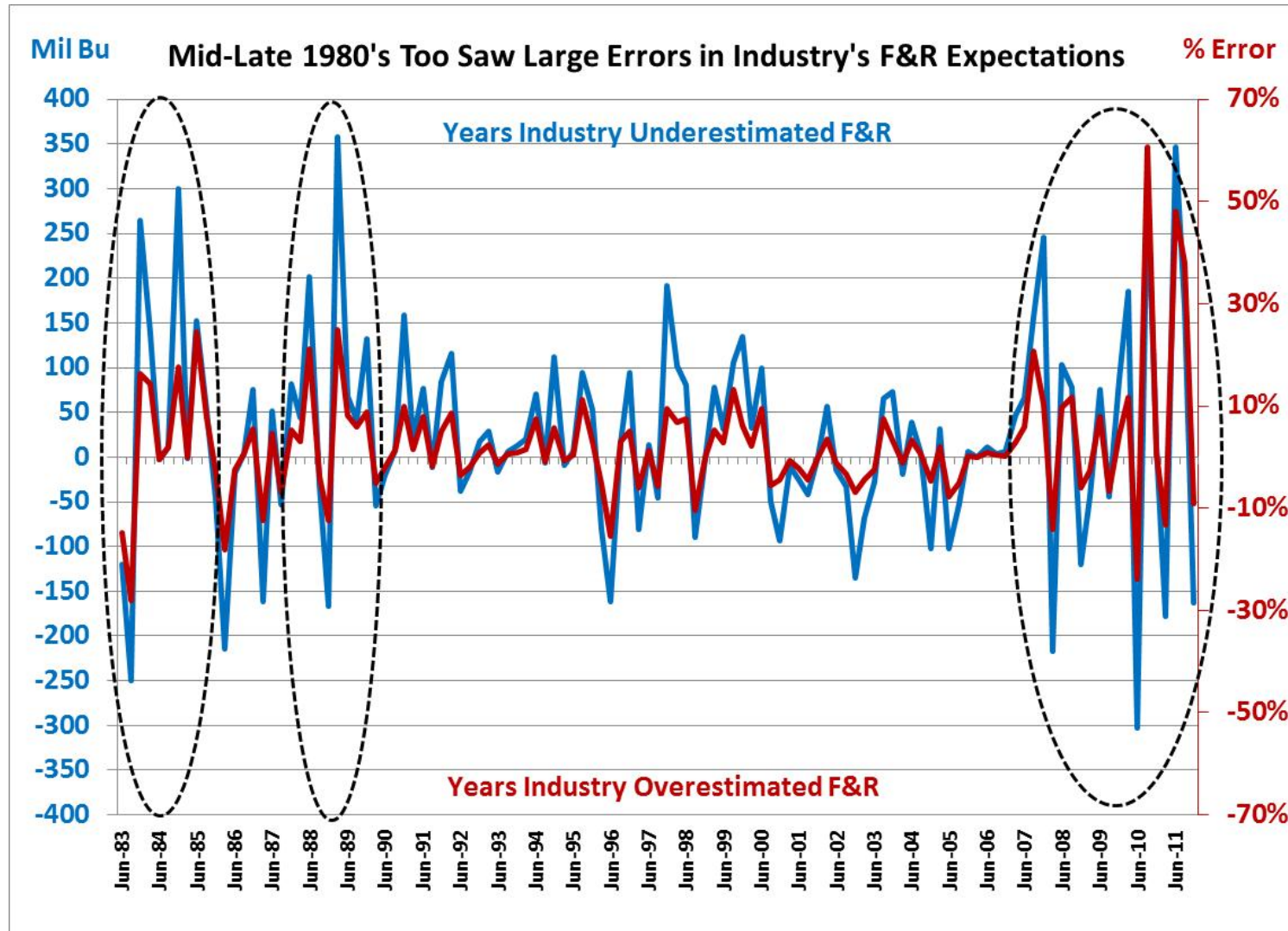
# July Futures Could Drop 3-4% If Stocks are As Large as ARC's Projection AND if There Are No Other Major Surprises.



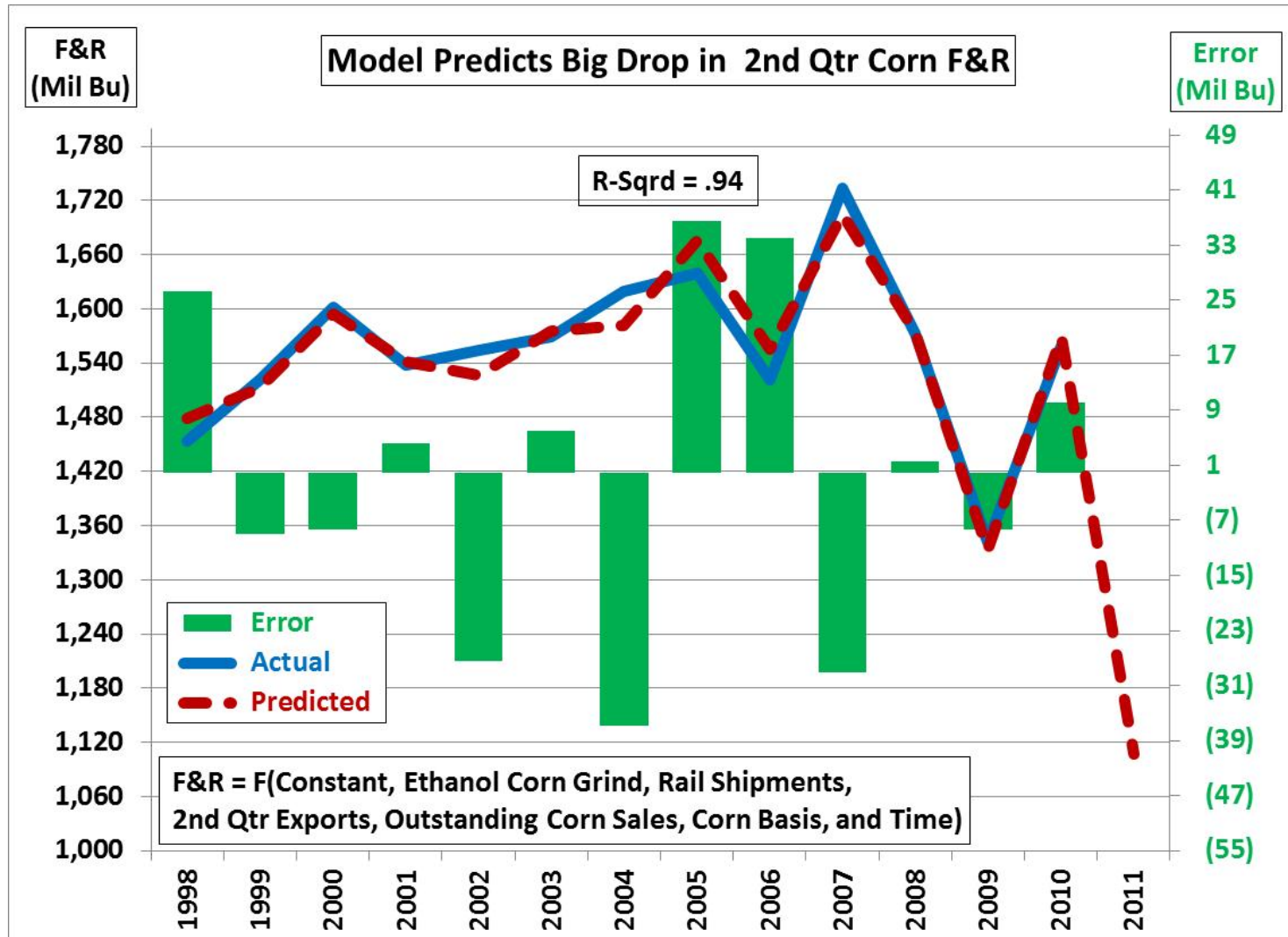
# Analysts Have Struggled With Estimating Corn Feed & Residual



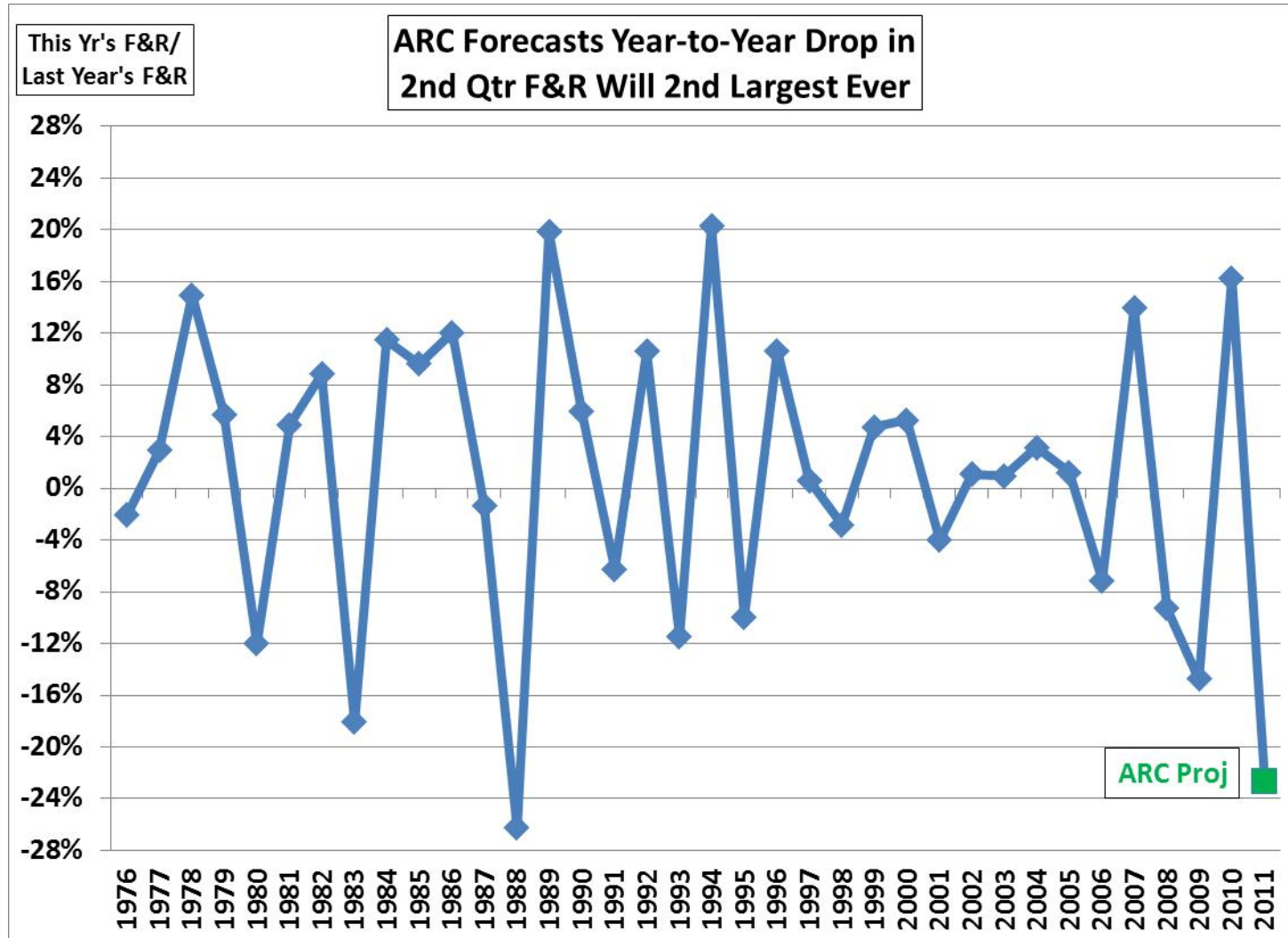
# This Isn't The First Time Industry F&R Estimates Were Way Off USDA Figures.



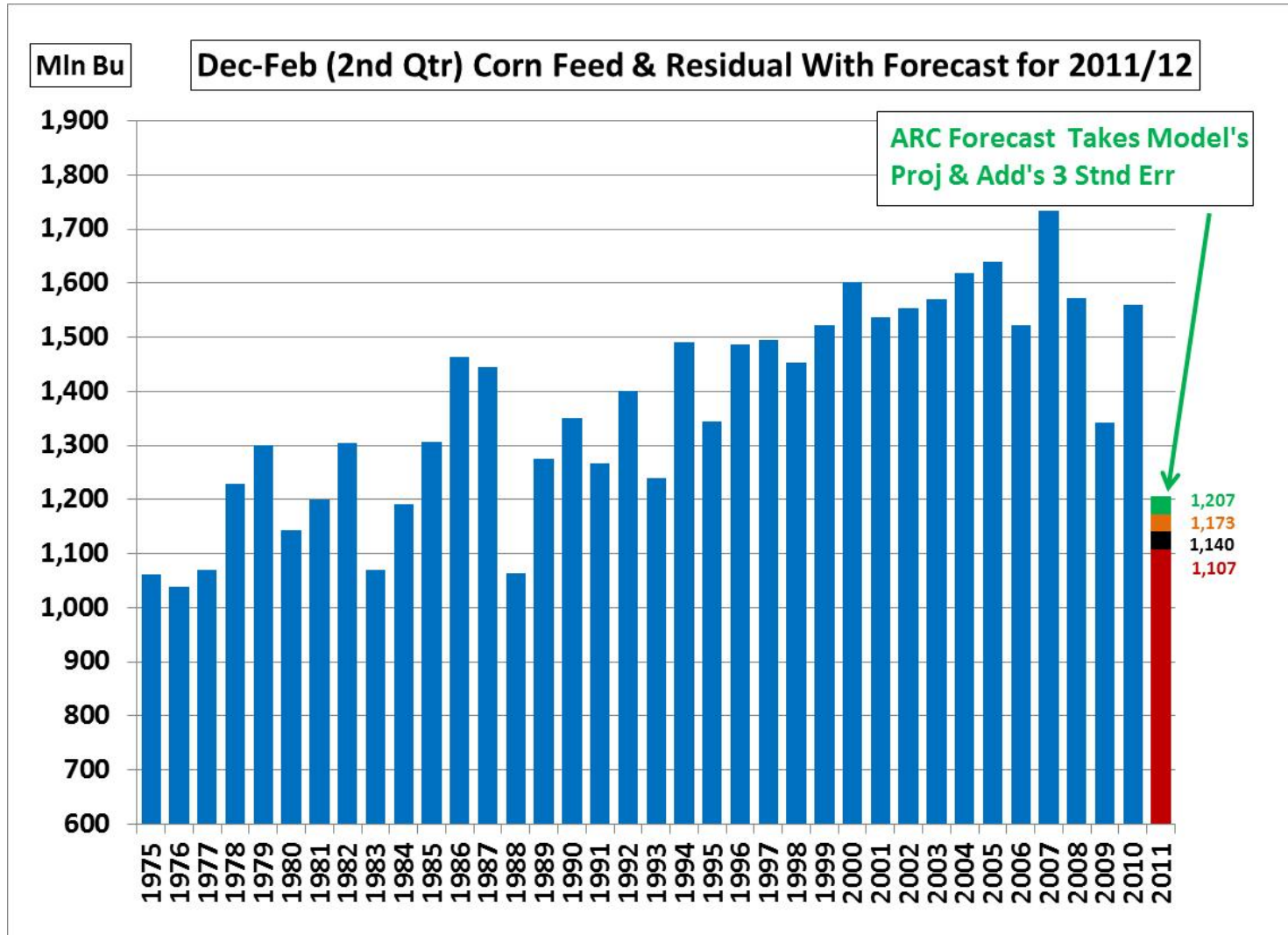
# Model Projects Sharply Lower 2<sup>nd</sup> Qtr Corn F&R (Relative to Last Year's)



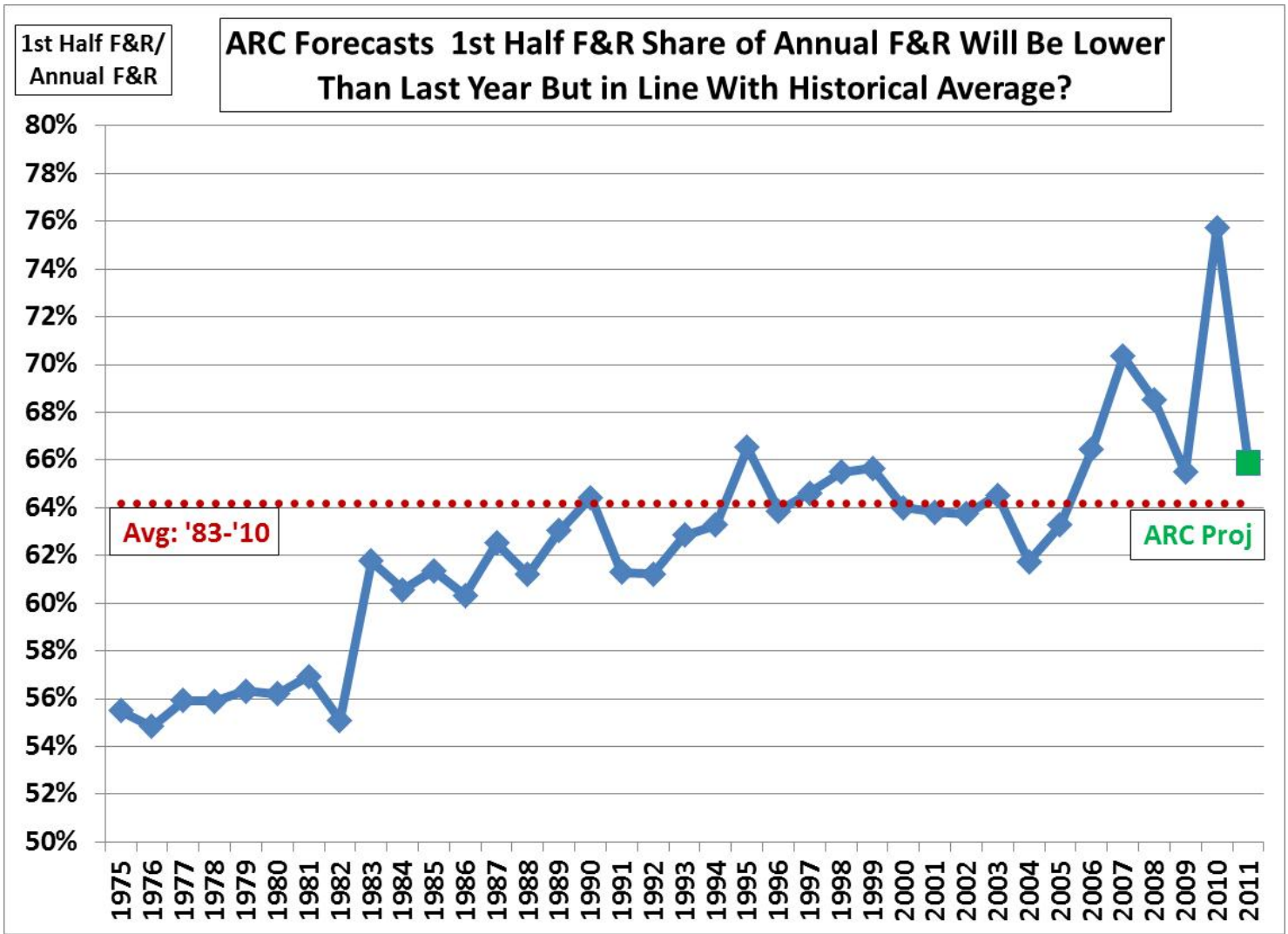
# Model Projects BIG Drop in 2<sup>nd</sup> Qtr F&R Compared to Last Year



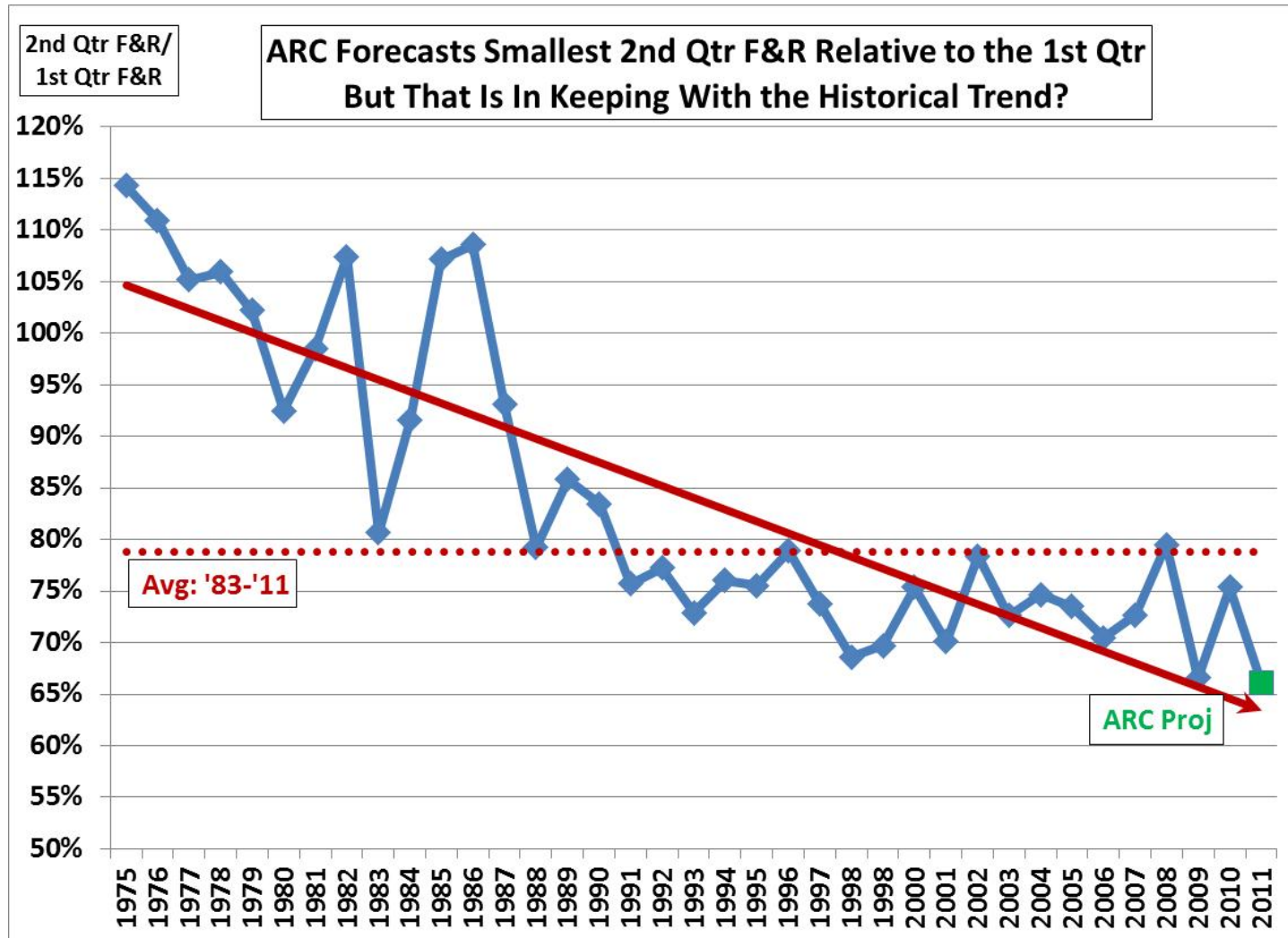
# Because the Model is New and Untested, ARC Added 3 Std-Err's to the Projection



