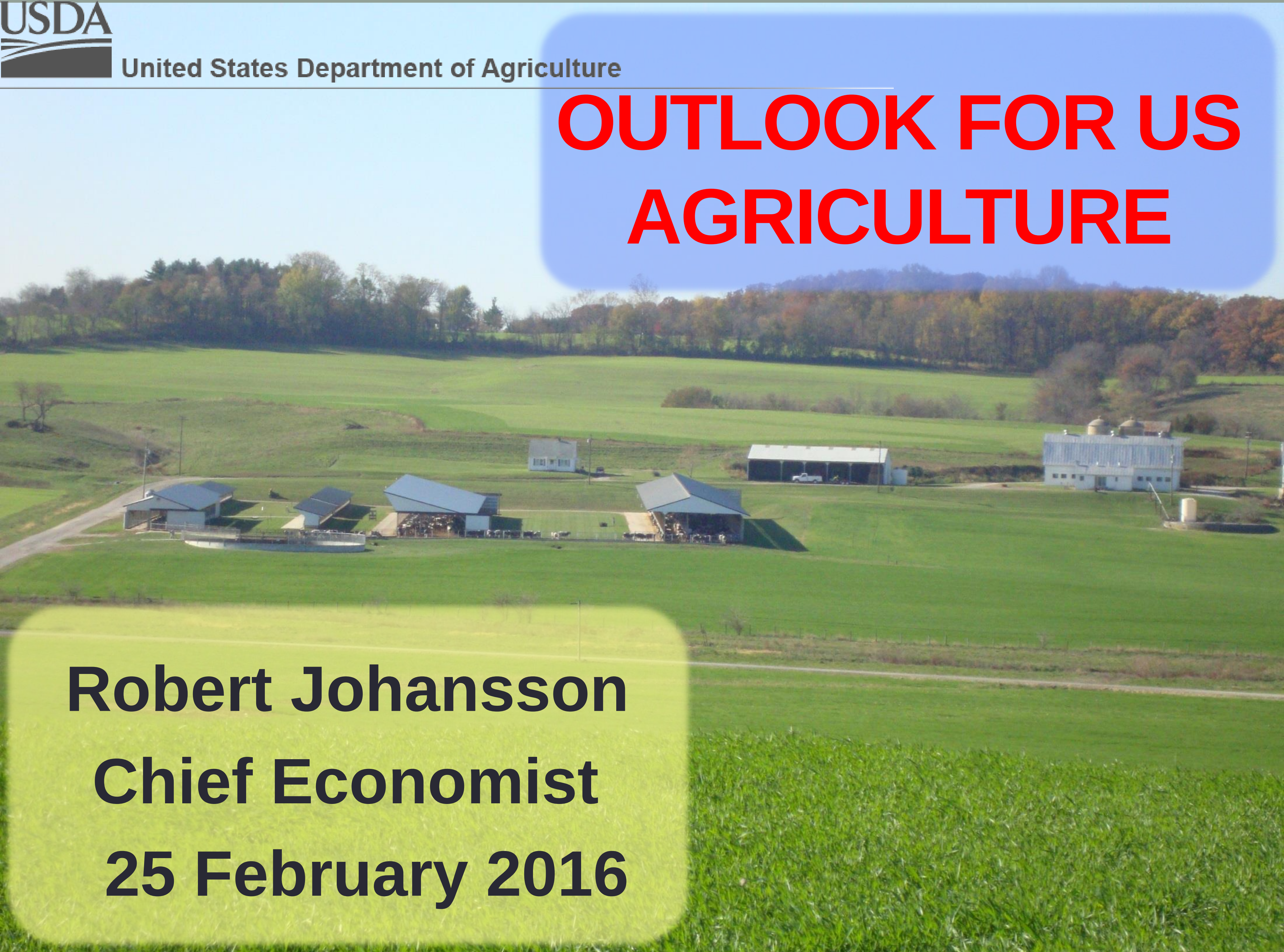
USDA United States Department of Agriculture

OUTLOOK FOR US AGRICULTURE



Robert Johansson

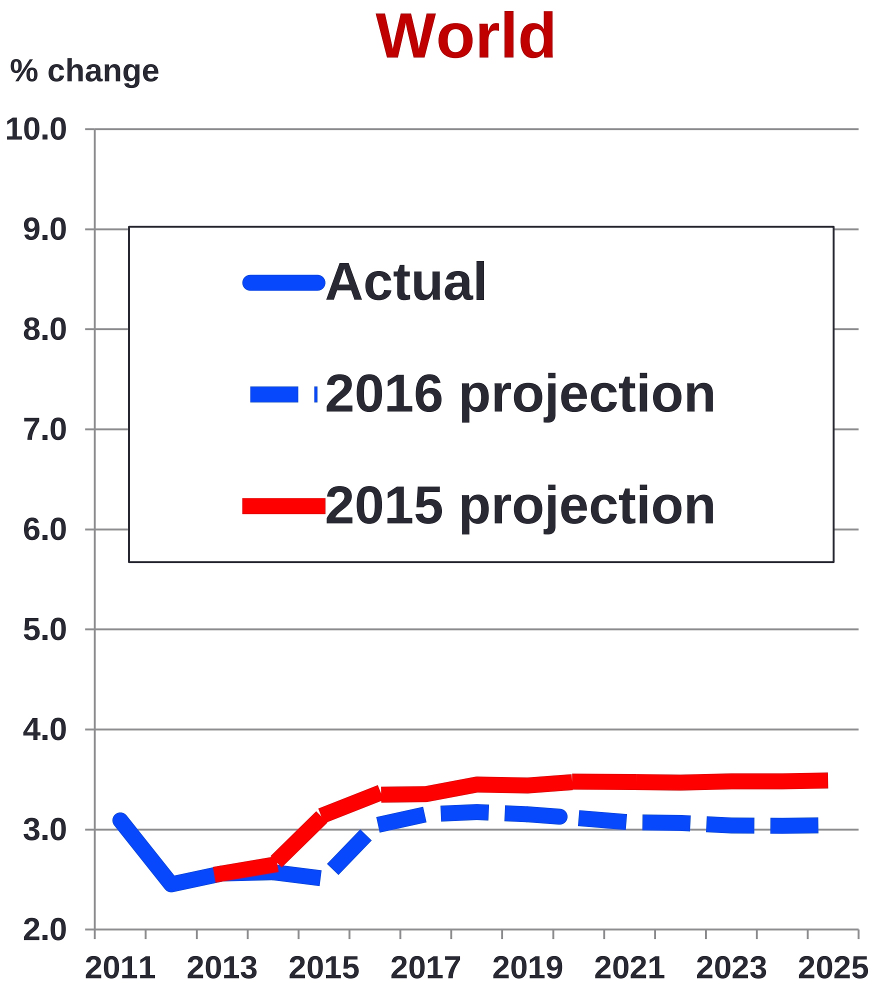
Chief Economist

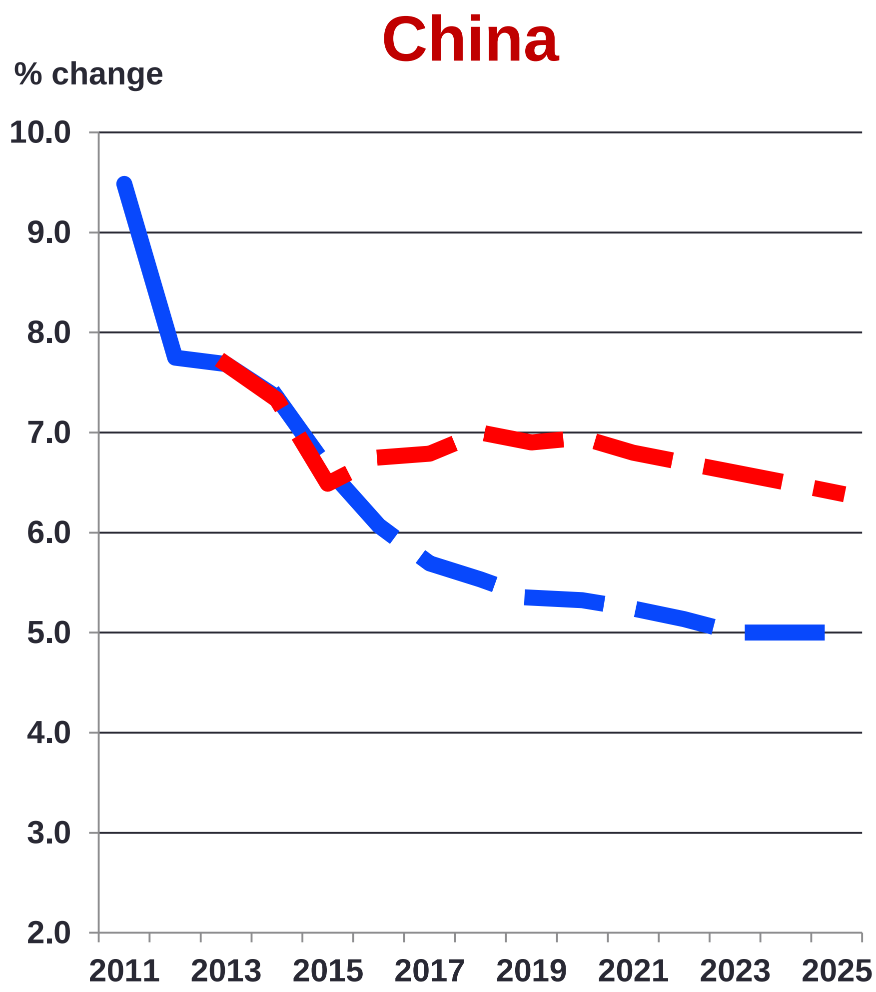
25 February 2016

Main themes for 2016

1. The macroeconomy is weighing on trade, but there are reasons for optimism.
2. Record crop harvests have led to stock building and downward pressure on prices.
3. Farm income and farmland values are adjusting.

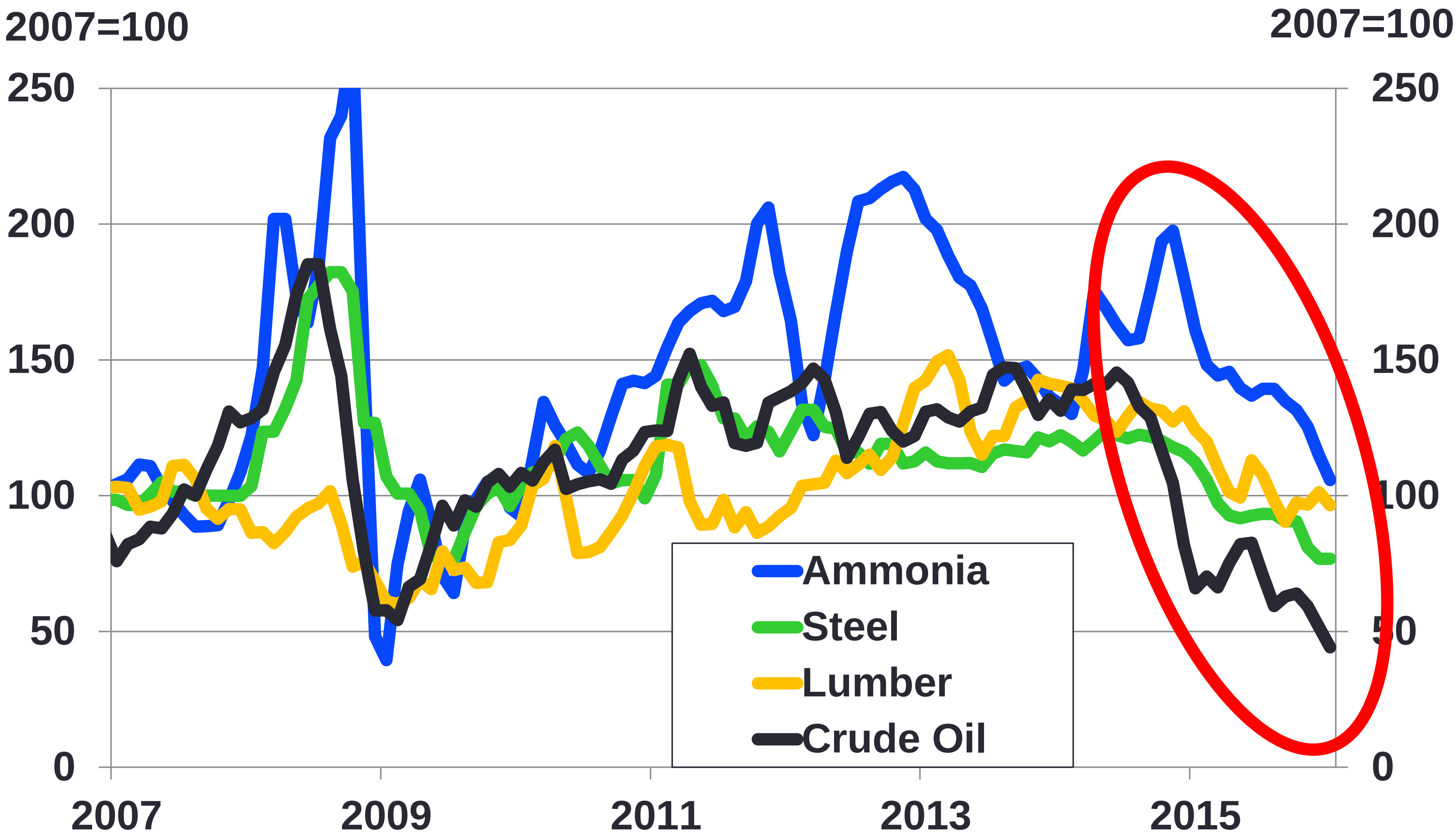
World GDP growth slows, compared to last year's projections, most notably in China





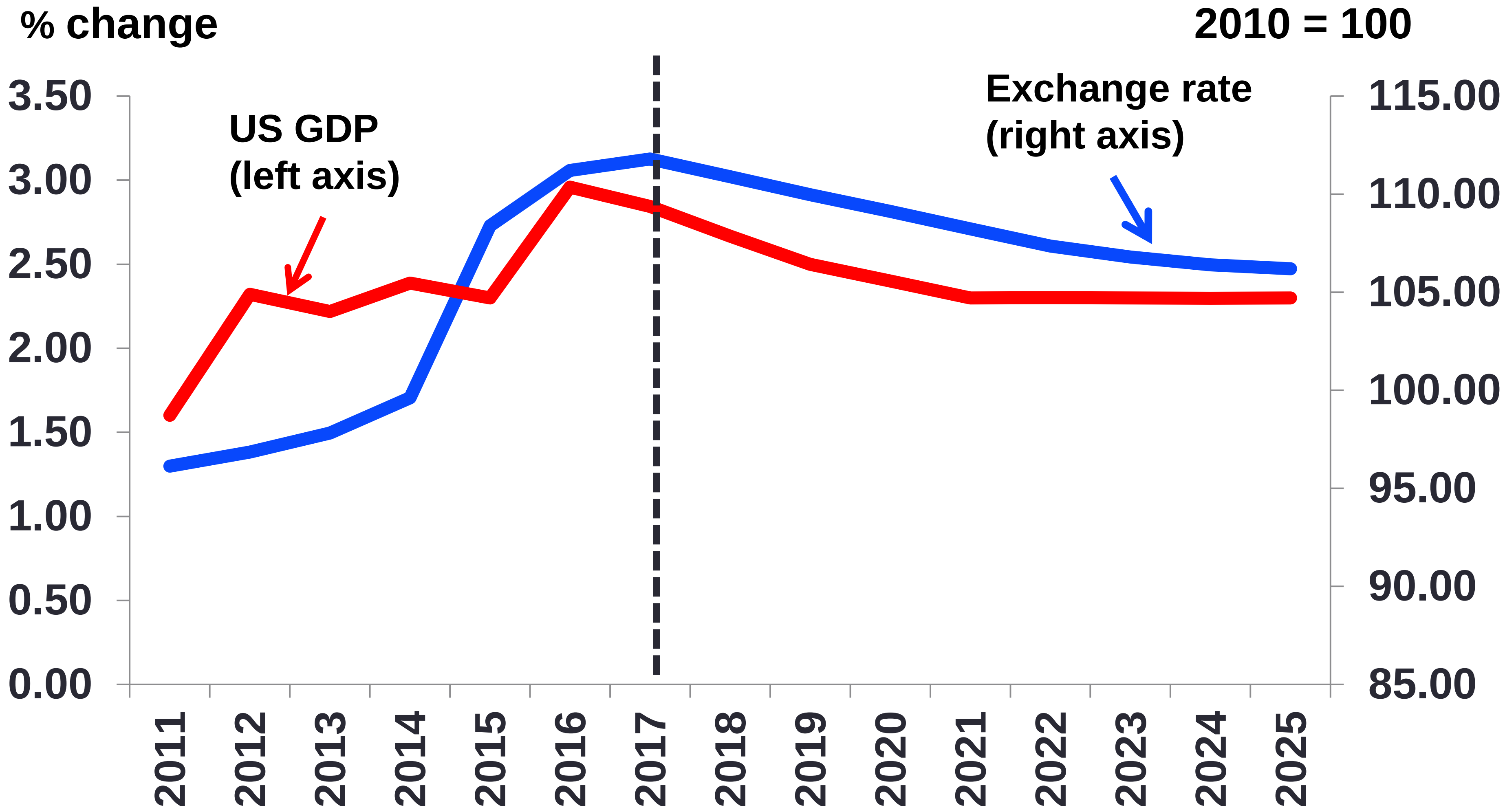
Source: USDA.

