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Agricultural Markets & Policy
University of Missouri

U.S. Baseline Briefing Book

Projections for Agricultural and Biofuel Markets

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Any opinion, findings, conclusions, or recommendations expressed in this publication are those of the authors and do not necessarily reflect the view of the U.S. Department of Agriculture nor the University of Missouri.

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FAPRI-MU and AMAP are both part of the Integrated Policy Group in the MU Division of Applied Social Sciences.

U.S. crop trade figures reported here were prepared with the help of Mike Helmar (mhelmar@cabnr.unr.edu) at the University of Nevada, Reno, Eric Wailes (ewailes@uark.edu) and Eddie C. Chavez (echavez@uark.edu) at the University of Arkansas and Darren Hudson (Darren.hudson@ttu.edu) at Texas Tech University.

The Agricultural and Food Policy Center at Texas A&M University will prepare a companion set of estimates of the farm-level impacts of these projections (www.afpc.tamu.edu).

The authors would like to thank participants in a workshop reviewing a preliminary version of these estimates in Washington in December 2015. Any remaining errors are those of the authors.

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Summary

Lower agricultural commodity prices have contributed to a sharp reduction in net farm income. The outlook for the next several years suggests continued pressure on farm finances is likely.

These baseline projections for agricultural and biofuel markets were prepared using market information available in January 2016. Macroeconomic assumptions are based primarily on forecasts by IHS Global Insight which suggest moderate growth in the U.S. and global economies. The baseline incorporates 2014 farm bill provisions and assumes a continuation of current agricultural and biofuel policies.

The world is an uncertain place and commodity markets will continue to be volatile. We use our models to develop a range of projected market outcomes that takes into account some major sources of uncertainty about future supply and demand conditions. In some of the resulting 500 outcomes, prices, quantities and values are much higher or much lower than the averages reported here.

Some key results:

• Large global crops of grains and oilseeds in 2014 and 2015 have increased carryover stocks and contributed to lower prices for corn, wheat, soybeans and other crops.

• In 2016, modest projected increases in acreage planted to corn, soybeans and cotton offset reduced wheat and sorghum acreage.

• Projected corn prices average $3.75 per bushel for the 2016/17 marketing year, up only slightly from 2015/16. Corn prices average less than $4.00 per bushel for the 2017-2025 period.

• Other crop prices also remain well below recent peak levels. Soybean prices average $8.73 per bushel in 2016/17, while wheat averages $4.97 per bushel and upland cotton averages 56.9 cents per pound.

• Cattle, hog, chicken and milk prices all peaked in 2014 and then declined in 2015 in response to increased production and weak export demand.

• Projected livestock, poultry and milk prices all decline again in 2016 as supplies continue to increase. Projected cattle prices fall further in 2017 and 2018 as recent increases in cow numbers translate into more calves and increased beef production.

• Net farm income in 2015 was less than half the 2013 record level, as farm receipts declined much more rapidly than costs. Projected 2016 net farm income of $56 billion is near the 2015 level, and the modest increases projected for later years leave real, inflation-adjusted net farm income at about the same level in 2025 as it was in 2015.

• With farm income well below recent peak levels and if interest rates increase as forecasted, there will be continued pressure on farm finances and farm real estate values.

• Payments under the commodity provisions of the 2014 farm bill increase for the 2015/16 crop year, causing federal spending to peak in fiscal year 2017.

• Agricultural risk coverage (ARC) payments are expected to decline rapidly after 2015/16, largely because of reduced guarantees tied to moving averages of past market prices.

• Crop insurance net outlays are projected to average about $8 billion per year for fiscal years 2017-2025.

• Projected food price inflation drops to 0.7 percent in 2016, and averages 2.3 percent per year from 2017-2025.

Key results

Marketing year	2010/11-2014/15 average	2015/16	2016/17	2017/18-2025/26 average
Crop prices				
Corn farm price, dollars per bushel	5.29	3.60	3.75	3.96
Soybean farm price, dollars per bushel	12.26	8.82	8.73	9.76
Wheat farm price, dollars per bushel	6.71	4.99	4.97	5.32
Upland cotton farm price, cents per pound	76.3	59.2	56.9	63.3
Crop area planted, million acres				
Corn	92.7	88.0	89.7	90.9
Soybeans	78.0	82.7	83.0	83.5
Wheat	55.1	54.6	51.7	53.1
Upland cotton	11.7	8.4	9.4	8.8
12 major crops*	257.7	257.0	256.4	257.9

Calendar year except as noted	2010-2014 average	2015	2016	2017-2025 average
Livestock sector prices				
Fed steers, 5-area direct, dollars per cwt	122.68	148.12	133.41	125.15
Barrows and gilts, 51-52% lean, dollars per cwt	64.43	50.23	46.59	52.29
National wholesale broiler, cents per pound	90.70	90.50	84.53	90.15
All milk, dollars per cwt	19.87	17.13	16.11	18.20
Biofuel production, billion gallons				
Ethanol	13.6	14.8	14.8	15.4
Corn starch-based ethanol	13.4	14.4	14.4	15.1
Biomass-based diesel	1.2	1.6	1.7	1.9
Government outlays, billion dollars, fiscal year				
Commodity Credit Corporation net outlays	9.6	7.0	9.3	8.6
Major commodity programs	5.3	1.4	6.2	5.8
CRP, disaster and all other CCC net outlays	4.3	5.5	3.0	2.8
Crop insurance net outlays	7.7	7.4	5.6	8.1
Net farm income, billion dollars	100.3	56.4	56.0	64.0
Annual consumer food price inflation	2.2%	1.9%	0.7%	2.3%

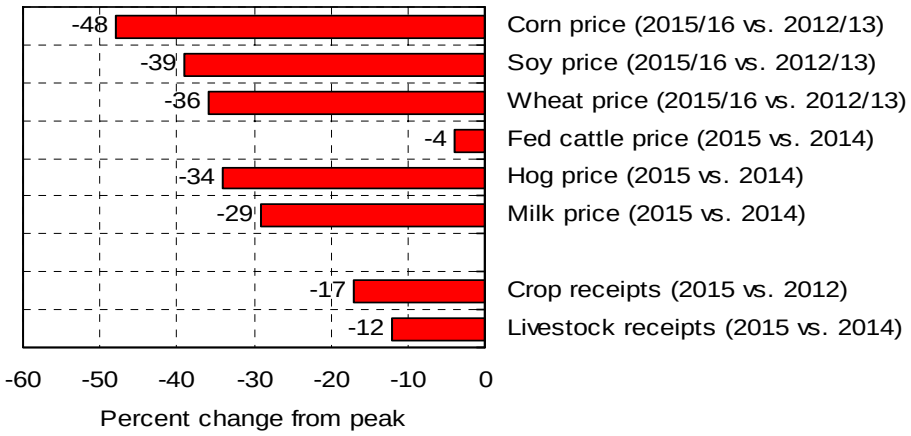
*Includes corn, soybeans, wheat, upland cotton, sorghum, barley, oats, rice, peanuts, sunflowers, sugarcane and sugar beets.

Note: The estimates are based on market information available in January 2016. Projections are averages across 500 outcomes.

Prices, farm income and real estate values

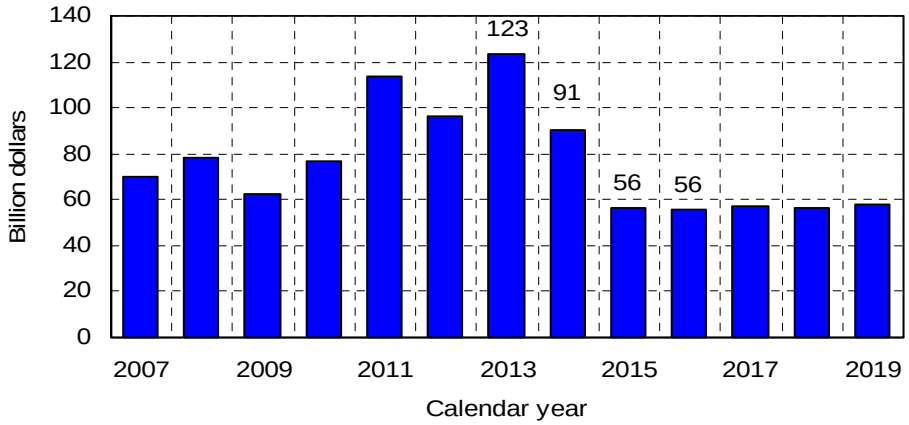
- Crop prices have declined sharply since peaking in 2012/13, as U.S. and global production has increased.
- Cattle, hog and milk prices reached record highs in 2014, but fell in 2015 as production increased and export demand weakened.
- The proportional declines in prices are larger than the increases in production, so both crop and livestock receipts were well below their peak levels in 2015.

Farm prices and receipts decline from peaks



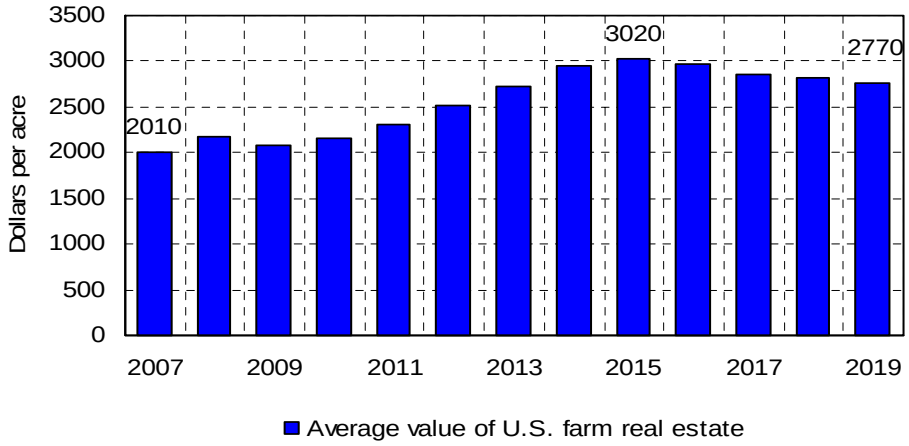
- Net farm income peaked in 2013 at $123 billion.
- Since then, the drop in crop receipts has sharply reduced net farm income, even though farm production expenses began to decline in 2015 because of lower prices for fuel, fertilizer and feed.
- Projected annual net farm income remains below $60 billion for 2015-2019.

Net farm income is less than half the 2013 record



- U.S. average farm real estate values increased by 50% between 2007 and 2015, according to USDA's National Agricultural Statistics Service.
- The reduction in farm income and forecasted increases in interest rates both put pressure on farm real estate values.
- Projected farm real estate values decline by $250 per acre between 2015 and 2019. Actual results will differ across the country and will be sensitive to developments in agricultural markets and the economy.

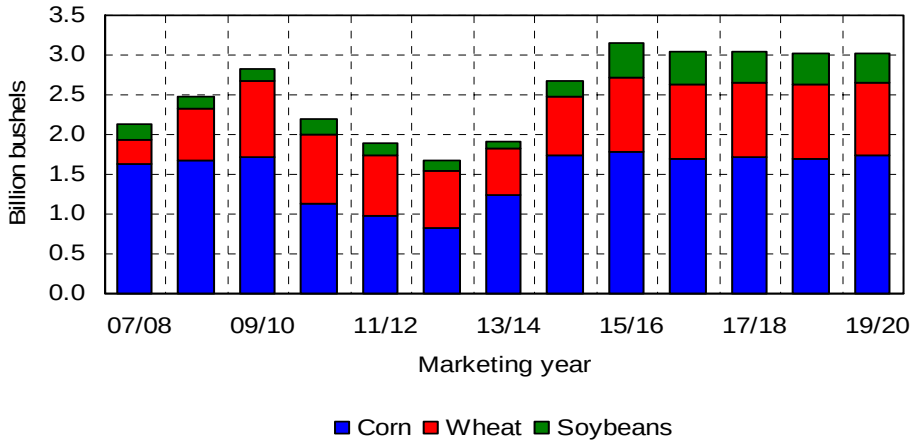
Farm real estate values are under pressure



Crop outlook highlights

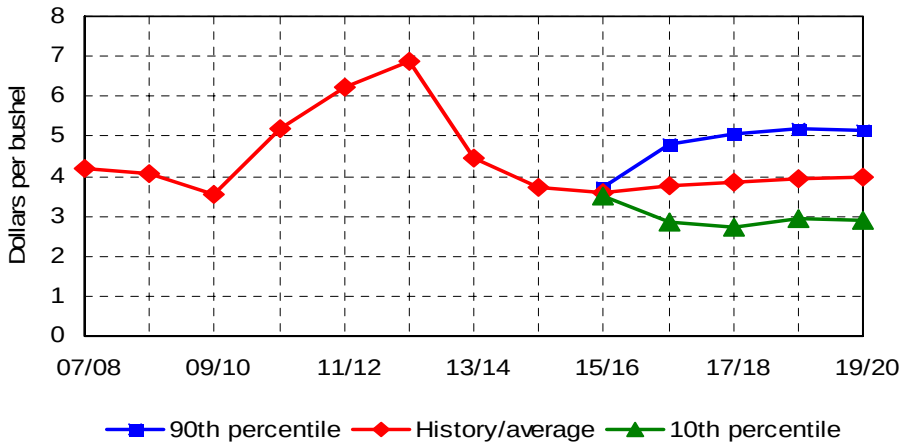
- Large U.S. and world crops of grains and oilseeds have allowed stocks to rebuild, putting downward pressure on crop prices.
- World production of corn, soybeans and wheat all set records in 2014, and soybean and wheat production increased again in 2015.
- Projected U.S. and world stocks remain large enough that prices remain well below the peak levels of 2010-2012.

Large carryover stocks weigh on crop markets



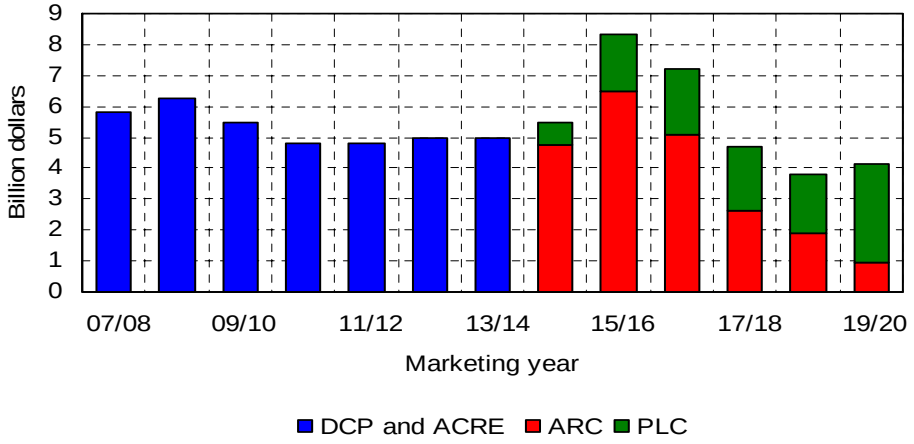
- Projected average corn prices remain below $4.00 per bushel until 2019/20.
- In any given year, weather and other factors can lead to higher or lower prices.
- Corn prices exceed $5.00 per bushel in about 10 percent of the 500 outcomes for each year, and fall below $3.00 per bushel in more than 10 percent of the outcomes.
- Projected prices for many other crops show similar patterns and uncertainties.

Corn prices remain below peaks, but will vary



- Direct and countercyclical payments (DCP) and the average crop revenue election (ACRE) programs are gone.
- Payments under the new agricultural risk coverage (ARC) and price loss coverage (PLC) programs peak in 2015/16.
- ARC payments decline from 2015/16 to 2018/19 as benchmarks adjust to a declining moving average of prices.
- In 2019, we assume producers will be able to make new ARC/PLC elections.

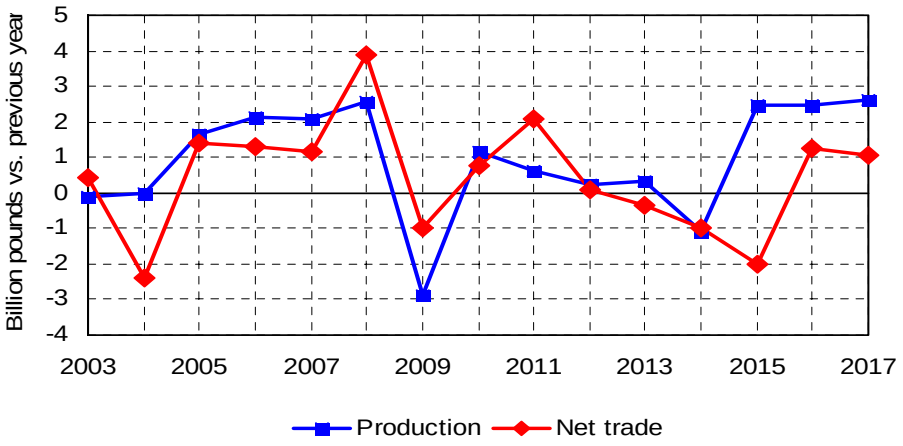
ARC payments peak in 2015/16, then decline



Livestock and dairy outlook highlights

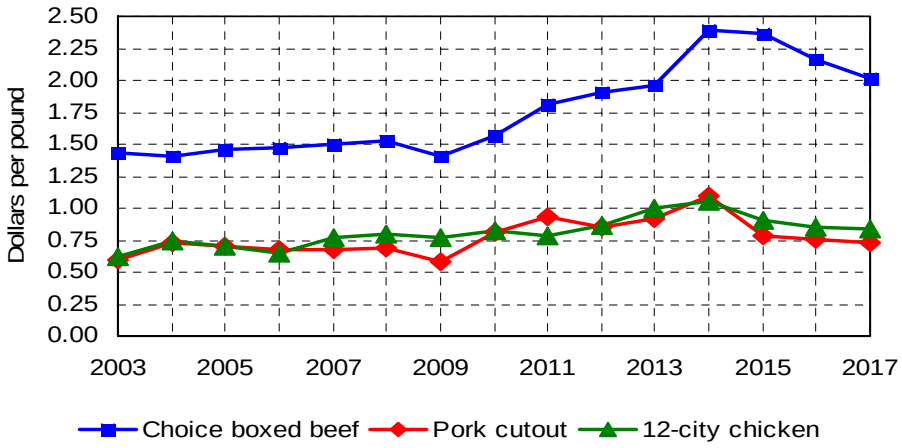
- Meat production growth in 2015 outpaced the last several years as producers responded to lower feed costs and record high output prices in many sectors.
- Larger inventories of cattle and hogs will continue to push meat production growth higher for the next few years.
- Net exports of meat have now declined for three consecutive years, as a stronger dollar weighs on U.S. competitiveness in international markets.

Production growth outpaces meat trade



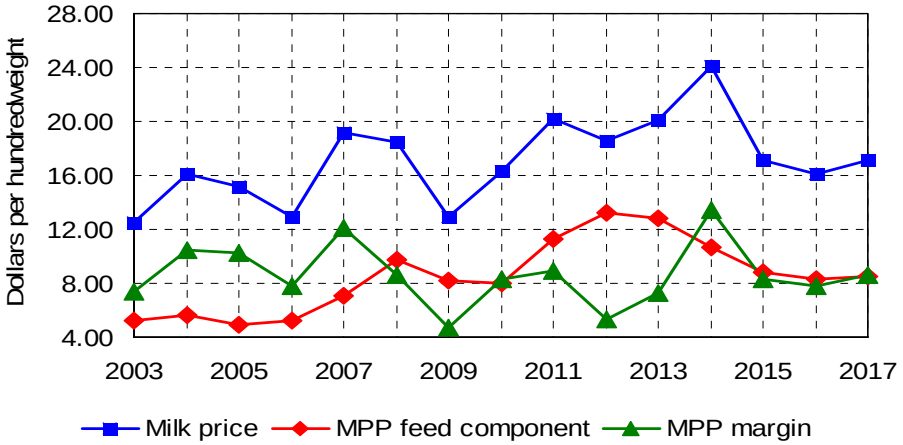
- After reaching record high levels in 2014, meat prices have slumped.
- There will continue to be downward pressure on prices for the next couple of years as more meat becomes available to the domestic market.
- Pork and chicken producers can reduce output more quickly as profits deteriorate. Beef production will grow for several years due to higher beef cow numbers.

Prices decline as more meat reaches U.S. markets



- The U.S. all milk price declined nearly 30 percent in 2015, leading to lower profitability for milk production despite reduced feed costs.
- Though international dairy product prices are projected to strengthen in late 2016 or 2017, U.S. prices are expected to remain under pressure due to higher supplies.
- If feed costs remain near projected levels, MPP margins are unlikely to fall to the levels of 2008 or 2012. However, a short crop could quickly change the situation.

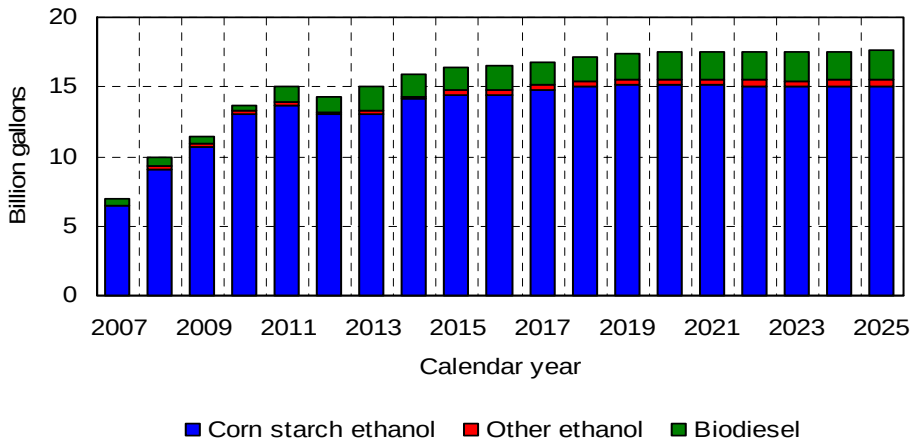
Dairy margins to remain tight in 2016



Biofuels, budget outlays and food prices

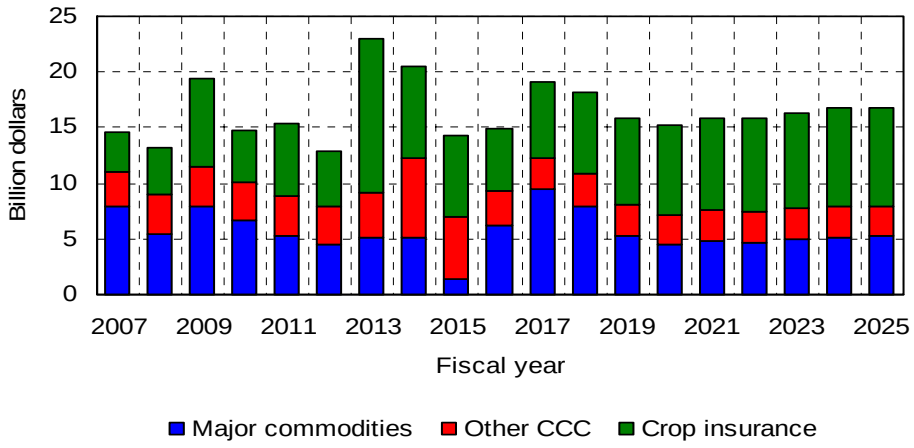
- After increasing very rapidly from 2007-2011, biofuel production growth has slowed.
- Future growth in biofuel production depends in part on implementation of the renewable fuel standard (RFS).
- In the projections, the U.S. is a net exporter of ethanol, but a net importer of biomass-based diesel.

Biofuel production growth has slowed



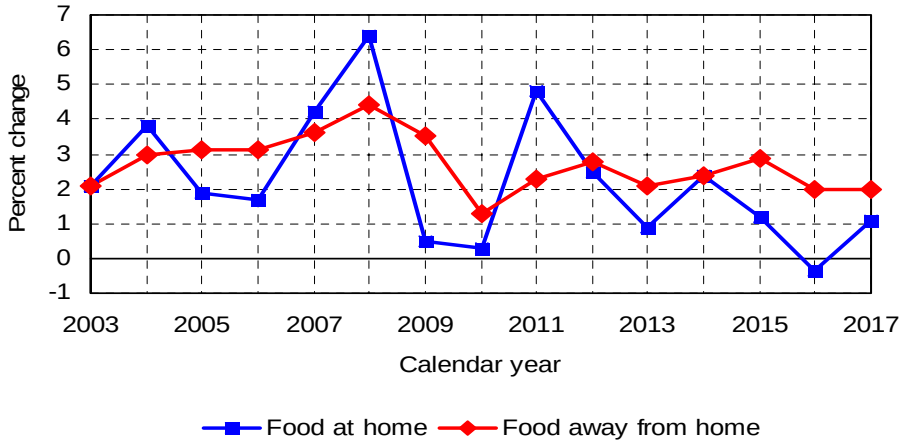
- ARC and PLC payments associated with the 2015/16 crop result in increased commodity program outlays in fiscal year (FY) 2017.
- Commodity program outlays decline with ARC payments from FY 2018 to FY 2020.
- Projected crop insurance outlays exceed commodity program outlays starting in FY 2019.
- Other Commodity Credit Corporation (CCC) outlays include disaster aid, the conservation reserve and other programs.

Budget costs peak in FY 2017



- Falling commodity and fuel prices slowed food price inflation during 2015.
- Projected CPIs for meat and dairy products decline in 2016, dropping food at home inflation below zero for the first time in at least 30 years.
- Food away from home inflation remains near 2.0 percent in 2016 and 2017, leaving total food inflation at 0.7 percent in 2016 and 1.5 percent in 2017.

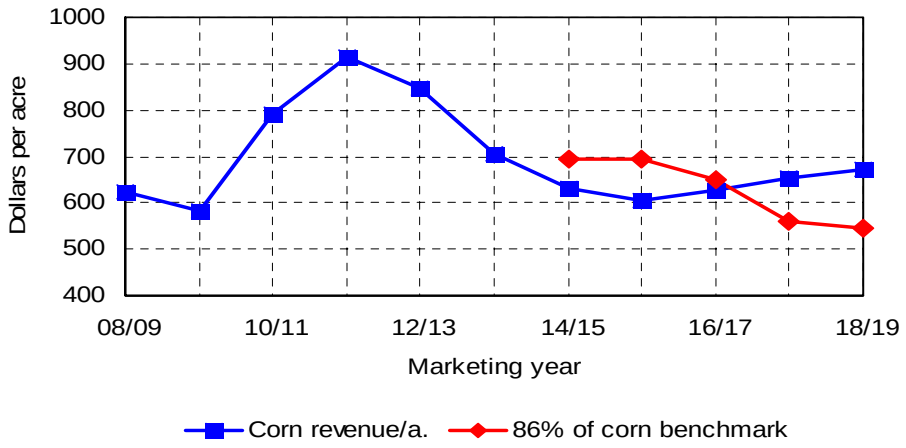
Food at home inflation drops below zero in 2016



Policy assumptions under the 2014 farm bill

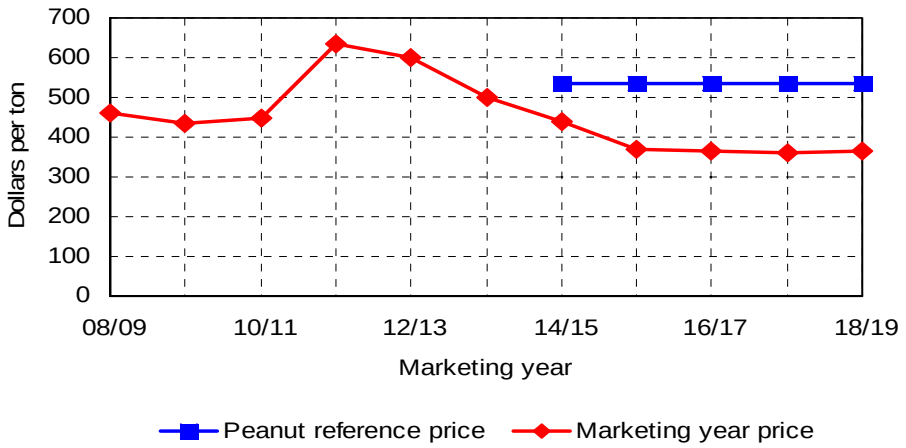
- ARC-CO is one option for grain and oilseed producers. Participating producers receive a payment when revenues fall below a trigger tied to past market prices and county yields.
- For illustration purposes only, the chart uses national average corn prices and yields. With these assumptions, payments occur for the 2014/15-2016/17 marketing years, but not for 2017/18 or 2018/19.

ARC benchmarks depend on moving averages



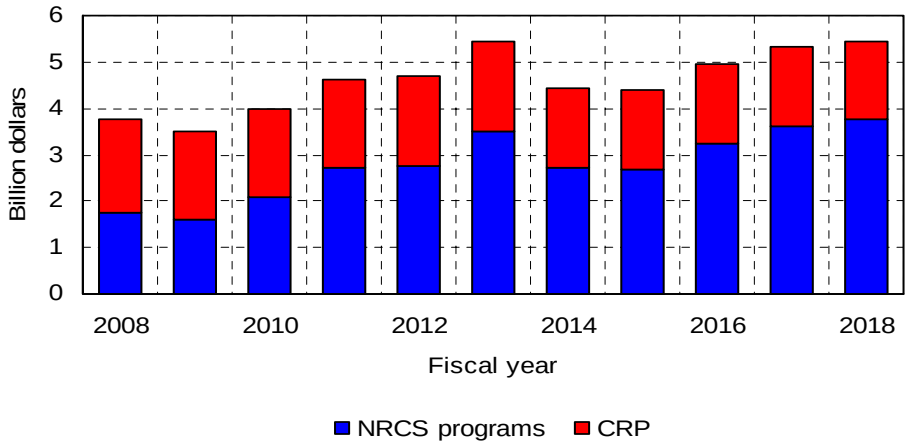
- PLC is the other new option for grain and oilseed producers. Payments occur when national marketing year average prices fall below a fixed reference price.
- As with ARC-CO, payments are made on 85 percent of base acres for a particular crop.
- Given projected peanut prices, PLC payments would occur each year beginning in 2014/15.

