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University of Missouri

U.S. Baseline Briefing Book

Projections for Agricultural and Biofuel Markets

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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, D.C., in December 2016. Any remaining errors are those of the authors.

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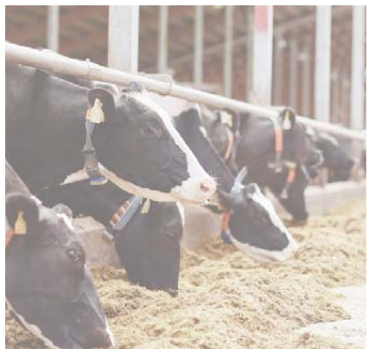


Summary

Net farm income could fall for the fourth straight year in 2017, and the farm debt-to-asset ratio is rising. Even with a modest recovery in farm income in 2018 and beyond, pressure on farm finances is expected to continue.

These baseline projections for agricultural and biofuel markets were prepared using market information available in January 2017. 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:

- Record U.S. yields and world production have resulted in further declines in the prices of corn, wheat and many other crops in the 2016/17 marketing year.
- Because of shifts in relative prices, projected soybean and cotton planted acreage increases in 2017, while wheat and corn acreage declines.
- Projected corn prices average $3.60 per bushel for the 2017/18 marketing year, up slightly from 2016/17. Corn prices average $3.71 per bushel for the 2018-2026 period.
- Strong export demand has supported soybean and cotton prices in 2016/17. Projected soybean prices average $9.57 per bushel in 2017/18 and remain near that level in later years.
- Cattle, hog, chicken and milk prices have all declined sharply since 2014. Production has increased, and a strong dollar is constraining meat export sales.
- Cattle and hog prices both fall in 2017 because of large domestic supplies. U.S. milk prices increase in 2017 with stronger international markets.
- Net farm income has declined by 48 percent since its 2013 peak. It increases in 2018 and later years, but in real terms, projected net farm income remains below the 2015 level.
- Lower farm income and rising interest rates result in lower projected land prices and farm asset values. The debt-to-asset ratio increases from 11 percent in 2012 to nearly 14 percent in 2017 and 16 percent in 2026.
- Agricultural risk coverage (ARC) payments are expected to decline rapidly, largely because of reduced guarantees tied to moving averages of past market prices. More farmers are assumed to choose price loss coverage (PLC) in 2019 if current program rules are extended by a new farm bill and producers are allowed to make a new election.
- Crop insurance net outlays are projected to average about $8 billion per year for fiscal years 2018-2026. Major commodity program outlays average about $7 billion per year over the same period.
- Food price inflation was just 0.3 percent in 2016, and is expected to reach 1.7 percent in 2017. In later years, projected food price inflation is similar to the overall rate of inflation in the U.S. economy.

Key results

Marketing year	2011/12-2015/16 average	2016/17	2017/18	2018/19-2026/27 average
Crop prices				
Corn farm price, dollars per bushel	4.98	3.38	3.60	3.71
Soybean farm price, dollars per bushel	11.79	9.46	9.57	9.62
Wheat farm price, dollars per bushel	6.55	3.79	4.44	5.10
Upland cotton farm price, cents per pound	72.2	66.7	63.3	64.1
Crop area planted, million acres				
Corn	92.6	94.0	92.1	93.5
Soybeans	79.0	83.4	87.1	84.3
Wheat	55.5	50.2	46.2	47.0
Upland cotton	11.2	9.9	10.5	10.2
12 major crops*	259.3	258.5	257.2	255.8

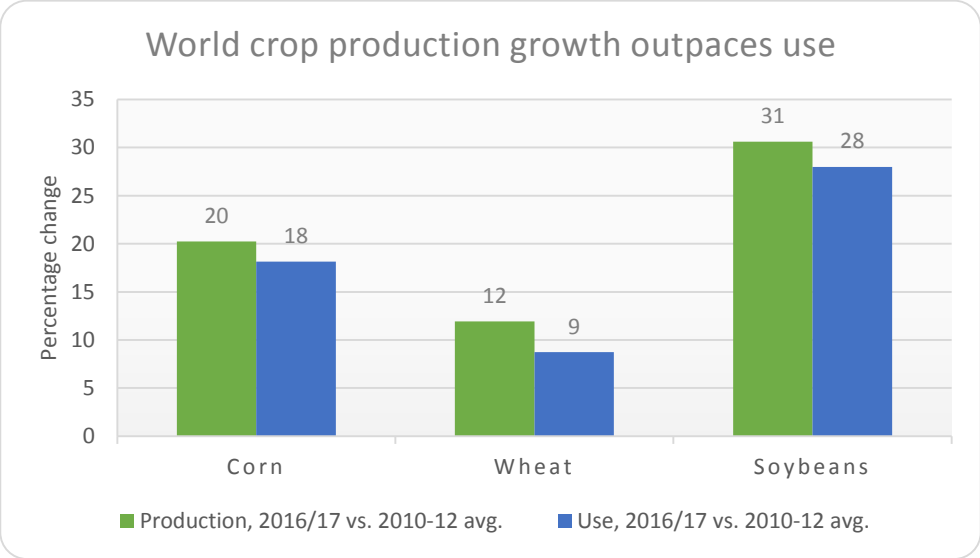
Calendar year except as noted	2011-2015 average	2016	2017	2018-2026 average
Livestock sector prices				
Fed steers, 5-area direct, dollars per cwt	133.23	120.86	110.66	110.82
Barrows and gilts, 51-52% lean, dollars per cwt	63.51	46.16	43.64	50.43
National wholesale broiler, cents per pound	92.22	84.30	83.48	89.57
All milk, dollars per cwt	20.04	16.20	17.76	18.74
Biofuel production, billion gallons				
Ethanol	13.9	15.3	15.6	16.4
Corn starch-based ethanol	13.7	14.9	15.2	16.0
Biomass-based diesel	1.3	1.9	2.1	2.4
Government outlays, billion dollars, fiscal year				
Commodity Credit Corporation net outlays	9.0	9.6	11.3	9.9
Major commodity programs	4.3	6.4	8.4	6.8
CRP, disaster and all other CCC net outlays	4.7	3.2	2.9	3.0
Crop insurance net outlays	8.2	4.2	2.9	7.8
Net farm income, billion dollars	101.4	68.3	63.7	87.7
In 2016 dollars	106.5	68.3	62.9	77.5
Farm balance sheet, billion dollars				
Farm assets	2,718	2,868	2,789	2,637
Farm debt	322	376	387	408
Debt-to-asset ratio	11.9%	13.1%	13.9%	15.5%
Annual consumer food price inflation	2.4%	0.3%	1.7%	2.5%

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

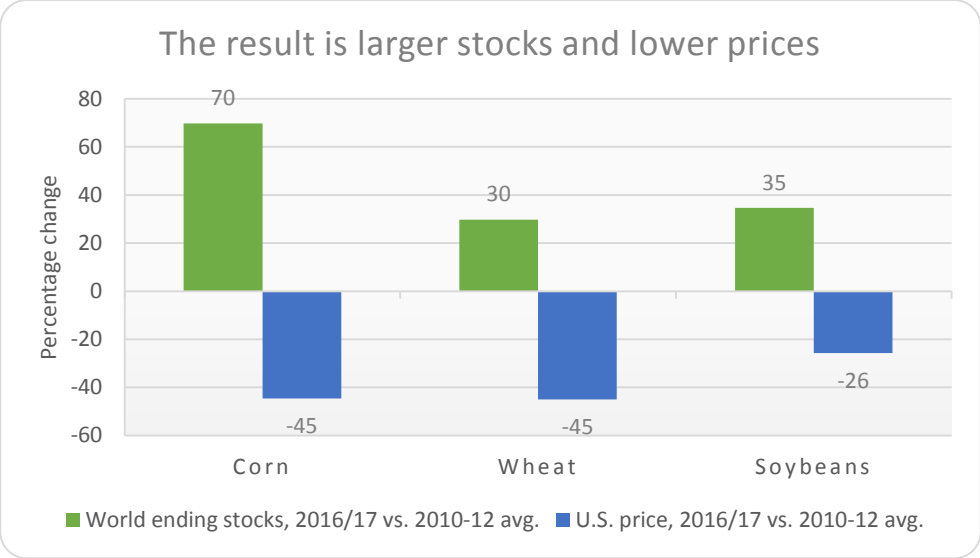
Note: The estimates are based on market information available in January 2017. Projections are averages across 500 outcomes.

Large supplies have pushed down prices

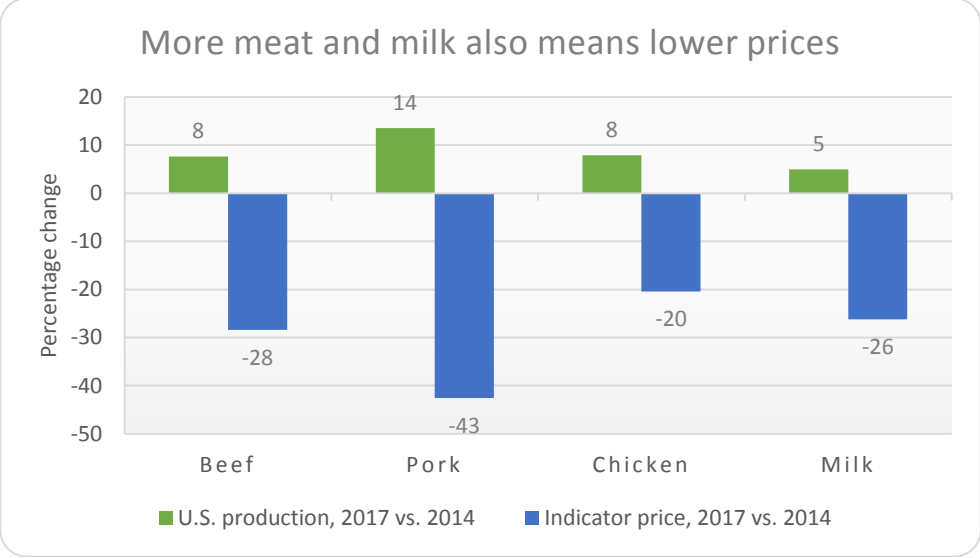
Since the 2012 drought, world average yields for grains and oilseeds have exceeded the long term trend for four straight years. In 2016, world production exceeded the 2010-2012 average by 20 percent for corn, 12 percent for wheat and 31 percent for soybeans. Consumption has also increased, but by a slightly smaller proportion.

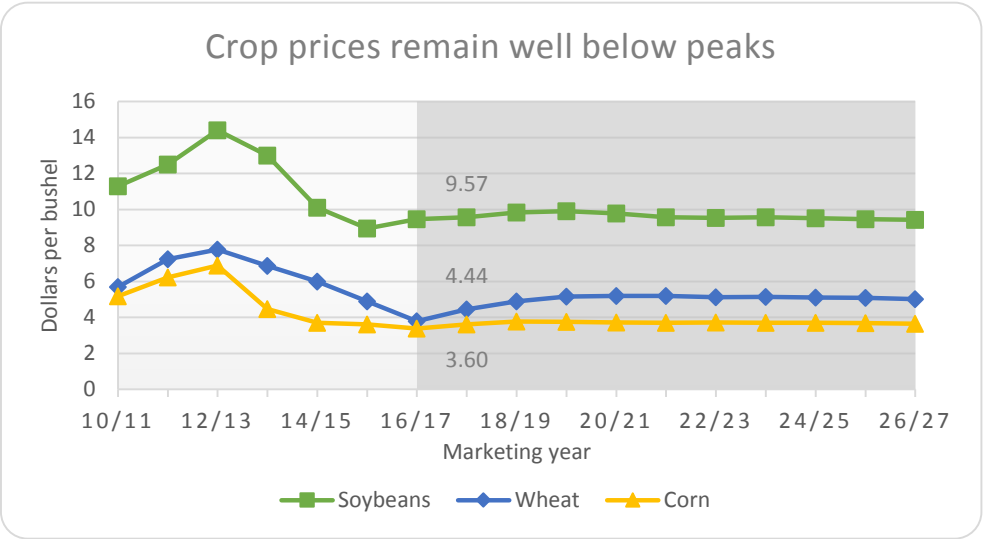


With production growing more rapidly than use, world carryover stocks of grains and oilseeds have increased. The result has been sharply lower market prices. U.S. marketing year average prices for corn are projected to be 45 percent below the average of 2010/11 to 2012/13. Wheat prices are also down by 45 percent, and soybean prices have declined by 26 percent.



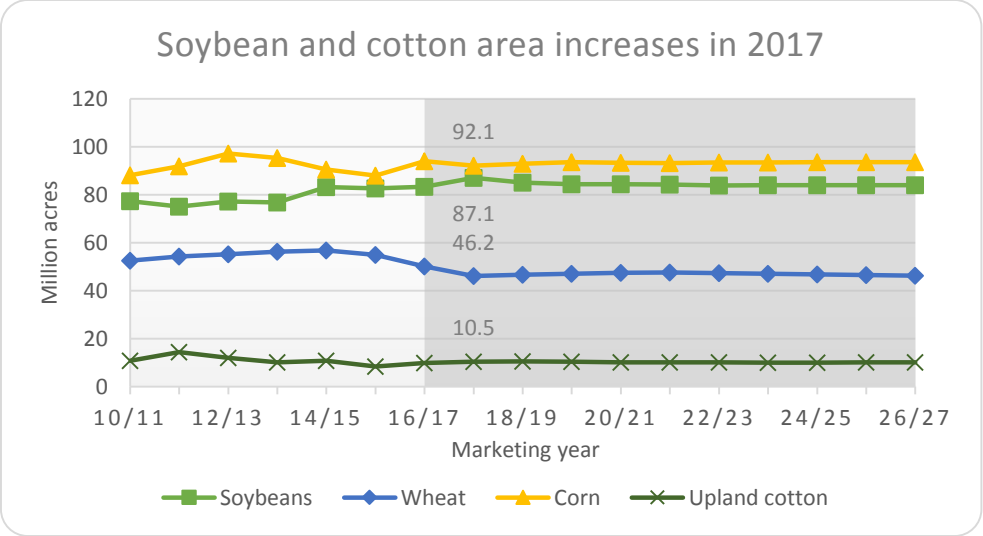
Livestock, poultry and milk prices have also retreated in response to larger supplies. Since prices peaked in 2014, U.S. production of beef, pork and chicken have all increased far more quickly than population. Combined with the effects of a strong dollar on export sales, the result has been a sharp reduction in prices. Projected prices for 2017 are 28 percent below the 2014 level for fed cattle and 43 percent lower for barrows and gilts. Wholesale chicken prices have declined 20 percent and the all-milk price has dropped by 26 percent.



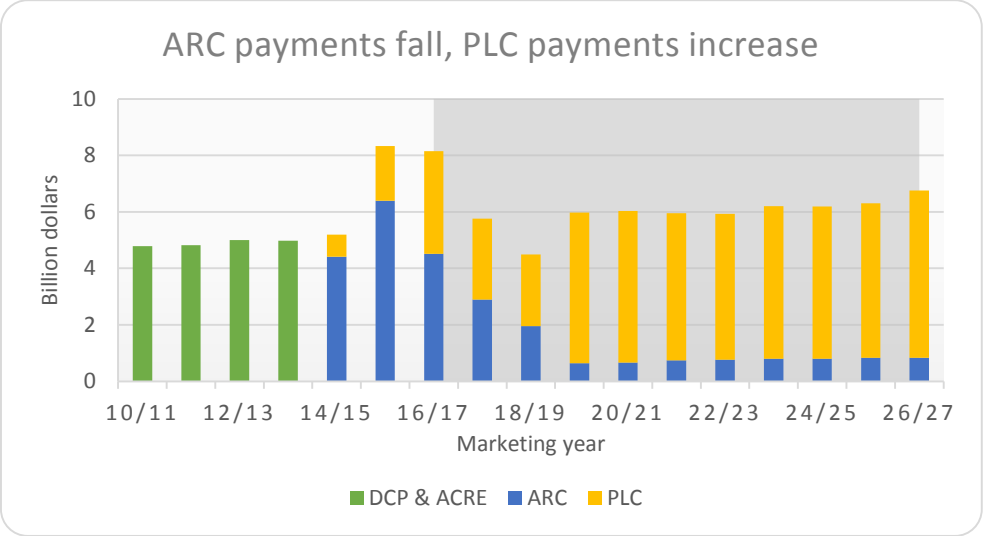


Crop outlook highlights

Average prices for major crops recover, but remain well below recent peak levels. After the record yields of 2016, prices could increase for crops harvested in 2017 if yields return to more normal levels. Projected 2017/18 corn prices average $3.60 per bushel, with wheat at $4.44 and soybeans at $9.57. Average prices over the next ten years are above the price loss coverage (PLC) reference price for soybeans, near the reference price for corn and below it for wheat.



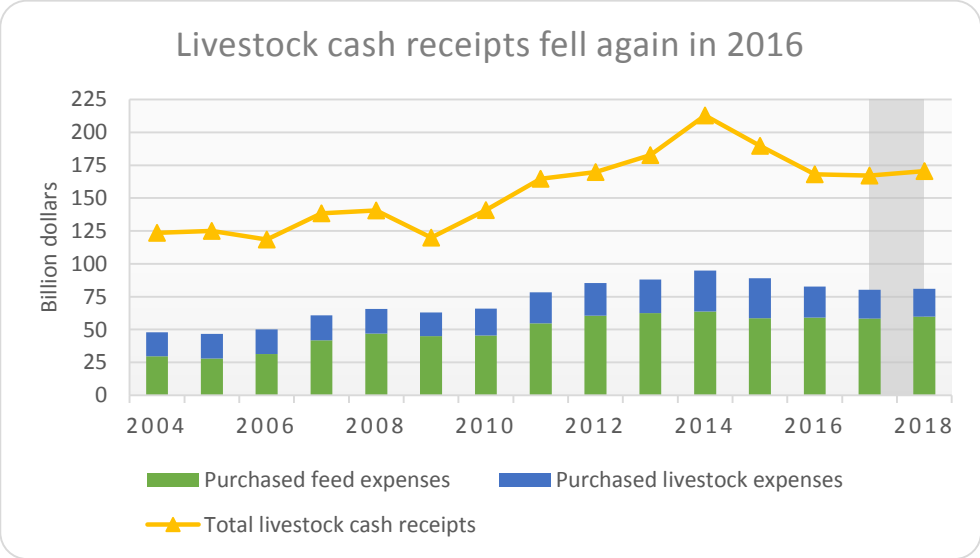
Given changes in relative prices, projected soybean and upland cotton acreage increases in 2017 as corn and wheat area contracts. Across 12 major crops, total area declines slightly in 2017, assuming average spring planting conditions. Projected acreage for 2018-2026 generally remains between the 2016 and 2017 levels for each of the major crops.