Falling prices for primary inputs



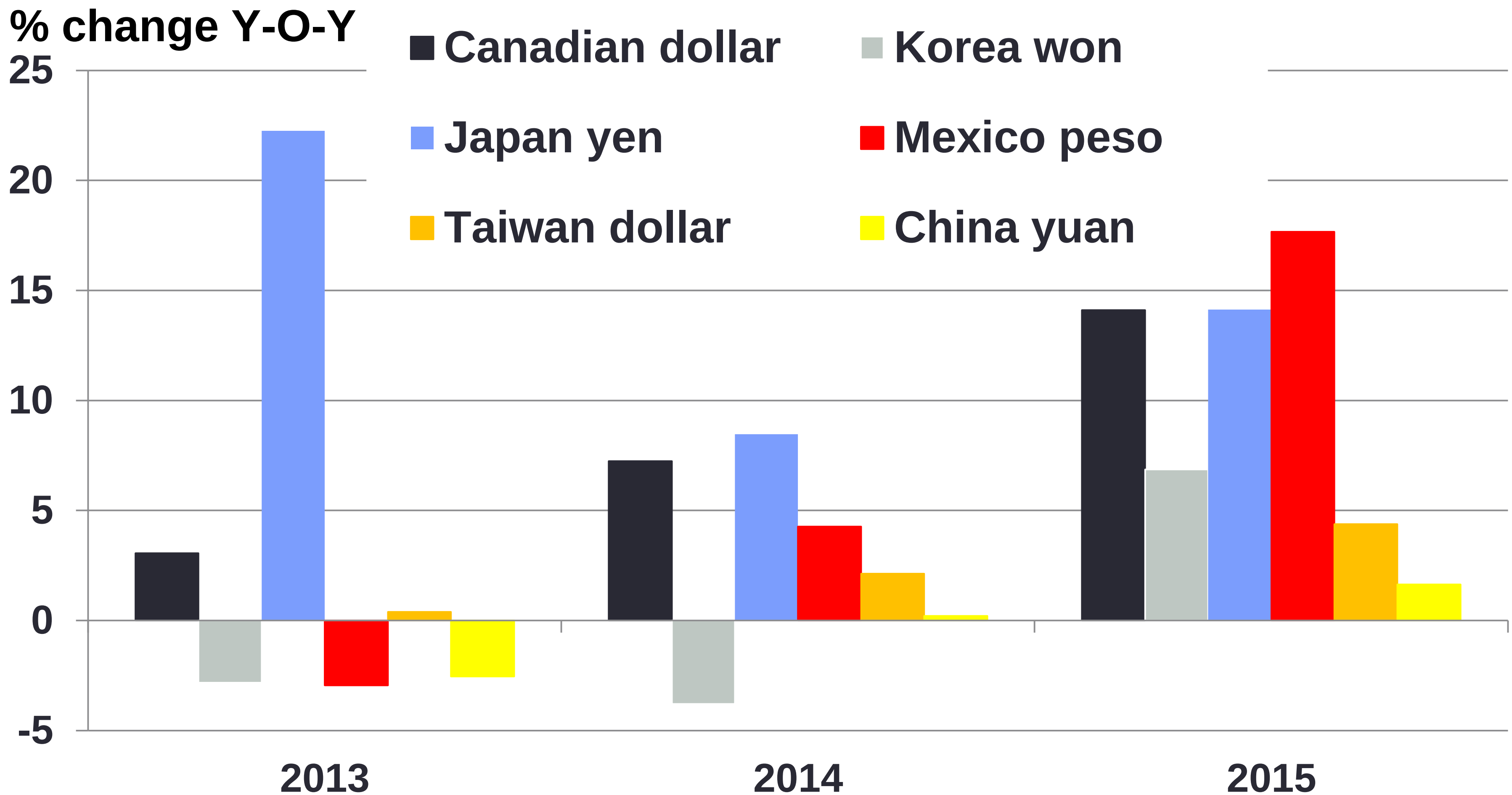
Source: Eikon/Datastream, USDA-OCE.

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



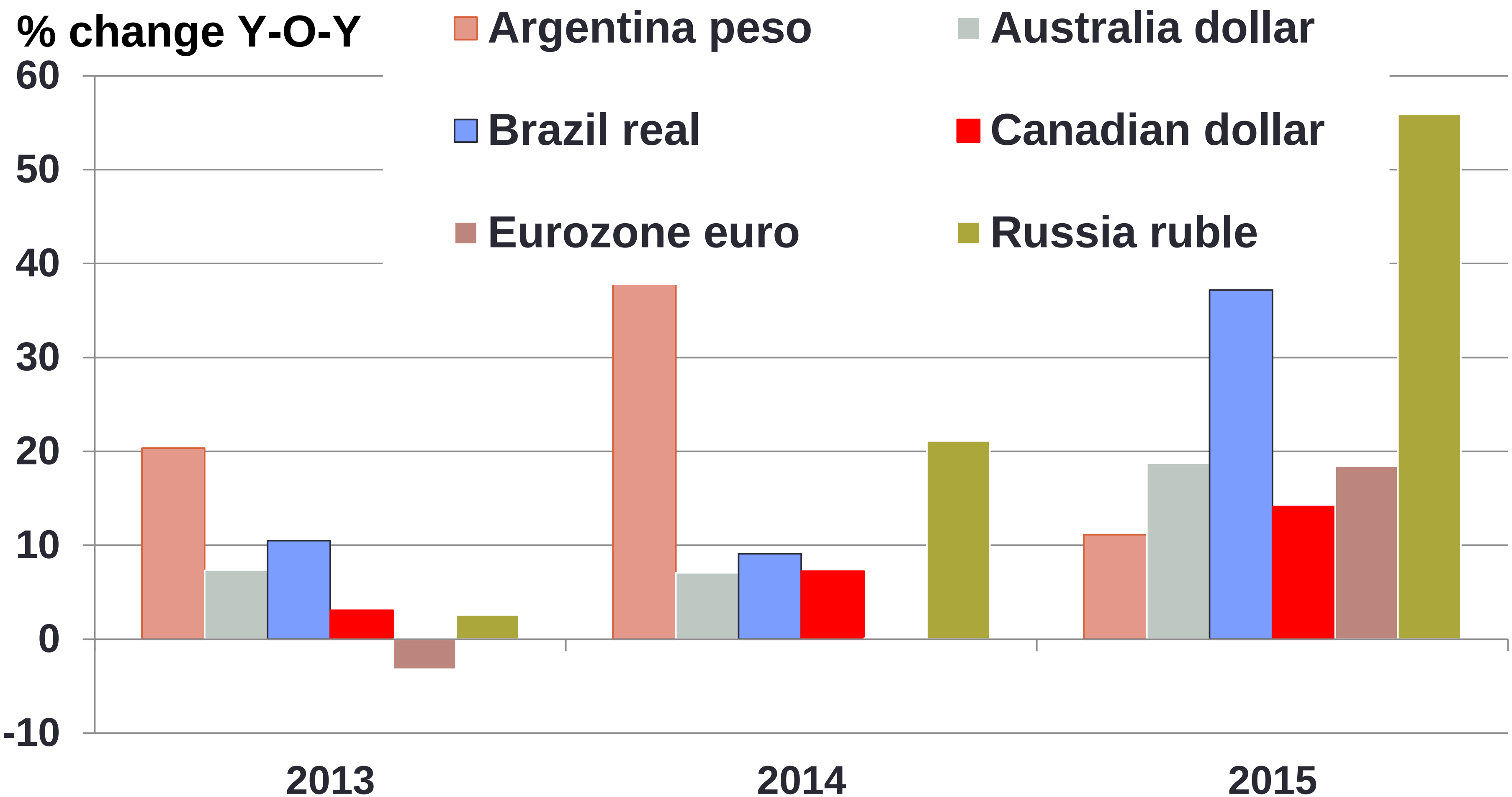
Data: USDA-OCE.

Dollar has appreciated against currencies of its customers, especially in 2015



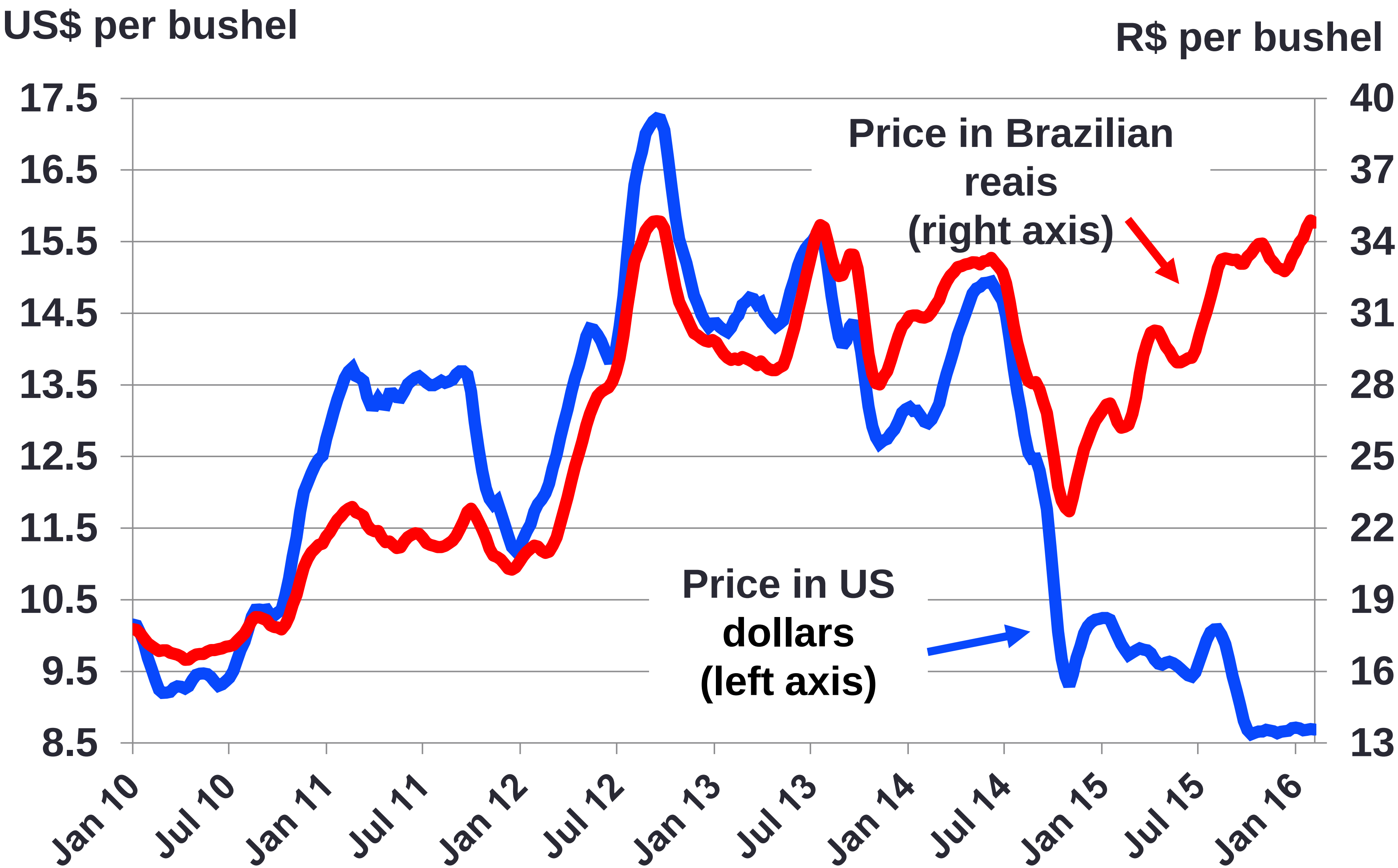
Source: Eikon/Datastream. Positive change indicates U.S. dollar appreciation.

Dollar has appreciated against competitor currencies, especially in 2014 and 2015



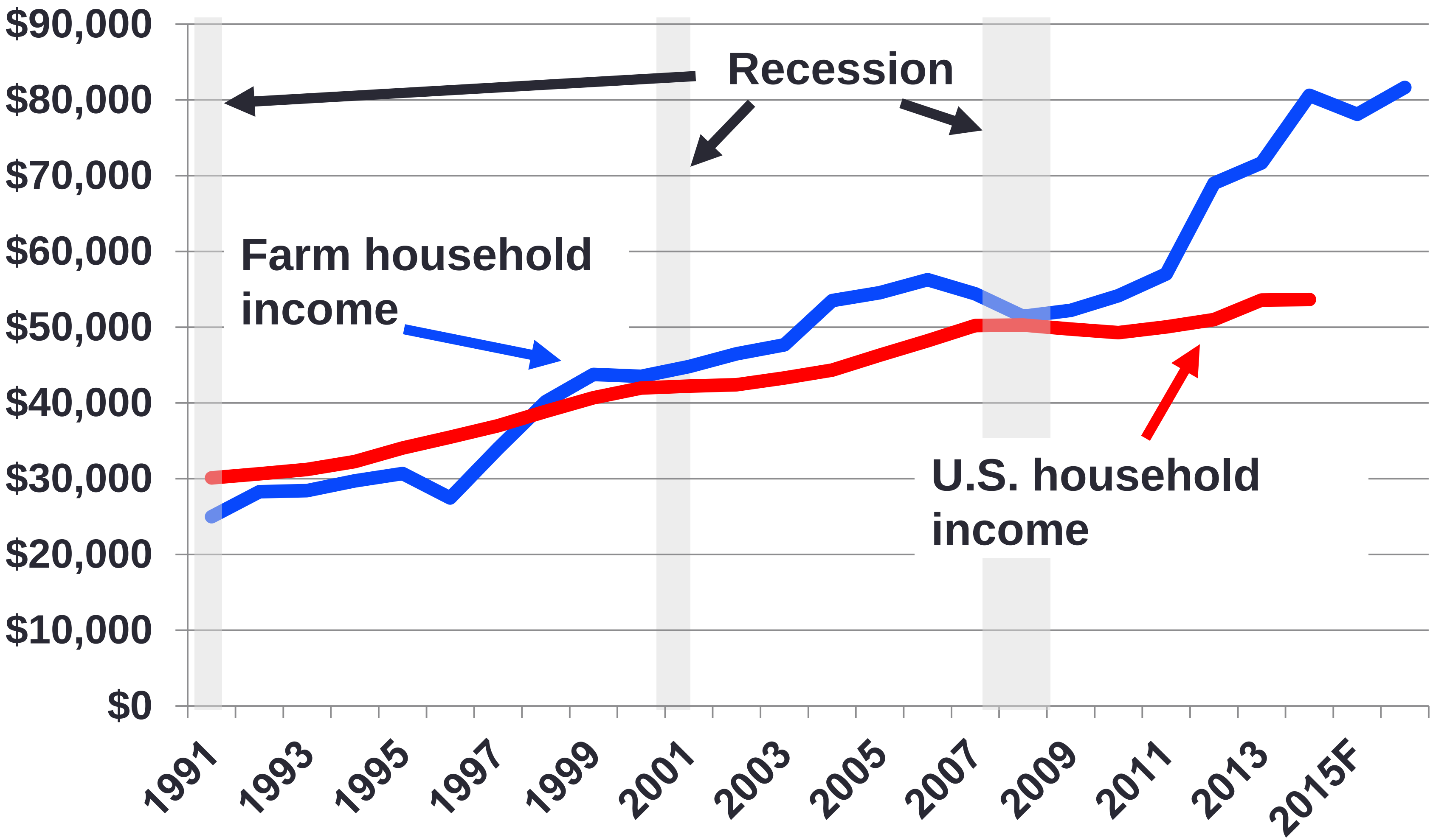
Source: Eikon/Datastream. Positive change indicates U.S. dollar appreciation.

