http://www.startribune.com//307422201/. Photo: Bethany Hahn.

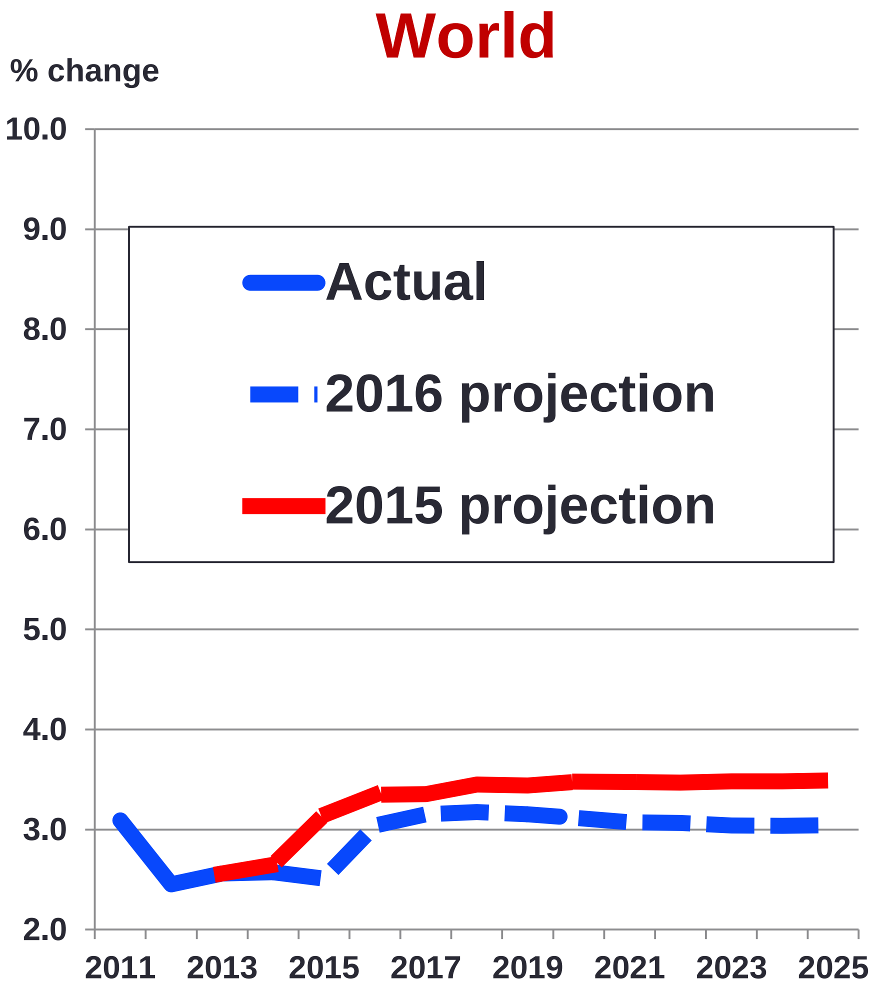
COPING WITH LOWER PRICES

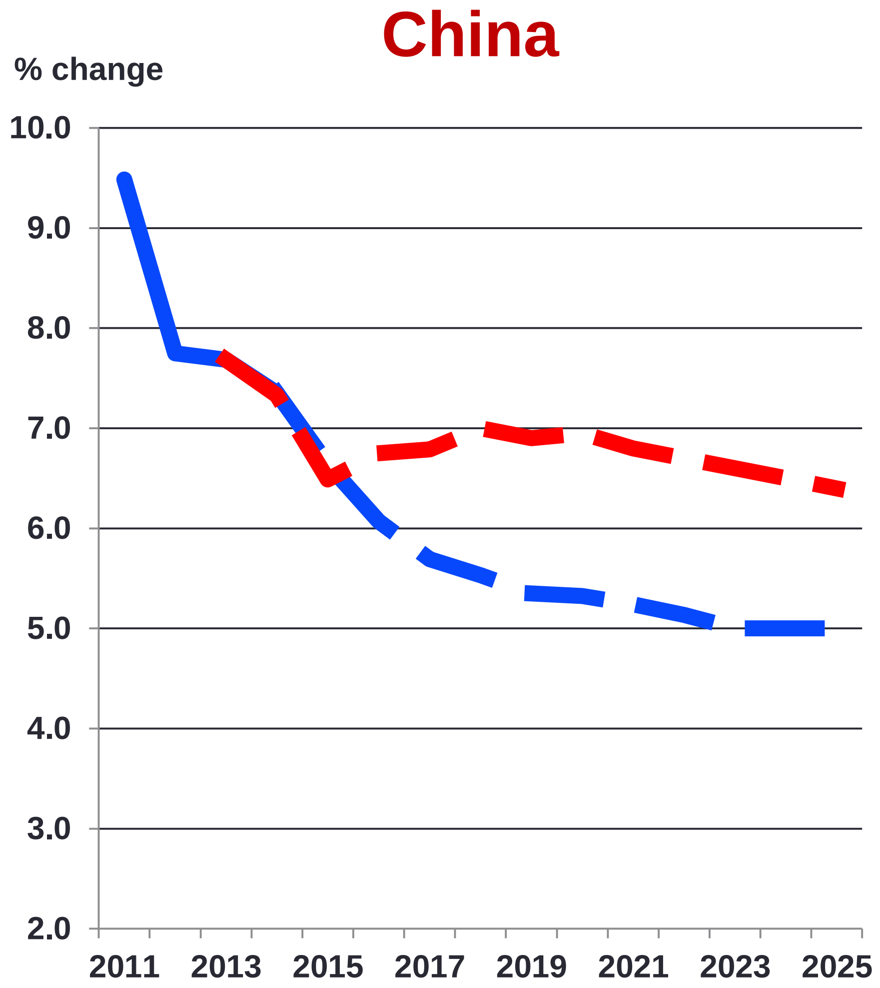
Robert Johansson
Chief Economist

Int’l Grains Council

London, June 2016

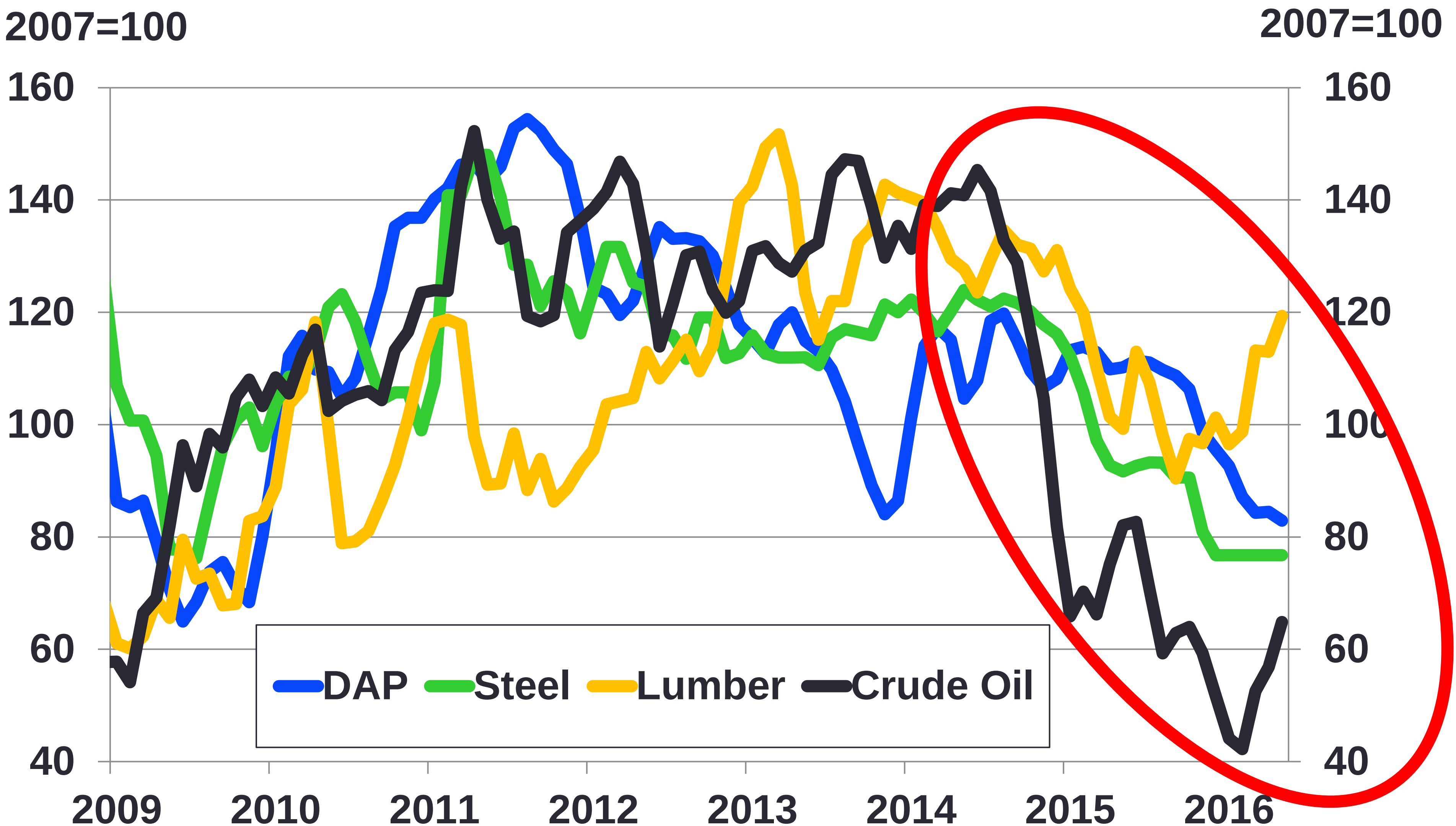
World GDP growth slows, compared to last year's projections, most notably in China





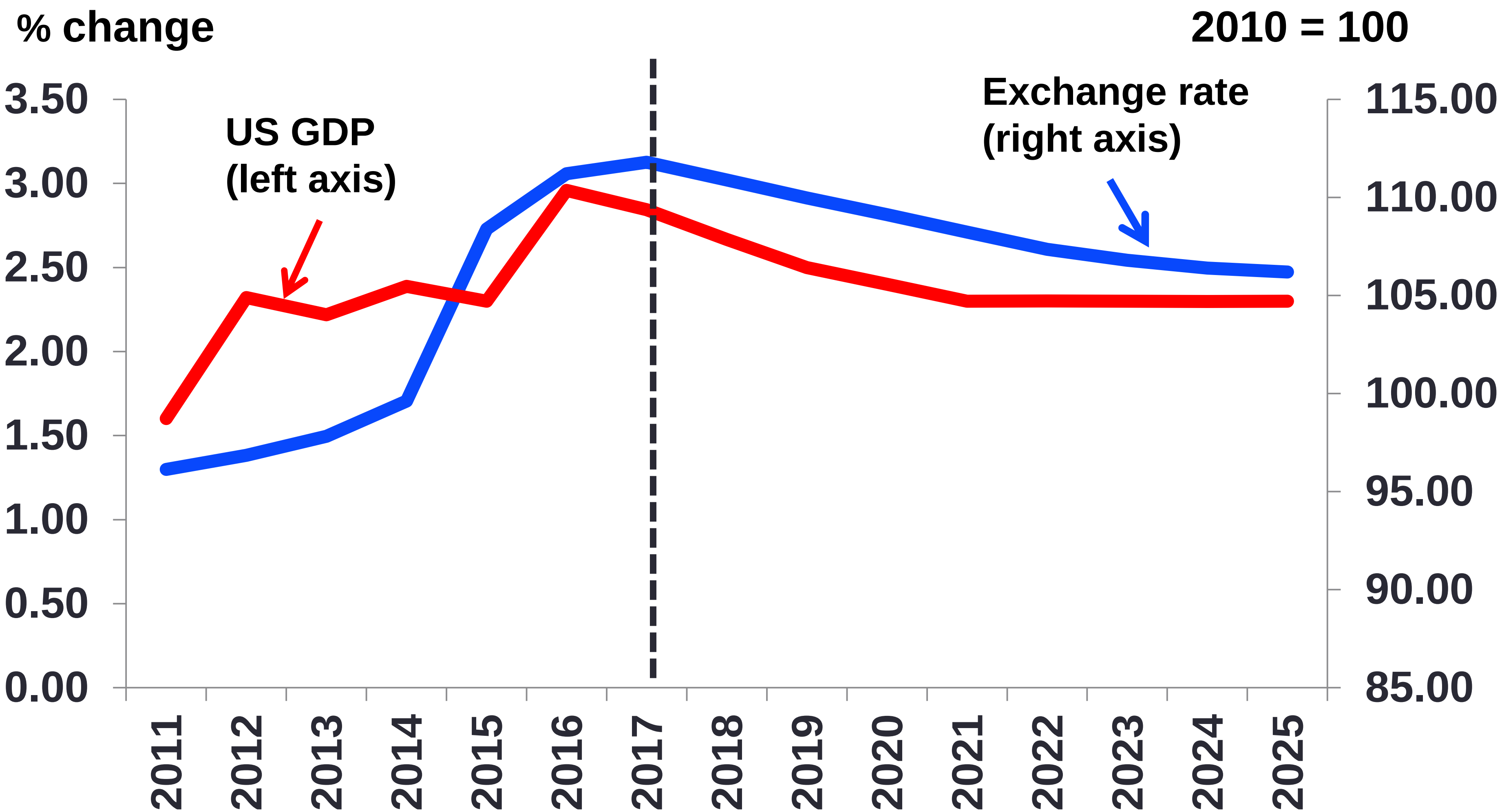
Source: USDA.

Price declines for primary inputs could be ending



Source: Eikon/Datastream, USDA-OCE.

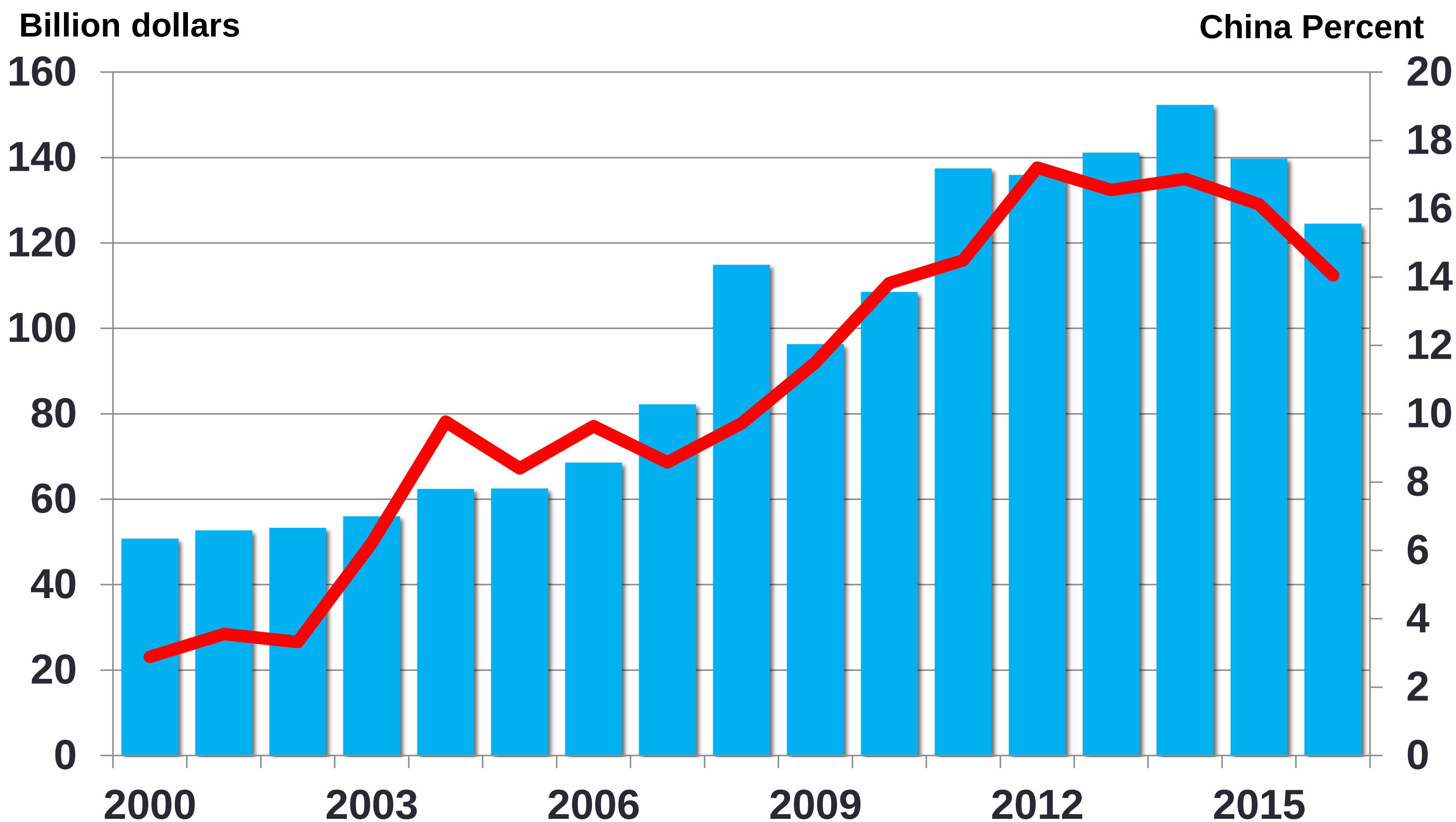
U.S. GDP growth and real ag trade-weighted exchange rate up through 2017



Data: USDA-OCE.