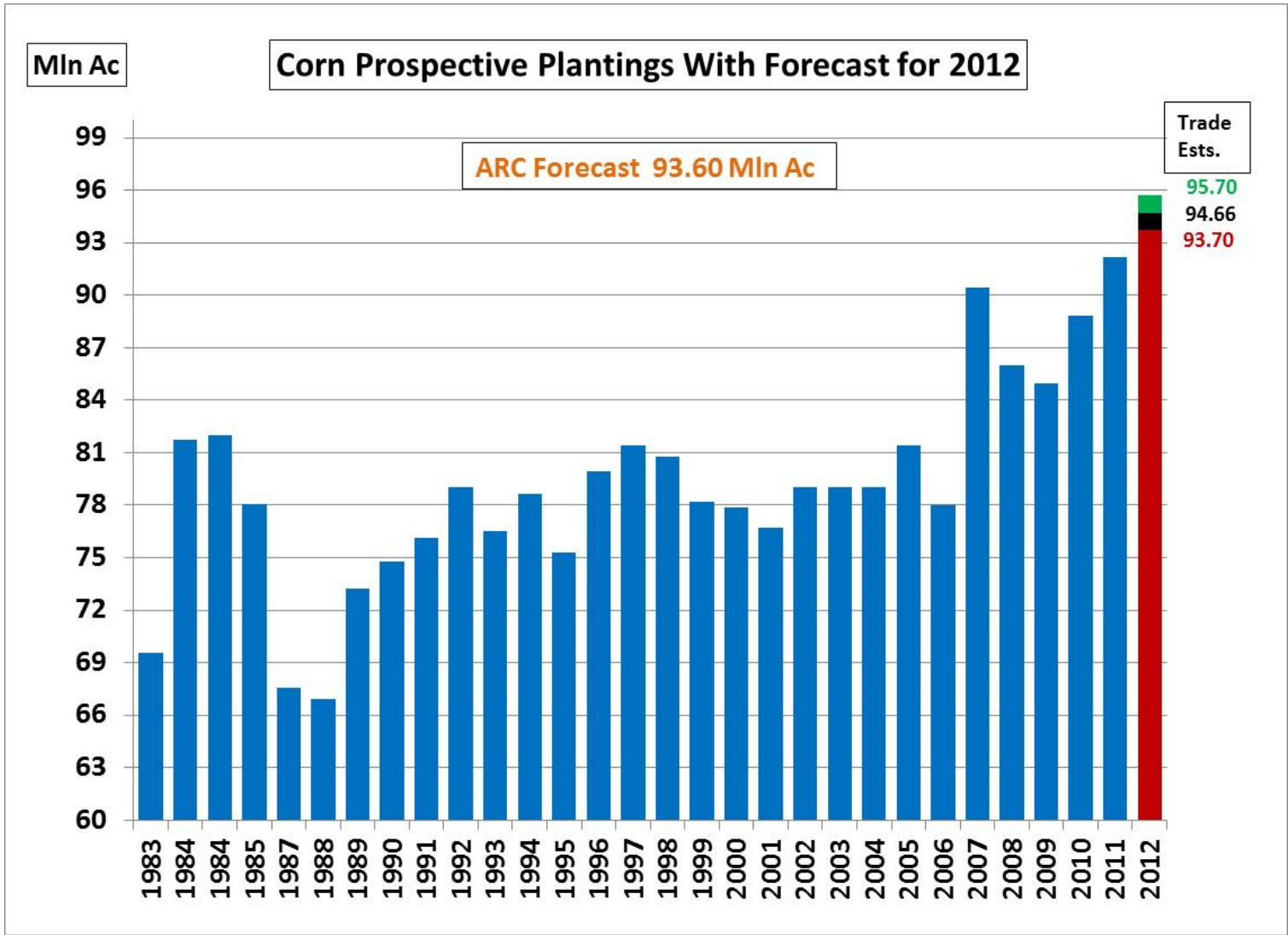
# First-Half (Sep-Feb) F&R Looks “Normal” Compared To Last Year



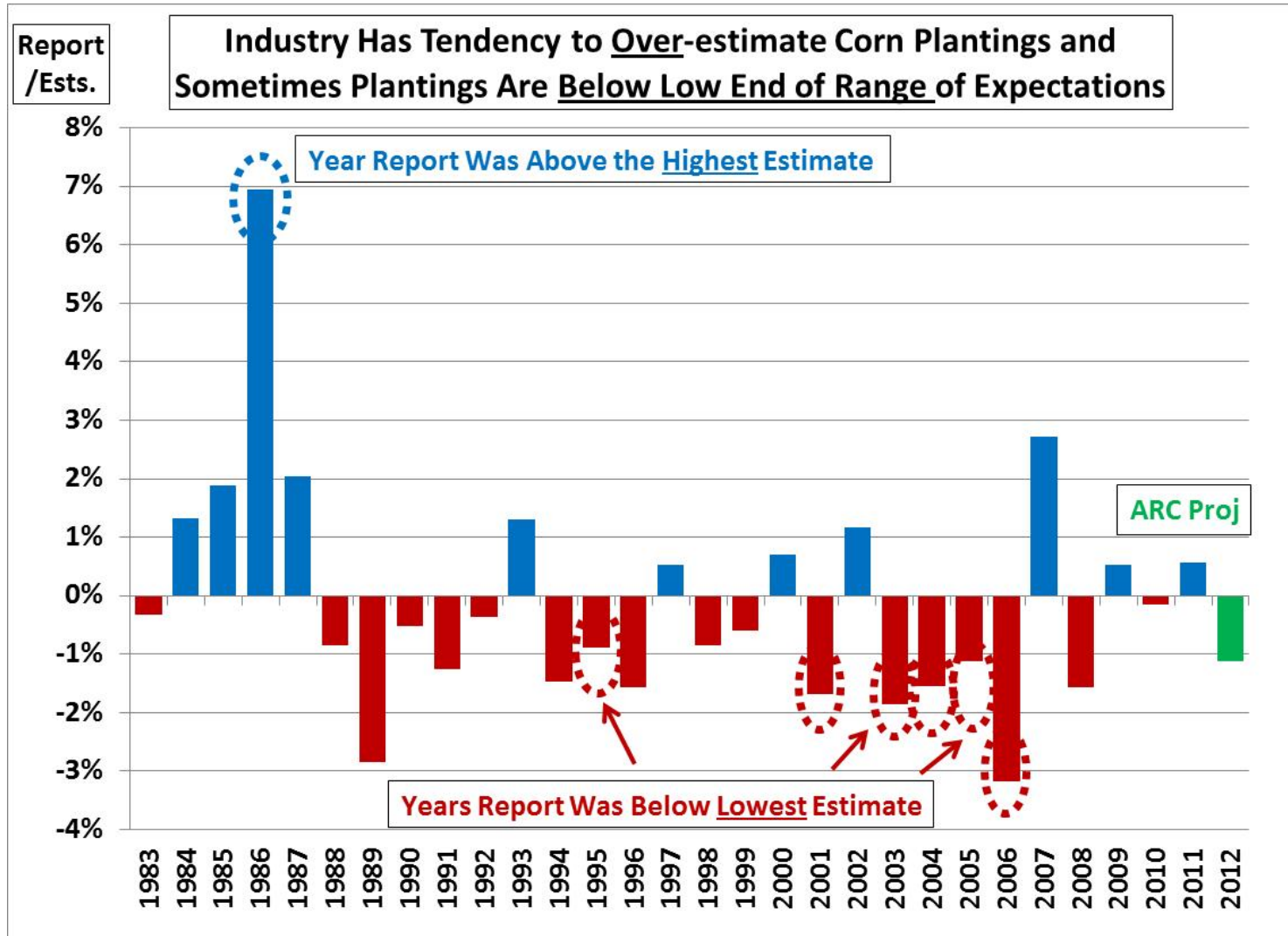
# Declining 2<sup>nd</sup> Qtr F&R (Relative to the 1<sup>st</sup> Qtr's) has Been a Long-term Trend



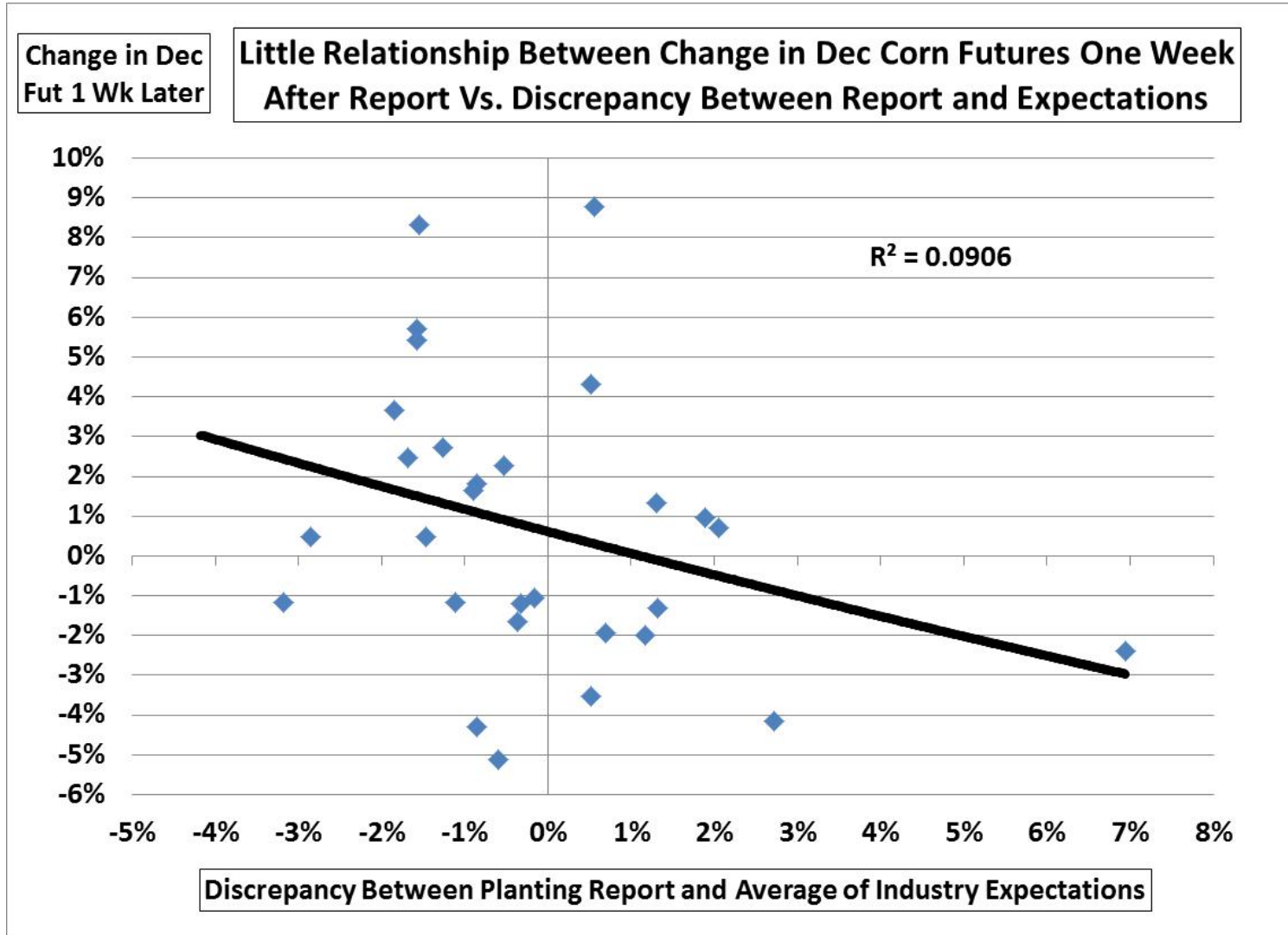
# ARC Projects 2012 Corn Seedings to Be Smaller Than Industry Expectations



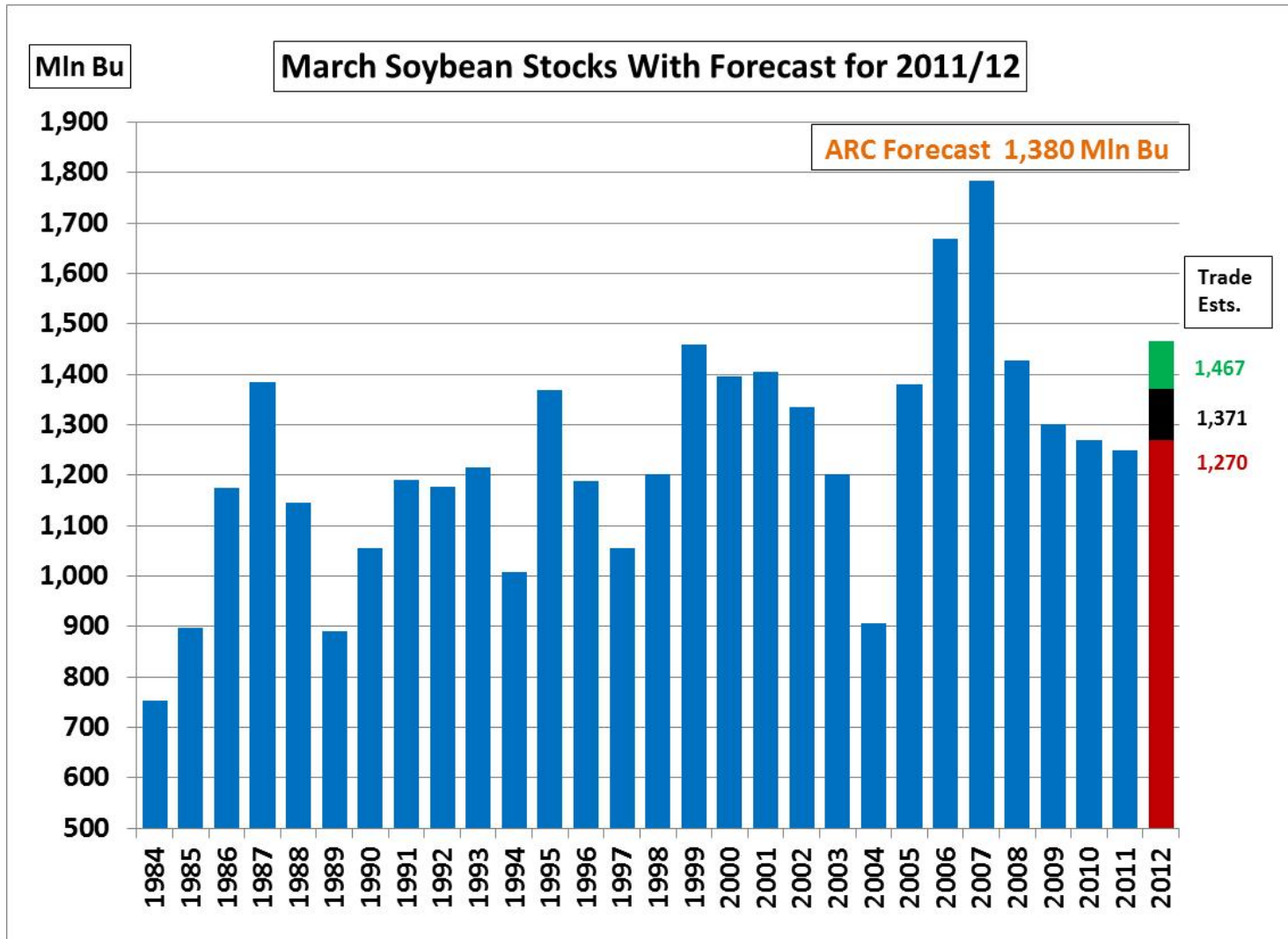
# Corn Seedings Have a Tendency to be Below the Average Trade Estimate



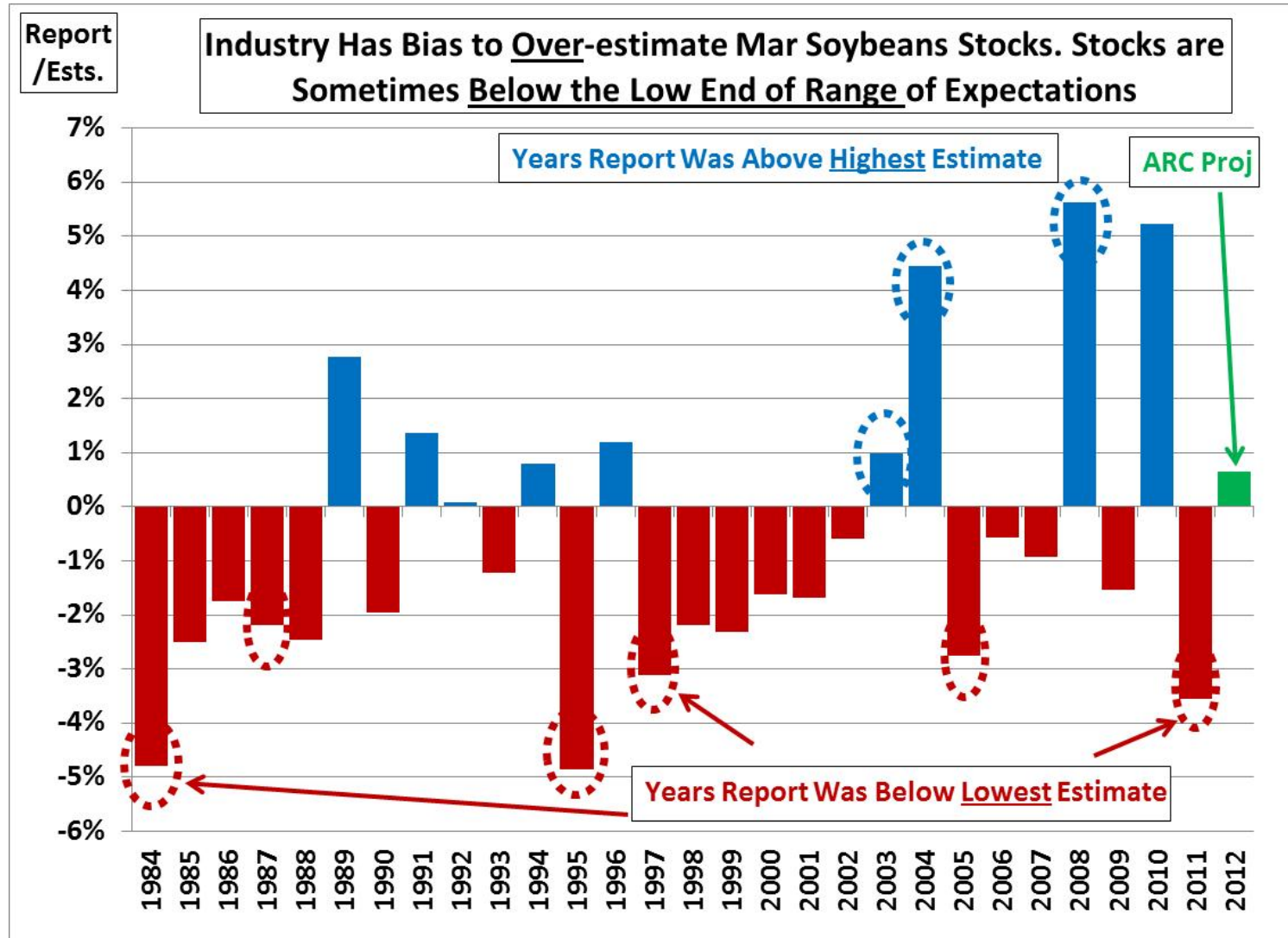
# December Corn Futures Don't Seem to Be Influenced by the Planting Report



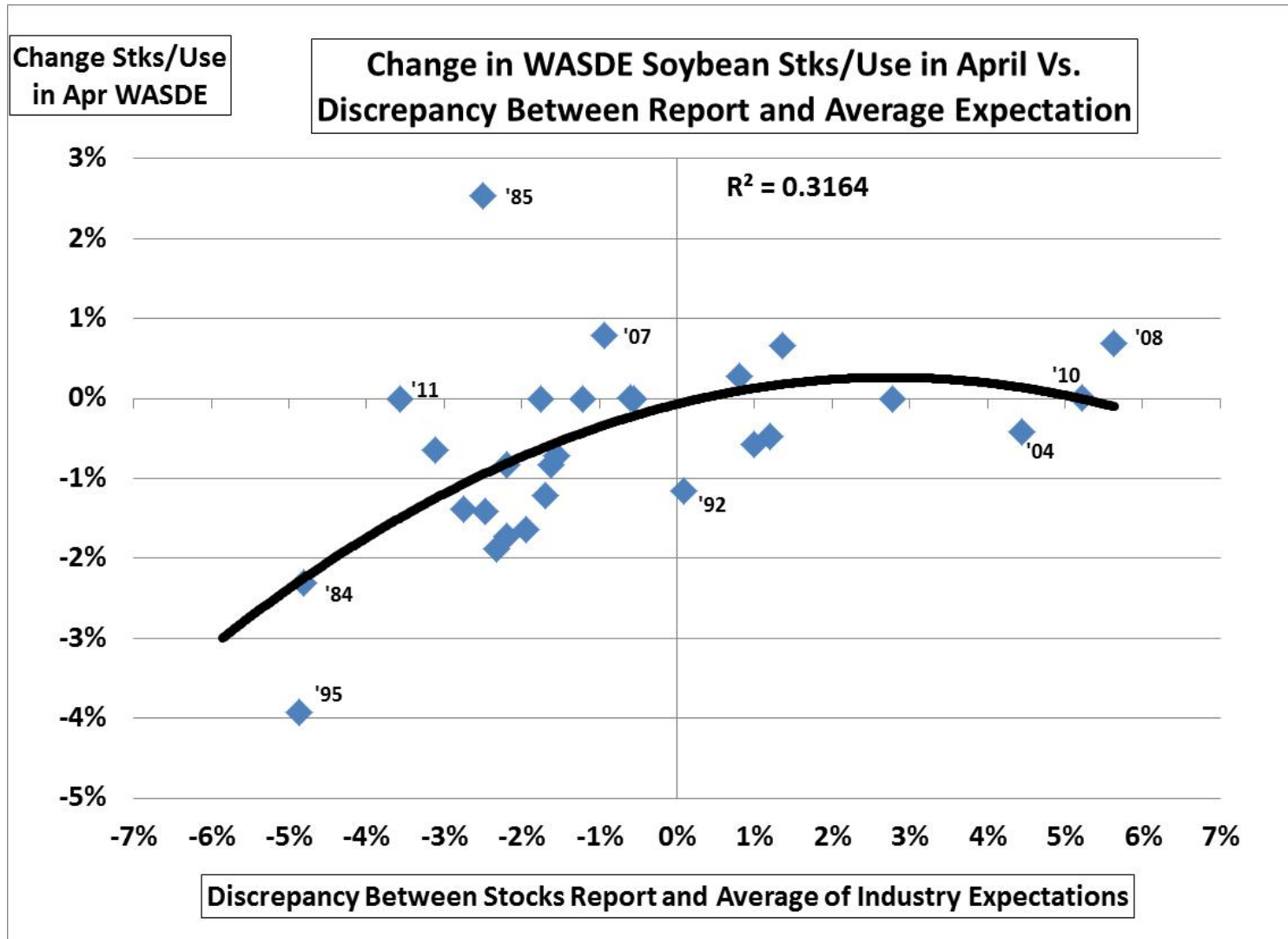
# March Soybean Stocks Expected to Be In-Line With Industry Estimates



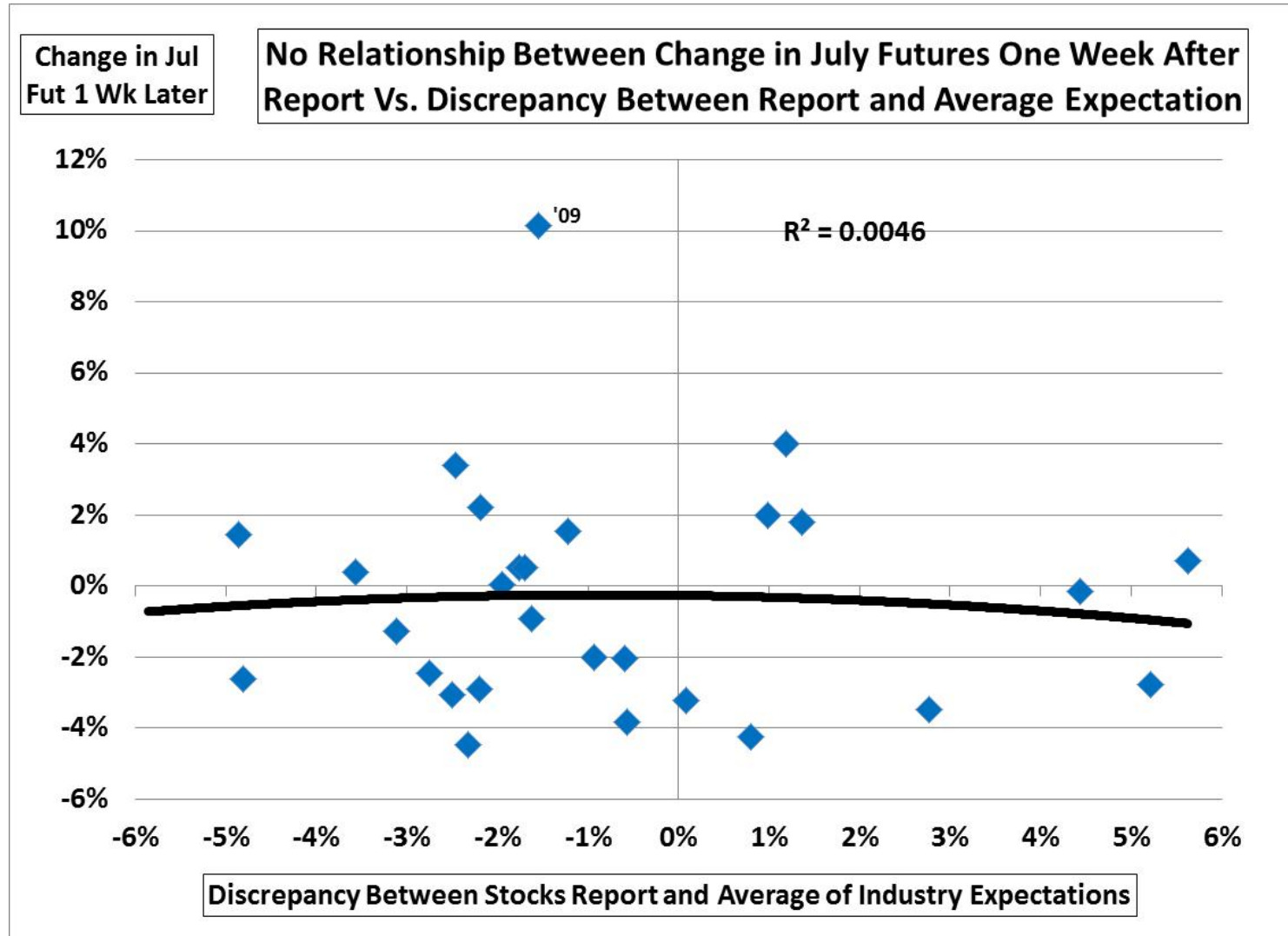
# There is a Tendency for the Trade to Overestimate Soybean Stocks