The price of soybeans in dollars and reais



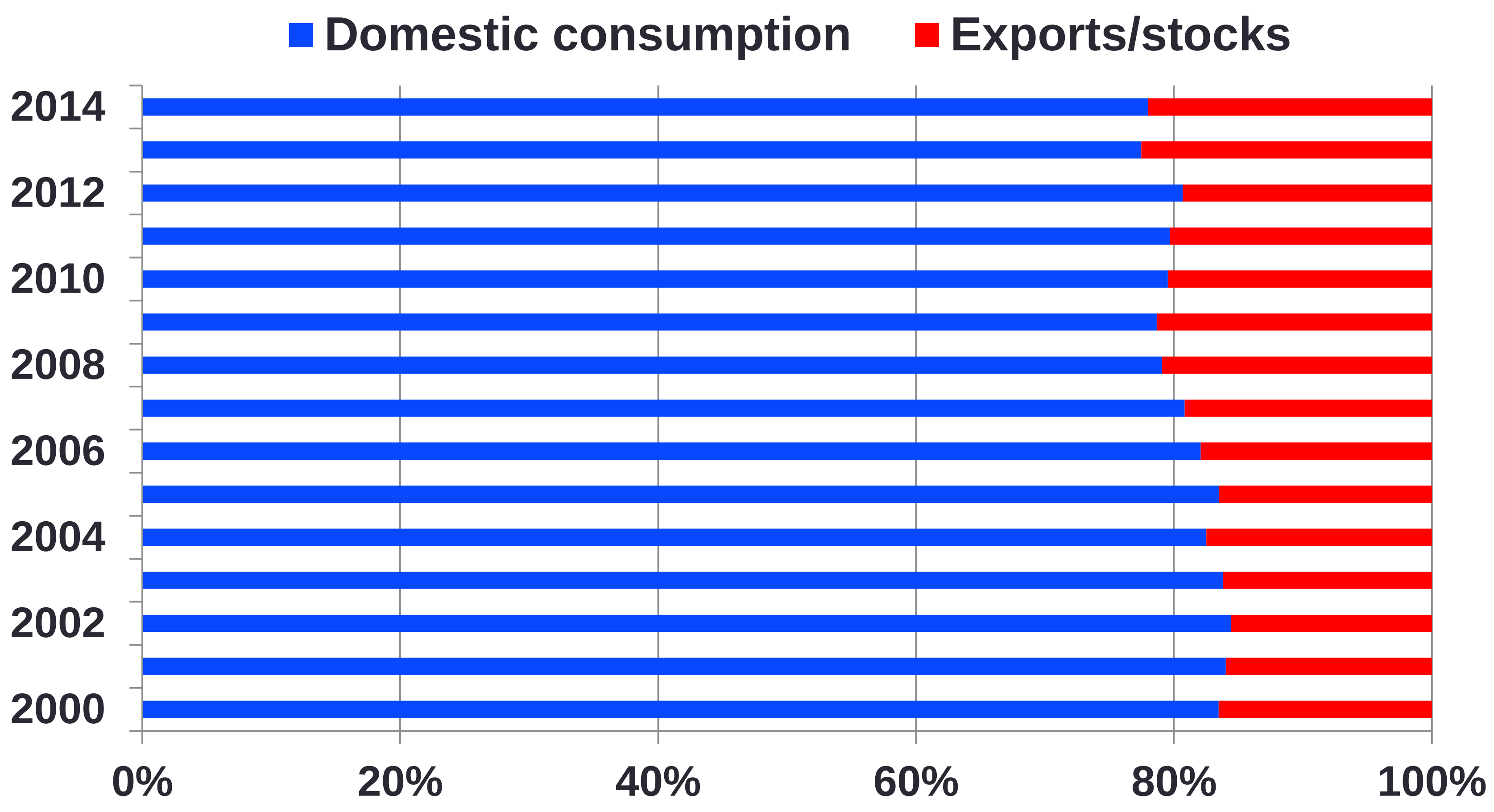
Source: USDA –AMS.

Median household income growth rises more rapidly for farm households



Data: USDA-ERS.

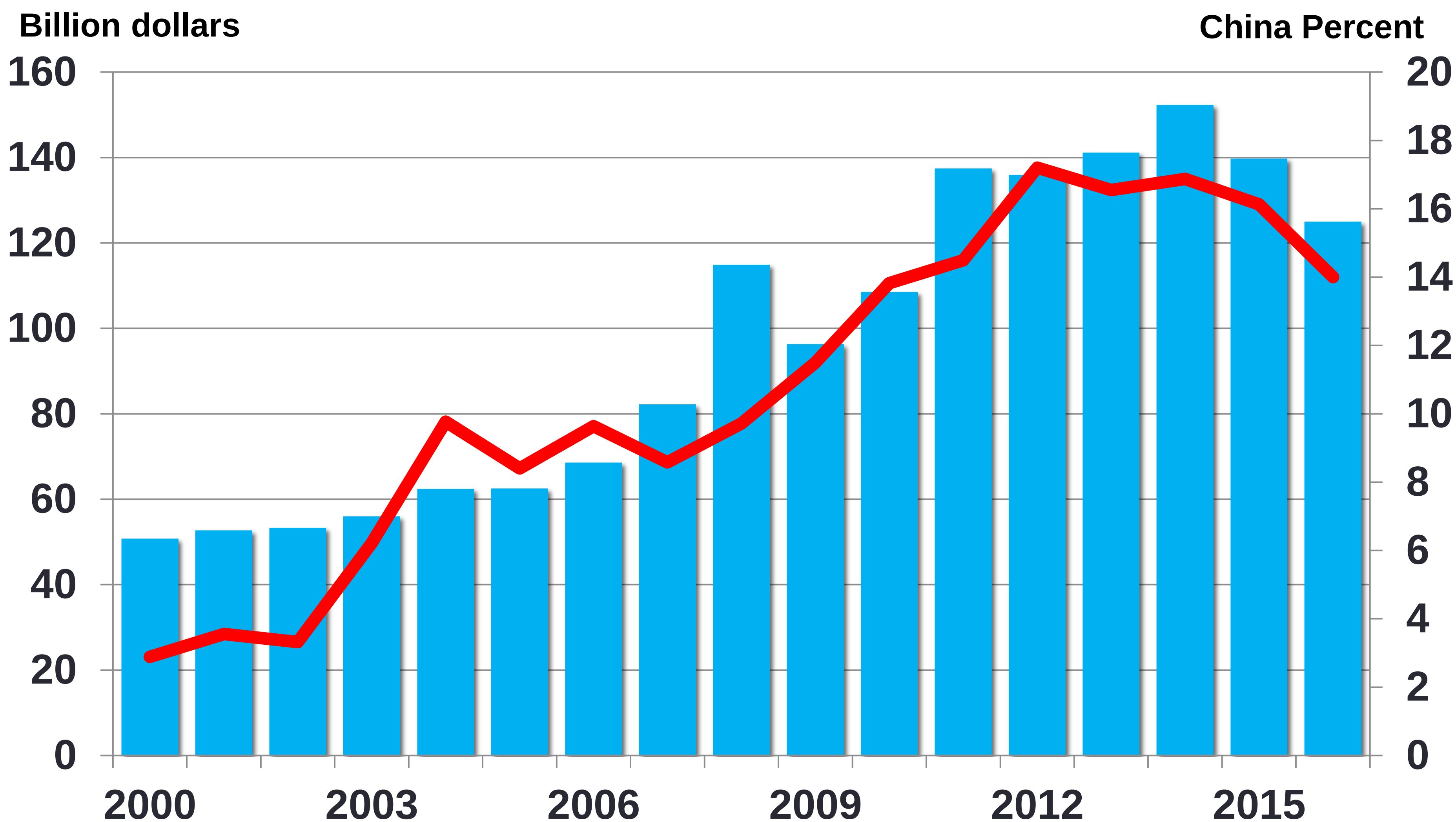
Domestic consumption of agricultural products



Source: OECD Producer and Consumer Support Estimates database, using USDA production and consumption data.

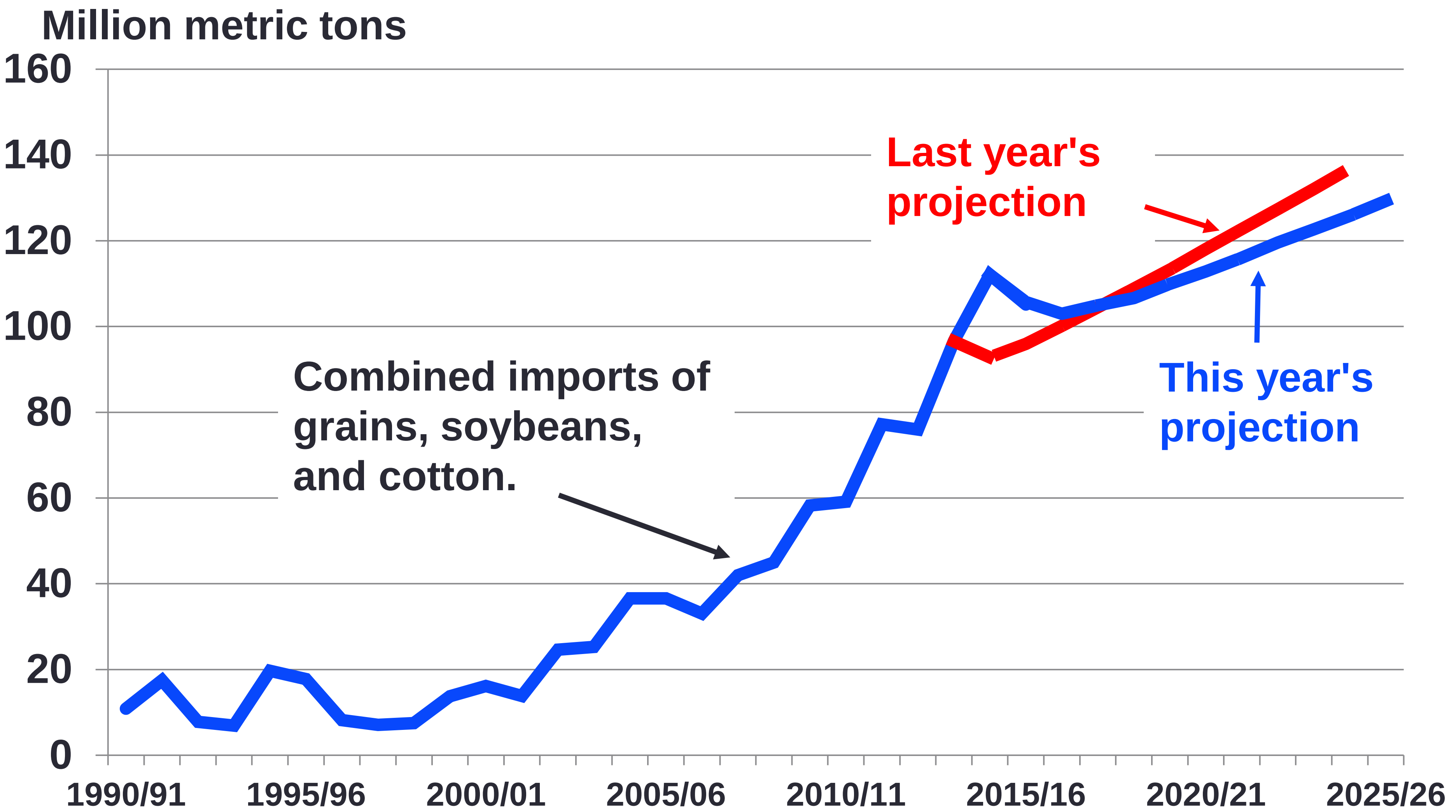
Ag Trade Outlook

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



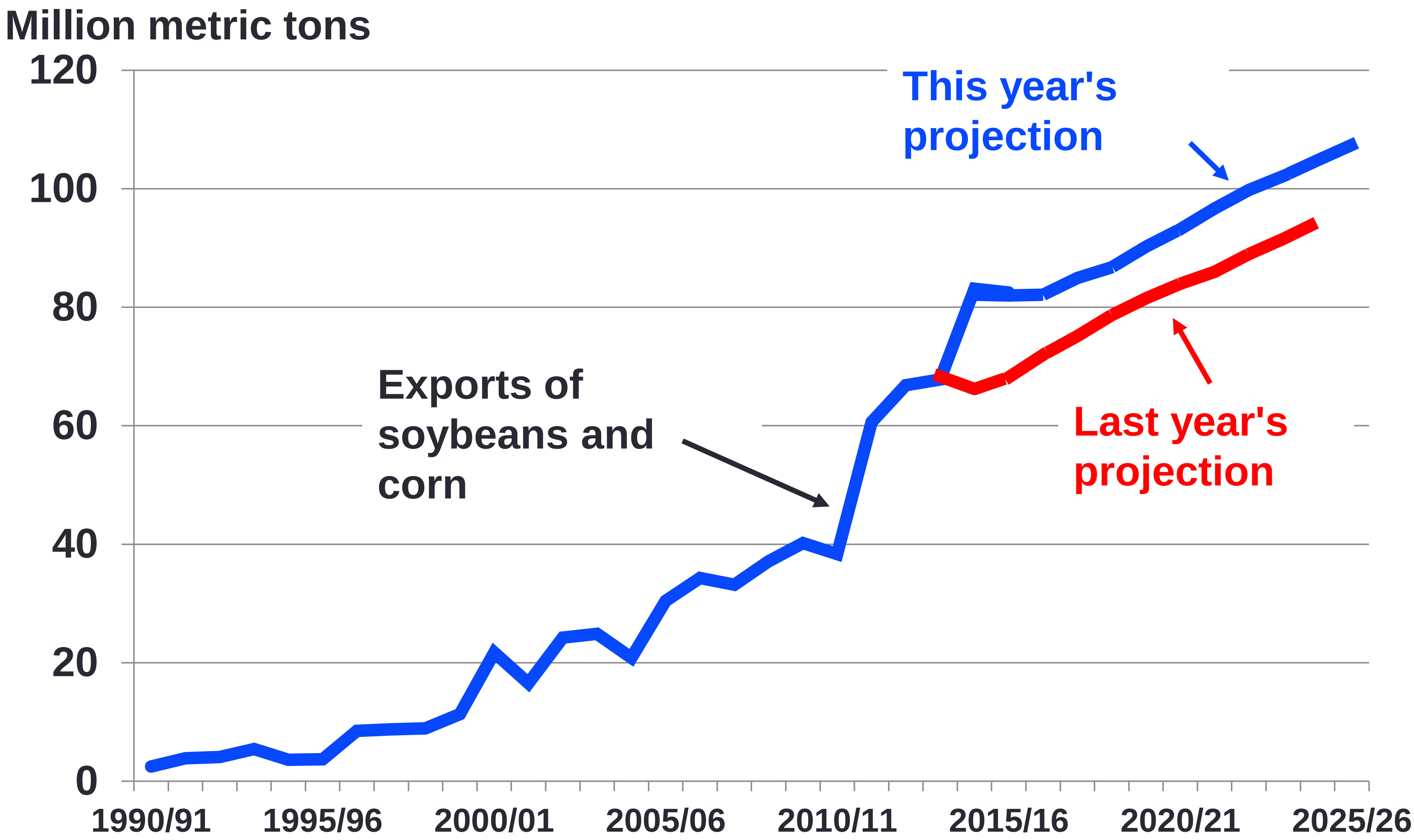
Source: USDA. Data are fiscal year.

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



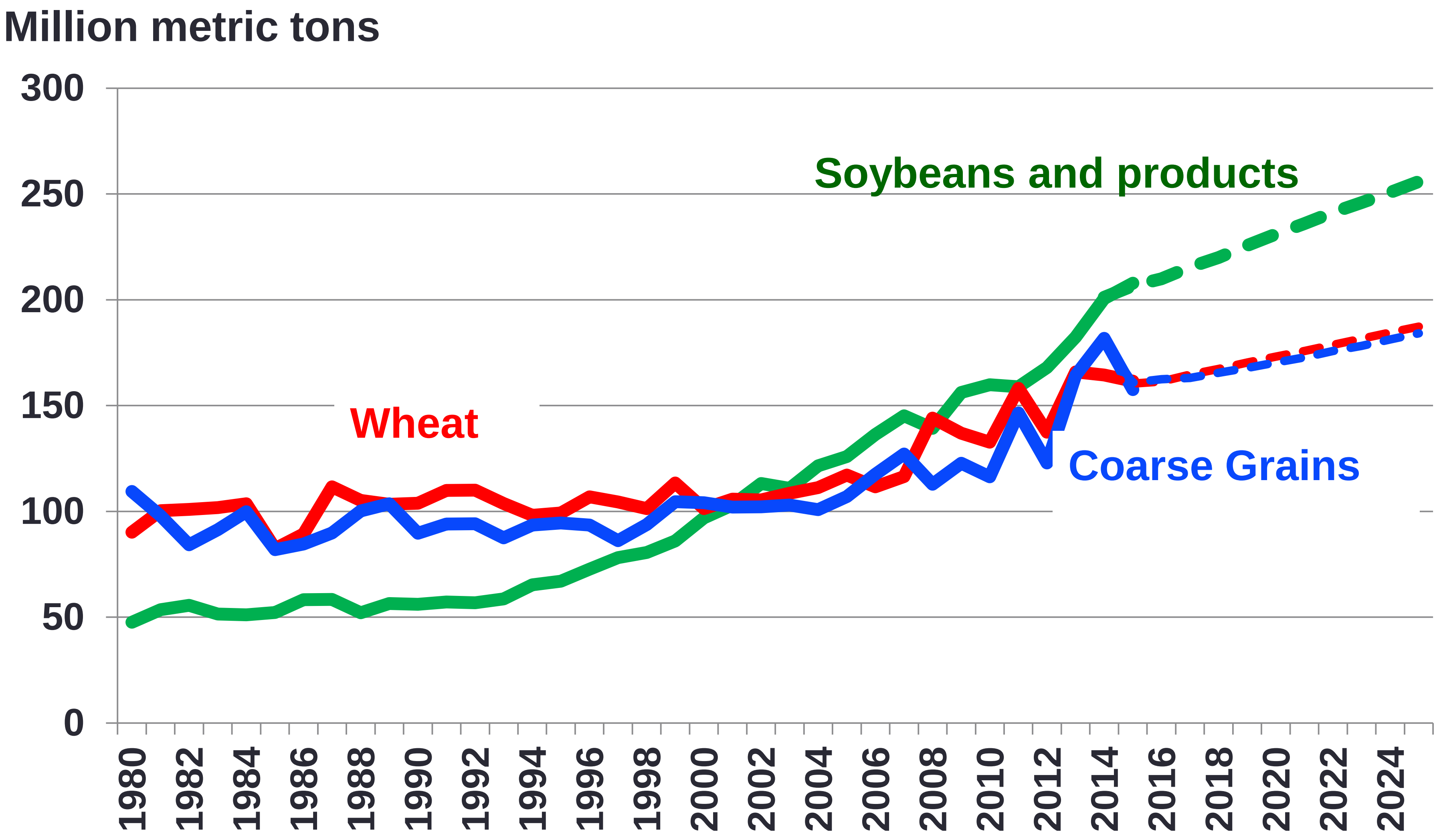
Source: USDA.