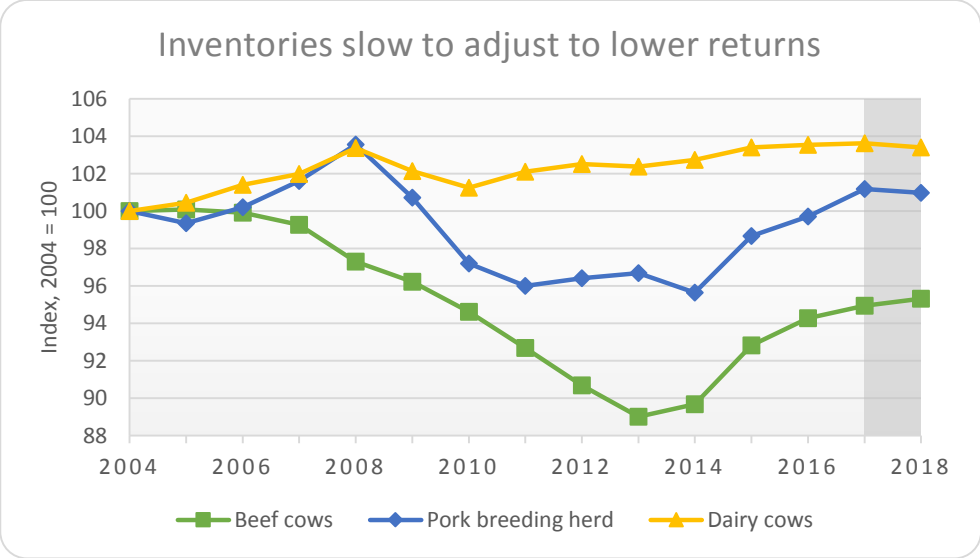
Direct and countercyclical payments (DCP) and the average crop revenue election (ACRE) programs are gone. Agricultural risk coverage (ARC) payments peaked in 2015/16, but then fall as benchmarks adjust to a declining moving average of prices. Wheat accounts for most of the increase in PLC payments in 2016/17. In 2019, it is assumed that producers will be able to make new ARC/PLC elections and that most corn, soybean and wheat producers will choose PLC given projected payment rates.

Livestock and dairy outlook highlights

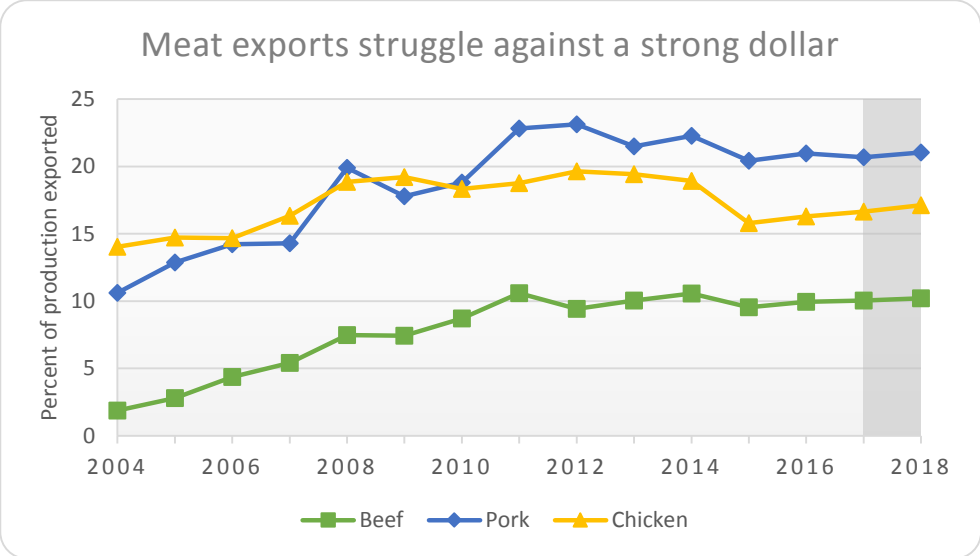
Cash receipts for livestock endured a second consecutive sharp drop in 2016. Last year's receipts of $168.1 billion were down 21 percent from the 2014 peak. However, last year's level was still higher than any year prior to 2012. Some relief has been found with lower input costs, as purchased feed and purchased livestock expenses have dropped more than $12 billion in the past two years. Receipts are projected fairly flat for the next two years.

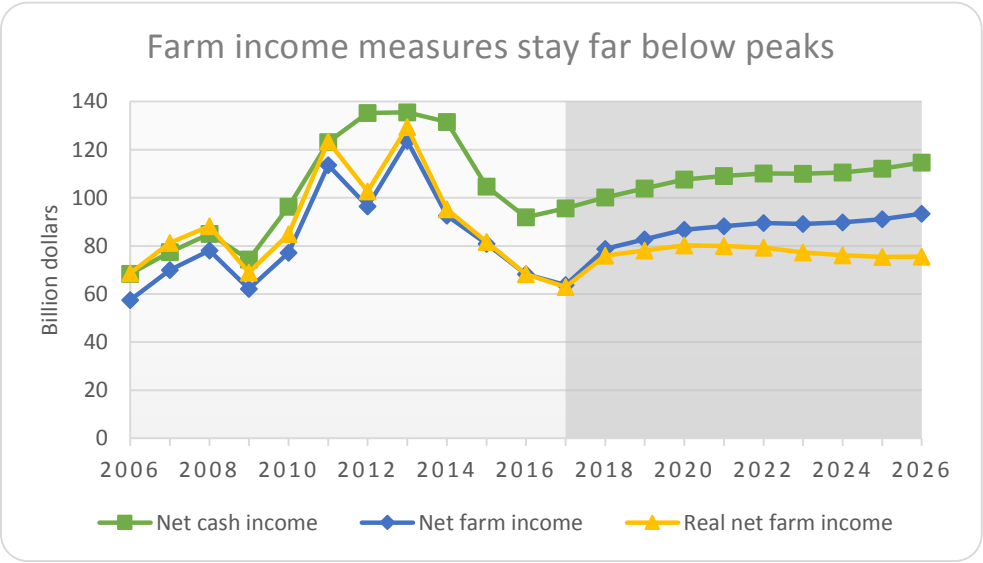


Despite the large decline in output prices and receipts, many livestock inventory categories have continued to increase. Beef cow, sow and dairy cow inventories are all up in 2017 for the second year in a row. In some cases producers are carrying through with expansion plans made during the record high prices of 2014. Also, a stable feed cost outlook and above average pasture conditions are contributing to herd growth. Large meat supplies will continue to grow for the next couple of years.



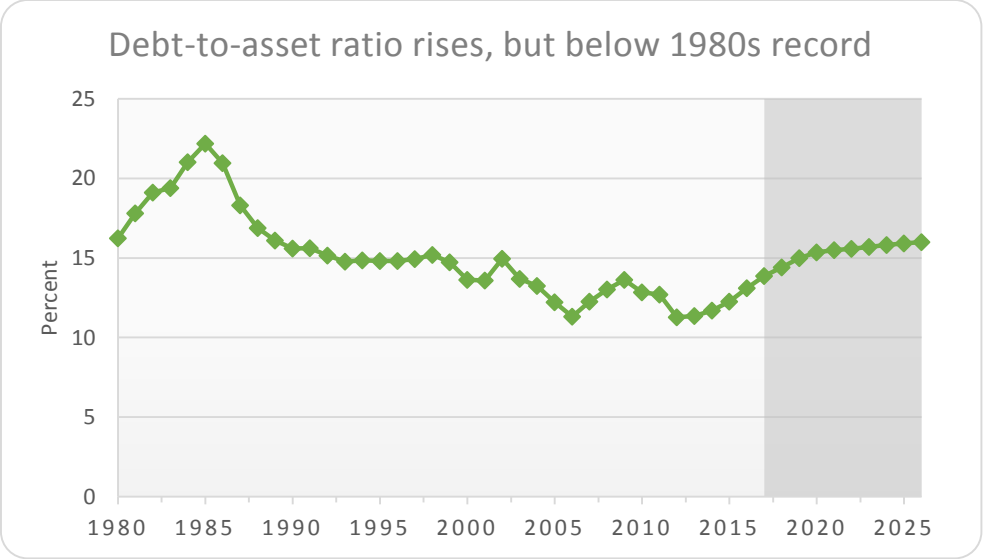
Even as U.S. production levels have been growing, net exports of meat have struggled to keep pace. A stronger dollar has offset some of the price decline in U.S. meat and dairy products, making it more difficult to compete in the international marketplace.



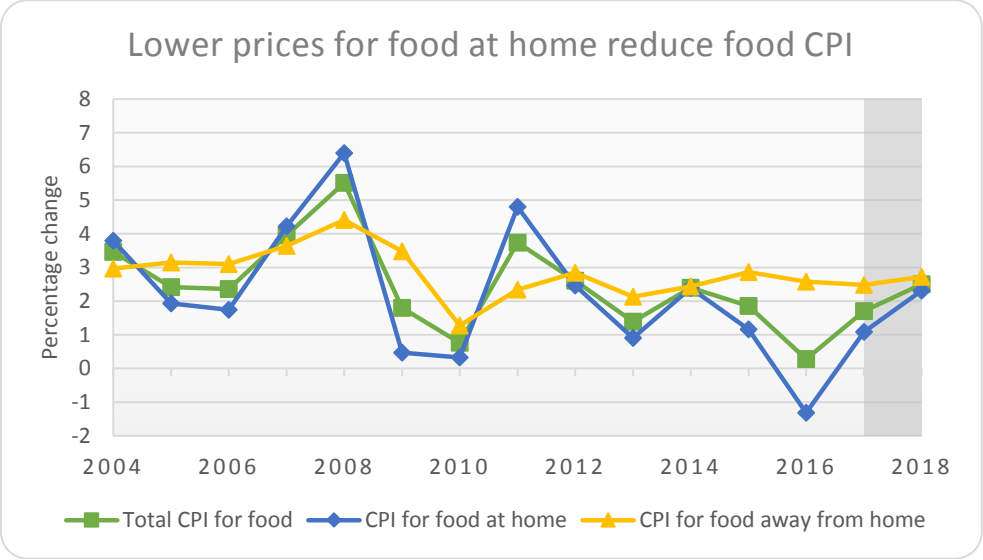


Farm income, debt and food prices

Different measures of net income for the farm sector all show sharp declines from recent peaks. Net farm income falls for the fourth straight year in 2017. Net cash income increases slightly in 2017, with inventory changes explaining most of the difference between the two measures. Both measures indicate rising nominal income beginning in 2018. Correcting for inflation, average real net farm income never exceeds the 2015 level.



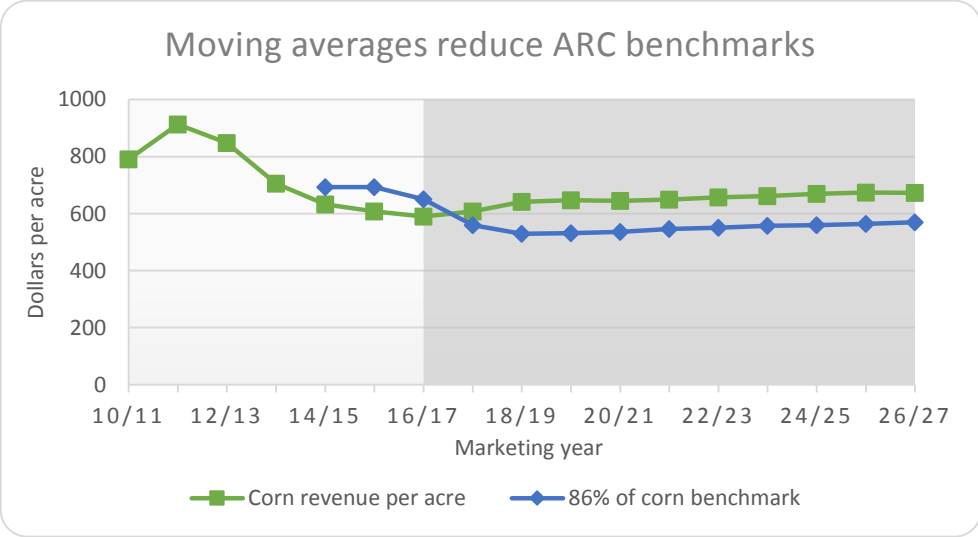
The farm debt-to-asset ratio peaked in 1985 during the farm financial crisis. The rate was cut in half between 1985 and 2012 as asset values increased more rapidly than debt. Rising debt has increased the debt-to-asset ratio from 11 percent in 2012 to 14 percent in 2017. Projected reductions in farm real estate values and further increases in debt increase the projected ratio to 16 percent in 2026. If interest rates rise as projected, servicing debt will become more difficult for some producers.



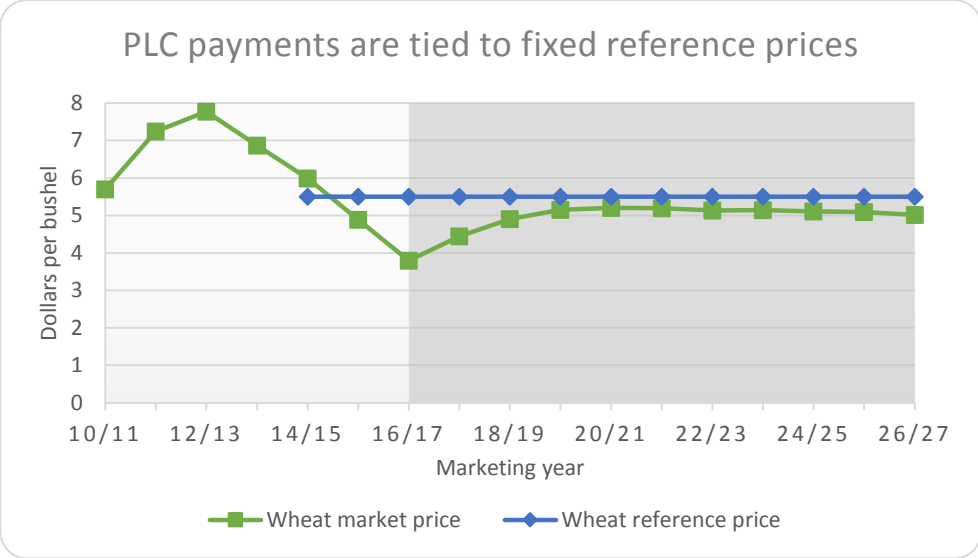
The CPI for food grew by just 0.3 percent in 2016, the lowest annual growth rate since 1959. Inflation for food at home was lower than the previous year for every month in 2016. Food away from home inflation has remained remarkably steady, as the percentage of consumer dollars spent on food away from home continues to rise. Food prices will grow modestly for the next couple of years due to a small rebound in many farm commodity prices and increases in the cost of processing and marketing food.

Policy assumptions

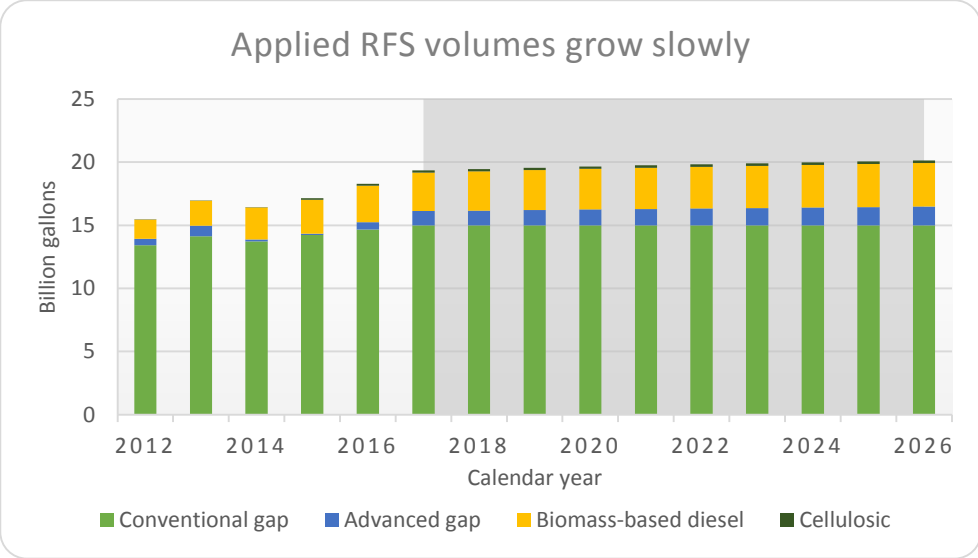
ARC is one option for grain and oilseed producers. Participating producers receive a payment when revenues fall below a trigger tied to past market prices and county yields. For illustration purposes only, the chart uses national average corn prices and yields. With these assumptions, payments occur for the 2014/15-2016/17 marketing years, but not for 2017/18 and later years, assuming current ARC rules are maintained in the next farm bill.



PLC is the other option for grain and oilseed producers. Payments occur when national marketing year average prices fall below a fixed reference price. As with ARC, payments are made on 85 percent of base acres for a particular crop. Given expected wheat prices, PLC payments continue each year.



Renewable Fuel Standard (RFS) obligations increase at a steady pace on a percentage basis. Combined with declining motor fuel use over time, the RFS requirements on a volume basis grow at a slower rate. Conventional ethanol is projected to account for 15 billion gallons each year, while the biomass-based diesel requirements grow.