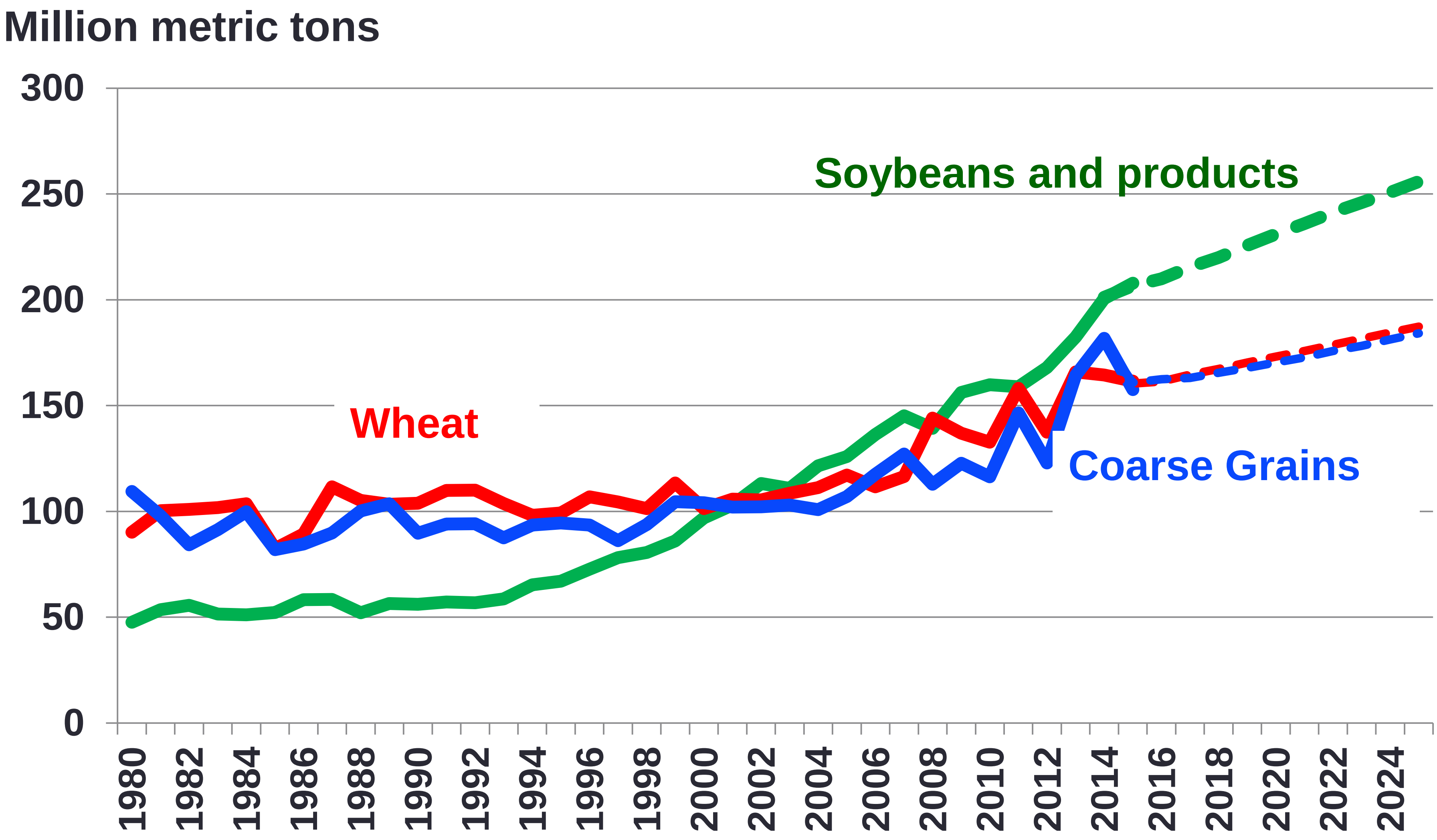
Ag Trade Outlook

Decline in agricultural exports expected in 2016 --- China share falls in value



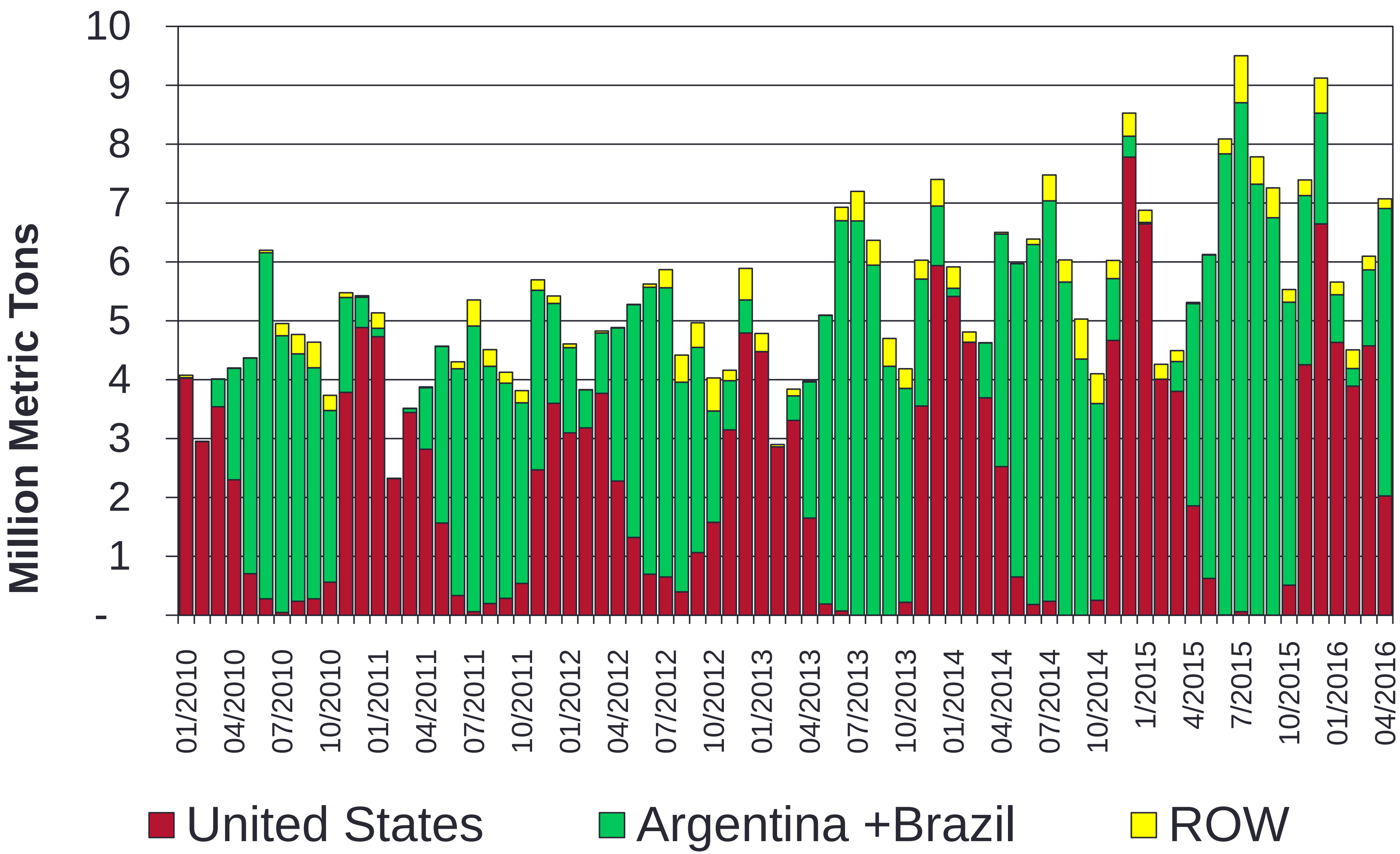
Source: USDA. Data are fiscal year.

Global trade growth is expected to continue



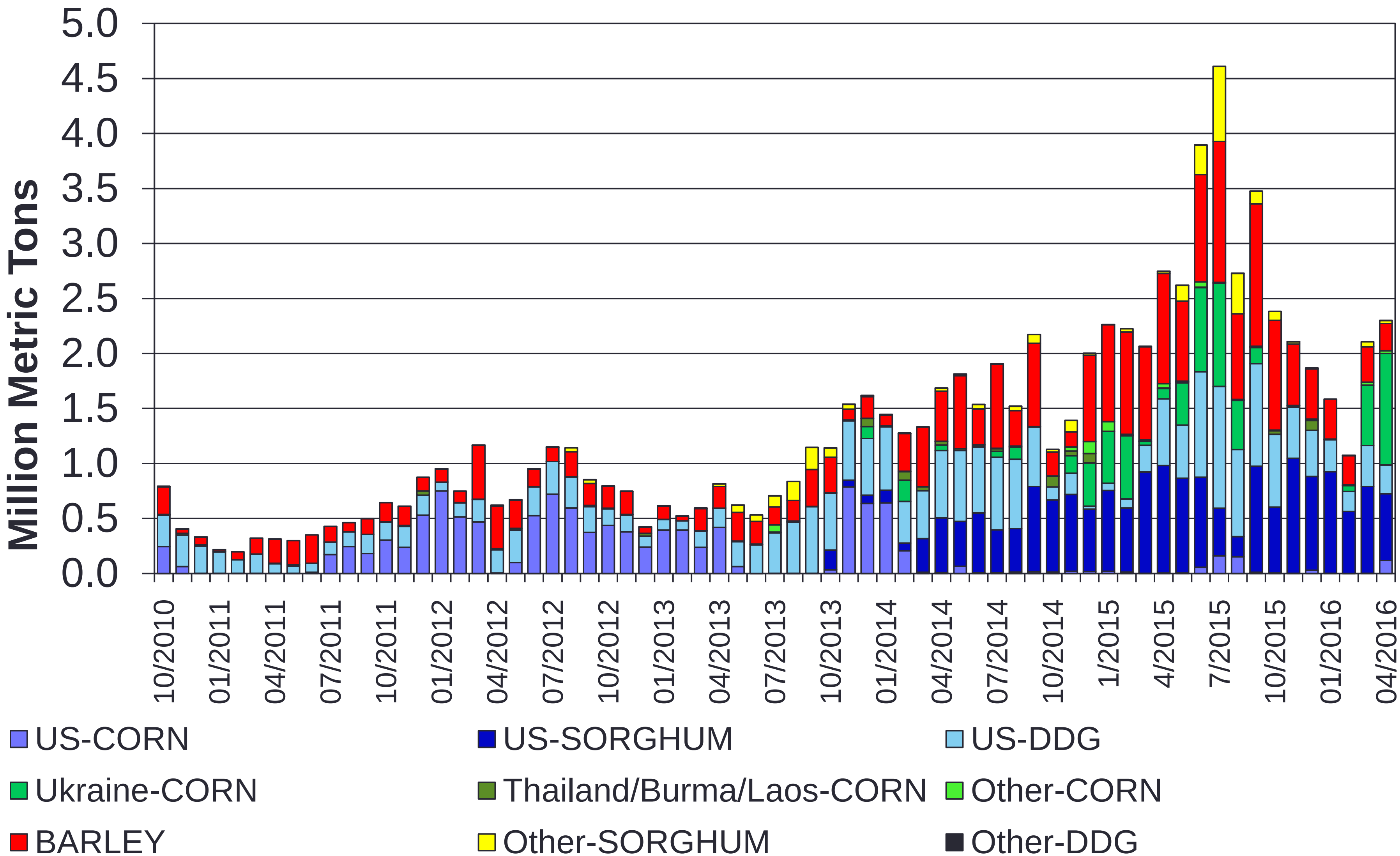
Source: USDA.

Monthly Chinese soybean imports



Source: Global Trade Information Services (GTIS)

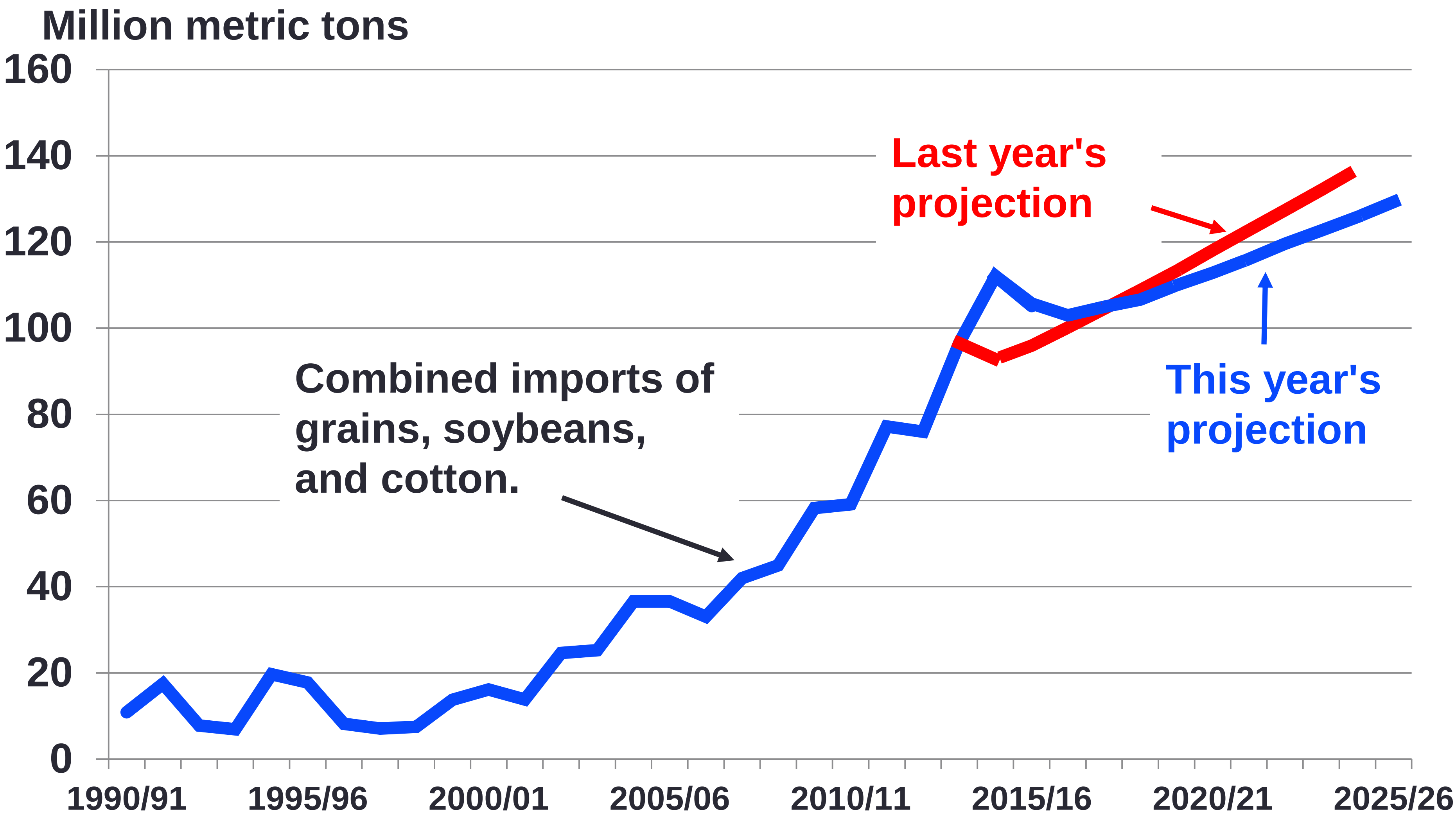
Monthly Chinese corn/barley/sorghum imports



Source: Global Trade Information Services (GTIS)

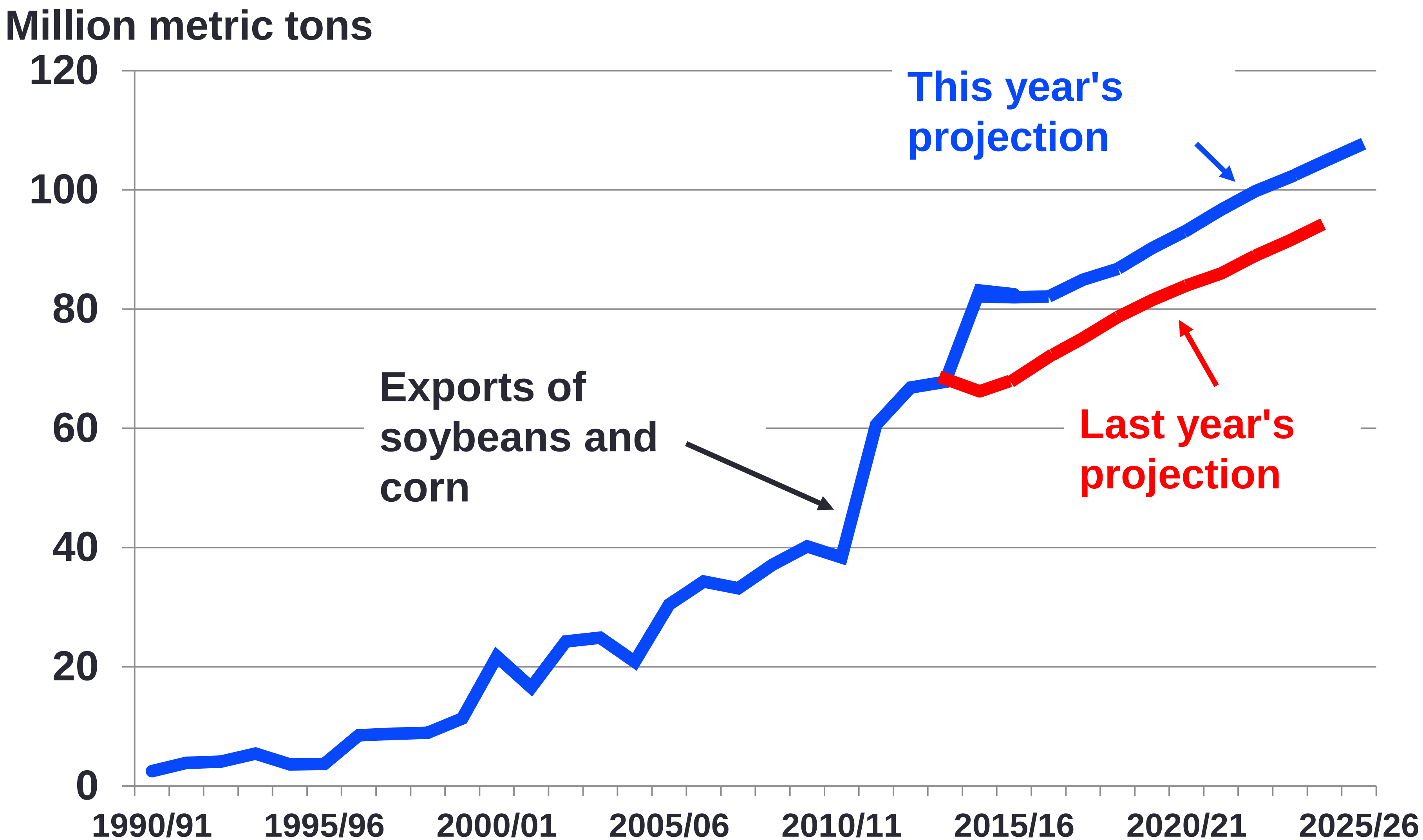
United States Department of Agriculture

China imports to rise, but more slowly than last year: soybeans up, grains down, cotton down