PLC payments occur when prices fall below reference



- The conservation reserve program (CRP) is operated by the Farm Service Agency and funded by the CCC.
- The environmental quality incentives program (EQIP) and the conservation stewardship program (CSP) are operated by the Natural Resources Conservation Service (NRCS).
- Total projected spending on these programs exceeds $5 billion in FY 2017.

Conservation programs top $5 billion in FY 2017



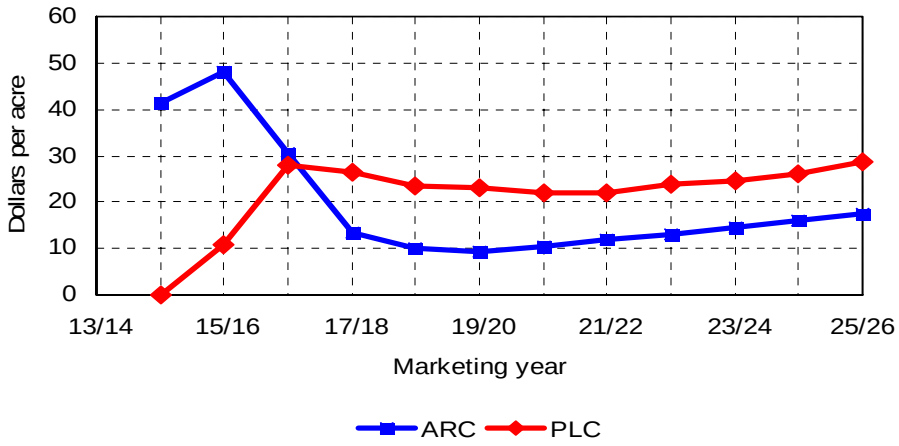
Selected policy assumptions, 2015-25

Policy	Description
Price loss coverage (PLC)	Makes payments when marketing year average price falls below fixed reference prices: Corn $3.70/bu. Soybeans $8.40/bu. Wheat $5.50/bu. Rice $14.00/cwt ($16.10/cwt for Japonica) Sorghum $3.95/bu. Barley $4.95/bu. Oats $2.40/bu. Peanuts $535/ton Sunflowers 20.15 cents/lb. Cotton not available Paid on program yields and 85% of base acreage.
Agriculture risk coverage (ARC)	Makes payments when revenues fall below 86% of a benchmark County option (ARC-CO) benchmark: 5-year Olympic average of national marketing year prices multiplied by the 5-year Olympic average of county yields per planted acre Farm option (ARC-IC) benchmark: 5-year Olympic average of weighted farm revenue per acre Maximum payment is 10% of benchmark value Paid on 85% (ARC-CO) or 65% (ARC-IC) of base acreage Available for program crops (not upland cotton)
ARC/PLC participation	For 2014-2018, participation reflects elections made in 2015. In 2019, producers assumed to make a new program election. Given projected payments, assumes that 50% of corn, soybean, wheat and oat base will elect PLC beginning in 2019. For other crops, elections maintained at 2014-2018 levels.
Sequestration	Assumed to apply to PLC and ARC payments and certain conservation payments Rate: 7.0% for 2015 crop payments, declining to 5.8% for 2018-24 crop payments
Marketing loan program	2014 farm bill levels provisions
Supplemental coverage option	Available for program crops not enrolled in ARC beginning in 2015 Area crop insurance available as a supplement to conventional insurance Covers range between 86% and individual coverage level 65% of premium subsidized
Upland cotton	Stacked income protection program (STAX) Area crop insurance availabe in addition to conventional insurance 80% of premium subsidized Loan rate varies in range dependng on recent world cotton prices No cotton PLC or ARC programs Former cotton base (now "generic base") eligible for PLC or ARC if planted to other crops
Sugar	2014 farm bill provisions Agreement with Mexico incorporated
Conservation reserve	Caps conservation reserve acreage at 24 million acres by 2017
Dairy	Margin protection program (MPP-dairy)

Crop program participation

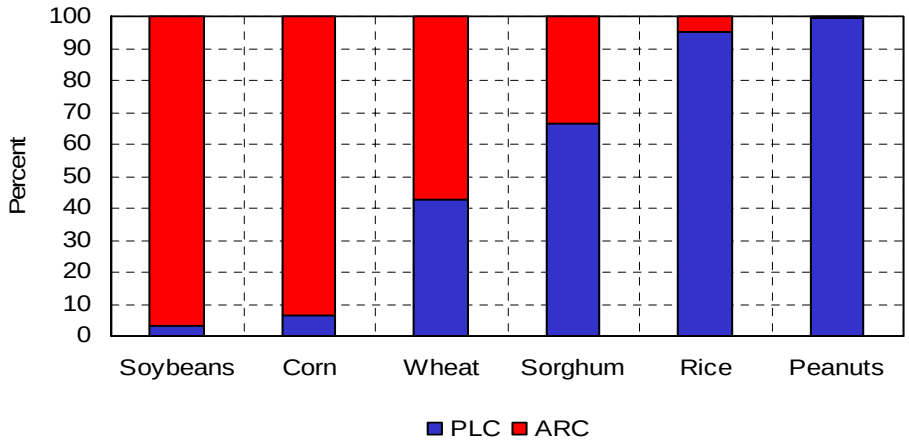
- Under the new farm bill, producers made a one-time election of ARC or PLC for each crop for the 2014-2018 crops.
- For corn, national average ARC payments exceeded $40 per base acre in 2014/15 and are expected to be even larger in 2015/16.
- Starting in 2017/18, expected PLC payments per corn base acre exceed expected ARC payments.
- A similar pattern occurs for soybeans.

Paths differ for projected average corn payments



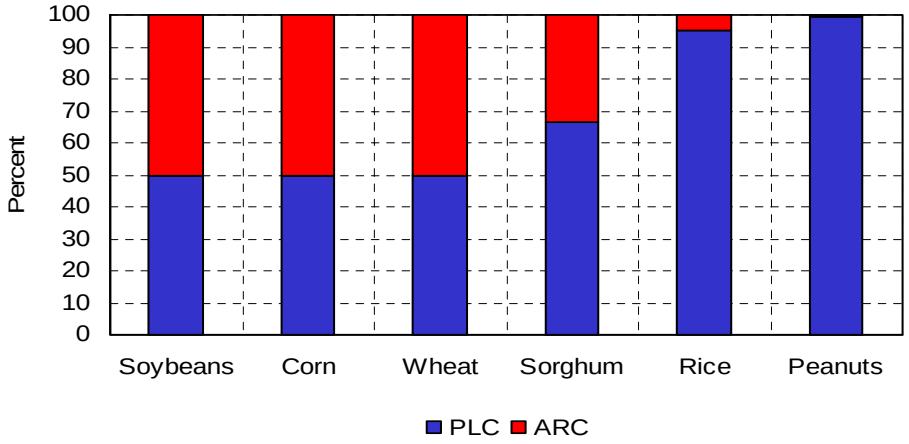
- Producers elected ARC for most of their corn and soybean base acreage. That choice was consistent with expected payments over the 2014-2018 period.
- With expected PLC payments far in excess of expected ARC payments, producers elected PLC for most of their peanut, rice and sorghum base acreage.
- Producers elected ARC for most of their wheat base acreage, even though our projections suggest national average PLC payments may be larger.

Most corn, soybean base elected ARC for 2014-18



- For baseline purposes, we assume farmers will have an opportunity to make a new ARC-PLC election for the 2019-2025 period.
- Given projected payments, PLC may look more attractive in 2019 than it did in 2015.
- As a result, we assume an even split between ARC and PLC participation for corn, soybeans and wheat for 2019-2025.
- We maintain current participation rates for sorghum, rice and peanuts.

More PLC enrollment assumed for 2019-2025



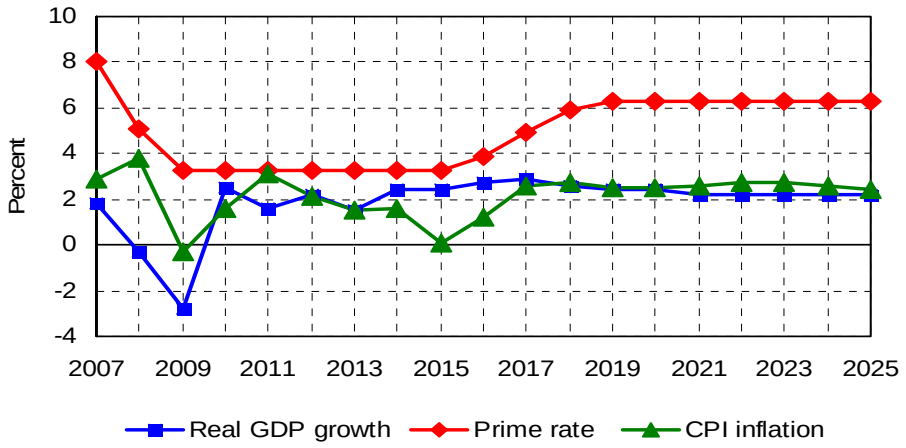
ARC and PLC payments and participation rates

	Average ARC payment	Average PLC payment	Share of base acres in: ARC	PLC
Average for 2014-2018 crop years	(Dollars per base acre)		(Percent)	
Corn	28.66	17.74	93.4	6.6
Soybeans	17.85	8.77	96.9	3.1
Wheat	12.51	16.54	57.5	42.5
Sorghum	9.69	23.67	33.6	66.4
Barley	8.46	17.85	25.2	74.8
Oats	4.11	6.74	68.0	32.0
Rice	10.52	64.05	4.9	95.1
Long grain	20.11	70.38	0.2	99.8
Short and medium grain	10.31	21.27	30.3	69.7
Peanuts	51.42	194.06	0.3	99.7
Sunflowerseed	7.02	16.41	44.2	55.8
Average for 2019-2025 crop years				
Corn	13.28	24.40	50.0	50.0
Soybeans	8.82	11.20	50.0	50.0
Wheat	7.49	18.31	50.0	50.0
Sorghum	6.59	27.45	33.6	66.4
Barley	7.68	24.20	25.2	74.8
Oats	2.43	5.42	50.0	50.0
Rice	16.00	34.83	4.9	95.1
Long grain	11.01	34.52	0.2	99.8
Short and medium grain	16.14	36.92	30.3	69.7
Peanuts	50.93	202.41	0.3	99.7
Sunflowerseed	7.15	20.22	44.2	55.8

Macroeconomic assumptions and farm prices paid

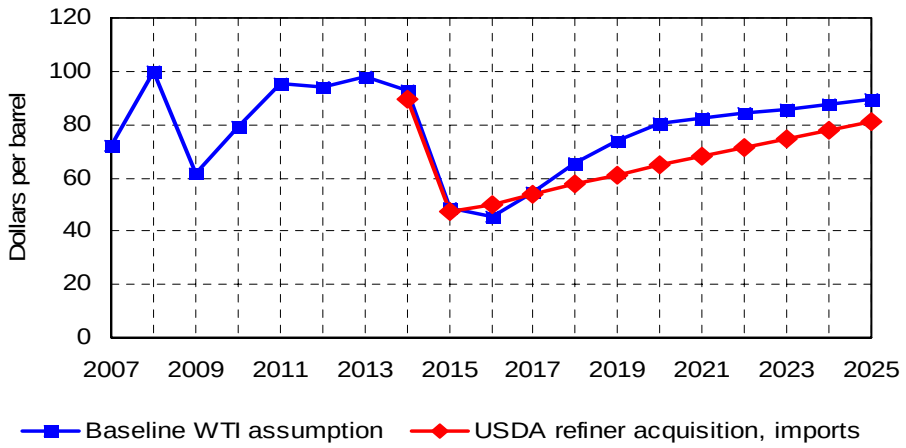
- IHS Global Insight forecasted in January that U.S. real GDP growth would accelerate in 2016 to 2.7 percent.
- Growth averages 2.4 percent per year between 2017 and 2025.
- Lower oil prices reduced inflation in 2015, but it averages 2.6 percent per year between 2017 and 2025.
- The prime lending rate increases by 3 percentage points between 2015 and 2019.

Faster U.S. growth and low inflation expected in 2016



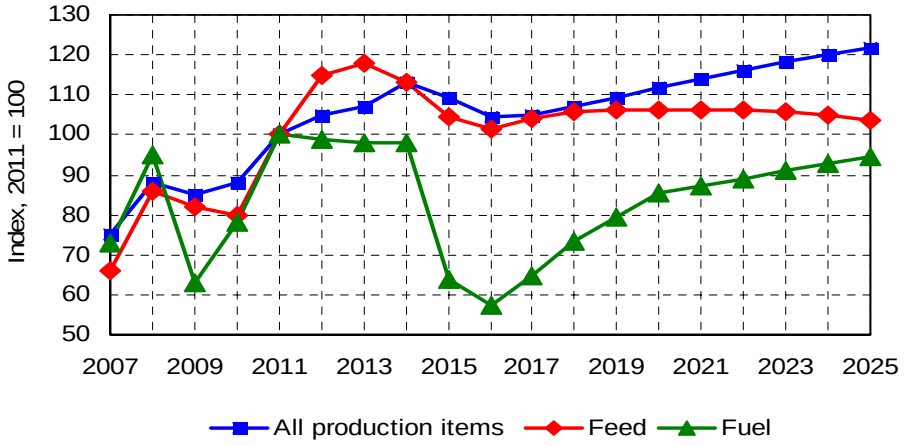
- For 2016-2020, the baseline adopts January 2016 energy price projections from IHS Global Insight.
- West Texas Intermediate crude oil prices increase from $45 per barrel in 2016 to $81 in 2020.
- After 2020, we assume prices for oil and other energy sources will increase at the same rate as inflation in the GDP deflator (2.1 percent per year).
- The assumed oil prices are higher than those in USDA's long-term baseline.

Oil prices recover after sharp decline



- Lower feed and fuel prices reduce the index of farm production expenses in 2015 and 2016.
- Fertilizer prices are also expected to decline in 2016, offsetting cost increases for some other inputs.
- Projected increases in fuel prices and general inflation in the economy contribute to an increase in overall farm input prices after 2017.

Lower feed, fuel prices reduce 2015 and 2016 costs



Macroeconomic assumptions

Calendar year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Real GDP growth					(Percentage change from previous year)						
United States	2.4	2.7	2.9	2.6	2.4	2.4	2.2	2.2	2.2	2.2	2.2
China	6.9	6.3	6.3	6.4	6.4	6.4	6.5	6.5	6.2	5.9	5.4
World	2.6	2.9	3.2	3.3	3.3	3.4	3.3	3.4	3.4	3.3	3.2
Population growth											
United States	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7
World	1.2	1.2	1.1	1.1	1.1	1.1	1.0	1.0	1.0	1.0	0.9
U.S. CPI, all urban consumers	0.1	1.2	2.6	2.7	2.5	2.5	2.6	2.7	2.7	2.6	2.4
					(Percent)						
U.S. unemployment rate	5.3	4.9	4.9	4.9	5.0	5.0	5.0	5.1	5.1	5.0	5.0
3-month Treasury bill rate	0.1	0.8	1.8	2.8	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Prime interest rate	3.3	3.9	4.9	5.9	6.3	6.3	6.3	6.3	6.3	6.3	6.3
Petroleum prices					(Dollars per barrel)						
West Texas intermediate*	48.84	45.12	54.71	65.71	73.69	80.51	82.24	84.02	85.76	87.48	89.25
Refiners' acquisition cost*	47.39	41.09	51.62	62.88	70.80	77.25	78.92	80.62	82.29	83.94	85.64
Natural gas price					(Dollars per million BTU)						
Henry Hub*	2.62	2.67	2.94	2.99	3.18	3.36	3.43	3.51	3.58	3.65	3.72
Exchange rates					(Currency per dollar)						
Euro	0.90	0.96	0.88	0.82	0.79	0.78	0.76	0.75	0.74	0.73	0.73
Chinese yuan	6.28	6.61	6.71	6.74	6.76	6.74	6.64	6.45	6.26	6.12	6.01

Source: Except as noted below, IHS Global Insight, Dec. 2015 (world) and Jan. 2016 (U.S.).
*For 2015-2020, IHS Global Insight, Jan. 2016. Beginning in 2021, energy prices are assumed to increase at the same rate as GDP deflator inflation.

Indices of prices paid by farmers

Calendar year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Production items, interest,						(2011=100)					
taxes and wages	108.9	105.3	106.3	108.4	110.8	113.5	115.9	118.3	120.6	122.8	124.9
Production items	109.2	104.5	105.1	107.0	109.2	111.7	114.0	116.2	118.3	120.2	121.9
Feed	104.6	101.6	104.0	105.7	106.1	106.1	106.4	106.2	105.7	104.8	103.7
Livestock & poultry	148.2	125.1	114.3	107.7	106.1	109.0	112.4	116.4	120.5	124.1	127.0
Seeds	114.0	112.2	110.3	110.1	111.5	113.8	116.5	119.2	121.7	123.9	126.0
Fertilizer	88.6	79.5	77.8	81.4	84.3	87.0	88.7	89.7	90.2	90.7	91.0
Mixed fertilizer	85.8	76.9	75.8	78.9	81.4	83.7	85.0	85.7	85.7	85.9	85.9
Nitrogen fertilizer	92.8	83.4	80.2	84.8	89.0	92.5	95.3	97.2	98.7	100.1	100.9
Potash and phosph.	85.5	76.2	77.6	79.3	80.0	81.2	81.0	80.5	78.9	78.0	77.2
Agricultural chemicals	105.8	100.2	105.4	111.8	117.7	122.9	126.3	129.6	132.6	135.6	138.2
Fuels	64.0	57.4	64.9	73.4	79.6	85.3	87.1	89.0	90.9	92.7	94.5
Supplies & repairs	105.5	106.4	109.0	111.9	114.7	117.4	120.0	122.8	125.6	128.5	131.4
Autos & trucks	105.6	106.5	107.4	108.9	110.7	112.1	113.5	115.0	116.3	117.5	118.9
Farm machinery	115.0	112.9	115.6	120.3	125.1	129.6	133.9	138.0	141.9	145.8	149.6
Building material	107.6	107.8	109.0	110.9	112.7	114.7	116.6	118.4	120.0	121.5	123.0
Farm services	111.8	113.3	116.3	120.1	124.1	128.1	132.1	136.2	140.3	144.4	148.5
Interest*	97.0	102.6	107.6	114.6	120.0	122.5	125.1	127.8	130.5	133.1	135.8
Taxes**	107.0	108.2	110.0	110.8	112.4	114.5	116.9	119.5	122.6	126.4	130.6
Wage rates	111.8	114.6	118.1	122.1	126.2	130.5	134.8	139.3	143.8	148.4	153.2

*Interest per acre on farm real estate debt and interest rate on farm non-real estate debt.
**Farm real estate taxes payable per acre.

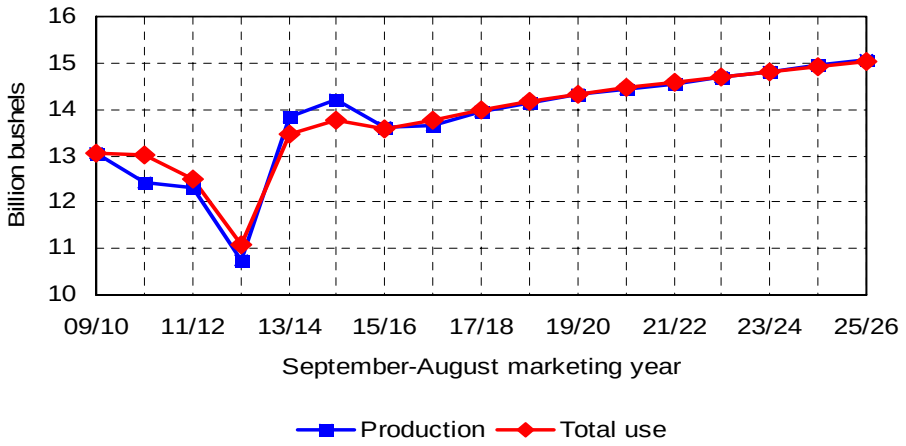
Corn

- After two years of record corn production, area and yields fell in 2015/16. Use is expected to decline as well. After two years of building stocks, average projected production and use are in balance.

- Although corn production fell in 2015/16, it was still the third largest crop on record. Expected acreages with average yields result in production increasing every subsequent year.

- Increased production growth with limited increases in demand keeps prices from rising back to pre-2014/15 levels.

Corn production and use both dip in 2015/16



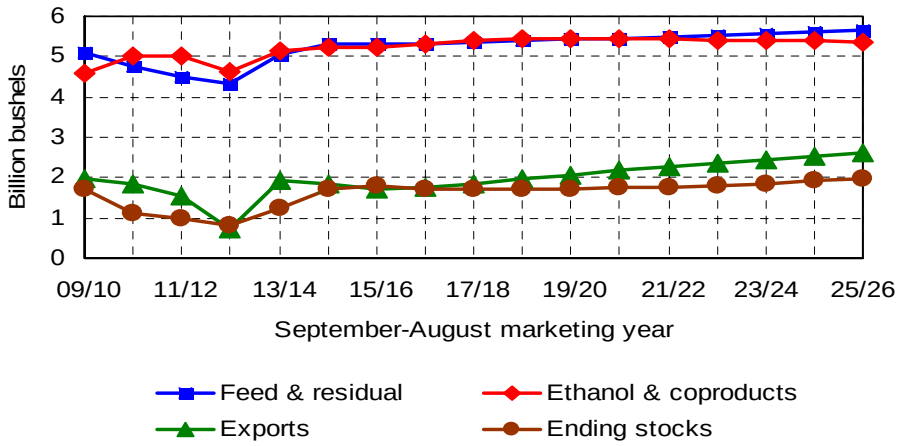
- High prices caused by the drought resulted in reduced use of corn during the 2012/13 marketing year.

- Increased production for the 2013/14 and 2014/15 marketing years allowed use to recover.

- Ending stocks are at their highest levels since 2005/06, putting downward pressure on prices.

- China holds large corn stocks limiting export potential in the short term.

Corn stocks remain high, export growth delayed

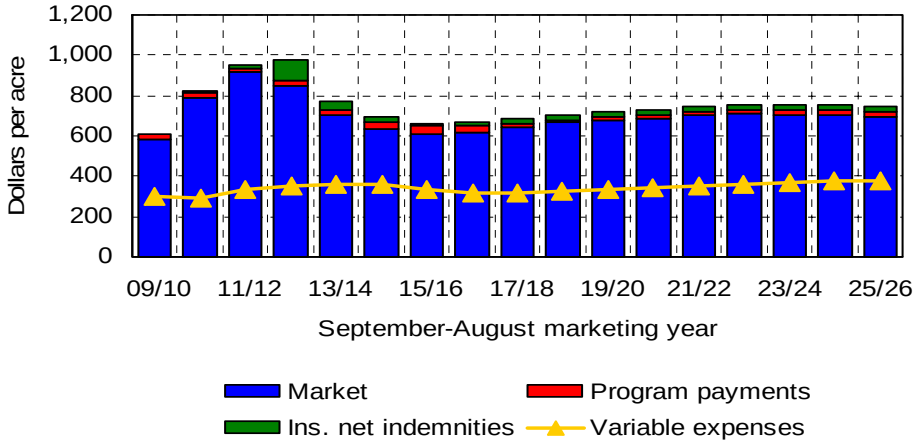


- Corn market revenues per acre have now declined for three straight years because of the sharp reduction in corn prices.

- Variable expenses (which exclude land costs) have decreased far less than revenues, so market net returns have contracted sharply.

- Projected farm program payments (ARC, PLC and marketing loan benefits) peak in 2015/16, but remain small relative to revenues. ARC and PLC payments are tied to base acreage, not planted acreage.

Corn returns decline for third straight year



Corn supply and use

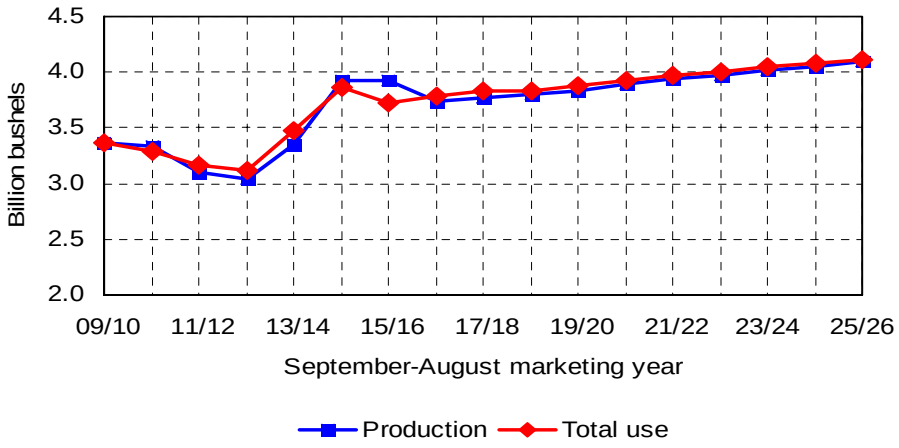
September-August year	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26
Area					(Million acres)						
Planted area	88.0	89.7	90.8	91.2	91.3	91.1	91.0	91.0	90.9	90.7	90.5
Harvested area	80.7	81.8	82.8	83.2	83.2	83.1	82.9	82.9	82.8	82.7	82.4
					(Bushels per harvested acre)						
Yield	168.4	166.9	168.6	170.1	172.1	174.0	175.6	177.3	178.9	180.8	182.9
					(Million bushels)						
Supply	15,372	15,469	15,697	15,887	16,059	16,213	16,333	16,492	16,642	16,829	17,024
Beginning stocks	1,731	1,789	1,706	1,710	1,706	1,730	1,747	1,761	1,804	1,850	1,911
Production	13,601	13,650	13,960	14,148	14,323	14,453	14,556	14,701	14,808	14,949	15,083
Imports	40	30	30	30	30	30	30	30	30	30	30
Domestic use	11,886	11,985	12,141	12,220	12,265	12,300	12,305	12,342	12,365	12,407	12,440
Feed and residual	5,300	5,293	5,369	5,389	5,425	5,456	5,481	5,520	5,554	5,596	5,647
Ethanol and coproducts	5,216	5,320	5,397	5,451	5,455	5,451	5,427	5,418	5,400	5,393	5,366
HFCS	470	468	467	466	466	467	465	465	465	465	466
Seed	23	23	23	23	23	23	23	23	23	23	23
Food and other	877	881	885	891	896	903	909	916	923	930	938
Exports	1,698	1,778	1,846	1,961	2,064	2,166	2,267	2,346	2,427	2,511	2,604
Total use	13,583	13,763	13,987	14,181	14,329	14,466	14,572	14,688	14,792	14,918	15,043
Ending stocks	1,789	1,706	1,710	1,706	1,730	1,747	1,761	1,804	1,850	1,911	1,980
CCC inventory	0	0	0	0	0	0	0	0	0	0	0
Under loan	105	113	111	107	106	105	104	107	110	115	123
Other stocks	1,684	1,594	1,599	1,599	1,624	1,642	1,657	1,697	1,740	1,796	1,858
Prices, program provisions					(Dollars per bushel)						
Farm price	3.60	3.75	3.87	3.94	4.00	4.00	4.05	4.03	3.99	3.94	3.84
Loan rate	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95
Reference price	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70
					(Million acres)						
Base area	96.7	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9
					(Bushels per acre)						
PLC program yield	123.6	123.6	123.6	123.6	123.6	123.6	123.6	123.6	123.6	123.6	123.6
					(Percent of base acres)						
PLC participation rate	6.6	6.6	6.6	6.6	50.0	50.0	50.0	50.0	50.0	50.0	50.0
ARC participation rate	93.4	93.4	93.4	93.4	50.0	50.0	50.0	50.0	50.0	50.0	50.0
Returns and payments					(Dollars)						
Gross market revenue/a.	606.52	619.69	646.97	664.62	681.34	689.70	704.50	707.49	706.86	706.65	697.07
Variable expenses/a.	337.23	319.44	317.56	325.47	335.98	346.39	354.68	362.00	368.23	373.92	378.98
Market net return/a.	269.29	300.25	329.41	339.15	345.36	343.31	349.82	345.49	338.63	332.73	318.09
Marketing loan benefits/a.*	0.00	0.19	0.30	0.09	0.41	0.19	0.42	0.14	0.36	0.43	0.40
Payments to participants											
PLC/base a.*	10.80	27.83	26.50	23.57	23.28	22.17	21.99	23.92	24.51	26.26	28.65
ARC/base a.*	48.19	30.47	13.26	10.12	9.36	10.41	12.08	13.01	14.57	16.09	17.45
Insurance net indemnities/a.*	4.89	19.85	22.28	24.21	25.24	25.62	26.37	26.64	27.90	27.52	28.21

*Marketing loan benefits and insurance net indemnities are averaged across all acres. PLC and ARC payments are per participating acre.
All projections are averages across 500 stochastic outcomes.

Soybeans

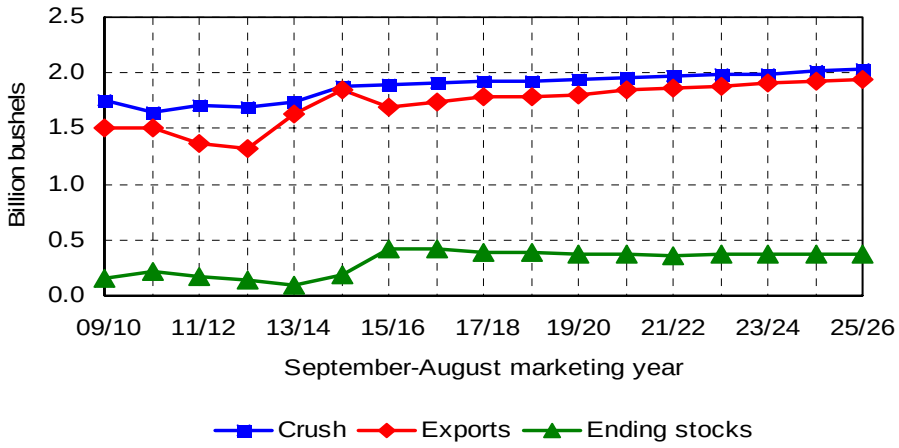
- The 2015 soybean crop matched 2014's record as an increased yield offset lower harvested area.
- For 2016, a return to trend yields would reduce production even if acreage increases slightly.
- Soybean use in 2015/16 falls, leading to a large increase in stocks. This puts sharp downward pressure on prices.