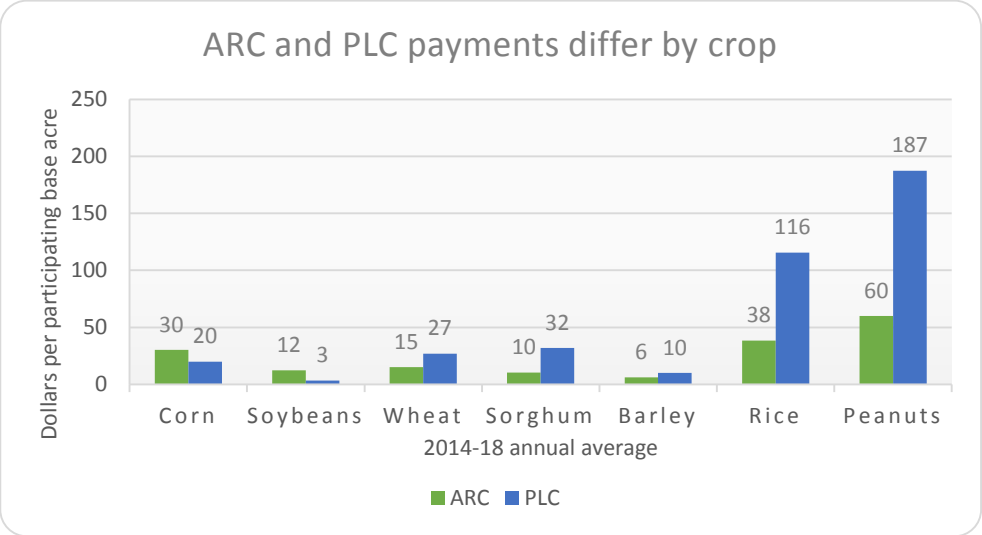


Selected policy assumptions, 2016-26

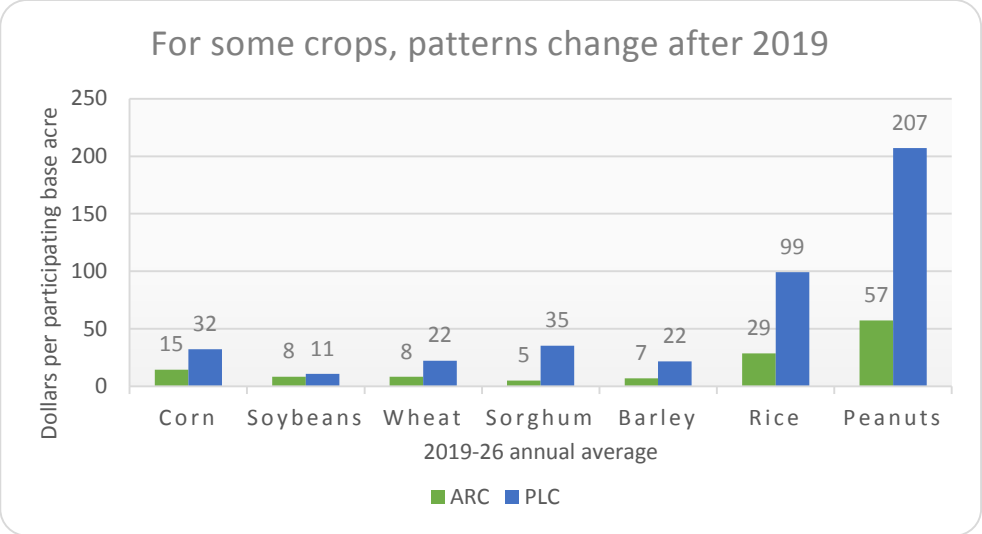
Policy	Description
Price loss coverage (PLC)	Makes payments when marketing year average price falls below fixed reference prices: Corn $3.70/bu. Soybeans $8.40/bu. Wheat $5.50/bu. Rice $14.00/cwt ($16.10/cwt for Japonica) Sorghum $3.95/bu. Barley $4.95/bu. Oats $2.40/bu. Peanuts $535/ton Sunflowers 20.15 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 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 Participation rates for 2019 and subsequent years are based on a comparison of expected payments. The corn PLC participation rate, for example, is increased to 70%
Sequestration	Assumed to apply to PLC and ARC payments and certain conservation payments Rate: 6.8% for 2016 crop payments, 6.9% for 2017-25 crop payments and zero for 2026
Marketing loan program	2014 farm bill levels provisions
Supplemental coverage option	Available for program crops not enrolled in ARC 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 available in addition to conventional insurance 80% of premium subsidized Loan rate varies in range depending 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

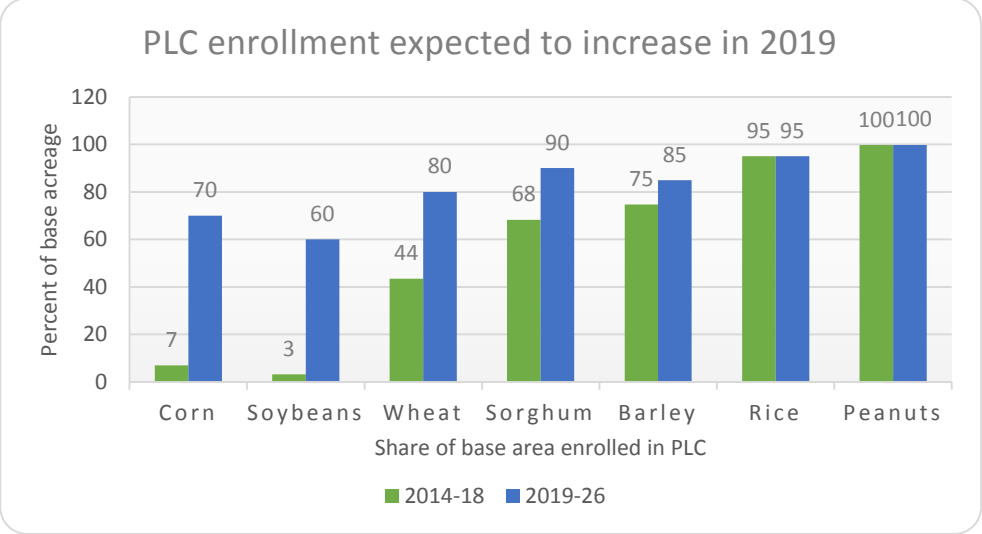
Under the 2014 farm bill, producers made a one-time election of ARC or PLC for each crop for the 2014-2018 crop years. For corn and soybeans, projected average ARC payments per base acre are larger over the 2014-18 period than average projected PLC payments. The reverse is true for wheat, sorghum, barley, rice and peanut base.



For corn and soybeans, projected ARC payments decline as the moving average of prices used to set the ARC benchmark adjusts to the lower prices of recent years. Projected average ARC payments per participating base acre are smaller than projected PLC payments for all the major crops for 2019-2026.



For baseline purposes, we assume farmers will have an opportunity to make a new ARC-PLC election for the 2019-2026 period. Given projected payments, PLC may look more attractive in 2019 than it did in 2015, when the 2014-2018 election was made. As a result, we assume greater PLC participation for corn, soybeans, wheat and several other crops after 2019.

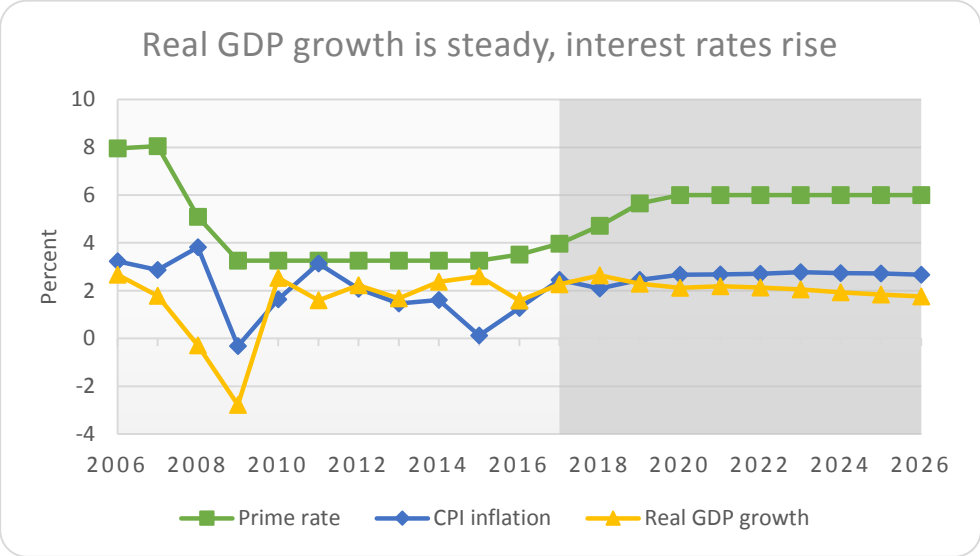


ARC and PLC payments and participation rates

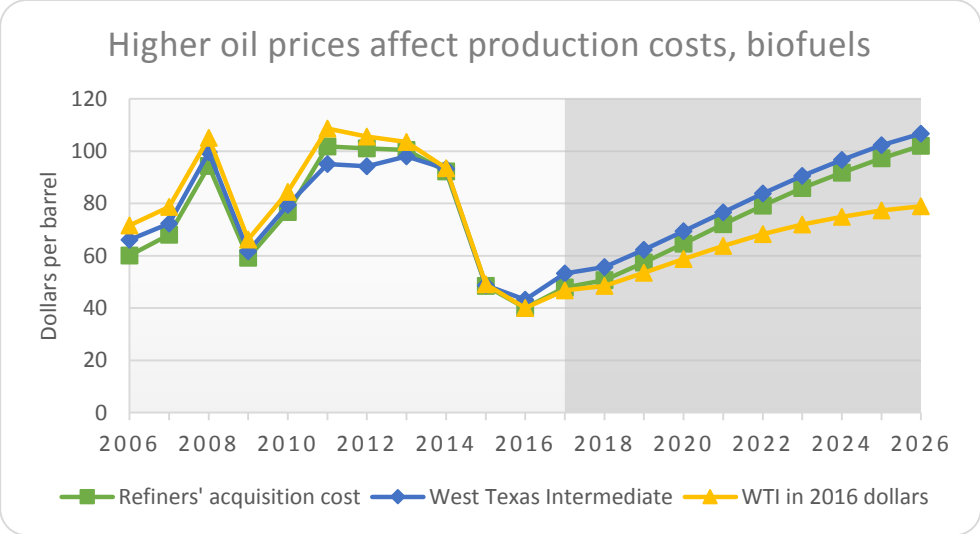
	Average ARC payment	Average PLC payment	Share of base acres in: ARC	PLC
Average for 2014-2018 crop years	(Dollars per base acre)			(Percent)
Corn	30.22	19.99	93.0	7.0
Soybeans	12.38	3.33	96.8	3.2
Wheat	15.13	26.97	56.5	43.5
Sorghum	10.33	31.86	31.7	68.3
Barley	6.04	10.05	25.3	74.7
Oats	4.93	10.18	64.7	35.3
Rice	38.48	115.63	5.0	95.0
Long grain	45.10	122.60	0.2	99.8
Short and medium grain	38.33	68.99	30.5	69.5
Peanuts	59.89	187.46	0.3	99.7
Sunflower seed	7.27	20.10	43.6	56.4
Average for 2019-2026 crop years				
Corn	14.67	32.30	30.0	70.0
Soybeans	8.40	10.88	40.0	60.0
Wheat	8.31	22.24	20.0	80.0
Sorghum	5.04	35.42	10.0	90.0
Barley	7.12	21.84	15.0	85.0
Oats	1.77	11.15	10.0	90.0
Rice	28.81	99.41	5.0	95.0
Long grain	37.41	103.52	0.2	99.8
Short and medium grain	28.58	71.63	30.6	69.4
Peanuts	57.29	207.17	0.3	99.7
Sunflower seed	10.88	32.74	10.0	90.0

Macroeconomic assumptions and farm prices paid

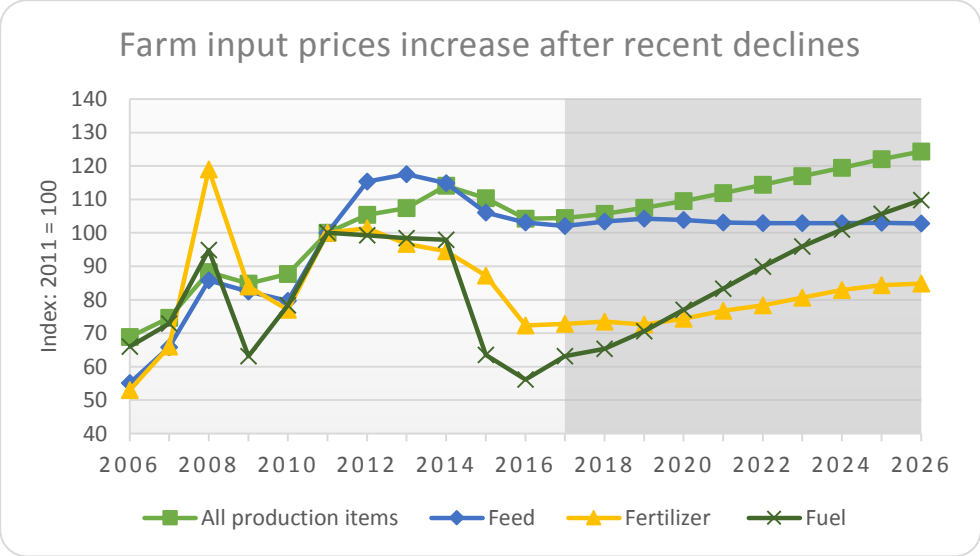
IHS Global Insight forecasted in January that U.S. real GDP growth would accelerate to 2.3 percent in 2017 and to 2.7 percent in 2018. Growth averages 2.1 percent per year between 2017 and 2026. Projected inflation picks up to an average of 2.6 percent. The prime lending rate increases to 6.0 percent by 2020.



The baseline adopts IHS Global Insight's forecast of steadily increasing oil prices. The annual average price in 2026 exceeds the previous record in nominal terms, but remains far lower in real terms. Higher oil prices increase farm production costs and can affect demand for biofuels.



Lower feed, fuel and fertilizer prices reduced the index of farm production input prices in 2015 and 2016. Projected fuel costs begin to increase again in 2017. The rate of increase in farm input prices is 2.0 percent per year from 2018-2026.



Macroeconomic assumptions

Calendar year	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Real GDP growth					(Percentage change from previous year)						
United States	1.6	2.3	2.6	2.3	2.1	2.2	2.1	2.0	1.9	1.8	1.8
China	6.7	6.4	6.2	6.1	6.1	6.0	6.0	5.9	5.8	5.6	5.4
World	2.4	2.8	3.1	3.1	3.0	3.1	3.2	3.1	3.1	3.0	3.0
Population growth											
United States	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7
World	1.1	1.1	1.1	1.1	1.0	1.0	1.0	1.0	0.9	0.9	0.9
U.S. CPI, all urban consumers	1.3	2.5	2.1	2.5	2.7	2.7	2.7	2.8	2.7	2.7	2.7
					(Percent)						
U.S. unemployment rate	4.9	4.6	4.3	4.1	4.2	4.3	4.5	4.5	4.6	4.6	4.7
3-month Treasury bill rate	0.3	0.9	1.7	2.5	2.9	2.9	2.9	2.9	2.9	2.9	2.9
Prime interest rate	3.5	4.0	4.7	5.7	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Petroleum prices					(Dollars per barrel)						
West Texas Intermediate	43.17	53.20	55.64	62.30	69.33	76.59	83.81	90.52	96.66	102.24	106.74
Refiners' acquisition cost	40.05	47.89	50.64	57.35	64.66	72.02	79.16	85.83	91.80	97.29	102.00
Natural gas price					(Dollars per million BTU)						
Henry Hub	2.49	3.35	2.95	2.93	3.18	3.18	3.52	3.88	4.19	4.36	4.46
Exchange rates					(Currency per dollar)						
Euro	0.90	0.99	0.98	0.90	0.83	0.79	0.77	0.75	0.74	0.73	0.73
Chinese yuan	6.64	7.17	7.45	7.57	7.55	7.41	7.23	7.09	6.98	6.89	6.84

Source: IHS Global Insight, Dec. 2016 (world) and Jan. 2017 (U.S.).

Indices of prices paid by farmers

Calendar year	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Production items, interest, taxes and wages	105.9	106.5	108.2	110.3	(2011=100) 112.6	115.1	117.8	120.6	123.3	126.1	128.7
Production items	104.3	104.4	105.7	107.5	109.5	111.9	114.4	117.0	119.5	122.0	124.3
Feed	103.1	102.0	103.4	104.2	103.8	103.1	103.0	102.9	102.9	103.0	102.8
Livestock & poultry	104.6	98.0	95.8	95.1	95.9	99.0	102.5	106.0	108.7	112.0	115.1
Seeds	111.5	110.6	110.3	111.0	112.4	113.9	115.2	116.4	117.7	119.0	120.3
Fertilizer	72.3	72.8	73.5	72.6	74.3	76.7	78.3	80.6	83.0	84.4	84.9
Agricultural chemicals	107.9	108.4	109.2	112.8	117.5	121.0	125.4	130.2	134.9	138.7	142.1
Fuels	56.2	63.1	65.3	70.6	77.0	83.4	90.0	95.9	101.0	105.7	109.8
Supplies & repairs	106.0	108.0	110.2	112.8	115.4	118.1	120.9	123.9	126.9	129.9	133.0
Autos & trucks	106.0	107.3	108.3	109.3	110.5	111.8	113.1	114.5	115.8	117.3	118.6
Farm machinery	114.6	117.1	120.8	125.0	129.1	132.8	136.5	140.4	144.4	148.6	152.9
Building material	107.7	109.4	111.0	112.7	114.4	116.1	117.8	119.5	121.1	122.8	124.4
Farm services	116.6	119.4	122.9	126.9	131.0	135.1	139.3	143.7	148.2	152.9	157.8
Interest*	105.5	112.3	120.2	128.4	133.2	136.2	139.2	142.4	145.7	149.1	152.6
Taxes**	128.4	132.6	135.2	136.5	138.2	140.6	143.0	145.8	148.9	152.1	155.5
Wage rates	115.9	118.7	122.5	126.8	131.2	135.9	140.7	145.6	150.6	155.9	161.3

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

**Farm real estate taxes payable per acre.

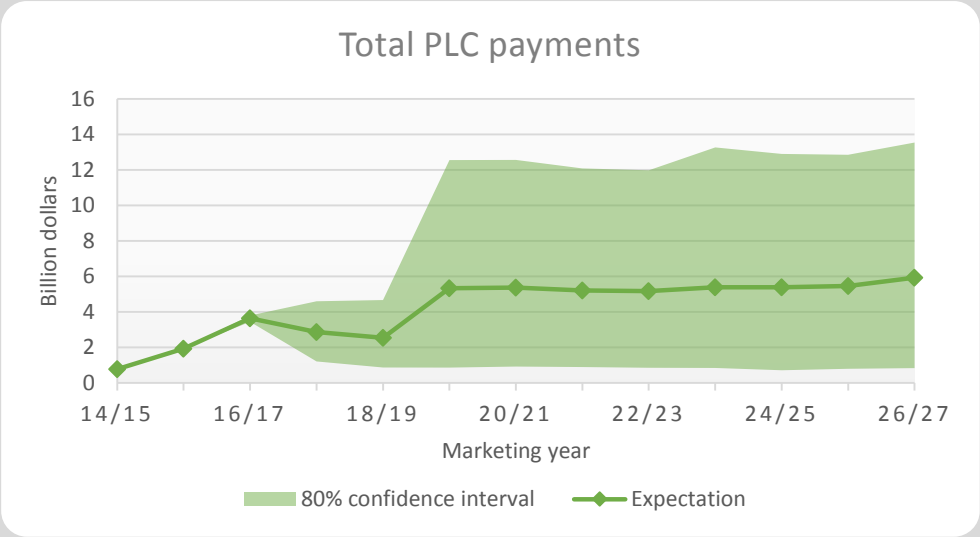
The Stochastic Baseline

The March baseline is constructed to incorporate the uncertainty of forecasts. Any estimate of the future has a random component that can not be known ahead of time. As a result, a subset of the variables is allowed to be stochastic. This means that they contain a random effect. Since the models are interconnected, this leads to variability throughout the model. It is impossible to capture all uncertainty. Therefore, the stochastic baseline should not be treated as thoroughly capturing all risk.