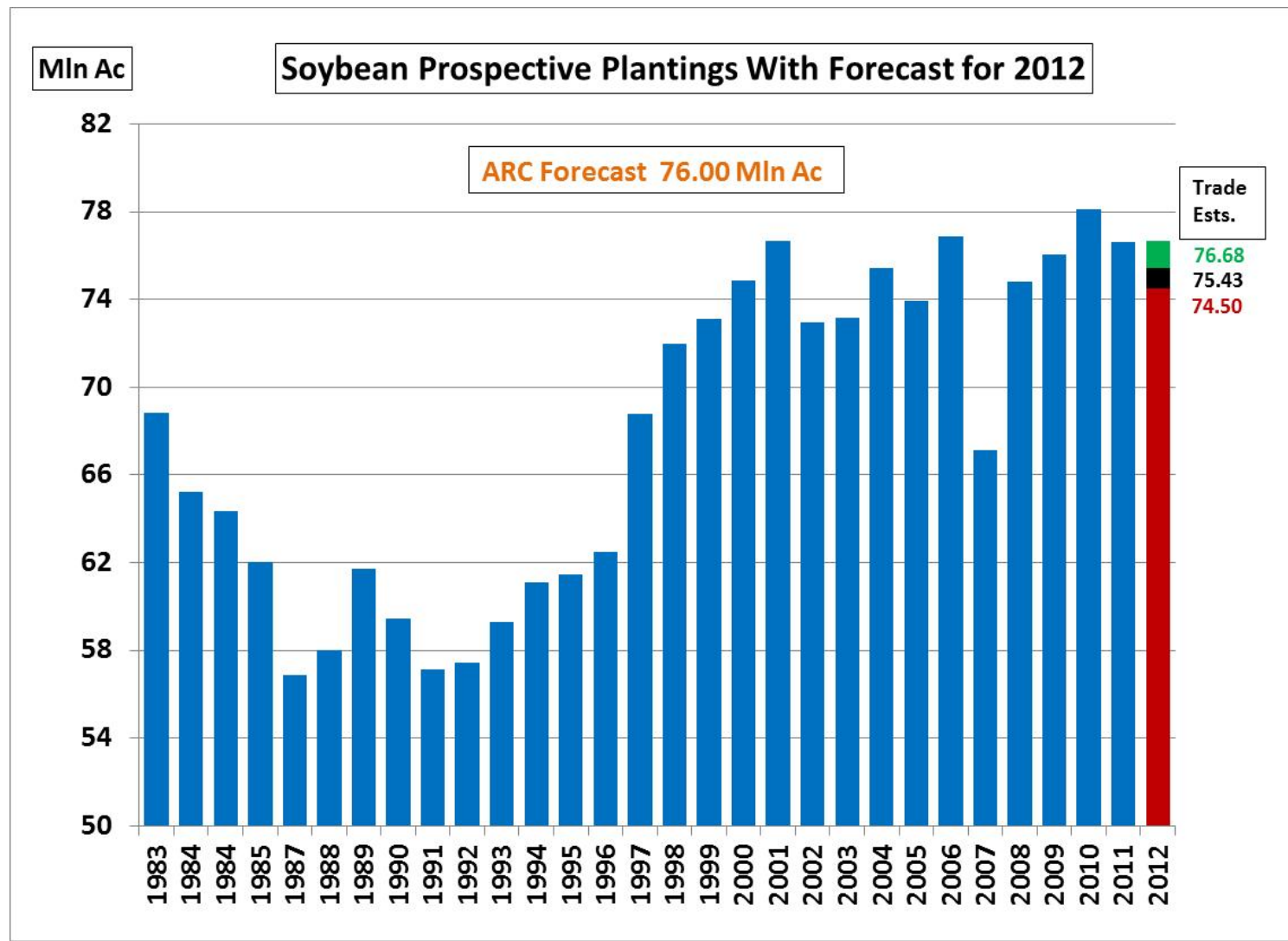
# USDA Could Alter Stocks/Use Projection if There is a Big “Surprise” in March Soy Stocks



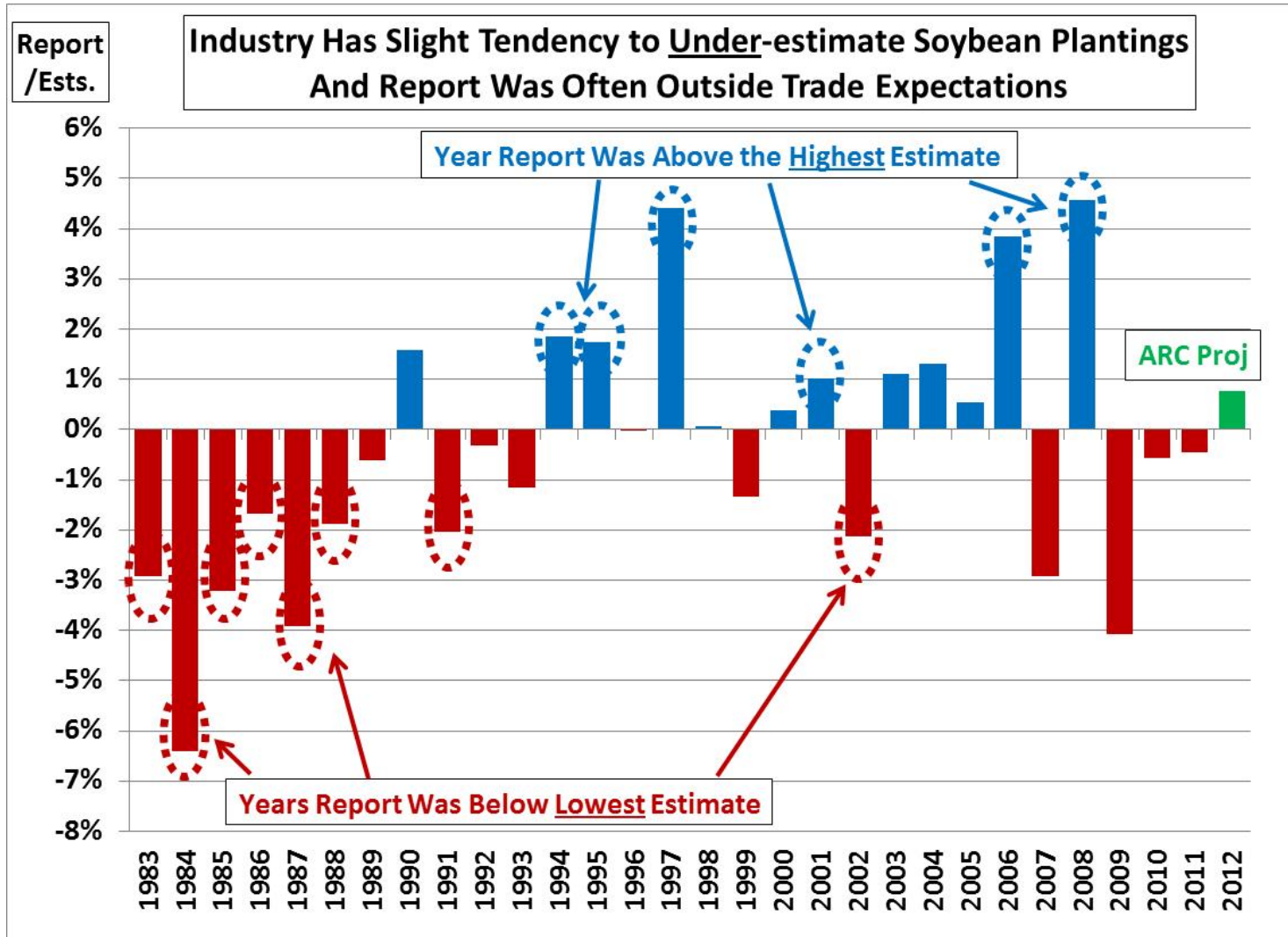
# July Soybean Futures Have No Relationship to the Stocks Report?



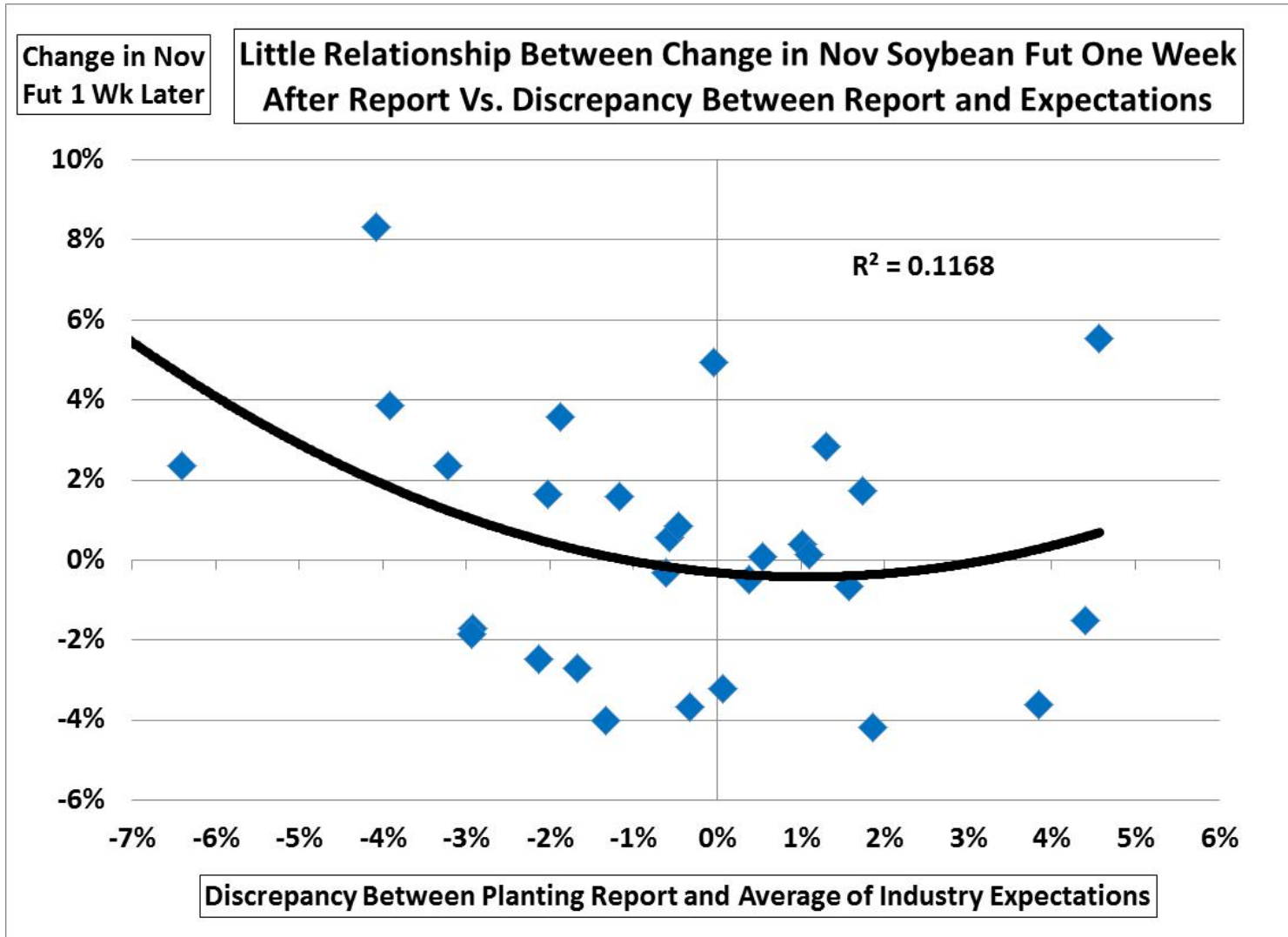
# ARC Projects 2012 Soybean Seedings to Be Larger Than Industry Expectations



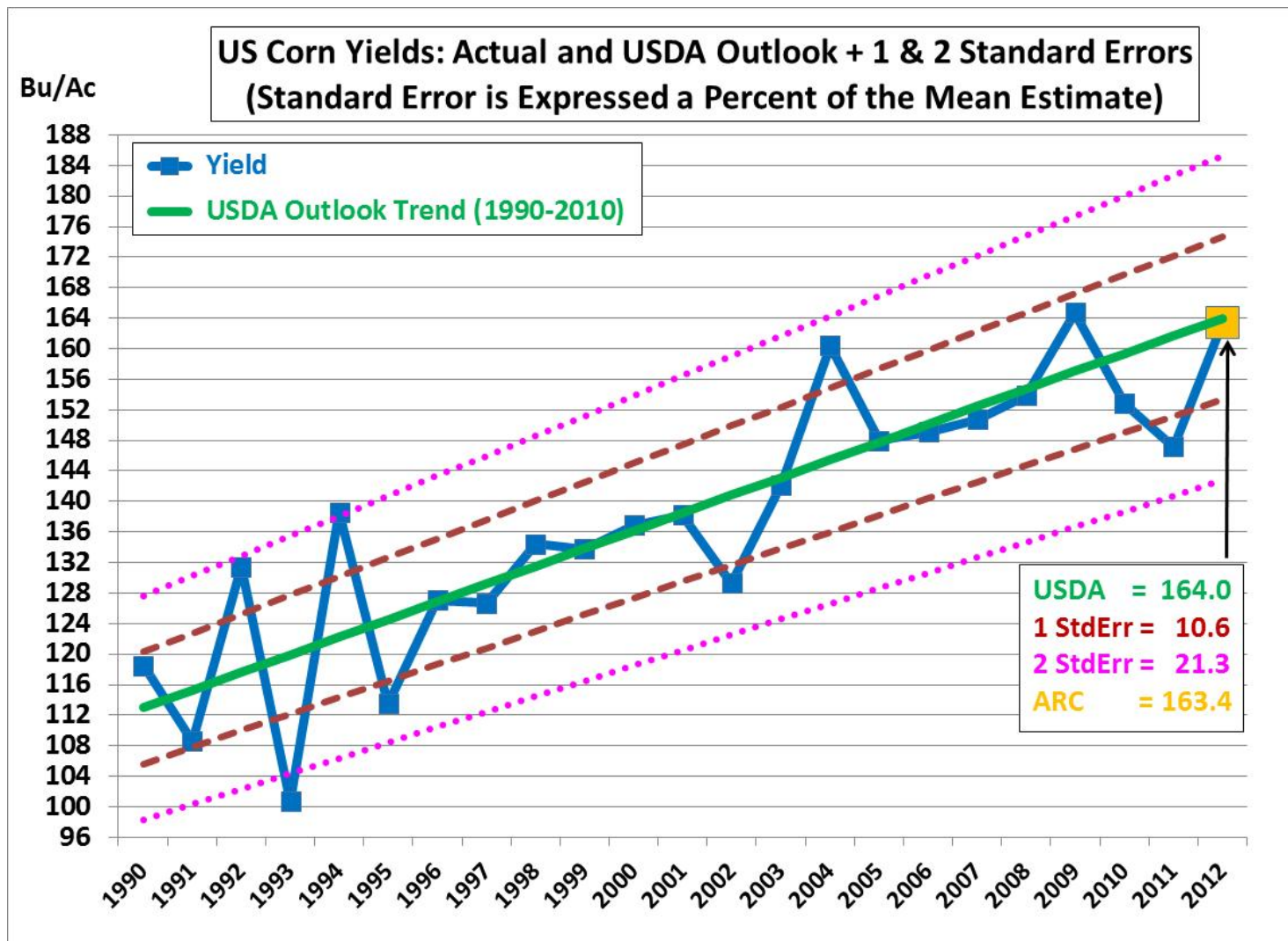
# Soybean Seedings Have a “Slight” Tendency to be Below the Average Trade Estimate



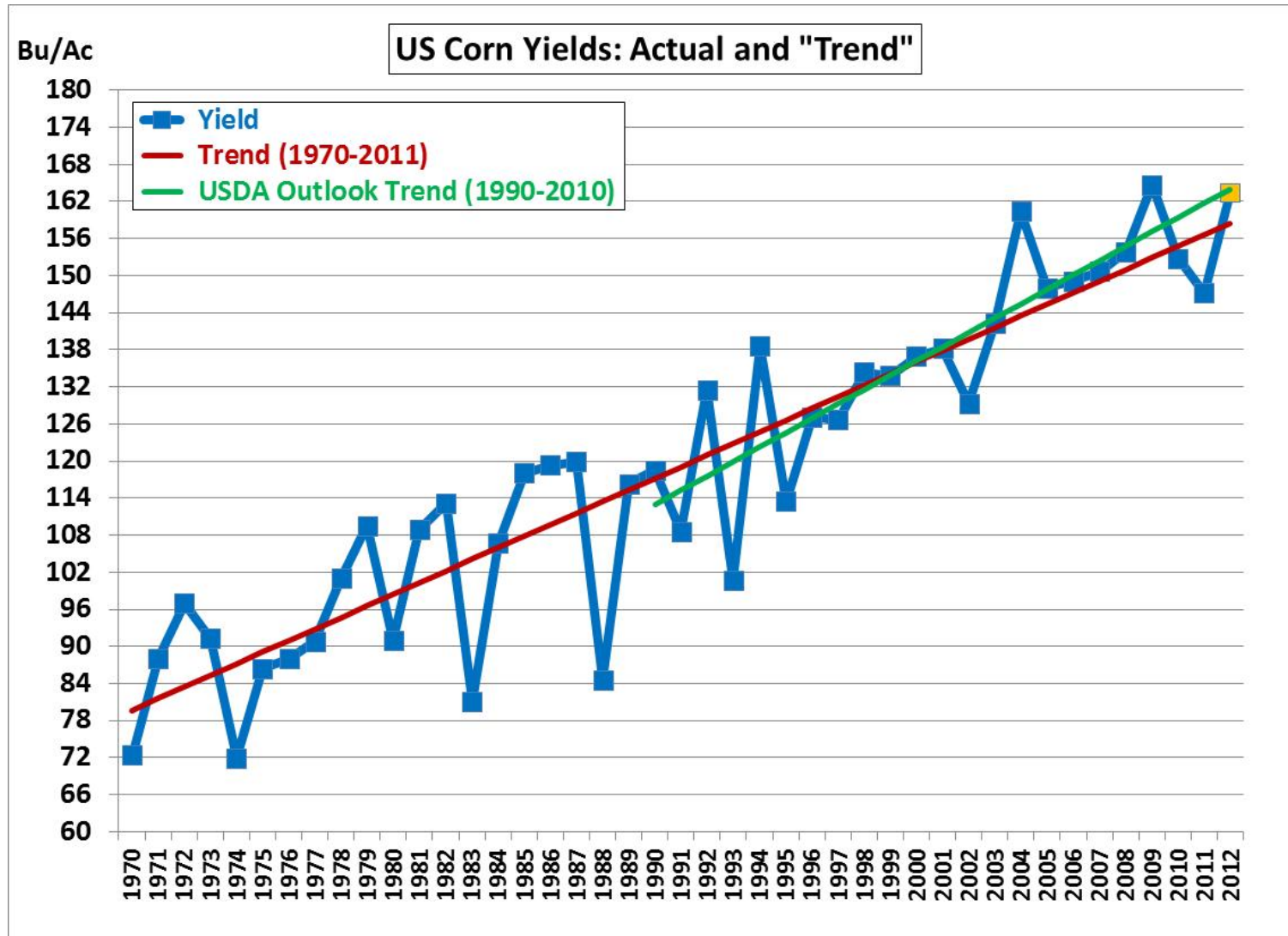
# November Soybean Futures Don't Seem to Be Influenced by the Planting Report



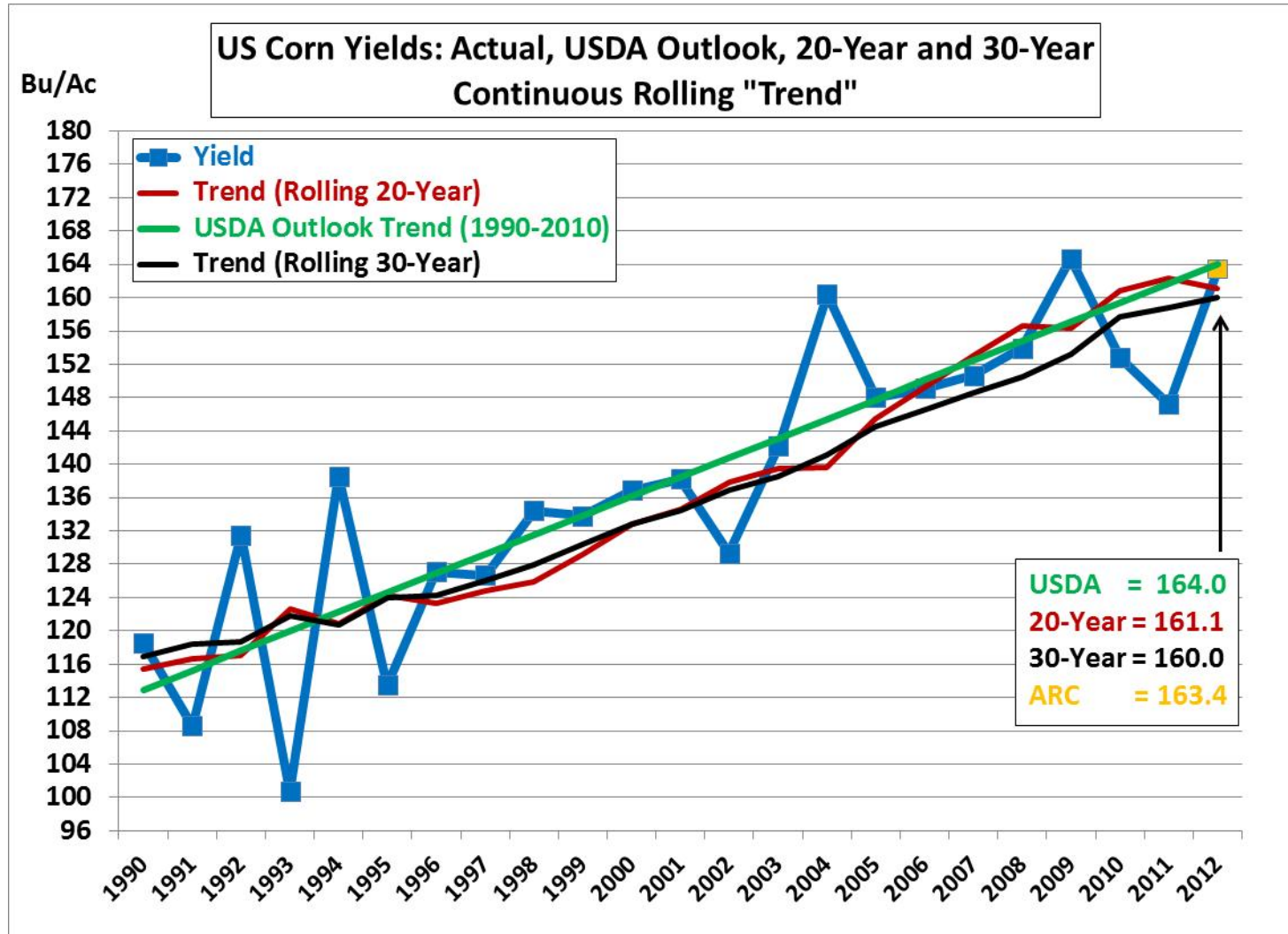
# USDA Projecting 2012 Corn Yield at 164 Bu (vs. 147.2 in 2011)