Soybean production matches 2014 record



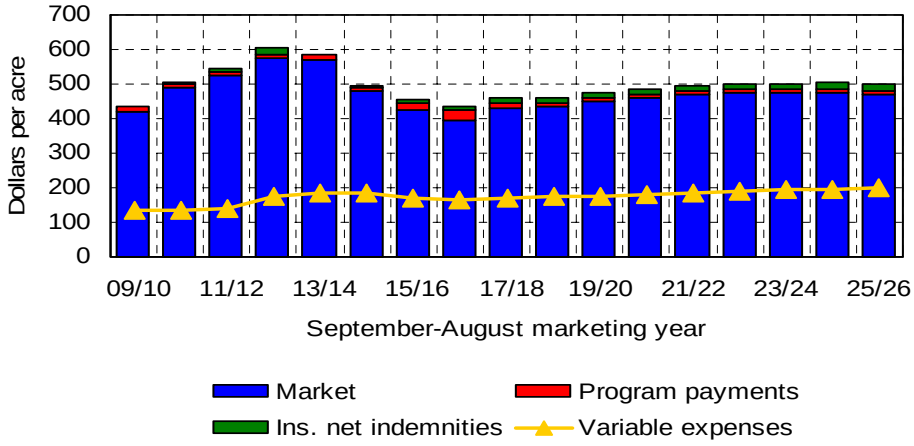
- U.S. soybean exports decline in 2015/16 because of large Brazilian exports and slower growth in import demand from China.
- Domestic soybean crush also increases slowly over time in response to rising demand for U.S. soybean meal and soybean oil.
- Ending stocks jump sharply in 2015/16, reaching the highest levels since 2006/07.

Soybean ending stocks increase sharply



- Declining soybean prices have been pushing down soybean returns since 2012/13.
- ARC program payments on participating soybean base acreage peak in 2016/17, but then decline.
- However, costs are unlikely to match the fall in market revenues creating thin margins for producers.

Soybean returns continue to fall



Soybean supply and use

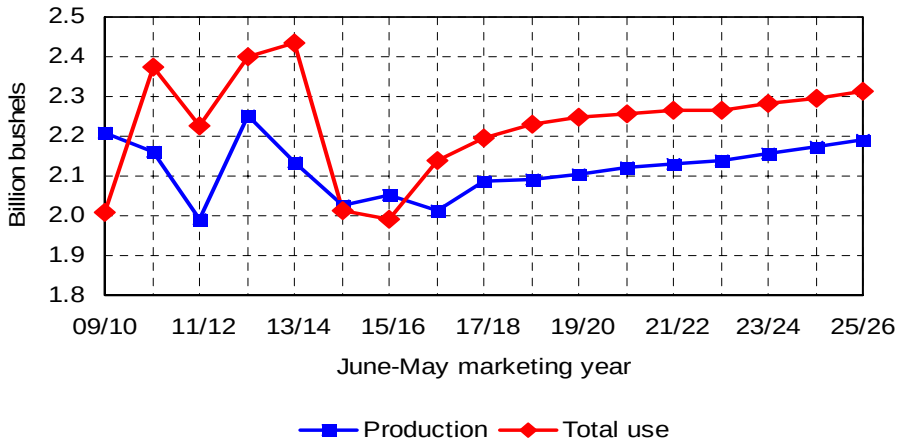
September-August year	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26
Area					(Million acres)						
Planted area	82.7	83.0	82.9	83.0	83.1	83.5	83.7	83.8	83.9	83.9	84.0
Harvested area	81.8	82.3	82.2	82.3	82.3	82.7	83.0	83.1	83.2	83.2	83.3
					(Bushels per harvested acre)						
Yield	48.0	45.4	45.9	46.2	46.6	47.1	47.4	47.8	48.2	48.6	49.1
					(Million bushels)						
Supply	4,150	4,197	4,213	4,217	4,251	4,297	4,331	4,366	4,408	4,442	4,488
Beginning stocks	191	427	415	383	381	371	367	363	365	366	369
Production	3,930	3,740	3,769	3,804	3,840	3,895	3,934	3,972	4,013	4,047	4,089
Imports	30	30	30	30	30	30	30	30	30	30	30
Domestic use	2,025	2,047	2,047	2,058	2,077	2,089	2,104	2,119	2,132	2,152	2,172
Crush	1,891	1,916	1,918	1,927	1,945	1,955	1,969	1,983	1,994	2,012	2,031
Seed and residual	134	131	130	131	132	134	135	136	138	140	142
Exports	1,699	1,736	1,783	1,778	1,803	1,841	1,863	1,882	1,909	1,922	1,944
Total use	3,724	3,782	3,830	3,836	3,880	3,930	3,967	4,000	4,042	4,074	4,117
Ending stocks	427	415	383	381	371	367	363	365	366	369	371
CCC inventory	0	0	0	0	0	0	0	0	0	0	0
Under loan	15	19	17	17	17	16	17	17	18	19	20
Other stocks	412	396	367	364	355	351	347	348	348	350	351
Prices, program provisions					(Dollars per bushel)						
Farm price	8.82	8.73	9.42	9.44	9.74	9.84	9.99	10.00	9.90	9.85	9.63
Illinois processor price	8.99	9.02	9.69	9.71	10.00	10.10	10.25	10.25	10.15	10.11	9.90
Loan rate	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Reference price	8.40	8.40	8.40	8.40	8.40	8.40	8.40	8.40	8.40	8.40	8.40
					(Million acres)						
Base area	54.6	54.6	54.6	54.6	54.6	54.7	54.7	54.7	54.7	54.7	54.7
					(Bushels per acre)						
PLC program yield	37.2	37.2	37.2	37.2	37.2	37.2	37.2	37.2	37.2	37.2	37.2
					(Percent of base acres)						
PLC participation rate	3.1	3.1	3.1	3.1	50.0	50.0	50.0	50.0	50.0	50.0	50.0
ARC participation rate	96.9	96.9	96.9	96.9	50.0	50.0	50.0	50.0	50.0	50.0	50.0
Returns and payments					(Dollars)						
Gross market revenue/a.	423.39	394.08	428.77	433.11	450.63	460.47	470.37	474.63	474.26	475.50	469.66
Variable expenses/a.	172.40	166.30	168.15	172.79	177.24	182.04	185.84	189.52	192.94	196.19	198.92
Market net return/a.	251.00	227.78	260.62	260.32	273.39	278.43	284.52	285.11	281.32	279.31	270.75
Marketing loan benefits/a.*	0.00	0.34	0.23	0.25	0.37	0.32	0.13	0.46	0.33	0.25	0.56
Payments to participants											
PLC/base a.*	0.04	17.56	12.86	13.37	11.83	9.87	10.08	11.61	10.67	11.55	12.78
ARC/base a.*	24.53	28.87	16.41	11.01	8.01	6.34	7.54	8.75	9.20	10.46	11.45
Insurance net indemnities/a.*	9.91	11.60	13.00	14.14	14.88	15.57	16.13	16.48	17.11	17.21	17.44
					(Dollars per bushel)						
Crush margin	1.63	1.72	1.62	1.66	1.73	1.69	1.71	1.72	1.72	1.75	1.79

*Marketing loan benefits and insurance net indemnities are averaged across all acres. PLC and ARC payments are per participating acre.
All projections are averages across 500 stochastic outcomes.

Wheat

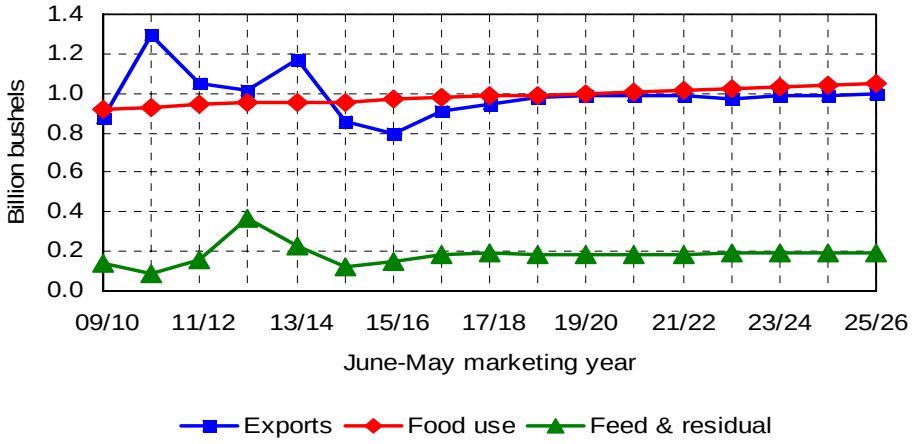
- U.S. wheat production increased slightly in 2015. Reduced acreage implies that wheat production could decline again in 2016.
- Lower exports have sharply reduced the use of U.S. wheat in the last two marketing years. Stocks have increased, pushing wheat prices lower.
- U.S. wheat imports average almost 130 million bushels per year, explaining the difference between U.S. production and use.

Wheat production remains low



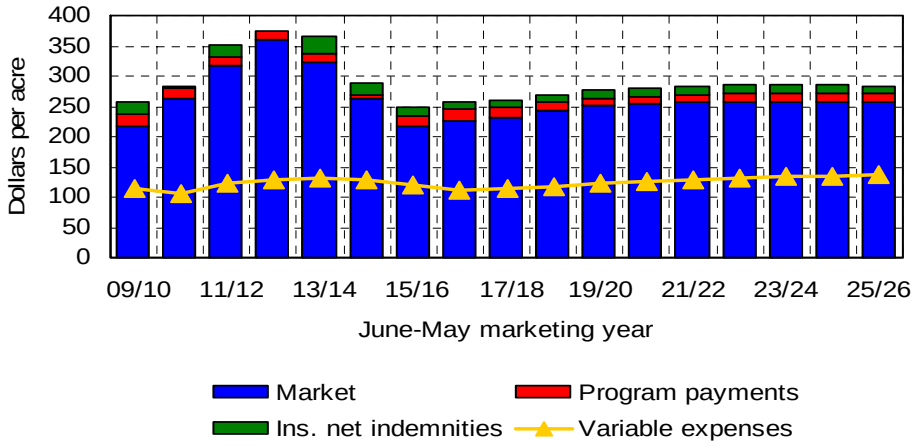
- The weakening of the corn price led to a decline in wheat feed use starting in 2013/14.
- Record global wheat production and strong competition from other exporters have reduced U.S. export sales.
- Low wheat prices contribute to a modest recovery in U.S. wheat exports beginning in 2016/17.
- Food use of wheat increases as the population grows.

Wheat exports decline again in 2015/16



- Lower prices and yields reduced per-acre market receipts in 2014/15 and 2015/16, and receipts remain well below recent peak levels through 2025/26.
- Projected market prices are below the $5.50 reference price, triggering PLC payments for producers who elected that program for their wheat base acreage.

Wheat net returns remain well below peaks



Wheat supply and use

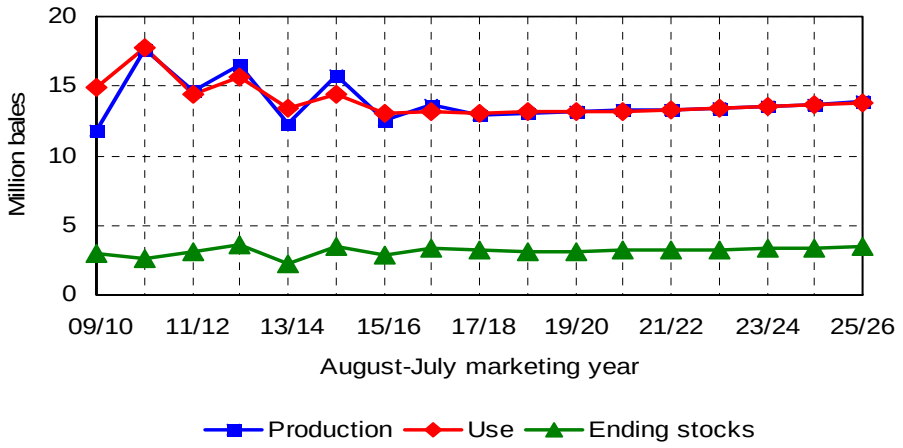
June-May year	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26
Area					(Million acres)						
Planted area	54.6	51.7	53.4	53.1	53.2	53.1	53.1	53.0	53.0	53.1	53.1
Harvested area	47.1	44.0	45.2	45.0	45.0	44.9	44.9	44.8	44.9	44.9	44.9
					(Bushels per harvested acre)						
Yield	43.6	45.7	46.1	46.4	46.7	47.1	47.4	47.7	48.0	48.3	48.7
					(Million bushels)						
Supply	2,924	3,068	3,139	3,159	3,160	3,164	3,167	3,171	3,193	3,210	3,234
Beginning stocks	752	932	928	943	927	914	905	901	906	908	913
Production	2,052	2,012	2,087	2,090	2,105	2,121	2,132	2,141	2,158	2,173	2,192
Imports	120	124	124	127	128	129	129	129	129	129	129
Domestic use	1,192	1,233	1,251	1,252	1,261	1,268	1,278	1,290	1,299	1,311	1,318
Feed and residual	152	182	191	185	187	187	188	192	193	196	195
Seed	72	74	74	74	74	74	74	75	75	75	76
Food and other	969	978	986	993	1,000	1,007	1,015	1,023	1,031	1,039	1,047
Exports	799	907	946	980	985	990	988	975	985	986	995
Total use	1,992	2,140	2,197	2,232	2,246	2,258	2,266	2,265	2,284	2,297	2,313
Ending stocks	932	928	943	927	914	905	901	906	908	913	921
CCC inventory	0	0	0	0	0	0	0	0	0	0	0
Under loan	33	36	38	36	34	33	33	34	34	35	37
Other stocks	899	892	904	892	880	872	868	872	874	878	884
Prices, program provisions					(Dollars per bushel)						
Farm price	4.99	4.97	5.04	5.25	5.36	5.40	5.44	5.42	5.38	5.34	5.26
Loan rate	2.94	2.94	2.94	2.94	2.94	2.94	2.94	2.94	2.94	2.94	2.94
Reference price	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50
					(Million acres)						
Base area	63.6	63.5	63.6	63.6	63.6	63.7	63.7	63.7	63.7	63.7	63.7
					(Bushels per acre)						
PLC program yield	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
					(Percent of base acres)						
PLC participation rate	42.5	42.5	42.5	42.5	50.0	50.0	50.0	50.0	50.0	50.0	50.0
ARC participation rate	57.5	57.5	57.5	57.5	50.0	50.0	50.0	50.0	50.0	50.0	50.0
Returns and payments					(Dollars)						
Gross market revenue/a.	217.49	226.55	232.18	243.07	250.45	254.53	257.52	258.50	258.15	258.03	256.44
Variable expenses/a.	120.10	112.41	113.68	118.09	122.87	126.97	129.64	131.79	133.59	135.32	136.92
Market net return/a.	97.39	114.14	118.50	124.98	127.58	127.56	127.88	126.70	124.56	122.72	119.51
Marketing loan benefits/a.*	0.00	0.21	0.93	0.88	0.71	0.58	0.60	1.11	0.78	0.57	0.44
Payments to participants											
PLC/base a.*	16.08	22.01	23.62	21.01	18.84	16.65	16.69	18.18	18.19	19.02	20.56
ARC/base a.*	16.93	15.64	11.47	7.90	6.63	6.43	6.96	7.56	7.76	8.36	8.72
Insurance net indemnities/a.*	14.43	11.17	11.35	11.72	12.28	12.30	12.56	12.47	12.61	12.75	12.34

*Marketing loan benefits and insurance net indemnities are averaged across all acres. PLC and ARC payments are per participating acre.
All projections are averages across 500 stochastic outcomes.

Upland cotton

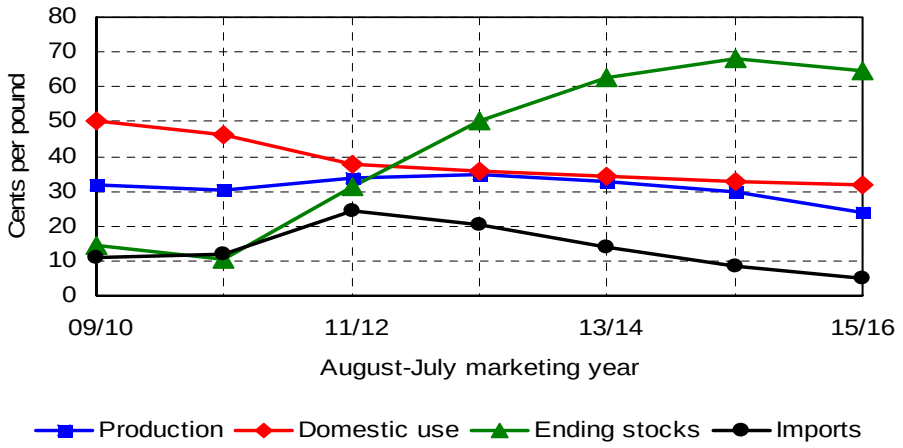
- Upland cotton production declined in 2015. Lower prices and unfavorable weather conditions limited planted area, and yields declined as well.
- In 2016, weak returns for competing crops contribute to an increase in projected cotton planted area, and trend yields would result in higher production.
- Reduced Chinese cotton imports contribute to weaker world prices and lower U.S. exports.
- Domestic mill use remains stable.

Upland cotton acreage, production fell in 2015



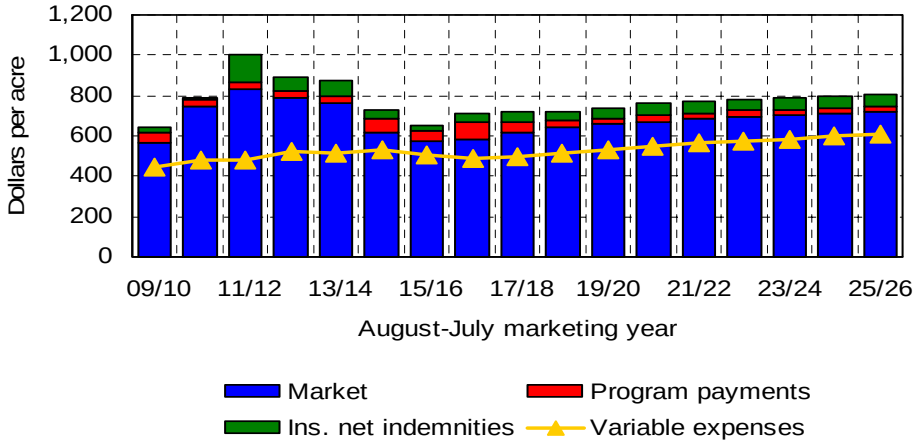
- China continues to be the main source of uncertainty in world cotton markets.
- Policy choices have led to very large Chinese stocks, which are now almost double the domestic use and production in China.
- Policy changes in China, especially if unanticipated, could have large impacts on world cotton trade and prices.

China's cotton stocks remain a source of uncertainty



- Cotton revenues per harvested acre have declined sharply since 2011/12.
- Even with a decline in production costs, margins are very tight in 2015/16.
- Cotton prices have dropped low enough to trigger marketing loan benefits, which are projected to peak in 2016/17.
- STAX and other crop insurance policies provide some support, but there is no ARC or PLC program for upland cotton.

Cotton profit margins remain tight



Upland cotton supply and use

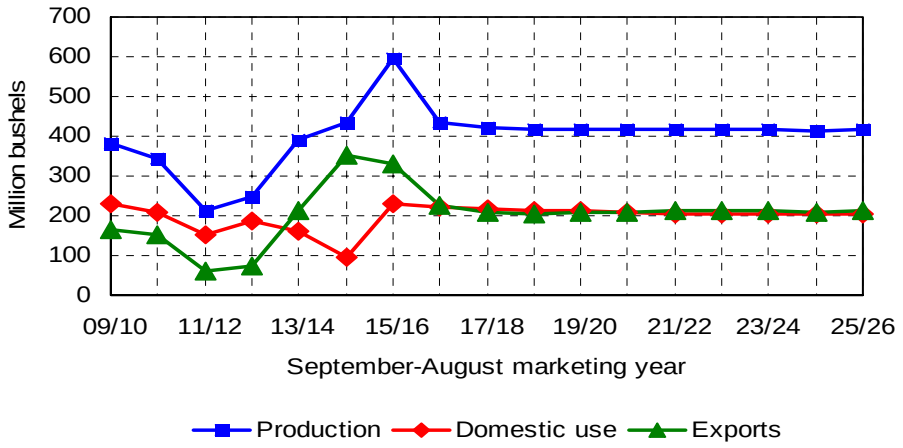
August-July year	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26
Area					(Million acres)						
Planted area	8.42	9.38	8.88	8.88	8.83	8.80	8.80	8.78	8.77	8.79	8.84
Harvested area	7.92	7.98	7.53	7.56	7.50	7.48	7.46	7.44	7.45	7.45	7.48
					(Pounds per harvested acre)						
Yield	758	817	821	830	840	848	856	863	871	878	887
					(Million bales)						
Supply	15.96	16.51	16.24	16.29	16.30	16.39	16.56	16.64	16.83	17.00	17.26
Beginning stocks	3.44	2.87	3.32	3.19	3.13	3.13	3.20	3.22	3.27	3.32	3.37
Production	12.51	13.64	12.91	13.09	13.16	13.25	13.34	13.42	13.55	13.67	13.88
Imports	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Domestic mill use	3.57	3.57	3.54	3.51	3.49	3.48	3.48	3.48	3.47	3.46	3.46
Exports	9.53	9.63	9.51	9.64	9.68	9.70	9.86	9.89	10.04	10.17	10.36
Total use	13.09	13.19	13.05	13.15	13.17	13.18	13.34	13.37	13.51	13.63	13.82
Ending stocks	2.87	3.32	3.19	3.13	3.13	3.20	3.22	3.27	3.32	3.37	3.44
CCC inventory	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other stocks	2.87	3.32	3.19	3.13	3.13	3.20	3.22	3.27	3.32	3.37	3.44
Prices, program provisions					(Cents per pound)						
Farm price	59.2	56.9	59.1	61.4	62.1	62.6	63.6	64.4	65.0	65.5	65.7
Adjusted world price	47.5	46.2	48.6	51.4	52.2	52.9	54.2	55.3	56.1	56.8	57.2
Loan rate	52.0	52.0	48.6	47.7	48.2	49.0	49.5	49.7	50.0	50.2	50.5
					(Dollars per ton)						
Cottonseed price	228.17	209.59	222.42	225.75	230.60	229.89	230.98	229.49	227.49	225.62	223.09
					(Million acres)						
Base area	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Returns and payments					(Dollars)						
Gross market revenue/a.	572.30	583.92	612.87	641.53	658.34	668.35	684.10	695.45	705.44	714.73	721.82
Variable expenses/a.	505.95	488.08	498.00	515.53	533.67	550.62	563.31	575.55	587.03	598.02	608.82
Market net return/a.	66.35	95.83	114.87	125.99	124.68	117.73	120.80	119.90	118.41	116.71	113.00
Marketing loan benefits/a.*	53.92	84.65	58.25	33.64	30.58	37.62	31.12	28.86	25.59	26.61	24.92
Transition payments/base a.*	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Insurance net indemnities/a.	23.82	44.71	48.36	48.14	51.86	54.52	55.02	56.66	56.88	58.14	58.21

*Marketing loan benefits, transition payments and insurance net indemnities are averaged across all acres.
All projections are averages across 500 stochastic outcomes.

Sorghum and barley

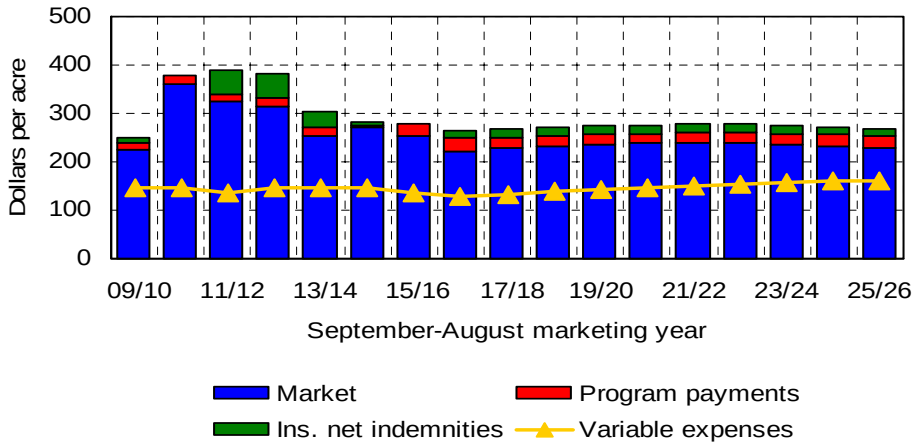
- In 2014/15, China limited corn imports but allowed large imports of sorghum, driving sorghum prices well above corn prices.
- In response, U.S. sorghum production jumped nearly 50 percent in 2015 due to increases in both area and yield.
- The increase in production and lower Chinese sorghum imports have sharply reduced sorghum prices again.

Sorghum production jumped in 2015



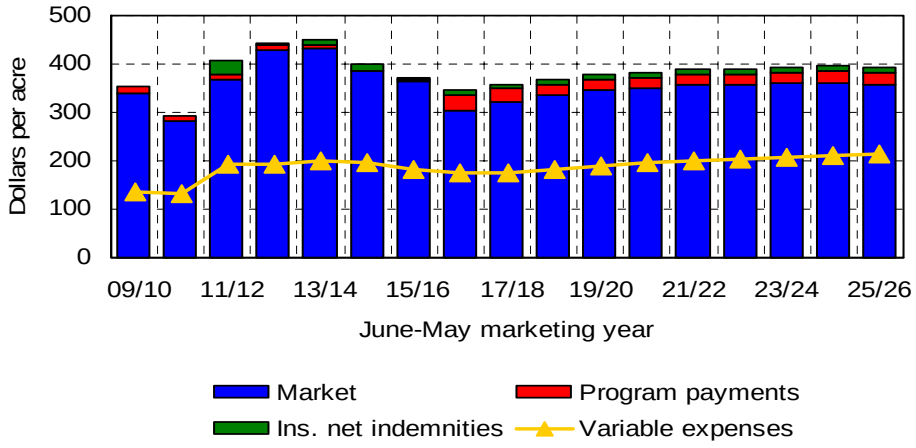
- Sorghum market returns per acre decline in 2015/16, as the drop in prices is larger than the increase in yields.
- Projected average sorghum prices are below the levels that trigger PLC payments on participating sorghum base acreage.
- Sorghum margins remain tight throughout the projection period.

Lower prices reduce sorghum returns, trigger PLC



- Barley prices have declined, but not as much as prices of other grains.
- Average projected prices for barley fall below the reference price that triggers PLC payments beginning in 2016/17.
- High expected PLC payments encouraged producers to enroll 75 percent of barley base acres in the program.

Barley prices could also trigger PLC in 2016/17



Sorghum supply and use

September-August year	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26
Area					(Million acres)						
Planted area	8.46	7.69	7.43	7.38	7.35	7.33	7.32	7.31	7.30	7.29	7.28
Harvested area	7.85	6.66	6.44	6.40	6.37	6.36	6.35	6.35	6.33	6.32	6.31
					(Bushels per harvested acre)						
Yield	76.0	64.9	64.9	65.0	65.2	65.5	65.5	65.5	65.5	65.5	65.7
Supply and use					(Million bushels)						
Production	597	434	420	418	417	418	417	417	416	415	416
Imports	5	1	1	1	1	1	1	1	1	1	1
Domestic use	229	223	217	215	212	208	206	205	204	205	203
Exports	329	227	209	205	207	210	212	212	211	210	212
Ending stocks	62	47	42	41	41	42	43	44	46	47	49
Prices, returns and payments					(Dollars)						
Farm price/bu.	3.34	3.46	3.57	3.63	3.67	3.68	3.72	3.70	3.66	3.60	3.53
Market net return/a.	117.57	92.49	96.99	95.41	93.91	90.75	89.63	85.63	79.65	74.04	67.26
Marketing loan benefits/a.*	0.00	0.47	0.85	0.29	0.53	0.43	0.55	0.59	0.50	0.63	0.62
Payments to participants											
PLC/base a.*	30.20	31.68	28.69	27.81	26.66	26.01	25.51	26.43	27.62	28.89	31.07
ARC/base a.*	11.81	16.45	6.78	6.29	6.27	6.38	5.92	6.15	6.89	7.11	7.41
Insurance net indemnities/a.*	-0.15	15.23	16.27	17.62	17.80	17.48	17.35	17.33	17.28	17.29	16.72

*Marketing loan benefits and insurance net indemnities are averaged across all acres. PLC and ARC payments are per participating acre.
All projections are averages across 500 stochastic outcomes.