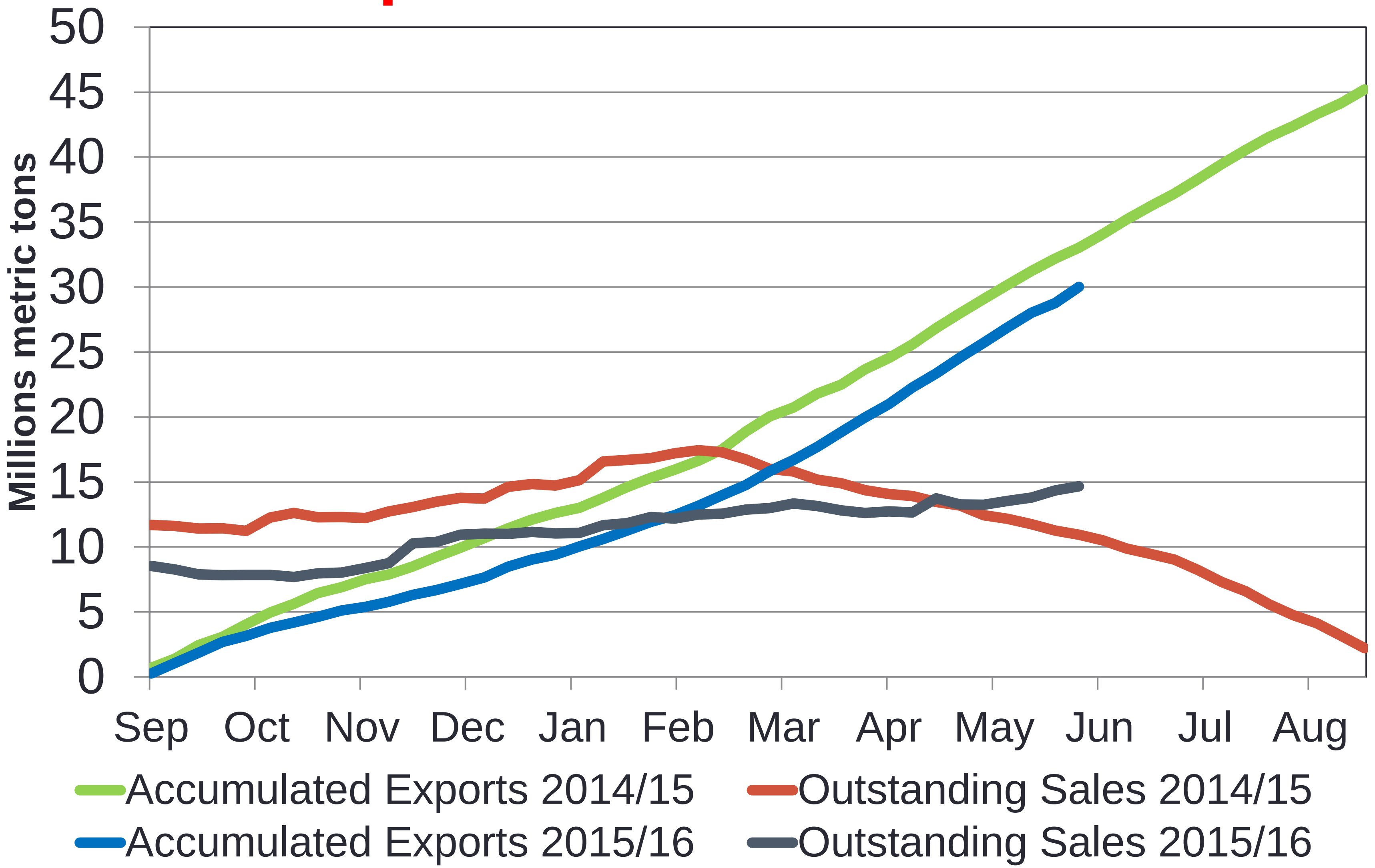
Source: USDA.

Projections for Brazil's exports for corn and soybeans both increase from last year



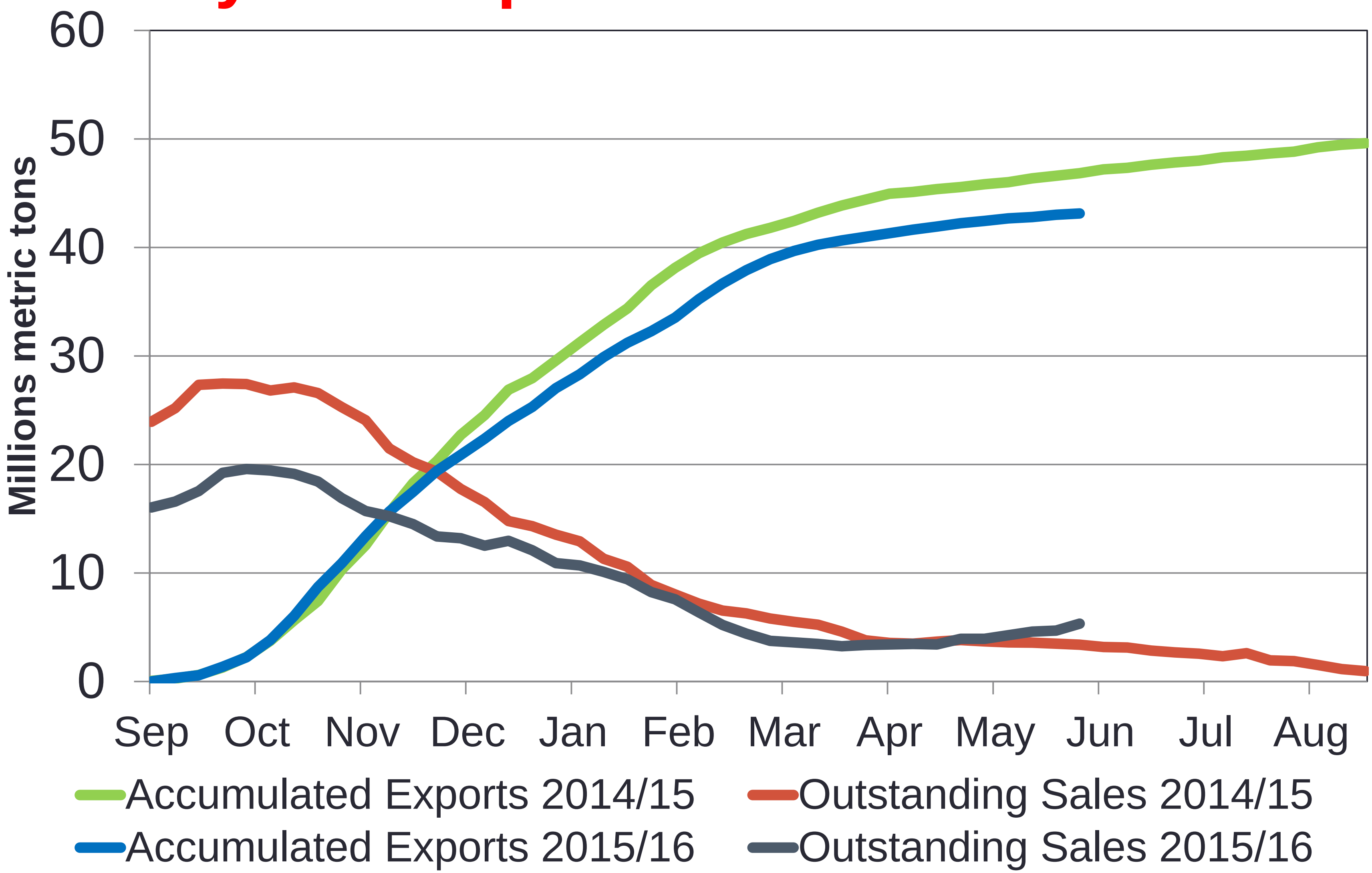
Source: USDA.

US Corn Export Sales



USDA-FAS U.S. Export Sales Report June 9 2016

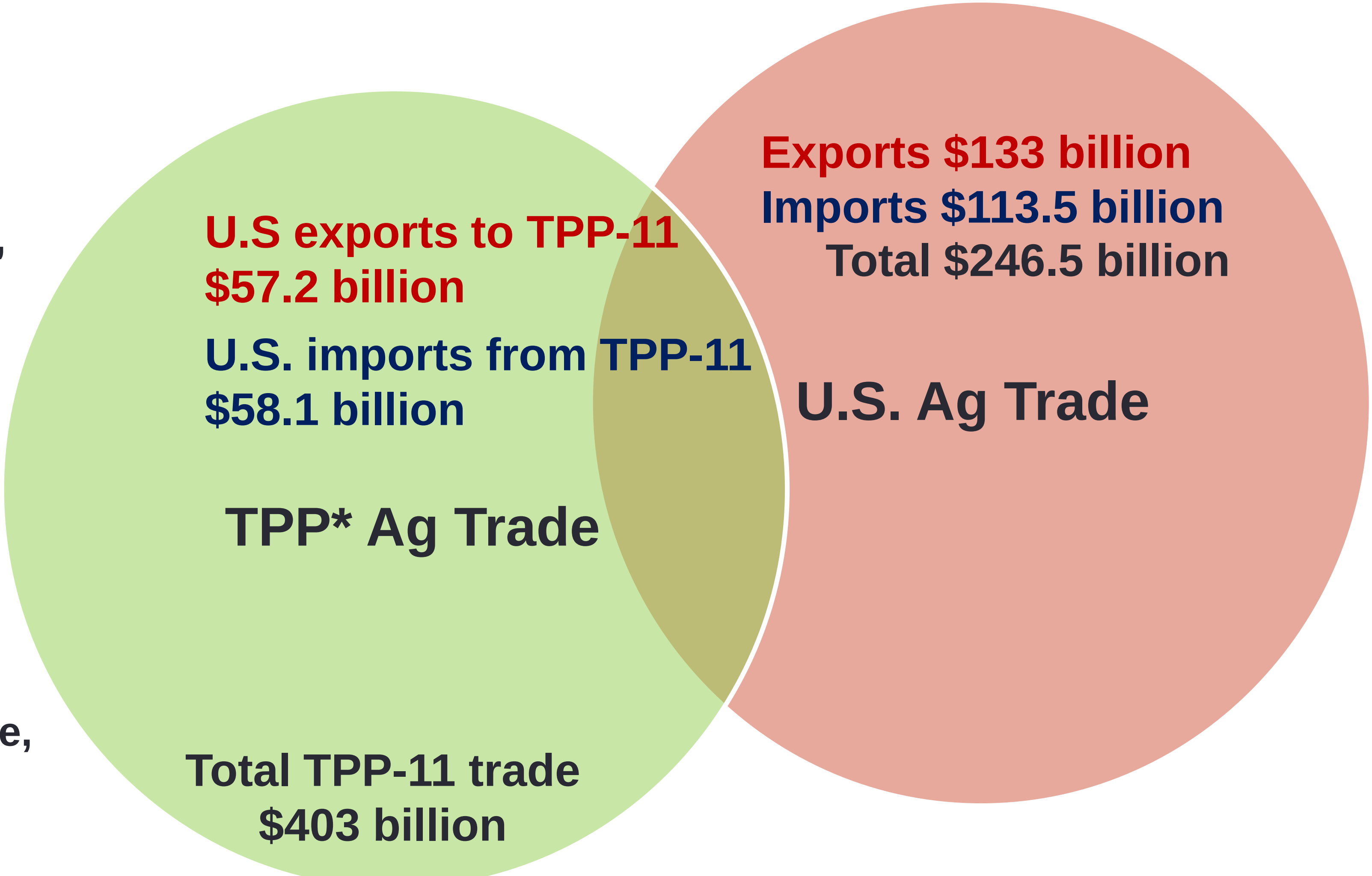
US Soybean Export Sales



USDA-FAS U.S. Export Sales Report June 9 2016

Expanding U.S. ag exports through FTAs

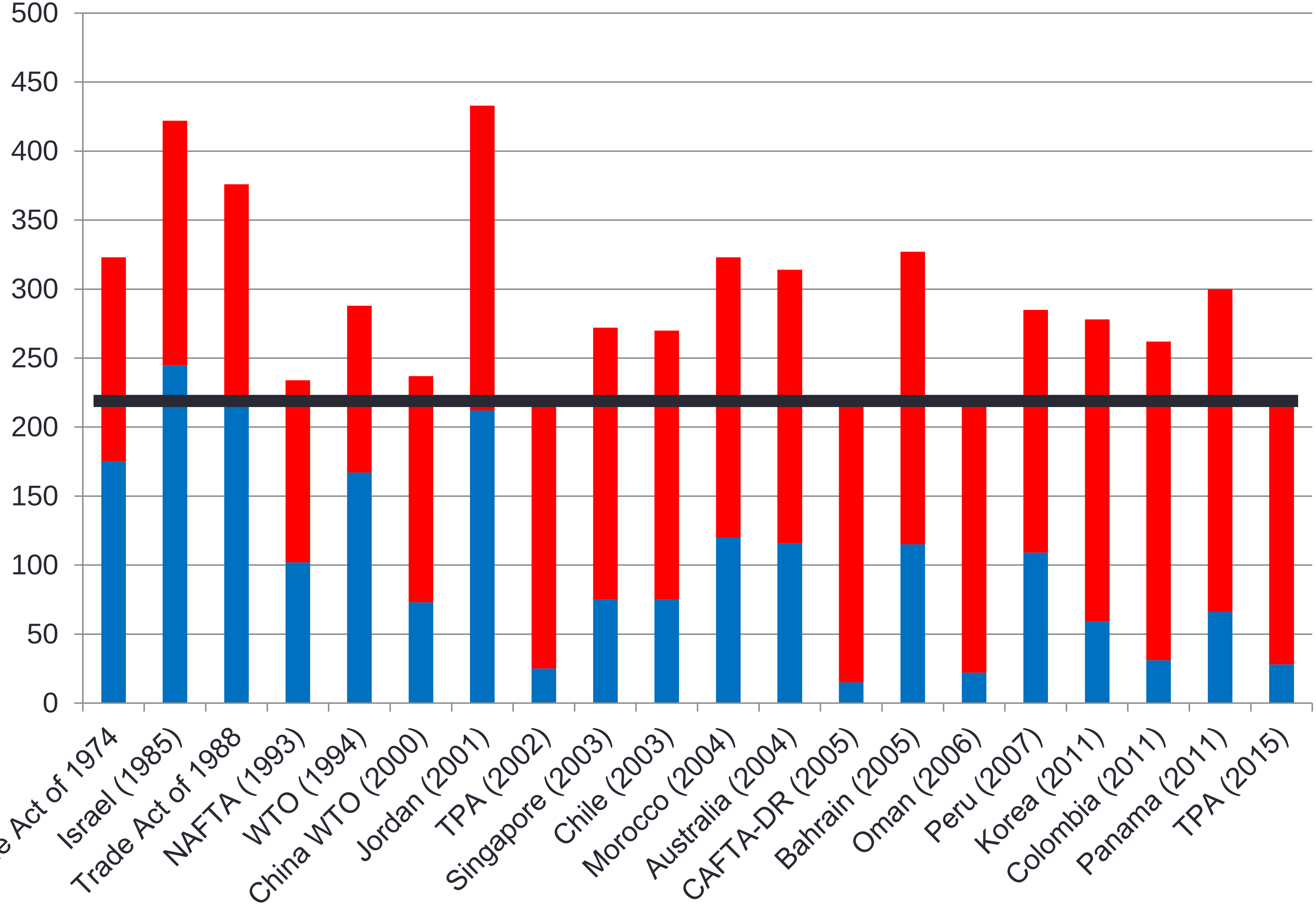
*TPP partners include Australia, Brunei, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, and Vietnam.



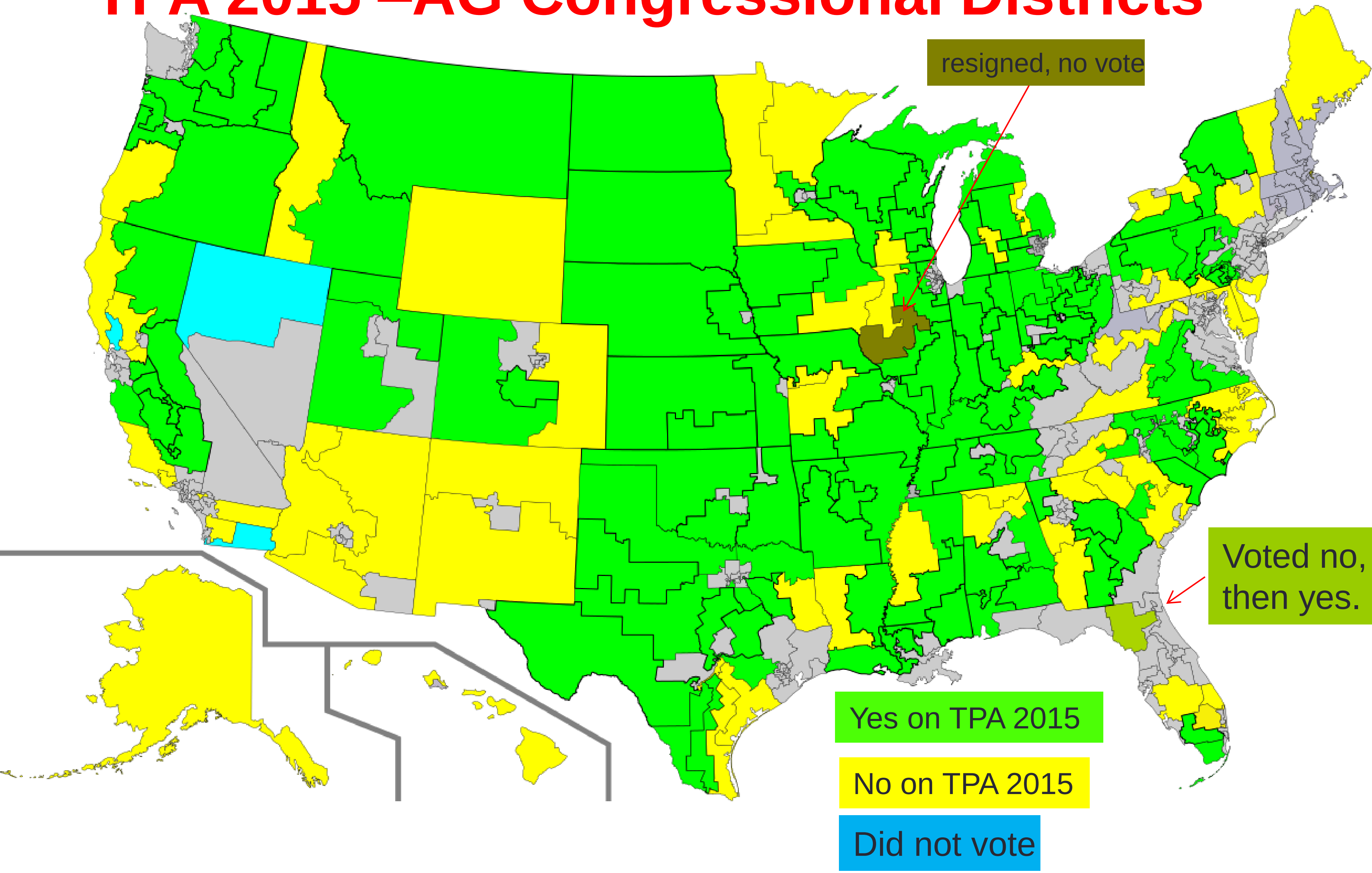
Source: USDA Global Agricultural Trade Statistics, UN Commodity Trade Statistics, CY2014/2015 trade data.