# It Makes a Difference How Many Years Are Used to Estimate a Linear Trend



# 4-Bushel Difference Between 20-Year & 30-Year Trend Yields & USDA Projection



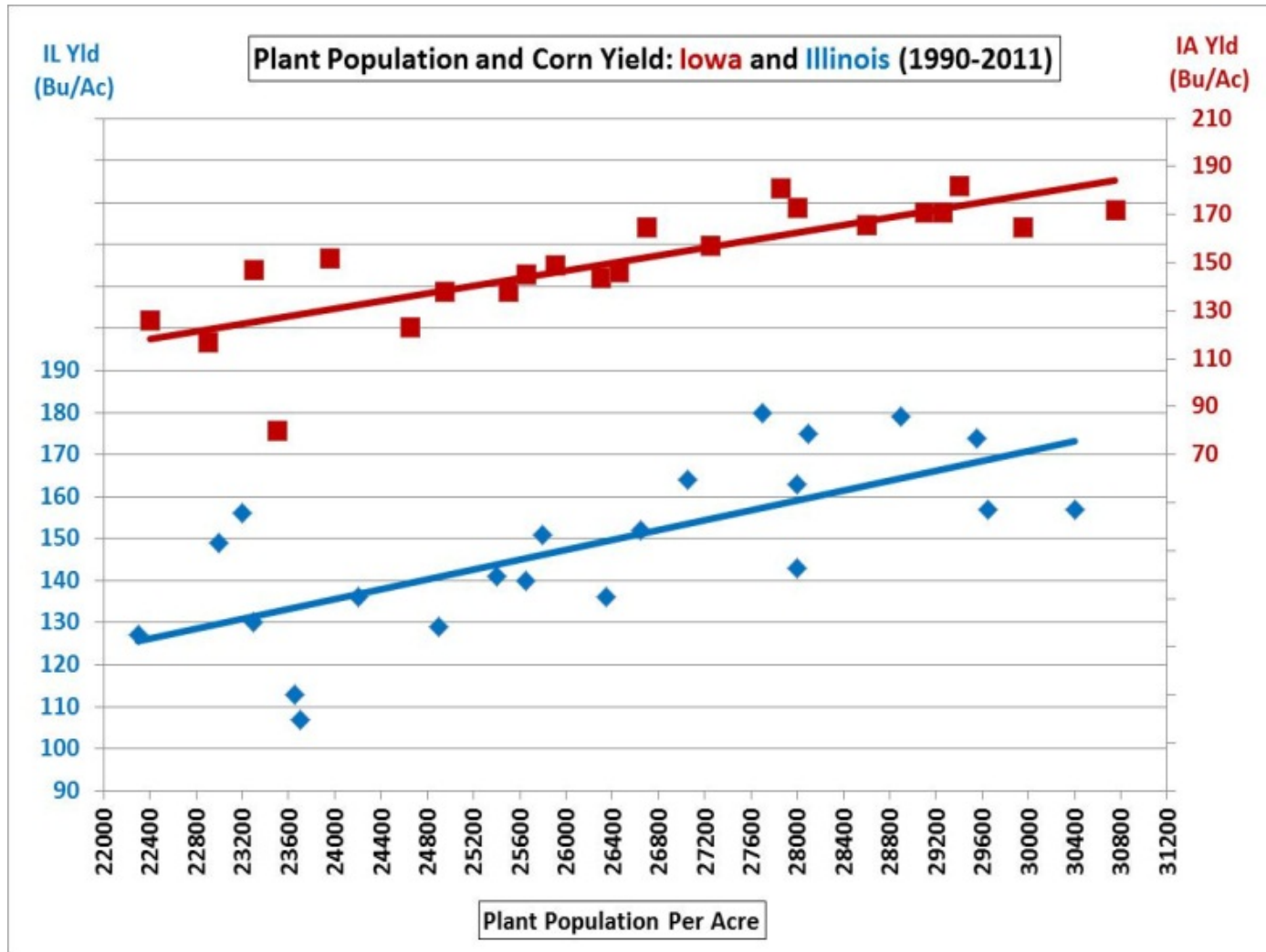
# In 2008, USDA Made a Big Change in the Number of Years Used to Estimate Trend Yield



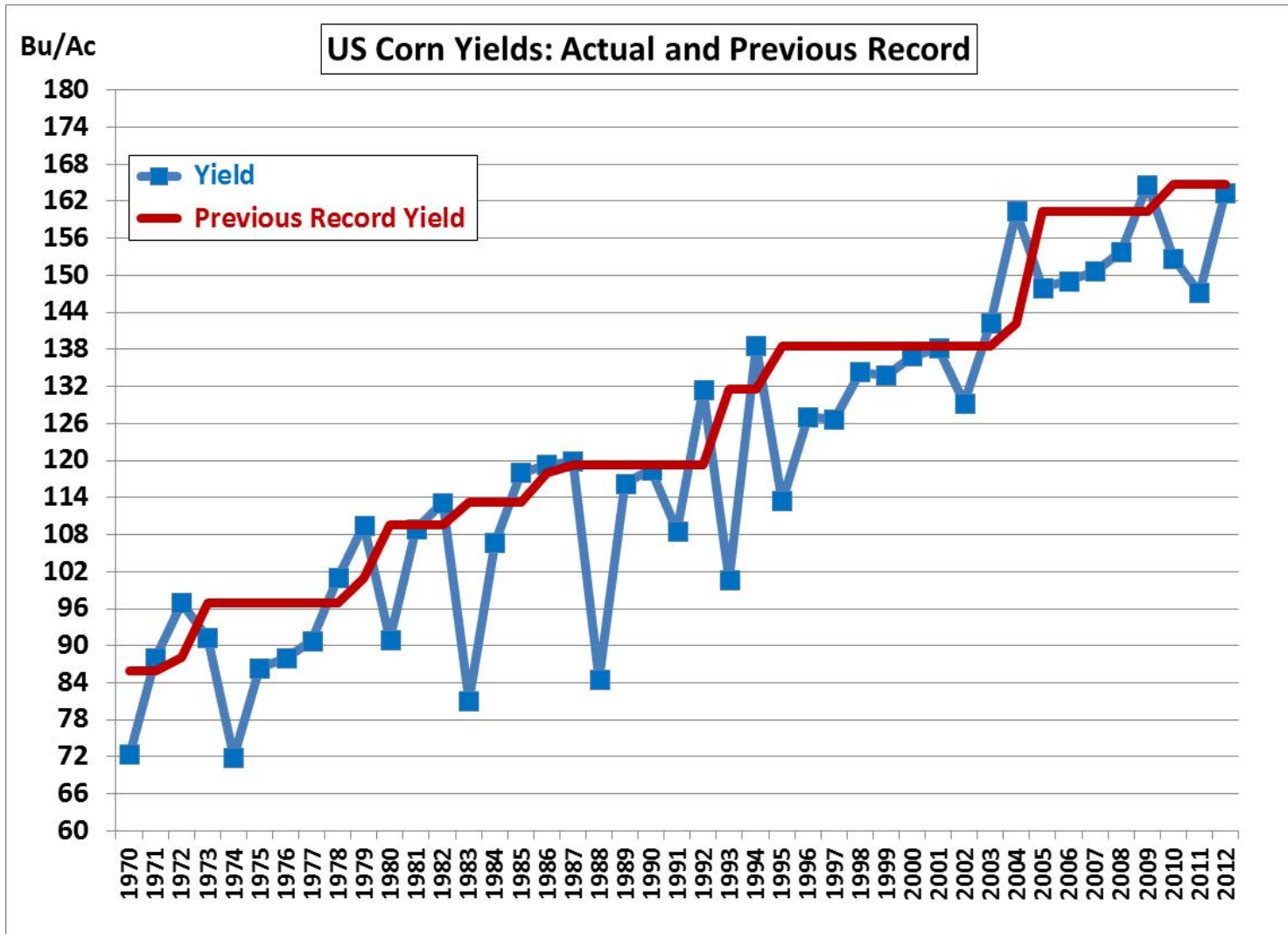
## USDA Has Used a Variety of Methods to Generate Corn “Trend” Yield Projections

Year	Outlook Conf. (Bu/Ac)	May WASDE (Bu/Ac)	Years	Number of Years	May WASDE Notes	August	Jan
			Used to Estimate Yield			Yield Estimate (Bu/Ac)	Annual Yield (Bu/Ac)
1995	125.5	125.6	60-94	35	Linear trend.	125.6	113.5
1996	127.0	126.0	60-95	36	Linear trend.	118.7	127.1
1997	128.0	131.0	60-96	37	Linear trend adjusted for planting progress.	125.3	127.0
1998	130.0	129.6	60-97	38	Linear trend.	130.0	134.4
1999	132.0	131.8	60-98	39	Linear trend.	134.7	133.8
2000	135.5	137.0	75-99	25	Trend, Jul rain & temps, planting progress mid-May.	141.9	137.1
2001	135.9	137.0	60-00	41	Linear trend adjusted for planting progress.	133.9	138.2
2002	137.9	137.9	60-01	42	Linear trend.	125.2	130.0
2003	139.7	139.7	60-02	43	Linear trend	139.9	142.2
2004	142.2	145.0	60-03	44	Linear trend, 1988 omitted, adjusted for planting progress.	148.9	160.4
2005	145.6	148.0	60-04	45	Linear trend, 1988 omitted, adjusted for planting progress.	139.2	147.9
2006	147.7	149.0	60-05	46	Linear trend, 1988 omitted, adjusted for planting progress.	152.2	149.1
2007	152.8	150.3	90-06	47	Trend, Jul rain & temps, planting progress mid-May.	152.8	151.1
2008	154.9	153.9	90-07	18	Linear trend adjusted for planting progress.	155.0	153.9
2009	156.9	155.4	90-08	19	Linear trend adjusted for planting progress.	159.5	164.7
2010	160.9	163.5	90-09	20	Linear trend adjusted for planting progress.	165.0	152.8
2011	161.7	158.7	90-10	21	Linear trend adjusted for planting progress.	153.0	147.2
2012	164.0	—					

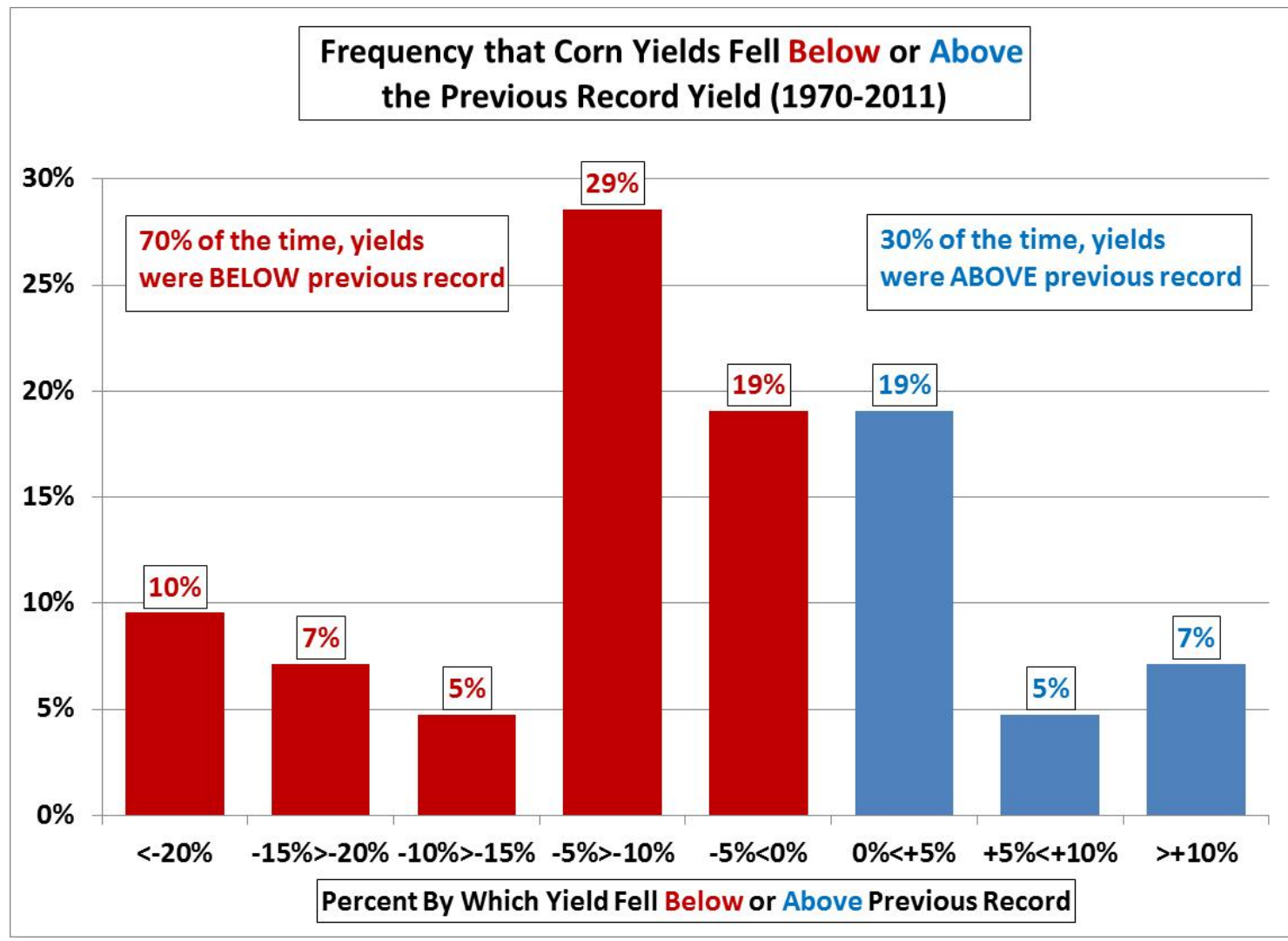
# Corn Yields Correlated With Plant Populations But Other Factors Are Important Too.



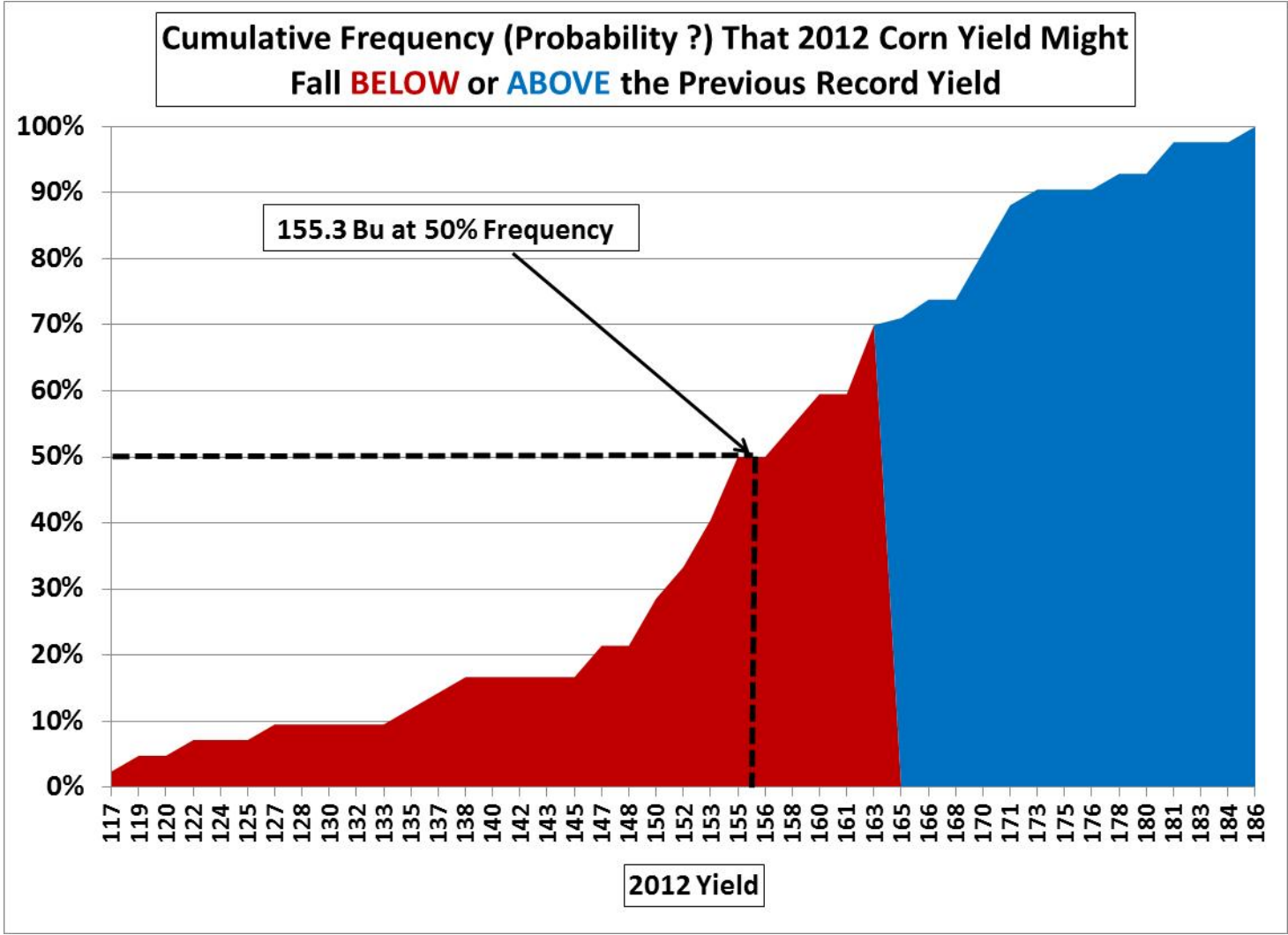
# Forget "Trend", Use Previous Record High as a Benchmark for Estimating 2012 Yield?



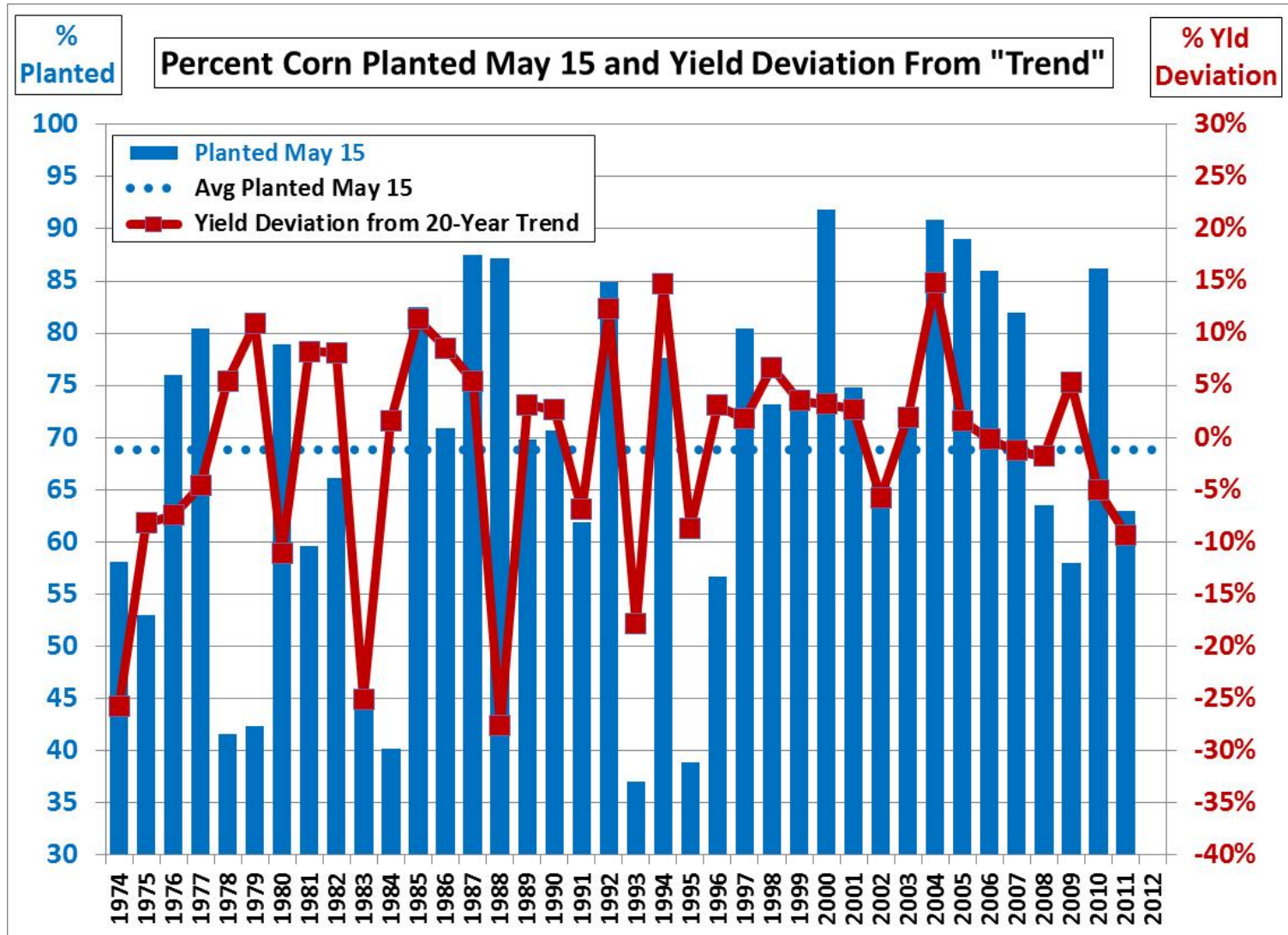
# Frequency Distribution of “Yields as % of Previous Record” is “Skewed” to Downside



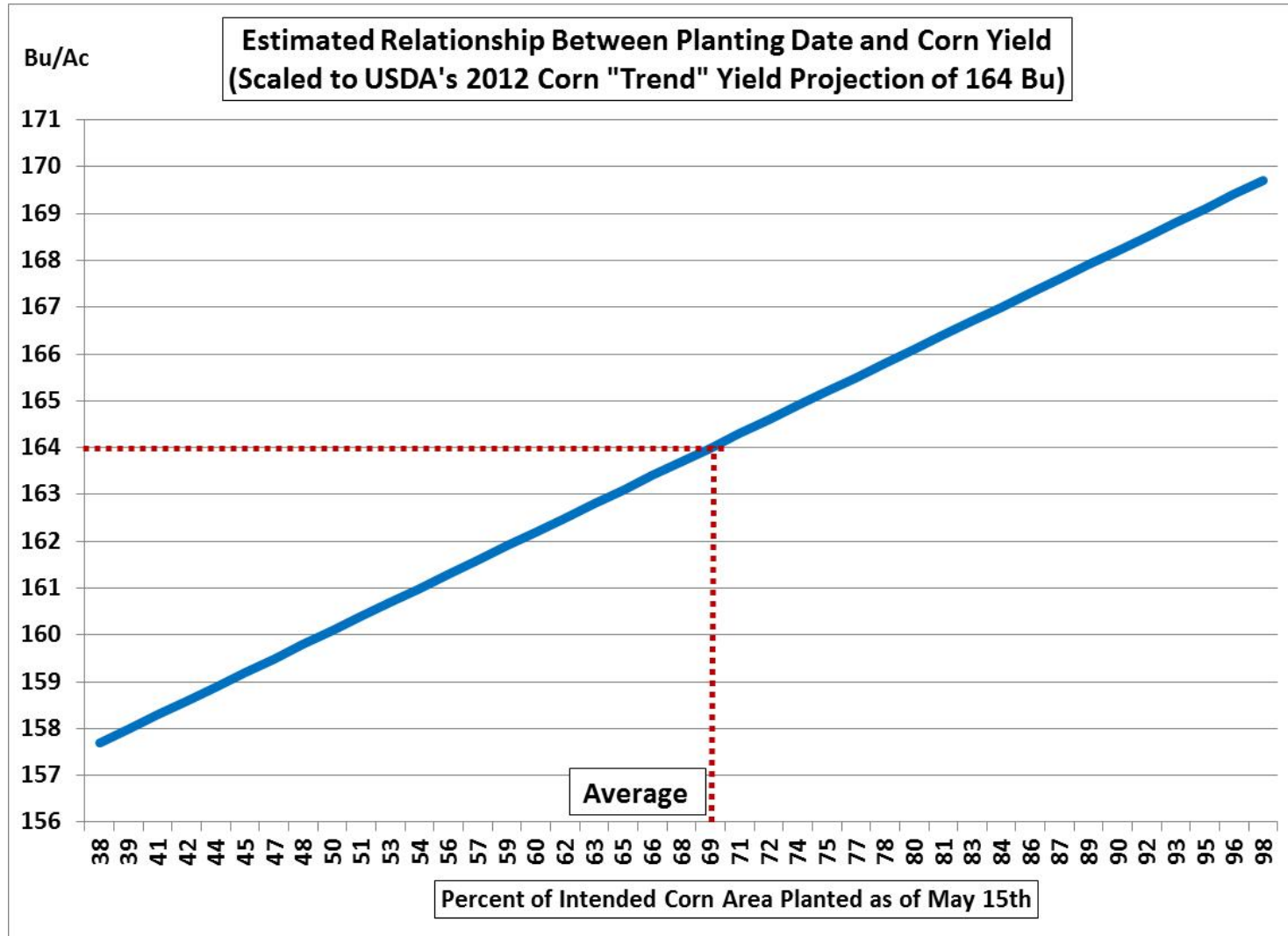
# Applying Frequency of “Yields as % of Previous Record” Implies a 2012 Yield of 155.5 Bu