Barley supply and use

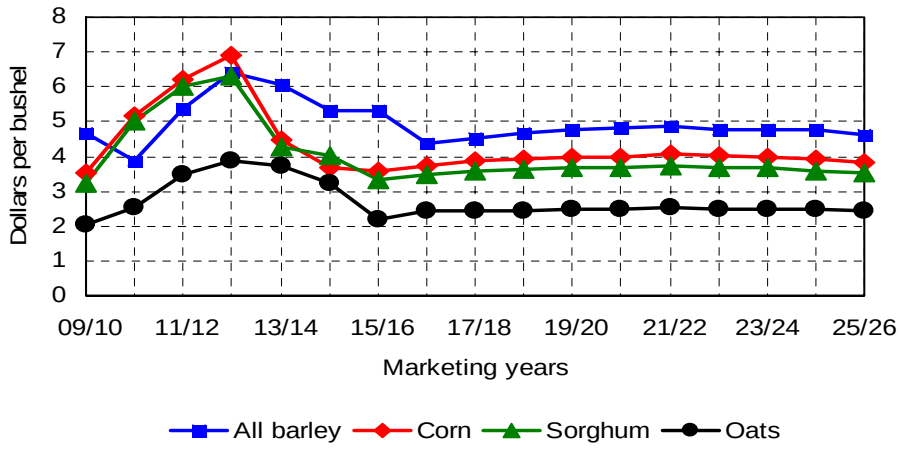
June-May year	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26
Area					(Million acres)						
Planted area	3.56	3.71	3.20	3.20	3.19	3.16	3.12	3.11	3.04	3.01	3.00
Harvested area	3.11	3.22	2.77	2.77	2.77	2.73	2.70	2.69	2.63	2.60	2.59
					(Bushels per harvested acre)						
Yield	68.9	70.4	71.5	72.2	72.8	73.4	74.2	75.0	75.6	76.4	77.1
Supply and use					(Million bushels)						
Production	214	227	198	200	201	201	201	202	199	199	200
Imports	18	18	25	24	22	23	23	24	24	24	24
Domestic use	203	226	220	217	215	215	214	216	215	214	214
Exports	12	12	7	8	9	9	9	8	8	8	8
Ending stocks	96	103	99	98	97	98	98	100	100	101	103
Prices, returns and payments					(Dollars)						
All barley farm price/bu.	5.31	4.36	4.51	4.65	4.78	4.80	4.85	4.78	4.77	4.76	4.64
Feed barley price/bu.	3.13	2.90	3.02	3.11	3.19	3.20	3.25	3.21	3.19	3.16	3.06
Market net return/a.	183.45	128.62	144.50	150.62	155.83	154.20	157.29	151.99	151.82	151.62	143.02
Marketing loan benefits/a.*	0.00	1.55	2.55	1.62	1.67	1.46	1.75	1.42	1.46	2.29	2.07
Payments to participants											
PLC/base a.*	0.00	33.17	29.80	26.30	23.61	22.35	23.31	24.03	24.47	24.94	26.70
ARC/base a.*	2.95	13.76	12.76	9.32	7.44	6.74	6.80	7.40	8.01	8.33	9.04
Insurance net indemnities/a.*	3.45	10.15	9.18	9.85	10.09	10.60	10.59	10.80	10.83	10.99	11.31

*Marketing loan benefits and insurance net indemnities are averaged across all acres. PLC and ARC payments are per participating acre.
All projections are averages across 500 stochastic outcomes.

Oats and hay

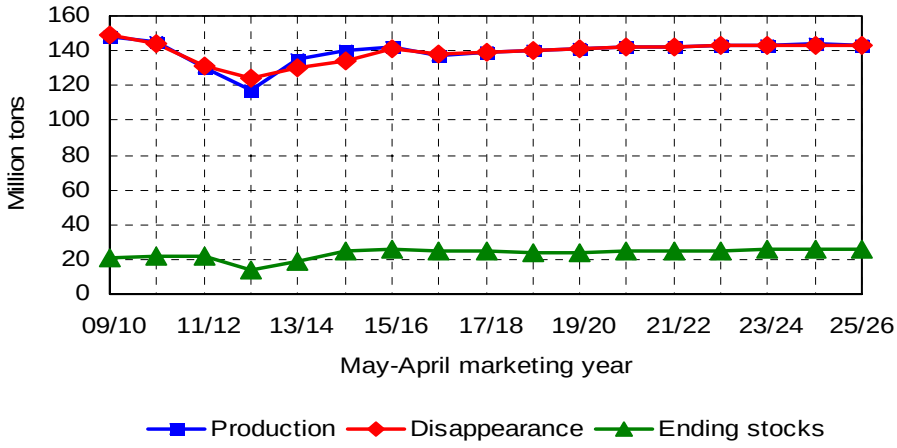
- Increased oats area and a record yield resulted in a large 2015 oats crop. As a result, oats prices have declined more in 2015/16 than prices of other feed grains.
- In the baseline, average prices of all the major feed grains move together and remain well below the 2012/13 peak values.

Feed grain prices move together



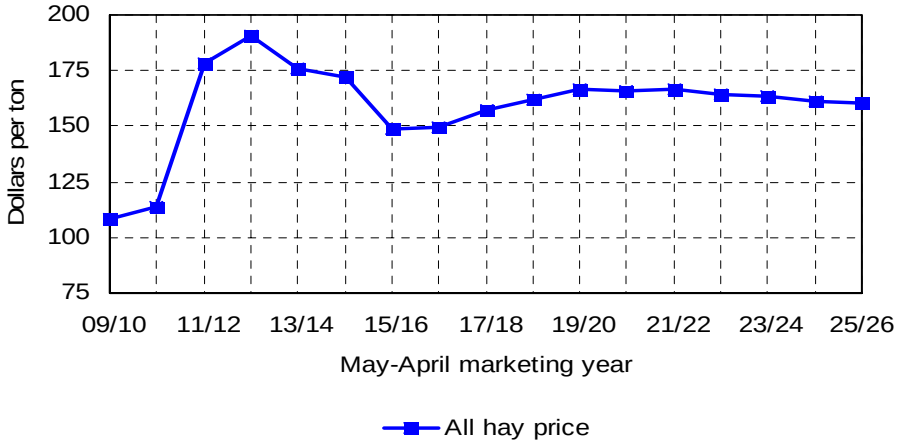
- Both hay area and yield increased in 2015.
- Lower hay prices and rising cattle numbers contribute to greater hay use in 2015/16.
- Hay stocks are expected to increase for the fourth straight year in 2015/16.

Hay stocks remain well above levels of recent years



- Hay prices have declined from the drought-induced levels of 2012/13.
- Projected national average hay prices range from $150 to $170 per ton.
- Hay markets are particularly fragmented, so national average prices may not reflect local conditions.

Hay prices fall with increased production



Oats supply and use

June-May year	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26
Area					(Million acres)						
Planted area	3.09	3.00	2.94	2.90	2.86	2.85	2.85	2.86	2.87	2.89	2.91
Harvested area	1.28	1.15	1.12	1.10	1.07	1.07	1.07	1.07	1.08	1.08	1.09
					(Bushels per harvested acre)						
Yield	70.2	64.6	65.2	65.7	66.1	66.6	67.0	67.4	67.8	68.2	68.5
Supply and use					(Million bushels)						
Production	90	75	73	72	71	72	72	73	73	74	75
Imports	95	101	101	101	101	101	101	100	99	99	98
Domestic use	178	170	171	171	170	170	170	170	170	170	169
Exports	2	2	2	2	2	2	2	2	2	2	2
Ending stocks	59	63	64	64	65	65	66	67	68	69	71
Prices, returns and payments					(Dollars)						
Farm price/bu.	2.18	2.42	2.44	2.44	2.48	2.47	2.51	2.50	2.48	2.47	2.42
Reference price/bu.											
Market net return/a.	44.65	55.58	56.54	53.82	53.82	51.40	51.88	50.47	49.15	47.59	44.01
Marketing loan benefits/a.*	0.00	0.20	0.49	0.18	0.37	0.32	0.37	0.26	0.39	0.38	0.32
Payments to participants											
PLC/base a.*	8.97	7.73	8.85	8.18	5.58	5.09	5.09	5.32	5.44	5.57	5.81
ARC/base a.*	5.64	6.54	4.90	2.69	2.90	2.41	2.15	2.18	2.34	2.47	2.53
Insurance net indemnities/a.*	-0.02	1.24	1.56	1.58	1.59	1.63	1.58	1.58	1.58	1.57	1.65

*Marketing loan benefits and insurance net indemnities are averaged across all acres. PLC and ARC payments are per participating acre.
All projections are averages across 500 stochastic outcomes.

Hay supply and use

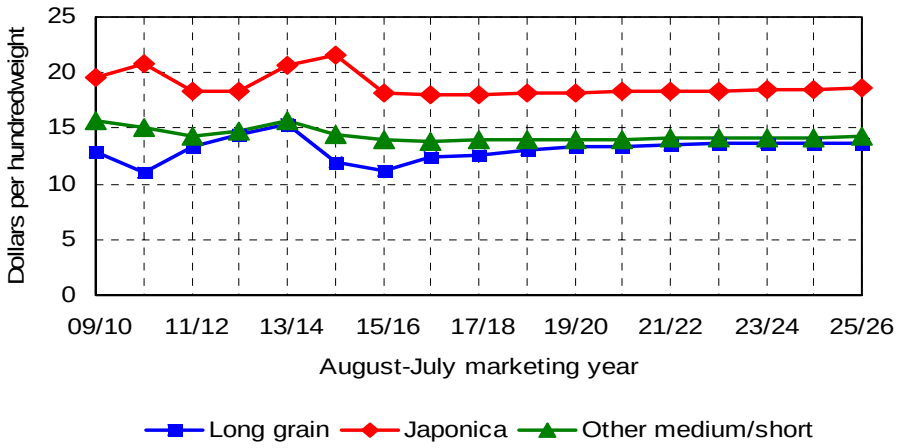
May-April year	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26
					(Million acres)						
Harvested area	56.5	57.1	57.5	57.8	58.0	58.2	58.1	58.1	57.9	57.9	57.8
					(Tons per acre)						
Yield	2.52	2.40	2.41	2.43	2.43	2.45	2.45	2.47	2.47	2.48	2.48
Supply and use					(Million tons)						
Production	142.4	137.4	138.8	140.3	141.0	142.4	142.6	143.3	143.1	143.7	143.5
Disappearance	140.7	138.6	139.4	140.5	141.1	142.1	142.3	142.9	142.8	143.1	143.3
Ending stocks	26.2	25.0	24.4	24.2	24.1	24.4	24.7	25.1	25.4	25.9	26.1
					(Dollars per ton)						
All hay farm price	148.61	149.85	157.47	162.06	166.91	165.85	166.44	164.21	163.18	161.11	160.30

All projections are averages across 500 stochastic outcomes.

Rice

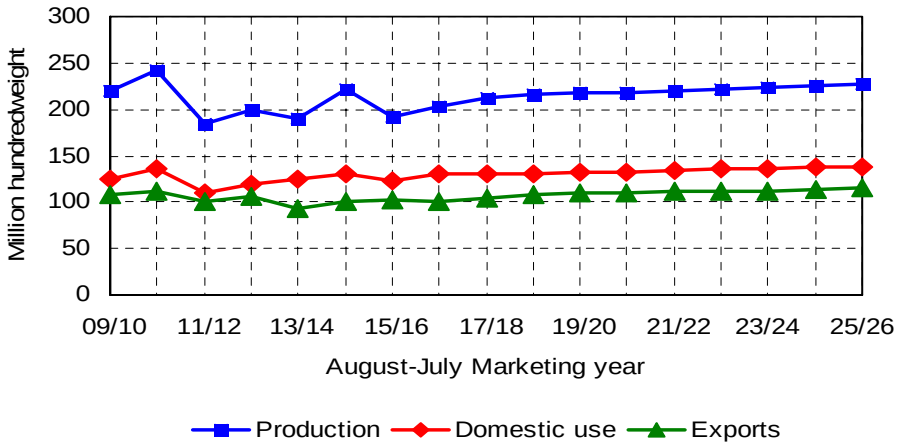
- World long grain rice prices have declined in 2015/16, but are projected to recover, pushing up U.S. prices.
- Japonica rice is produced in California. The drought there limited supplies and pushed prices higher in 2013/14 and 2014/15.
- The premium for Japonica rice is projected to weaken to levels more consistent with past experience.

Rice prices decline in 2015/16



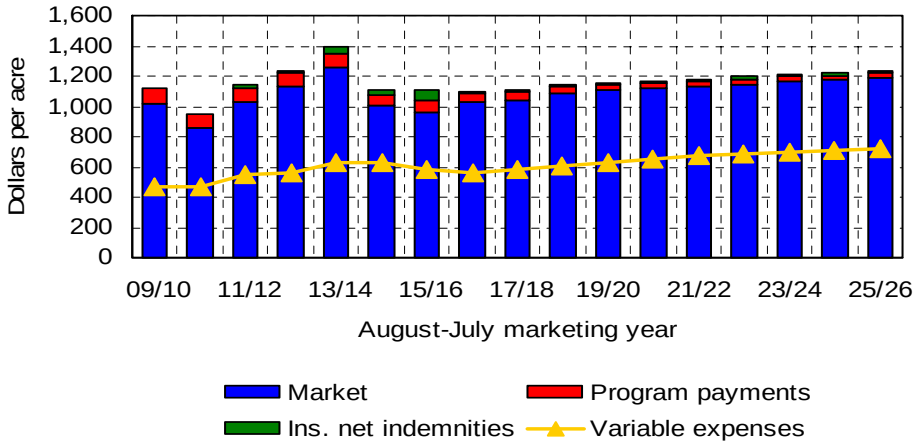
- Lower long grain yields and area drove down 2015 total rice production.
- Domestic rice consumption increases with population growth.
- Projected U.S. rice exports increase at a modest pace.
- Projected average stocks-to-use ratios are relatively stable, but normal market volatility will cause stocks and prices to vary.

Rice production dropped in 2015



- High prices and yields resulted in record levels of per-acre revenues for U.S. rice producers in 2013/14. Declines in rice prices in 2014/15 and 2015/16 have reduced producer returns.
- Projected average long grain rice prices drop below the levels that trigger PLC payments.
- Crop insurance has been making large payments for the 2015 crop to rice producers to cover the yield losses.

Rice returns have declined from 2013/14 peak



Rice supply and use

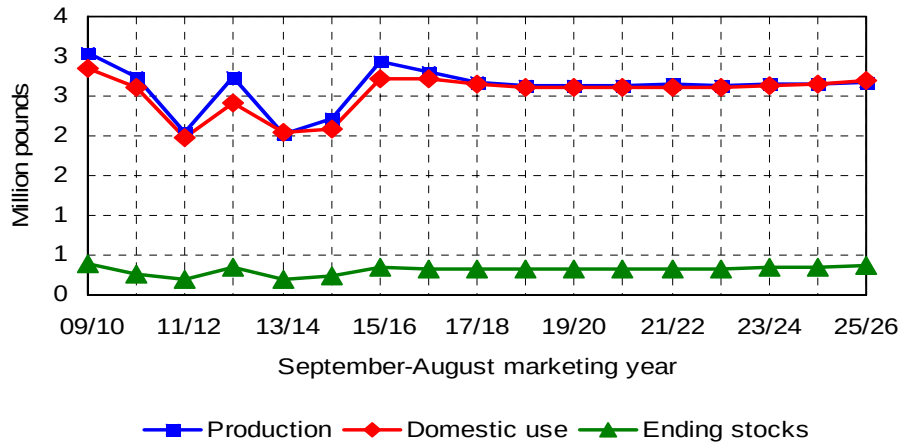
August-July year	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26
Area					(Million acres)						
Planted area	2.61	2.71	2.80	2.82	2.82	2.80	2.79	2.79	2.79	2.79	2.80
Harvested area	2.58	2.68	2.77	2.79	2.79	2.77	2.77	2.76	2.76	2.77	2.77
					(Pounds per harvested acre)						
Yield	7,470	7,598	7,686	7,761	7,816	7,879	7,948	8,020	8,089	8,156	8,234
Supply and use					(Million hundredweight)						
Production	192.3	204.0	213.1	216.6	218.2	218.6	219.8	221.5	223.1	225.5	227.9
Imports	24.0	23.7	24.1	24.5	24.9	25.4	25.7	25.9	26.2	26.5	26.8
Domestic use	122.1	129.7	130.8	131.2	132.0	133.0	134.2	135.2	136.4	137.6	138.3
Exports	102.7	99.8	104.7	108.7	110.6	110.6	110.9	111.7	112.4	113.7	115.6
Ending stocks	40.1	38.2	40.0	41.2	41.7	42.0	42.3	42.9	43.4	44.2	45.0
Program provisions					(Dollars per hundredweight)						
Loan rate	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50
Reference price											
Long grain	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00
Japonica	16.10	16.10	16.10	16.10	16.10	16.10	16.10	16.10	16.10	16.10	16.10
Other medium/short	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00
Base area					(Million acres)						
Long grain	4.00	4.01	4.01	4.01	4.01	4.01	4.01	4.01	4.01	4.01	4.01
Medium/short	0.76	0.75	0.75	0.75	0.75	0.74	0.74	0.74	0.74	0.74	0.74
Countercyclical/PLC yield					(Pounds per acre)						
Long grain	4,778	4,778	4,778	4,778	4,778	4,778	4,778	4,778	4,778	4,778	4,778
Medium/short	4,581	4,582	4,582	4,582	4,583	4,583	4,583	4,583	4,583	4,583	4,582
PLC participation rate					(Percent of base acres)						
Long grain	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
Medium/short	69.7	69.7	69.7	69.7	69.7	69.7	69.7	69.7	69.7	69.7	69.7
ARC participation rate											
Long grain	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Medium/short	30.3	30.3	30.3	30.3	30.3	30.3	30.3	30.3	30.3	30.3	30.3
Prices, returns and payments					(Dollars)						
Farm price/cwt	12.80	13.48	13.55	13.95	14.18	14.19	14.27	14.32	14.39	14.37	14.43
Long grain	11.21	12.44	12.56	13.04	13.39	13.41	13.53	13.59	13.67	13.65	13.66
Japonica	18.13	18.06	18.08	18.17	18.24	18.25	18.30	18.33	18.41	18.41	18.58
Other medium/short	13.95	13.89	13.91	13.98	14.03	14.04	14.08	14.10	14.16	14.16	14.29
Gross market revenue/a.	956.43	1024.60	1041.18	1082.97	1108.66	1117.70	1134.11	1148.33	1164.21	1172.37	1188.26
Variable expenses/a.	577.35	561.60	580.29	606.10	630.54	653.60	668.99	683.77	697.48	710.75	723.60
Market net return/a.	379.08	463.01	460.88	476.87	478.12	464.10	465.12	464.56	466.73	461.62	464.66
Marketing loan benefits/a.*	0.00	0.09	0.38	0.28	0.47	0.21	0.30	0.10	0.30	0.19	0.25
Payments to participants											
PLC/base a.*	91.76	58.84	56.21	43.97	38.43	36.56	34.53	33.98	33.80	33.60	32.91
ARC/base a.*	1.12	14.29	19.21	17.97	14.96	14.73	16.75	16.34	16.56	17.17	15.47
Insurance net indemnities/a.*	65.33	12.27	12.79	12.95	13.15	13.35	13.29	13.12	12.69	12.40	12.35

*Marketing loan benefits and insurance net indemnities are averaged across all acres. PLC and ARC payments are per participating acre.
All projections are averages across 500 stochastic outcomes.

Sunflower seed, canola and cottonseed

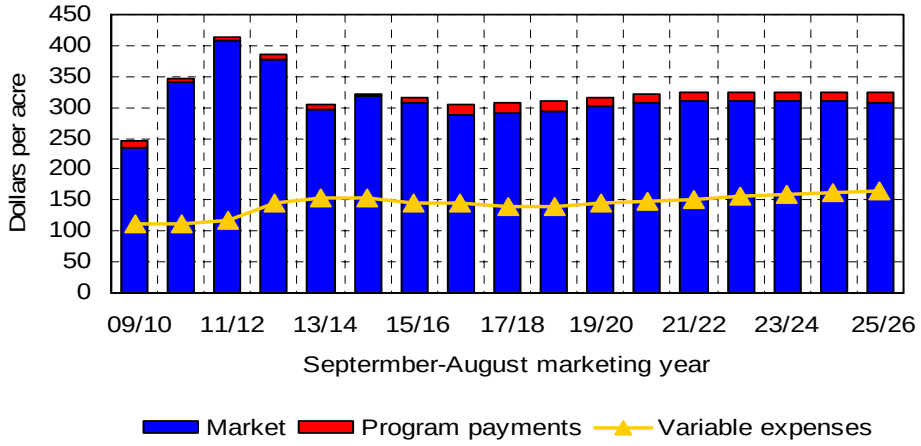
- An increase in sunflower acreage and yields drove 2015 sunflower seed production to the highest level since 2009.
- Domestic use did not increase as much as production in 2015/16 resulting in an increase of stocks.
- In the projection period, production and use more closely align.

Sunflower seed production recovers



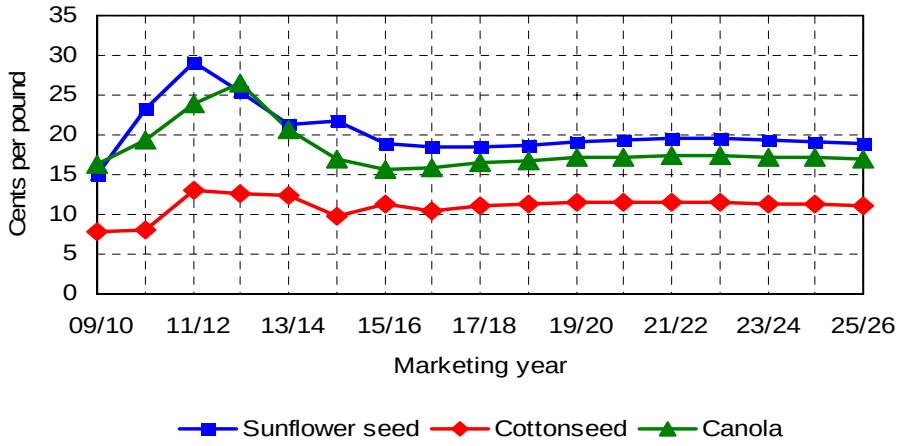
- Sunflower seed prices declined in 2013/14 in response to larger global oilseed supplies and lower vegetable oil prices.
- Higher production has pushed down prices further in 2015/16, but the increased yield largely offsets the effect.
- Projected average sunflower seed prices are low enough to trigger PLC payments.

Sunflower returns also decline with lower prices



- Average sunflower seed and canola prices remain below the reference price of 20.2 cents per pound. Cottonseed is not currently a program commodity eligible for PLC payments.
- Cotton area has been decreasing while canola area has been increasing.
- Low soybean prices keep pressure on oilseed prices.

Oilseed prices remain below peak



Sunflower seed supply and use

September-August year	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26
Area					(Million acres)						
Planted area	1.86	1.92	1.81	1.79	1.78	1.77	1.77	1.76	1.76	1.75	1.76
Harvested area	1.80	1.79	1.69	1.67	1.66	1.66	1.65	1.65	1.64	1.64	1.64
					(Pounds per harvested acre)						
Yield	1,625	1,563	1,572	1,576	1,583	1,592	1,597	1,602	1,608	1,619	1,626
Supply and use					(Million pounds)						
Production	2,924	2,810	2,667	2,637	2,636	2,640	2,646	2,641	2,645	2,658	2,670
Imports	165	165	165	165	165	165	165	165	165	165	165
Domestic use	2,708	2,712	2,648	2,615	2,608	2,601	2,604	2,610	2,625	2,662	2,686
Exports	281	275	192	186	194	200	203	189	175	153	141
Ending stocks	338	327	319	320	319	323	328	335	344	354	362
Prices, returns and payments					(Dollars)						
Farm price/lb.	0.189	0.185	0.185	0.187	0.191	0.193	0.195	0.195	0.193	0.192	0.189
Market net return/a.	162.14	144.14	151.15	152.84	157.12	157.85	157.72	155.34	150.73	148.20	143.05
Marketing loan benefits/a.*	0.00	0.10	0.10	0.13	0.18	0.23	0.26	0.24	0.30	0.15	0.41
Payments to participants											
PLC/base a.*	13.65	22.93	23.20	22.26	20.79	19.30	18.65	18.87	20.36	20.63	22.97
ARC/base a.*	4.54	9.70	7.80	7.07	7.33	6.86	6.40	6.45	7.41	7.50	8.11

*Marketing loan benefits and insurance net indemnities are averaged across all acres. PLC and ARC payments are per participating acre.
All projections are averages across 500 stochastic outcomes.

Cottonseed and canola production and prices

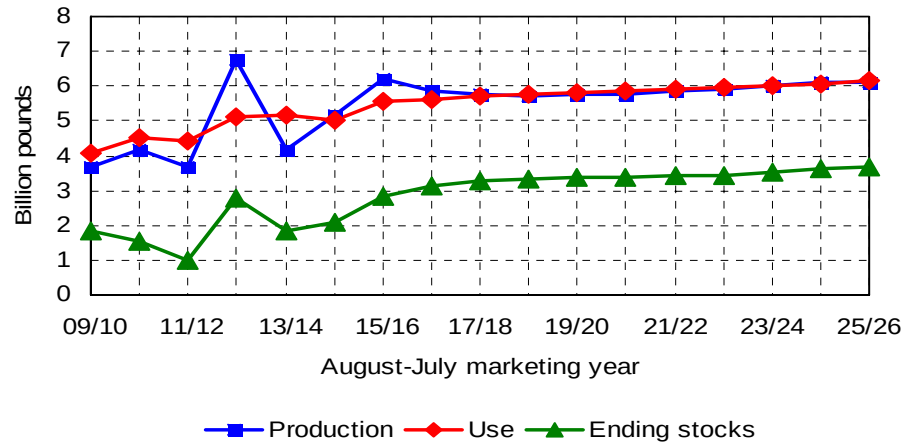
Marketing year	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26
Production					(Thousand tons, Aug.-Jul. year)						
Cottonseed	4,288	4,695	4,446	4,536	4,566	4,596	4,627	4,649	4,691	4,727	4,788
					(Million pouds, Jul.-Jun. year)						
Canola	2,875	3,035	3,010	3,008	3,005	3,016	3,024	3,030	3,043	3,051	3,067
Prices					(Dollars per ton, Aug.-Jul. year)						
Cottonseed	228	210	222	226	231	230	231	229	227	226	223
Canola					(Cents per pound, Jul.-Jun. year)						
Farm price	15.6	16.0	16.5	16.6	17.1	17.2	17.4	17.5	17.3	17.1	16.9
Reference price	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2

Cottonseed production, cottonseed prices and canola farm prices are averages across 500 stochastic outcomes.

Peanuts and sugar

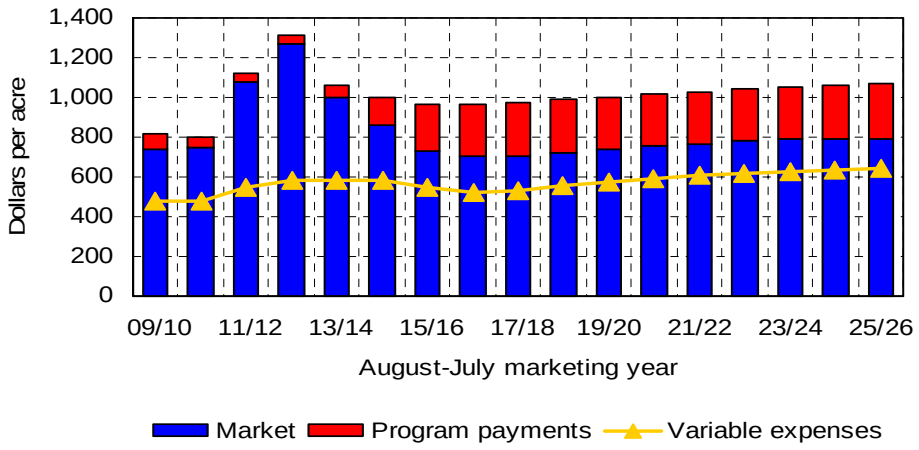
- In spite of lower prices, peanut acreage and production increased in 2015/16.
- Use has increased in response to lower prices, but not enough to avoid a large increase in stocks.
- Large government payments play a role in sustaining peanut acreage, and stocks grow even larger in 2016/17.
- Average peanut prices remain below $375 per ton from 2015/16 to 2025/26.

Peanut production and stocks remain high



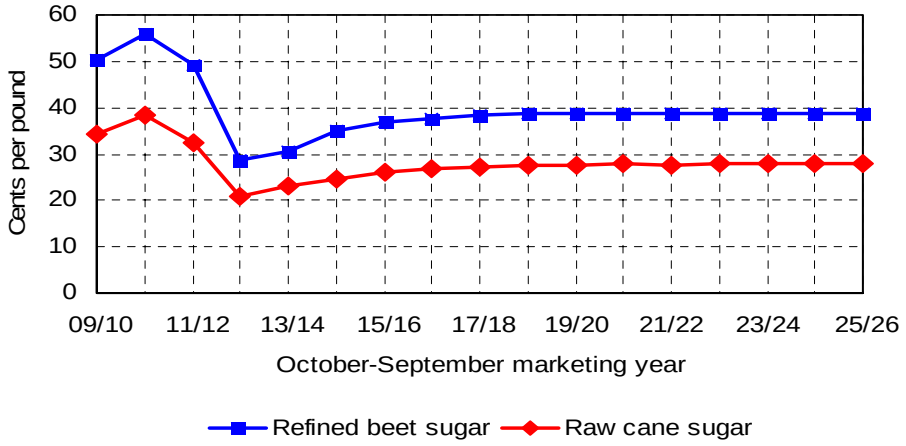
- The marketing loan program provides support that is directly tied to current production levels.
- With average projected market prices significantly below reference prices, PLC payments are proportionally larger for peanuts than for other crops.
- PLC payments generally are tied to base acres and not to actual plantings. Except on generic base, a producer cannot get more PLC payments by planting more peanuts.