While the tables present one number for each variable, there is actually a distribution behind each. Many of the paths for the variables appear flat as if there is little year over year change. This is because the expectation for each year is presented, which is the mean of the distribution. In reality, our models approximate an infinite number of outcomes.

The stochastic nature of the baseline can lead to interesting results. Consider the Price Loss Coverage (PLC) program that makes payments when the farm price falls below a reference price. Our expected farm price may be above the reference price. However, there is likely some probability that the price may fall below the reference price in the future. These outcomes are weighted into our expected PLC payments. As a result, our tables may show an expected PLC payment even when the expected farm price is above the reference price.

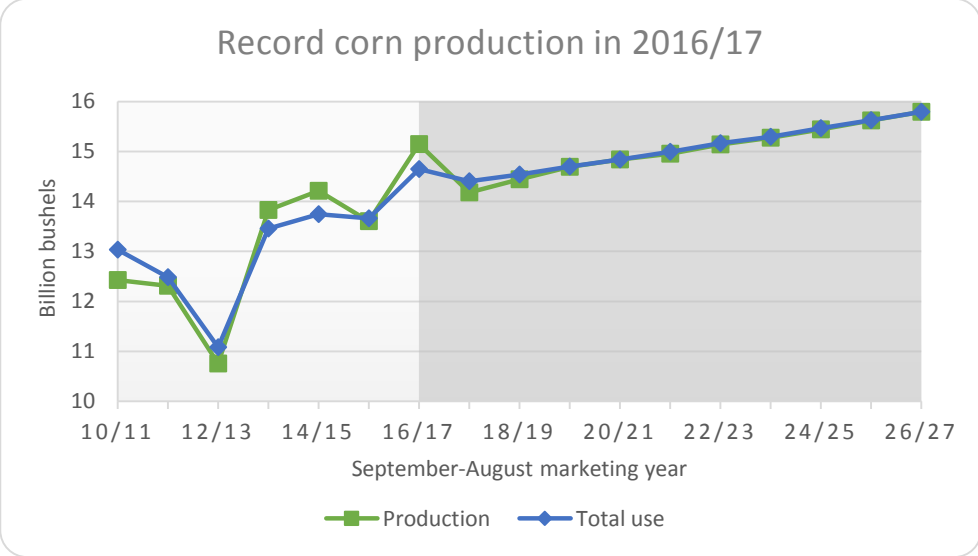
Anytime the farm price is above the reference price, the PLC payment is zero. However, if the inverse is true then the payment rate has a one to one relationship with the farm price. This creates an asymmetry in the distribution of PLC payments as the lower tail is limited at zero while the upper tail can be quite high. The Aggregate Indicators section includes a table with confidence interval information for several select variables.



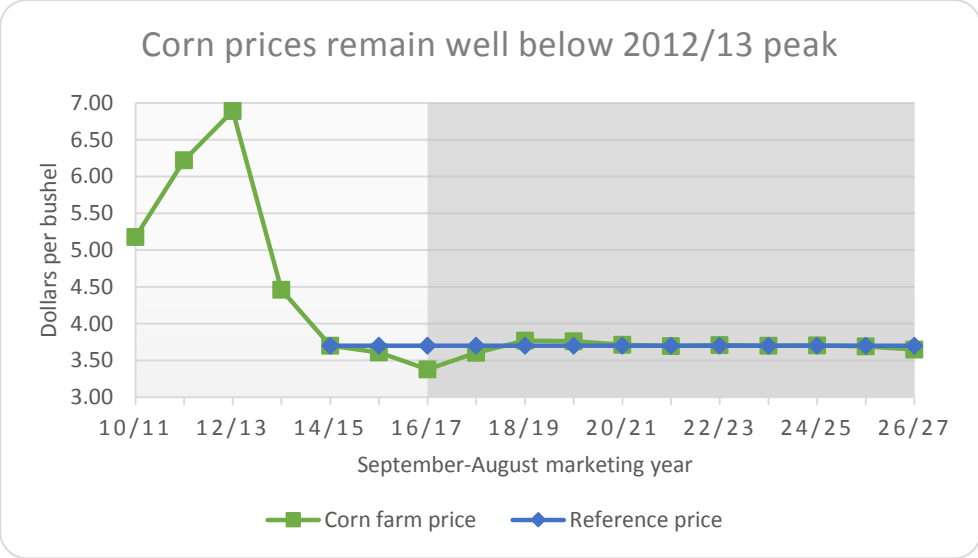
Grains

Corn

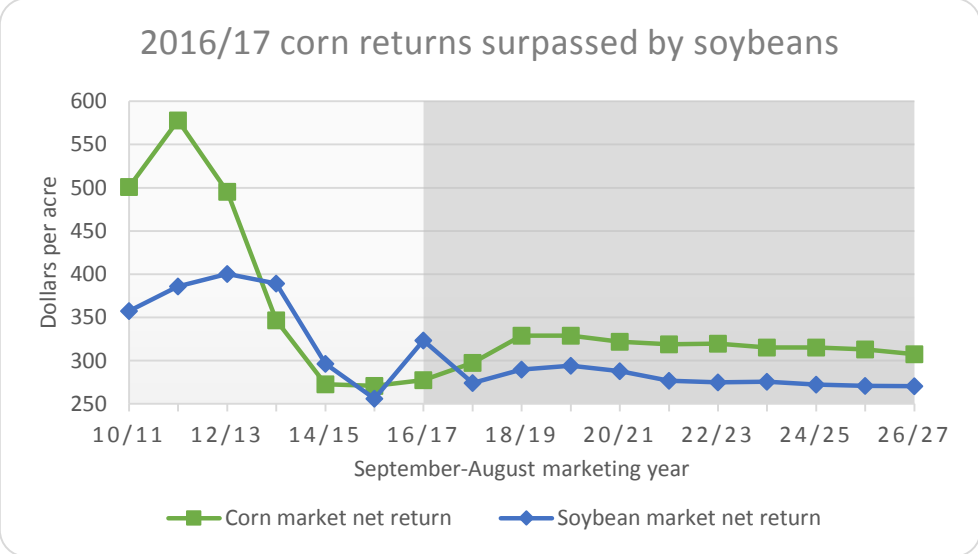
The 2016 corn crop was the largest on record. This was caused by a combination of high acreage and a record yield. The past four years of production have exceeded any year prior to 2013. The record crops have caused production to exceed use in three of the past four years, resulting in a large buildup of stocks.

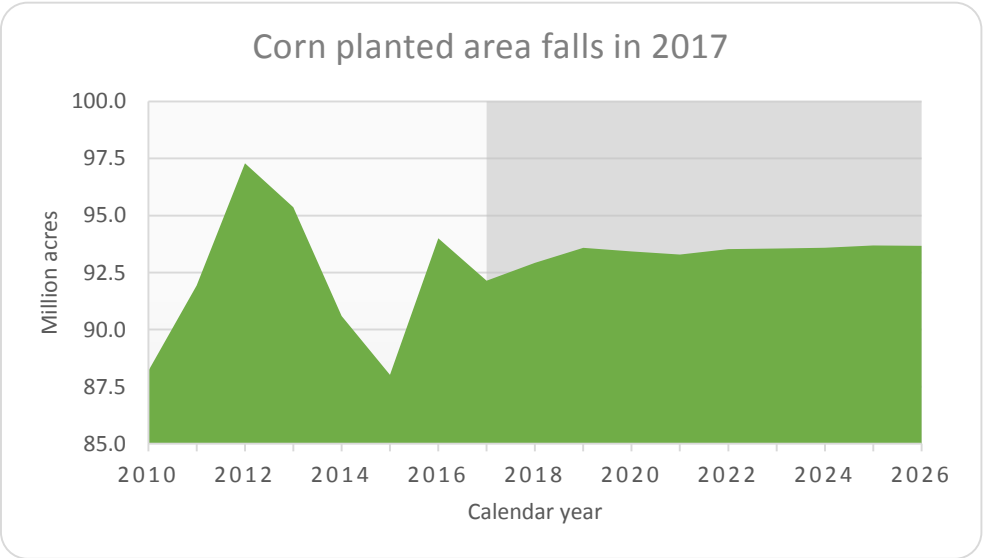


The consistently high production of corn helped to bring prices down from the record 2012/13 levels. The 2015 farm price was $0.09 per bushel below and the 2016 projected price is $0.32 below the $3.70 reference price. The long term projected farm price hovers around the reference price.

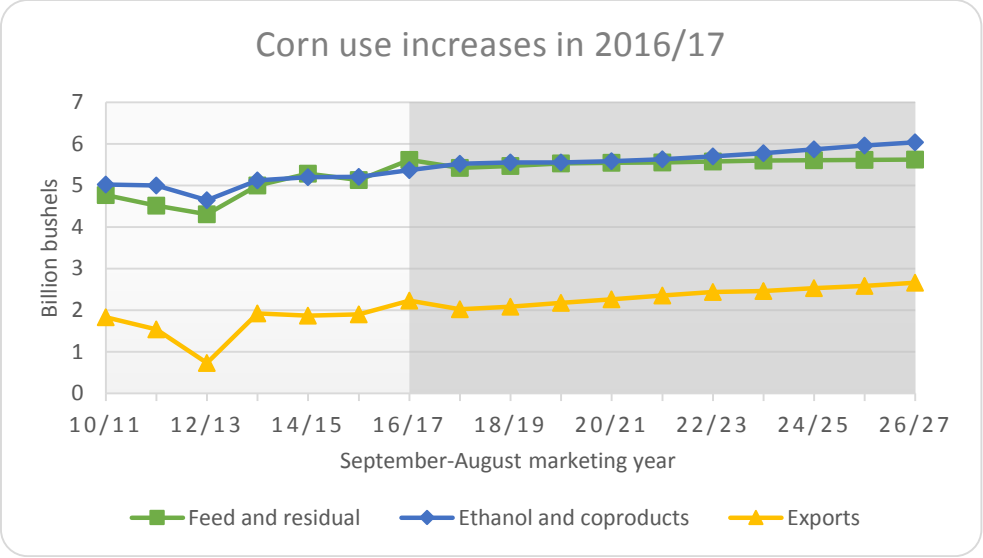


Lower corn prices more than offset higher yields, leading to reduced revenues. This effect, when coupled with higher variable costs, has led to lower post 2011/12 market returns. While soybeans have largely followed the same pattern, soybean returns are expected to remain stronger in 2016/17 as price has increased despite a higher yield. This leads to a temporary spike in soybean returns.

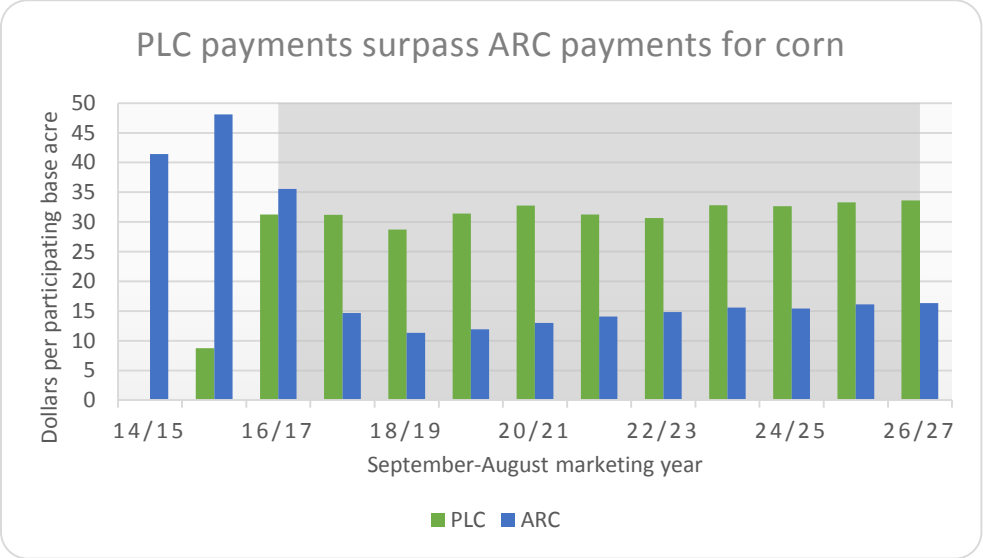




The 2016/17 spike in soybean returns while corn returns remained flat leads to a projected loss of almost 2 million corn acres in 2017. Some of this area is expected to return to corn in the future as dynamics in the markets work themselves out. Projected corn area hovers in the 93 million acre range.



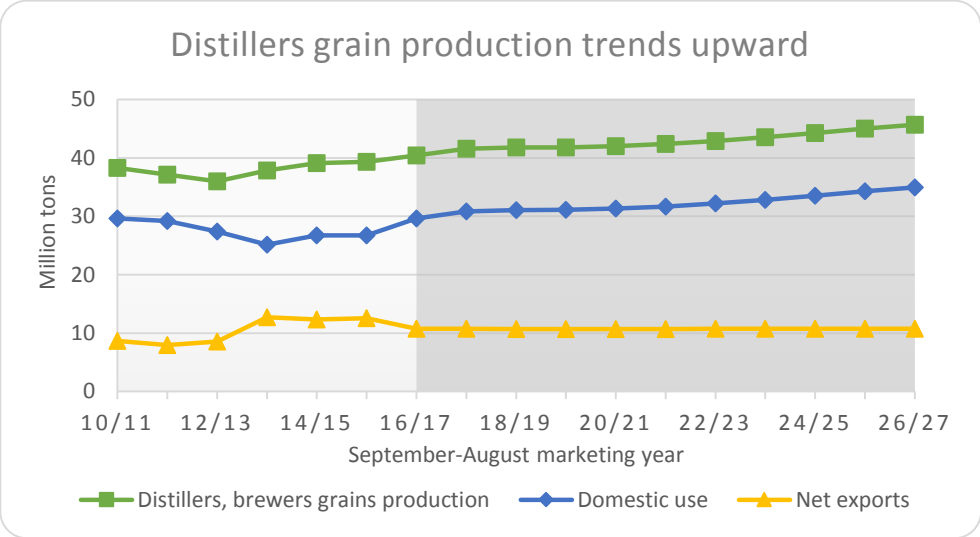
The spike in 2016 corn production is expected to lead to an increase in use. Feed and residual use includes any accounting discrepancies in corn supply and use. This category tends to be large during a bumper crop which causes 2016/17 projected feed and residual use to increase. Lower prices and a reduced 2016 Brazilian corn crop increase 2016/17 U.S. corn exports.



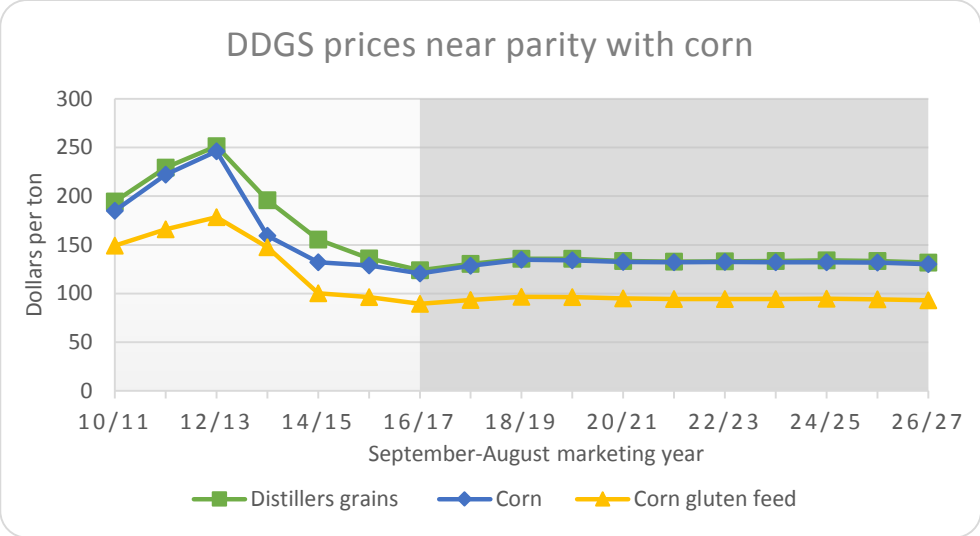
Average ARC payments for corn were between $40 and $50 per base acre for 2014/15 and 2015/16. As prices continue to fall, the corn ARC benchmark shrinks. However, with corn prices falling to near the reference price, expected corn PLC's have risen. Starting in 2017/18, average PLC payments exceed average ARC payments for corn. Producers are assumed to be able to make a new program election in 2019, with 70 percent of base acreage enrolling in PLC.

Corn milling products

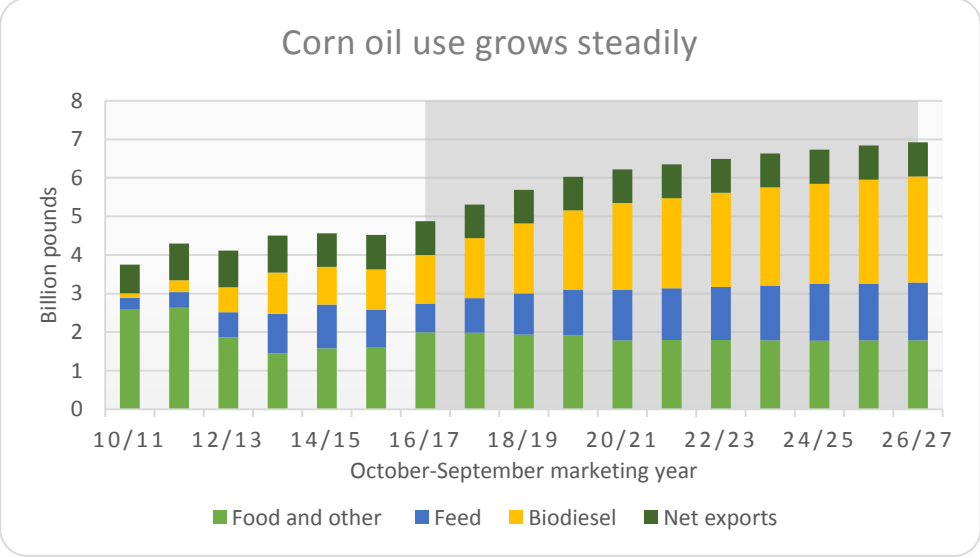
Distillers dried grains (DDGS) production follows the increase of dry-mill ethanol production over the projection period and rises to 46 million tons. Most of this increase in production is absorbed by domestic use. DDGS net exports dip in 2016/17 because of Chinese import restrictions.