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



Source: USDA.

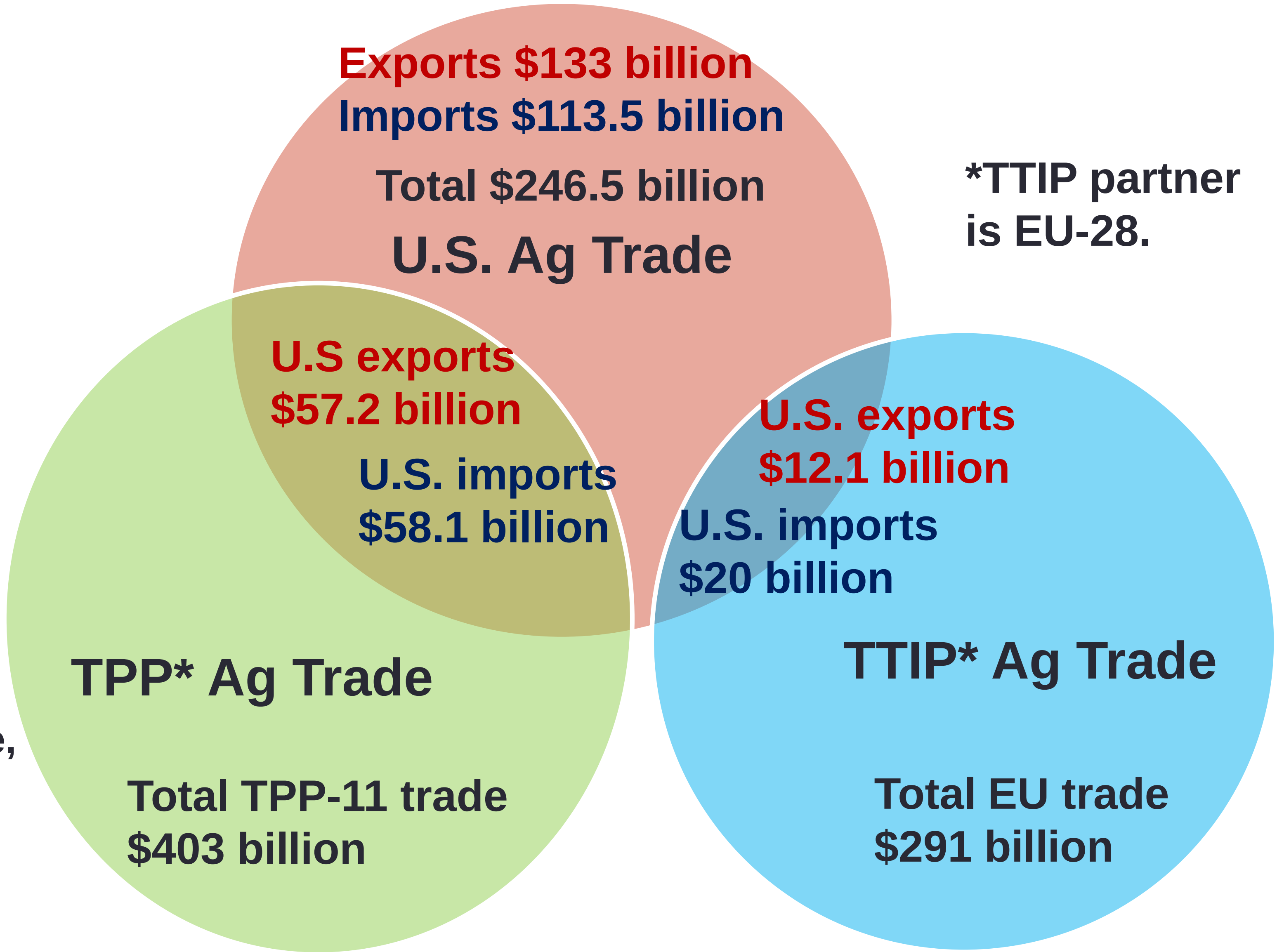
Global trade growth is expected to continue



Source: USDA.

Expanding U.S. ag exports through FTAs

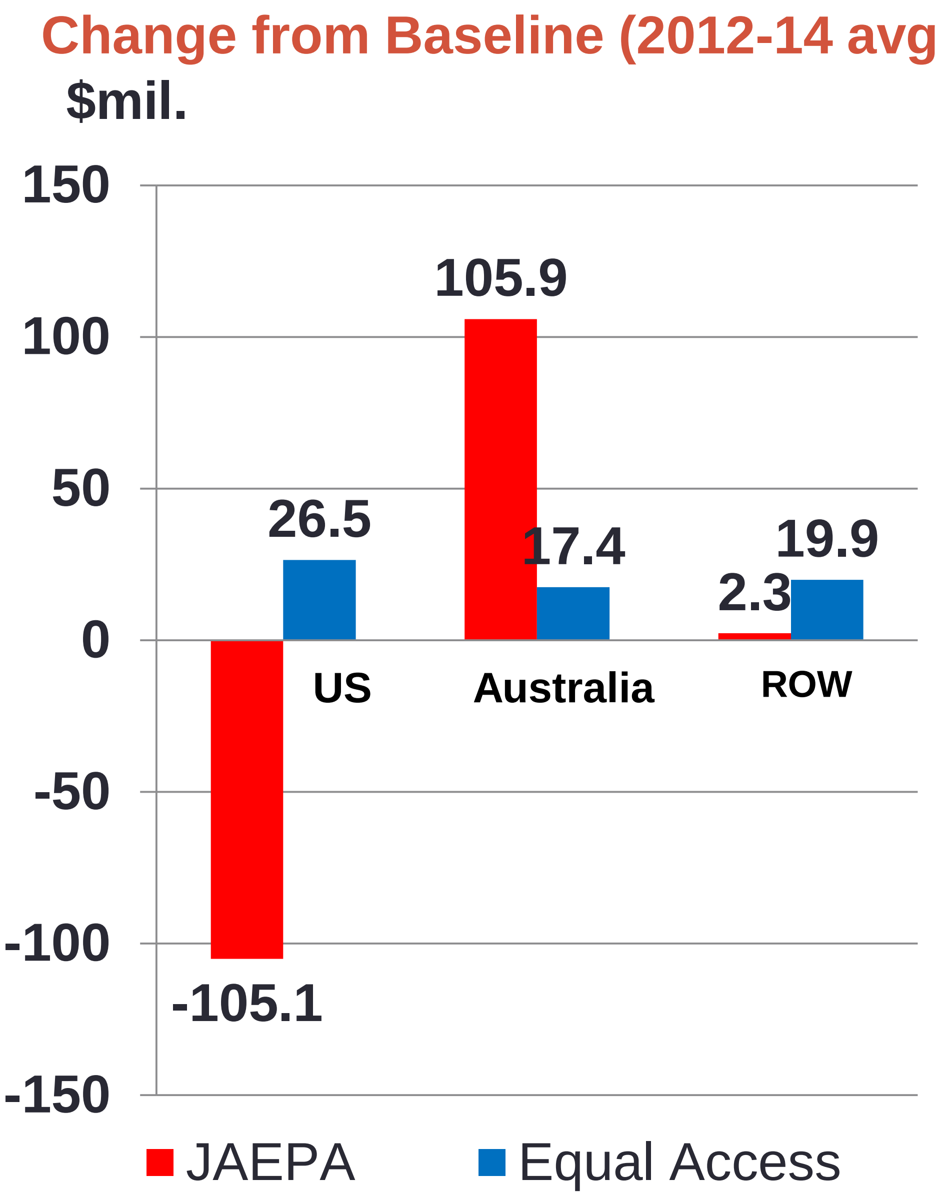
*TPP partners include Australia, Brunei, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, and Vietnam.

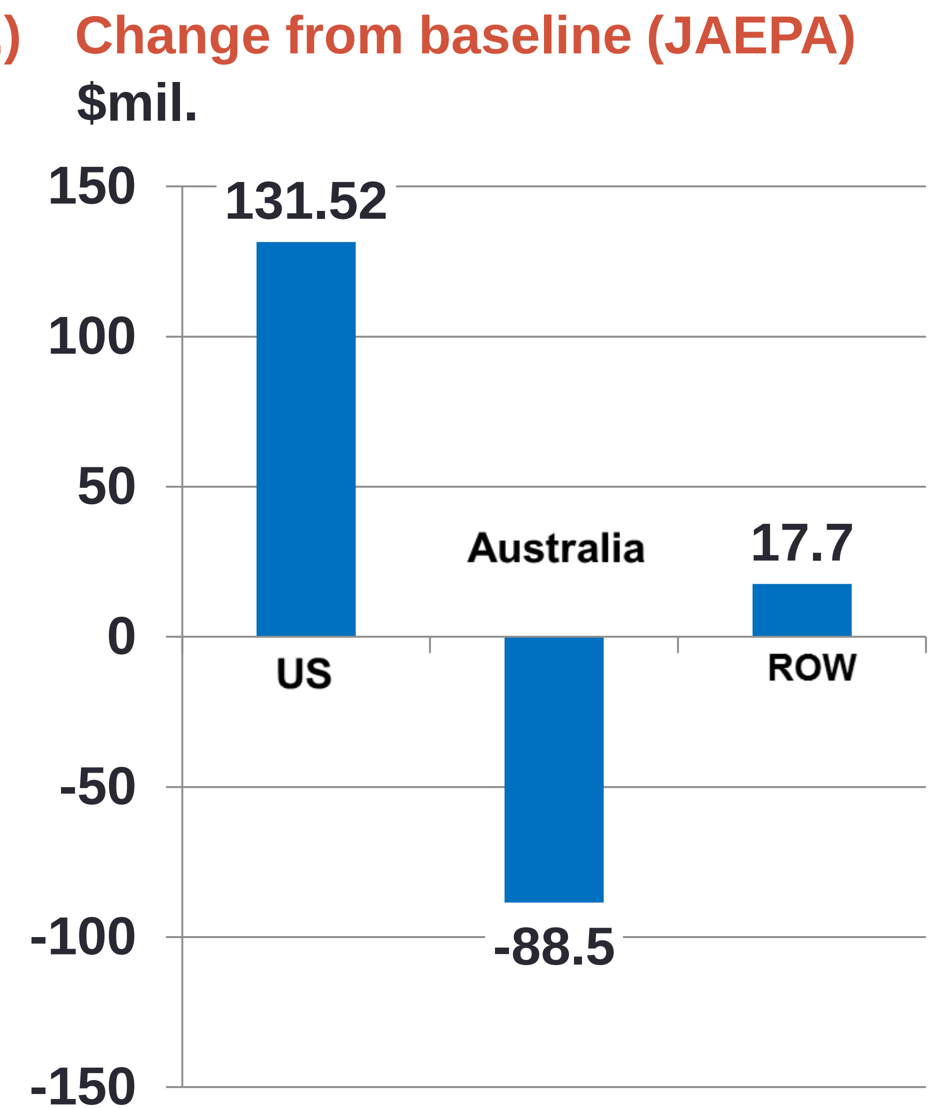


*TTIP partner is EU-28.

Source: USDA, European Commission. CY2014/2015 trade data.

FTAs help level the playing field – Japan beef





Source: USDA-ERS.

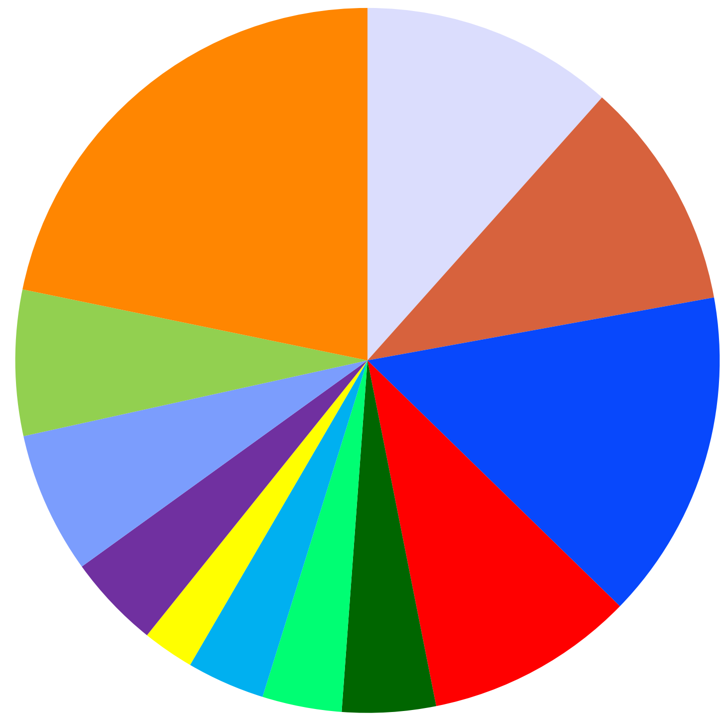
U.S. Ag Exports, 2014

Cuba

$286.4 million

Dominican Republic

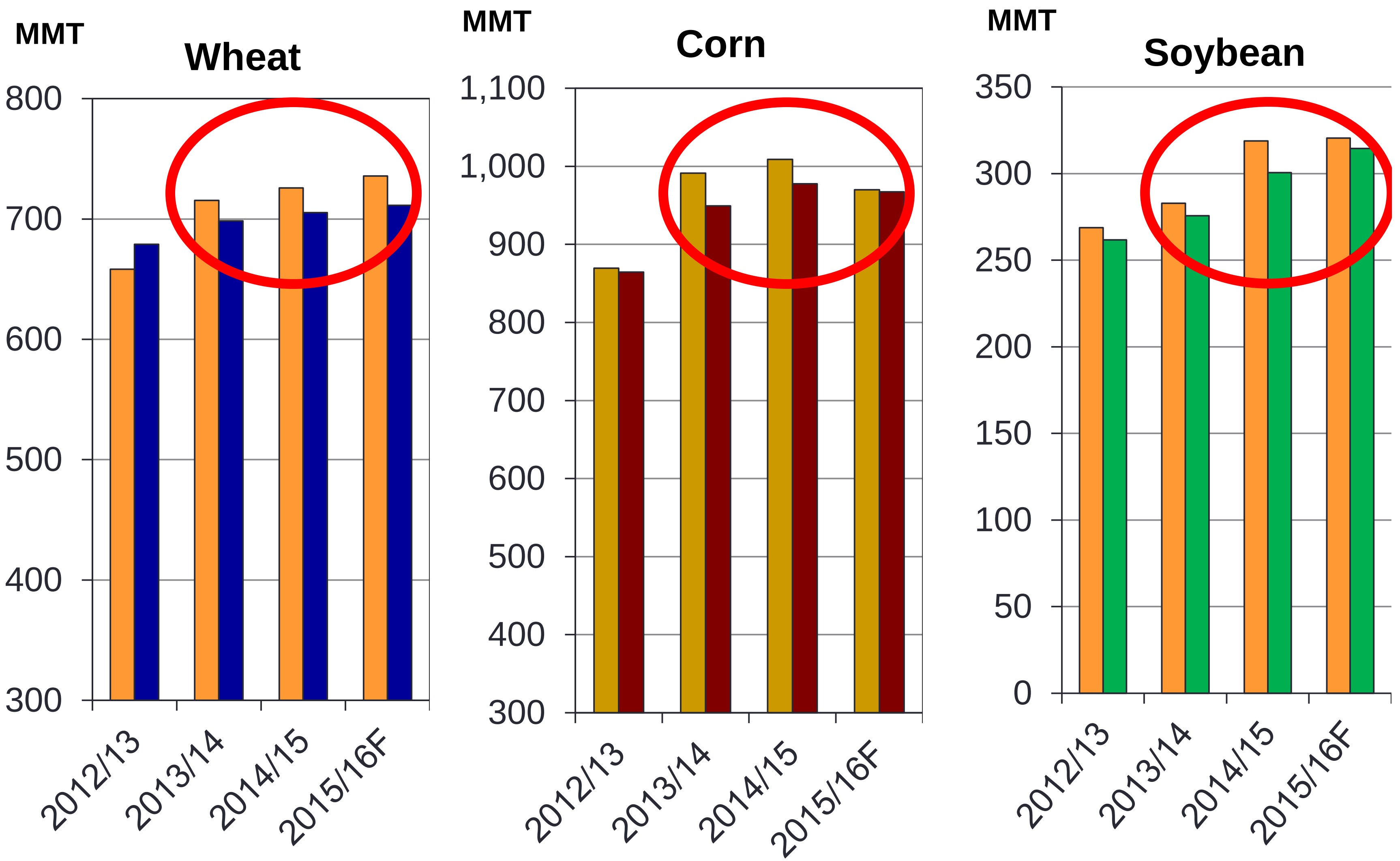
$1.29 billion



Data: USDA.