# Early Planted Corn “Tends” to Have Better Yields



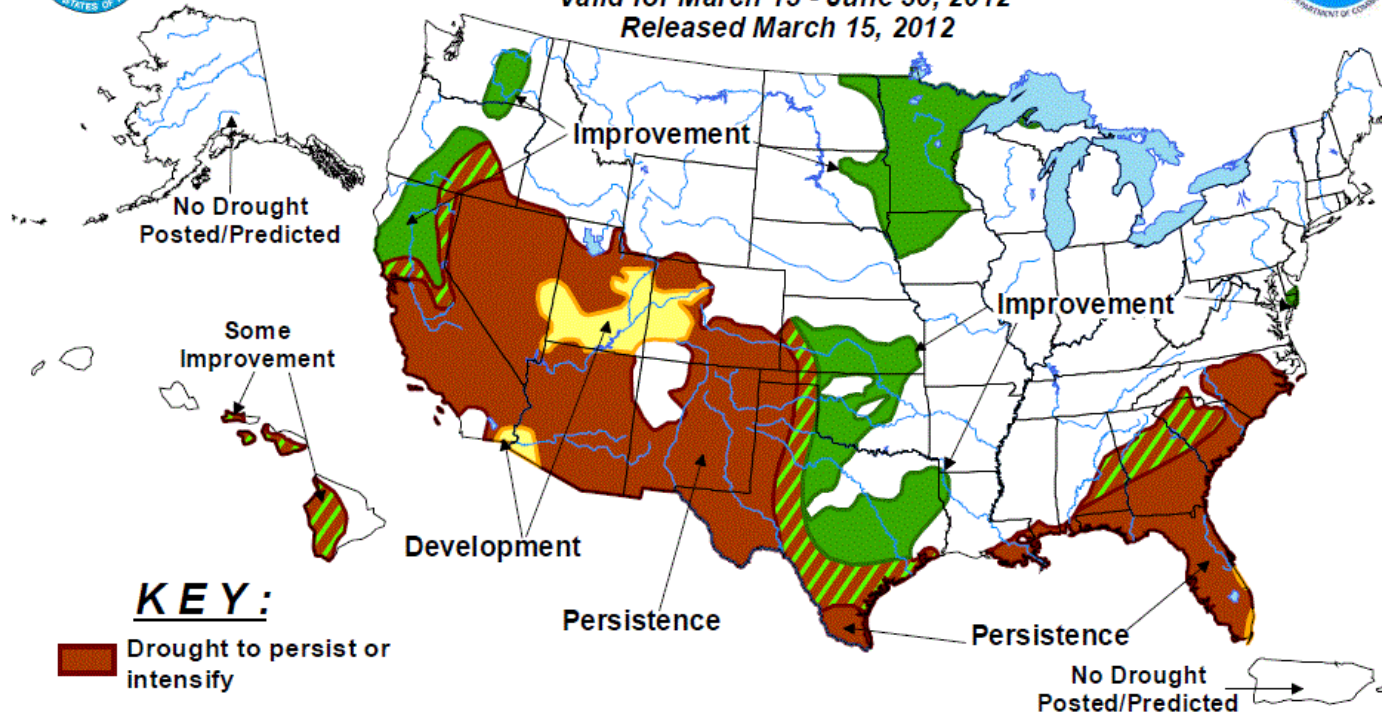
# If 2012 Corn is Planted Very Early, USDA Could Add 2 Bu (Maybe 3) to Yield Proj in May WASDE



# Although Planting Date Matters, Rain & Temps are The Primary Determinants of Yield



## U.S. Seasonal Drought Outlook Drought Tendency During the Valid Period Valid for March 15 - June 30, 2012 Released March 15, 2012

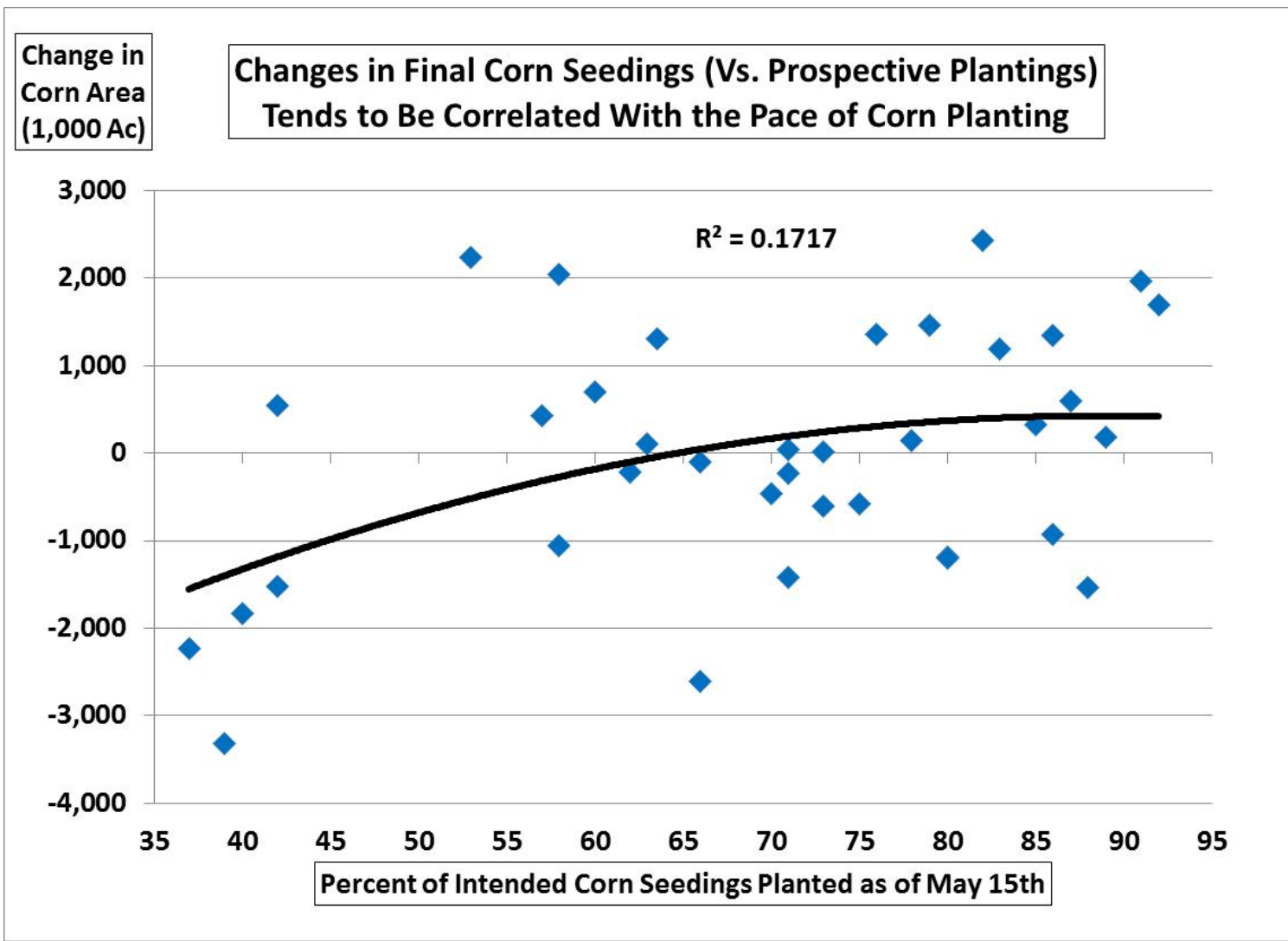


### KEY:

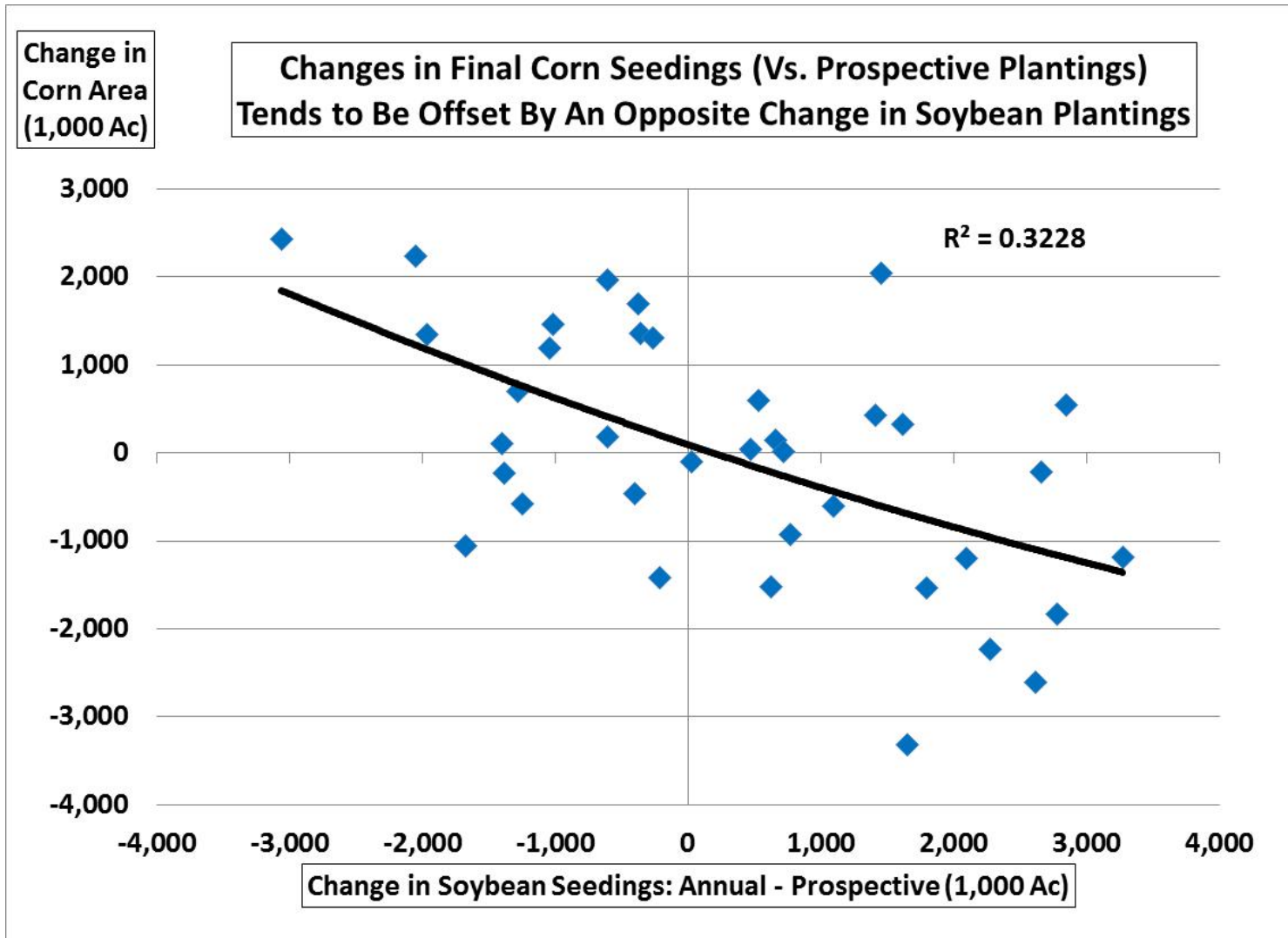
-  Drought to persist or intensify
-  Drought ongoing, some improvement
-  Drought likely to improve, impacts ease
-  Drought development likely

Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Short-term events -- such as individual storms -- cannot be accurately forecast more than a few days in advance. Use caution for applications -- such as crops -- that can be affected by such events. "Ongoing" drought areas are approximated from the Drought Monitor (D1 to D4 intensity). For weekly drought updates, see the latest U.S. Drought Monitor. NOTE: the green improvement areas imply at least a 1-category improvement in the Drought Monitor intensity levels, but do not necessarily imply drought elimination.

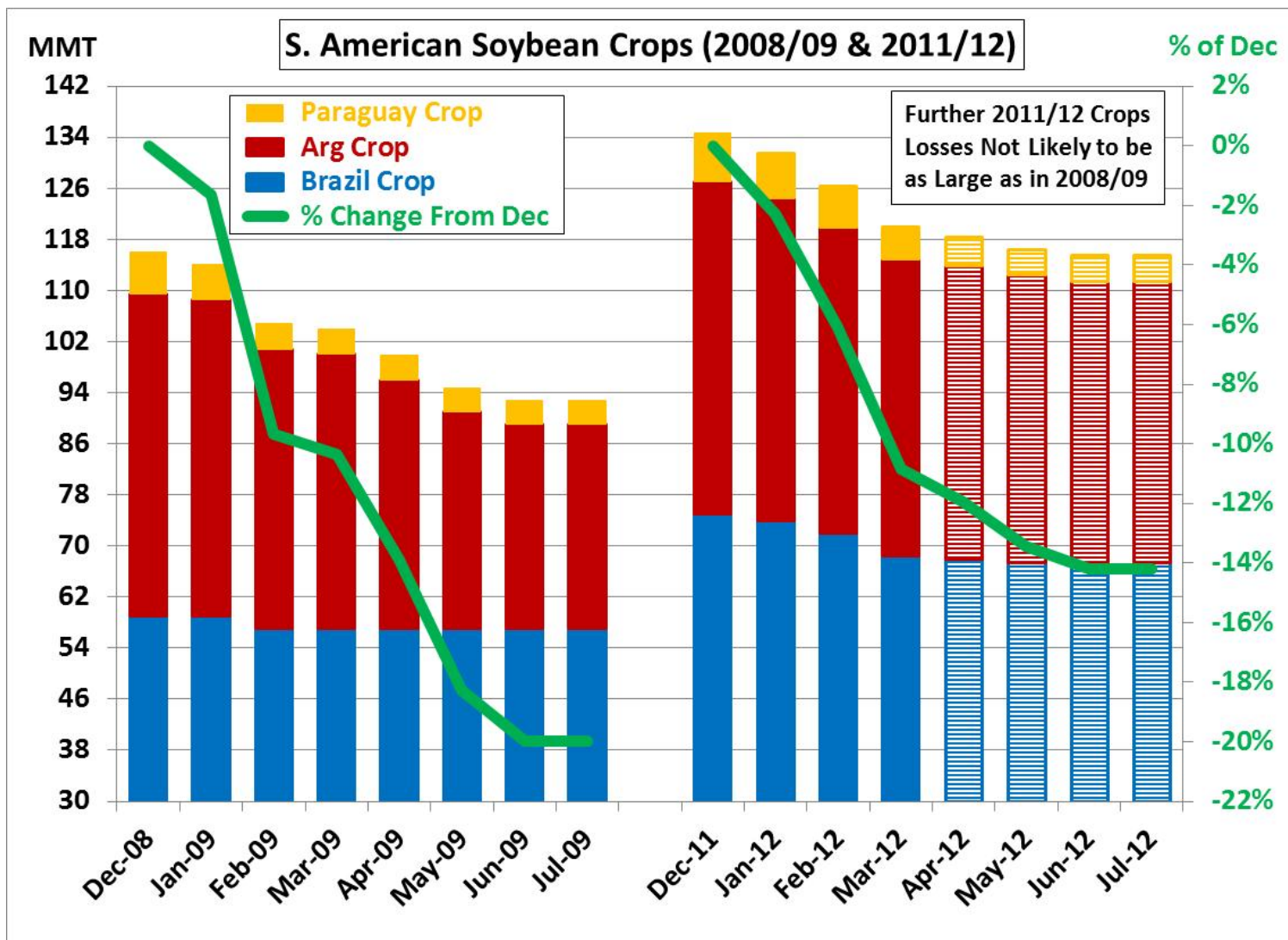
# A Fast Pace to Corn Planting “Tends” to Boost Final Corn Seeded Area Above Intentions



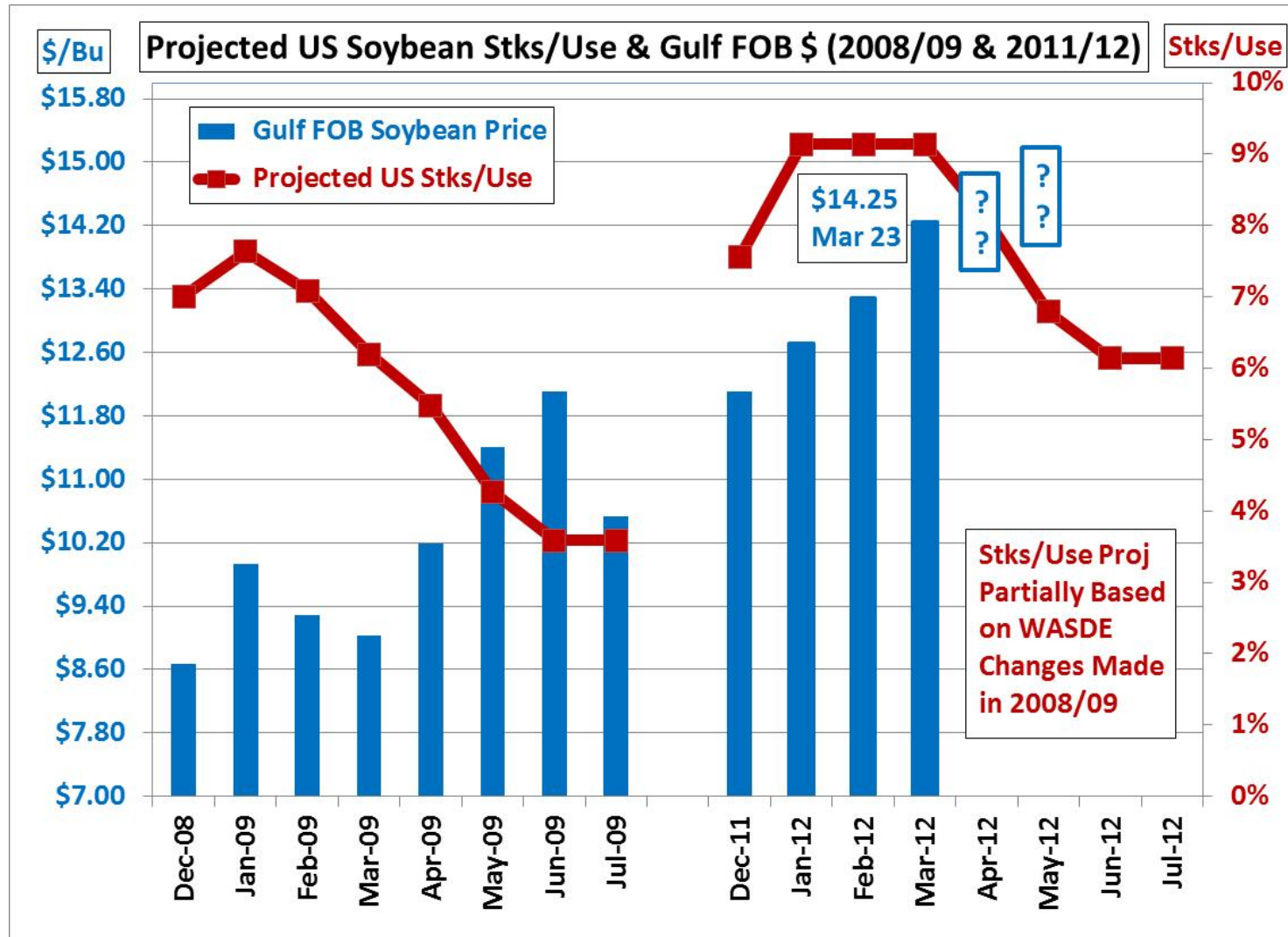
# A Fast Pace to Corn Planting “Tends” to “Take” Acres From Soybeans



# S. American Soybean Crop Dropped 20% Between Dec-Jul in 2008/09. How Big Will Losses be in 2011/12?



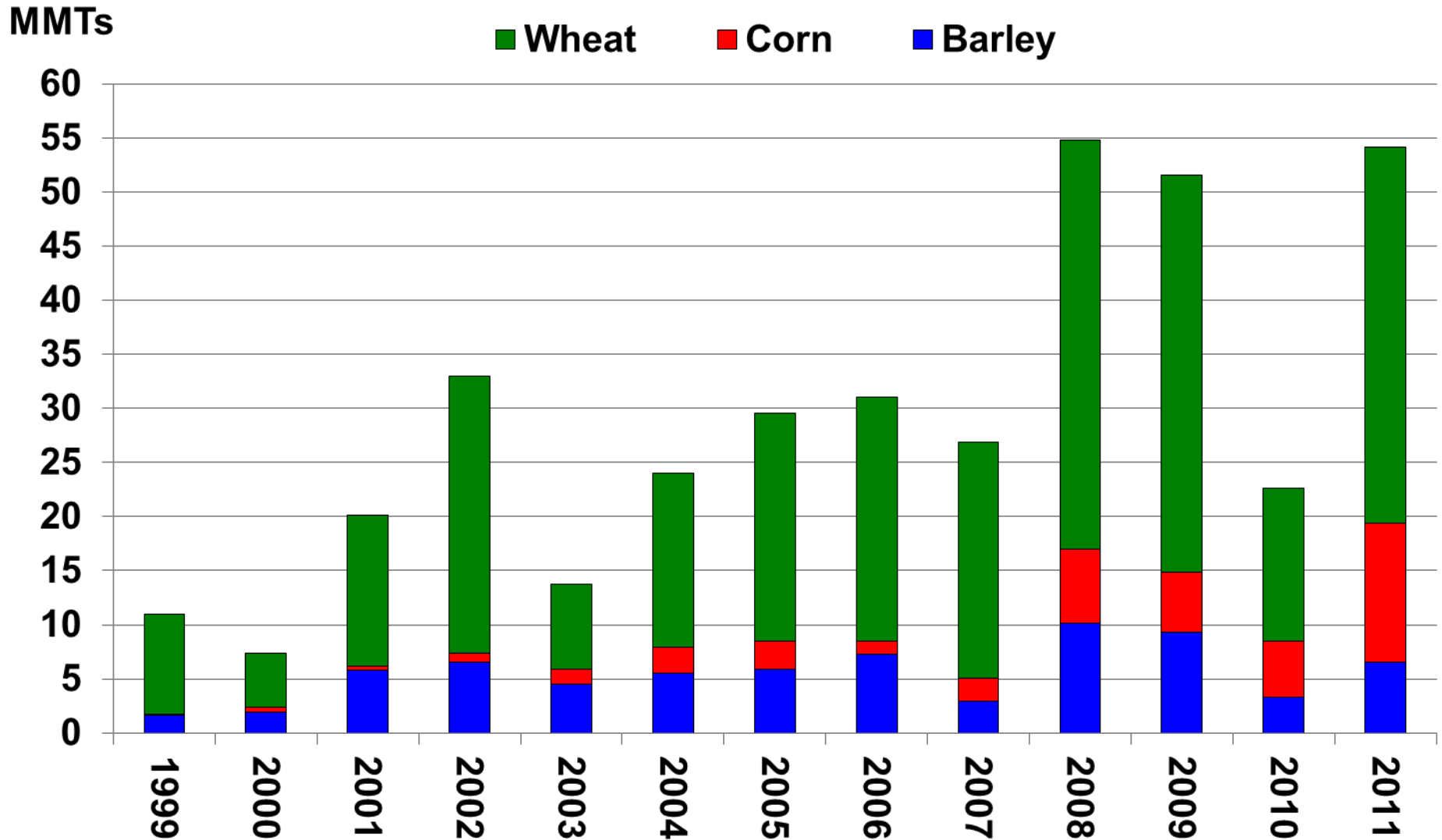
# Increased US Soy Exports Will Reduce Stocks and Raise Prices