USDA United States Department of Agriculture

House Trade Votes



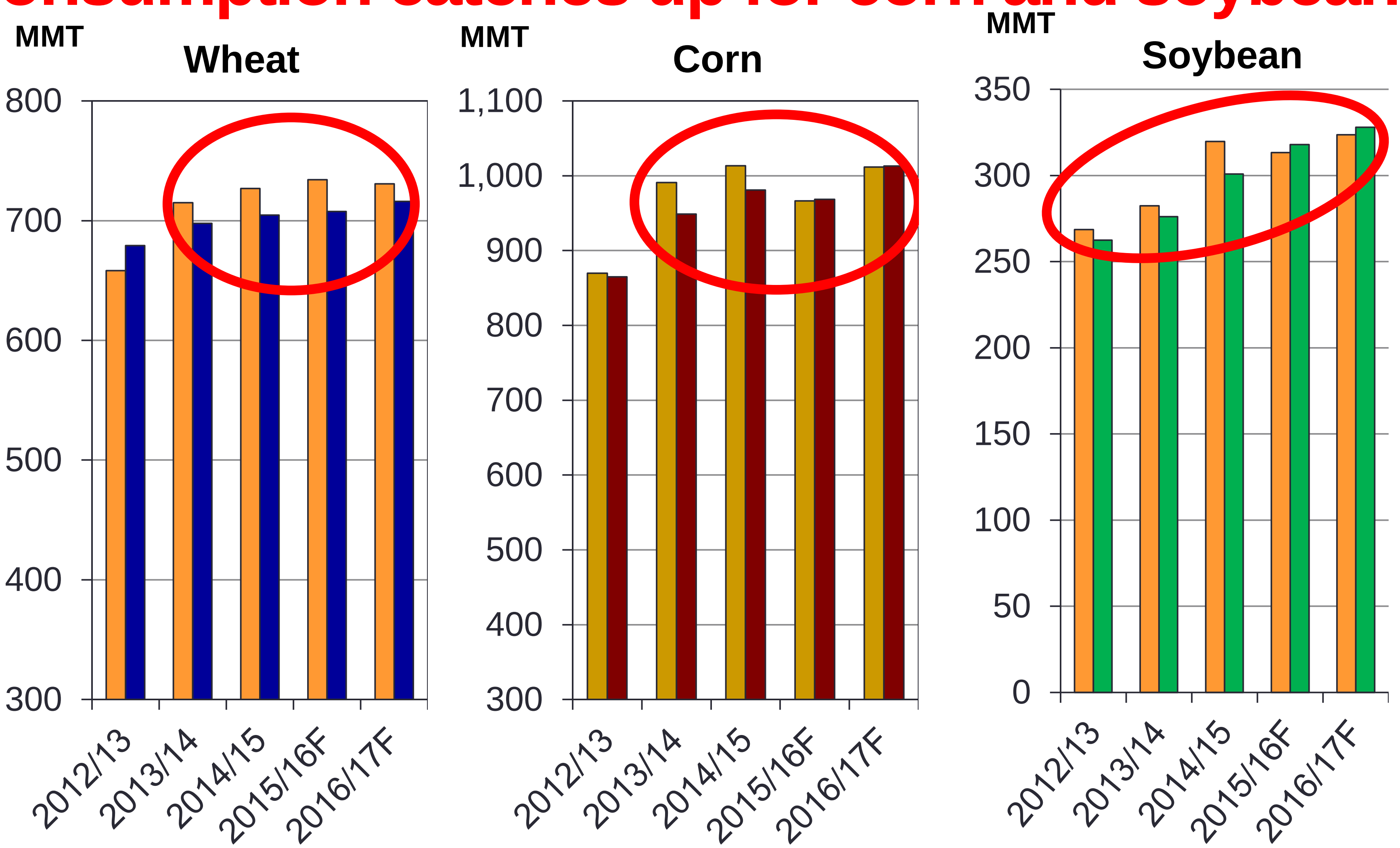
TPA 2015 –AG Congressional Districts



Top 200 Congressional Districts ranked by value of ag production ($300 million or greater)

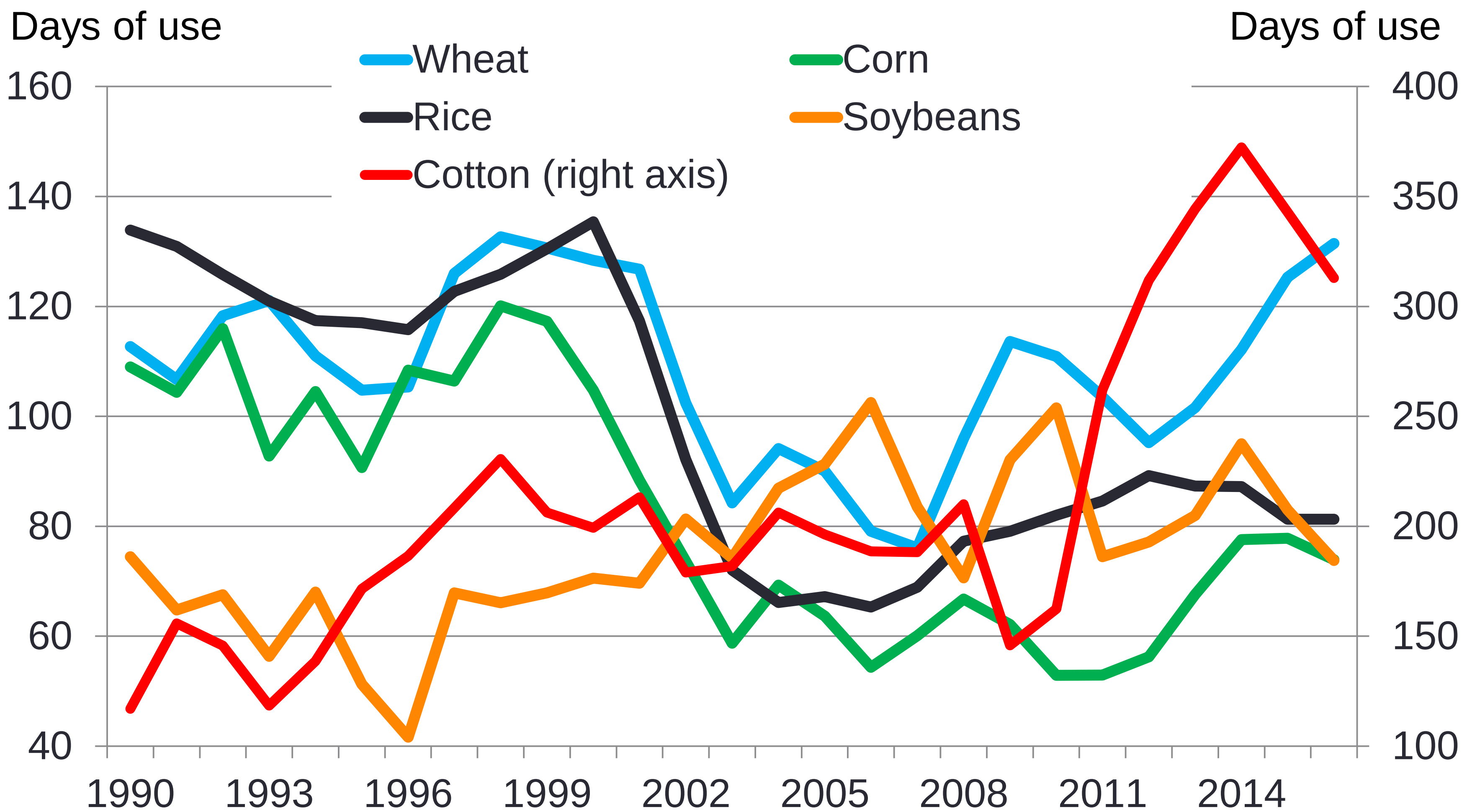
Outlook for Crops

Global production stays high, consumption catches up for corn and soybeans



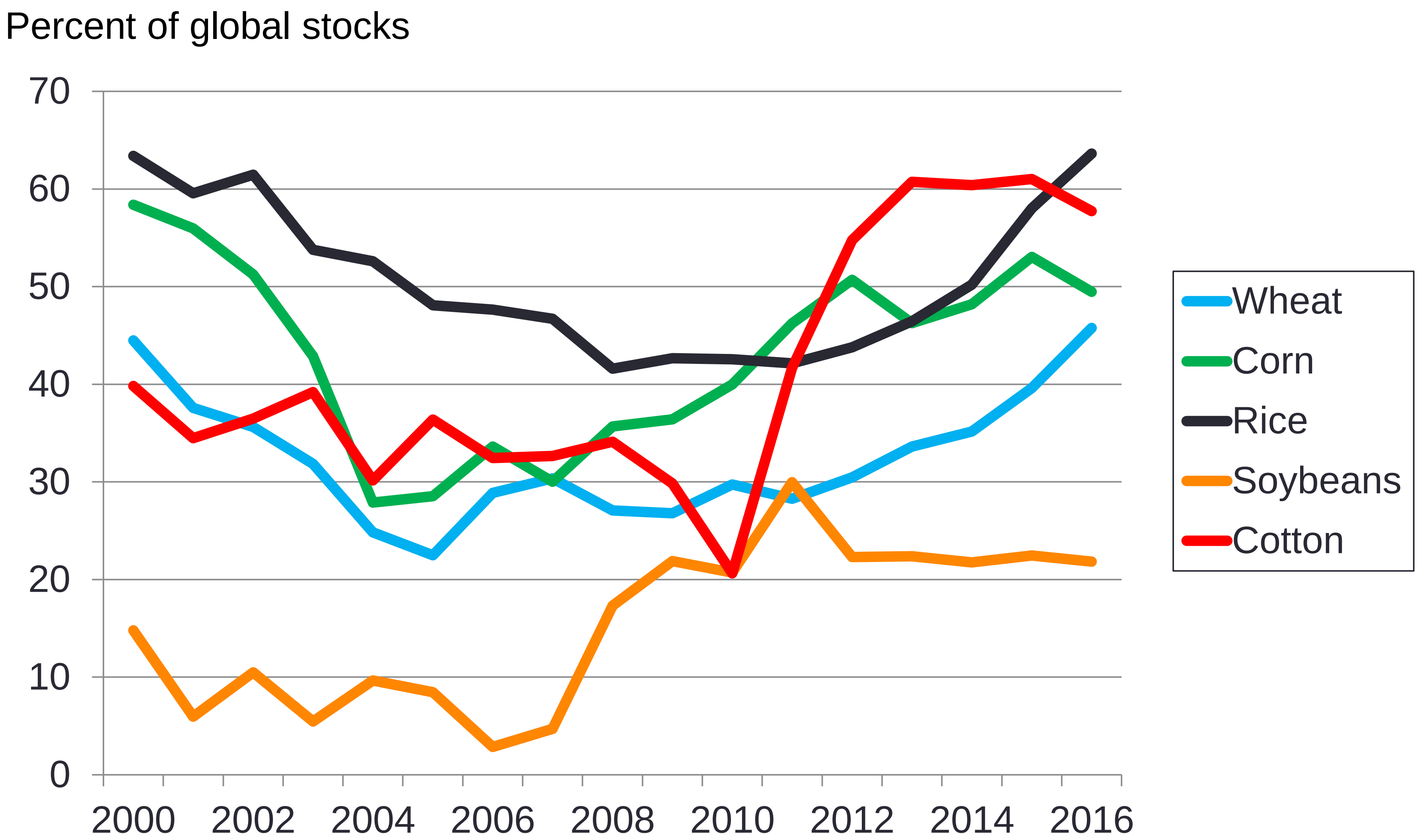
Source: *World Agricultural Supply and Demand Estimates*, June 10, 2016.

Global ending stocks edge up



Source: *World Agricultural Supply and Demand Estimates*, June 10, 2016. Foreign Agricultural Service, PS&D database.

China policies build stocks



Source: USDA, PSD database, *World Agricultural Supply and Demand Estimates*, June 10, 2016.

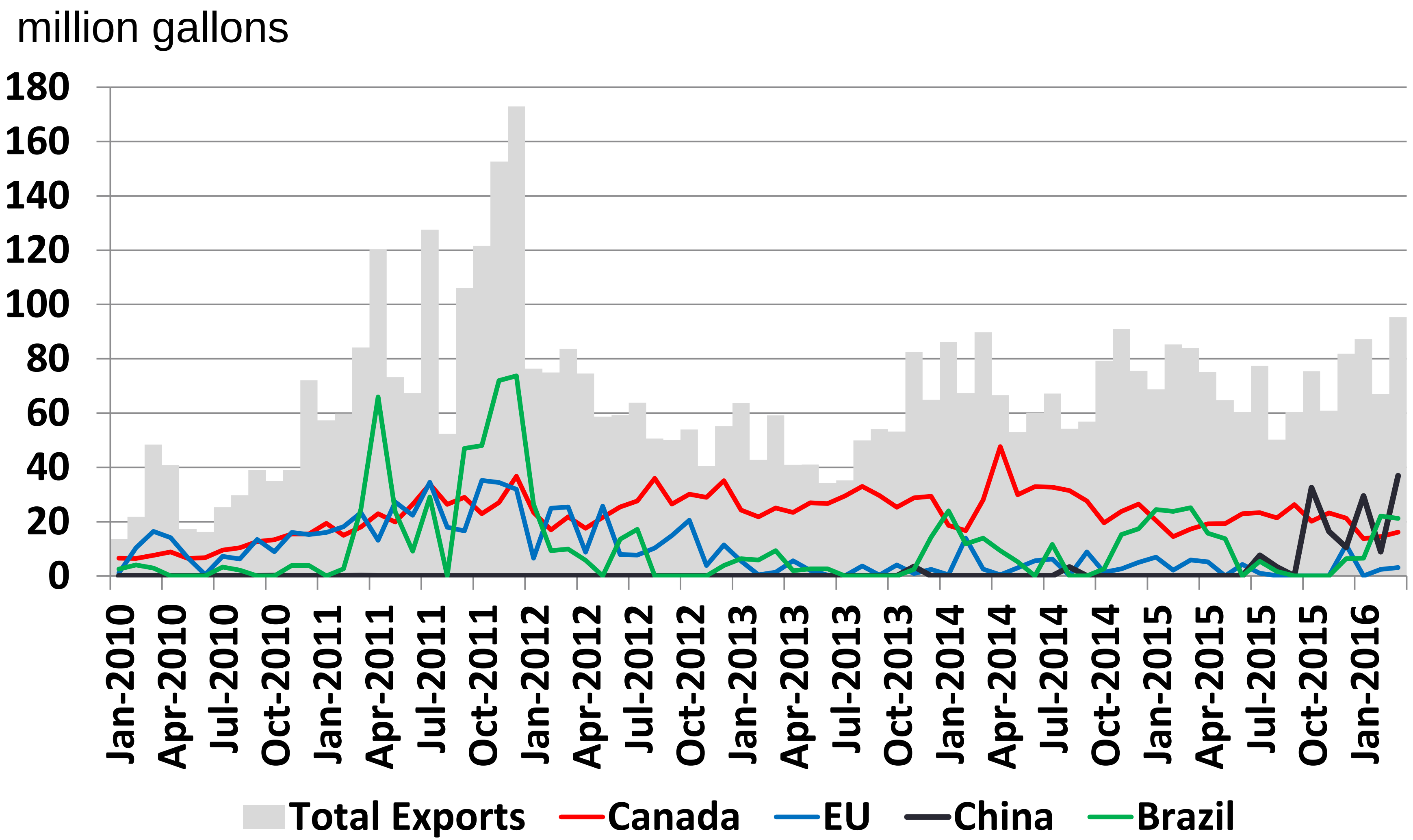
Prices soften, but still above 2000-2003 average

Crop	Ave 2000-03	2011	2012	2013	2014	2015F	2016F
	Dollars per metric ton						
Wheat	113.5	266.0	285.5	252.4	220.1	180.0	147.0
Corn	84.2	244.9	271.2	175.6	145.7	145.7	137.8
Soybeans	200.2	459.3	529.1	477.7	371.1	332.5	349.1
Cotton	1,024.6	1,946.7	1,598.3	1,717.4	1,351.4	1,278.7	1,256.6
All Rice	123.6	319.7	332.9	359.4	295.4	271.2	266.8

Source: USDA-NASS, *World Agricultural Supply and Demand Estimates*, June 10, 2016.

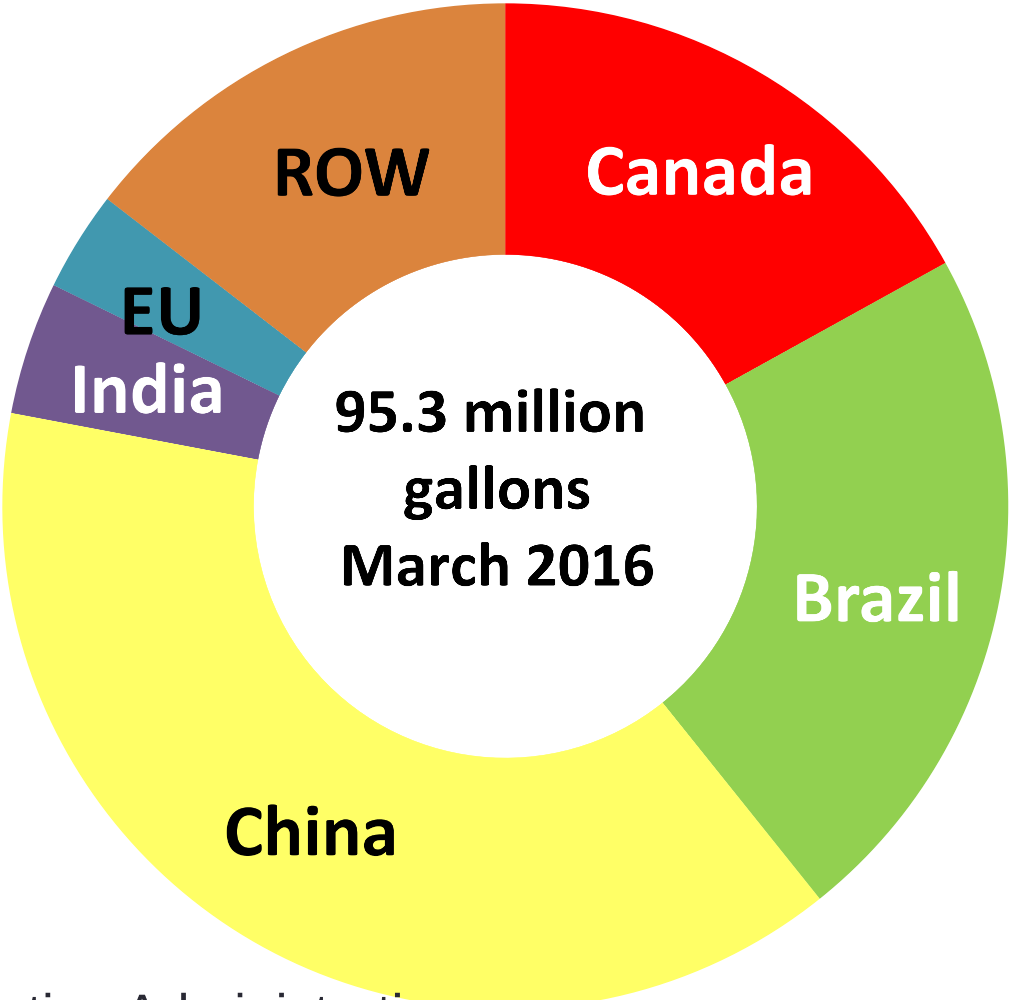
Red denotes record high.