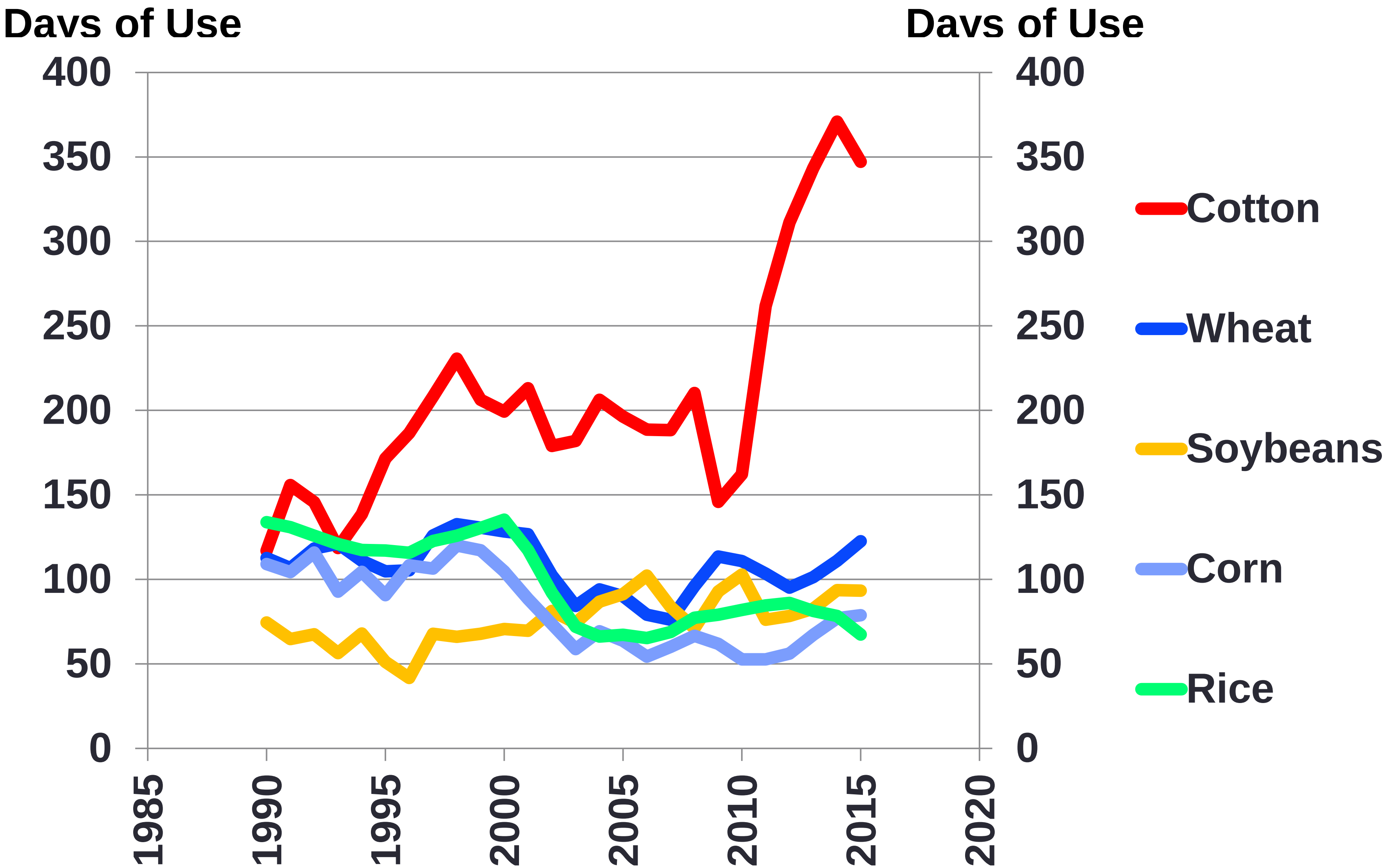
Outlook for Crops

Global production outstripping consumption



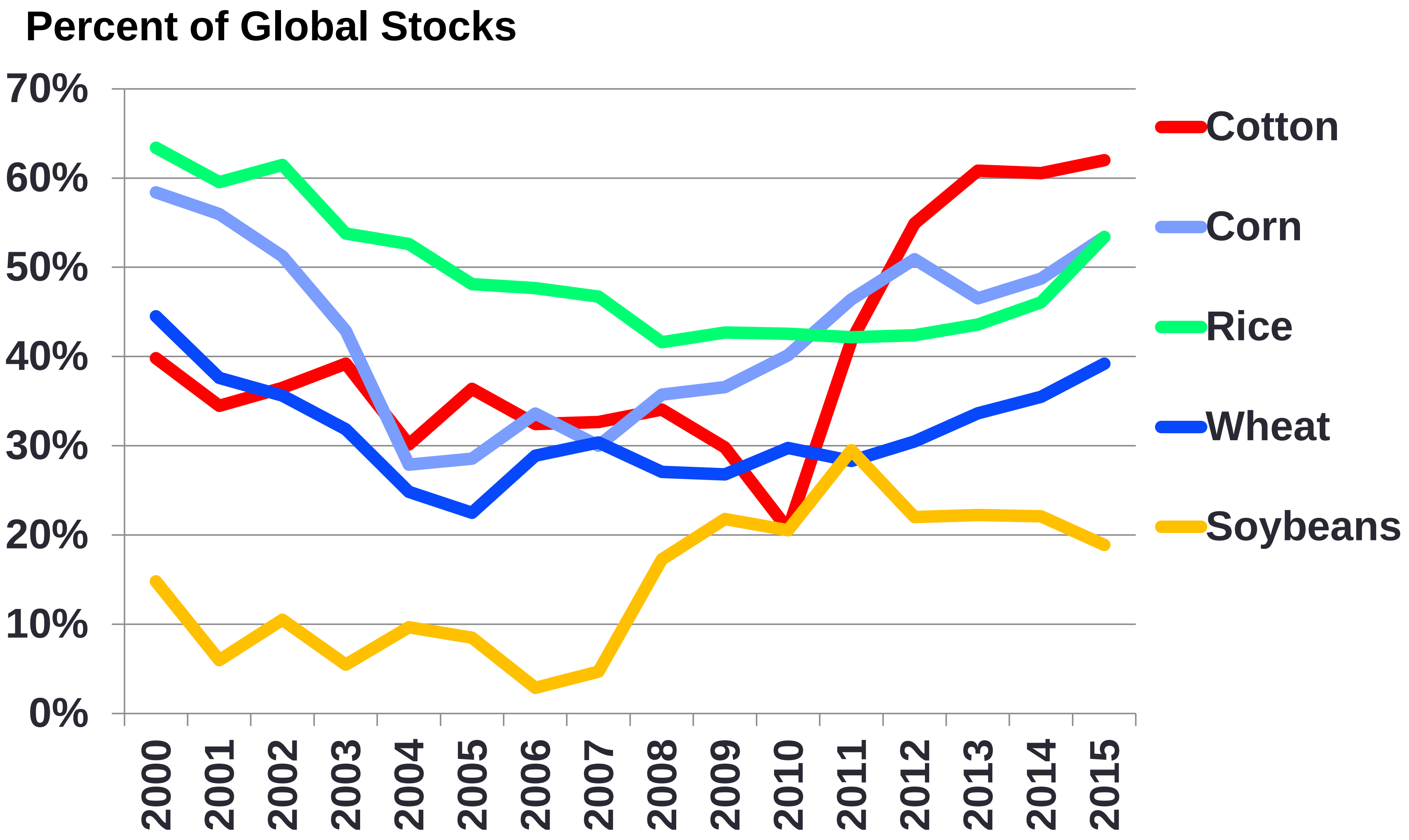
Source: USDA-OCE.

Global ending stocks edge up



Source: USDA.

China policies build stocks



Source: USDA, PSD database

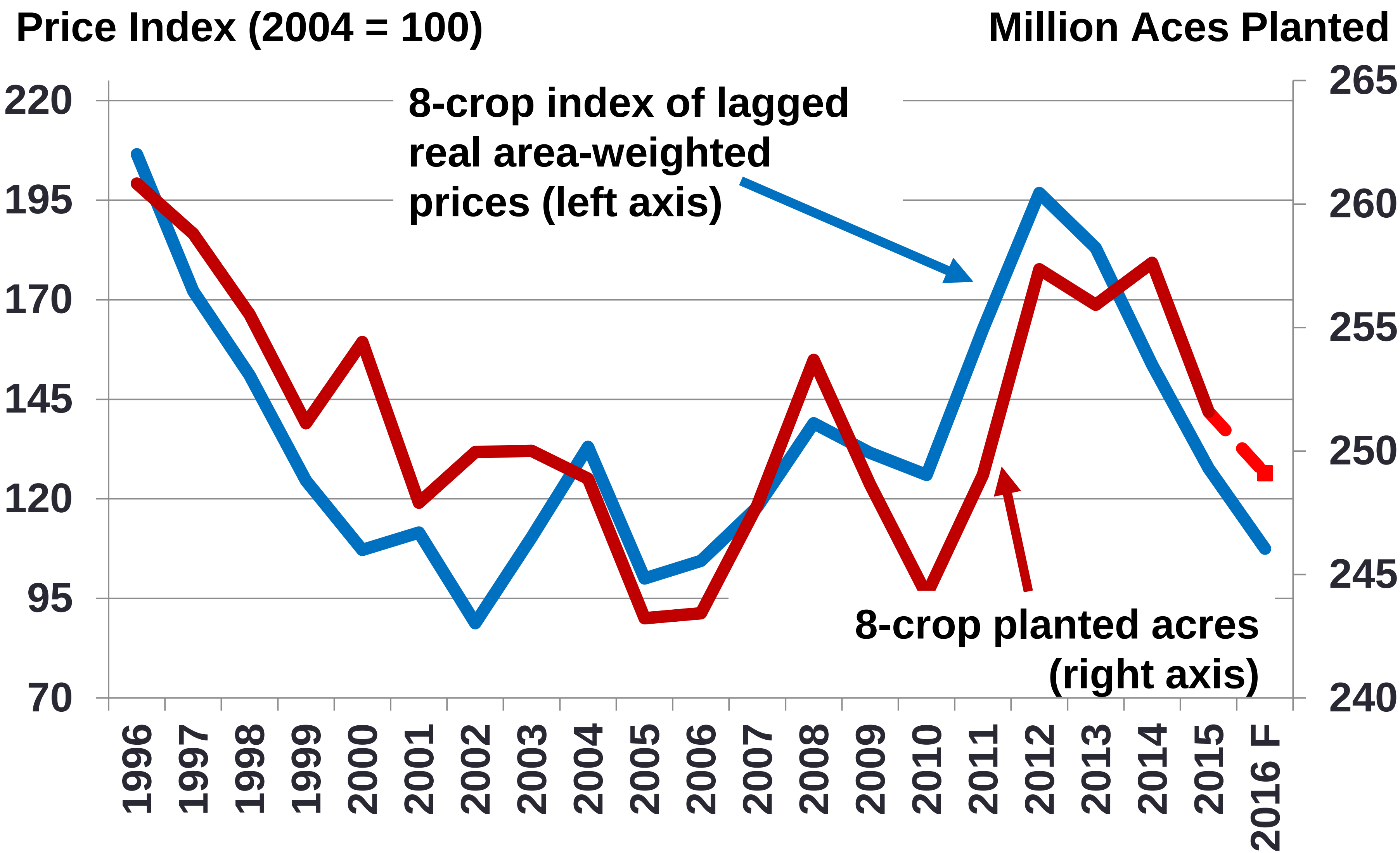
Corn, wheat, and soybean prices soften, but still above 2000-2003 average

Crop	Ave 2000-03	2011	2012	2013	2014	2015F	2016F
Wheat	3.1	7.2	7.8	6.9	6.0	5.0	4.20
Corn	2.1	6.2	6.9	4.5	3.7	3.6	3.45
Soybeans	5.5	12.5	14.4	13.0	10.1	8.8	8.50
Upland Cotton	46.5	88.3	72.5	77.9	61.3	59.5	58.0
All Rice	5.6	14.5	15.1	16.3	13.3	12.9	12.90

Source: USDA-NASS, OCE.

Red denotes record high.

Last year's prices point towards a fall in area



Cropland area expected to remain high in 2016, but down again from last year

Crop (mil. Acres)	2011	2012	2013	2014	2015	2016F	% change
Corn	91.9	97.3	95.4	90.6	88.0	90.0	2.3%
Soybeans	75.0	77.2	76.8	83.3	82.7	82.5	-0.2%
Wheat	54.3	55.3	56.2	56.8	54.6	51.0	-6.7%
All cotton	14.7	12.3	10.4	11.0	8.6	9.4	9.6%
M. feedgrains	10.4	12.6	14.6	12.9	15.1	13.4	9.1%
Rice	2.7	2.7	2.5	3.0	2.6	2.8	7.1%
Total 8 crops	249.0	257.4	255.9	257.6	251.6	249.1	-1.0%
CRP	31.1	29.5	26.8	25.5	24.2	23.7	-2.1%
8 crops + CRP	280.2	286.9	282.8	283.2	275.8	272.8	-1.1%

Source: USDA-OCE.