# The Return of Black Sea Exports!



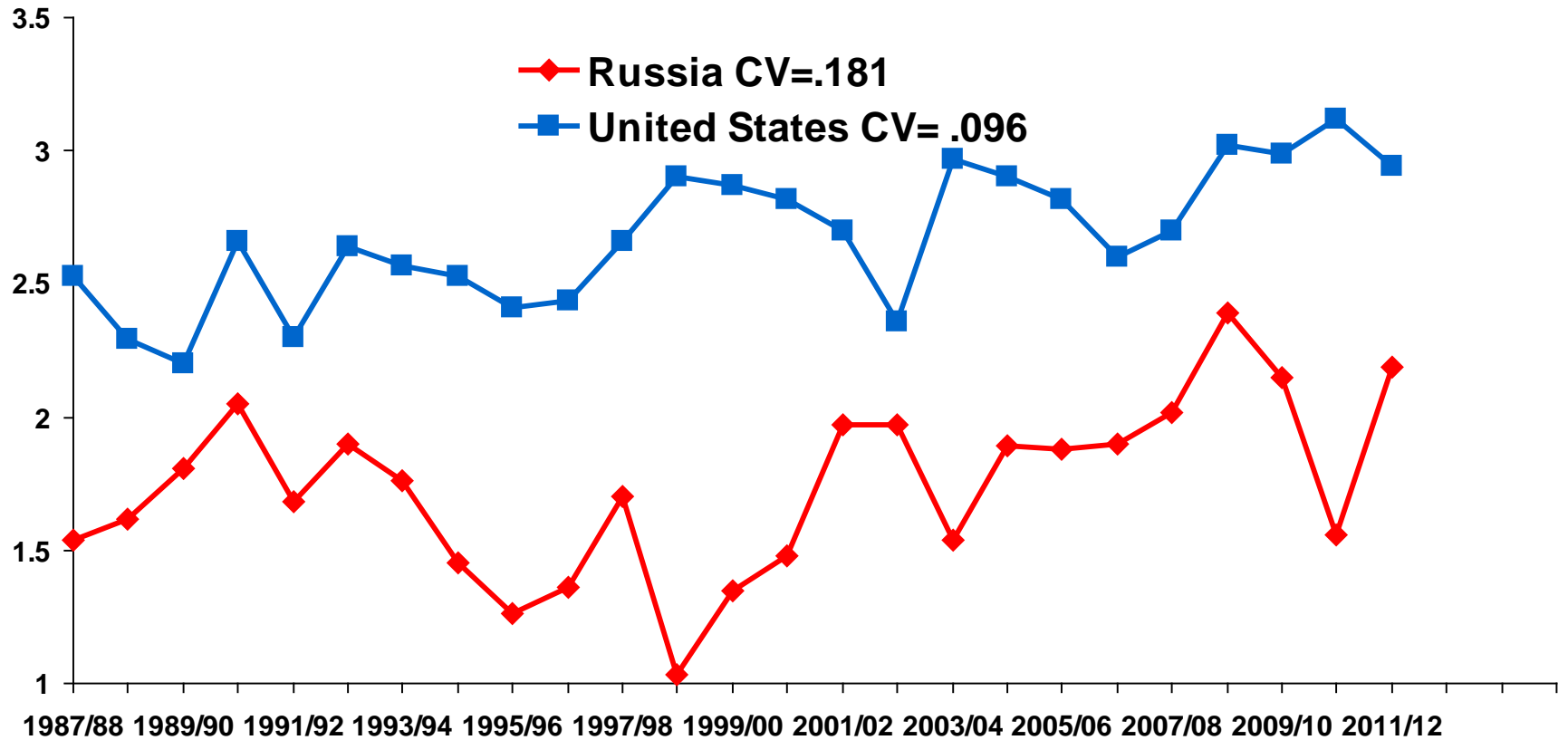
# FSU-12 Corn/Wheat/Barley Annual Exports - 31 MMTs Larger in 11/12 – A Record High Change from Prior Crop Year!



# Russia's Wheat Yields Highly Variable



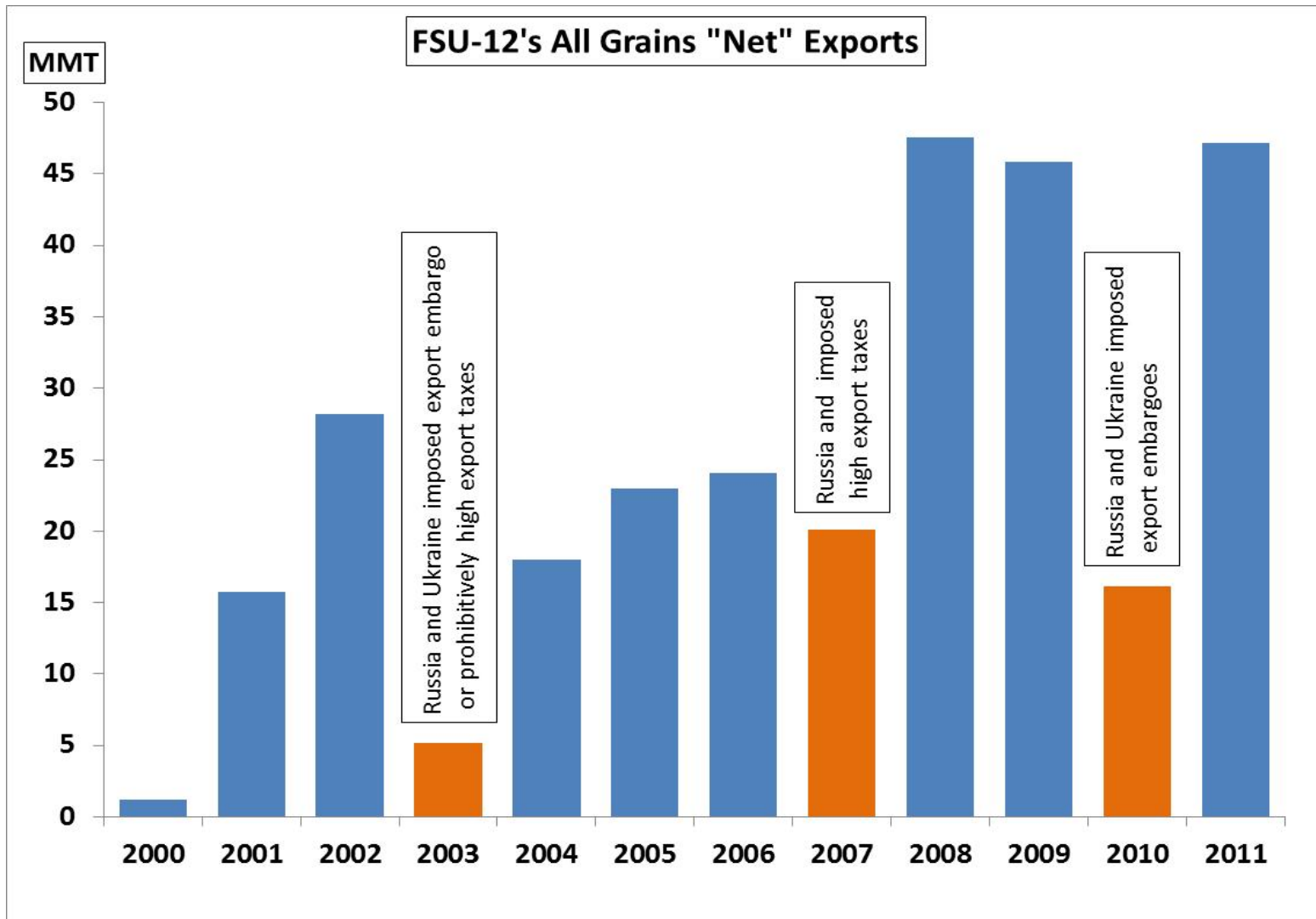
Tonnes per hectare



Source: USDA 2012 Outlook Conference

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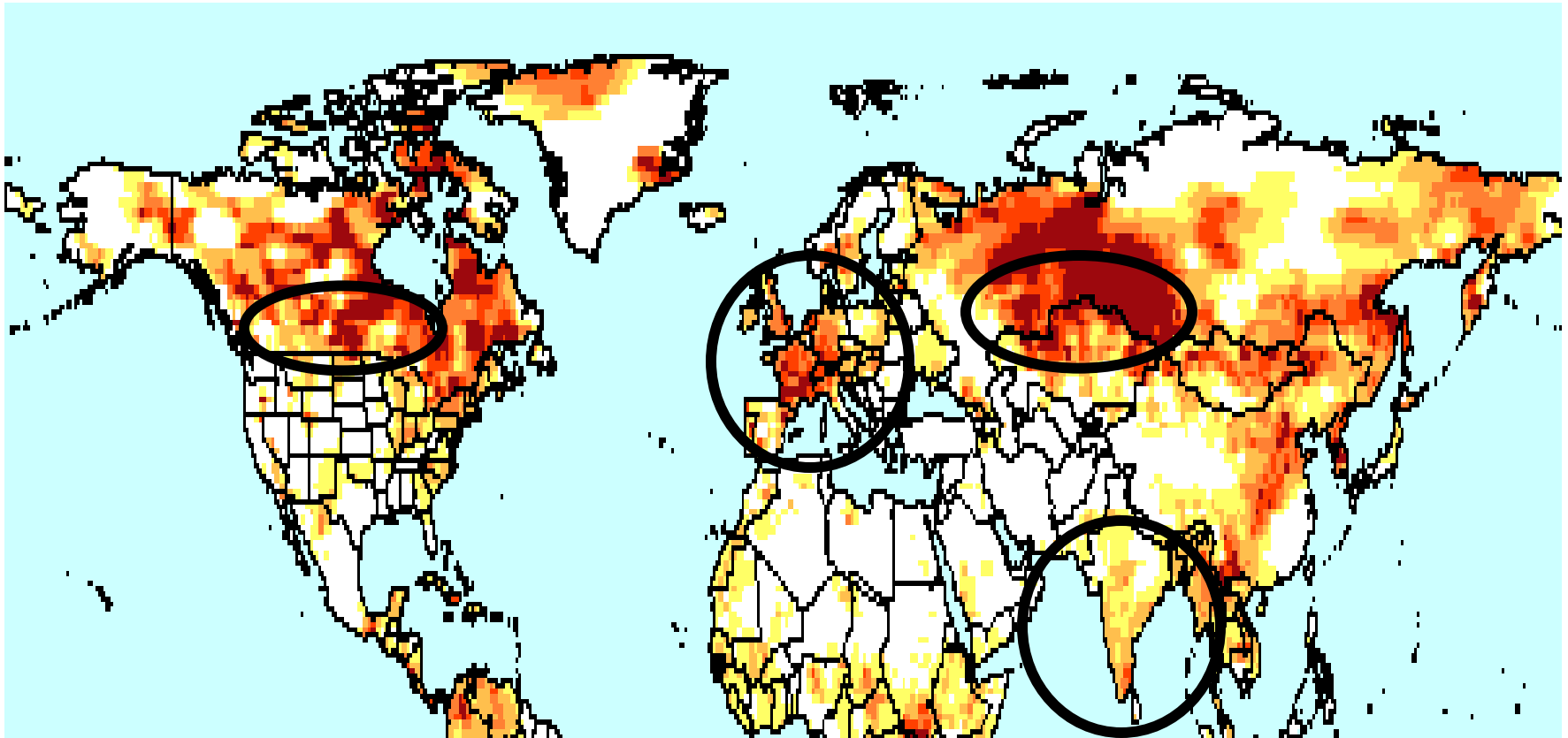
# Black Sea An Unreliable Exporter Due to Embargoes of High Export Taxes



# Weather Problems May Be Developing In the Northern Hemisphere

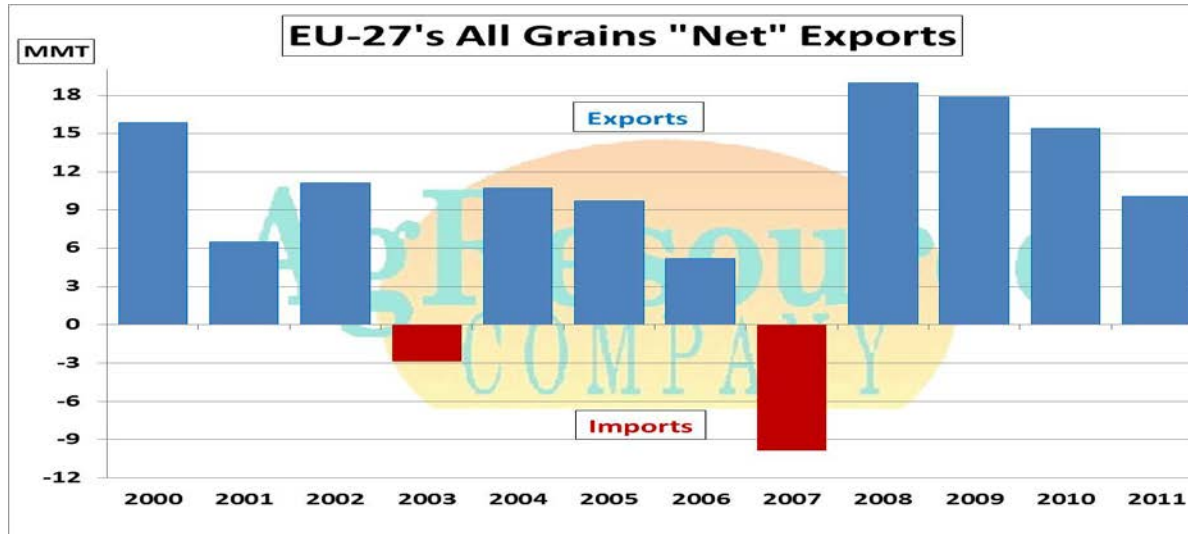
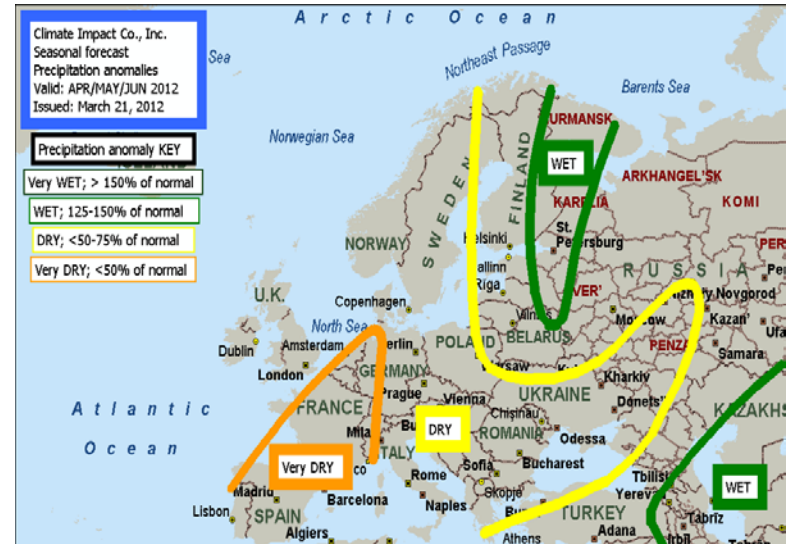
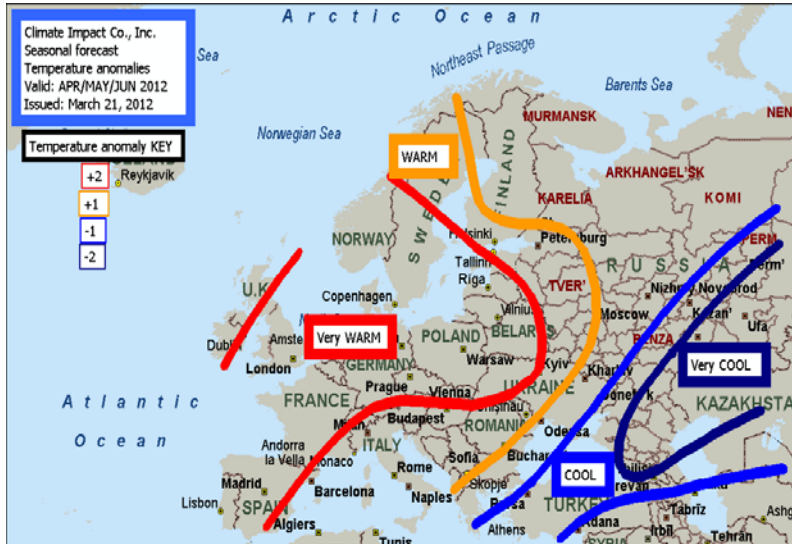


Canadian Prairies, Europe, Siberia-Kazakhstan and possibly a “Weak” Indian Monsoon



The 30-day Trend in Global Soil Moisture (Source: Climate Impact Co.)

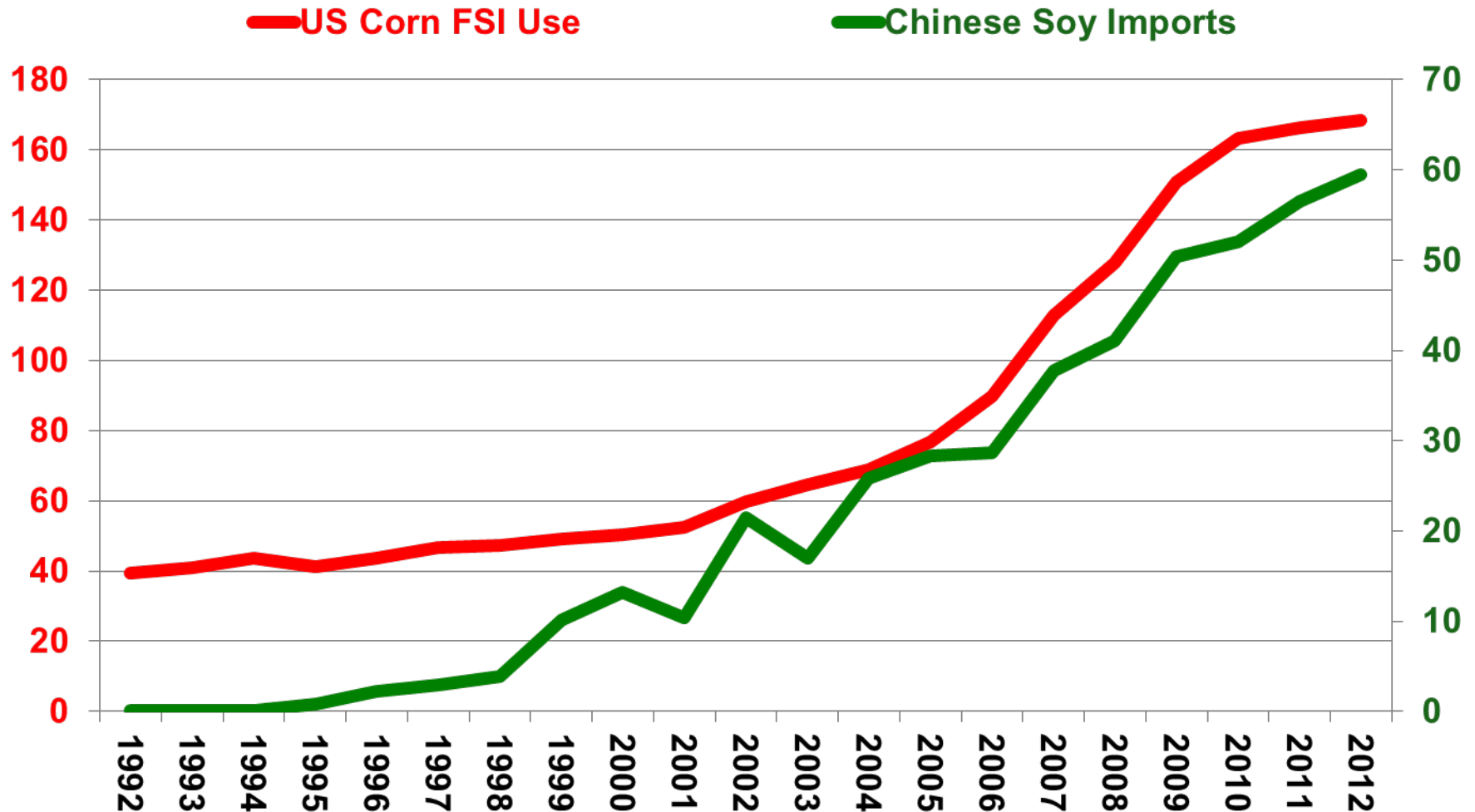
# Twice in Last 10 Years, the EU Has Been a "Net" Importer of Grain. Will That Happen Again in 2012/13?