US Ethanol Export Destinations by month



US Energy Information Administration

US Ethanol Destinations March 2016



US Energy Information Administration

Outlook for Livestock and Dairy

Livestock and poultry inventories building

Animal products	2011	2012	2013	2014	2015	2016	% change
Million Head/Birds, Jan 1							
Total Cattle	**92.9**	**91.2**	**90.1**	**88.5**	**89.1**	**92.0**	**3.3**
Dairy Cows	**9.2**	**9.2**	**9.2**	**9.2**	**9.3**	**9.3**	**0.1**
Hogs*	**64.7**	**66.3**	**66.2**	**64.8**	**67.8**	**68.4**	**0.9**
Broiler Layers	**55.5**	**50.4**	**51.4**	**52.5**	**53.7**	**54.6**	**1.8**

* Dec 1, prior year
Source: *National Agricultural Statistics Service*.

Beef, pork, and poultry production higher in 2017

Animal products	2012	2013	2014	2015	2016F	2017F	% change
Million Metric Tons							
Beef	11.7	11.7	11.0	10.8	11.2	11.7	4.5
Pork	10.6	10.5	10.3	11.1	11.3	11.6	2.6
Broilers	16.8	17.1	17.5	18.1	18.6	19.1	2.5
Total	42.2	42.3	41.8	42.9	44.2	45.5	3.1
Million Metric Tons							
Milk	91.0	91.3	93.5	94.6	96.4	97.7	1.3

Source: *World Agricultural Supply and Demand Estimates*, June 10, 2016.

Data in red denote record levels.

Cattle, hog, and broiler prices expected to come down from 2016, but dairy perks up

Item	2012	2013	2014	2015	2016F	2017F	% change
	Dollars per metric ton						
Steers	2,709	2,776	3,408	3,265	2,802	2,717	-3.0
Hogs	1,343	1,413	1,676	1,107	1,070	964	-9.9
Broilers	1,909	2,198	2,313	1,995	1,980	1,962	-0.9
Milk	408	443	529	377	334	347	4.0

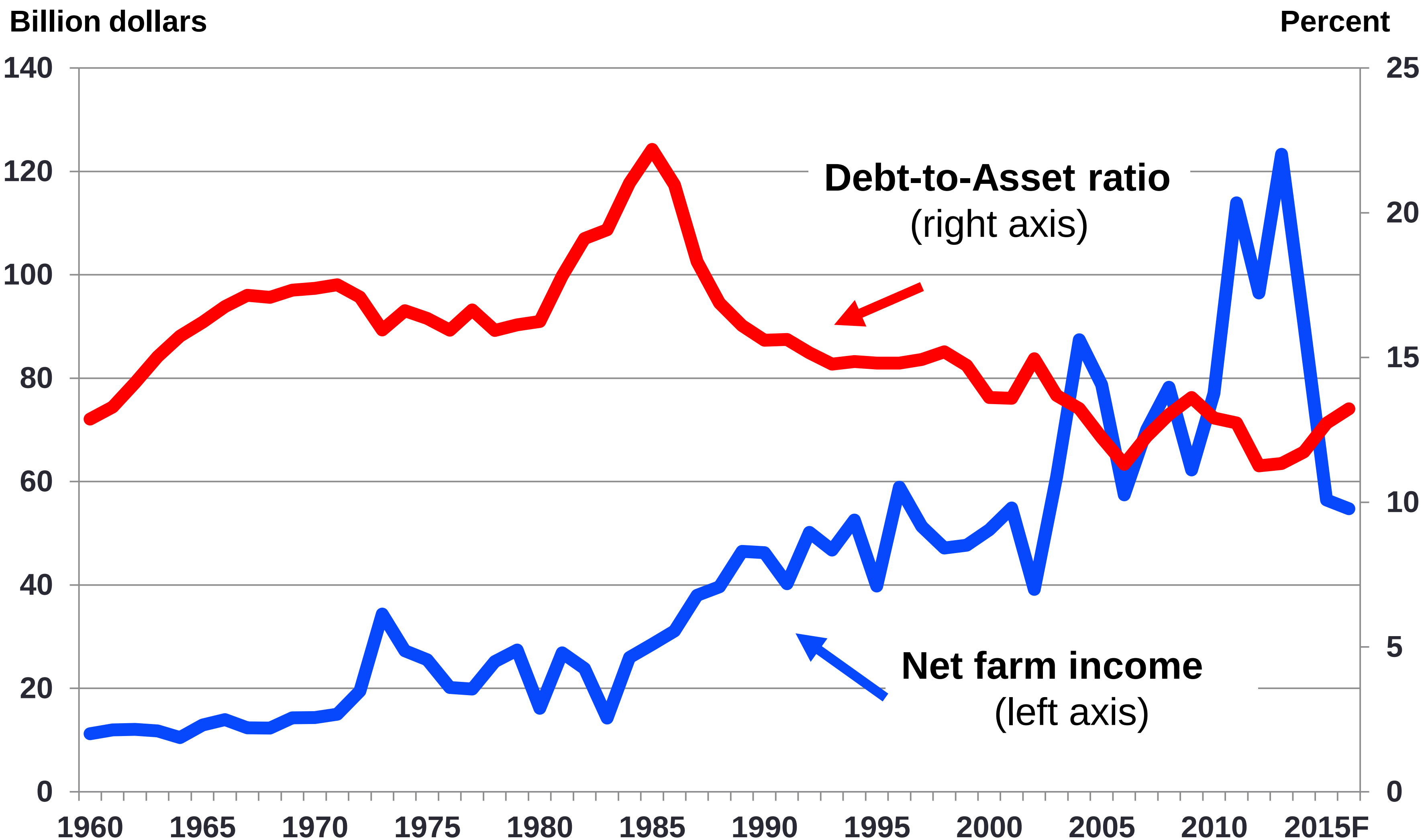
Source: *World Agricultural Supply and Demand Estimates*, June 10, 2016.

Prices in red denote record levels.

Outlook for the Farm Sector

http://www.hoosieragtoday.com/indiana-cash-rent-up-3-per-acre-in-2014/

Net farm income is down, but debt-to-asset ratio remains low



Data: USDA-ERS.

Central Illinois Production Budget 2016 (high productive land)

		Per Hectare		Per Acre	
		Corn After Soybeans	Soybeans After Corn	Corn After Soybeans	Soybeans After Corn
Costs	Fertilizers	$309	$79	$125	$32
	Seed	$301	$188	$122	$76
	Crop Insurance	$59	$44	$24	$18
	Other direct costs	$217	$114	$88	$46
	Machinery hire/lease, repair and depreciation	$250	$230	$101	$93
	Fuel and oil	$42	$42	$17	$17
	Other power costs	$17	$17	$7	$7
	Overhead costs	$168	$153	$68	$62
	Total non-land costs	$1,364	$867	$552	$351
Revenue	Yield (mt/ht) and (bu/ac)	12.62	3.90	201	58
	Price (per mt) and (per bu)	$159	$396	$4.03	$10.77
	Crop Revenue	$2,002	$1,544	$810	$625
	ARC(PLC)	$74	$74	$30	$30
	Insurance Proceeds	$0	$0	$0	$0
Breakeven rental rate	Operator and Land Returns (excludes ARC/PLC)	$638	$676	$258	$274
Cash rent	Land Costs	$687	$687	$278	$278

Source: Gary Schnitkey, University of Illinois, *farmdoc* http://www.farmdoc.illinois.edu/manage

United States Department of Agriculture

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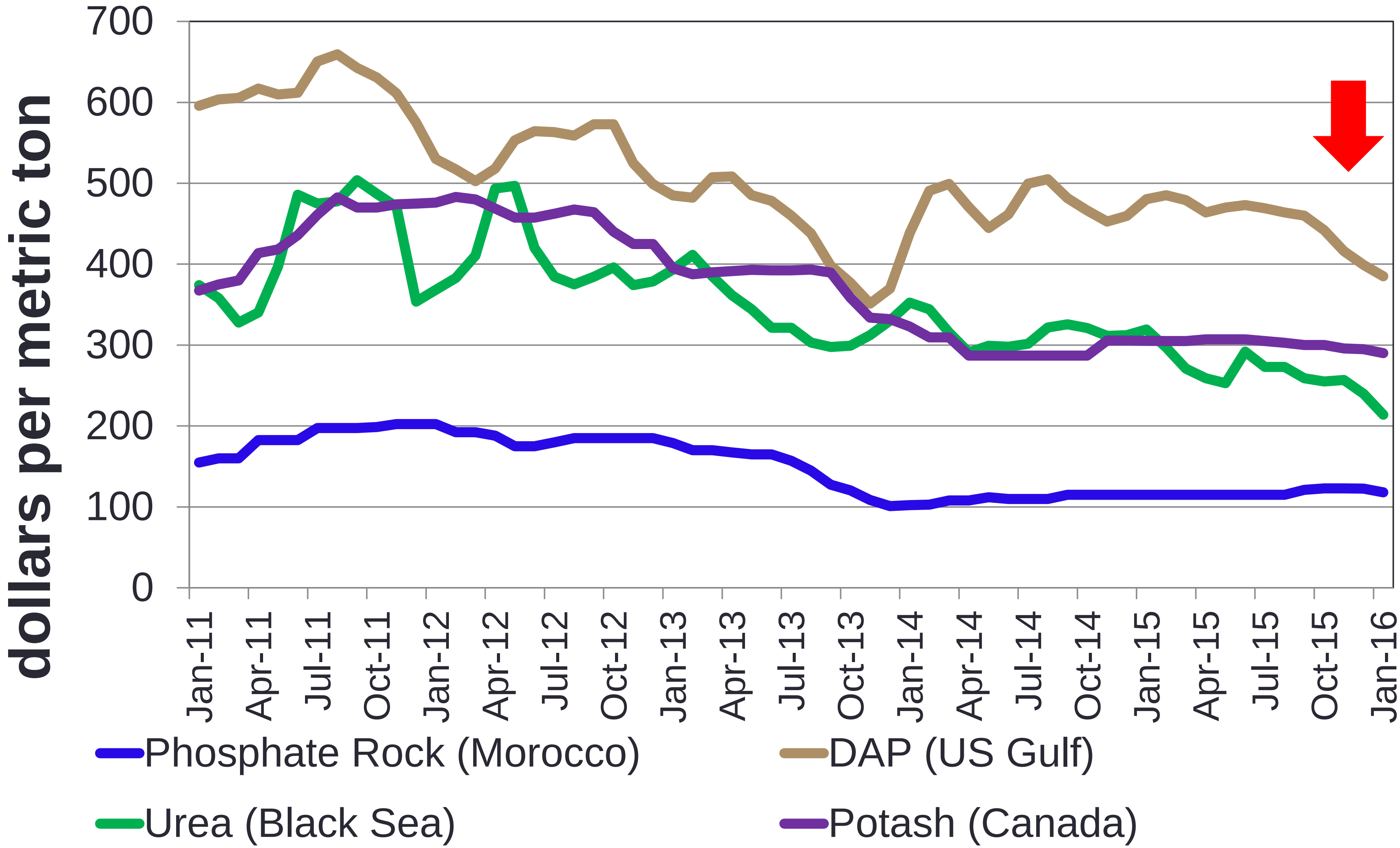
Fertilizer prices



Source: World Bank

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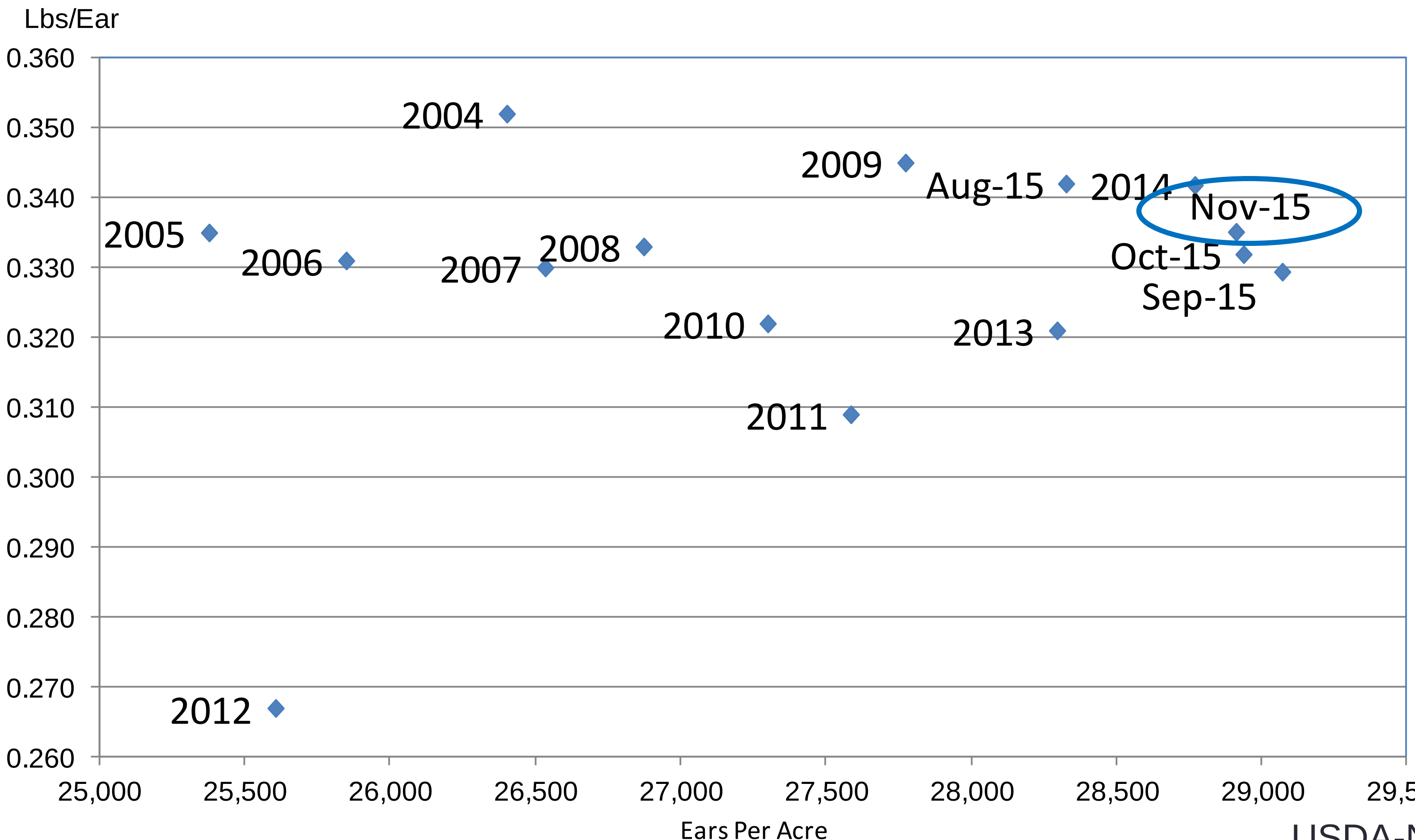
Costs

Source: Gary Schnitkey, University of Illinois, *farmdoc* http://www.farmdoc.illinois.edu/manage

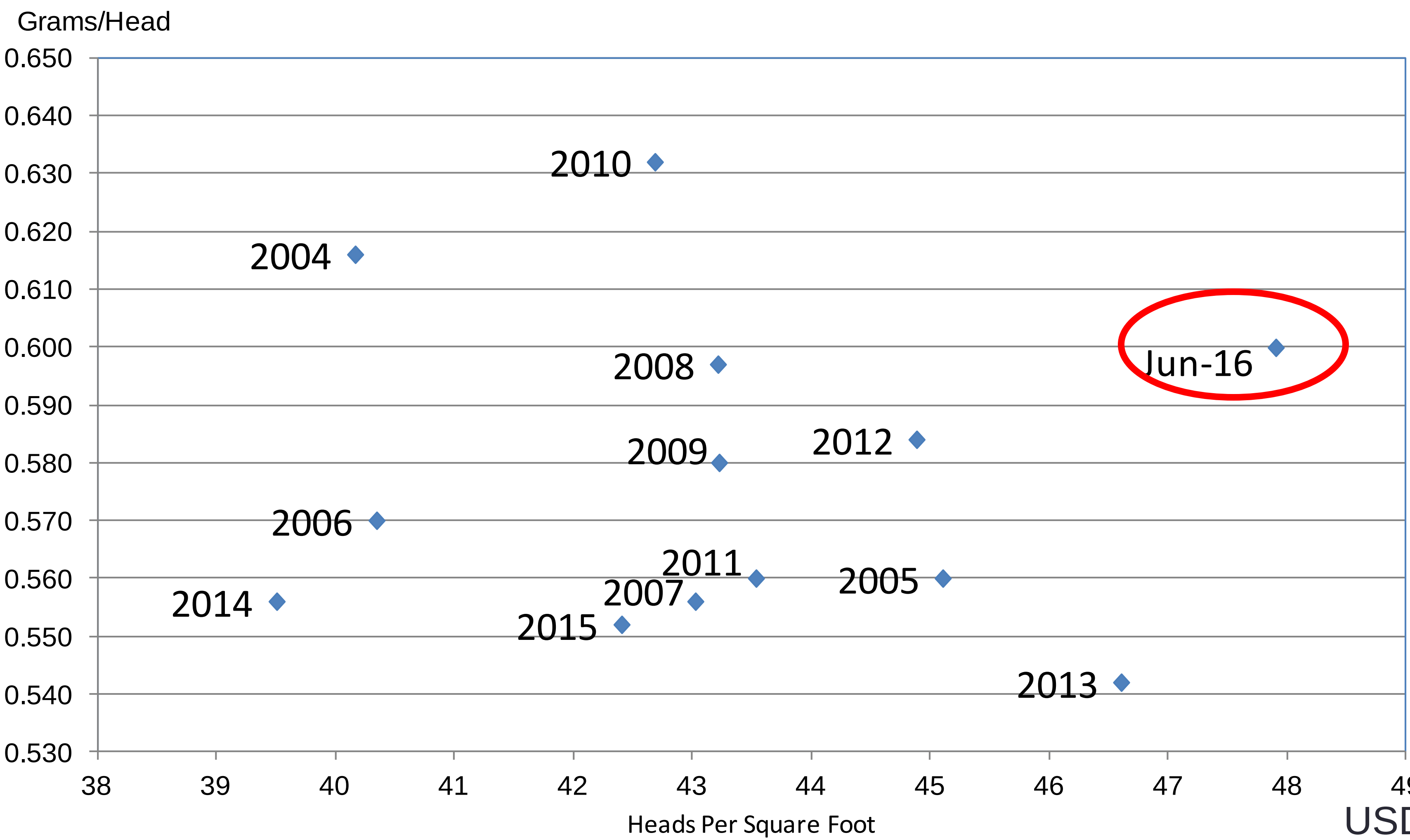
Corn Objective Yield (ears per acre vs. implied ear weight)