Peanut payments represent a higher share of income



- For the last two years, sugar prices have stayed well above the loan rate. One reason is an agreement with Mexico that limits imports under specific conditions.
- Domestic sugar production and consumption each increase by about 1 million tons between 2015/16 and 2025/26.
- Per-capita sugar consumption is flat at about 75 pounds per person per year.

Sugar prices are supported by Mexico agreement



Peanut supply and use

August-July year	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26
Area					(Million acres)						
Planted area	1.63	1.56	1.51	1.48	1.46	1.45	1.45	1.44	1.45	1.45	1.44
Harvested area	1.57	1.51	1.46	1.44	1.42	1.41	1.40	1.40	1.41	1.41	1.40
					(Pounds per harvested acre)						
Yield	3,963	3,883	3,938	3,992	4,048	4,104	4,158	4,212	4,264	4,314	4,369
Supply and use					(Million pounds)						
Production	6,214	5,865	5,757	5,734	5,746	5,778	5,840	5,898	6,015	6,089	6,127
Imports	85	85	85	85	85	85	85	85	85	85	85
Domestic use	4,452	4,446	4,489	4,530	4,571	4,614	4,659	4,708	4,770	4,828	4,886
Exports	1,119	1,183	1,219	1,231	1,237	1,234	1,234	1,235	1,248	1,258	1,264
Ending stocks	2,828	3,150	3,283	3,341	3,364	3,379	3,411	3,451	3,534	3,621	3,683
Prices, returns and payments					(Dollars)						
Farm price/ton	369.30	364.61	360.95	363.20	367.00	369.15	370.10	373.49	372.23	367.62	365.50
Reference price/ton	535.00	535.00	535.00	535.00	535.00	535.00	535.00	535.00	535.00	535.00	535.00
Market net return/a.	187.65	184.20	173.52	165.74	163.34	159.45	159.28	164.43	160.92	150.28	147.96
Marketing loan benefits/a.*	18.38	49.78	59.35	62.46	61.58	59.54	58.71	60.03	63.97	68.33	69.56
Payments to participants											
PLC/base a.*	217.87	210.34	210.77	206.37	203.82	203.24	203.76	198.05	199.73	202.75	205.50
ARC/base a.*	65.11	61.02	56.02	51.03	48.99	49.81	50.29	49.57	50.78	52.87	54.20

*Marketing loan benefits and insurance net indemnities are averaged across all acres. PLC and ARC payments are per participating acre.
All projections are averages across 500 stochastic outcomes.

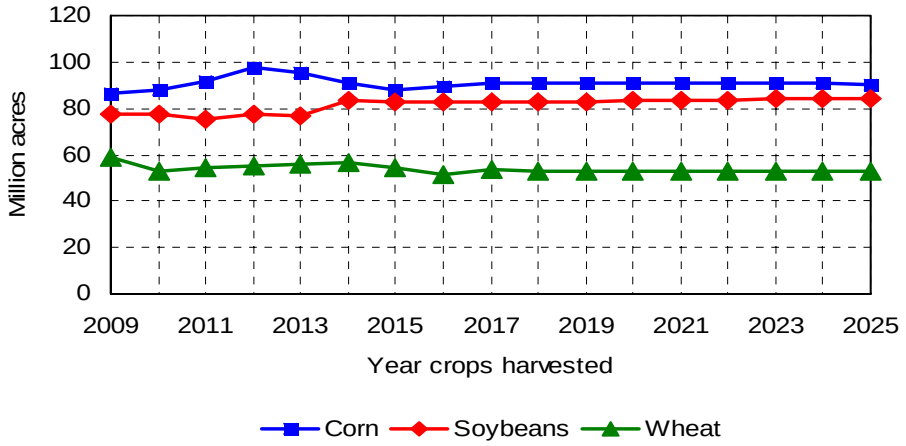
Sugar supply and use

October-September year	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26
Area					(Million acres)						
Sugar cane harvested	0.848	0.862	0.867	0.871	0.865	0.856	0.848	0.838	0.831	0.826	0.822
Sugar beet planted	1.159	1.159	1.199	1.222	1.222	1.223	1.221	1.221	1.229	1.239	1.251
Sugar beet harvested	1.144	1.135	1.174	1.197	1.196	1.198	1.196	1.195	1.204	1.214	1.225
Yield					(Tons per harvested acre)						
Cane sugar	4.46	4.41	4.43	4.45	4.48	4.50	4.52	4.54	4.56	4.59	4.61
Beet sugar	4.51	4.46	4.54	4.62	4.70	4.78	4.85	4.93	5.00	5.09	5.18
Supply and use					(Thousand tons)						
Production	8,934	8,860	9,169	9,407	9,496	9,580	9,643	9,692	9,808	9,965	10,129
Cane sugar	3,776	3,800	3,843	3,879	3,876	3,856	3,836	3,802	3,787	3,787	3,788
Beet sugar	5,158	5,060	5,326	5,528	5,619	5,724	5,807	5,890	6,021	6,177	6,341
Imports	3,098	3,561	3,227	3,095	3,101	3,074	3,149	3,194	3,182	3,118	3,051
Domestic use	12,086	12,222	12,264	12,367	12,466	12,527	12,654	12,752	12,857	12,954	13,050
Exports	125	131	119	118	121	120	120	119	117	116	115
Ending stocks	1,587	1,655	1,668	1,685	1,694	1,702	1,719	1,733	1,749	1,761	1,775
Prices					(Cents per pound)						
N.Y. spot raw sugar	26.25	26.72	27.25	27.54	27.63	27.89	27.76	27.85	27.88	27.91	27.94
Refined beet sugar	36.97	37.56	38.24	38.58	38.64	38.94	38.70	38.77	38.75	38.73	38.71

All projections are averages across 500 stochastic outcomes.

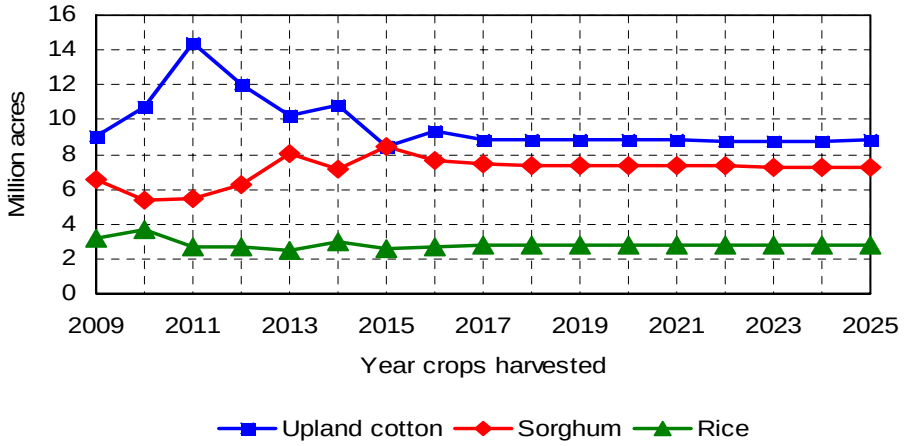
Land use

Corn, soybean area increase in 2016, wheat declines



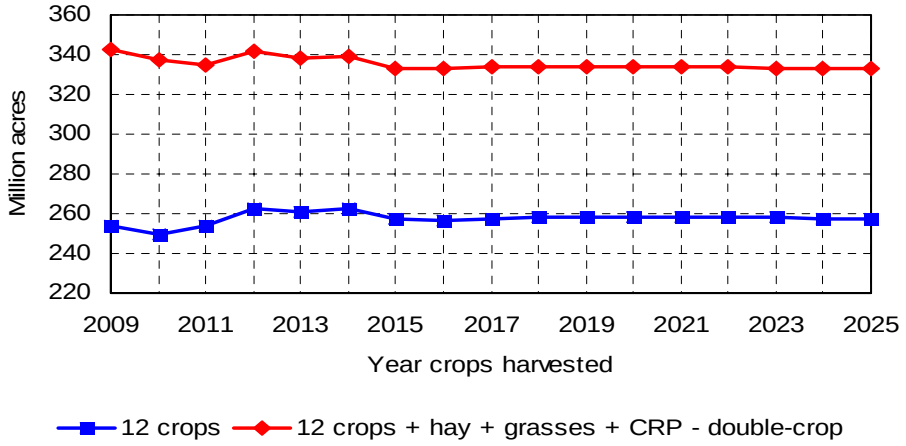
- Lower corn prices led to a reduction in corn area planted in 2015, but some recovery is expected in 2016.
- Soybean planted area was the second highest on record in 2015, in spite of poor planting conditions in much of the country. Soybean area is expected to increase slightly again in 2016.
- Wheat area is likely to decrease in 2016, as USDA reports that winter wheat seedings were down 3 million acres.

Cotton acreage increases in 2016



- Lower prices contributed to sharp reductions in cotton acreage planted since 2011.
- 2015 cotton acreage declines were exacerbated by prevented plantings. More normal conditions could bring back some of those acres in 2016.
- Sorghum area increased sharply in Kansas in 2015 as prices for competing crops fell. Sorghum prices have since weakened, and projected sorghum plantings decline in 2016.

12-crop planted declined in 2015, steady in 2016



- Land planted to 12 major crops decreased by almost 5.5 million acres in 2015. One reason was excess moisture that limited planting in several states.
- The projected total area for 2016 is largely unchanged. Lower prices discourage production, but more normal planting conditions could allow a higher proportion of intended acres to be planted.
- The CRP cap is lower under the new farm bill, allowing more potential acres for crop production.

Land use for major crops and the conservation reserve

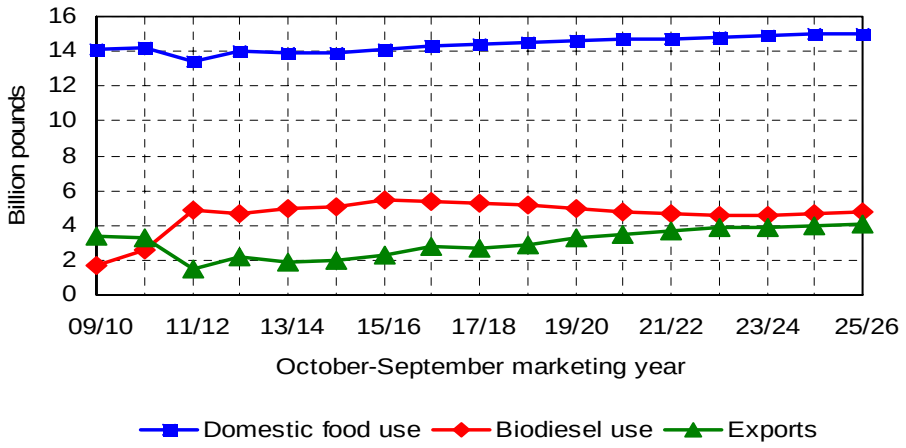
Marketing year	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26
Planted area					(Million acres)						
Corn	88.00	89.67	90.80	91.19	91.29	91.10	90.99	91.01	90.89	90.73	90.48
Soybeans	82.65	83.01	82.89	83.02	83.06	83.46	83.70	83.80	83.94	83.93	83.98
Wheat	54.64	51.69	53.37	53.15	53.19	53.12	53.08	52.97	53.02	53.05	53.09
Upland cotton	8.42	9.38	8.88	8.88	8.83	8.80	8.80	8.78	8.77	8.79	8.84
Sorghum	8.46	7.69	7.43	7.38	7.35	7.33	7.32	7.31	7.30	7.29	7.28
Barley	3.56	3.71	3.20	3.20	3.19	3.16	3.12	3.11	3.04	3.01	3.00
Oats	3.09	3.00	2.94	2.90	2.86	2.85	2.85	2.86	2.87	2.89	2.91
Rice	2.61	2.71	2.80	2.82	2.82	2.80	2.79	2.79	2.79	2.79	2.80
Sunflowers	1.86	1.92	1.81	1.79	1.78	1.77	1.77	1.76	1.76	1.75	1.76
Peanuts	1.63	1.56	1.51	1.48	1.46	1.45	1.45	1.44	1.45	1.45	1.44
Sugar beets	1.16	1.16	1.20	1.22	1.22	1.22	1.22	1.22	1.23	1.24	1.25
Sugar cane (harvested)	0.90	0.91	0.92	0.92	0.92	0.91	0.90	0.89	0.88	0.87	0.87
12 crop planted area	256.97	256.41	257.75	257.96	257.97	257.97	257.99	257.95	257.94	257.82	257.69
Hay (harvested)	56.54	57.14	57.47	57.81	58.04	58.16	58.12	58.05	57.95	57.87	57.80
12 crops + hay	313.51	313.55	315.21	315.77	316.01	316.13	316.11	316.00	315.88	315.68	315.49
Conservation reserve (CRP)	24.18	23.47	22.99	22.89	22.76	22.62	22.49	22.36	22.21	22.08	21.97
12 crops + hay + CRP	337.69	337.02	338.21	338.66	338.78	338.75	338.61	338.36	338.09	337.77	337.46
Double-crop soybeans	4.76	4.23	4.68	4.71	4.73	4.76	4.77	4.76	4.76	4.74	4.72
12 crops + hay + CRP - double-crop soybeans	332.94	332.79	333.52	333.95	334.05	333.99	333.84	333.60	333.34	333.03	332.74

All projections are averages across 500 stochastic outcomes.

Soybean products

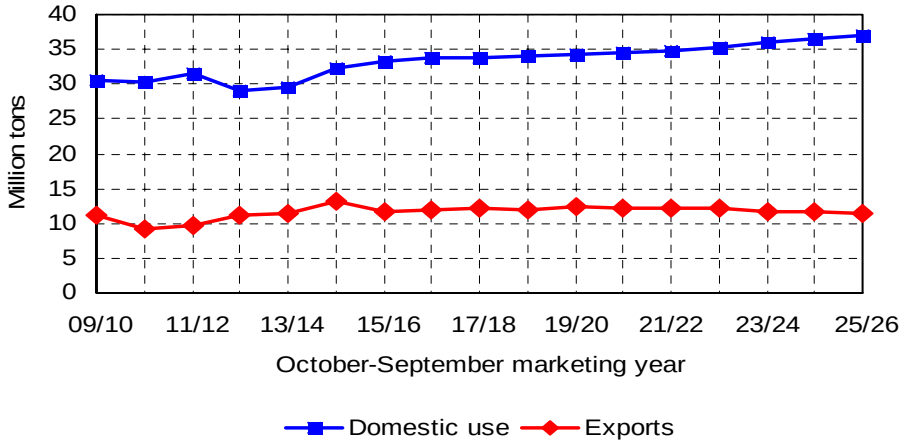
- Biodiesel use of soybean oil decreases as a result of competition from corn oil and other biodiesel feedstocks.
- Projected food use of soybean oil increases with population, as per-capita use is steady.
- Continued low soybean oil prices and growth in global vegetable oil demand contribute to projected increases in U.S. soybean oil exports.

Food and export uses of soybean oil increase



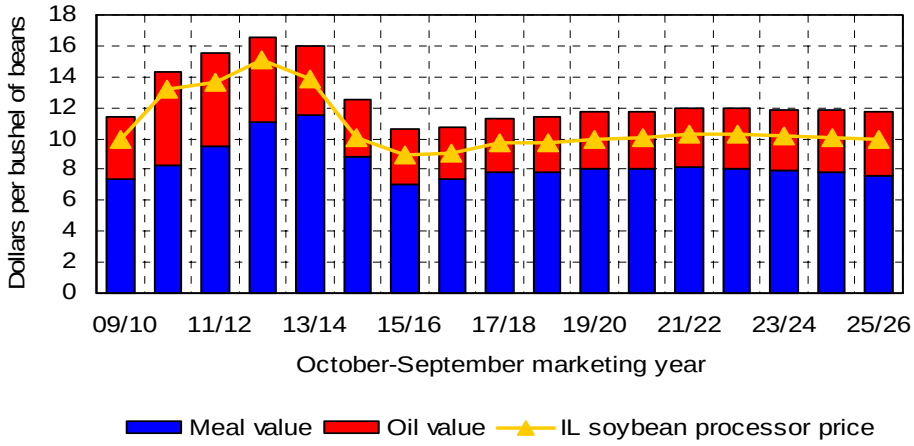
- After several years of stagnation, domestic use of soybean meal has begun to increase again.
- Projected increases in soybean meal use result from resumed growth in poultry production and a halt in the expansion of distillers grains use.
- Soybean meal exports remain stable as growing world demand is met primarily by competitors and U.S. exports of soybeans.

Soybean meal use grows with livestock production



- Soybean, soybean meal and soybean oil prices have all declined since 2013/14 because of the large increase in U.S. and global supplies.
- Rising livestock demand causes a moderate increase in projected soybean meal prices in 2016/17 and 2017/18.
- Projected crushing margins (the difference between the value of soybean meal and soybean oil and the cost of soybeans) are fairly stable.

Lower meal, oil prices hold crushing margin steady



Soybean oil supply and use

October-September year	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26
					(Million pounds)						
Supply	24,021	24,623	24,717	24,927	25,160	25,279	25,466	25,652	25,781	26,036	26,258
Beginning stocks	1,820	2,119	2,191	2,296	2,319	2,316	2,338	2,369	2,363	2,413	2,419
Production	21,936	22,254	22,275	22,381	22,591	22,713	22,878	23,034	23,168	23,374	23,589
Imports	265	250	250	250	250	250	250	250	250	250	250
Domestic use	19,603	19,618	19,689	19,711	19,596	19,440	19,437	19,419	19,465	19,682	19,768
Biodiesel	5,489	5,327	5,267	5,181	5,001	4,773	4,686	4,589	4,563	4,711	4,727
Food and other	14,114	14,291	14,422	14,530	14,594	14,667	14,751	14,830	14,901	14,971	15,040
Exports	2,298	2,814	2,732	2,897	3,249	3,501	3,660	3,871	3,904	3,936	4,070
Total use	21,901	22,432	22,420	22,608	22,844	22,941	23,097	23,290	23,368	23,618	23,837
Ending stocks	2,119	2,191	2,296	2,319	2,316	2,338	2,369	2,363	2,413	2,419	2,421
Price					(Cents per pound)						
Decatur	30.53	28.80	29.54	30.25	31.73	32.39	32.89	33.39	33.97	34.37	35.39

All projections are averages across 500 stochastic outcomes.

Soybean meal supply and use

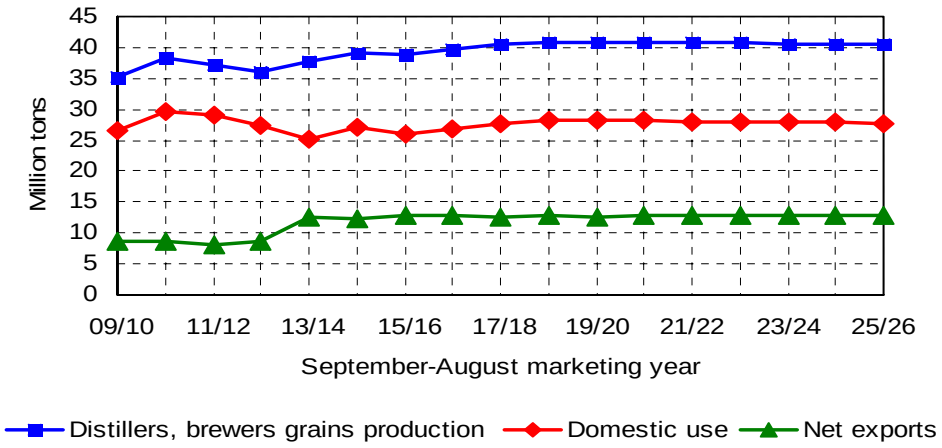
October-September year	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26
					(Thousand tons)						
Supply	45,323	46,175	46,210	46,421	46,857	47,107	47,449	47,771	48,051	48,479	48,925
Beginning stocks	260	301	292	287	292	293	297	300	305	312	317
Production	44,737	45,549	45,594	45,809	46,240	46,489	46,827	47,146	47,421	47,841	48,283
Imports	325	325	325	325	325	325	325	325	325	325	325
Domestic use	33,312	33,840	33,767	34,113	34,226	34,512	34,863	35,387	35,976	36,408	37,082
Exports	11,710	12,044	12,156	12,016	12,338	12,297	12,286	12,078	11,763	11,753	11,518
Total use	45,022	45,883	45,924	46,128	46,564	46,809	47,150	47,465	47,739	48,161	48,600
Ending stocks	301	292	287	292	293	297	300	305	312	317	325
Price					(Dollars per ton)						
Decatur, 48% protein	299.16	311.31	331.26	330.50	338.47	337.60	342.31	340.29	333.32	330.73	318.46

All projections are averages across 500 stochastic outcomes.

Corn products

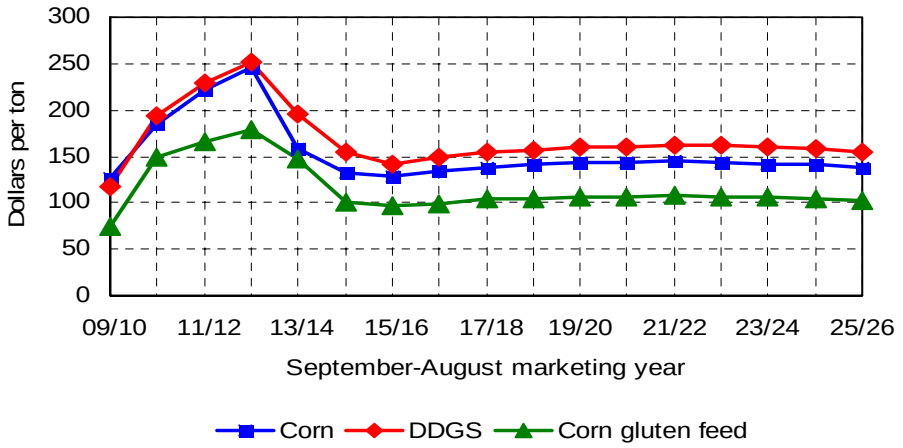
- There is limited growth in distillers dried grains with solubles (DDGS) production as conventional ethanol production plateaus.
- Domestic use picks up a little after 2015/16 before holding steady at nearly 28 million tons.
- Net exports remain flat at just under 13 million tons. Trade disputes with China continue to be a key uncertainty.

Distillers grains supply and use remains steady



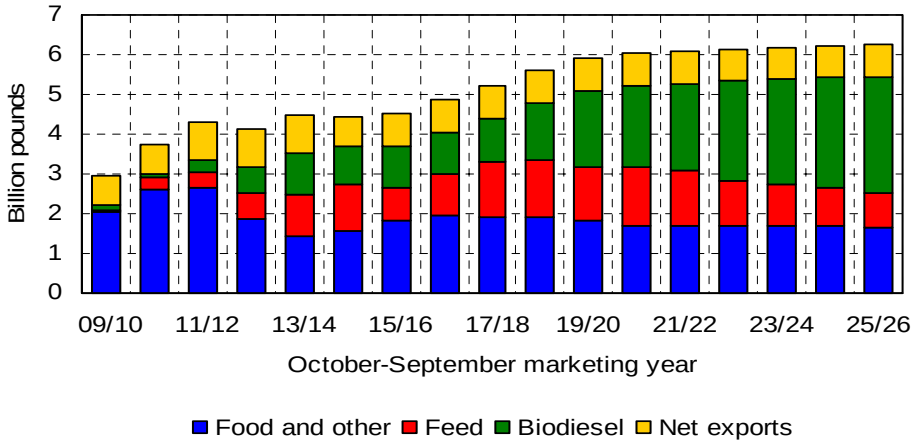
- Prices for DDGS, like corn prices, recover slightly after 2015/16 and average around $156/ton over the projection period.
- Export demand lends a level of support to DDGS prices, but trade with China remain uncertain.
- The ratios of corn product prices to the corn price are estimated to remain fairly stable.

DDGS prices see some recovery



- The baseline projects a steady increase in the share of dry mill ethanol plants that extract non-food grade corn oil from distillers grains.
- The share of non-food corn oil used for biodiesel production is projected to reach 78% by 2025/26. The rest is added back to animal feed rations.
- Domestic use of food-grade corn oil is estimated to average 1.8 billion pounds.

Biodiesel use of corn oil climbs to 3 billion pounds



Corn product supply and use

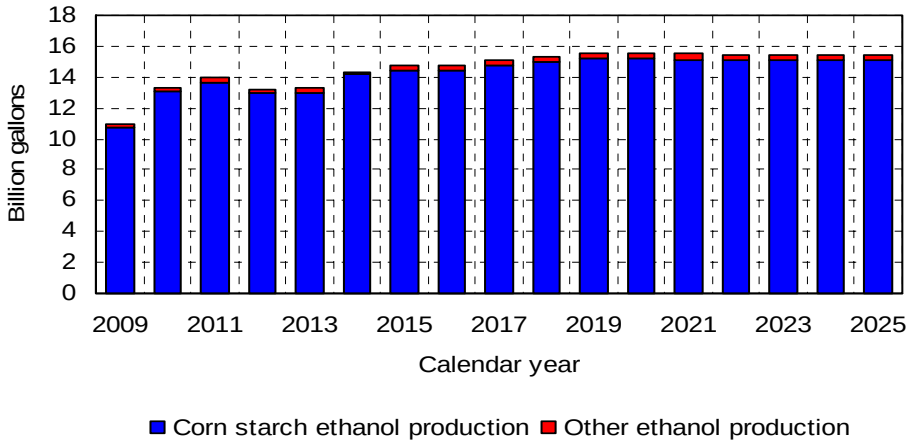
Marketing year	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26
High-fructose corn syrup					(Thousand tons, Oct.-Sep. year)						
Production	8,422	8,402	8,403	8,405	8,414	8,445	8,436	8,446	8,460	8,480	8,516
Domestic use	7,123	7,034	7,107	7,080	7,024	7,022	6,963	6,945	6,931	6,919	6,919
Net exports	1,298	1,368	1,297	1,324	1,390	1,423	1,473	1,501	1,528	1,561	1,597
					(Cents per pound, Oct.-Sep. year)						
Price, 42% Midwest	28.26	29.07	29.37	29.76	30.05	30.31	30.35	30.48	30.53	30.56	30.54
HFCS price/ref. sugar price	76%	77%	77%	77%	78%	78%	78%	79%	79%	79%	79%
Distillers, brewers grains					(Thousand tons, Sep.-Aug. year)						
Production (dry equiv.)	38,887	39,718	40,396	40,828	40,875	40,885	40,743	40,716	40,616	40,602	40,428
Domestic use	26,093	26,963	27,682	28,100	28,157	28,155	28,017	27,971	27,847	27,818	27,608
Net exports	12,794	12,755	12,714	12,727	12,717	12,730	12,726	12,745	12,769	12,784	12,820
					(Dollars per ton, Sep.-Aug. year)						
Price, IL points	141.81	148.27	155.02	156.83	159.91	159.94	162.39	161.73	159.87	158.51	154.18
DDGS price/corn price	110%	111%	112%	111%	112%	112%	112%	112%	112%	113%	112%
Corn gluten feed					(Thousand tons, Sep.-Aug. year)						
Production	9,049	9,082	9,044	9,054	9,047	9,038	9,001	8,986	8,969	8,957	8,953
Domestic use	8,341	8,395	8,391	8,426	8,445	8,457	8,447	8,451	8,453	8,460	8,471
Net exports	708	688	653	628	602	581	555	535	516	497	482
					(Dollars per ton, Sep.-Aug. year)						
Price, 21%, IL points	96.93	99.62	103.48	104.61	106.28	106.20	107.60	107.14	105.98	104.99	102.30
CGF price/corn price	75%	74%	75%	74%	74%	74%	74%	74%	74%	75%	75%
Corn gluten meal					(Thousand tons, Sep.-Aug. year)						
Production	2,381	2,390	2,380	2,383	2,381	2,378	2,369	2,365	2,360	2,357	2,356
Domestic use	1,401	1,403	1,390	1,380	1,369	1,355	1,335	1,319	1,301	1,286	1,271
Net exports	980	987	991	1,003	1,011	1,024	1,034	1,046	1,059	1,071	1,086
					(Dollars per ton, Sep.-Aug. year)						
Price, 60%, IL points	481.95	496.51	520.66	519.88	529.60	528.77	534.71	532.54	524.44	521.57	507.08
CGM price/soymeal price	161%	159%	157%	157%	156%	157%	156%	156%	157%	158%	159%
Corn oil					(Million pounds, Oct.-Sep. year)						
Production	4,499	4,870	5,236	5,616	5,920	6,054	6,092	6,145	6,188	6,239	6,243
Domestic use	3,691	4,038	4,399	4,779	5,093	5,234	5,277	5,329	5,374	5,425	5,434
Biodiesel	1,058	1,038	1,081	1,441	1,909	2,071	2,184	2,485	2,638	2,792	2,930
Feed	811	1,054	1,407	1,431	1,351	1,465	1,401	1,143	1,043	943	843
Food/other	1,822	1,946	1,912	1,908	1,833	1,698	1,692	1,702	1,693	1,690	1,661
Net exports	817	823	821	820	816	815	815	814	813	813	811
Ending stocks	157	165	181	198	209	214	215	217	217	219	217
					(Cents per pound, Oct.-Sep. year)						
Chicago price	36.00	34.29	35.09	35.79	37.25	37.91	38.42	38.95	39.55	39.96	40.98
Corn oil price/soyoil price	118%	119%	119%	118%	117%	117%	117%	117%	116%	116%	116%

All projections are averages across 500 stochastic outcomes.