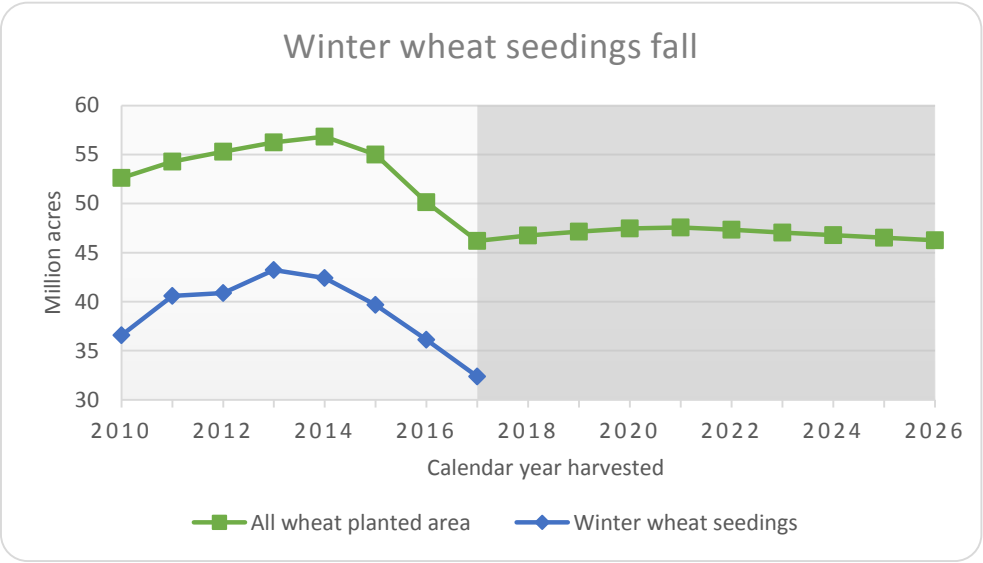


Prices for DDGS are projected to dip slightly in 2016/17 before recovering the following year. Over the course of the projection period, DDGS prices hold a very slight premium relative to corn. The ratios of other corn product prices to the corn price are also estimated to remain fairly stable.



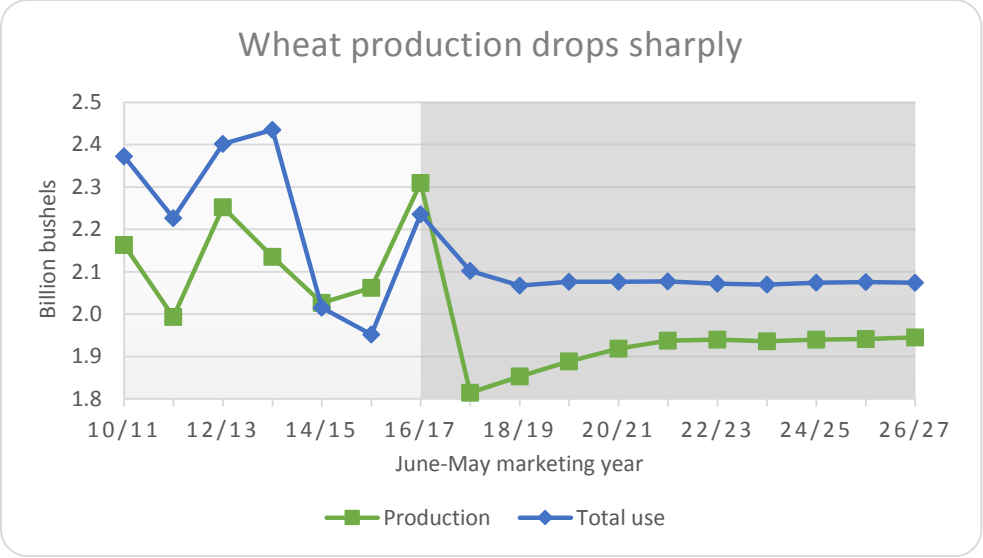
Corn oil use, in total, is estimated to increase over the projection period to nearly 7 billion pounds. While food and residual use experience a slight decline, biodiesel and feed uses of distillers corn oil expand over time.



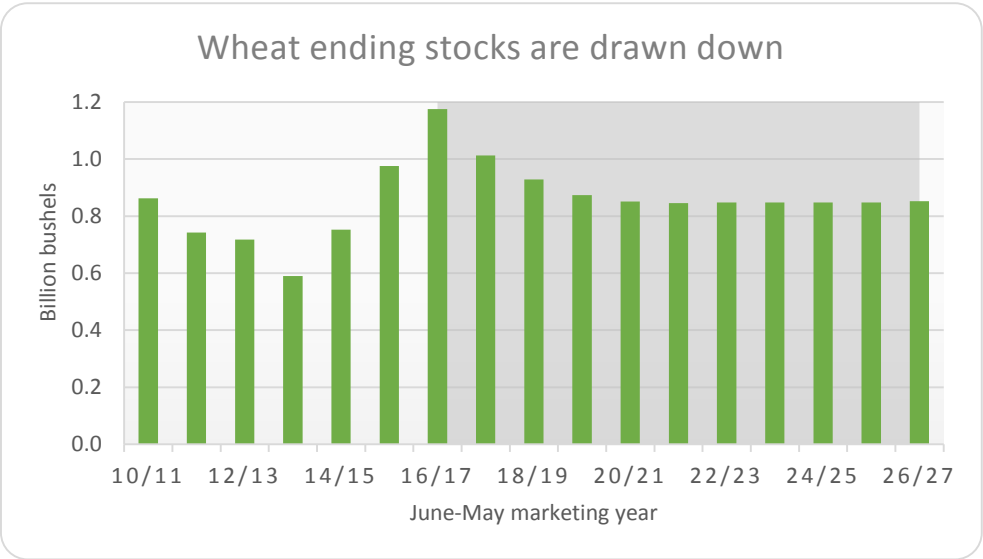


Wheat

The winter wheat seedings report indicated that producers planted 32.8 million acres of winter wheat in the fall of 2016. If confirmed, it would be the lowest since 1909. Total wheat area is projected to be 46.2 million acres in 2017 which would be the smallest amount since the total has been recorded. Low wheat prices have caused a sustained loss of acres to other crops as high world stocks have been weighing on markets.



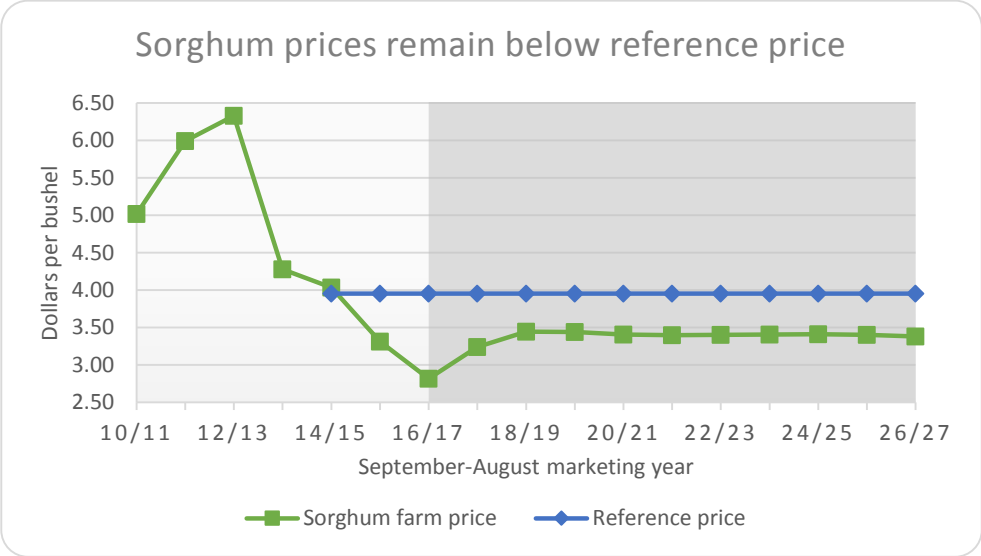
The 2016 wheat crop is the largest since 2003. Most of the increase in projected 2016/17 use is in the feed and residual and export categories. Wheat prices are expected to fall enough relative to corn to encourage extra feed consumption of wheat. However, the low plantings and a return to trend yields in 2017 reduce expected production.



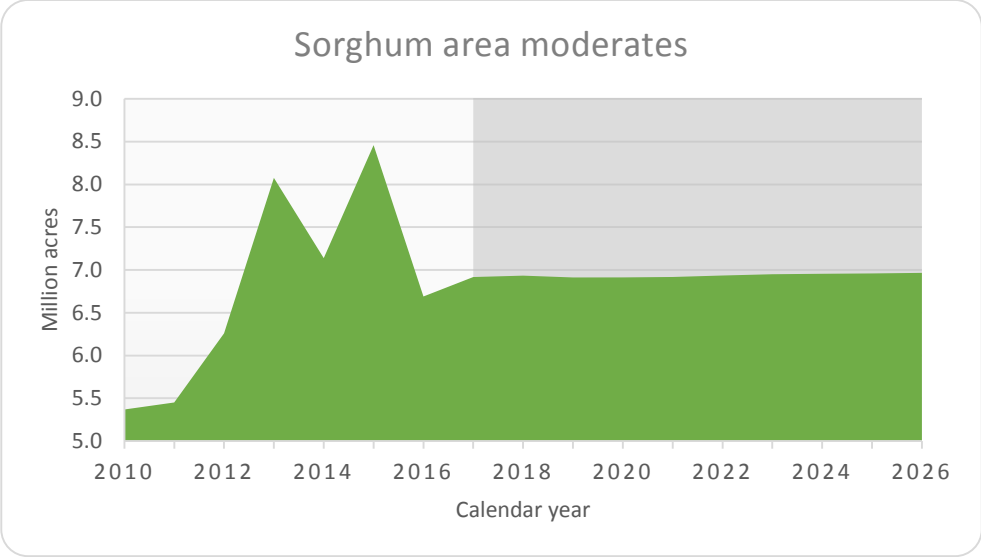
U.S. wheat ending stocks have been building the past few years to very high levels. In 2017/18, wheat consumption is not expected to fall nearly as fast as production. As a result, stocks are drawn down, allowing a modest recovery in prices.

Sorghum

Average 2016/17 sorghum prices are expected to fall by 55 percent from the 2012/13 peak. Although some recovery is anticipated, lower grain prices keep the average farm price below the reference price every year in the baseline. This generates average annual PLC payments in the $35 to $40 range per participating base acre.

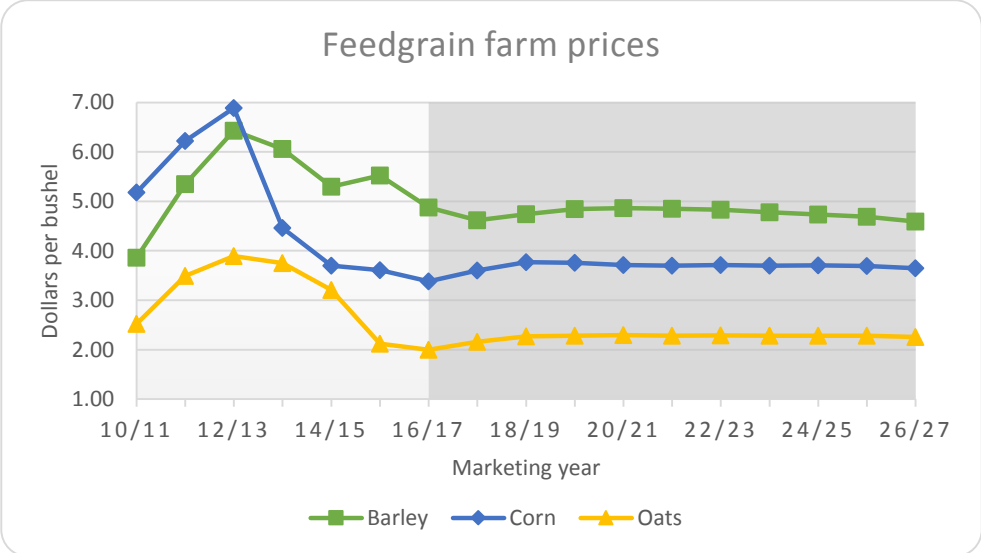


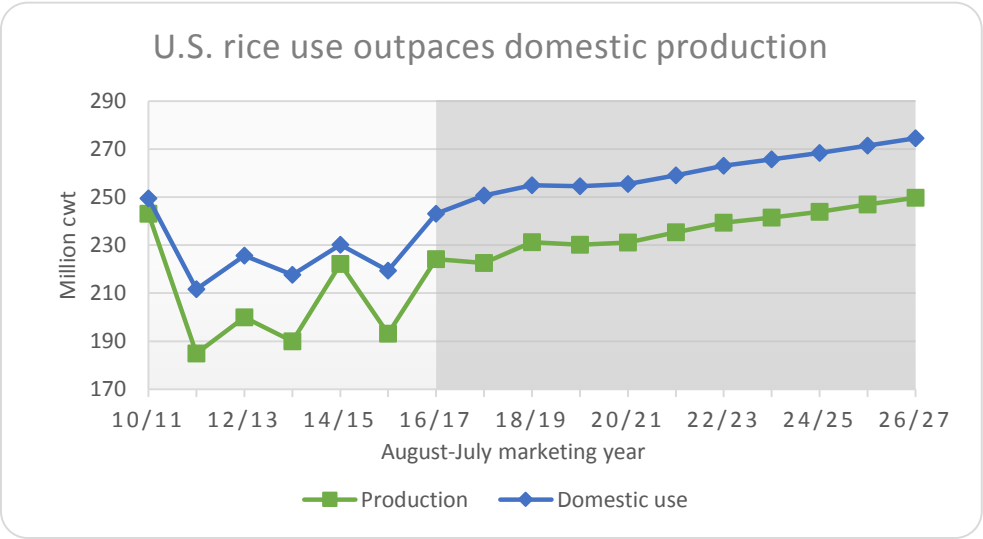
Sorghum area in 2016 was below the levels observed the previous three years. This drop was experienced in most sorghum producing states as prices for the commodity fell harder than for most alternative crops. The low price coupled with some recovery in cotton returns limits sorghum acreage in the baseline.



Barley and oats

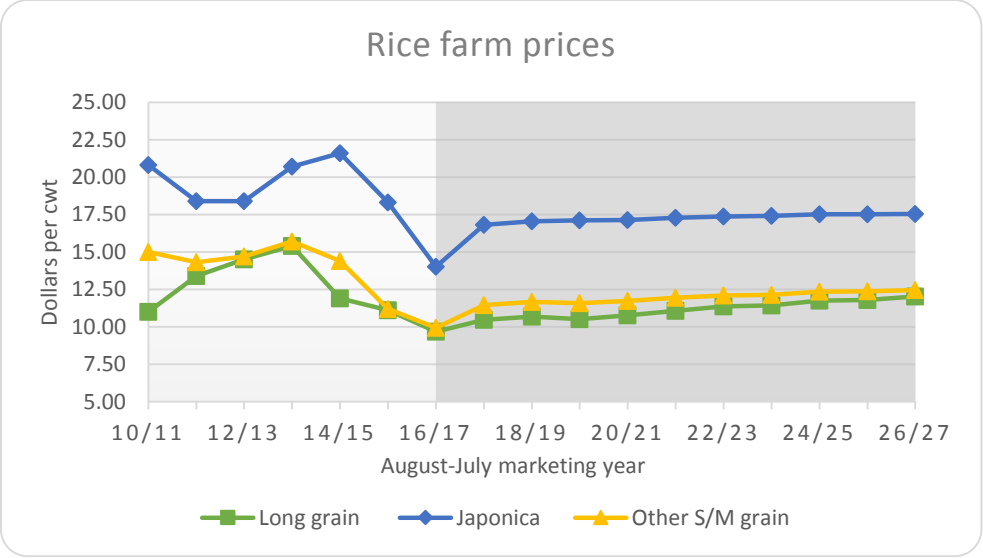
Barley prices have exceeded corn prices since 2012/13. High malting barley prices have contributed to a slight increase in barley acreage. The U.S. continues to be a large net importer of oats.





Rice

U.S. rice production in 2016 was bolstered by an increase in acreage of long grain and japonica rice. The area in 2017 is expected to fall. Trend yields in 2017 would be higher than the actual yields in 2016, but this would not be large enough to offset the acreage effect. As a result, 2017/18 use outpaces domestic production in the baseline.



The bump in 2016/17 production pushed rice prices lower across the board. This reduces acreage in 2017 which allows some price recovery in that year. Other short and medium grain and long grain prices are low enough to trigger PLC payments for those types.

Corn supply and use

September-August year	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Area					(Million acres)						
Planted area	94.0	92.1	92.9	93.6	93.4	93.3	93.5	93.6	93.6	93.7	93.7
Harvested area	86.7	84.1	84.9	85.4	85.4	85.2	85.5	85.4	85.4	85.5	85.5
					(Bushels per harvested acre)						
Yield	174.6	168.6	170.1	172.0	173.8	175.6	177.2	178.8	180.6	182.6	184.6
					(Million bushels)						
Supply	16,940	16,521	16,607	16,812	17,004	17,170	17,367	17,529	17,727	17,931	18,154
Beginning stocks	1,737	2,294	2,116	2,067	2,114	2,164	2,174	2,203	2,238	2,261	2,307
Production	15,148	14,177	14,440	14,695	14,840	14,956	15,143	15,277	15,439	15,620	15,796
Imports	55	50	50	50	50	50	50	50	50	50	50
Domestic use	12,419	12,382	12,460	12,525	12,579	12,640	12,729	12,834	12,938	13,041	13,138
Feed and residual	5,613	5,420	5,466	5,525	5,545	5,554	5,572	5,596	5,607	5,612	5,624
Ethanol and coproducts	5,370	5,524	5,550	5,552	5,579	5,628	5,697	5,774	5,864	5,957	6,037
HFCS	481	480	482	479	480	476	472	468	465	463	461
Seed	30	31	31	31	31	31	31	31	31	31	31
Food and other	924	927	931	937	945	952	958	965	971	978	985
Exports	2,227	2,023	2,080	2,174	2,261	2,356	2,435	2,458	2,528	2,583	2,658
Total use	14,646	14,405	14,539	14,698	14,840	14,996	15,164	15,292	15,466	15,624	15,796
Ending stocks	2,294	2,116	2,067	2,114	2,164	2,174	2,203	2,238	2,261	2,307	2,358
CCC inventory	0	0	0	0	0	0	0	0	0	0	0
Under loan	145	131	124	130	134	134	134	138	139	143	146
Other stocks	2,149	1,986	1,943	1,984	2,030	2,040	2,069	2,099	2,122	2,165	2,211
Prices, program provisions					(Dollars per bushel)						
Farm price	3.38	3.60	3.77	3.76	3.71	3.70	3.71	3.70	3.70	3.69	3.65
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	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2
					(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	7.1	7.1	7.1	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
ARC participation rate	92.9	92.9	92.9	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
Returns and payments					(Dollars)						
Gross market revenue/a.	590.18	603.16	637.59	641.62	640.42	645.03	653.34	657.02	664.90	669.54	669.61
Variable expenses/a.	312.71	305.74	308.76	312.59	318.62	326.29	333.79	341.67	349.66	356.67	362.06
Market net return/a.	277.47	297.42	328.83	329.03	321.80	318.74	319.55	315.35	315.24	312.87	307.55
Marketing loan benefits/a.*	0.00	0.24	0.40	0.20	0.25	0.56	0.50	0.58	0.49	0.28	0.23
Payments to participants											
PLC/base a.*	31.23	31.20	28.74	31.40	32.78	31.26	30.66	32.79	32.63	33.30	33.60
ARC/base a.*	35.56	14.69	11.34	11.92	13.01	14.10	14.84	15.57	15.44	16.12	16.35
Insurance net indemnities/a.*	-2.12	21.47	20.55	21.57	21.58	21.86	22.12	22.57	23.01	22.81	22.73

*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.