Implied Ear Weight = (Published Yield * 56) / Ears

USDA-NASS
11-10-15

Wheat Objective Yield (heads per sq. foot vs. implied head weight)



Implied Head Weight= Published Yield / (Heads*1.6006)

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Costs

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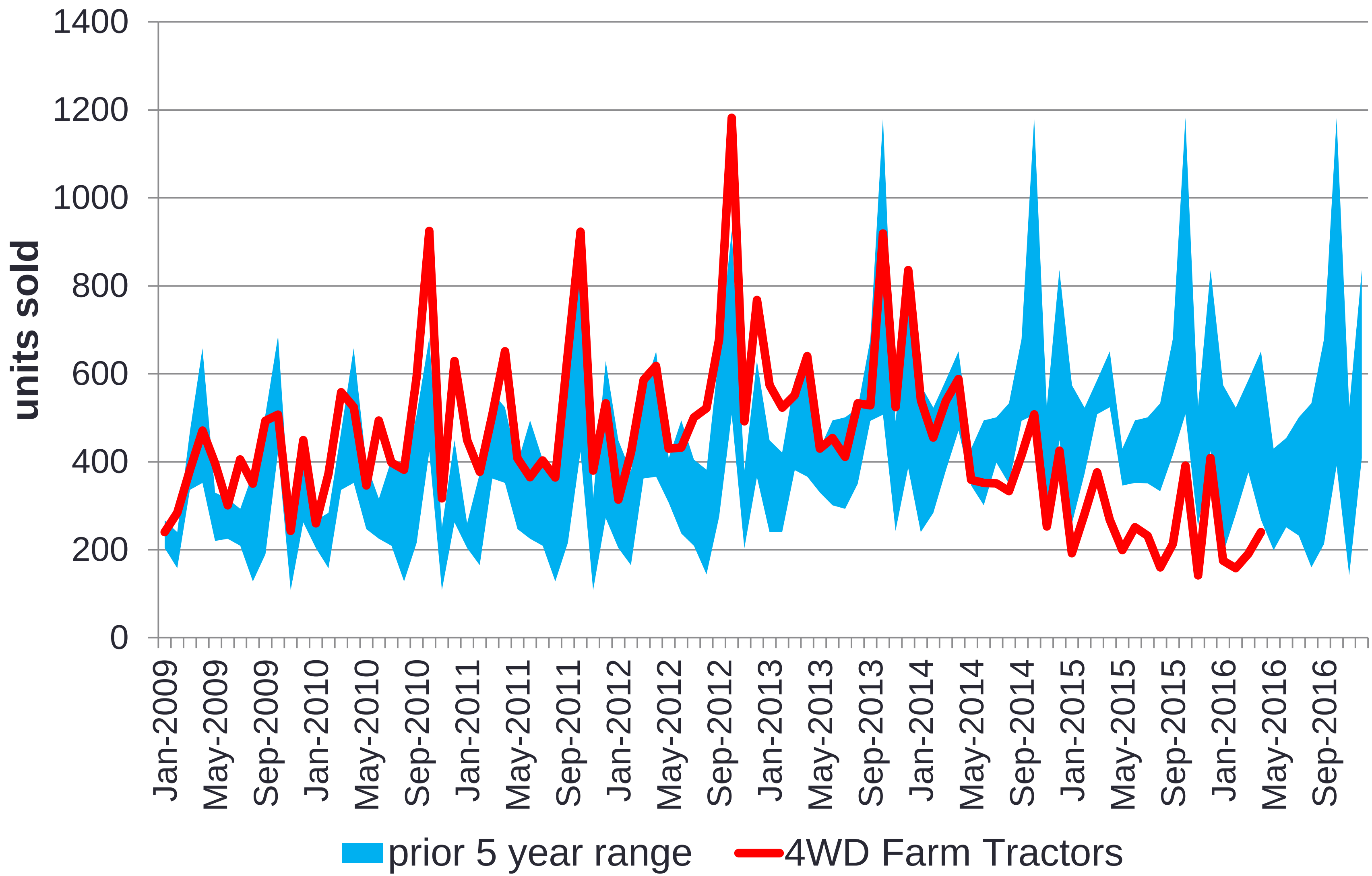
USDA United States Department of Agriculture

US 4WD Tractor Sales



Source: American Equipment Manufacturers

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Costs

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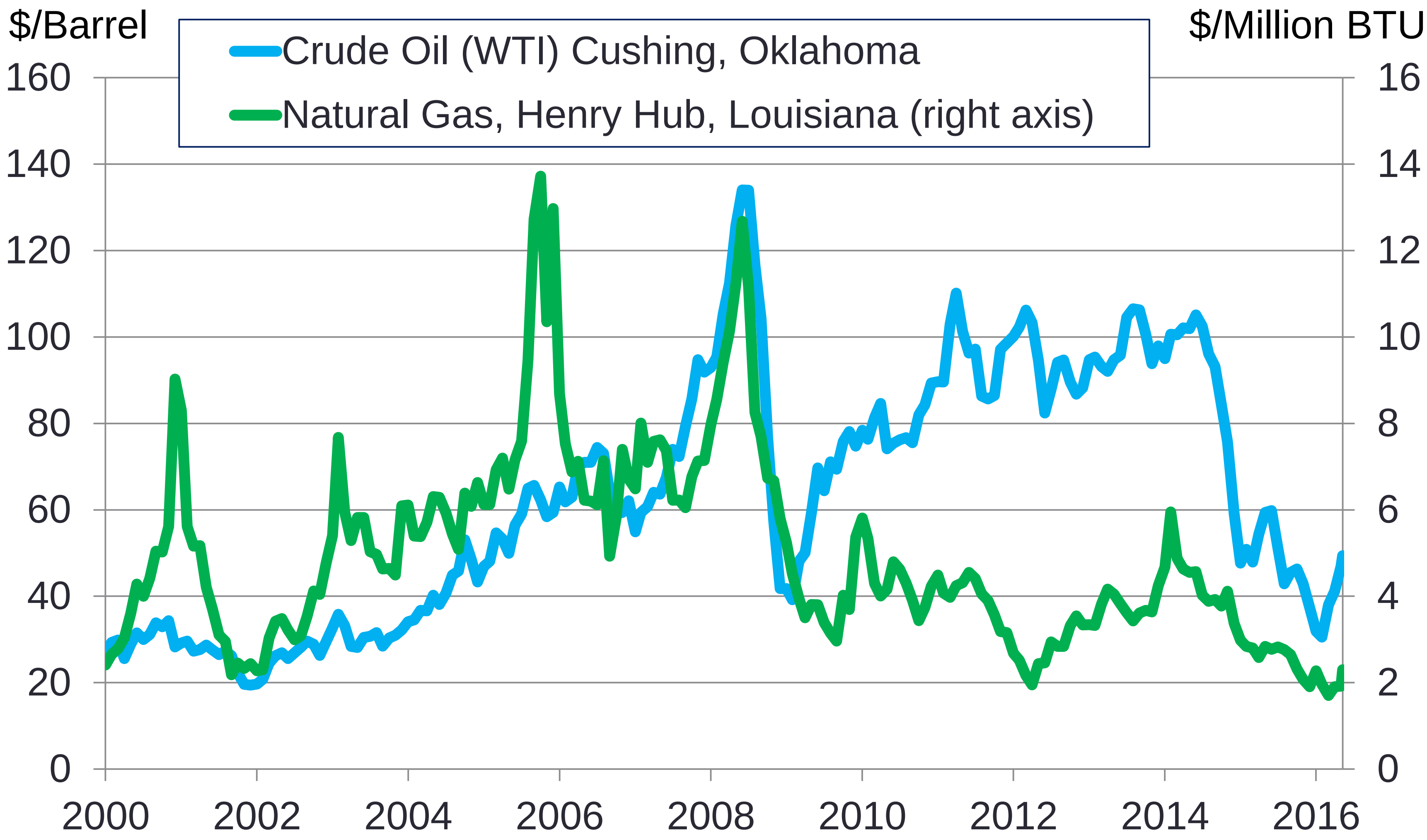
Selected Energy Prices



Source: *Thomson Reuters Datastream*

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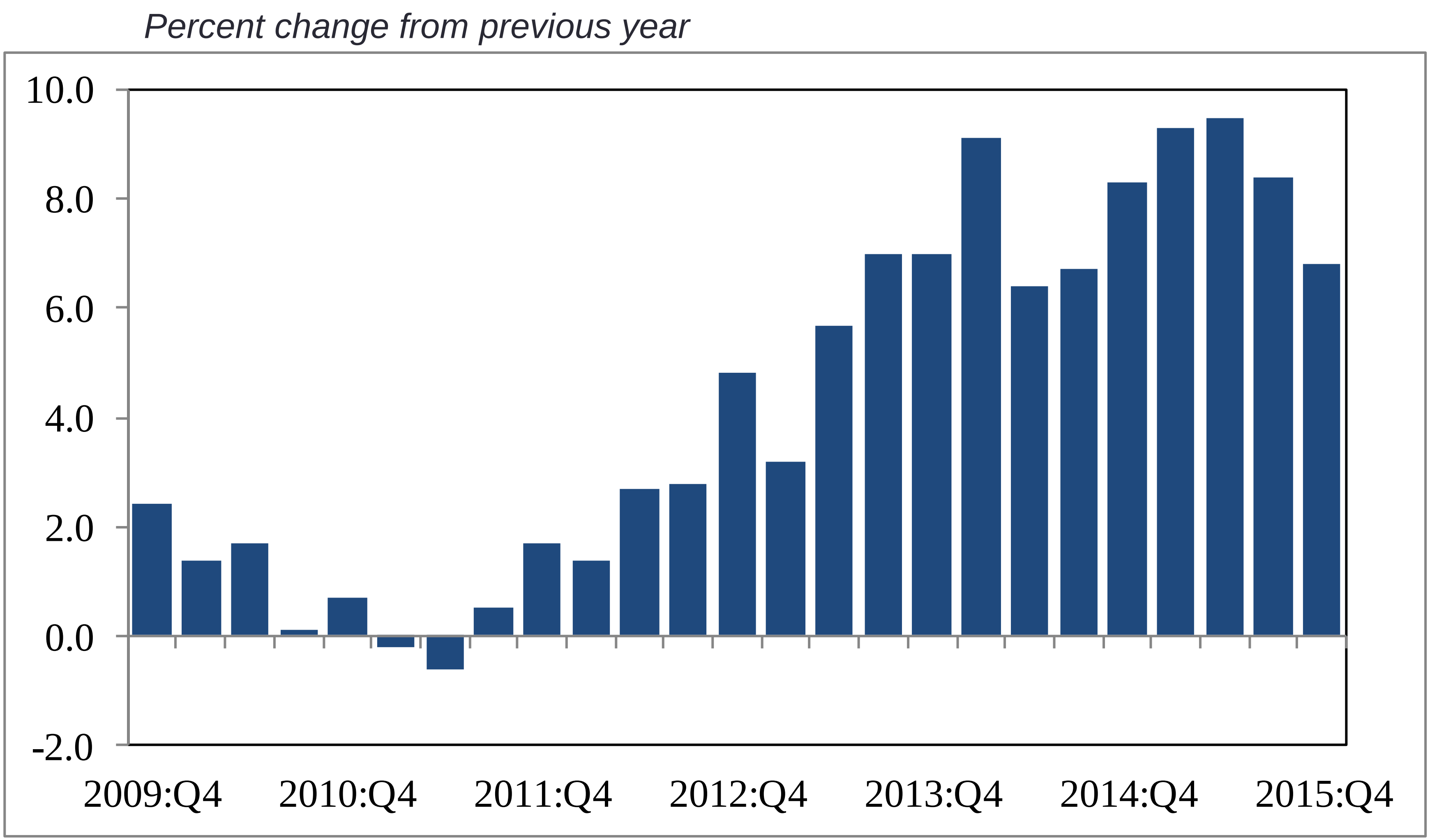
Costs

Includes Interest

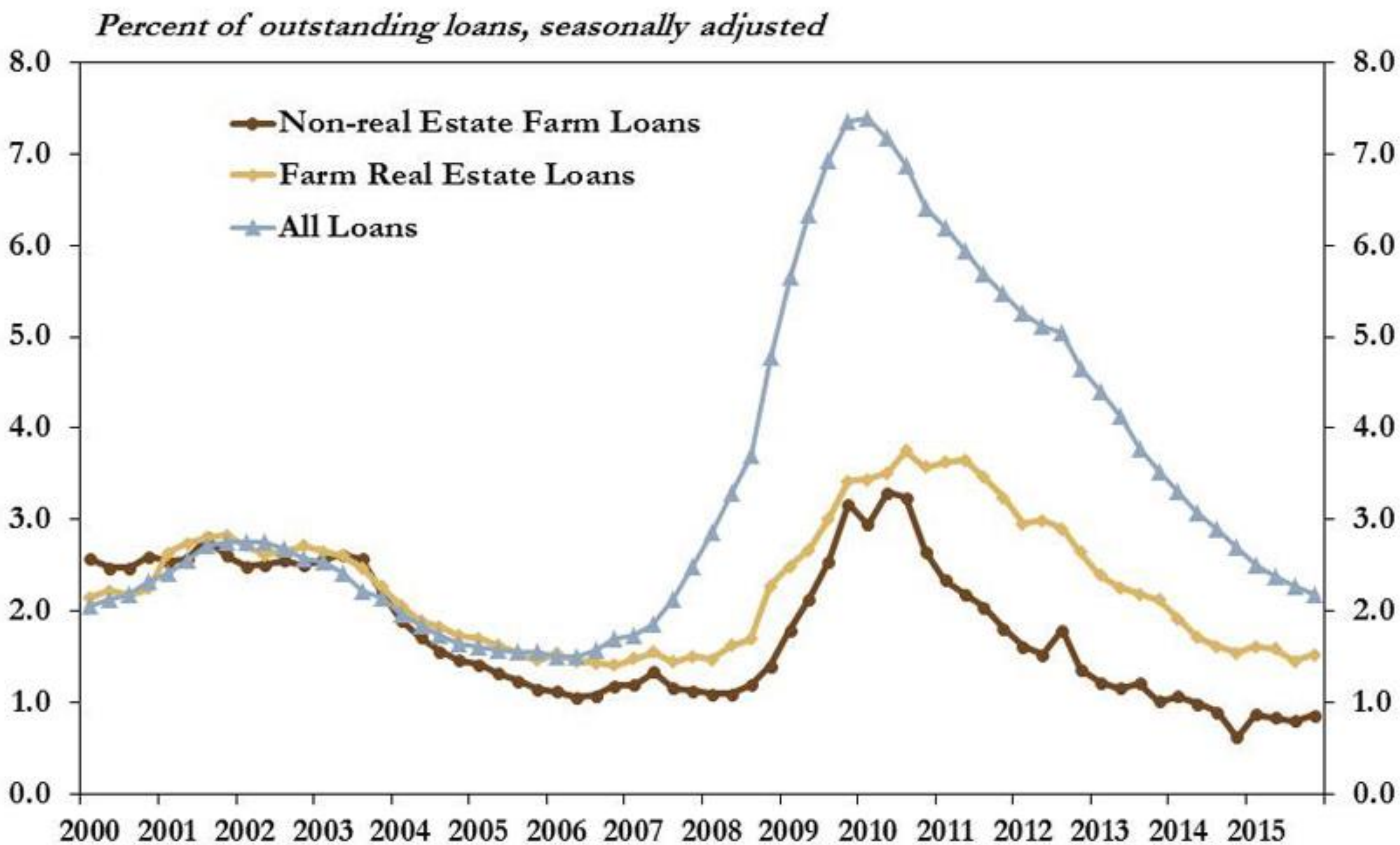
Source: Gary Schnitkey, University of Illinois, *farmdoc* http://www.farmdoc.illinois.edu/manage

Farm debt continues to increase at commercial banks



Source: Federal Reserve Bank of Kansas City, Agricultural Finance Databook.

Delinquency rates on farm loans up slightly



Source: Kauffman and Clark (2016), Ag Finance Databook.
Data: Federal Reserve Board of Governors.

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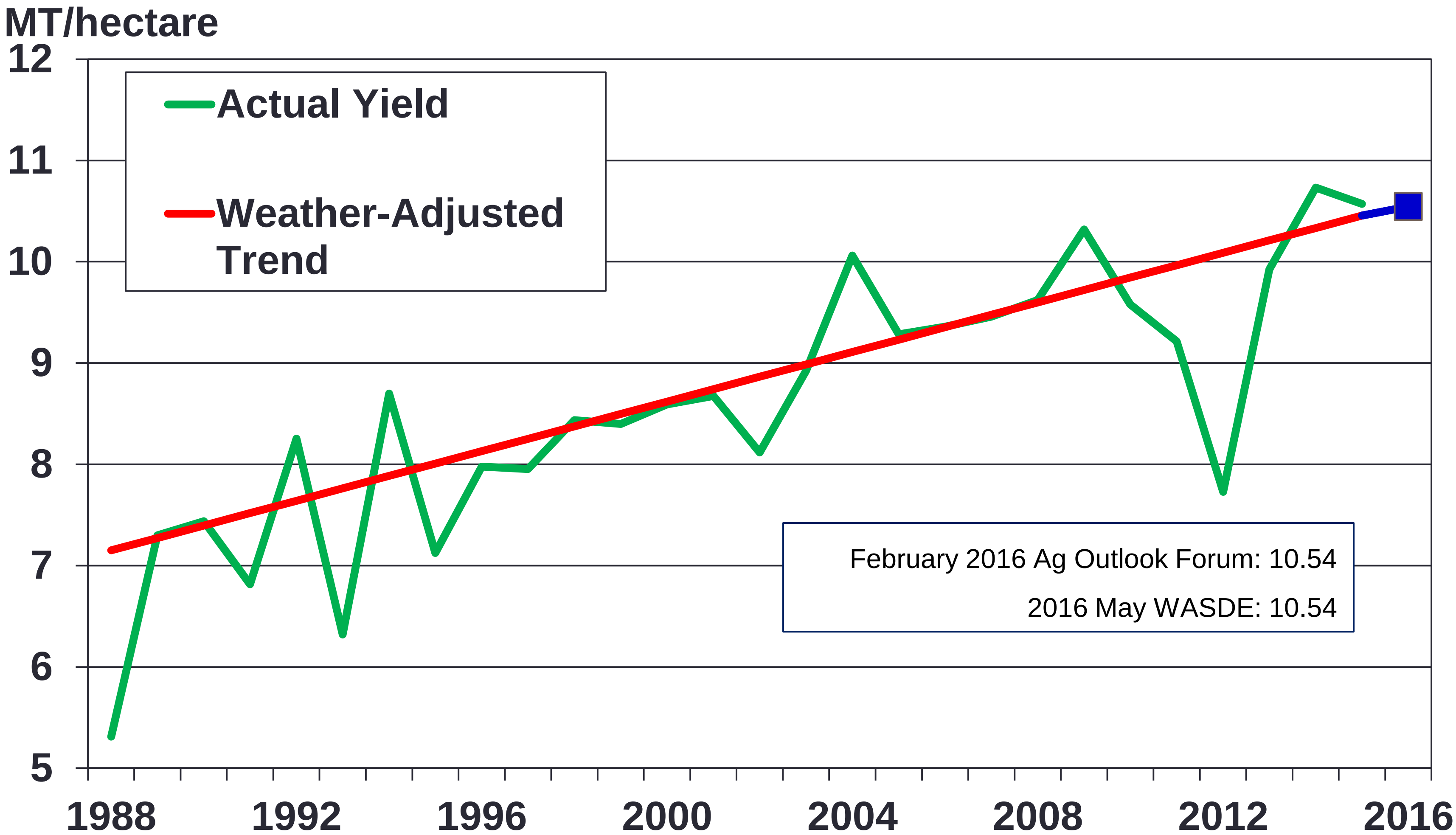
Revenue

Source: Gary Schnitkey, University of Illinois, *farmdoc* http://www.farmdoc.illinois.edu/manage

U.S. Maize Yield

Weather-Adjusted Trend Yield vs. Actual



Source: USDA-NASS, *World Agricultural Supply and Demand Estimates*, June 10, 2016.