Ethanol and biofuel policies

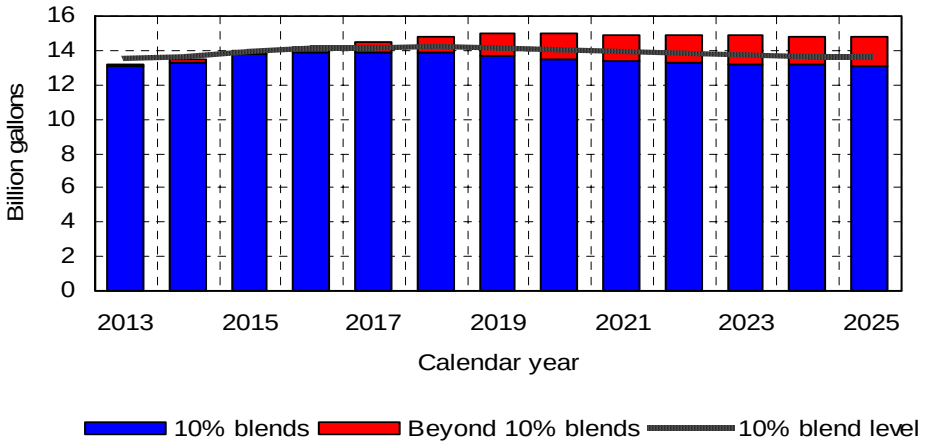
- Despite much tighter production margins in 2015, ethanol output increased above 2014 levels.
- Beyond 2015, margins recover and ethanol production averages 15.4 billion gallons per year.
- Lower sorghum exports and prices lead to larger projected non-corn ethanol production levels.
- Modest levels of cellulosic ethanol production are expected.

Ethanol production expands modestly



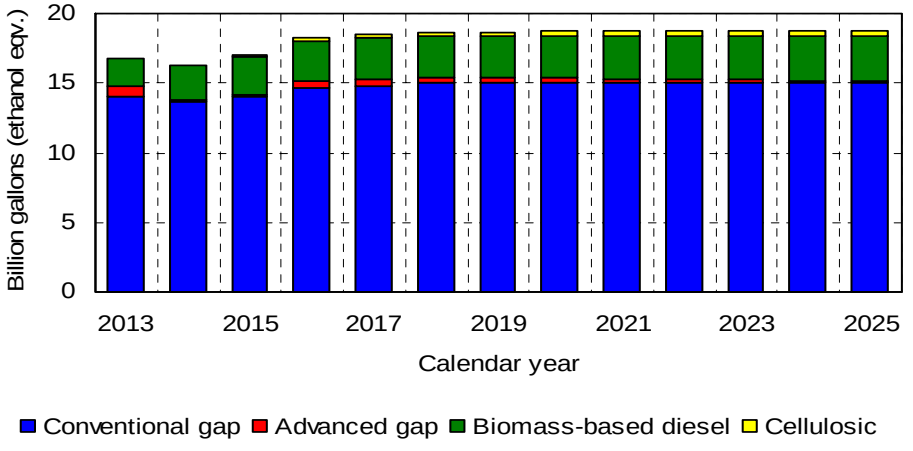
- As RFS requirements are assumed to grow, so does the need for additional use of ethanol-gasoline blends beyond 10 percent blends (E10).
- Projected ethanol use climbs to 15 billion gallons and exceeds the level implied by 10 percent of motor fuel use.
- RFS requirements for advanced biofuel and low-carbon fuel requirements in California motivate sustained ethanol imports of nearly 0.4 billion gallons.
- Net exports fall to just under 0.6 billion gallons in 2016 and hold steady.

Domestic ethanol use breaches 10% blendwall



- RFS percent requirements for each category reflect the final rules for 2014-2016 and are assumed to grow steadily thereafter, with the overall requirement reaching 11 percent by 2025.
- Compliance volumes also rise, but the increases are offset to some degree by a declining trend in motor fuel use.
- Conventional renewable identification number (RIN) prices are projected to peak at $0.76 per RIN in 2017 before falling to $0.22 per RIN by 2025.

RFS volumes rise slowly



Ethanol supply and use

Calendar year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Petroleum fuel prices					(Dollars per barrel)						
Petroleum, W. Texas interm.	48.84	45.12	54.71	65.71	73.69	80.51	82.24	84.02	85.76	87.48	89.25
Petroleum, refiners' acquis.	47.39	41.09	51.62	62.88	70.80	77.25	78.92	80.62	82.29	83.94	85.64
					(Dollars per gallon)						
Unl. gasoline, FOB Omaha	1.88	1.65	1.89	2.17	2.37	2.55	2.60	2.65	2.70	2.75	2.81
Unleaded gasoline, retail	2.45	2.04	2.21	2.48	2.67	2.85	2.90	2.95	3.00	3.05	3.10
					(Million gallons)						
Motor gasoline use*	140,375	141,996	142,360	142,469	141,821	140,600	139,427	138,455	137,770	137,306	137,006
Ethanol supply and use											
Production	14,785	14,752	15,105	15,354	15,556	15,550	15,517	15,469	15,463	15,470	15,477
From corn	14,418	14,408	14,767	15,011	15,204	15,188	15,146	15,090	15,072	15,066	15,057
Other conventional	365	335	318	312	310	309	307	306	306	307	308
Cellulosic	2	9	19	32	42	53	63	74	85	97	112
Imports	88	167	407	410	408	400	396	389	362	361	360
Domestic disappearance	14,035	14,212	14,531	14,748	14,969	14,970	14,933	14,890	14,850	14,835	14,827
Exports	837	706	977	1,011	989	975	976	965	971	994	1,007
Ending stocks	789	790	793	798	804	809	813	817	820	823	826
Ethanol prices					(Dollars per gallon)						
Conventional rack, Omaha	1.61	1.79	1.81	1.86	1.93	1.95	1.96	1.97	1.97	1.97	1.96
Other advanced rack	1.76	1.82	1.97	1.95	1.96	1.96	1.96	1.97	1.97	1.97	1.96
Effective retail	1.62	1.45	1.37	1.54	1.69	1.80	1.85	1.91	1.96	2.00	2.04
Ethanol/gasoline retail	66%	71%	62%	62%	63%	63%	64%	65%	65%	66%	66%
RIN values											
Conventional ethanol	0.55	0.73	0.76	0.64	0.55	0.45	0.41	0.36	0.31	0.27	0.22
Advanced ethanol	0.71	0.76	0.92	0.72	0.58	0.46	0.41	0.36	0.31	0.27	0.22

* Includes fuel ethanol

All projections are averages across 500 stochastic outcomes.

Renewable Fuel Standard

Calendar year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Applicable percent standard											
Overall	9.52%	10.10%	10.20%	10.30%	10.40%	10.50%	10.60%	10.70%	10.80%	10.90%	11.00%
Advanced biofuels	1.62%	2.01%	2.02%	2.03%	2.04%	2.05%	2.06%	2.07%	2.08%	2.09%	2.10%
Cellulosic biofuel	0.07%	0.13%	0.18%	0.23%	0.28%	0.33%	0.38%	0.43%	0.48%	0.53%	0.58%
Biomass-based diesel	1.59%	1.62%	1.64%	1.67%	1.69%	1.72%	1.74%	1.77%	1.79%	1.82%	1.84%
Required volume					(Million gallons)						
Overall	16,989	18,235	18,478	18,681	18,694	18,698	18,707	18,720	18,739	18,762	18,789
Advanced biofuels	2,891	3,629	3,659	3,683	3,694	3,698	3,707	3,720	3,739	3,762	3,789
Cellulosic biofuel	126	217	231	248	262	277	292	307	323	339	359
Biomass-based diesel	2,661	2,874	2,929	2,979	3,018	3,052	3,090	3,130	3,176	3,226	3,278
Gaps: Conventional	14,098	14,606	14,819	14,998	15,000	15,000	15,000	15,000	15,000	15,000	15,000
Advanced	105	538	499	456	413	369	325	282	240	197	152

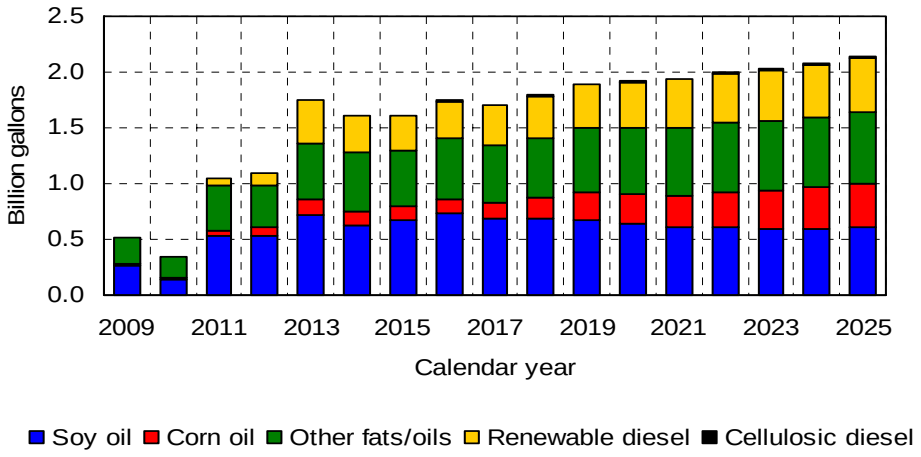
Biomass-based diesel and biofuel plant returns

- The outlook assumes the RFS percent requirements for biomass-based diesel rise from 1.64 percent in 2017 to 1.84 percent by 2025.

- Biomass-based diesel production recovers in 2016 as the blenders tax credit is renewed and increases to 2.1 billion gallons in later years to meet RFS requirements.

- The production share from soybean oil is projected to fall by nearly 13 percentage points to 29 percent in 2025.

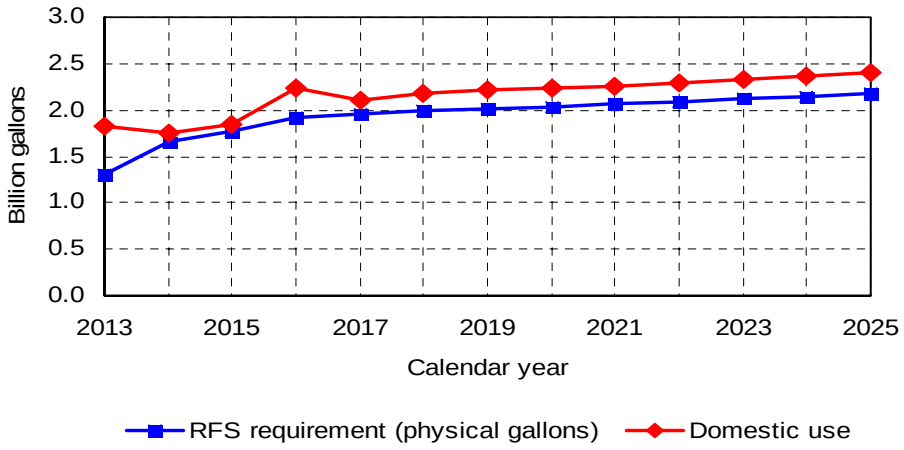
Biodiesel production expands at a modest pace



- Domestic biomass-based diesel use is estimated to exceed the RFS requirements by an average of 0.2 billion gallons.

- The U.S. is projected to remain a moderate net importer of biomass-based diesel throughout the projection period.

Biodiesel use continues to exceed RFS requirements

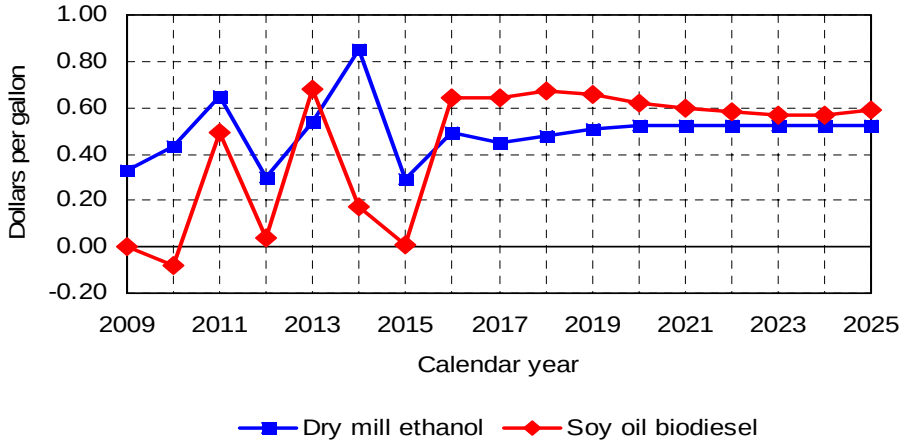


- Dry mill ethanol net returns over operating costs recover in 2016 and hold steady at an average of $0.50 per gallon over the projection period.

- Without the tax credit in place for most of the year, biomass-based diesel producers struggled to break even in 2015.

- Biomass-based diesel net returns recover to $0.64 per gallon in 2016 with the return of the blenders credit and are buoyed by the increasing RFS requirements in later years.

Biofuel net returns recover in 2016



Biomass-based diesel sector

Calendar year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Biomass-based diesel supply					(Million gallons)						
Production	1,613	1,743	1,705	1,791	1,894	1,921	1,942	1,999	2,032	2,078	2,144
From soybean oil	667	731	684	681	670	637	614	605	596	598	613
From corn oil	137	135	140	187	248	269	284	323	343	363	381
From other fats and oils	495	535	521	544	577	597	609	620	627	635	650
From cellulosic diesel	0	1	2	4	6	8	10	12	14	16	18
Renewable diesel	313	341	358	376	393	410	425	439	453	467	482
Biomass-based diesel use											
Domestic disappearance	1,844	2,234	2,111	2,182	2,210	2,238	2,261	2,297	2,332	2,372	2,412
Net exports	-238	-446	-383	-380	-311	-315	-318	-298	-300	-294	-269
Ending stocks	138	92	69	58	53	51	50	50	50	50	51
Fuel prices and tax credit					(Dollars per gallon)						
Biodiesel, rack	2.84	3.47	3.39	3.48	3.55	3.62	3.65	3.68	3.71	3.76	3.82
#2 Diesel, refiner sales	1.67	1.34	1.63	1.91	2.11	2.29	2.34	2.39	2.44	2.50	2.55
#2 Diesel, retail	2.71	2.29	2.59	2.87	3.07	3.25	3.30	3.36	3.41	3.46	3.52
Biodiesel tax credit	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RIN values											
Per RIN gallon	0.75	0.76	1.02	0.88	0.78	0.69	0.67	0.65	0.64	0.64	0.65
Per phyiscal gallon	1.12	1.13	1.53	1.32	1.17	1.03	1.00	0.98	0.96	0.96	0.97

All projections are averages across 500 stochastic outcomes.

Biofuel plant returns

Calendar year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Biodiesel costs and returns					(Dollars per gallon)						
Biodiesel value	2.84	3.47	3.39	3.48	3.55	3.62	3.65	3.68	3.71	3.76	3.82
Glycerin value	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
Soyoil cost	-2.33	-2.32	-2.23	-2.29	-2.36	-2.46	-2.50	-2.54	-2.58	-2.62	-2.67
Other operating costs	-0.58	-0.58	-0.59	-0.59	-0.60	-0.60	-0.61	-0.62	-0.62	-0.63	-0.64
Net operating return	0.01	0.64	0.64	0.67	0.66	0.62	0.60	0.58	0.57	0.57	0.59
Corn milling for ethanol					(Million bushels)						
Corn wet milled for ethanol	545	608	585	585	587	581	573	565	558	552	546
Corn dry milled for ethanol	4,694	4,619	4,763	4,842	4,901	4,891	4,875	4,853	4,844	4,839	4,832
(Share de-oiling DDGS)	86%	86%	87%	89%	90%	91%	92%	94%	95%	96%	97%
Dry mill ethanol costs, returns					(Dollars per gallon)						
Ethanol value	1.61	1.79	1.81	1.86	1.93	1.95	1.96	1.97	1.97	1.97	1.96
Distillers grains value	0.47	0.43	0.44	0.46	0.47	0.47	0.47	0.48	0.47	0.47	0.46
Corn oil value*	0.04	0.10	0.10	0.10	0.10	0.10	0.10	0.09	0.09	0.09	0.09
Corn cost	-1.35	-1.34	-1.39	-1.43	-1.45	-1.46	-1.46	-1.47	-1.46	-1.44	-1.41
Fuel and electricity cost	-0.11	-0.11	-0.13	-0.13	-0.14	-0.15	-0.15	-0.16	-0.16	-0.16	-0.17
Other operating costs	-0.37	-0.38	-0.38	-0.39	-0.39	-0.39	-0.40	-0.40	-0.41	-0.41	-0.41
Net operating return	0.29	0.49	0.45	0.48	0.51	0.52	0.52	0.52	0.52	0.52	0.52

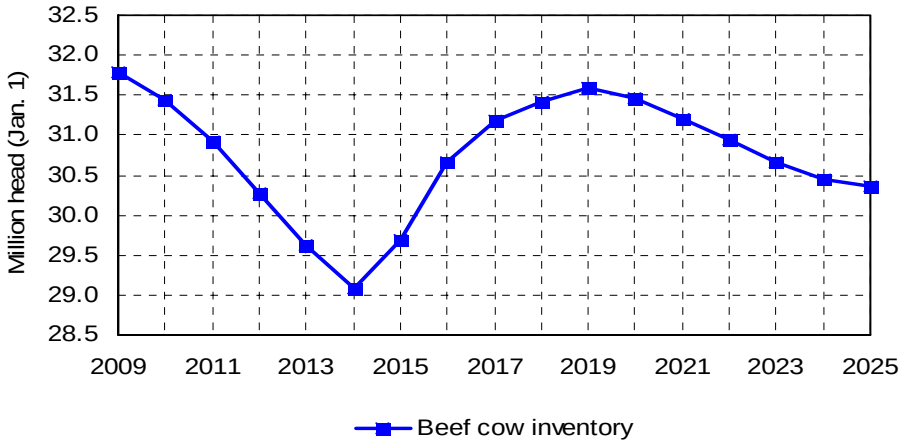
* Weighted by share of dry mills de-oiling DDGs

All projections are averages across 500 stochastic outcomes.

Cattle and hogs

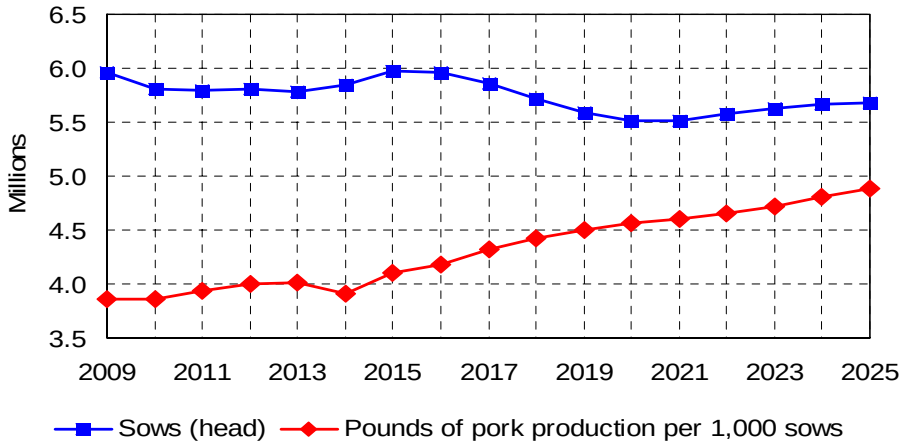
- In 2015, beef cow numbers experienced the largest increase since 1993, as the herd grew by 3.5 percent.
- Cow-calf returns that shattered previous record highs prevailed throughout 2014 and much of 2015, and adequate available grass fueled the increase.
- Though profitability in the cow-calf sector is down sharply, it is still above historical levels. This will promote further small increases to the herd in coming years.

The beef cow herd grew by 1 million last year



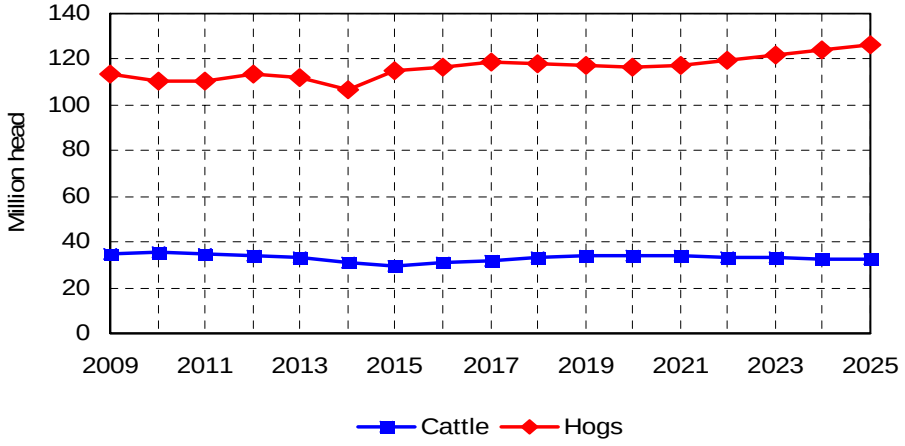
- The porcine epidemic diarrhea virus (PEDv) caused few disruptions to the pork industry last year following the challenges of 2014.
- The combination of renewed productivity growth and modest increases in sow numbers resulted in pork production growth over 7 percent in 2015.
- With farrow-finish returns declining to below breakeven levels in late 2016 and 2017, projected sow numbers contract.

Productivity gains continue to drive pork production



- Cattle slaughter declined for the fifth consecutive year in 2015 to a level that is 17 percent lower than in 2008.
- Hog slaughter in 2016 is projected to top the previous record set in 2008, with a further 1.6 million head increase in 2017.
- The beef and pork packing industries have had to adjust in opposite directions to accommodate the changes in throughput. New pork processing facilities set to begin operation in 2017 will boost total capacity.

Slaughter requirements raise capacity concerns



Cattle and hogs

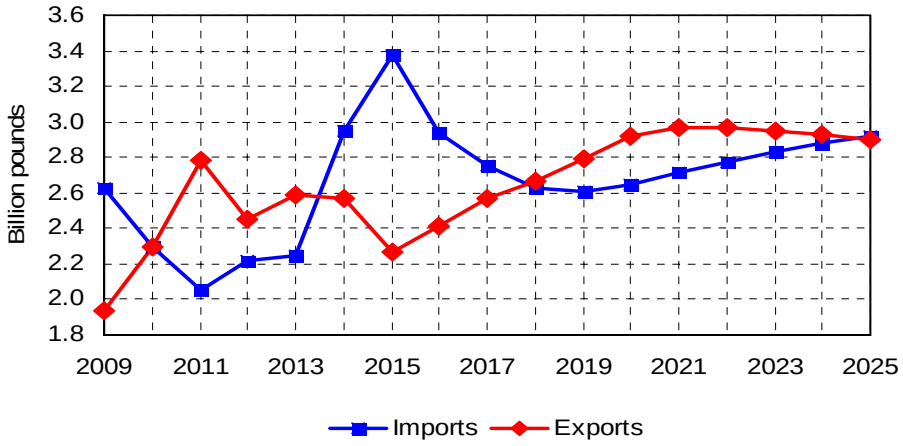
Calendar year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
CATTLE					(Million head)						
Beef cows (Jan. 1)	29.7	30.7	31.2	31.4	31.6	31.5	31.2	30.9	30.7	30.5	30.4
Dairy cows (Jan. 1)	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
Cattle and calves (Jan. 1)	89.8	92.7	95.0	96.1	96.3	95.9	95.3	94.7	94.3	94.1	94.1
Cattle on feed (Jan. 1)	13.1	13.1	13.7	14.2	14.5	14.5	14.5	14.4	14.3	14.2	14.1
Calf crop	34.3	35.1	35.5	35.7	35.7	35.5	35.3	35.0	34.8	34.7	34.7
Cattle slaughter	29.3	30.7	32.1	33.1	33.8	33.9	33.7	33.4	33.0	32.7	32.5
Cattle imports	2.0	2.0	1.9	2.0	2.0	2.1	2.2	2.2	2.2	2.2	2.2
Cattle exports	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Prices											
Total all grades,					(Dollars per hundredweight)						
5-Area direct steers	148.12	133.41	122.62	117.94	116.72	119.64	123.04	126.77	130.50	133.35	135.74
600 - 650 #, Oklahoma City											
Feeder steers	226.52	194.34	171.02	158.90	155.12	159.33	165.37	171.68	178.83	184.62	189.51
Utility cows, Sioux Falls	99.76	85.06	75.38	70.63	69.68	72.67	75.84	78.64	81.24	83.00	84.67
Cow-calf returns					(Dollars per cow)						
Receipts	1,134.47	970.04	856.44	797.81	780.20	802.34	832.61	863.58	897.89	925.27	948.63
Feed expenses	253.86	247.74	254.99	262.61	266.24	269.81	267.85	268.36	265.42	264.08	261.67
Non-feed expenses	528.16	510.76	515.91	525.57	535.87	546.56	554.31	563.05	571.56	580.29	588.64
Net returns	352.45	211.53	85.55	9.63	-21.91	-14.02	10.45	32.16	60.91	80.91	98.32
HOGS					(Million head)						
Hogs for breeding (Dec. 1*)	5.94	6.00	5.92	5.79	5.64	5.54	5.49	5.53	5.61	5.66	5.67
Market hogs (Dec. 1*)	61.8	62.3	63.9	63.5	62.9	62.2	62.0	62.6	63.8	65.0	66.0
Sows farrowed	11.57	11.63	11.47	11.23	11.03	10.91	10.94	11.09	11.25	11.35	11.42
Pig crop	120.1	122.5	122.3	121.4	120.4	120.3	121.8	124.7	127.7	130.0	132.0
Barrow and gilt slaughter	112.2	113.6	115.4	115.0	114.2	113.7	114.4	116.4	119.1	121.5	123.5
Hog imports	5.7	5.9	6.0	6.1	6.1	6.2	6.2	6.2	6.2	6.2	6.2
Hog exports	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prices											
Natl. base 51-52% lean equiv.					(Dollars per hundredweight)						
Barrows & gilts	50.23	46.59	45.75	48.82	51.83	54.27	55.37	55.19	54.14	53.01	52.28
IA-S. Minn. #1-2, 300-400 #											
Sows	37.84	37.34	37.15	39.30	41.69	43.75	44.30	44.22	43.67	43.23	42.98
Farrow-finish returns											
Receipts	53.19	49.19	48.34	51.45	54.50	56.97	58.09	57.91	56.84	55.71	54.97
Feed expenses	30.25	28.71	29.89	31.09	31.45	31.95	31.93	32.26	32.05	31.60	31.17
Non-feed expenses	20.00	20.78	21.07	21.42	21.72	21.99	22.16	22.35	22.52	22.70	22.89
Net returns	2.94	-0.30	-2.62	-1.06	1.34	3.03	4.00	3.30	2.27	1.40	0.91

* Preceding year
All projections are averages across 500 stochastic outcomes.

Meat

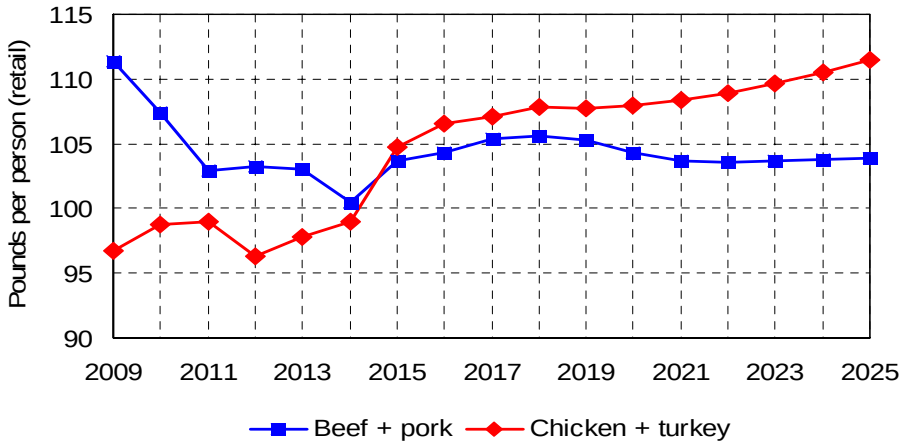
- Beef imports increased by 1.3 billion pounds from 2011-15, while beef exports declined by 0.5 billion.
- A strong U.S. dollar and high prices are affecting pork and chicken exports as well as beef.
- The beef sector has also dealt with tight supplies, particularly for grinding beef, as cow slaughter has sharply declined.
- A shrinking Australian cattle herd should factor into reduced beef imports this year.

Changes in beef trade have impacted markets



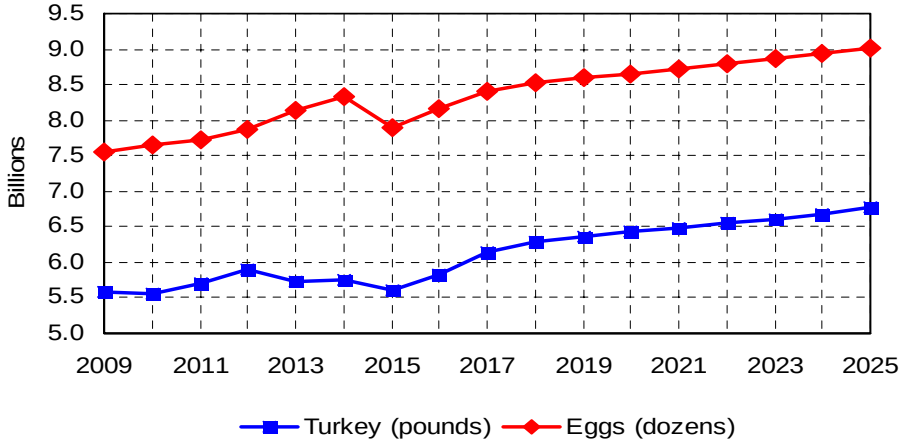
- A 6.8 percent jump in per capita chicken consumption in 2015 allowed poultry to surpass beef and pork as the most consumed meat category.
- Total meat consumption per person should increase in the next few years, as the beef supply builds and trade gains remain limited.
- 20 percent of U.S. pork production was exported in 2015. The share of chicken production exported was 16 percent, with beef just under 10 percent.