Corn product supply and use

Marketing year	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27
High-fructose corn syrup					(Thousand tons, Oct.-Sep. year)						
Production	8,644	8,640	8,695	8,660	8,679	8,630	8,580	8,526	8,484	8,461	8,446
Domestic use	7,519	7,442	7,476	7,396	7,393	7,332	7,297	7,253	7,207	7,173	7,136
Net exports	1,125	1,197	1,219	1,264	1,285	1,298	1,282	1,273	1,278	1,289	1,311
					(Cents per pound, Oct.-Sep. year)						
Price, 42% Midwest	30.05	30.80	31.46	31.28	31.56	31.56	31.86	32.06	32.32	32.51	32.56
HFCS price/ref. sugar price	94%	94%	94%	95%	95%	96%	96%	97%	97%	97%	98%
Distillers, brewers grains					(Thousand tons, Sep.-Aug. year)						
Production (dry equiv.)	40,406	41,562	41,782	41,796	42,017	42,397	42,913	43,522	44,262	45,027	45,699
Domestic use	29,650	30,845	31,078	31,100	31,308	31,682	32,187	32,796	33,538	34,290	34,951
Net exports	10,756	10,717	10,704	10,697	10,710	10,715	10,726	10,726	10,724	10,737	10,748
					(Dollars per ton, Sep.-Aug. year)						
Price, IL points	123.81	130.53	135.62	135.61	133.39	132.64	133.28	133.56	134.02	133.41	131.94
DDGS price/corn price	103%	101%	101%	101%	101%	100%	101%	101%	101%	101%	101%
Corn gluten feed					(Thousand tons, Sep.-Aug. year)						
Production	9,336	9,410	9,406	9,394	9,407	9,408	9,423	9,441	9,456	9,477	9,496
Domestic use	8,184	8,297	8,327	8,339	8,371	8,393	8,430	8,470	8,506	8,546	8,584
Net exports	1,153	1,113	1,079	1,055	1,036	1,015	993	972	950	931	912
					(Dollars per ton, Sep.-Aug. year)						
Price, 21%, IL points	89.56	93.39	96.62	96.39	94.86	94.28	94.51	94.44	94.56	94.08	93.00
CGF price/corn price	74%	73%	72%	72%	72%	71%	71%	71%	72%	71%	71%
Corn gluten meal					(Thousand tons, Sep.-Aug. year)						
Production	2,457	2,476	2,475	2,472	2,476	2,476	2,480	2,485	2,489	2,494	2,499
Domestic use	1,629	1,635	1,625	1,610	1,599	1,587	1,580	1,575	1,569	1,563	1,557
Net exports	828	841	850	862	876	889	899	909	920	931	942
					(Dollars per ton, Sep.-Aug. year)						
Price, 60%, IL points	477.67	474.51	479.89	476.26	464.86	459.66	460.14	462.59	465.21	463.45	459.82
CGM price/soymeal price	150%	151%	150%	151%	152%	152%	152%	152%	152%	152%	152%
Corn oil					(Million pounds, Oct.-Sep. year)						
Production	4,866	5,333	5,706	6,042	6,232	6,361	6,505	6,639	6,744	6,843	6,928
Domestic use	4,003	4,435	4,819	5,157	5,350	5,476	5,619	5,752	5,850	5,951	6,038
Biodiesel	1,266	1,559	1,814	2,058	2,257	2,339	2,452	2,547	2,594	2,700	2,749
Feed	740	888	1,065	1,175	1,301	1,343	1,369	1,418	1,475	1,466	1,505
Food/other	1,997	1,989	1,940	1,923	1,791	1,794	1,797	1,787	1,781	1,785	1,785
Net exports	876	876	873	871	873	876	878	880	885	886	887
Ending stocks	134	156	171	184	194	203	211	218	227	232	236
					(Cents per pound, Oct.-Sep. year)						
Chicago price	44.02	44.87	46.44	47.69	47.99	47.57	47.61	47.74	46.69	46.87	47.51
Corn oil price/soyoil price	126%	125%	124%	123%	123%	123%	123%	123%	124%	124%	123%

All projections are averages across 500 stochastic outcomes.

Wheat supply and use

June-May year	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Area					(Million acres)						
Planted area	50.2	46.2	46.8	47.1	47.5	47.6	47.3	47.0	46.8	46.5	46.3
Harvested area	43.9	39.5	40.1	40.5	40.8	40.9	40.7	40.4	40.2	40.0	39.7
					(Bushels per harvested acre)						
Yield	52.6	45.9	46.2	46.6	47.0	47.3	47.6	47.9	48.2	48.5	48.9
					(Million bushels)						
Supply	3,411	3,114	2,995	2,950	2,927	2,923	2,920	2,918	2,922	2,924	2,927
Beginning stocks	976	1,175	1,013	928	874	851	846	847	848	848	848
Production	2,310	1,814	1,853	1,888	1,919	1,937	1,940	1,936	1,940	1,942	1,945
Imports	125	125	130	133	134	135	134	134	134	134	134
Domestic use	1,259	1,214	1,196	1,187	1,189	1,193	1,206	1,212	1,222	1,229	1,240
Feed and residual	234	182	159	144	139	137	142	142	145	146	151
Seed	63	64	65	65	65	65	65	65	65	64	64
Food and other	962	969	972	978	984	991	998	1,005	1,012	1,018	1,025
Exports	977	888	871	889	888	883	866	858	852	847	834
Total use	2,236	2,102	2,067	2,076	2,076	2,077	2,072	2,070	2,074	2,076	2,074
Ending stocks	1,175	1,013	928	874	851	846	847	848	848	848	853
CCC inventory	0	0	0	0	0	0	0	0	0	0	0
Under loan	66	41	36	33	33	33	33	34	34	34	36
Other stocks	1,109	971	893	841	818	813	814	815	814	814	817
Prices, program provisions					(Dollars per bushel)						
Farm price	3.79	4.44	4.90	5.15	5.20	5.20	5.13	5.14	5.11	5.09	5.02
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	63.4	63.3	63.3	63.3	63.3	63.3	63.3	63.3	63.3	63.3	63.3
					(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	43.5	43.4	43.4	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
ARC participation rate	56.5	56.6	56.6	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Returns and payments					(Dollars)						
Gross market revenue/a.	199.67	203.35	225.75	239.20	244.07	245.26	243.78	245.67	245.47	246.48	244.77
Variable expenses/a.	109.77	107.25	110.41	113.58	117.45	121.29	125.00	128.49	131.94	134.90	137.38
Market net return/a.	89.89	96.10	115.35	125.62	126.62	123.97	118.79	117.18	113.53	111.58	107.38
Marketing loan benefits/a.*	2.88	1.09	1.40	0.94	0.88	0.80	0.90	1.43	1.39	1.22	1.03
Payments to participants											
PLC/base a.*	53.82	35.33	26.46	23.01	21.60	20.38	21.17	21.91	22.43	22.98	24.47
ARC/base a.*	20.48	16.35	9.99	7.68	7.54	8.04	8.07	8.44	8.61	8.87	9.25
Insurance net indemnities/a.*	1.61	9.99	11.32	12.49	13.16	13.38	13.54	13.56	13.74	14.05	14.16

*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.

Sorghum supply and use

September-August year	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Area					(Million acres)						
Planted area	6.69	6.92	6.93	6.91	6.91	6.92	6.93	6.95	6.96	6.96	6.97
Harvested area	6.16	6.19	6.21	6.20	6.20	6.19	6.22	6.23	6.23	6.23	6.24
					(Bushels per harvested acre)						
Yield	77.9	66.4	66.5	66.7	67.1	67.1	67.2	67.4	67.4	67.6	67.7
Supply and use					(Million bushels)						
Production	480	413	415	416	418	417	420	422	422	423	425
Imports	1	1	1	1	1	1	1	1	1	1	1
Domestic use	232	229	217	214	209	206	207	207	207	206	204
Exports	247	204	200	202	210	211	213	215	215	218	221
Ending stocks	39	20	19	19	19	21	21	22	23	24	25
Prices, returns and payments					(Dollars)						
Farm price/bu.	2.82	3.24	3.44	3.44	3.40	3.40	3.40	3.40	3.41	3.40	3.38
Reference price/bu.	3.95	3.95	3.95	3.95	3.95	3.95	3.95	3.95	3.95	3.95	3.95
Market net return/a.	90.48	83.25	94.86	91.73	87.60	82.48	78.90	75.14	71.44	68.46	64.04
Marketing loan benefits/a.*	0.00	1.05	1.26	1.23	1.09	1.33	1.19	1.57	1.15	1.03	1.02
Payments to participants											
PLC/base a.*	55.58	38.81	33.48	35.16	35.66	34.58	35.42	35.03	35.03	36.06	36.43
ARC/base a.*	16.67	9.77	4.67	4.35	4.46	5.89	5.06	4.74	5.05	5.27	5.47
Insurance net indemnities/a.*	-2.05	14.73	16.82	17.83	17.72	17.52	17.26	17.01	17.11	17.03	17.23

*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	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Area					(Million acres)						
Planted area	3.05	3.14	2.90	2.87	2.84	2.77	2.69	2.61	2.50	2.40	2.31
Harvested area	2.56	2.70	2.49	2.47	2.44	2.38	2.31	2.24	2.15	2.06	1.99
					(Bushels per harvested acre)						
Yield	77.9	71.7	72.8	73.6	74.5	75.3	76.4	77.3	78.4	79.4	80.4
Supply and use					(Million bushels)						
Production	199	194	182	182	182	179	176	174	169	164	160
Imports	17	23	27	25	24	28	31	33	37	41	45
Domestic use	208	208	206	201	198	198	197	197	197	197	197
Exports	6	10	9	10	10	10	9	9	8	7	7
Ending stocks	104	102	97	93	91	90	91	92	94	95	96
Prices, returns and payments					(Dollars)						
All barley farm price/bu.	4.87	4.61	4.74	4.84	4.86	4.85	4.83	4.78	4.74	4.69	4.59
Feed barley price/bu.	2.75	2.90	3.03	3.07	3.05	3.04	3.04	3.01	2.99	2.97	2.91
Reference price/bu.	4.95	4.95	4.95	4.95	4.95	4.95	4.95	4.95	4.95	4.95	4.95
Market net return/a.	212.19	162.36	175.06	181.85	181.99	178.65	176.83	171.56	167.51	163.59	157.03
Marketing loan benefits/a.*	0.00	1.34	2.26	2.06	1.94	1.82	2.32	2.38	2.65	2.55	2.58
Payments to participants											
PLC/base a.*	3.91	23.56	22.76	20.66	19.94	19.43	20.23	21.54	22.88	24.27	25.80
ARC/base a.*	4.10	11.96	8.84	6.83	6.63	6.17	6.42	6.78	7.47	8.05	8.59
Insurance net indemnities/a.*	0.38	9.44	9.95	10.27	10.60	11.20	10.80	10.66	10.91	11.58	11.66

*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 supply and use

June-May year	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Area					(Million acres)						
Planted area	2.83	2.91	2.91	2.88	2.87	2.90	2.91	2.93	2.93	2.94	2.95
Harvested area	0.98	1.07	1.08	1.07	1.06	1.07	1.08	1.08	1.08	1.08	1.09
					(Bushels per harvested acre)						
Yield	66.0	65.2	65.7	66.2	66.8	67.1	67.6	67.9	68.3	68.7	69.1
Supply and use					(Million bushels)						
Production	65	70	71	71	71	72	73	74	74	75	76
Imports	90	91	92	92	92	91	91	91	90	90	89
Domestic use	163	163	163	161	160	161	161	161	161	161	161
Exports	2	2	2	2	2	2	2	2	2	2	2
Ending stocks	47	44	43	43	44	45	46	47	49	50	52
Prices, returns and payments					(Dollars)						
Farm price/bu.	2.00	2.16	2.27	2.28	2.29	2.28	2.29	2.28	2.28	2.28	2.26
Reference price/bu.	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40
Market net return/a.	34.95	43.26	49.63	49.27	48.20	44.51	42.42	39.17	36.61	34.75	31.39
Marketing loan benefits/a.*	0.00	0.37	0.62	0.27	0.52	0.41	0.45	0.56	0.65	0.65	0.59
Payments to participants											
PLC/base a.*	16.03	12.49	11.16	10.78	11.30	10.86	10.90	11.20	11.36	11.12	11.71
ARC/base a.*	8.28	5.99	3.17	1.96	1.69	1.50	1.65	1.74	1.82	1.85	1.91
Insurance net indemnities/a.*	0.95	1.26	1.55	1.63	1.58	1.61	1.54	1.52	1.58	1.58	1.58

*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.

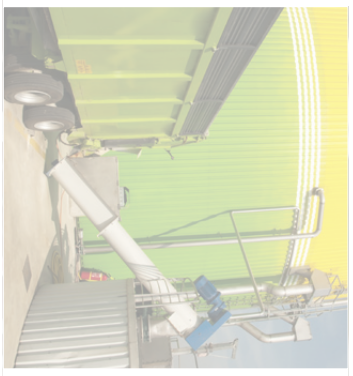
Rice supply and use

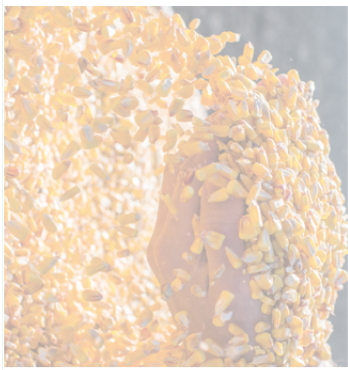
August-July year	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Area					(Million acres)						
Planted area	3.15	2.92	3.01	2.98	2.97	2.99	3.02	3.02	3.02	3.04	3.04
Harvested area	3.10	2.88	2.97	2.94	2.92	2.95	2.97	2.98	2.98	2.99	3.00
					(Pounds per harvested acre)						
Yield	7,237	7,718	7,784	7,842	7,906	7,974	8,046	8,111	8,181	8,254	8,327
Supply and use					(Million hundredweight)						
Production	224.1	222.5	231.3	230.2	231.1	235.4	239.4	241.6	243.9	246.9	249.7
Imports	23.5	23.4	23.6	23.8	24.1	24.3	24.6	24.8	25.1	25.3	25.6
Domestic use	132.2	133.6	134.5	135.9	136.8	137.5	138.3	139.4	140.1	141.2	142.0
Exports	110.9	117.1	120.5	118.6	118.7	121.6	124.7	126.3	128.3	130.3	132.6
Ending stocks	51.0	46.2	46.1	45.6	45.3	46.0	46.9	47.6	48.0	48.8	49.5
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	4.04	4.03	4.03	4.03	4.03	4.03	4.03	4.04	4.04	4.04	4.04
Medium/short	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Countercyclical/PLC yield					(Pounds per acre)						
Long grain	4,779	4,779	4,779	4,779	4,778	4,779	4,779	4,779	4,779	4,779	4,779
Medium/short	6,697	6,691	6,684	6,682	6,682	6,682	6,683	6,683	6,683	6,683	6,682
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	69.2	69.3	69.3	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4
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	30.8	30.7	30.7	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6
Prices, returns and payments					(Dollars)						
Farm price/cwt	10.23	11.38	11.54	11.42	11.61	11.86	12.09	12.14	12.40	12.43	12.61
Long grain	9.68	10.47	10.68	10.51	10.77	11.07	11.37	11.42	11.74	11.79	12.02
Japonica	14.00	16.82	17.04	17.12	17.12	17.27	17.37	17.42	17.51	17.52	17.53
Other medium/short	9.93	11.45	11.65	11.58	11.72	11.93	12.10	12.14	12.34	12.36	12.45
Gross market revenue/a.	740.20	878.25	898.48	895.57	917.63	945.33	973.17	984.94	1014.50	1026.26	1050.35
Variable expenses/a.	553.27	559.03	568.14	582.63	601.34	621.44	642.25	662.36	680.99	697.96	712.92
Market net return/a.	186.94	319.22	330.34	312.94	316.28	323.89	330.92	322.58	333.51	328.30	337.43
Marketing loan benefits/a.*	0.00	8.70	8.37	8.14	8.63	6.94	5.23	4.73	4.12	3.08	3.04
Payments to participants											
PLC/base a.*	160.76	125.66	119.66	124.07	117.20	106.62	97.65	96.04	87.55	86.23	79.89
ARC/base a.*	107.25	40.81	37.87	27.92	26.77	28.58	28.84	29.36	27.82	29.46	31.74
Insurance net indemnities/a.*	19.26	14.26	14.85	15.03	15.04	15.18	15.43	15.59	15.71	15.94	16.07

*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.