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Revenue

Source: Gary Schnitkey, University of Illinois, *farmdoc* http://www.farmdoc.illinois.edu/manage

Central Illinois Production Budget 2016 (high productive land)

	Per Hectare		Per Acre	
	Corn After Soybeans	Soybeans After Corn	Corn After Soybeans	Soybeans After Corn
Fertilizers	$309	$79	$125	$32
Seed	$301	$188	$122	$76
Crop Insurance	$59	$44	$24	$18
Other direct costs	$217	$114	$88	$46
Machinery hire/lease, repair and depreciation	$250	$230	$101	$93
Fuel and oil	$42	$42	$17	$17
Other power costs	$17	$17	$7	$7
Overhead costs	$168	$153	$68	$62
Total non-land costs	$1,364	$867	$552	$351
Yield (mt/ht) and (bu/ac)	12.62	3.90	201	58
Price (per mt) and (per bu)	$159	$396	$4.03	$10.77
Crop Revenue	$2,002	$1,544	$810	$625
ARC(PLC)	$74	$74	$30	$30
Insurance Proceeds	$0	$0	$0	$0
Operator and Land Returns (excludes ARC/PLC)	$638	$676	$258	$274
Land Costs	$687	$687	$278	$278

Breakeven rental rate

Source: Gary Schnitkey, University of Illinois, *farmdoc* http://www.farmdoc.illinois.edu/manage

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Cash rent

Source: Gary Schnitkey, University of Illinois, *farmdoc* http://www.farmdoc.illinois.edu/manage

Cash rental rates falling, but slowly

Illinois farmers scrutinize high cash rental rates

January 07, 2016 5:03 am • By Phyllis Coulter, Illinois Farmer Today

CHAMPAIGN — Some of the rent Eastern Illinois farmer Keith Dalenberg pays is a little higher than he would like, but landowners aren't willing to take less right now.

Dalenberg, who grows corn and soybeans near Georgetown in Vermillion County, is carefully looking at rent and input costs as margins are tight.
He attended the Eastern session of the 2015 Illinois Farm Economics Summit in Champaign in December where University of Illinois economists led the discussion about dealing with the current margin squeeze.

"Everybody would like the rents they pay to be less," he said.

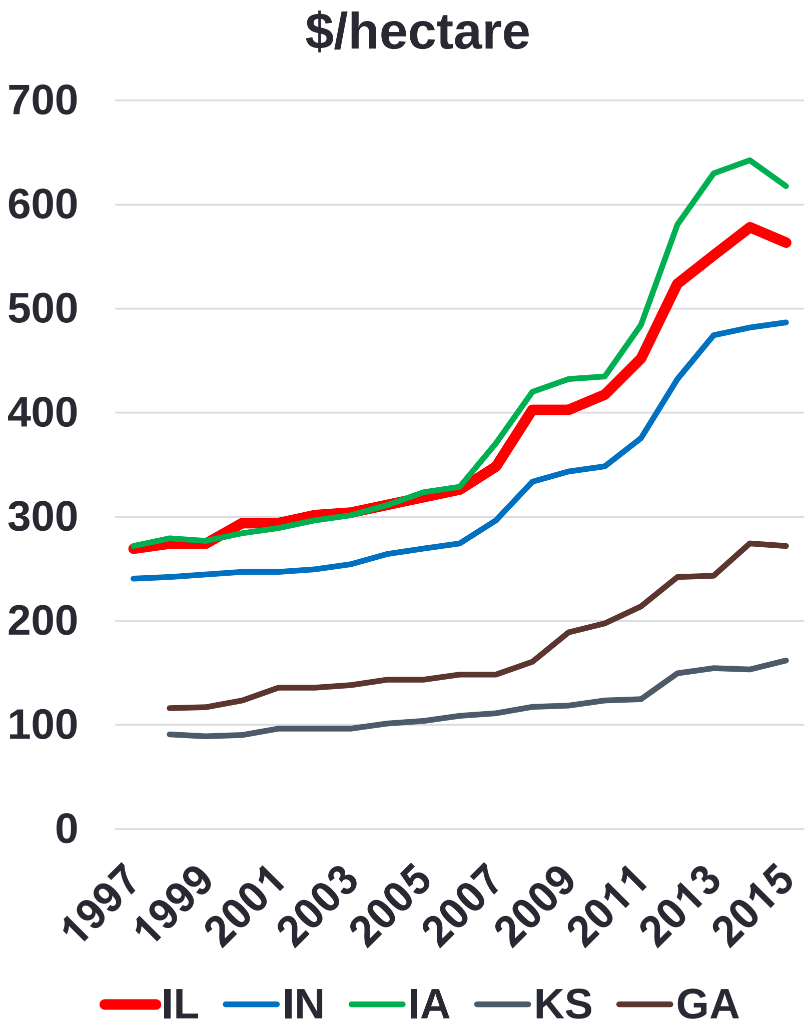
Dalenberg has different kinds of agreements with landowners, including some cash rent and some

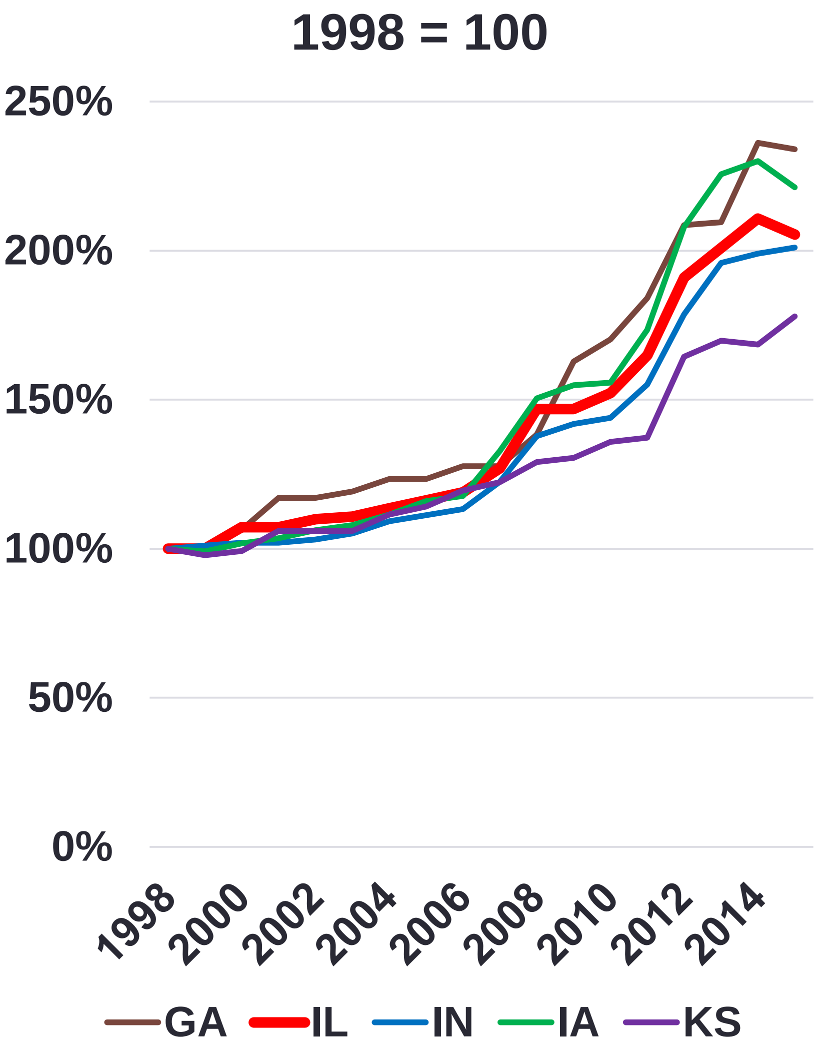
flexible leases. Some of his landlords are retired farmers, some are widows and others have never farmed.

He has been able to adjust some rental agreements to help him cope with the lower commodity prices, but not all.

Cash rental rates

Whole State Average





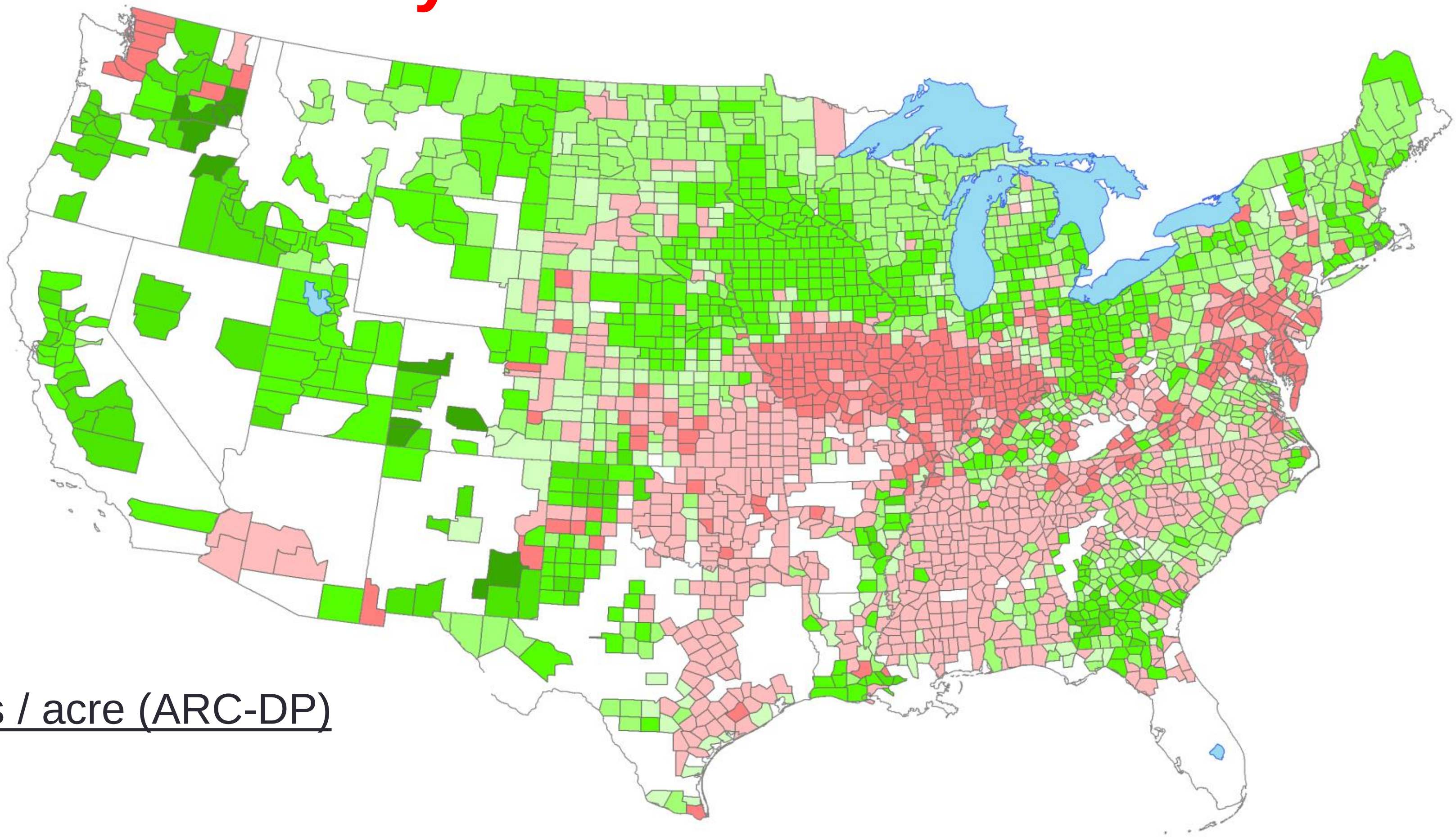
New Farm Bill

2014 Farm Bill elections and 2014 payments by base commodity

Election	ARC	PLC	ARC payments to date (mill)	PLC payments to date (mill)
Corn	93%	7%	$3,711.511	$0
Soybeans	93%	7%	$317.282	$0
Wheat	58%	42%	$349.119	$0
Long-grain rice	0%	100%	$0.013	$399.491
Peanuts	0%	100%	$0.096	$321.484

Source: USDA, Farm Service Agency. As of May 20, 2016

ARC-CO 2014 payment rates for corn minus 2008 Direct Payment rates reflect effects of yield variations on revenue

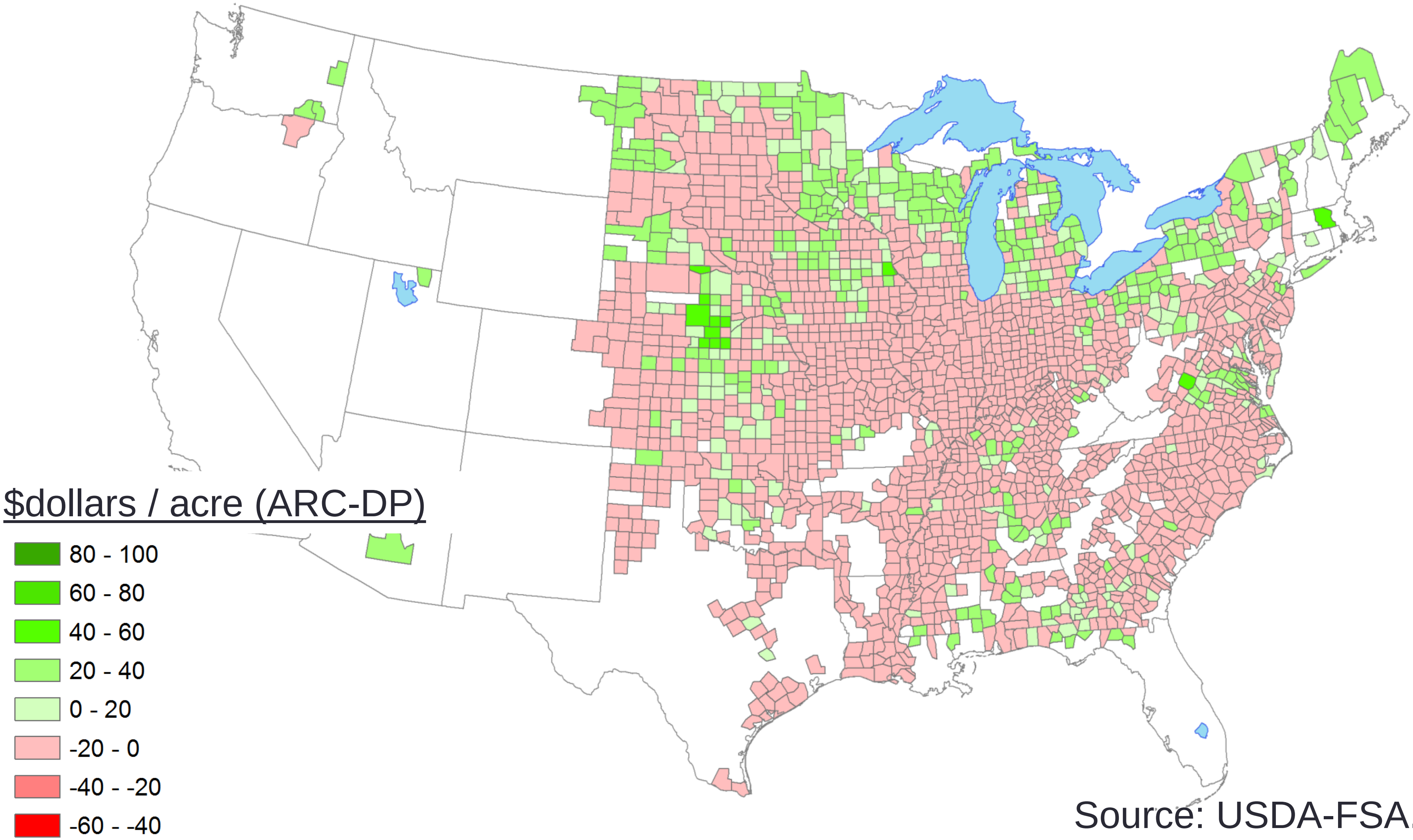


$dollars / acre (ARC-DP)

- 80 - 100
- 60 - 80
- 40 - 60
- 20 - 40
- 0 - 20
- -20 - 0
- -40 - -20
- -60 - -40

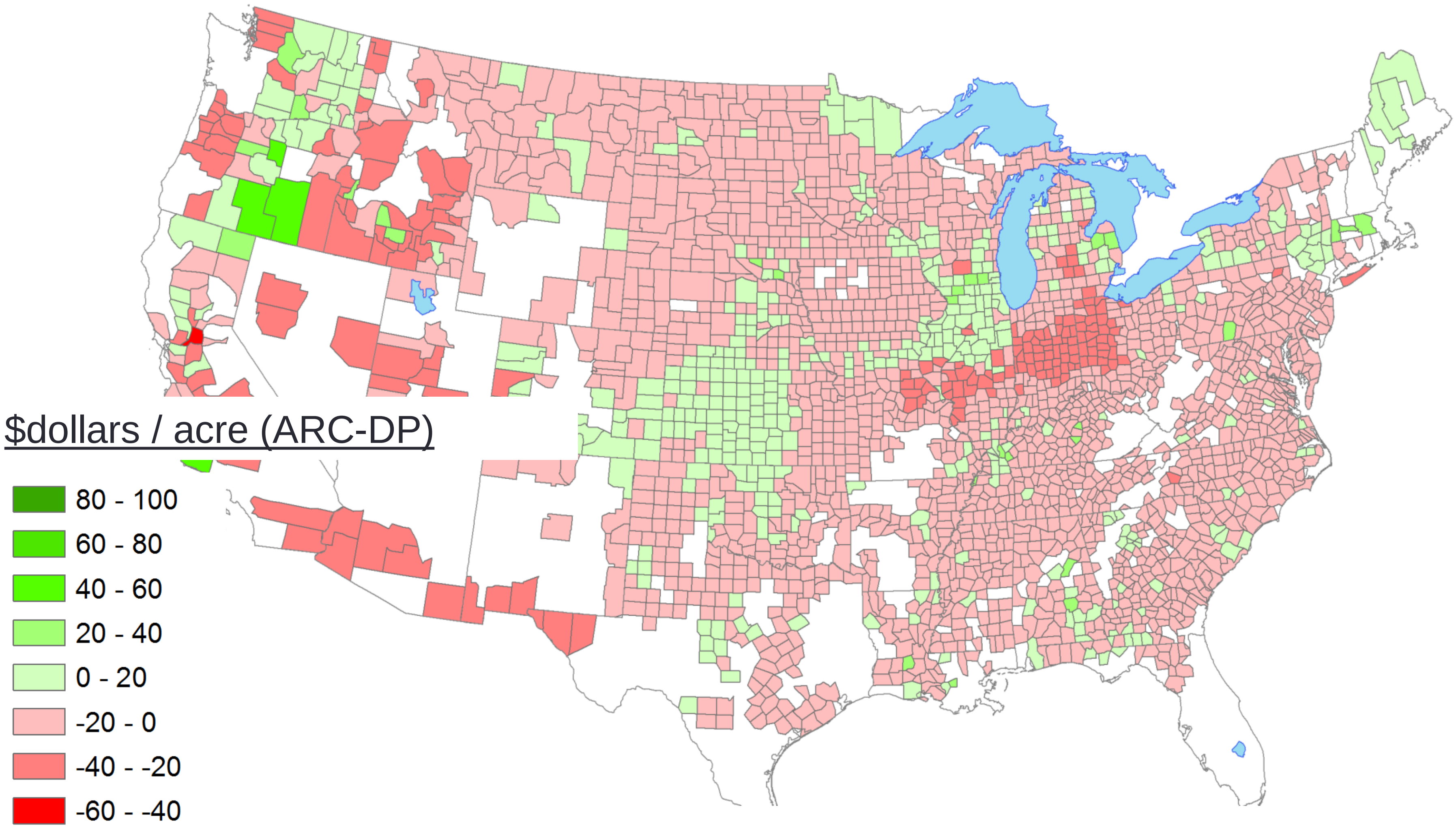
Source: USDA-FSA.