Poultry consumption outpaced beef and pork in 2015



- Avian influenza outbreaks in winter and spring 2015 resulted in the destruction of more than seven million turkeys and over 42 million egg-layer and pullet chickens.
- From June to December 2015, total egg production in Iowa, Minnesota, Nebraska, S. Dakota and Wisconsin declined by 39 percent relative to the previous year.
- While commercial broiler flocks were largely unaffected by the disease, trade bans hoisted against U.S. poultry products negatively affected demand strength.

Avian influenza restricted turkey and egg output



Meat sector

Calendar year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Beef					(Million pounds)						
Production	23,765	24,660	25,783	26,750	27,448	27,653	27,612	27,452	27,235	27,078	27,031
Imports	3,372	2,935	2,753	2,629	2,611	2,648	2,711	2,775	2,829	2,877	2,918
Domestic use	24,775	25,259	25,939	26,688	27,239	27,381	27,361	27,258	27,119	27,029	27,044
Exports	2,263	2,411	2,568	2,668	2,797	2,915	2,963	2,972	2,948	2,927	2,904
Ending stocks	690	615	644	667	690	694	694	691	687	685	686
Pork											
Production	24,506	24,887	25,315	25,276	25,172	25,150	25,393	25,924	26,609	27,242	27,768
Imports	1,106	1,021	983	971	967	973	985	996	1,009	1,020	1,033
Domestic use	20,601	20,803	20,995	20,770	20,475	20,293	20,400	20,753	21,267	21,740	22,143
Exports	4,946	5,104	5,291	5,488	5,679	5,839	5,972	6,148	6,324	6,497	6,637
Ending stocks	625	626	638	628	613	603	609	628	655	679	700
Broiler											
Production	39,656	40,614	41,362	42,052	42,502	43,024	43,620	44,241	44,963	45,753	46,564
Domestic use	33,286	34,112	34,418	34,845	35,078	35,439	35,883	36,355	36,915	37,527	38,170
Exports	6,326	6,672	7,054	7,320	7,550	7,711	7,860	8,010	8,170	8,347	8,518
Ending stocks	850	796	805	812	808	807	810	813	821	831	842
Turkey											
Production	5,610	5,822	6,141	6,290	6,368	6,429	6,491	6,546	6,611	6,688	6,766
Domestic use	5,104	5,234	5,446	5,587	5,646	5,695	5,741	5,781	5,831	5,891	5,954
Exports	532	604	704	730	753	769	785	801	817	833	849
Ending stocks	210	232	261	273	281	286	292	297	303	310	317
Wholesale prices					(Dollars per hundredweight)						
Boxed beef cutout	236.81	216.68	201.95	196.04	194.75	199.39	204.74	210.44	215.98	220.41	224.37
Pork cutout	79.05	75.43	73.22	75.85	79.71	82.98	83.86	83.34	81.64	79.99	78.95
National wholesale broiler	90.50	84.53	84.23	85.24	87.51	89.51	90.88	92.32	93.42	93.84	94.38
Natl. wholesale turkey hens	116.20	106.67	96.23	92.77	92.84	93.68	94.36	95.60	96.61	96.87	97.19
Retail prices					(Dollars per pound)						
Beef	6.29	5.98	5.73	5.64	5.63	5.75	5.93	6.12	6.32	6.48	6.63
Pork	3.85	3.65	3.64	3.73	3.87	4.02	4.11	4.08	4.05	4.03	4.01
Broiler	1.97	1.90	1.90	1.93	1.97	2.02	2.05	2.09	2.11	2.13	2.14
Turkey	1.51	1.48	1.47	1.45	1.47	1.49	1.52	1.55	1.58	1.61	1.63
Per capita consumption					(Pounds, retail)						
Beef	53.9	54.5	55.6	56.7	57.4	57.3	56.8	56.1	55.4	54.8	54.5
Pork	49.7	49.8	49.8	48.9	47.8	47.1	46.9	47.4	48.2	48.9	49.4
Broiler	88.9	90.4	90.5	90.9	90.7	91.0	91.4	91.9	92.6	93.4	94.4
Turkey	15.9	16.1	16.7	17.0	17.0	17.0	17.0	17.0	17.0	17.1	17.1
Total	208.4	210.9	212.5	213.4	213.0	212.3	212.1	212.4	213.3	214.3	215.4

All projections are averages across 500 stochastic outcomes.

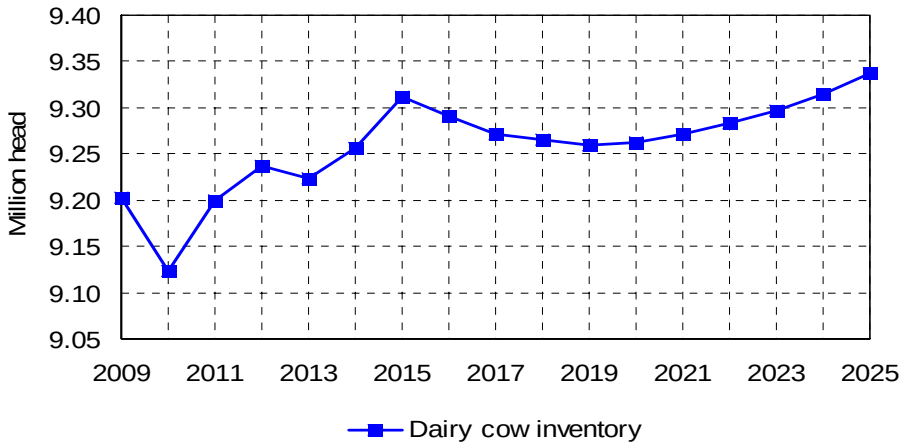
Dairy

▪After increasing by nearly 200,000 cows between 2010 and 2015, the U.S. dairy herd has begun to decline.

▪Lower profitability is projected for milk production in 2016. While margins are not expected to revisit the lows of 2009, financial pressure will lead to fewer cows.

▪Milk production per cow is projected to grow by 2.0 percent in 2016 after this year's 0.5 percent increase. This will cause more milk production growth in 2016 than last year, despite fewer cows.

Dairy cow numbers will decline in 2016 and 2017

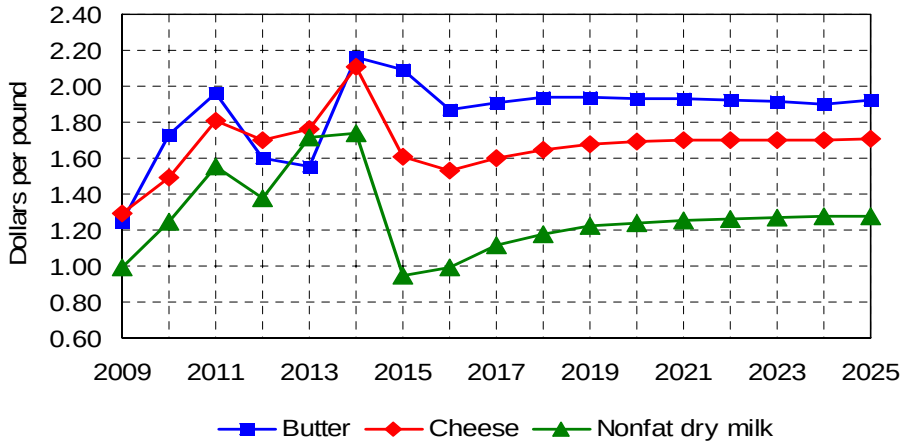


▪Strong demand for butter in international and U.S. markets shielded butter prices from the sharp declines experienced by cheese and nonfat dry milk in 2015.

▪Nonfat dry milk prices are projected to remain below $1 per pound again in 2016. The last time prices averaged this low for two consecutive years was 2004-2005.

▪Cheese prices lagged butter by more than $1 per pound for two months in 2015. This gap is projected to narrow to near 30 cents in 2016 and 2017.

Butter and cheese prices to fall further in 2016

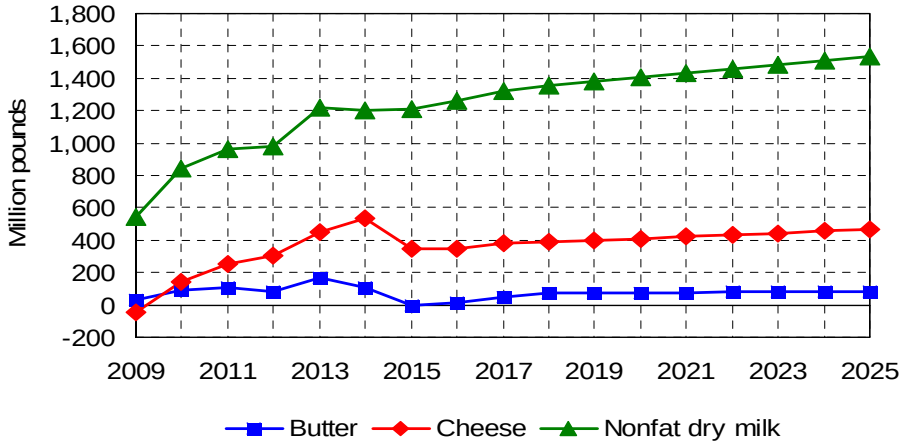


▪U.S. butter prices remained much higher than in international markets for the second consecutive year in 2015, causing the U.S. to be a small net importer.

▪In 2015, cheese net exports fell by nearly 35 percent as U.S. prices held a small premium versus Oceania cheese prices.

▪International markets for whole milk powder and nonfat dry milk remain weak. Little improvement is expected for international demand strength until China resumes major purchases.

Net exports of butter and cheese declined in 2015



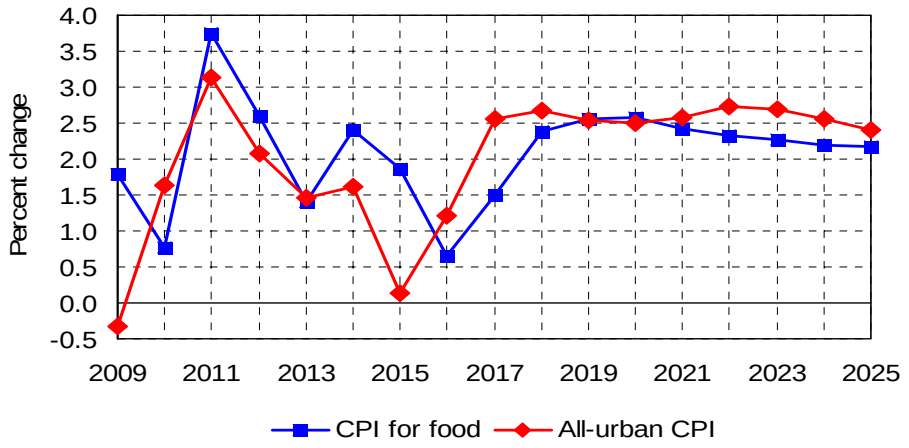
Dairy sector

Calendar year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Milk supply											
Dairy cows (thou. head)	9,312	9,290	9,271	9,265	9,260	9,263	9,271	9,283	9,296	9,314	9,337
California	1,779	1,766	1,761	1,759	1,758	1,759	1,762	1,767	1,772	1,779	1,789
Wisconsin	1,279	1,276	1,273	1,272	1,271	1,272	1,273	1,274	1,274	1,274	1,274
New York	618	615	611	608	607	606	605	604	604	605	605
Idaho	585	591	596	599	602	606	609	613	615	619	622
Pennsylvania	530	524	518	514	511	508	506	505	504	503	503
Minnesota	460	456	452	449	447	445	444	444	444	445	446
Texas	464	465	466	467	469	471	472	474	475	477	479
Michigan	407	415	420	426	430	435	440	444	448	452	455
New Mexico	323	320	318	317	315	314	313	312	311	310	310
Ohio	267	265	264	263	262	261	260	259	259	259	258
Rest of U.S.	2,600	2,597	2,592	2,590	2,588	2,587	2,587	2,588	2,590	2,592	2,596
Milk yield (lbs. per cow)	22,379	22,832	23,173	23,484	23,767	24,047	24,330	24,613	24,905	25,181	25,452
Milk production (bil. lbs.)	208.4	212.1	214.9	217.6	220.1	222.7	225.6	228.5	231.5	234.5	237.7
Min. FMMO class prices					(Dollars per hundredweight)						
Class I mover	16.34	15.45	16.64	17.30	17.72	17.83	18.02	18.05	18.12	18.16	18.28
Class II	15.48	14.72	15.95	16.65	17.02	17.14	17.25	17.25	17.33	17.32	17.42
Class III	15.80	14.34	15.24	15.90	16.24	16.43	16.50	16.47	16.43	16.45	16.52
Class IV	14.35	14.02	15.25	15.95	16.32	16.44	16.55	16.55	16.63	16.62	16.72
All milk price	17.13	16.11	17.14	17.80	18.17	18.32	18.43	18.43	18.45	18.47	18.56
Actual dairy prod. margin	8.30	7.76	8.60	8.90	9.10	9.07	9.17	9.08	9.15	9.28	9.46
Wholesale prices					(Dollars per pound)						
Butter, CME	2.09	1.87	1.91	1.94	1.94	1.93	1.93	1.92	1.92	1.90	1.92
Cheese, Amer., 40#, CME	1.61	1.53	1.60	1.64	1.68	1.70	1.70	1.70	1.70	1.70	1.71
Nonfat dry milk, AA	0.94	0.99	1.11	1.18	1.23	1.24	1.25	1.26	1.27	1.28	1.28
Evaporated milk	1.66	1.69	1.74	1.78	1.80	1.82	1.84	1.87	1.89	1.91	1.93
Dairy product production					(Million pounds)						
American cheese	4,634	4,700	4,729	4,765	4,803	4,841	4,893	4,945	4,994	5,046	5,091
Other cheese	7,059	7,184	7,275	7,391	7,513	7,646	7,786	7,922	8,072	8,218	8,373
Butter	1,848	1,892	1,943	1,993	2,026	2,058	2,092	2,130	2,166	2,201	2,238
Nonfat dry milk	2,180	2,295	2,356	2,418	2,476	2,532	2,595	2,660	2,722	2,788	2,855
Dairy product exports											
American cheese	126	128	148	153	157	161	166	171	177	182	186
Other cheese	569	559	560	570	577	585	595	604	614	623	632
Butter	37	43	79	101	106	110	114	120	124	130	132
Nonfat dry milk	1,210	1,261	1,323	1,360	1,386	1,405	1,433	1,462	1,486	1,510	1,538
Per-capita consumption					(Pounds)						
Butter	5.7	5.8	5.8	5.8	5.9	5.9	6.0	6.0	6.1	6.1	6.2
Nonfat dry milk	3.0	3.1	3.1	3.2	3.2	3.3	3.4	3.5	3.5	3.6	3.7
Total cheese	34.7	35.2	35.3	35.4	35.6	35.8	36.0	36.3	36.5	36.8	37.1
American	13.9	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.1	14.1
Other	20.9	21.2	21.3	21.4	21.6	21.8	22.0	22.2	22.5	22.7	23.0
Total fluid milk	180.2	179.5	178.1	176.9	175.9	175.1	173.8	172.8	171.9	171.0	170.0
Ice cream	22.5	22.7	22.7	22.6	22.5	22.5	22.4	22.4	22.3	22.3	22.3

All projections are averages across 500 stochastic outcomes.

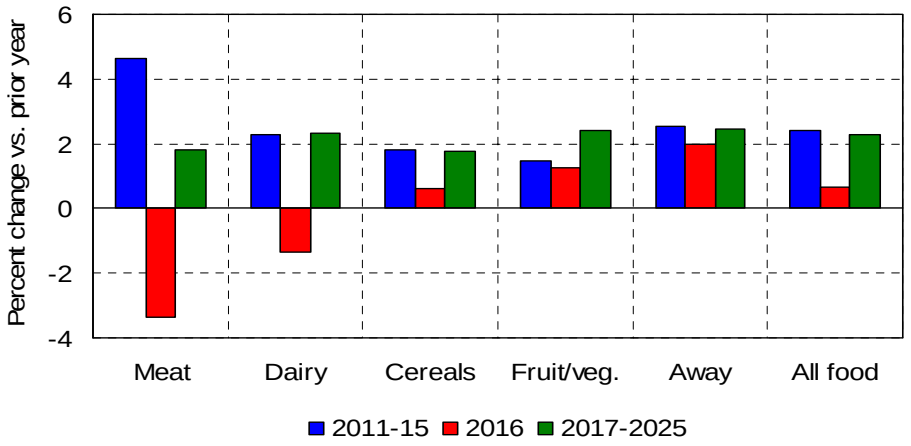
Food prices and expenditures

Food inflation lower than general rate in 2016



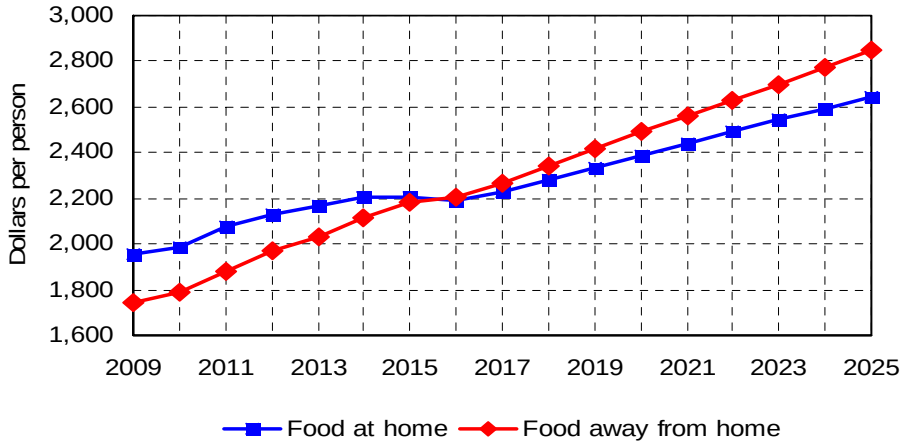
- After outpacing the general inflation rate for four of five years, growth in the CPI for food is projected below the all-urban CPI through 2018.
- With stocks of most food commodities at comfortable to burdensome levels, most food prices are projected to decline in real terms for the next few years.
- Food price growth is projected to approximate the general inflation rate in the long term.

Meat prices reverse course in 2016



- After averaging the highest inflation of food categories from 2011-2015, the projected CPI for meat declines by 3.4 percent in 2016.
- The CPI for dairy is also expected to retreat this year as milk prices decline.
- Sharply lower energy prices have played a large role in low food inflation. As energy and food commodity prices increase later in the projection period, so do food costs.

Food away from home spending tops food at home



- U.S. consumers continue to spend a larger portion of their food dollars on purchases consumed outside the home.
- Food at home spending declines in real terms from 2014-2017.
- U.S. residents spent just 6.5 percent of total consumer expenditures on food at home in 2014. This compares to 9.3 percent in Canada, 13.5 in Japan, 20.5 in Argentina and 42.1 in the Philippines.

Consumer price indices for food

Calendar year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
						(1982-84=100)					
Total food	247.2	248.9	252.6	258.6	265.2	272.0	278.6	285.1	291.5	297.9	304.4
(Inflation rate)	1.9%	0.7%	1.5%	2.4%	2.6%	2.6%	2.4%	2.3%	2.3%	2.2%	2.2%
Food at home	242.2	241.4	244.1	249.4	255.5	261.7	267.7	273.7	279.6	285.3	291.2
Cereal and bakery	274.1	275.7	278.7	284.2	290.4	296.2	301.6	307.1	312.4	317.7	323.2
Meat	260.3	251.6	248.3	251.1	256.5	263.4	270.2	277.0	283.6	289.7	295.8
Dairy	222.4	219.5	223.9	230.8	237.4	243.3	248.7	253.9	259.0	264.3	269.7
Fruit and vegetables	293.8	297.6	306.0	314.3	322.6	330.5	338.2	345.8	353.4	361.0	368.7
Other food at home	209.3	212.8	216.4	221.2	226.3	231.2	235.9	240.6	245.2	249.9	254.6
Sugar and sweets	216.1	219.1	222.9	227.7	232.7	237.5	242.2	246.6	251.1	255.7	260.4
Fats and oils	227.3	228.7	230.9	236.4	242.6	248.9	254.9	260.7	266.5	272.5	278.5
Other prepared items	223.4	227.5	231.4	236.9	242.8	248.6	254.0	259.5	264.9	270.3	275.8
Non-alc. beverages	167.9	171.1	174.6	178.0	181.5	184.8	188.1	191.2	194.5	197.7	201.0
Food away from home	256.1	261.2	266.4	273.4	280.7	288.3	295.8	303.1	310.3	317.5	324.9

All projections are averages across 500 stochastic outcomes.

Consumer expenditures for food

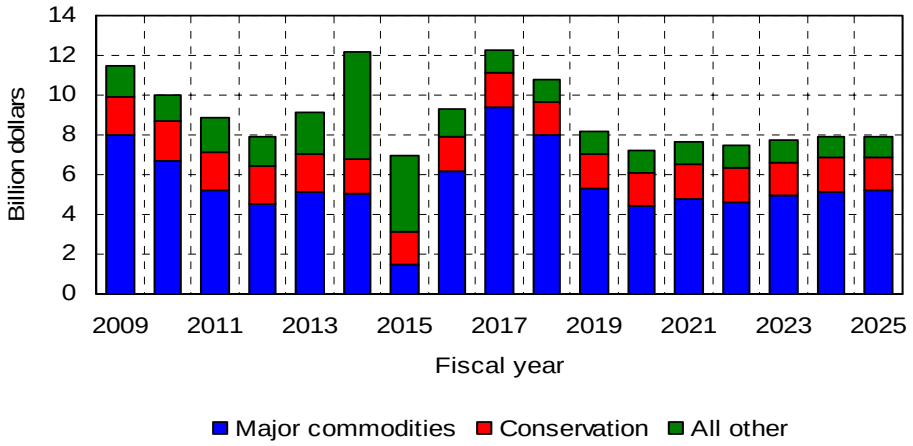
Calendar year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
						(Dollars per person)					
Total food per capita	4,383	4,401	4,489	4,617	4,753	4,883	5,005	5,125	5,244	5,365	5,488
Food at home	2,202	2,192	2,225	2,278	2,335	2,390	2,442	2,493	2,543	2,593	2,643
Food away from home	2,180	2,209	2,264	2,339	2,418	2,492	2,563	2,632	2,701	2,772	2,845
Multiply by population for:						(Billion dollars)					
Total U.S. food expenditures	1,409	1,427	1,467	1,521	1,578	1,634	1,688	1,742	1,796	1,851	1,907

All projections are averages across 500 stochastic outcomes.

Government costs

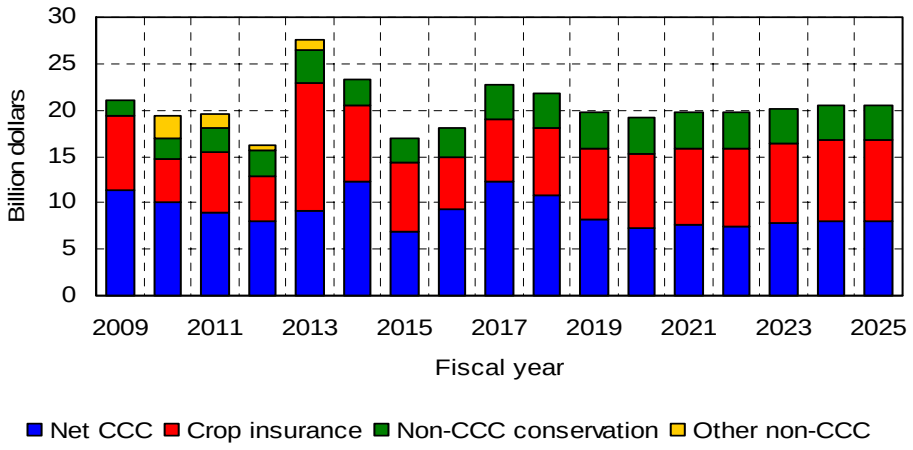
- Net CCC outlays were under $7 billion in FY 2015, as the direct payment program had ended and the first ARC and PLC payments were not made until FY 2016.
- Average projected ARC and PLC spending peaks with the 2015 crop, and those payments are made in FY 2017.
- Net CCC outlays between FY 2016 and FY 2025 total $86 billion.

CCC outlays total $86 billion over FY 2016-25



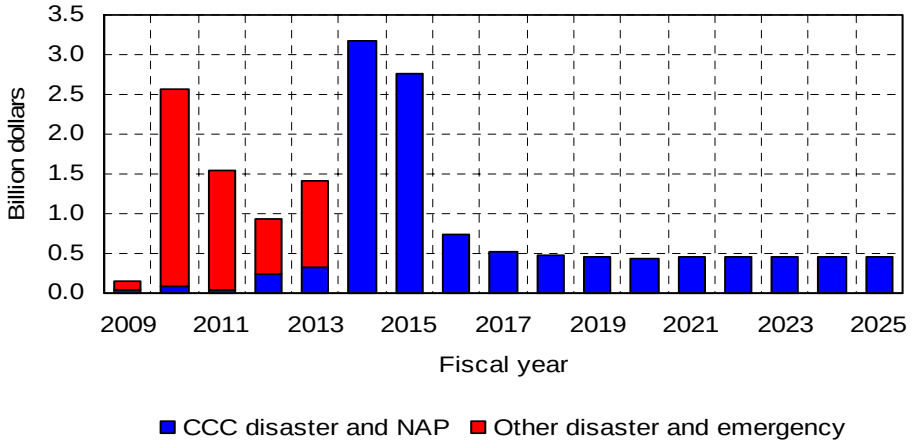
- Mandatory government outlays under the crop insurance program and certain conservation and disaster programs are not included in the CCC account.
- Crop insurance net outlays total $78 billion between FY 2016 and FY 2025.
- This baseline's estimate of total mandatory outlays for FY 2016-2025 is almost identical to last year's estimate for FY 2015-2024. Projected CCC outlays are higher, but crop insurance costs are lower.

10-year crop insurance outlays total $78 billion



- Livestock forage assistance accounted for a large spike in disaster aid in FY 2014 and FY 2015.
- CBO projects that livestock aid and the non-insured assistance program (NAP) will average less than $500 million per year from FY 2017 to FY 2025.
- Other disaster aid from FY 2008-FY 2013 was provided from non-CCC accounts.

Projected disaster aid declines after FY 2015



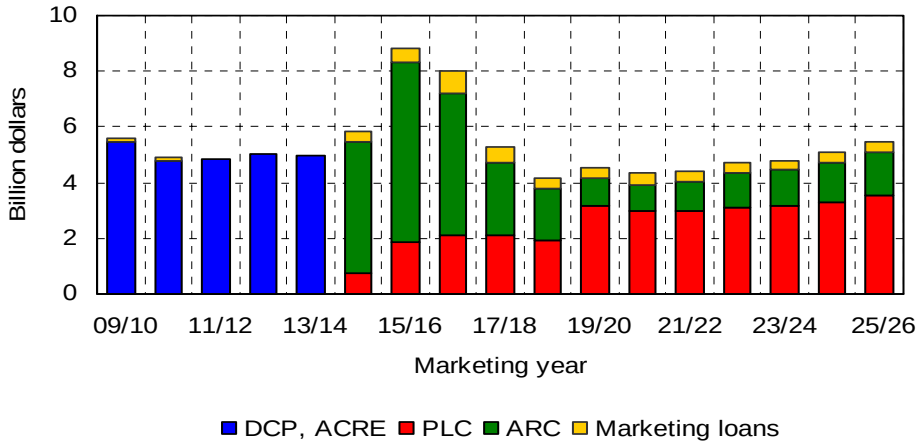
Net government outlays

Fiscal year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
					(Million dollars)						
Feed grains											
Corn	201	3,815	4,542	2,999	1,398	1,105	1,615	1,620	1,687	1,837	1,947
Sorghum	26	24	238	265	210	204	196	192	188	194	205
Barley	2	8	13	149	135	117	104	99	102	106	110
Oats	0	1	16	17	15	11	10	9	9	9	9
Food grains											
Wheat	143	432	1,144	1,251	1,136	925	879	812	829	893	898
Rice	18	351	438	286	274	216	188	179	170	168	167
Oilseeds											
Soybeans	26	466	1,342	1,598	917	637	567	460	514	585	569
Peanuts	74	380	690	680	674	656	644	639	642	634	645
Other oilseeds	6	65	99	110	101	99	94	87	86	86	91
Other selected commodities											
Upland cotton	1,009	510	741	499	321	298	352	298	282	256	267
Dairy	-66	165	144	139	167	168	170	216	417	365	317
Subtotal, selected commodities	1,439	6,217	9,408	7,993	5,347	4,436	4,819	4,612	4,925	5,132	5,225
CCC conservation											
Conservation reserve	1,714	1,715	1,683	1,682	1,682	1,642	1,690	1,737	1,726	1,702	1,623
Other CCC conservation	5	5	5	1	1	1	1	1	1	1	1
Tobacco trust fund	261	28	7	0	0	0	0	0	0	0	0
Other CCC											
Disaster payments, NAP	2,758	737	518	480	449	444	448	450	451	451	452
Other net costs	792	561	614	656	665	657	654	651	651	649	652
Net CCC outlays	6,969	9,263	12,236	10,812	8,143	7,179	7,612	7,452	7,753	7,935	7,952
NRCS conservation	2,676	3,245	3,632	3,757	3,793	3,937	3,818	3,779	3,864	3,753	3,819
Crop insurance	7,350	5,628	6,788	7,304	7,734	8,066	8,270	8,460	8,586	8,788	8,799
Total mandatory outlays	16,995	18,136	22,655	21,872	19,670	19,182	19,699	19,690	20,203	20,476	20,570

Note: "NRCS Conservation" denotes mandatory spending on conservation programs authorized by the 2002, 2008 and 2014 farm bills that is not included in reported CCC outlays. Fiscal years begin on Oct.1 of the previous calendar year (FY 2015: Oct. 1, 2014-Sep. 30, 2015).
All projections are averages across 500 outcomes.