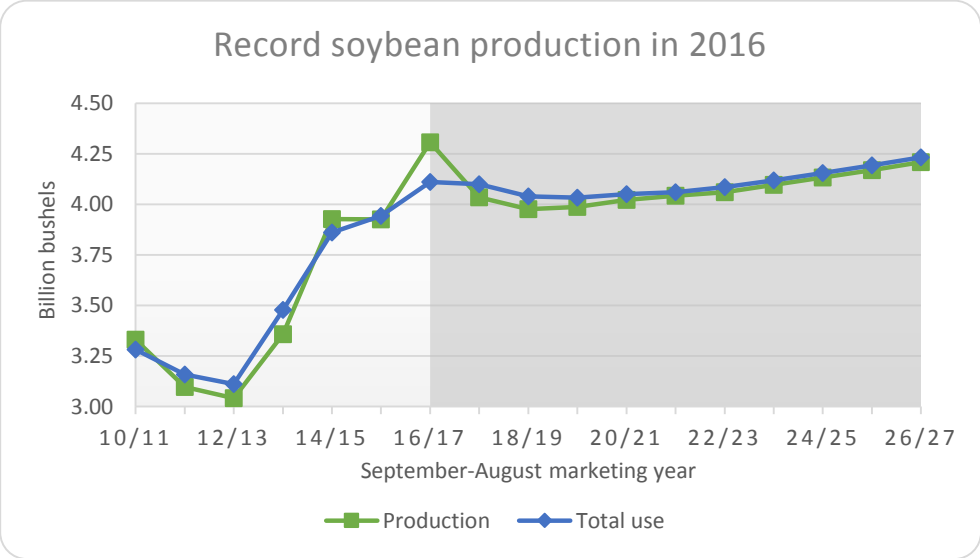


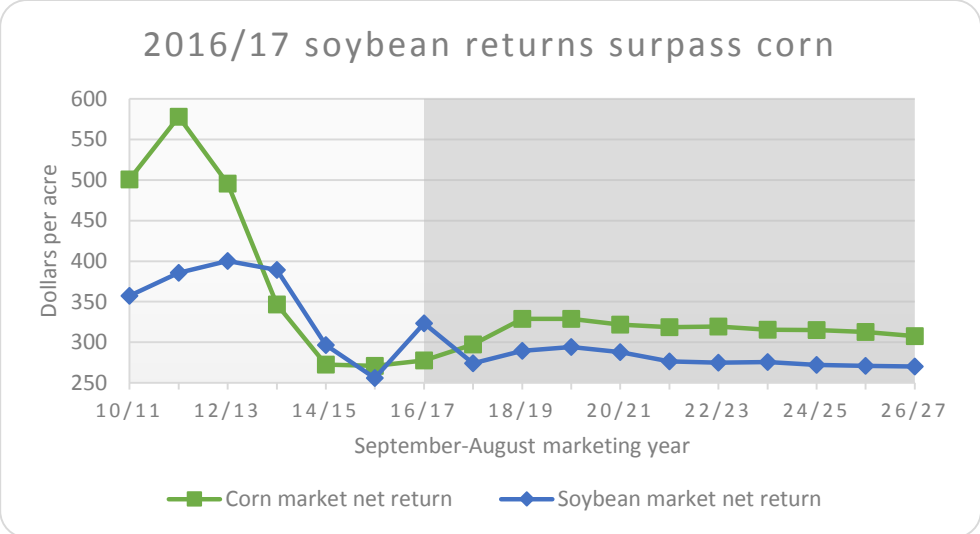
Oilseeds

Soybeans and products

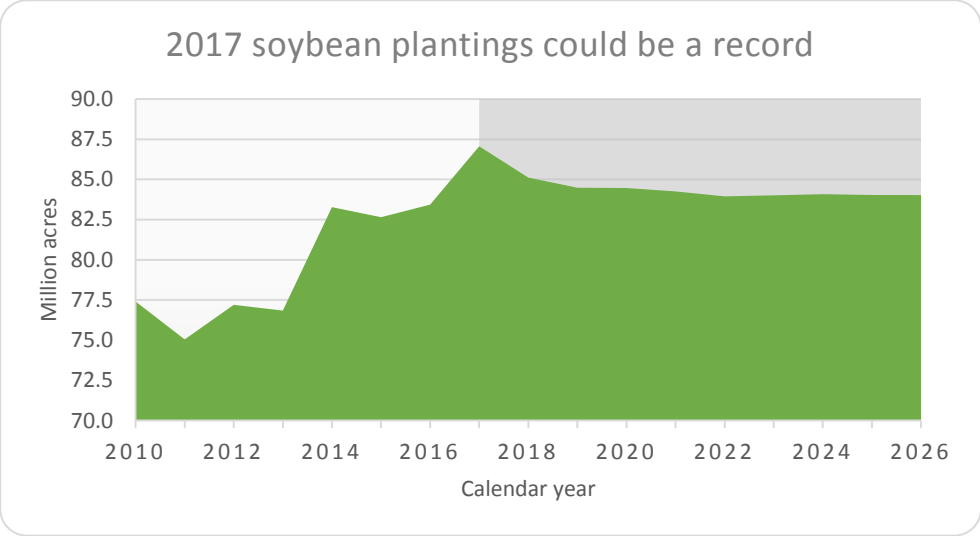
Soybean production broke the two year old record in 2016. This was achieved through both formerly unachieved yields and area. A return to trend yields in 2017 would reduce production, but a projected new record for planted area of 87.1 million acres would keep it at high levels. Soybean area is expected to remain high throughout the projection period.

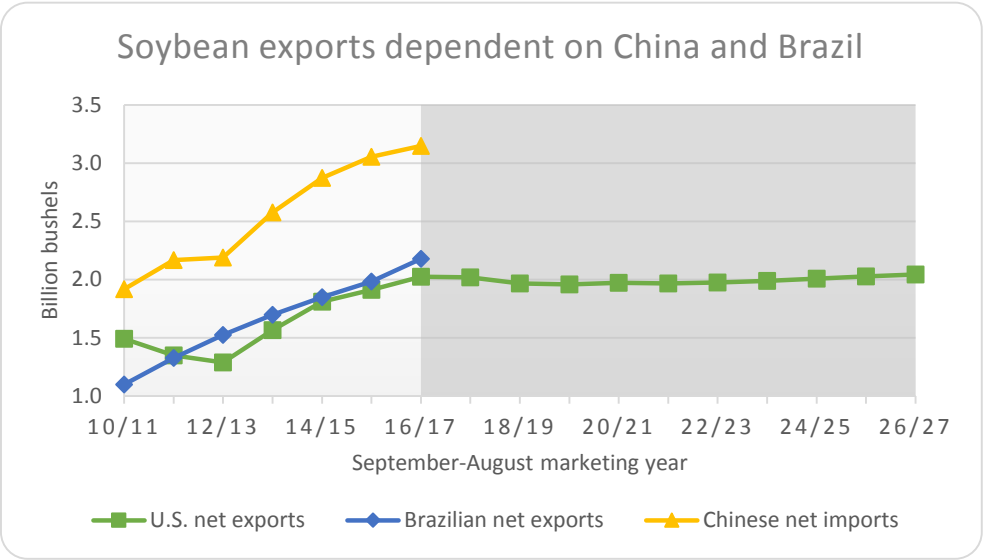


Despite record production, 2016/17 returns are expected to increase from 2014/15 and 2015/16. High yields combined with price strength in the soybean market allow soybean returns to exceed corn. This is not expected to continue as corn returns overtake soybeans starting in 2017/18.

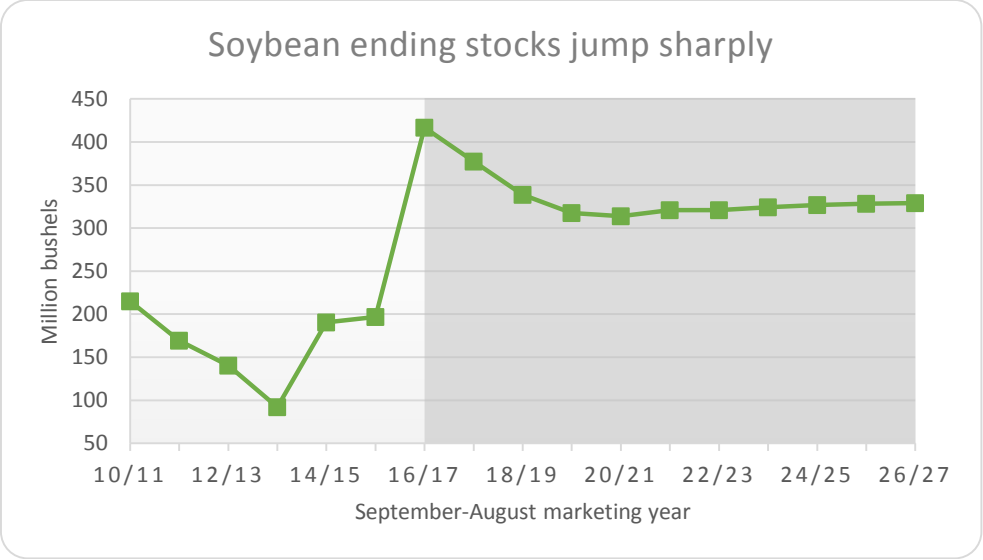


The spike in 2016/17 soybean returns leads to a corresponding positive change in 2017 acreage. As profits wane, acreage falls in subsequent years. However, average soybean area remains at least 84 million acres, greater than any year prior to 2017.

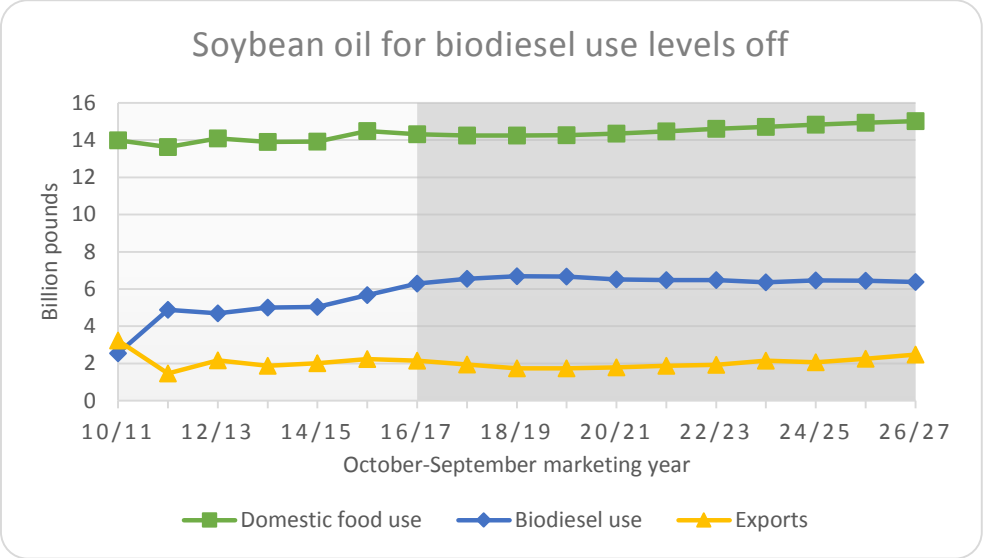




The growing demand for soybeans in China has largely been met by a corresponding increase in Brazilian exports. U.S. soybean exports remain flat on average in the baseline. However, this is heavily dependent on U.S. and Brazilian weather as well as Chinese demand growth.



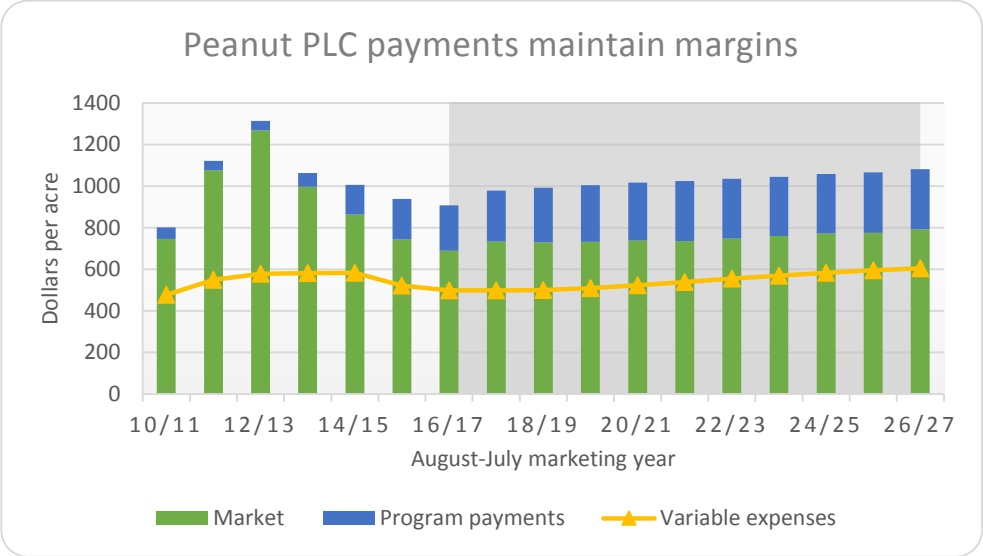
The large 2016 crop helps to push projected 2016/17 soybean ending stocks to the highest level since 2006/07. Soybean prices remain strong in spite of large stockpiles which keeps production strong in 2017 and beyond. As a result, stocks are expected to slowly regress from the recent peak.



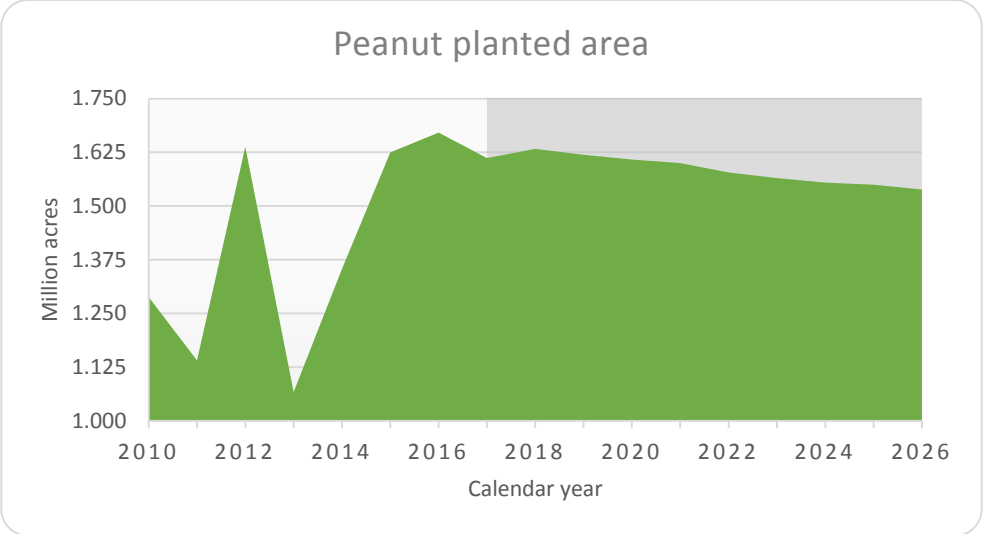
Soybean oil for biodiesel had seen stable growth for years. However, much of the future growth in biodiesel is anticipated to come from other fats and oils. Soybean oil food consumption increases slightly with population growth, as the decline in per capita consumption slows.

Peanuts

Market revenues are the product of yield and the marketing year average price. Like many other crops, peanut market revenues have been steadily declining since 2012/13. However, peanut farm prices have fallen well below the reference price, creating large PLC payments. These payments are tied to base acres instead of planted acres. Producers enrolled 99.7 percent of peanut base acres in PLC.

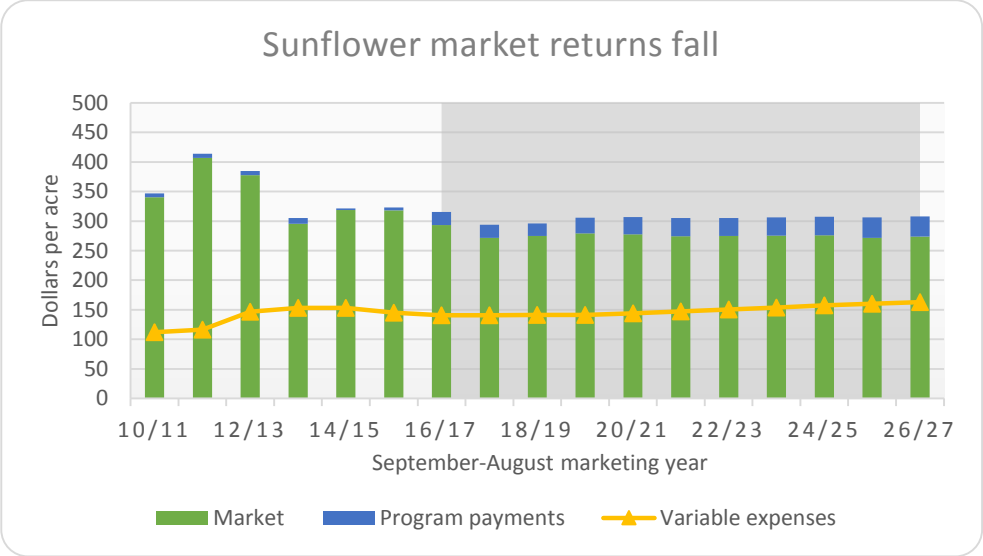


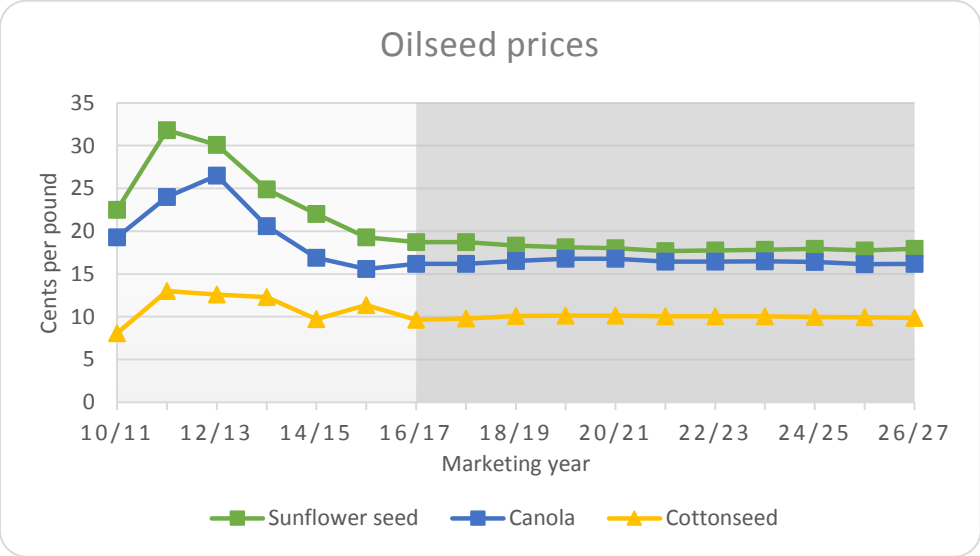
Generic base acres are eligible for the payments corresponding to the crops grown on them. Peanuts have been planted on many generic base acres. In 2015 and 2016 total plantings are at the highest levels since 2005 if 2012 is excluded.



Sunflower seed

Falling prices have pushed sunflower seed market returns down. Variable expenses have also fallen, but not to the same extent. The average sunflower seed price in the baseline is below the reference price thereby generating steady PLC payments.





Other oilseeds

Average sunflower seed and canola prices remain below the reference price of 20.2 cents per pound. Canola area in the U.S. has been increasing sharply in the past five years. Cottonseed prices average 10.0 cents per pound through the projection period. This commodity is not currently a program commodity eligible for PLC or ARC payments. Lower soybean prices keep pressure on oilseed prices.