ARC-CO 2014 payment rates for soybeans minus 2008 Direct Payment rates reflect effects of yield variations on revenue



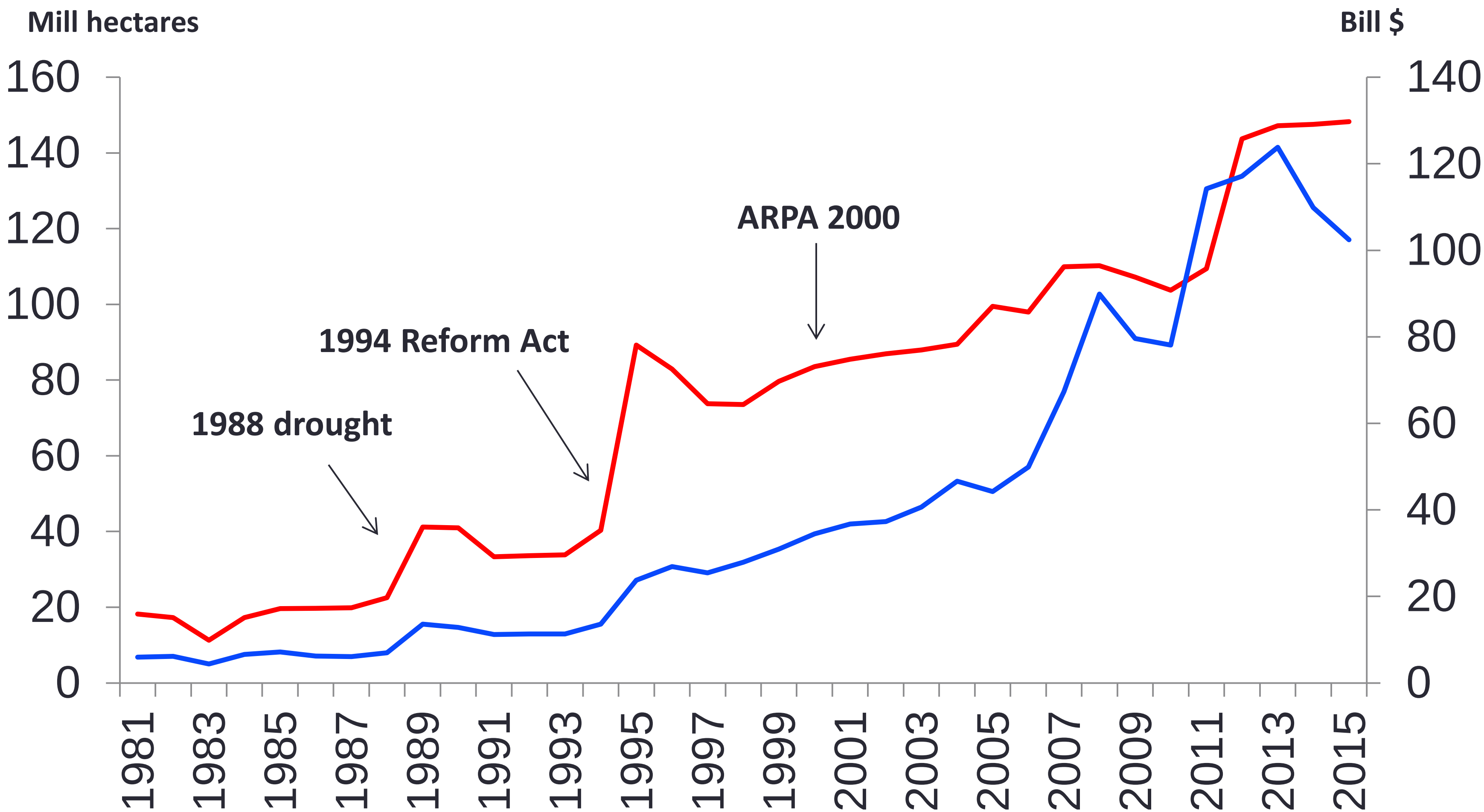
Source: USDA-FSA.

ARC-CO 2014 payment rates for wheat minus 2008 Direct Payment rates reflect effects of yield variations on revenue



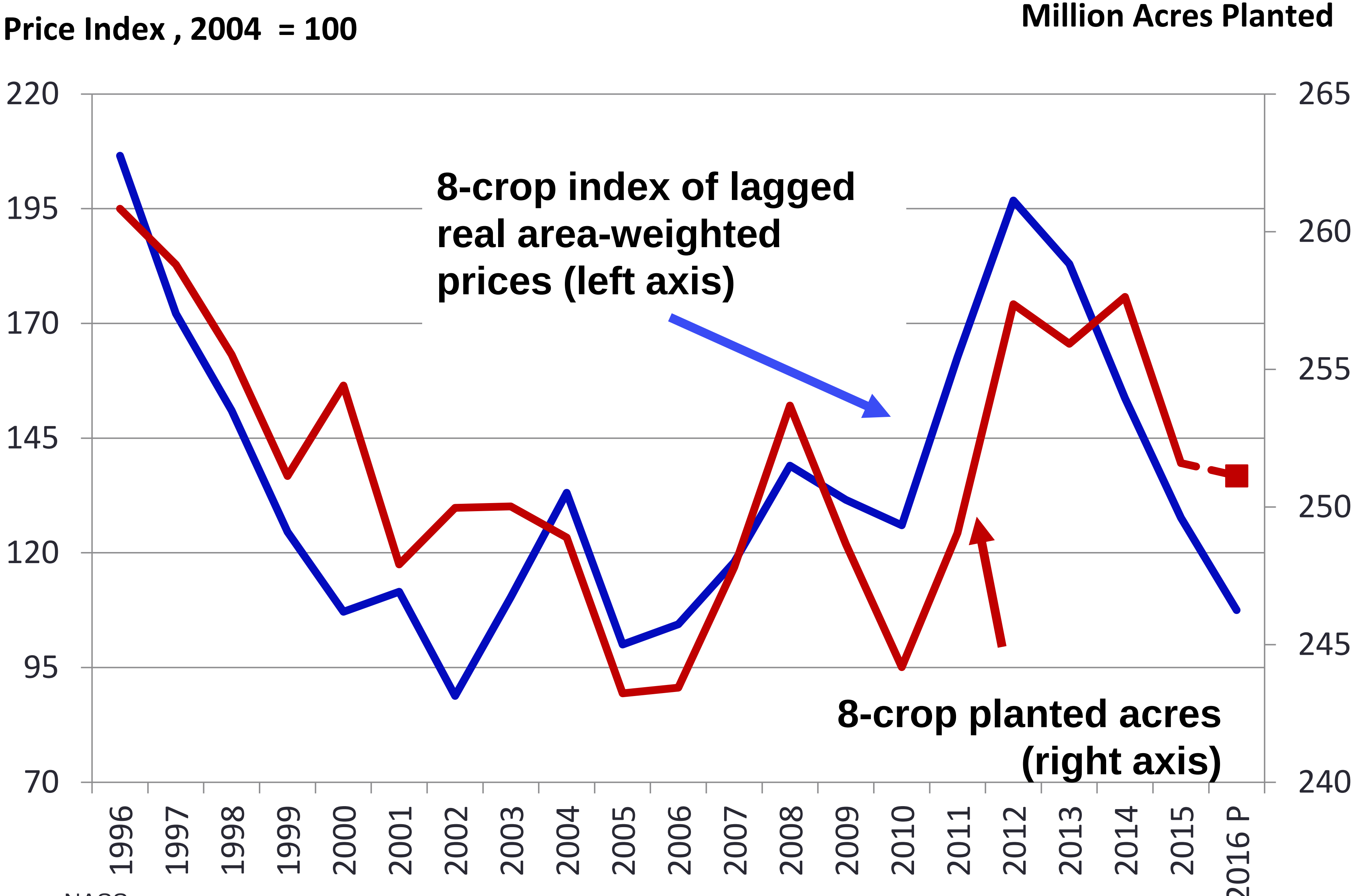
Source: USDA-FSA.

Growth in the US crop insurance program



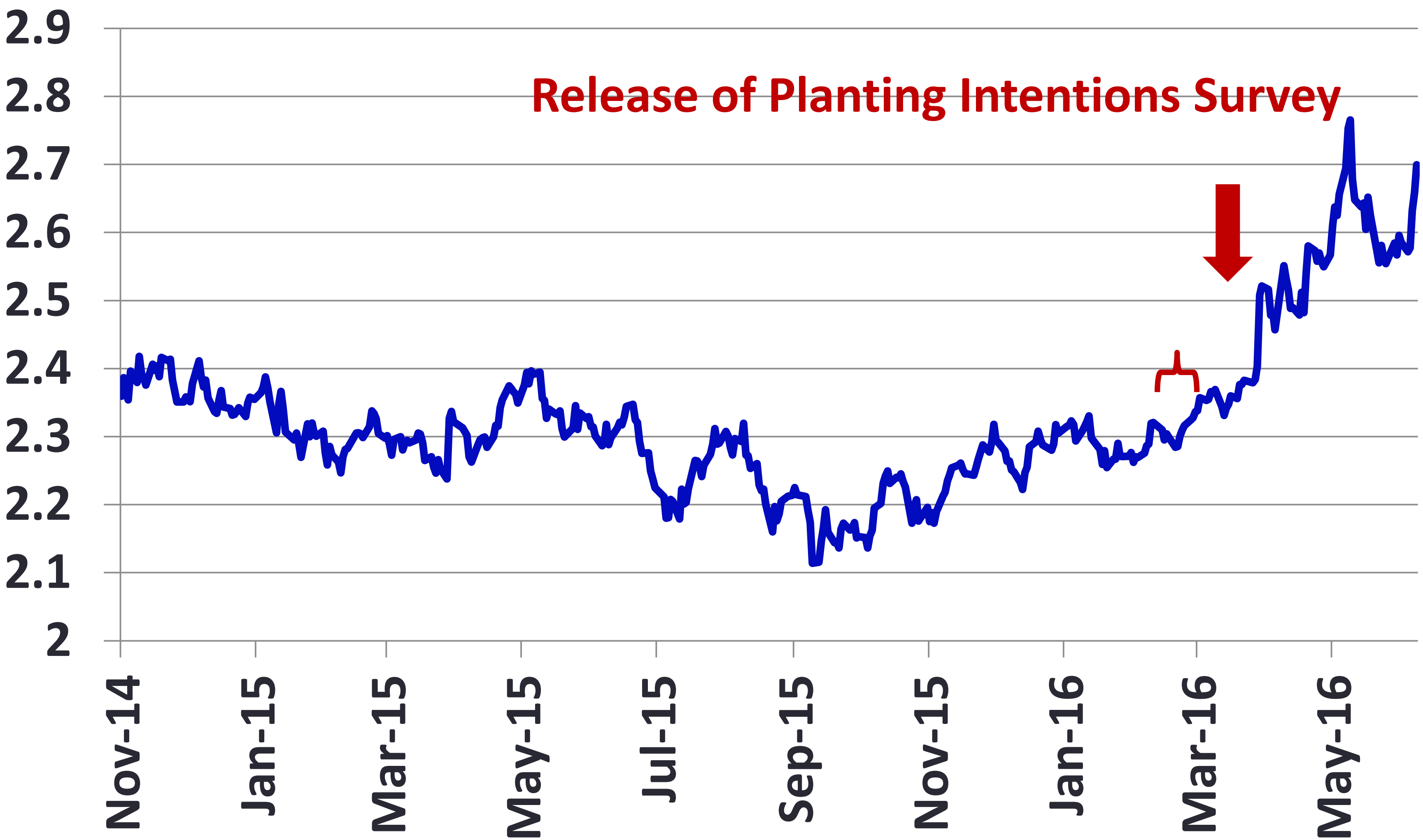
Source: USDA Risk Management Agency Summary of Business.

8-Crop Planting and Lag Prices



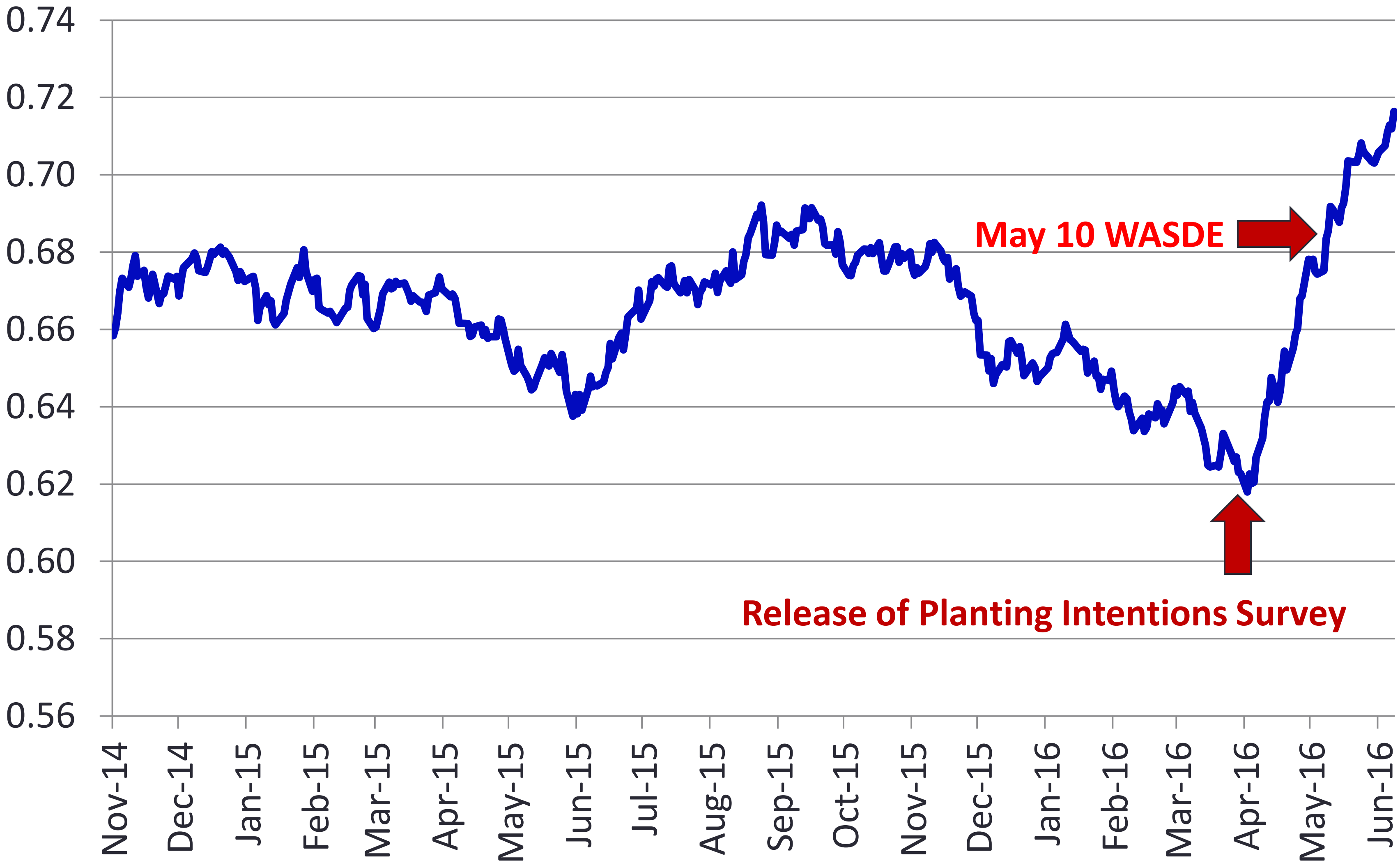
Source: NASS

Soybean/Corn Harvest-Time Futures Price Ratio



CME November Soybeans and December Corn

Meal Share of Soybean Value (December Futures)



CME December Soybean meal and oil

Conclusions

- Low price environment expected to continue at least in near term.
- US plantings will be driven by producers decisions on which crop will produce the best returns (or lowest losses).
- Borrowing is expected to increase; cash rents are expected to fall. This points to continued use of risk management tools and safety-net programs.
- Globally, we expect trade growth to continue, along with trade discussions, which will look to open new markets (e.g., TPP) and enforce existing rules (WTO).
- The most recent WASDE from last week shows record carry-out for wheat, but opportunities for corn and soybean marketing due to lower production in SA.

Thanks!

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www.usda.gov/oce

Upcoming reports

- June 23-25 --- AMIS
- June 30th --- Stocks and Acreage
- July 1 --- CAIR

http://www.usda.gov/oce/commodity/wasde/Secretary_Briefing.pdf