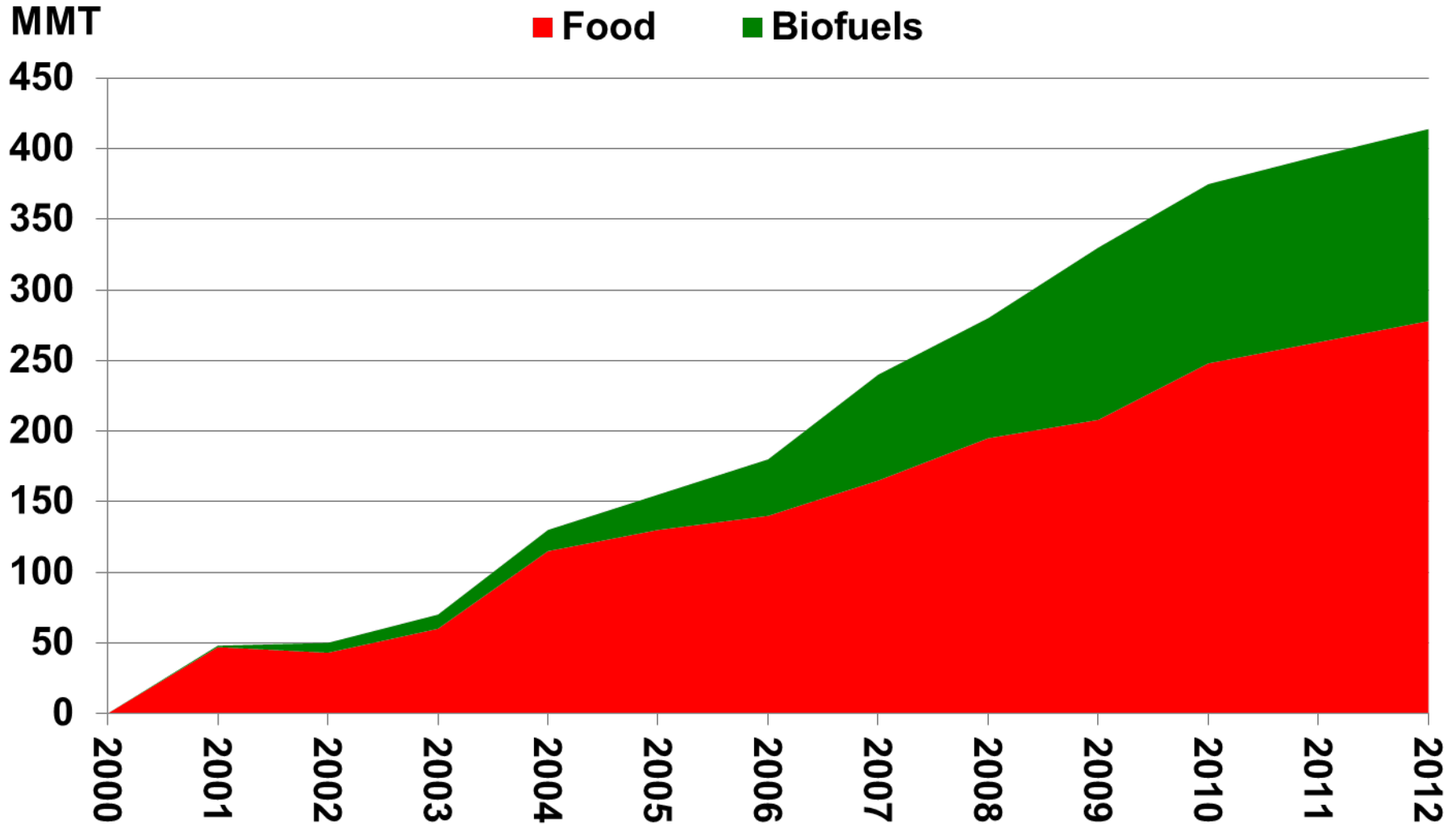
# The Structural Drivers of the World Ag Bull Market



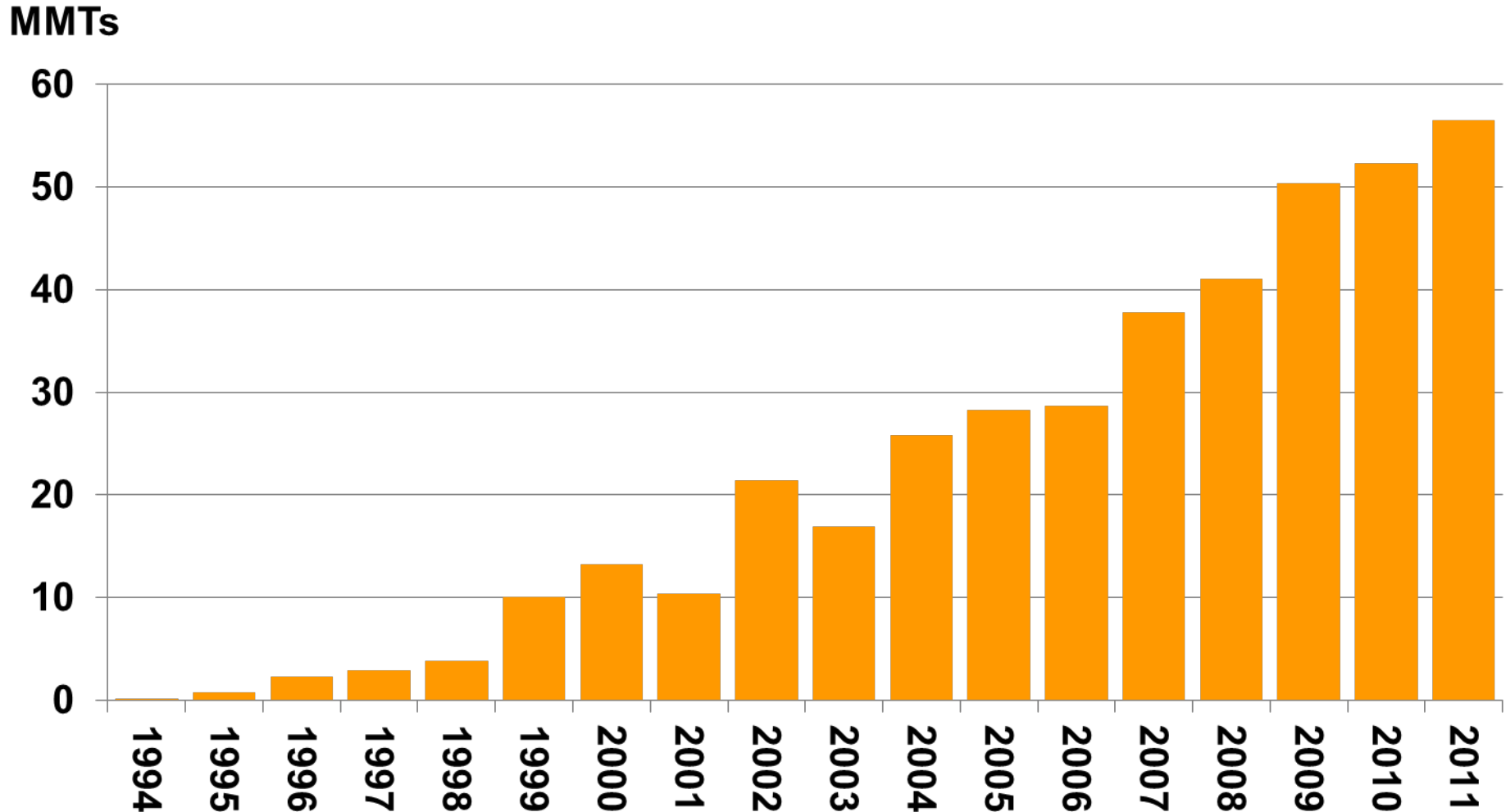
# Rising SE Asian Caloric Intake and US Ethanol Demand –the Chart That Started the Ag Bull Market (MMTs) in 2006



# Change in World Grain Use Since 2000 – 135 MMTs of Grain for Biofuels in '12



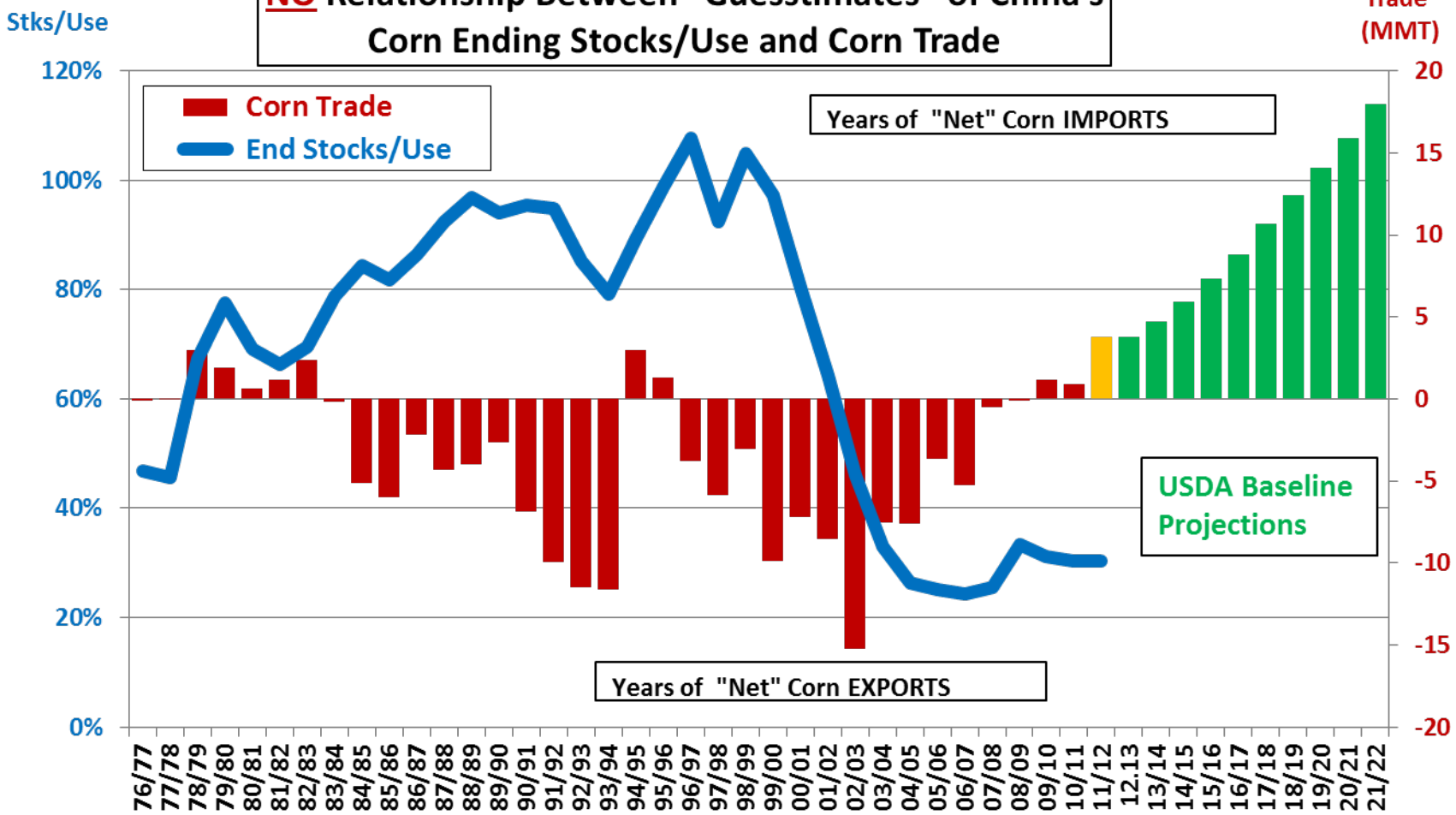
# Chinese World Soybean Imports – Record 55-58 MMTs in 2011/12?



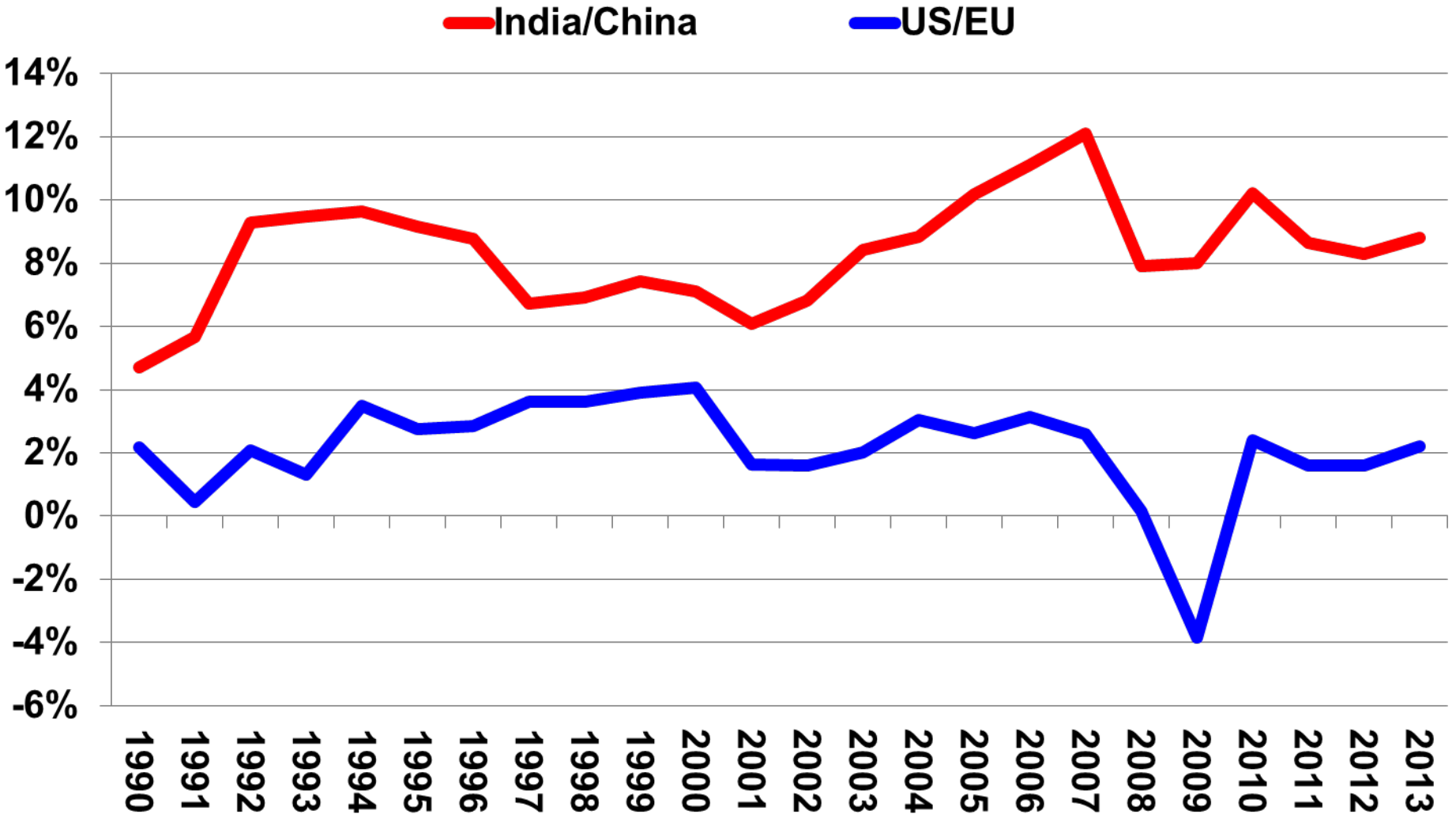
# USDA Expects China to Open The Door to Corn Imports But That Requires A Change in Policy



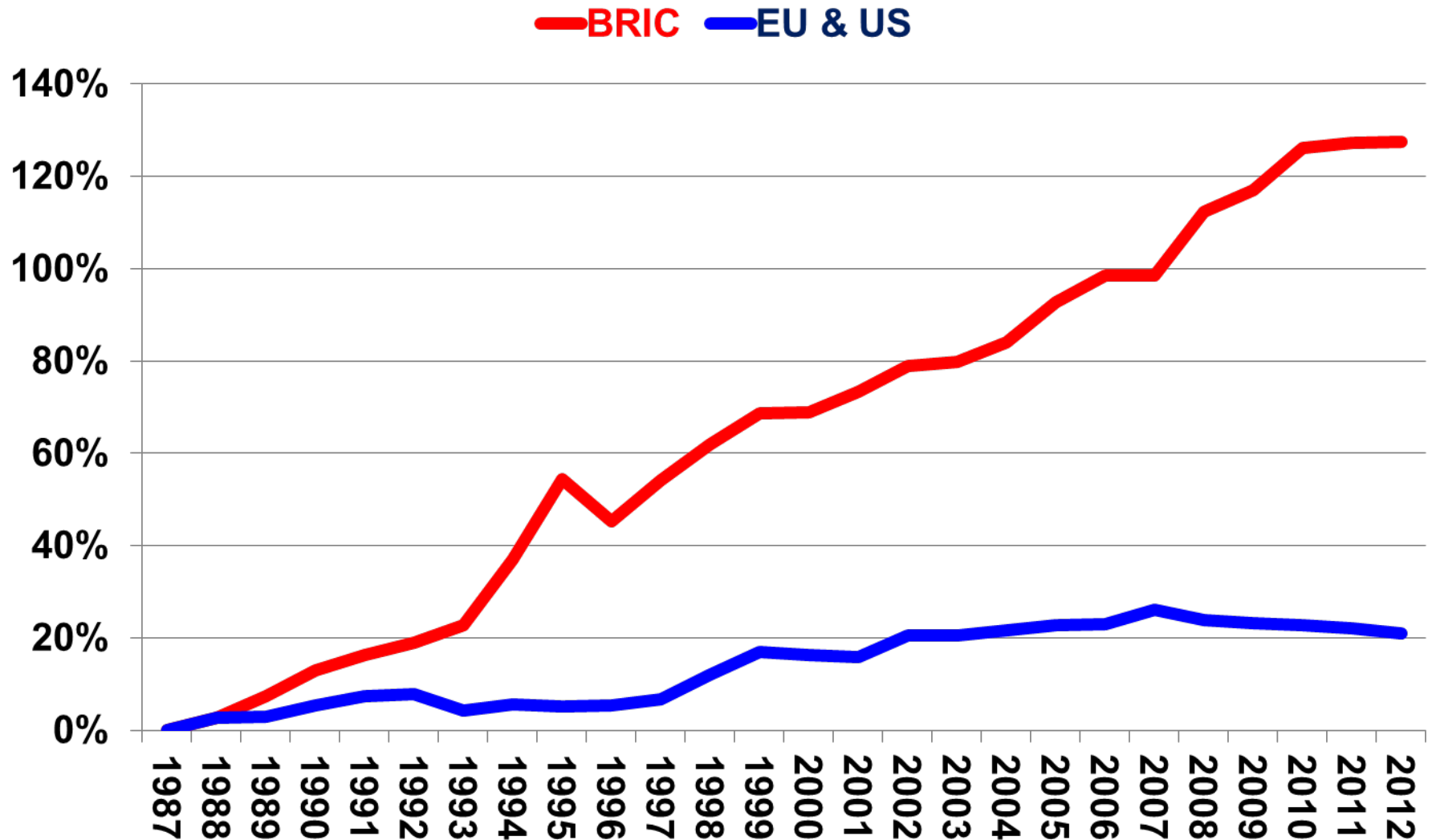
**NO** Relationship Between "Guesstimates" of China's Corn Ending Stocks/Use and Corn Trade



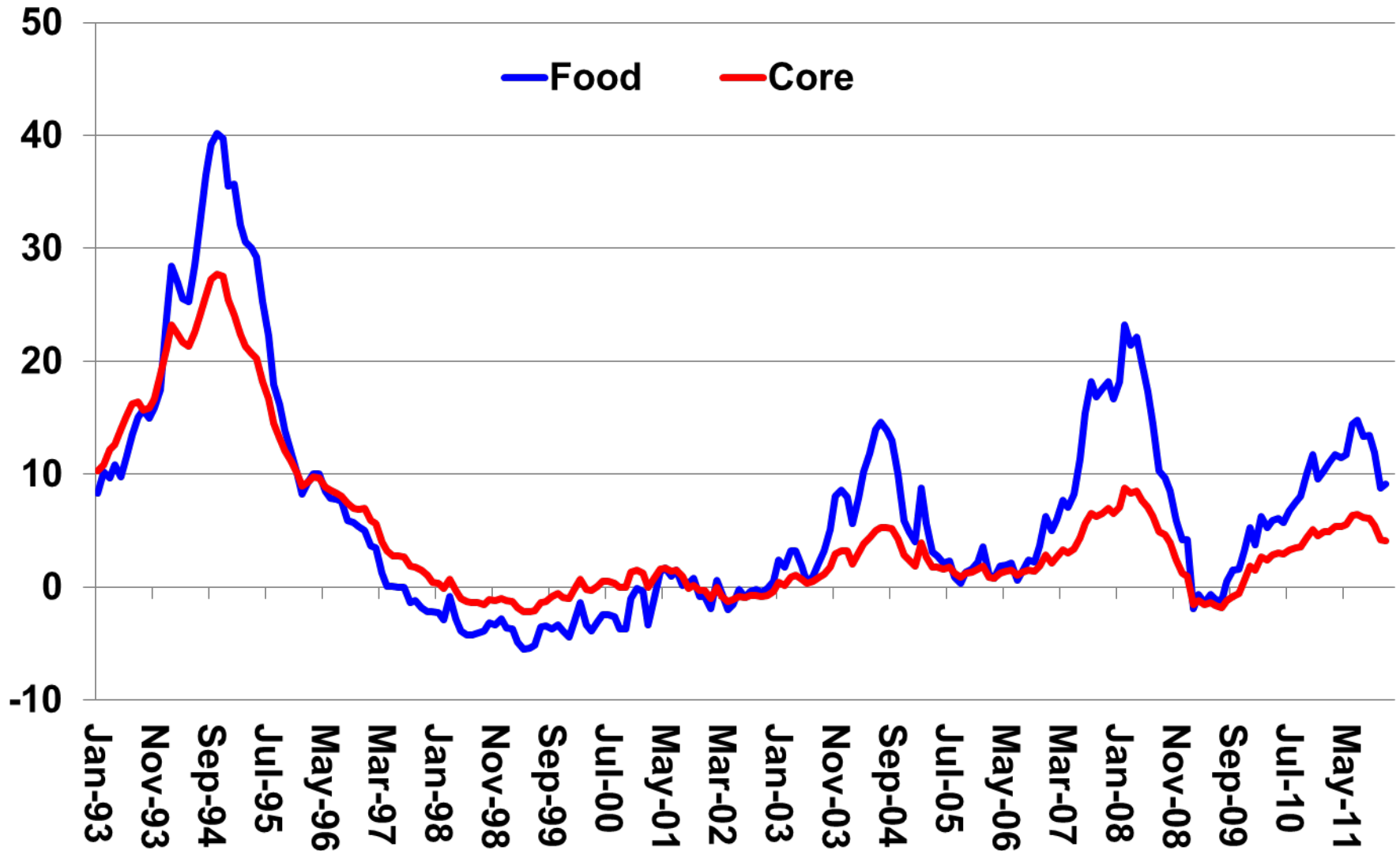
# US/EU vs. India/China Average GDP Growth



# Delta in World Livestock Demand



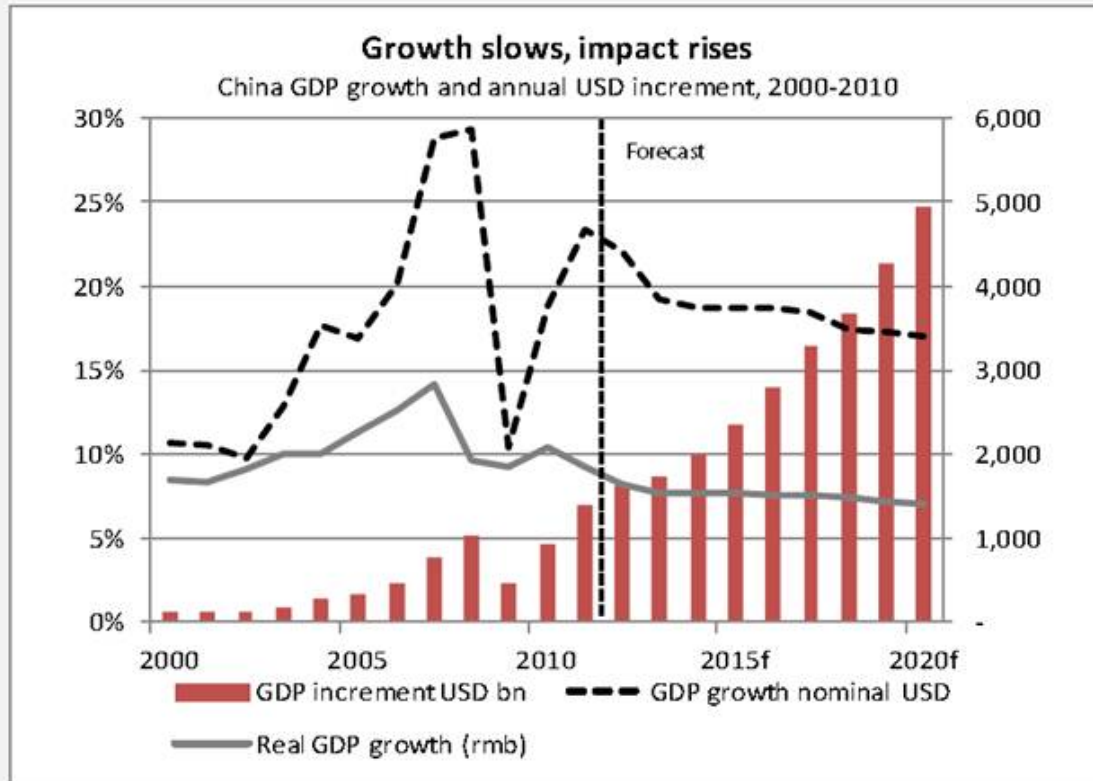
# Chinese Core and Food Inflation Index



# Even As China's Growth Rate Declines, The Impact on Global GDP Will Still Be HUGE



## The magic of the base effect



Focus on real GDP growth rates can obscure volume impacts. For the latter, it's better to look at the nominal increase in USD GDP.

In 2003-11, China added US\$5.9 trn to global GDP.

For 2012-20, we estimate **China will add US\$26.5 trn to the global economy** – nearly 5x the growth increment of 03-11, even though the real growth rate will slow by 1/3.

The **increment** in China's 2020 GDP will be as big as China's entire 2009 economy.