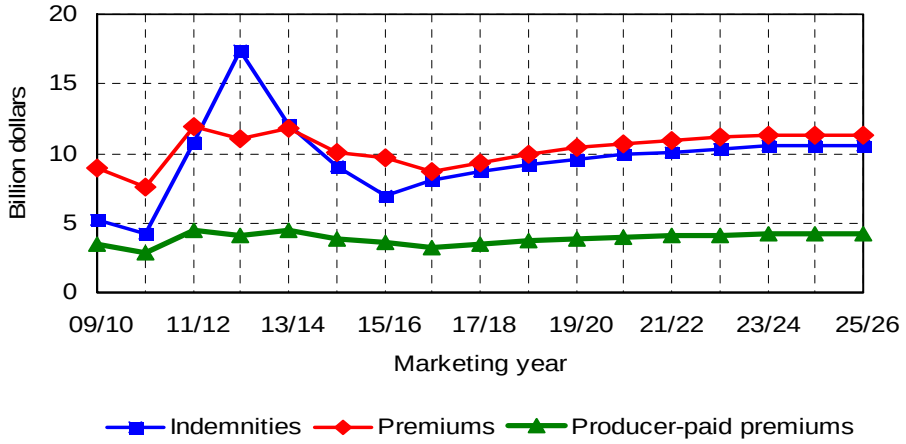
Payments and crop insurance

PLC and ARC replace DCP and ACRE



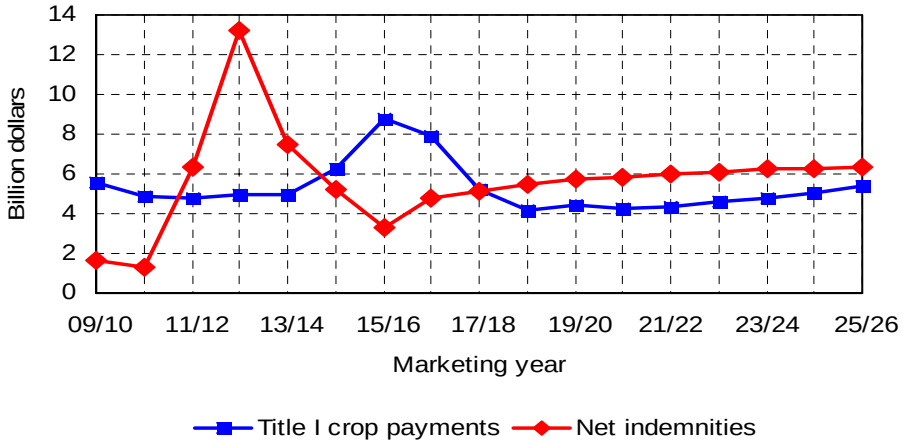
- PLC and ARC have replaced DCP and ACRE for grains and oilseeds.
- Projected ARC and PLC payments peak in 2015/16. After 2015/16, program rules force ARC revenue benchmarks to adjust downward for many crops and counties.
- In 2019/20, an assumed new ARC/PLC election results in increased PLC participation.
- Cotton and peanuts receive most of the projected marketing loan benefits.

Crop insurance premiums exceed indemnities again



- Crop insurance indemnities for losses spiked because of the 2012 drought, but total premiums (including subsidies) are expected to exceed total indemnities for the second straight year in 2015/16.
- Premiums have dipped as the value of insured crops has declined with lower prices. Premiums increase after 2016/17 as production increases with rising yields.
- The total budgetary cost of the program includes premium subsidies, underwriting gains and cost reimbursements.

Net indemnities exceed Title I payments after 2017



- For the 2014/15 to 2016/17 period, Title I (PLC, ARC and marketing loan) benefits under the new farm bill exceed projected crop insurance net indemnities (indemnities minus producer-paid premiums).
- The reverse is true after 2017/18.
- Actual crop insurance indemnities will vary greatly from year to year, as will Title I benefits.

Selected direct government payments

Marketing year	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26
					(Million dollars)						
ARC payments	6,491	5,086	2,621	1,889	956	953	1,086	1,187	1,289	1,421	1,530
PLC payments	1,858	2,126	2,093	1,907	3,178	2,969	2,958	3,136	3,157	3,316	3,549
Marketing loans	456	788	576	385	391	429	375	375	351	366	363
Cotton transition payments	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total	8,805	8,001	5,290	4,181	4,525	4,351	4,419	4,698	4,797	5,103	5,442

Note: Includes selected payments for feed grains, food grains, oilseeds, and upland cotton.
All projections are averages across 500 outcomes.

Crop insurance

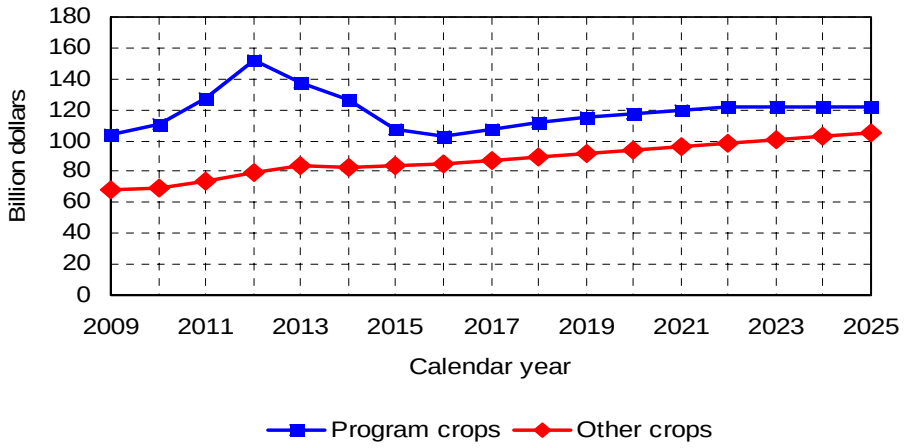
Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
					(Million dollars, crop year)						
Total premiums	9,714	8,766	9,404	9,941	10,434	10,757	10,994	11,179	11,352	11,344	11,385
Producer-paid premiums	3,660	3,270	3,515	3,722	3,905	4,024	4,113	4,182	4,247	4,241	4,255
Premium subsidies	6,054	5,497	5,889	6,219	6,529	6,733	6,880	6,997	7,105	7,103	7,130
Total indemnities	7,000	8,065	8,704	9,243	9,671	9,927	10,166	10,314	10,564	10,563	10,655
Loss ratio	0.72	0.92	0.93	0.93	0.93	0.92	0.92	0.92	0.93	0.93	0.94
					(Million dollars, crop year)						
Net indemnities	3,340	4,795	5,190	5,522	5,766	5,903	6,053	6,131	6,317	6,323	6,400
Corn	430	1,780	2,023	2,208	2,304	2,334	2,400	2,425	2,536	2,497	2,553
Soybeans	819	963	1,078	1,174	1,236	1,299	1,350	1,381	1,436	1,445	1,465
Wheat	789	577	606	623	653	654	667	661	669	676	655
Upland cotton	201	419	429	428	458	480	484	497	499	511	514
All other	1,101	1,056	1,053	1,090	1,114	1,137	1,152	1,168	1,178	1,193	1,213
					(Million dollars, fiscal year)						
Net outlays	7,350	5,628	6,788	7,304	7,734	8,066	8,270	8,460	8,586	8,788	8,799

All projections are averages across 500 outcomes.

Farm receipts and expenses

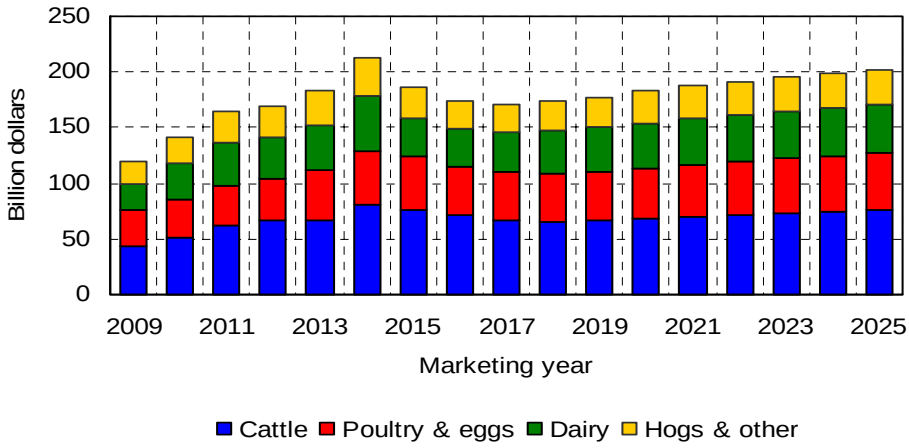
Program crop receipts return to recession lows

- Lower prices reduce projected cash receipts from sales of current and former program crops (grains, oilseeds, cotton and sugar) for the fourth straight year in 2016.
- Increasing production and slightly higher prices result in a small increase in program crop receipts in later years.
- Receipts for other crops (including vegetables, fruits, nursery crops and hay) rise steadily.



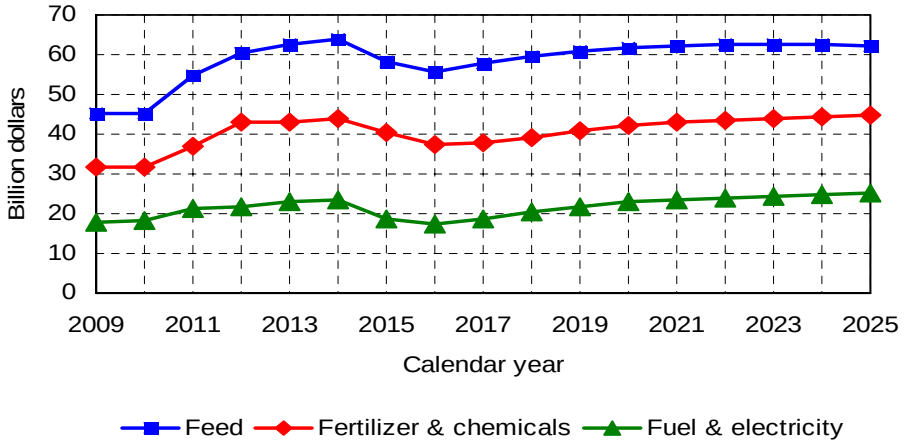
Livestock receipts fall from 2014 peak

- Livestock, dairy and poultry sector receipts peaked at $212 billion in 2014, a $92 billion increase from 2009.
- Lower prices for cattle, poultry products, hogs and milk result in lower receipts in 2015 and 2016.
- Total projected livestock receipts hit their lowest point in 2017, but cattle receipts do not begin to increase until 2019.



Fuel, feed and fertilizer costs decline again in 2016

- Fuel, feed and fertilizer expenses all declined in 2015 and are expected to do so again in 2016.
- These same expenses increase steadily from 2017-2025.
- The projected $18 billion decline in total farm production expenses in 2015 and 2016 is significant, but still leaves costs higher than in any year prior to 2014.



Farm cash receipts

Calendar year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
					(Billion dollars)						
Feed grains	57.95	56.29	58.87	61.44	63.45	64.72	65.75	66.68	66.88	66.79	66.46
Food grains	12.09	12.28	12.69	13.31	13.76	14.00	14.14	14.18	14.22	14.24	14.22
Oilseeds	36.93	34.18	35.71	37.07	37.96	39.16	40.06	40.68	40.86	40.91	40.70
Cotton	5.05	4.77	4.76	4.94	5.07	5.11	5.19	5.27	5.34	5.41	5.48
Sugar	2.96	3.06	3.16	3.28	3.34	3.40	3.42	3.44	3.47	3.52	3.58
Other crops	76.35	77.04	79.23	81.49	83.65	85.69	87.72	89.81	91.93	94.19	96.56
Cattle	76.64	71.56	67.35	65.75	66.07	68.04	69.95	71.74	73.51	74.89	76.18
Hogs	19.54	18.22	18.19	19.30	20.35	21.25	21.85	22.22	22.38	22.43	22.54
Dairy products	35.43	33.90	36.58	38.51	39.76	40.60	41.37	41.91	42.52	43.13	43.87
Poultry, eggs	46.96	43.68	42.36	42.90	44.09	45.40	46.51	47.75	48.91	49.84	50.81
Other livestock	7.12	6.97	7.06	7.23	7.43	7.66	7.88	8.09	8.30	8.49	8.47
Total cash receipts	377.02	361.97	365.96	375.21	384.94	395.02	403.85	411.77	418.32	423.84	428.87

All projections are averages across 500 outcomes.

Farm production expenses

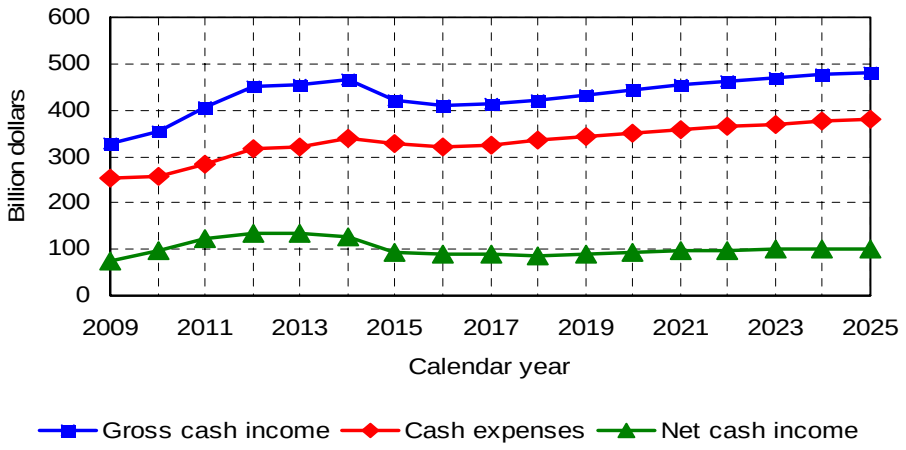
Calendar year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
					(Billion dollars)						
Feed	58.46	55.68	57.69	59.68	60.77	61.59	62.06	62.65	62.66	62.40	62.03
Purchased livestock	30.19	26.74	24.46	23.26	22.98	23.57	24.25	24.93	25.74	26.38	26.92
Seed	21.64	21.55	21.22	21.10	21.30	21.73	22.24	22.78	23.28	23.71	24.10
Fertilizer and chemicals	40.48	37.59	37.72	39.28	40.80	42.09	42.91	43.54	43.98	44.36	44.61
Fuels and electricity	18.49	17.21	18.72	20.46	21.78	22.94	23.38	23.80	24.22	24.63	25.06
Interest	18.50	19.79	20.81	22.03	23.09	23.73	24.29	24.78	25.22	25.60	25.96
Contract and hired labor	35.51	36.02	37.26	38.54	39.75	40.87	41.98	43.13	44.30	45.55	46.89
Capital consumption	49.87	49.33	48.35	47.35	46.80	46.54	46.54	46.68	46.89	47.12	47.34
Rent to landlords	20.48	20.59	20.32	20.29	20.28	20.32	20.47	20.65	20.83	20.98	21.06
All other	86.65	87.39	89.48	91.92	94.19	96.34	98.21	100.10	101.99	103.73	105.49
Total production expenses	380.27	371.90	376.03	383.91	391.74	399.73	406.34	413.04	419.10	424.47	429.45

All projections are averages across 500 outcomes.

Farm income and land

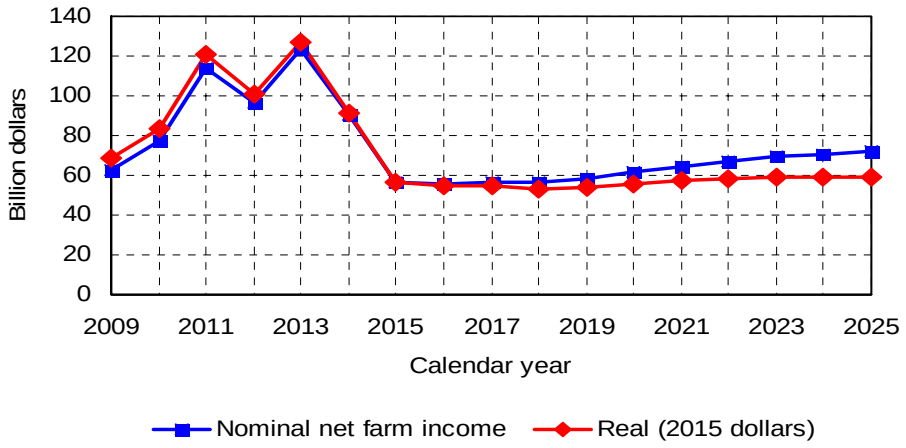
- Projected gross cash income (sales receipts and government payments) decreases again in 2016.
- Even though cash expenses also decline in 2016, net cash income falls to $89 billion.
- Income and expenses grow at a similar rate from 2016-2019, leaving net cash income essentially unchanged.
- Net cash income increases in later years, but remains well below the 2012 record.

Net farm cash income declines again in 2016



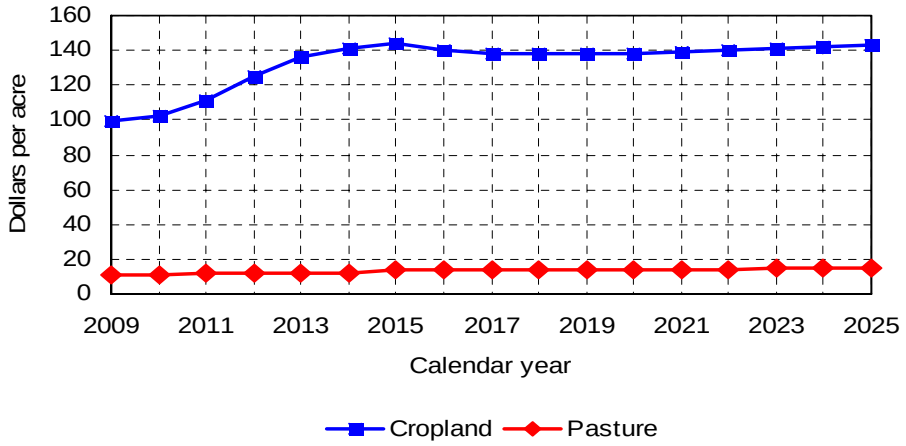
- Net farm income has declined even more than net cash income.
- One reason is the recent increase in depreciation costs, which are subtracted in calculating net farm income.
- After correcting for inflation, projected real net farm income is only $2 billion greater in 2025 than it was in 2015.

Real net farm income remains steady through 2025



- National average cropland rental rates nearly doubled between 2007 and 2015.
- Lower crop net returns result in a modest reduction in projected cropland rental rates in 2016 and 2017.
- Land sale and rental markets show much regional variation. The uncertainty around the estimates of rental rates and land values is large.

Lower crop returns stop growth in rental rates



Farm income statistics

Calendar year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
						(Billion dollars)					
1. Farm receipts	410.86	395.86	401.17	411.78	422.79	433.98	443.84	452.72	460.25	466.59	472.45
Crops	191.33	187.64	194.42	201.53	207.23	212.07	216.30	220.06	222.70	225.07	226.99
Livestock	185.68	174.34	171.55	173.68	177.70	182.95	187.55	191.71	195.61	198.77	201.88
Farm-related	33.85	33.88	35.20	36.57	37.85	38.96	39.99	40.95	41.94	42.75	43.57
2. Government payments	10.57	13.62	12.49	9.82	8.84	9.26	8.98	9.07	9.37	9.40	9.70
3. Gross cash income (1 + 2)	421.44	409.47	413.65	421.60	431.62	443.24	452.82	461.79	469.62	475.99	482.15
4. Nonmoney income	17.77	17.96	18.14	18.29	18.40	18.52	18.64	18.76	18.85	18.90	18.92
5. Value of inventory Change	-2.50	0.44	1.18	0.14	-0.34	-0.28	-0.46	-0.17	-0.07	0.13	0.18
6. Gross farm income (3 + 4 + 5)	436.71	427.88	432.97	440.03	449.68	461.48	471.01	480.38	488.40	495.02	501.25
7. Cash expenses	328.28	320.65	325.54	334.38	342.72	350.93	357.51	364.04	369.87	374.98	379.72
8. Total expenses	380.27	371.90	376.03	383.91	391.74	399.73	406.34	413.04	419.10	424.47	429.45
9. Net cash income (3 - 7)	93.16	88.83	88.11	87.22	88.90	92.31	95.32	97.75	99.76	101.01	102.43
10. Realized net farm inc (3 + 4 - 8)	58.93	55.54	55.76	55.98	58.28	62.03	65.13	67.51	69.37	70.43	71.62
11. Net farm income (6 - 8)	56.43	55.98	56.95	56.12	57.94	61.75	64.67	67.34	69.30	70.55	71.80
Deflated (2015 $)	56.43	55.04	54.93	53.05	53.67	56.02	57.43	58.54	59.02	58.90	58.76

All projections are averages across 500 outcomes.

Land rental rates and real estate values

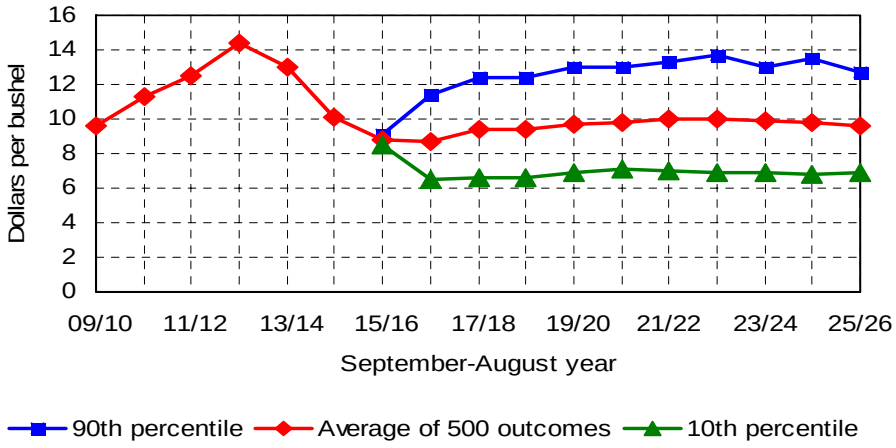
Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Rental rates						(Dollars per acre)					
Cropland	144.00	140.12	138.32	138.18	138.17	138.47	139.37	140.37	141.43	142.26	142.62
Pasture	14.00	14.08	14.05	14.00	13.94	13.96	14.07	14.24	14.42	14.60	14.75
Value of farm real estate	3,020	2,975	2,866	2,826	2,770	2,743	2,761	2,782	2,804	2,821	2,830

All projections are averages across 500 outcomes.

Ranges from the 500 alternative outcomes

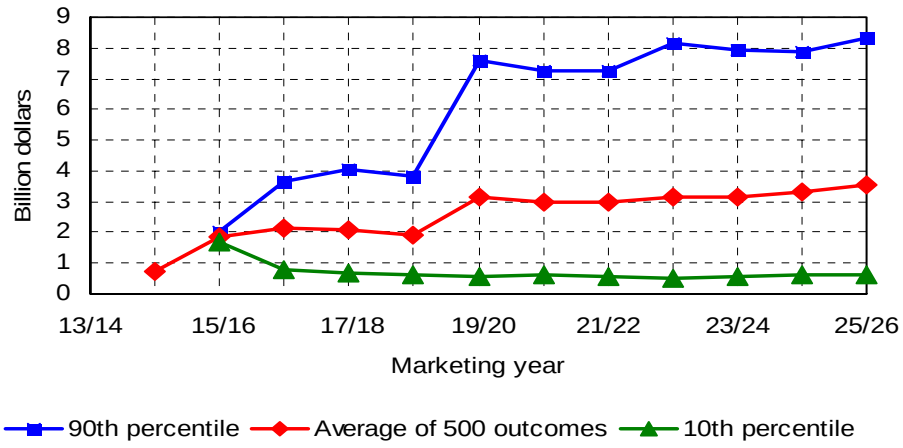
- Crop prices depend on weather, energy prices, income growth and much more.
- To examine alternative futures for agricultural markets, we considered 500 combinations of assumptions about factors driving commodity prices.
- Although soybean prices average $9-$10 per bushel across the stochastic outcomes, there are some combinations of assumptions that lead to prices over $12 per bushel and some where prices drop below $7 per bushel in any given year.

Soybean prices depend on weather, much more



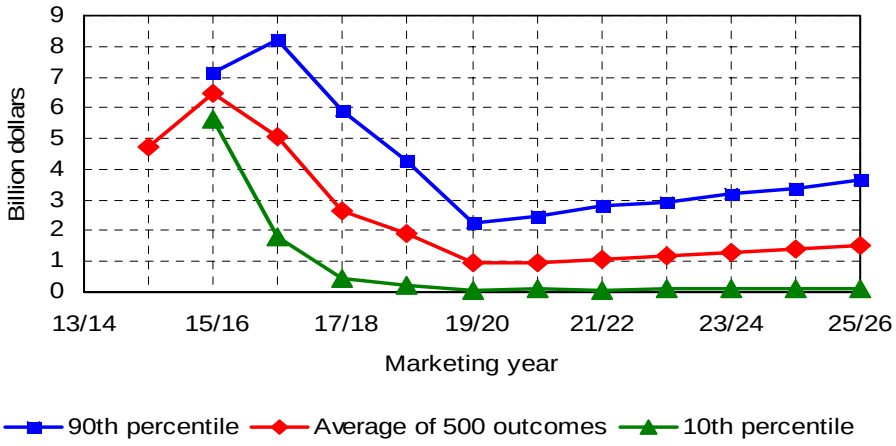
- PLC program costs are uncertain. If season-average market prices are above reference prices, no payments occur, but payments can be large if prices drop far below reference prices.
- The assumption that more producers would choose PLC in a new ARC-PLC election in 2019 causes average PLC payments to increase from $2 billion to $3 billion per year.
- In some of the stochastic outcomes program spending is near zero. In others, it is more than twice the average level.

PLC program costs are uncertain



- Given assumed participation rates and the projected paths of average market prices and yields, average ARC payments decline from about $6.5 billion in 2015/16 to $2 billion in 2018/19.
- Moving average benchmarks tend to decrease ARC payments through time. ARC is assumed to lose base acres through re-enrollment in 2019.
- The provision that limits ARC payments to 10 percent of the benchmark puts an upper cap on program payments.

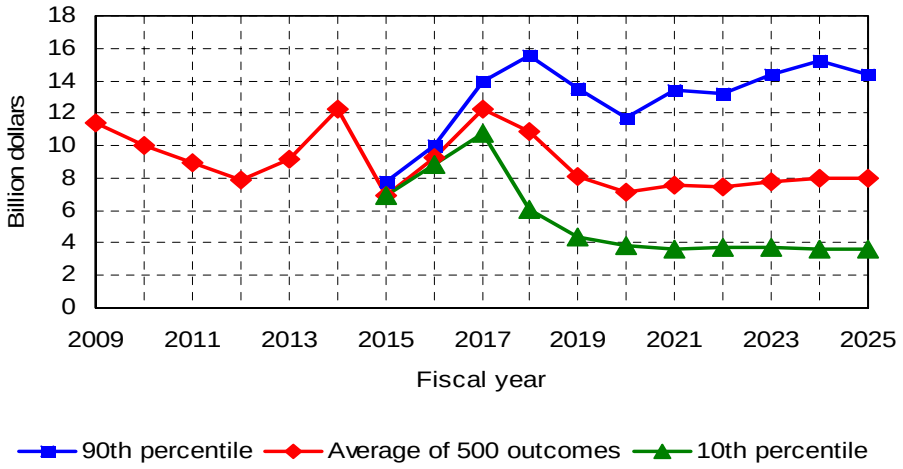
ARC payments can also vary greatly



Ranges from the 500 alternative outcomes

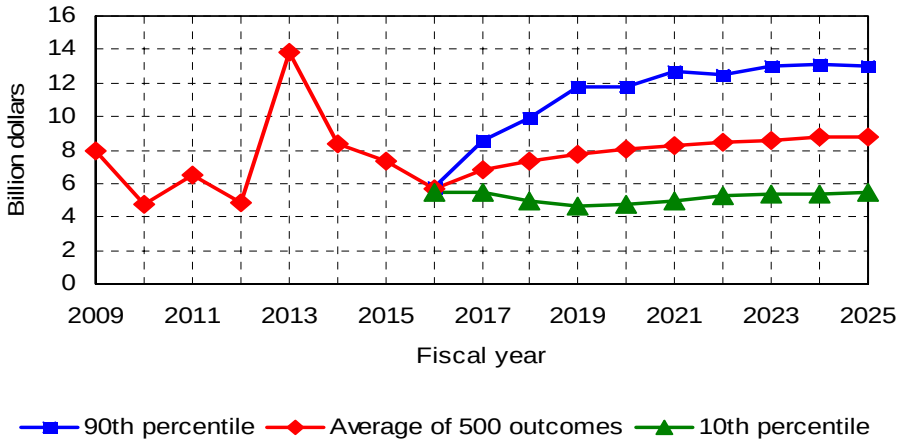
- Given the uncertainty over spending on the new PLC and ARC programs, net CCC outlays can be far greater or less than the projected average.
- If prices are above reference prices and revenues are above recent averages, the conservation reserve program and livestock disaster aid may be the only major CCC outlays.
- In contrast, low prices or per-acre revenues could trigger payments that exceed the levels of recent years.

CCC net outlays could vary greatly



- Volatility in commodity yields and prices creates uncertain outlays for the crop insurance program.
- Higher crop prices, production and coverage levels increase crop insurance premiums and premium subsidies.
- In any given year, outlays will depend on yields, prices and resulting indemnities.
- In extreme weather years, indemnities and outlays can far exceed the average, as in FY 2013.

Crop insurance net outlays are also uncertain



- Net farm income depends on production levels and the prices of agricultural outputs and inputs, all of which are uncertain.
- As a result, future levels of net farm income are also quite uncertain.
- The sources of uncertainty considered in this analysis lead to a wide range of possible farm income levels for any given year.
- There are certain to be risks not captured in these 500 alternative outcomes.

Net farm income likely to remain below 2013 record