[1]All cotton, includes both upland and ELS cotton

Outlook for Livestock and Dairy

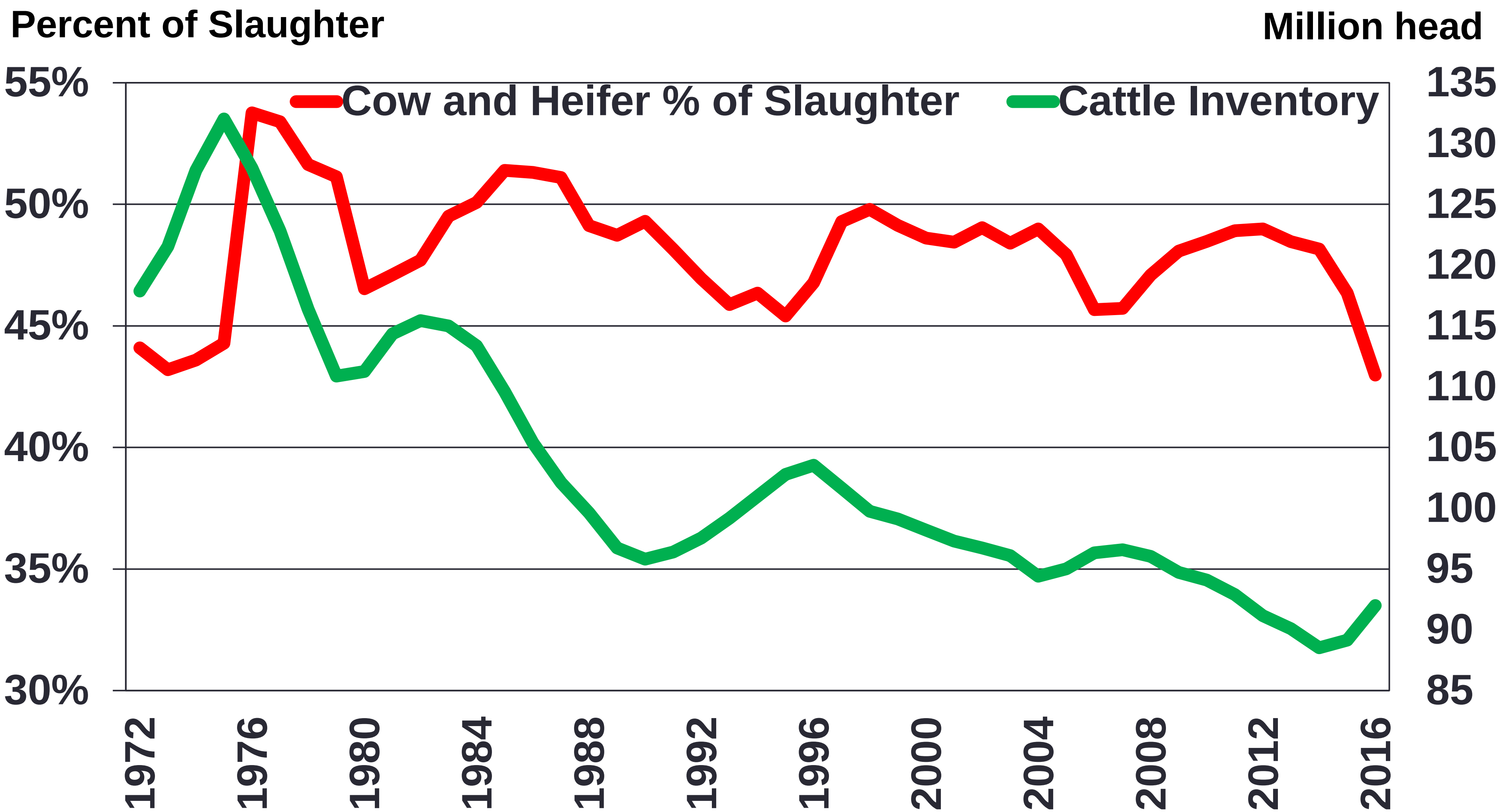
Beef, pork, and poultry production higher in 2016

Animal products	2011	2012	2013	2014	2015	2016F	% change
Billion Pounds							
Beef	26.2	25.9	25.7	24.3	23.7	24.6	3.8
Pork	22.8	23.3	23.2	22.8	24.5	25.0	2.2
Broilers	37.2	37.0	37.8	38.6	40.0	41.0	2.5
Total	92.8	93.0	93.3	92.2	94.6	97.4	2.9
Billion Pounds							
Milk	196.3	200.6	201.2	206.0	208.5	211.9	1.6

Source: USDA.

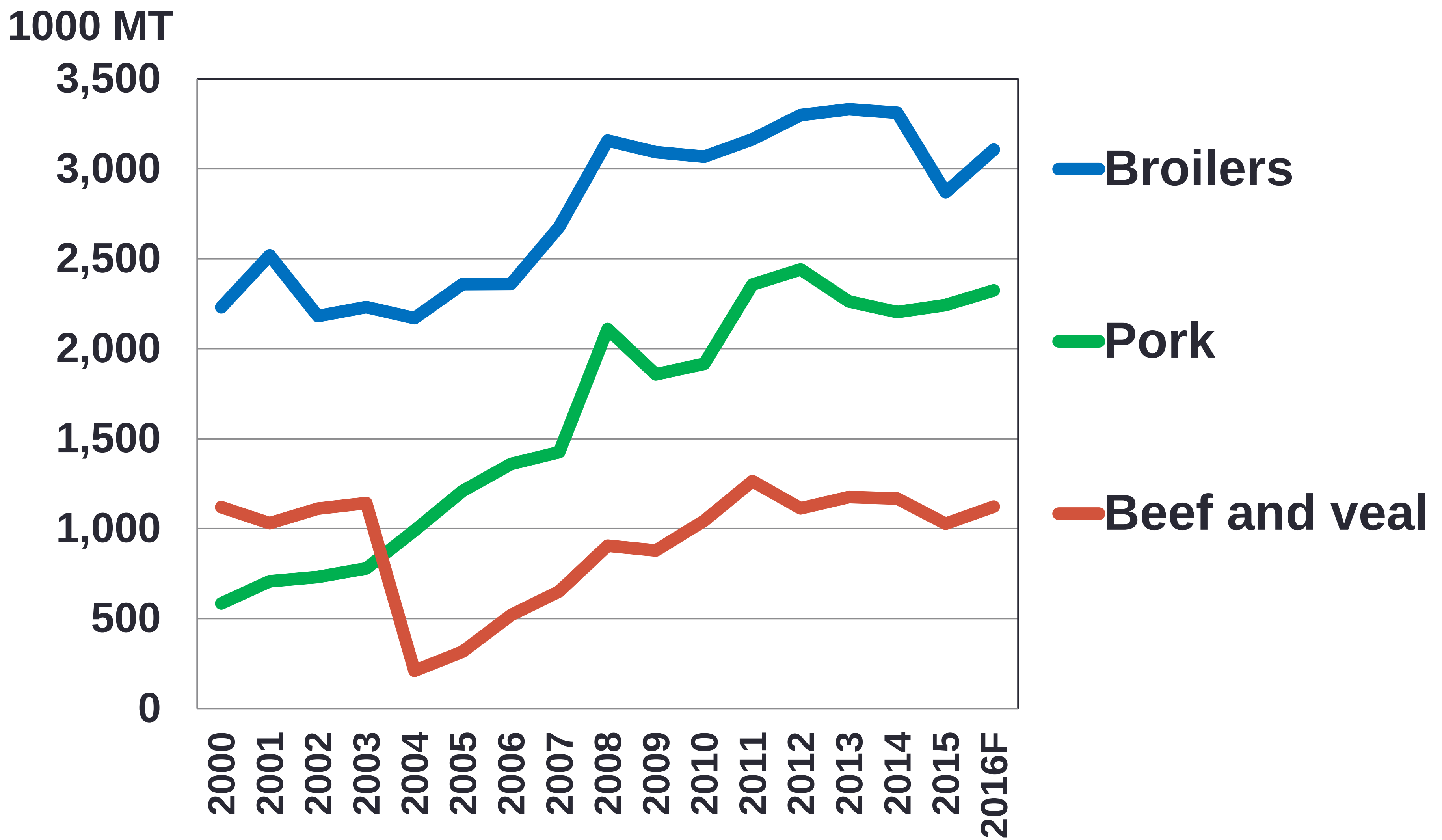
Data in red denote record levels.

Herd rebuilding continues



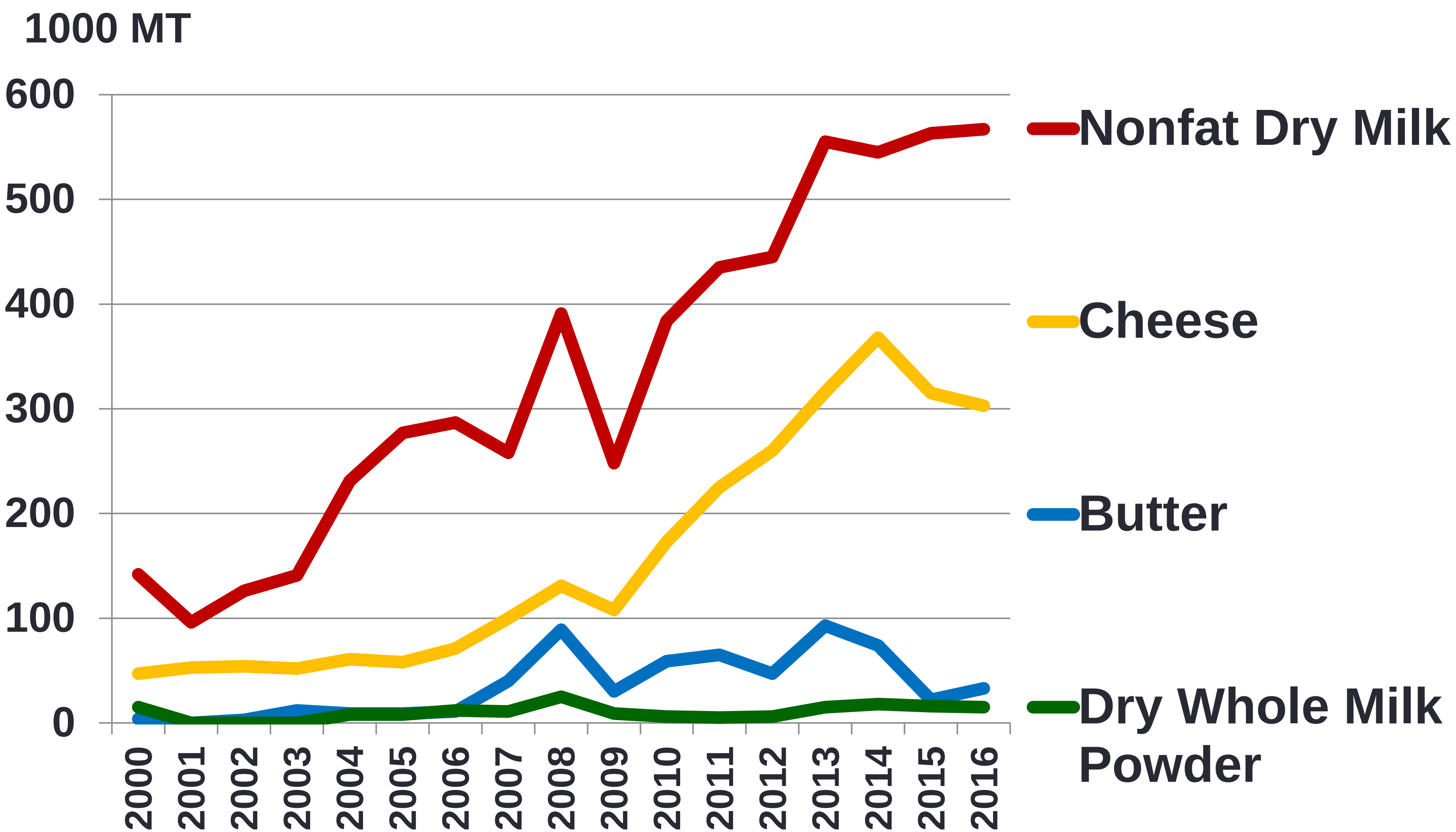
Source: USDA-NASS.

Meat exports expected to increase



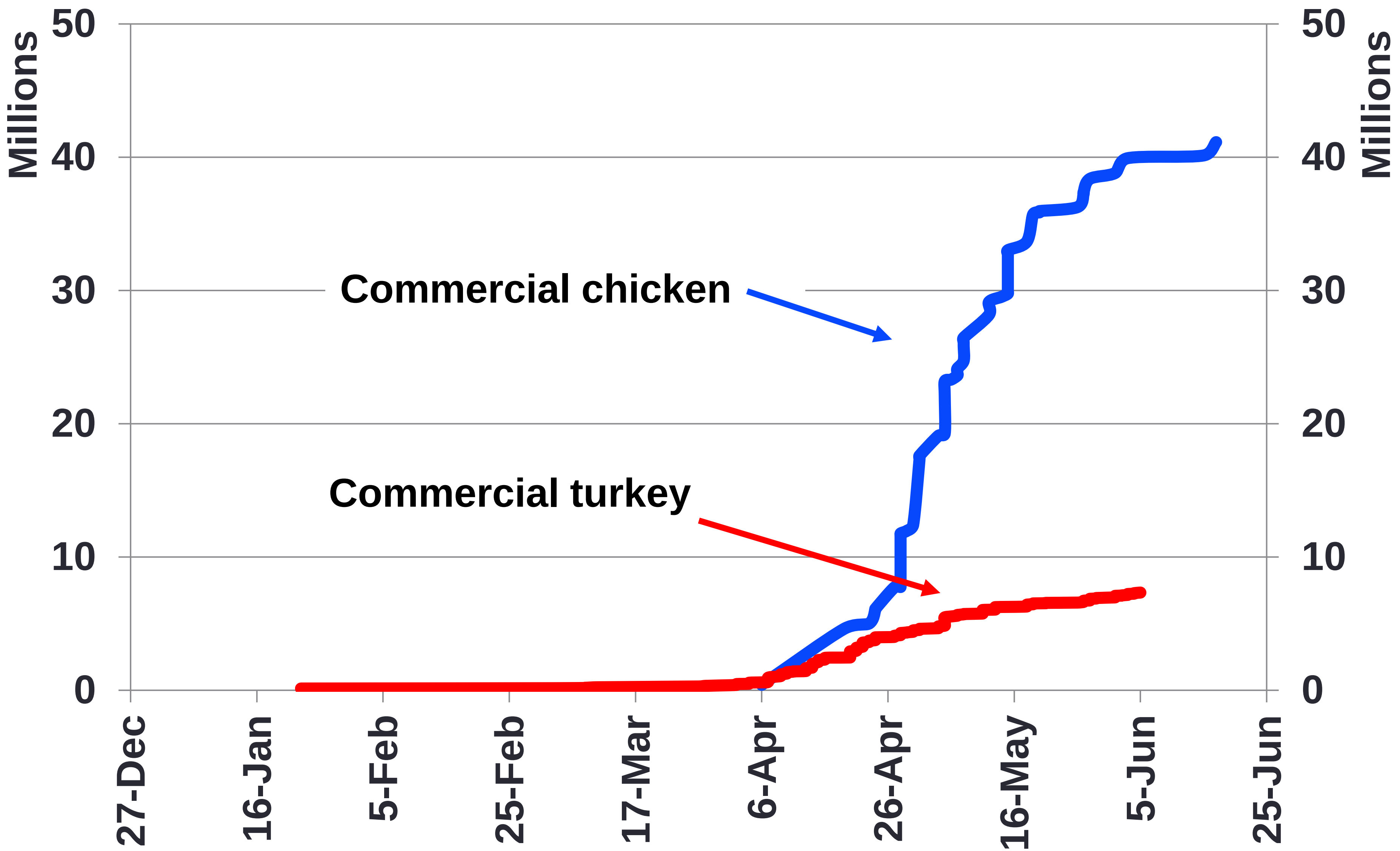
Source: USDA-OCE.

Dairy exports reflect continued demand weakness and large global supplies



Source: USDA.

HPAI mortality approached 50 million birds



Source: USDA-APHIS

Cattle, Hog, dairy, and broiler prices expected to come down from 2015

Animal products	2011	2012	2013	2014	2015	2016F	% change
	Dollars per cwt						
Steers	114.7	122.9	125.9	154.6	148.1	137.3	-7.3
Hogs	66.1	60.9	64.1	76.0	50.2	47.3	-5.9
Broilers	79.9	86.6	99.7	104.9	90.5	87.5	-3.3
Milk	20.1	18.5	20.1	24.0	17.1	15.7	-8.4

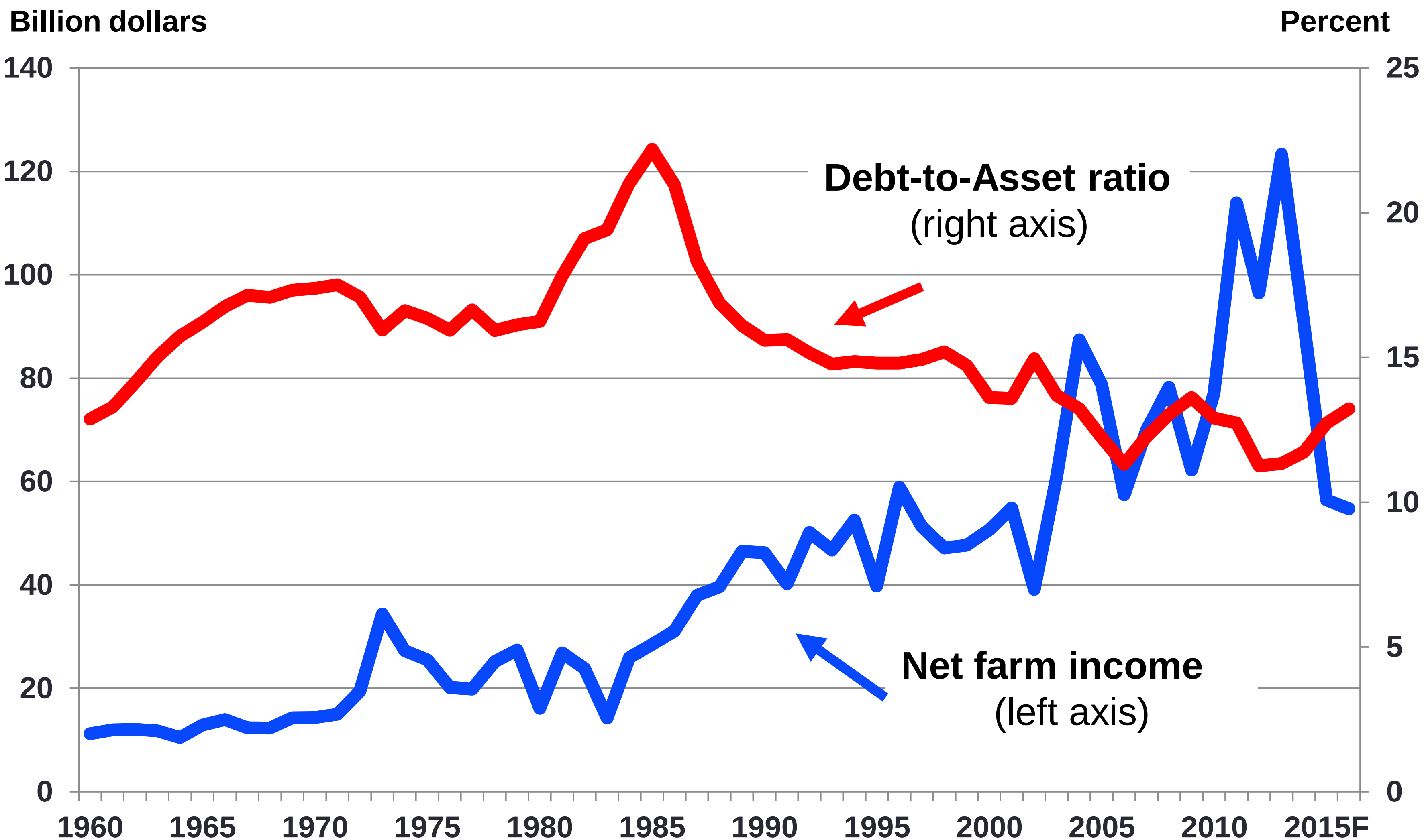
Source: USDA-OCE.