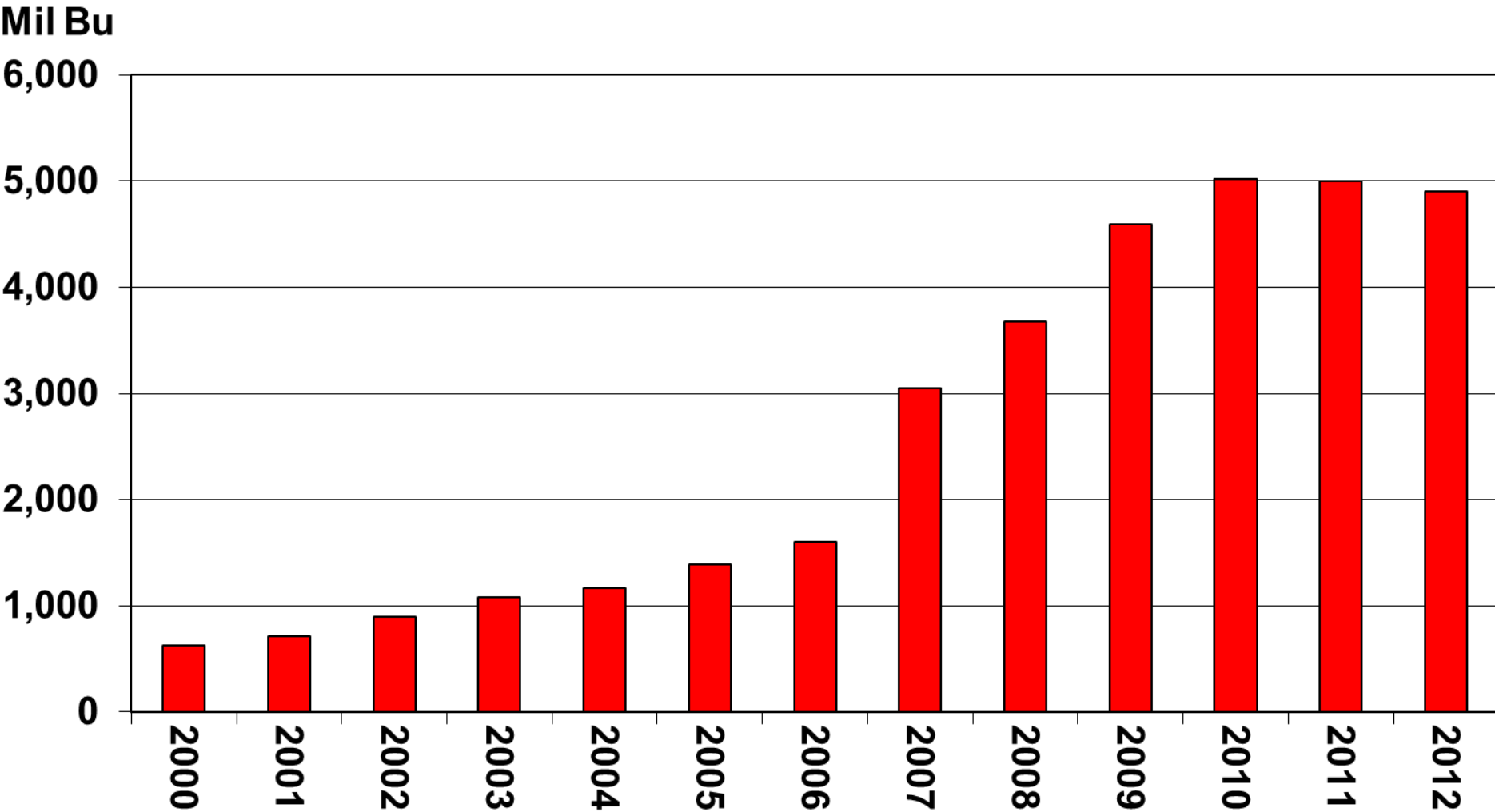
**Assumptions:**

	03-11	12-20
Real GDP growth	10.7	7.5
GDP deflator	5.1	6.5
RMB/USD % ch	2.9	3.1

# One of the Drivers Being Throttled Back – US Ethanol!

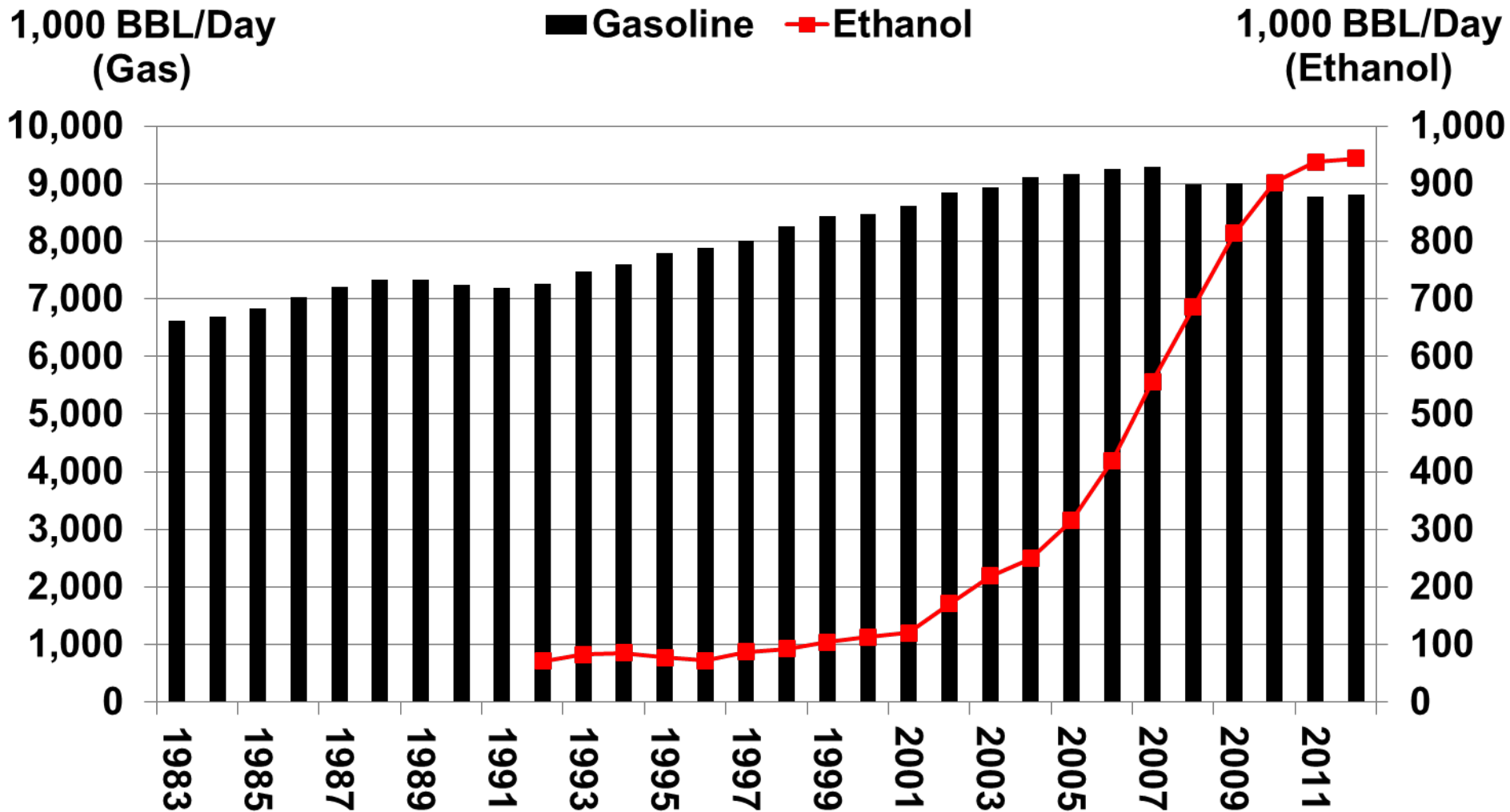


# US Corn Used for the Production of Ethanol

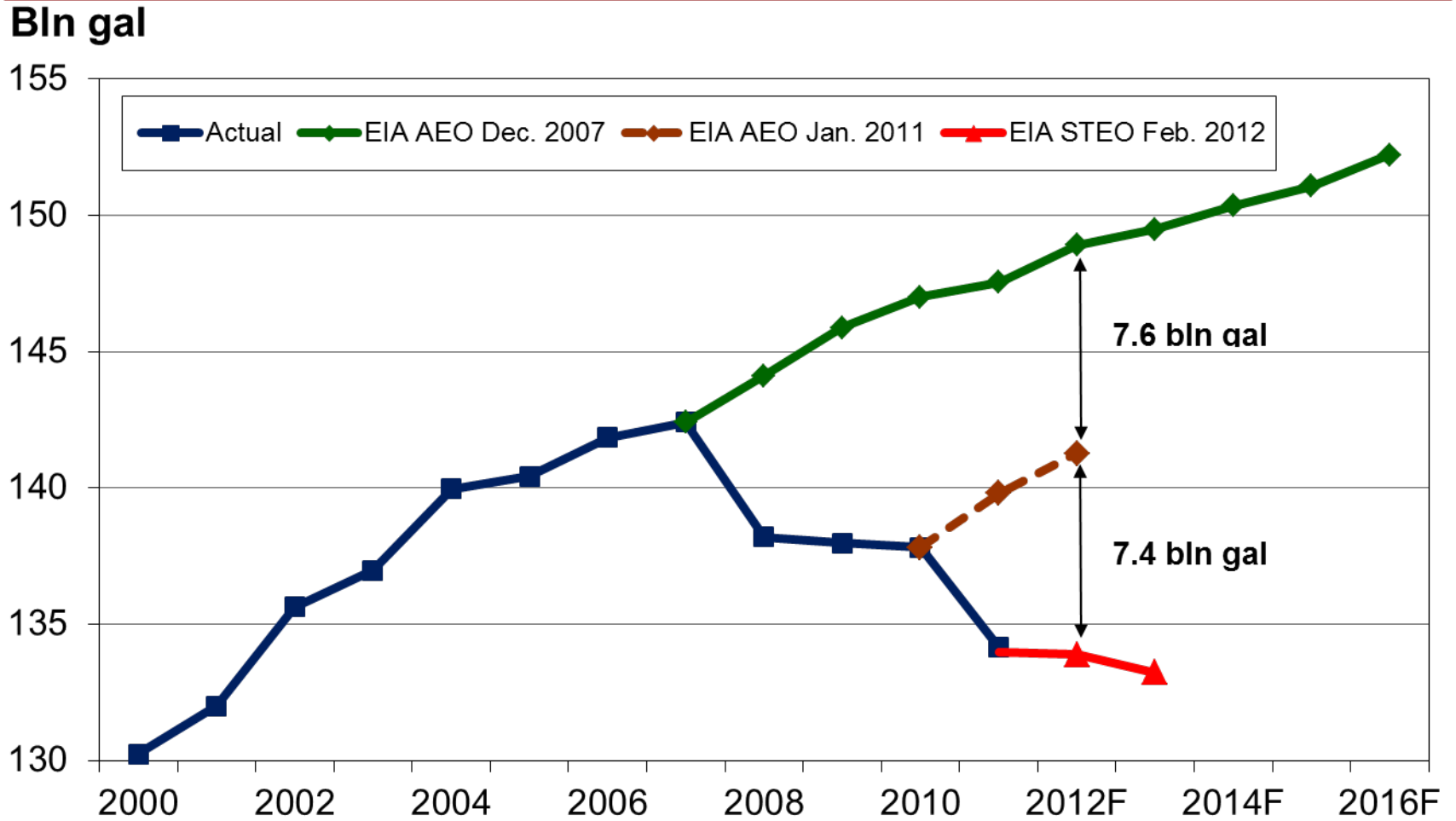


# US Gasoline Demand/Ethanol

## Daily Use: 10.2% Ethanol



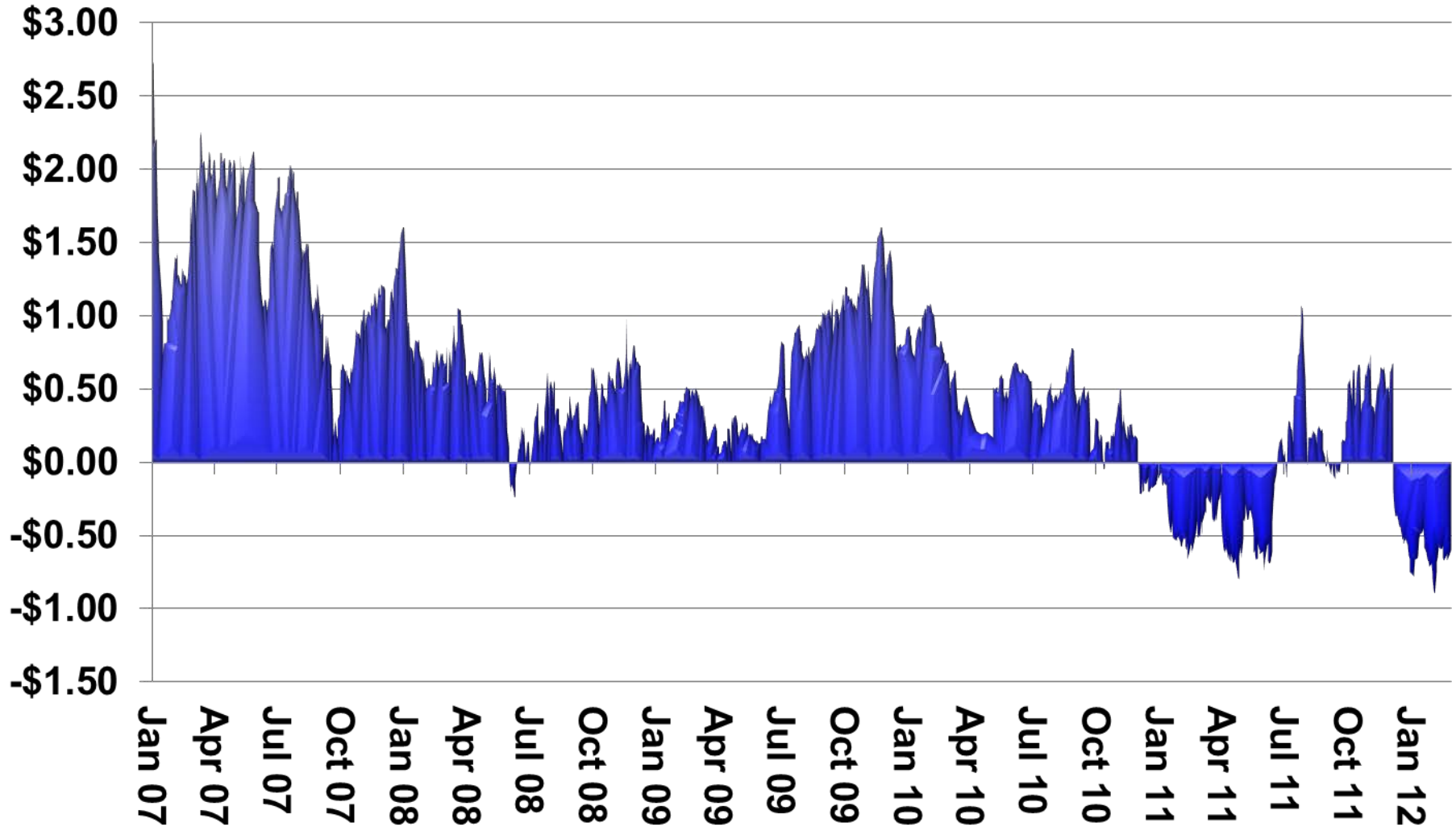
# U.S. Blended Gasoline Consumption



Source: USDA 2012 Outlook Conference

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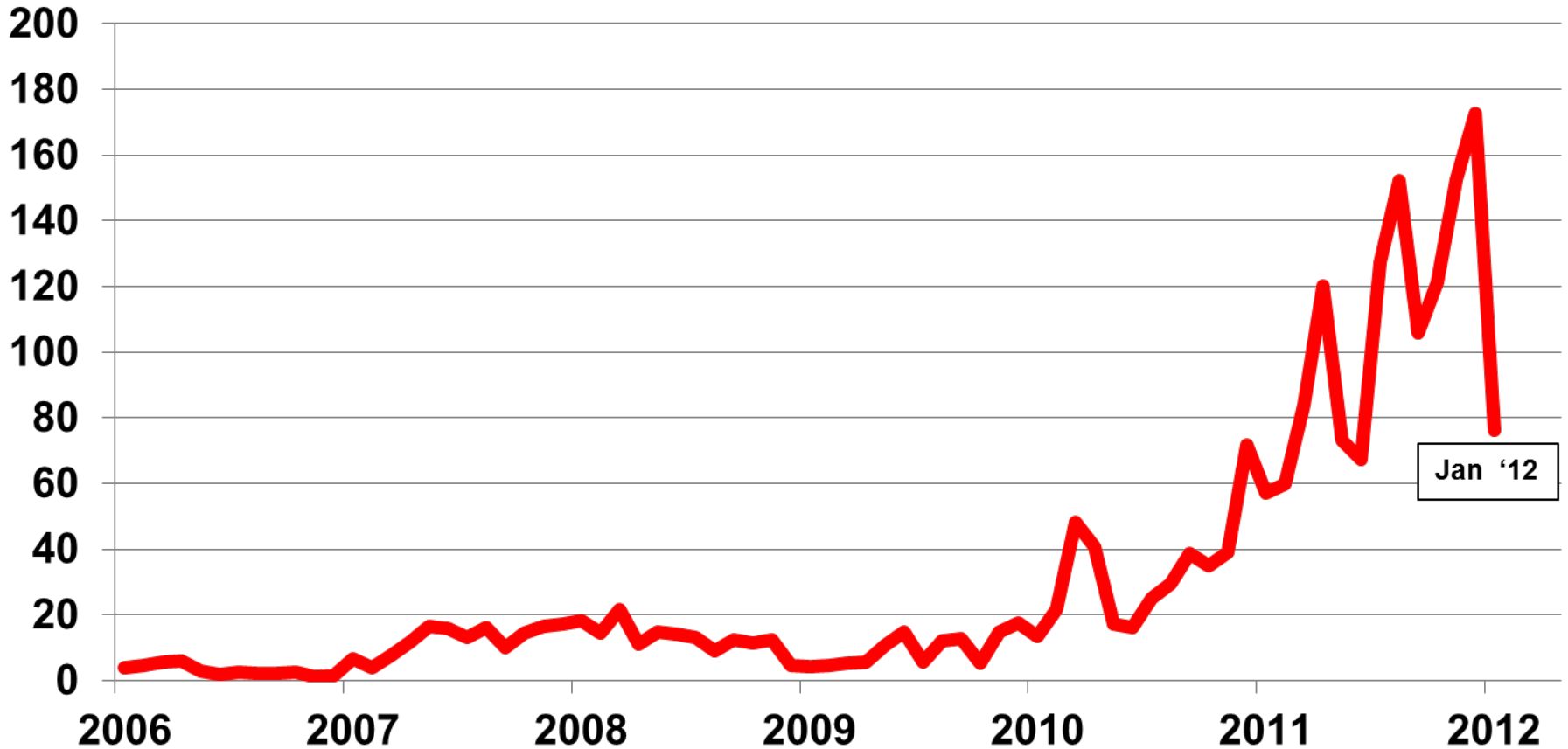
# US Corn Ethanol Profitability – Start from 2007



# Total US Ethanol Exports (Denatured & Un-denatured, Non-Beverage)



Mil Gal



# Value of Crops, When Processed to Produce Biofuels (Based on BTU Equivalents)



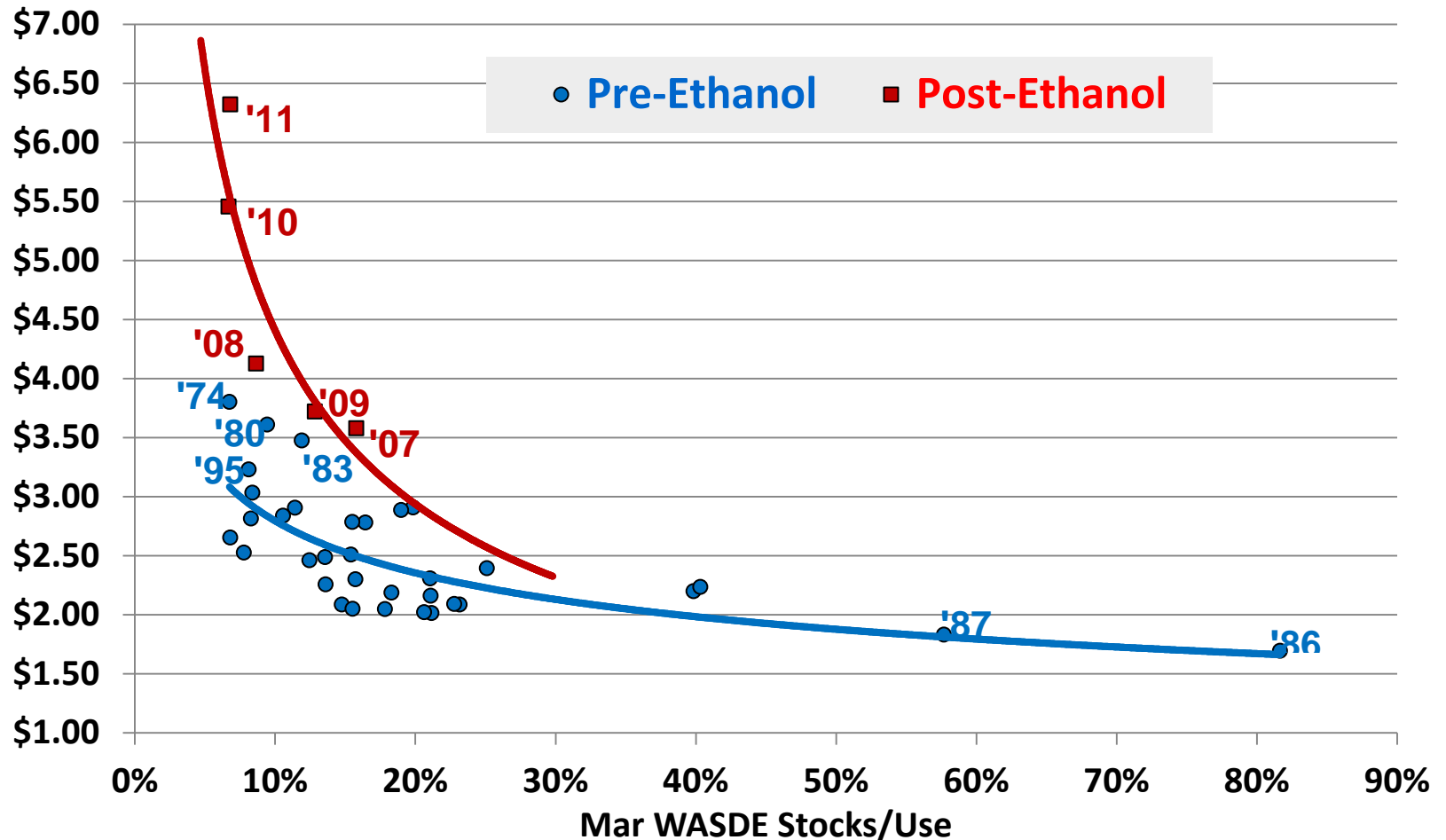
Crude Oil (\$/Barrel)	\$60	\$80	\$100	\$120	\$140	\$160
Corn (\$/MT)	\$158.98	\$211.98	\$264.97	\$317.96	\$370.96	\$423.95
Wheat (\$/MT)	\$174.60	\$232.81	\$291.01	\$349.21	\$407.41	\$465.61
Soybeans (\$/MT)	\$165.09	\$220.13	\$275.16	\$330.19	\$385.22	\$440.25
Vegoil (\$/MT)	\$395.31	\$527.08	\$658.85	\$790.62	\$922.38	\$1,054.15

**Mar 05, 2012 : crude oil at \$107, corn at \$260/mt, soybeans at \$487/mt, wheat at \$247/mt and soyoil at \$1,184/mt.**

Source: John Baize

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# Corn Market is MUCH More Sensitive to Small Changes in Stocks/Use



# Overall Conclusions

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- **Soybeans has replaced corn as the main driver in the crop markets and will probably remain so for the next 6 months as CME trades in a range of \$13.50-\$14.50. World vegoils are becoming a “demand-led” market with rapidly expanding S. AM biodiesel use.**
- **Global vegoil fundamentals (particularly palm oil and rapeseed) are becoming increasingly bullish.**
- **Could S. AM crop be down another 4-7 MMT?. We still need to see whether Chinese demand will be 55-58 MMT. If it is, when will the shift to US soy begin (Jun-Aug or Sep-Feb)?**
- **China grain demand data called into question - keep an eye on cash prices. Rapidly rising disposable income is difficult to measure in terms of grain/meat demand.**

# Overall Conclusions

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- **The world is awash with wheat. Prices to languish in a broad trading range of \$5.80-\$7.20 CME unless 2012 world production is threatened by weather (or the US corn crop is threatened).**
- **As always, watch weather into spring planting. Corn market could EXPLODE if we suffer a 3<sup>rd</sup> year of yields 5+% below trend.**
- **Expect a broad trading range into spring/early summer!**

# Get More Commentary and Analysis on the March 30<sup>th</sup> USDA Prospective Plantings Report

## Friday, March 30, 2012

- 7:30 a.m. CT    USDA Prospective Plantings Report Released
- 7:45 a.m. CT    Live OTC Agricultural Swaps Quotes
- 8:15 a.m. CT    Post-report Analysis by Commodity Expert Panel

**Details available in post-simulcast email.**

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