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



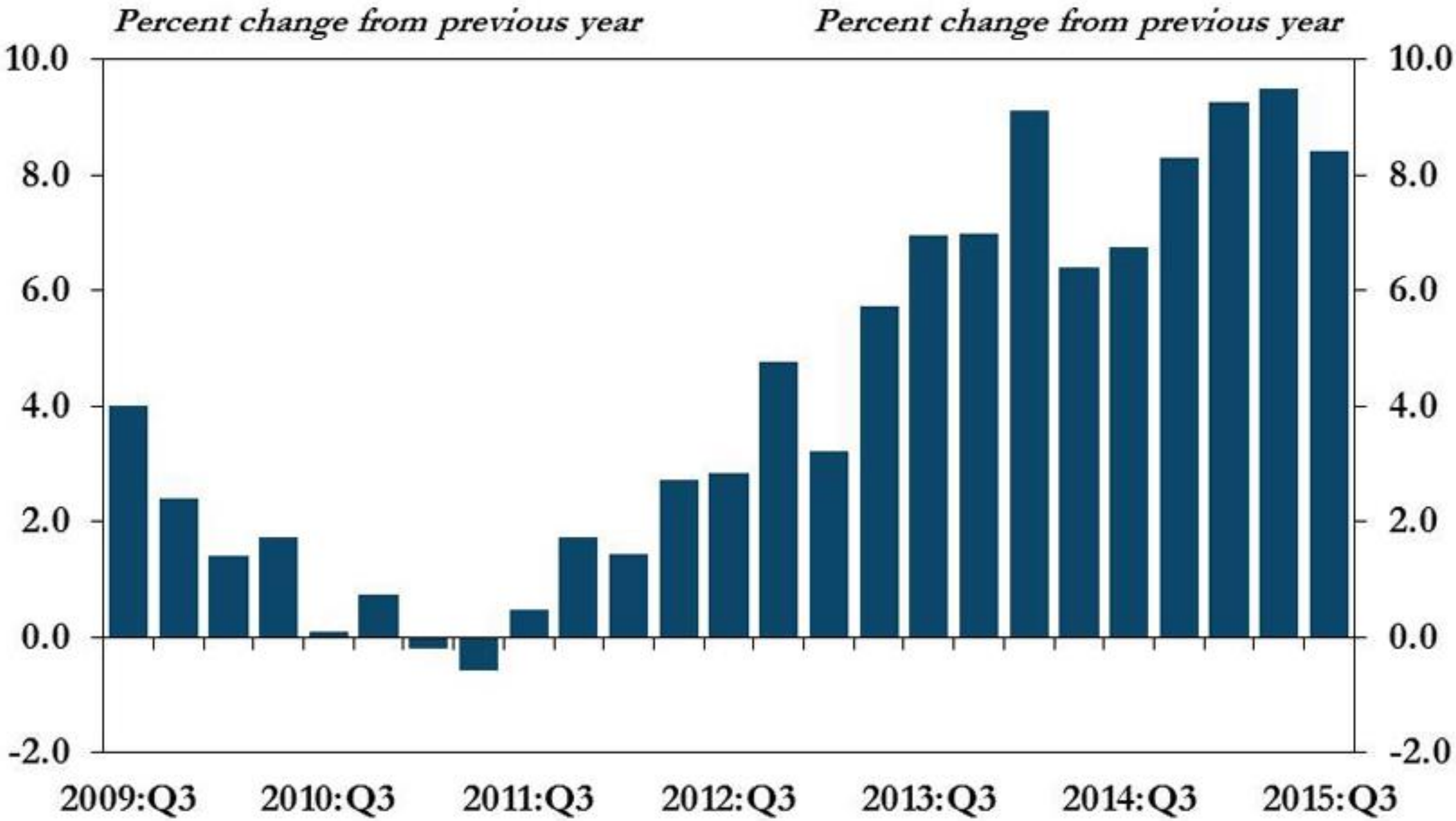
Data: USDA-ERS.

Illinois case shows crop budgets tightening

	Corn After Soybeans	Soybeans After Corn
Fertilizers and pesticides	$190.00	$75.00
Seed	$122.00	$76.00
Crop insurance and other direct costs	$55.00	$23.00
Machinery and power	$124.00	$113.00
Total non-land costs	$558.00	$348.00
Yield	201.00	58.00
Price	$3.45	$8.50
ARC-CO	$30.00	$30.00
Crop Revenue	$723.45	$523.00
Revenue to cover rent and salary	$165.45	$175.00
Cash Rent for Illinois	$228	$228

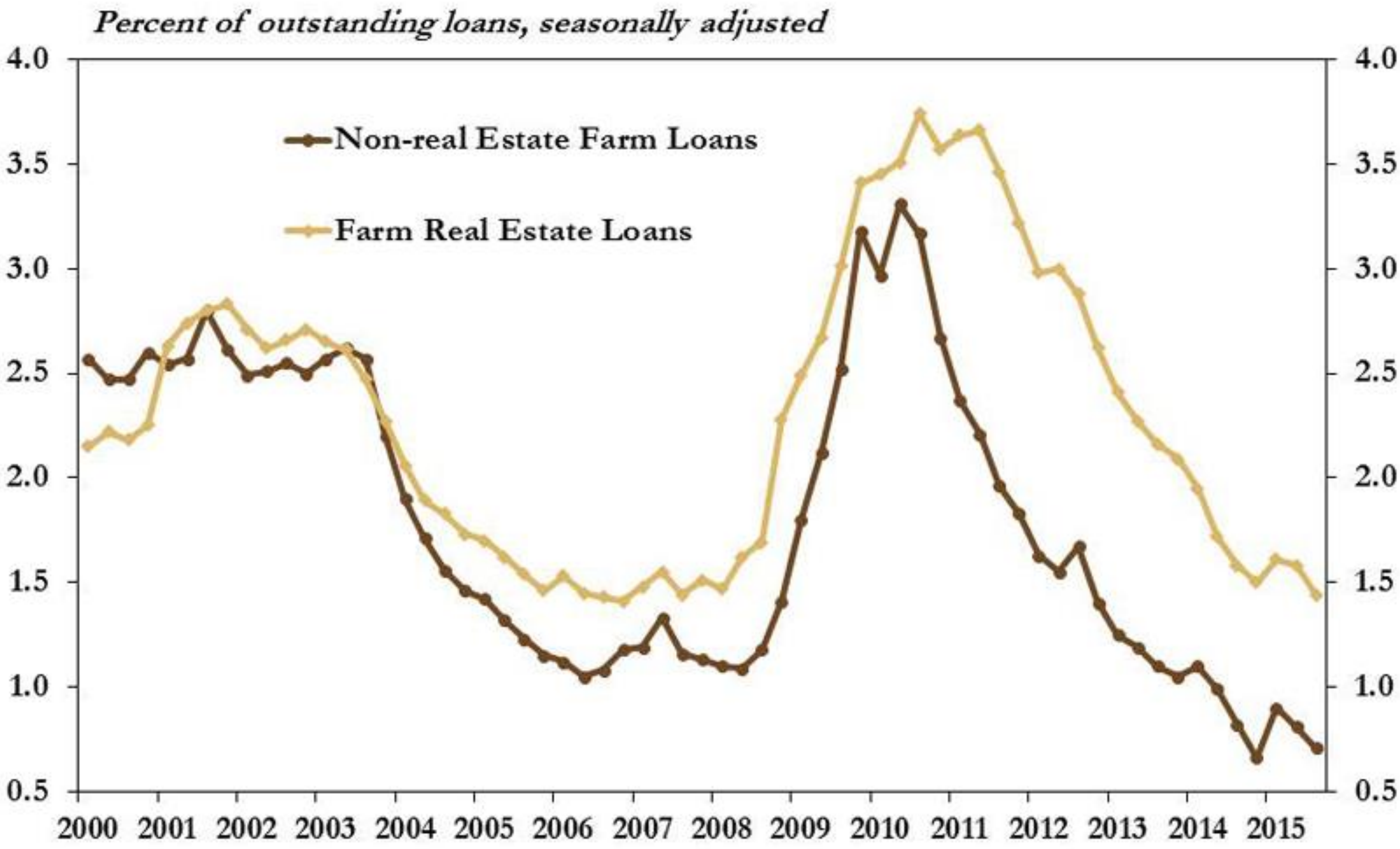
Source: USDA-NASS, Univ. of Illinois.

Farm debt continues to increase at commercial banks



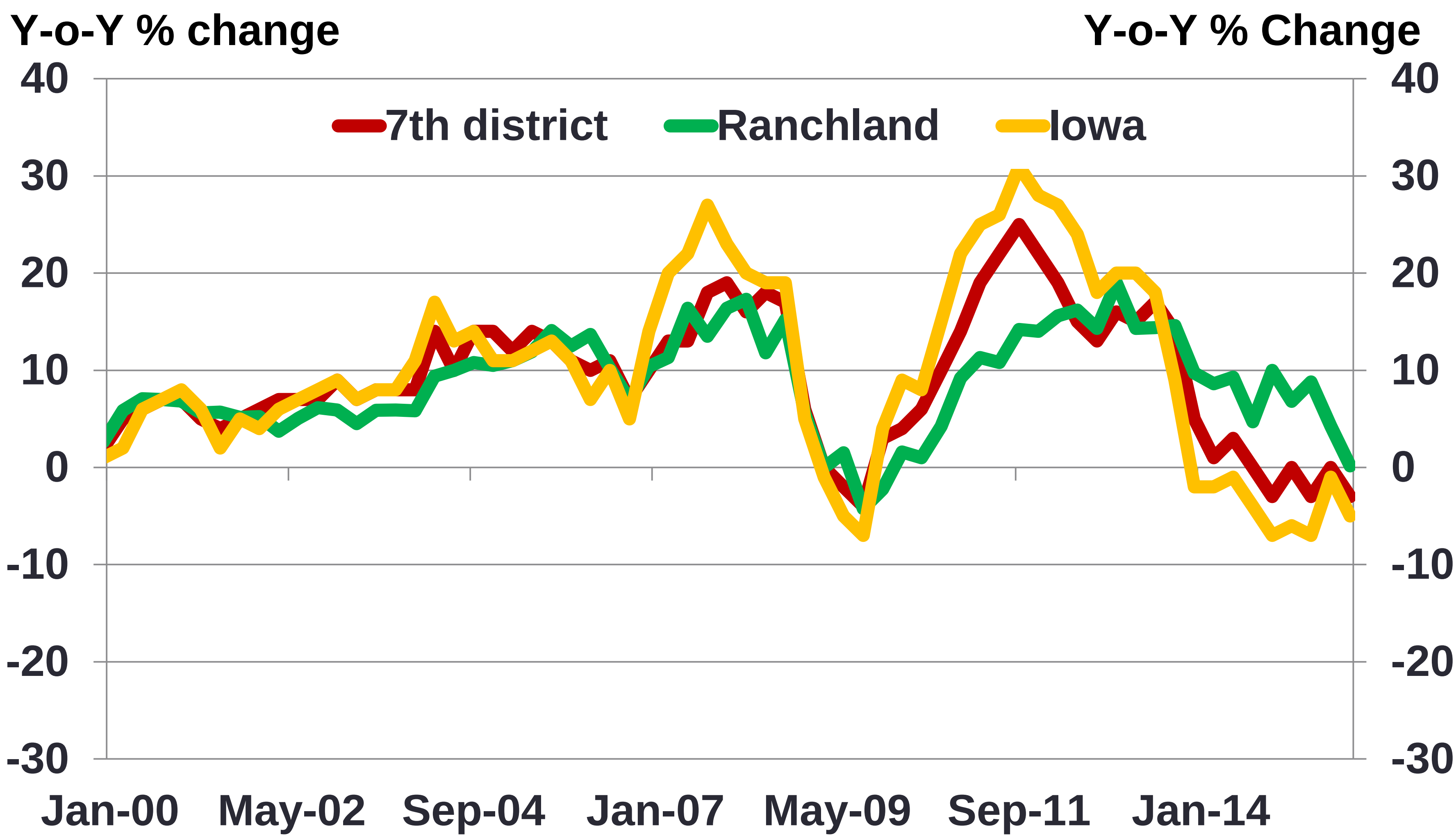
Source: Kauffman, Cowley, and Clark (2016)
Data: Federal Reserve Board of Governors.

Delinquency rates on farm loans fall



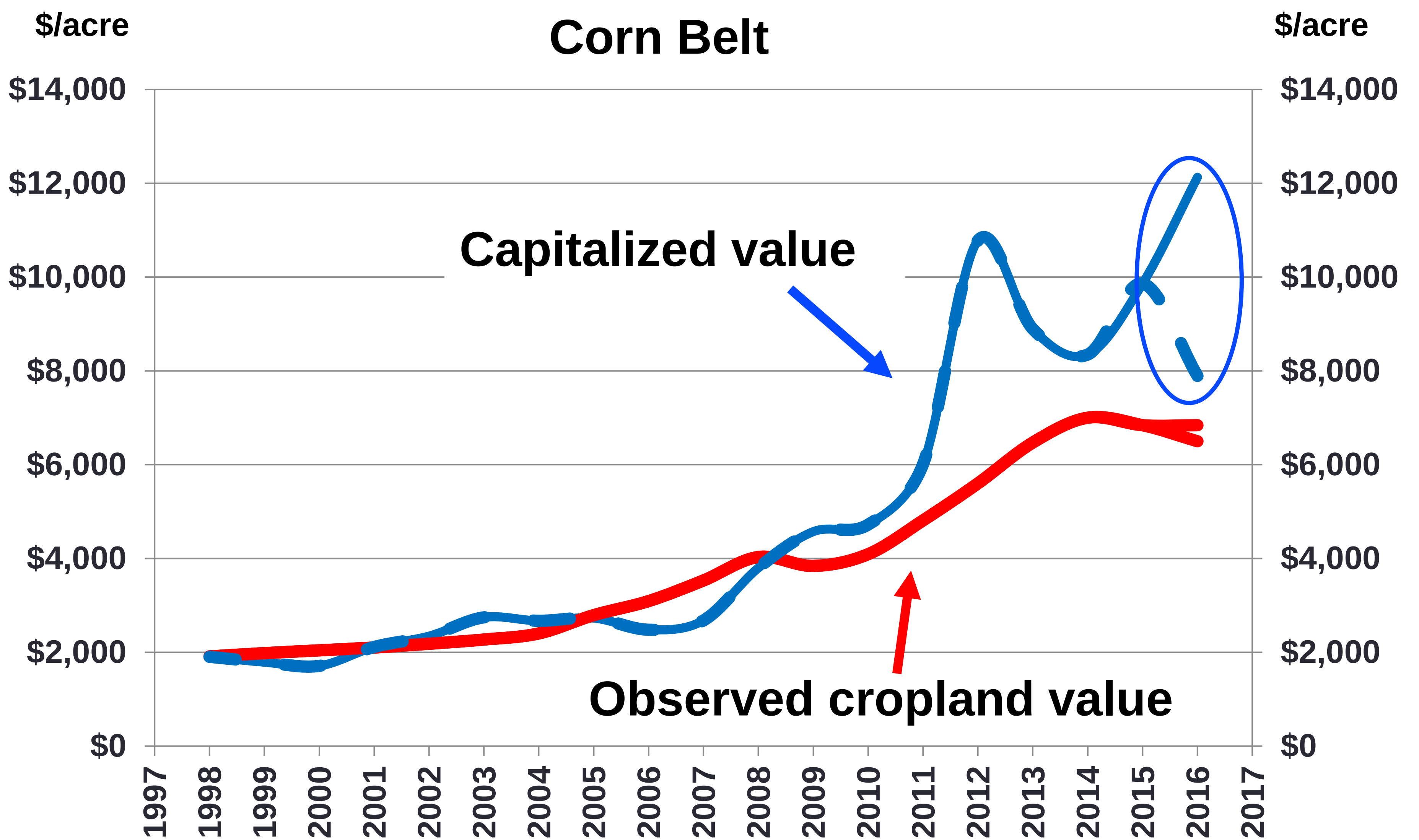
Source: Kauffman, Cowley, and Clark (2016)
Data: Federal Reserve Board of Governors.

Land values flatten, falling in some areas



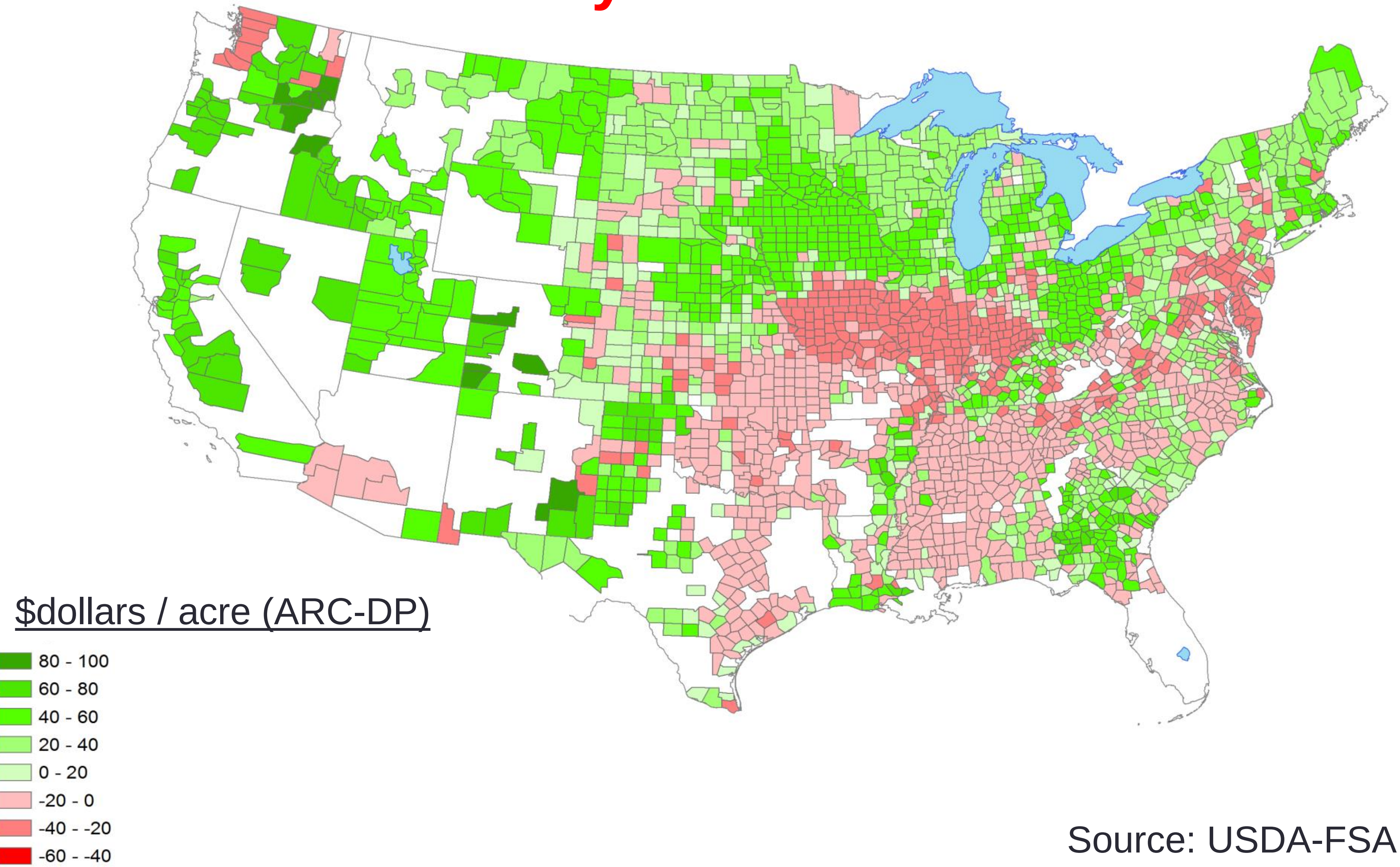
Data: 7th district and Iowa, Chicago Federal Reserve; and Ranchland, K.C. Federal Reserve

Capitalized land value still far above actuals



Data: USDA-NASS, St. Louis Fed.

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



Source: USDA-FSA.

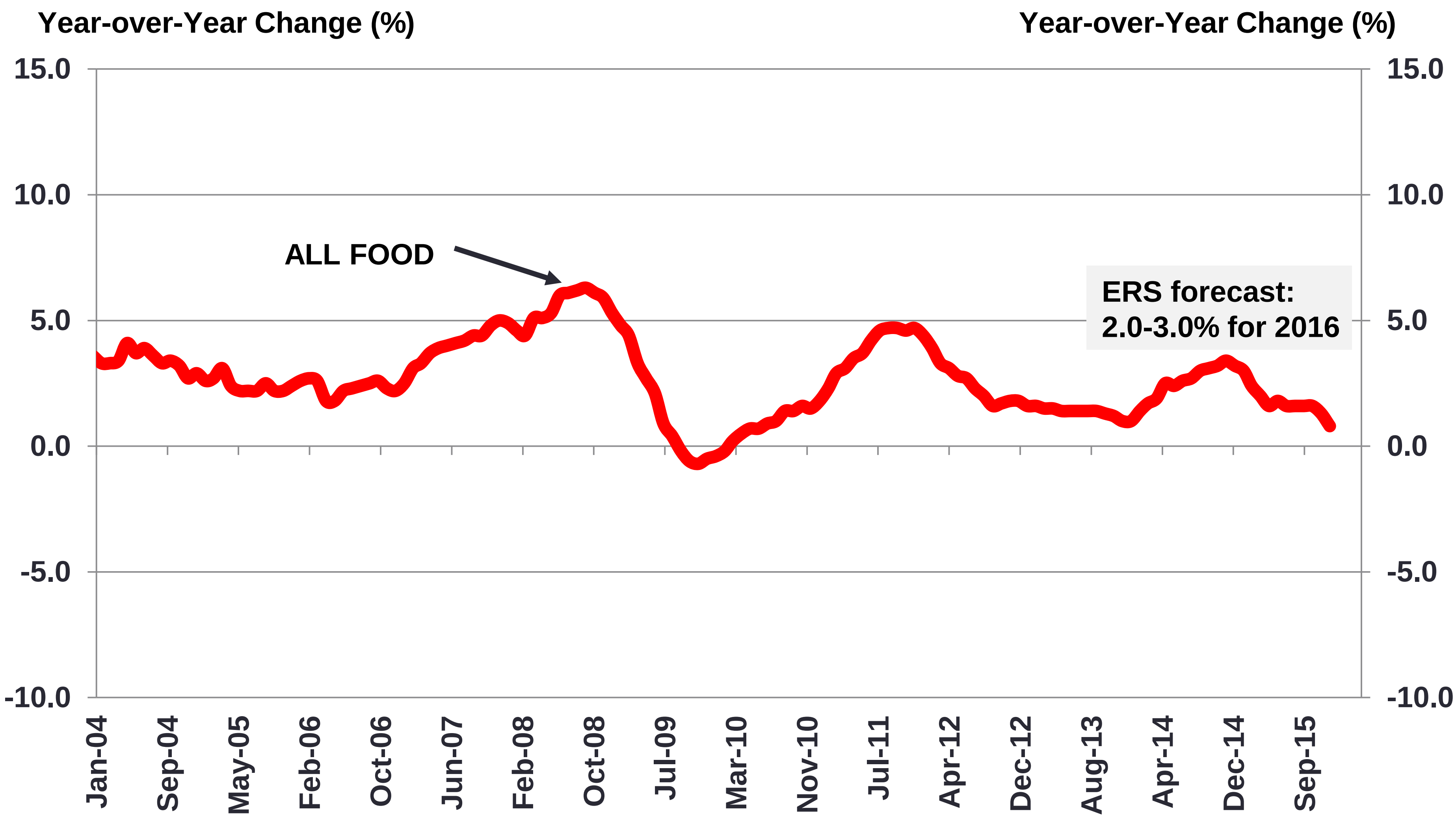
Crop insurance continues to play a critical role in farmers' risk management plans

2015	Percent of Planted Acres		
Crop	CAT	Buy-Up	All
Corn	3%	83%	86%
Soybeans	3%	84%	87%
Wheat	4%	80%	84%
Cotton	6%	88%	94%
Rice	17%	65%	82%
Potatoes	42%	34%	76%
Grain Sorghum	4%	70%	74%
Peanuts	9%	82%	91%
Barley	6%	66%	72%

Source: RMA

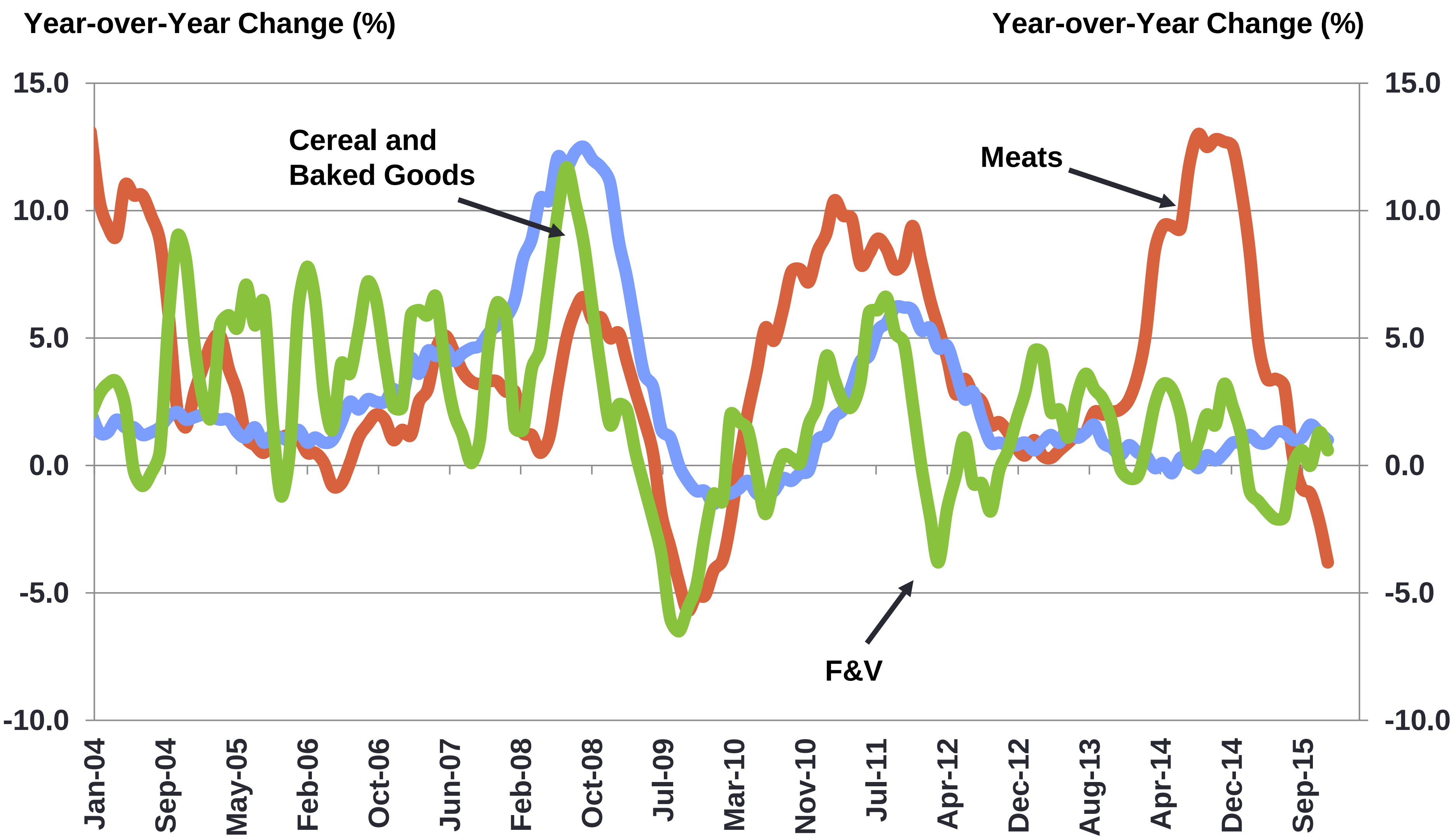
Outlook for Food Prices

Food CPI remains low



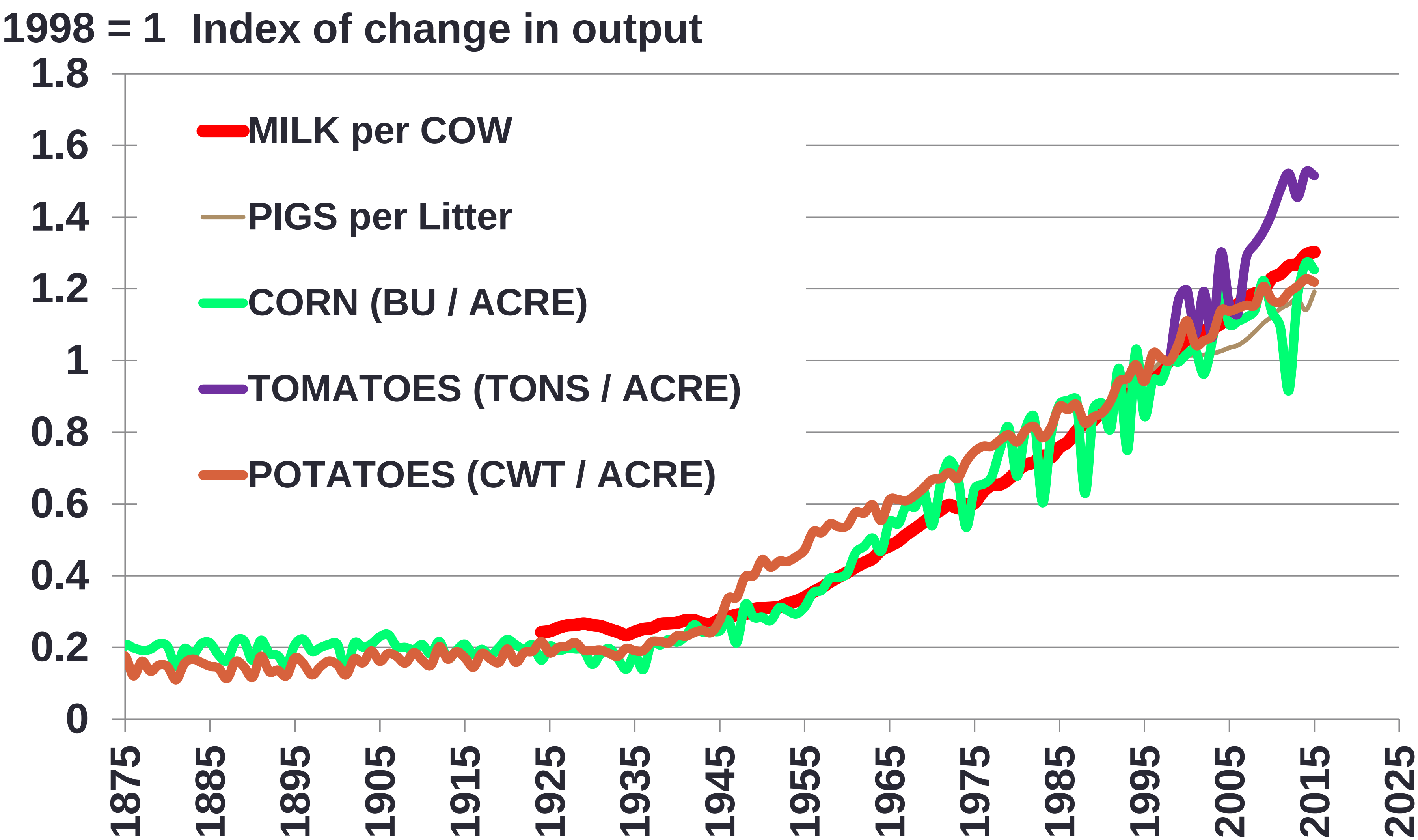
Data: BLS.

Meat price inflation falls 15 points y-o-y



Data: BLS.

Productivity growth continues long rise



Data: USDA-NASS.