Soybean supply and use

September-August year	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Area					(Million acres)						
Planted area	83.4	87.1	85.1	84.5	84.5	84.3	83.9	84.0	84.1	84.0	84.0
Harvested area	82.7	86.3	84.3	83.7	83.7	83.5	83.2	83.2	83.3	83.2	83.2
					(Bushels per harvested acre)						
Yield	52.1	46.8	47.2	47.6	48.1	48.4	48.8	49.2	49.6	50.1	50.6
					(Million bushels)						
Supply	4,528	4,477	4,378	4,351	4,364	4,381	4,406	4,443	4,483	4,521	4,562
Beginning stocks	197	417	377	339	318	314	321	321	324	327	328
Production	4,307	4,036	3,976	3,987	4,022	4,042	4,060	4,097	4,133	4,169	4,209
Imports	25	25	25	25	25	25	25	25	25	25	25
Domestic use	2,062	2,056	2,048	2,050	2,053	2,068	2,087	2,106	2,122	2,142	2,164
Crush	1,936	1,936	1,930	1,932	1,933	1,946	1,964	1,981	1,996	2,015	2,034
Seed and residual	126	120	117	118	120	122	123	124	126	127	129
Exports	2,050	2,044	1,992	1,983	1,998	1,993	1,998	2,013	2,034	2,051	2,069
Total use	4,112	4,100	4,040	4,033	4,051	4,060	4,085	4,119	4,156	4,193	4,233
Ending stocks	417	377	339	318	314	321	321	324	327	328	329
CCC inventory	0	0	0	0	0	0	0	0	0	0	0
Under loan	9	10	10	10	11	12	12	13	14	14	15
Other stocks	408	367	329	307	303	309	309	311	313	314	314
Prices, program provisions					(Dollars per bushel)						
Farm price	9.46	9.57	9.84	9.91	9.79	9.57	9.53	9.57	9.51	9.47	9.43
Illinois processor price	9.76	9.87	10.13	10.19	10.08	9.86	9.83	9.87	9.81	9.76	9.73
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	54.7	54.7	54.7	54.7	54.7	54.6	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	3.2	3.2	3.2	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0
ARC participation rate	96.8	96.8	96.8	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
Returns and payments					(Dollars)						
Gross market revenue/a.	492.66	444.14	460.36	468.00	466.40	459.41	461.97	467.35	467.78	470.00	472.86
Variable expenses/a.	169.34	170.13	170.83	173.95	178.40	182.81	187.20	191.56	195.60	199.22	202.57
Market net return/a.	323.32	274.01	289.53	294.06	288.00	276.60	274.77	275.79	272.19	270.79	270.29
Marketing loan benefits/a.*	0.00	0.08	0.15	0.13	0.04	0.12	0.15	0.34	0.33	0.11	0.23
Payments to participants											
PLC/base a.*	0.00	8.57	8.09	8.14	9.04	10.52	10.53	12.15	12.52	11.94	12.17
ARC/base a.*	6.55	15.55	8.79	7.10	6.94	8.75	8.56	8.95	9.10	9.20	8.58
Insurance net indemnities/a.*	-3.55	15.84	15.55	16.12	16.23	16.16	16.31	16.53	16.90	16.72	16.82
					(Dollars per bushel)						
Crush margin	1.77	1.75	1.77	1.78	1.70	1.76	1.81	1.83	1.82	1.86	1.89

*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.

Soybean oil supply and use

October-September year	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27
					(Million pounds)						
Supply	24,419	24,416	24,364	24,388	24,414	24,615	24,869	25,122	25,342	25,641	25,902
Beginning stocks	1,687	1,663	1,681	1,689	1,703	1,748	1,798	1,847	1,896	1,979	2,010
Production	22,458	22,479	22,408	22,424	22,437	22,592	22,796	23,000	23,171	23,387	23,617
Imports	275	275	275	275	275	275	275	275	275	275	275
Domestic use	20,600	20,794	20,940	20,940	20,870	20,950	21,091	21,077	21,304	21,384	21,402
Biodiesel	6,289	6,542	6,695	6,671	6,512	6,476	6,488	6,368	6,464	6,446	6,373
Food and other	14,311	14,252	14,246	14,269	14,358	14,474	14,603	14,709	14,840	14,938	15,029
Exports	2,157	1,942	1,735	1,745	1,796	1,868	1,931	2,149	2,059	2,246	2,476
Total use	22,757	22,735	22,675	22,685	22,666	22,817	23,021	23,226	23,363	23,630	23,878
Ending stocks	1,663	1,681	1,689	1,703	1,748	1,798	1,847	1,896	1,979	2,010	2,024
Price					(Cents per pound)						
Decatur	35.03	35.87	37.44	38.70	39.01	38.59	38.64	38.79	37.73	37.95	38.61

All projections are averages across 500 stochastic outcomes.

Soybean meal supply and use

October-September year	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27
					(Thousand tons)						
Supply	46,137	46,449	46,312	46,343	46,375	46,702	47,121	47,542	47,893	48,336	48,809
Beginning stocks	264	291	297	297	303	311	317	320	323	326	329
Production	45,548	45,833	45,690	45,721	45,748	46,065	46,479	46,897	47,245	47,685	48,154
Imports	325	325	325	325	325	325	325	325	325	325	325
Domestic use	34,358	35,013	35,578	36,006	36,432	36,775	37,077	37,270	37,348	37,380	37,414
Exports	11,488	11,139	10,437	10,034	9,632	9,610	9,724	9,949	10,219	10,626	11,061
Total use	45,846	46,152	46,015	46,041	46,064	46,385	46,801	47,219	47,567	48,007	48,475
Ending stocks	291	297	297	303	311	317	320	323	326	329	333
Price					(Dollars per ton)						
Decatur, 48% protein	317.43	314.86	319.24	316.06	306.44	301.99	302.32	304.30	306.42	304.89	301.80

All projections are averages across 500 stochastic outcomes.

Peanut supply and use

August-July year	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Area					(Million acres)						
Planted area	1.67	1.61	1.63	1.62	1.61	1.60	1.58	1.57	1.55	1.55	1.54
Harvested area	1.55	1.54	1.56	1.55	1.54	1.53	1.51	1.50	1.49	1.48	1.47
					(Pounds per harvested acre)						
Yield	3,675	3,943	4,001	4,060	4,117	4,171	4,222	4,272	4,325	4,377	4,432
Supply and use					(Million pounds)						
Production	5,685	6,076	6,245	6,283	6,331	6,383	6,375	6,393	6,439	6,492	6,522
Imports	110	100	100	100	100	100	100	100	100	100	100
Domestic use	4,567	4,666	4,761	4,834	4,893	4,952	4,983	5,022	5,051	5,093	5,128
Exports	1,354	1,374	1,423	1,452	1,469	1,478	1,479	1,475	1,470	1,471	1,473
Ending stocks	1,665	1,800	1,961	2,058	2,127	2,180	2,193	2,188	2,206	2,234	2,255
Prices, returns and payments					(Dollars)						
Farm price/ton	374.78	374.55	366.07	362.58	359.92	353.33	355.08	356.68	358.68	355.27	358.87
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.	190.35	235.96	228.30	223.91	214.76	195.95	192.54	189.48	188.79	179.85	187.76
Marketing loan benefits/a.*	9.49	46.05	59.08	67.49	73.45	77.04	78.96	78.26	81.30	82.67	85.68
Payments to participants											
PLC/base a.*	209.50	197.96	204.51	204.08	205.47	212.95	209.02	207.93	204.83	209.07	204.04
ARC/base a.*	76.52	61.42	57.39	52.60	50.90	55.14	58.94	59.71	59.01	61.44	60.59

*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 supply and use

September-August year	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Area					(Million acres)						
Planted area	1.60	1.61	1.56	1.52	1.51	1.50	1.50	1.50	1.50	1.49	1.48
Harvested area	1.53	1.51	1.46	1.42	1.41	1.40	1.40	1.40	1.40	1.39	1.38
					(Pounds per harvested acre)						
Yield	1,731	1,571	1,574	1,581	1,591	1,596	1,599	1,607	1,614	1,621	1,629
Supply and use					(Million pounds)						
Production	2,655	2,375	2,299	2,254	2,246	2,243	2,242	2,252	2,256	2,251	2,258
Imports	159	159	159	159	159	159	159	159	159	159	159
Domestic use	2,693	2,376	2,274	2,222	2,218	2,216	2,214	2,217	2,187	2,189	2,207
Exports	198	189	192	193	179	176	180	186	222	212	207
Ending stocks	335	304	295	292	301	309	315	323	329	338	341
Prices, returns and payments					(Dollars)						
Farm price/lb.	0.169	0.174	0.175	0.177	0.175	0.173	0.173	0.172	0.172	0.168	0.169
Market net return/a.	152.40	131.19	133.71	137.59	133.95	127.38	124.27	121.43	118.64	111.57	110.80
Marketing loan benefits/a.*	0.00	0.06	0.07	0.13	0.12	0.44	0.34	0.21	0.57	0.44	0.61
Payments to participants											
PLC/base a.*	33.78	31.04	29.92	28.38	30.85	32.09	32.21	32.78	33.37	36.19	36.08
ARC/base a.*	7.29	10.70	9.43	10.38	11.05	11.61	10.27	10.36	10.48	11.61	11.29

*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

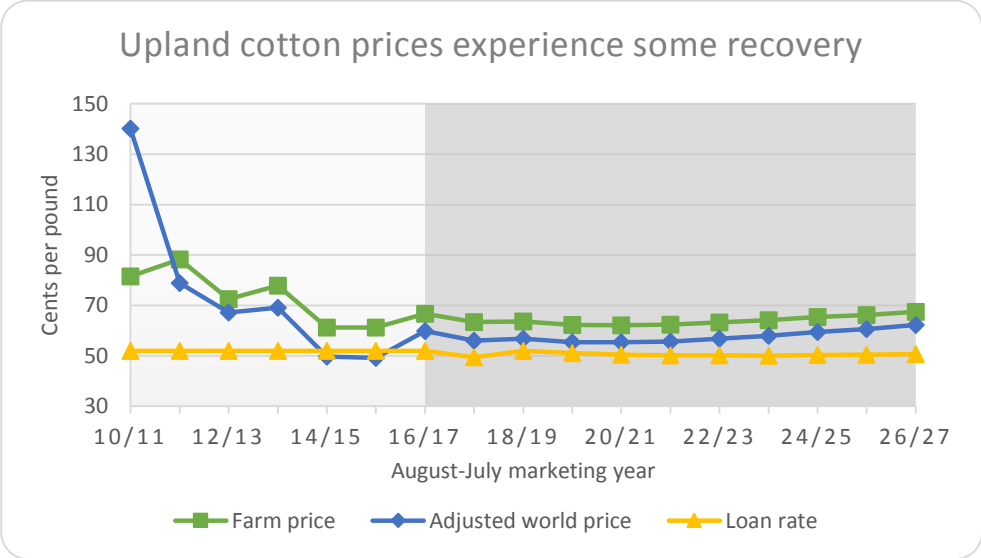
Marketing year	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Production					(Thousand tons, Aug.-Jul. year)						
Cottonseed	5,418	5,168	5,181	5,212	5,120	5,120	5,143	5,149	5,198	5,272	5,337
					(Million pounds, Jul.-Jun. year)						
Canola	3,075	2,947	2,911	2,895	2,902	2,906	2,911	2,929	2,946	2,962	2,983
Prices					(Dollars per ton, Aug.-Jul. year)						
Cottonseed	193	196	202	203	203	201	201	201	200	199	197
Canola					(Cents per pound, Jul.-Jun. year)						
Farm price	16.2	16.2	16.5	16.8	16.8	16.5	16.5	16.5	16.4	16.2	16.2
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.

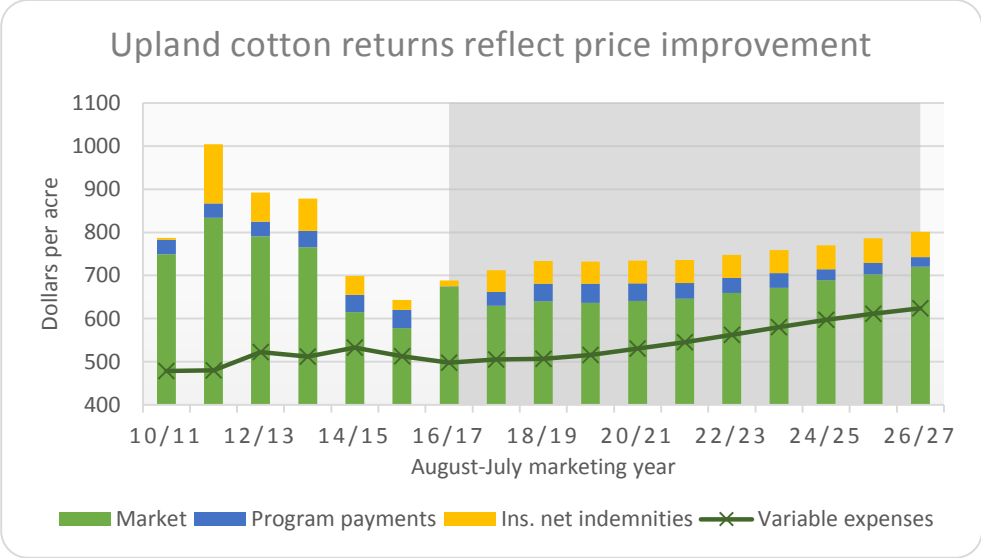
Other crops

Upland cotton

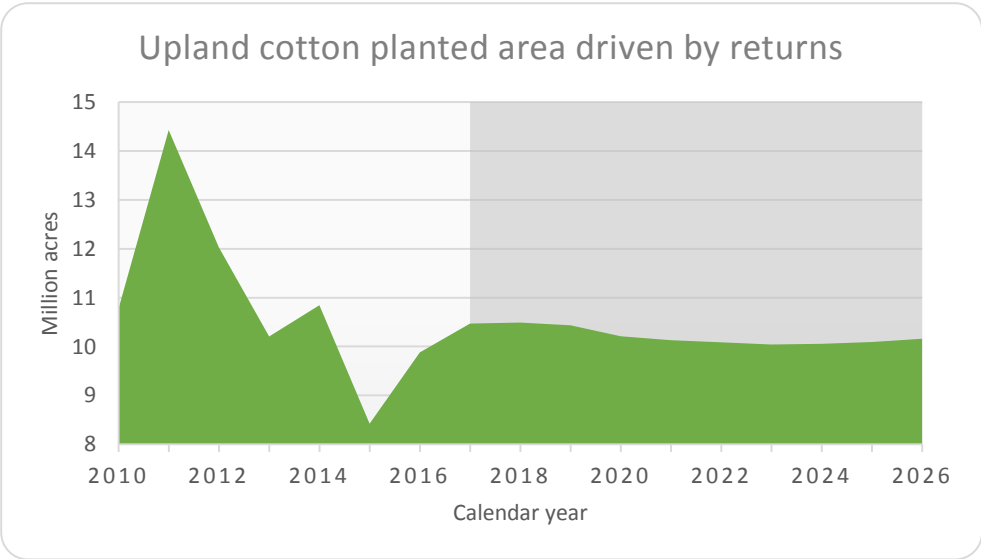
China continues to be the main source of uncertainty in world cotton markets. Policy choices have led to very large Chinese stocks, which are over one year's worth of domestic use. This inventory has hung over world prices for several years. Recently, China has begun a drawdown of stocks which has helped alleviate the low prices.

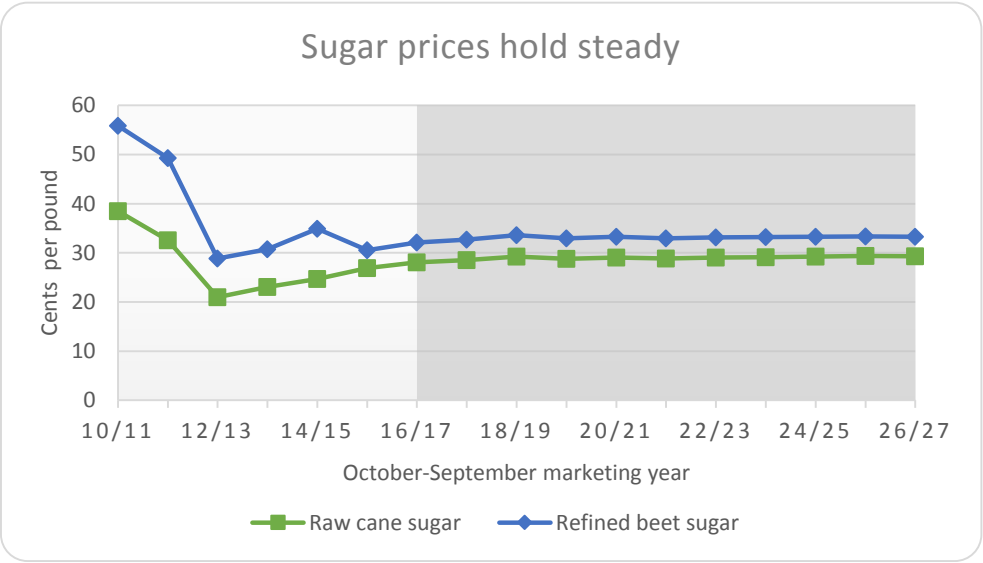


The pressure on upland cotton prices led to tight margins for cotton producers for the past several years. For example, 2015/16 market revenues less variable costs were $65 per acre. The recent price strength helps to improve returns in the projection period, although on average they never reach 2013/14 levels. Upland cotton is not a Title I commodity which precludes it from ARC and PLC payments. It can still receive marketing loan benefits and has a special insurance policy. These do help operating margins, although they are expected to remain tight.



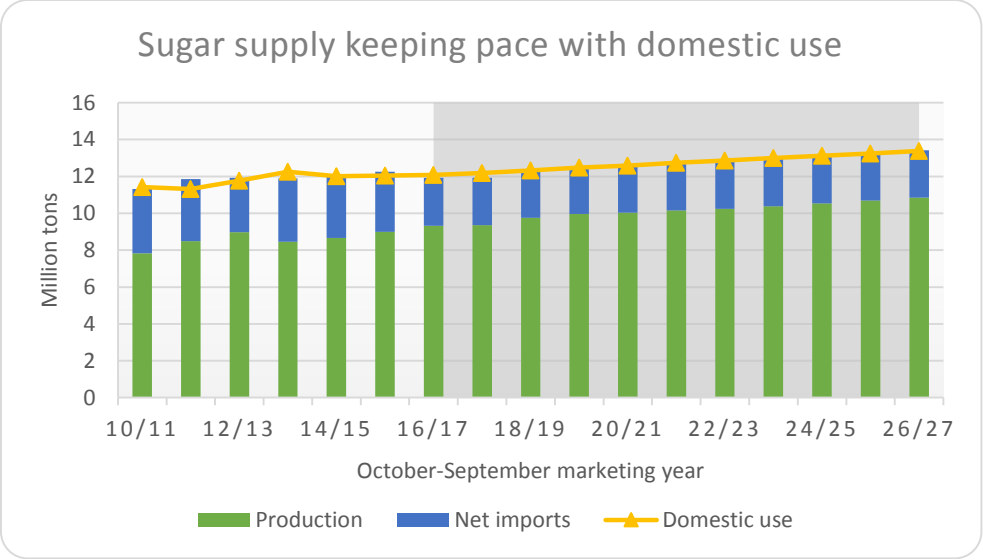
Cotton acreage declined sharply from 2011 to 2015 as cotton returns were weak relative to competing crops. Stronger relative returns result in more cotton acreage in 2016 and 2017. Texas accounted for 57 percent of the upland cotton area planted in the U.S. for 2016. Decisions by producers in that state have a strong influence on national totals.



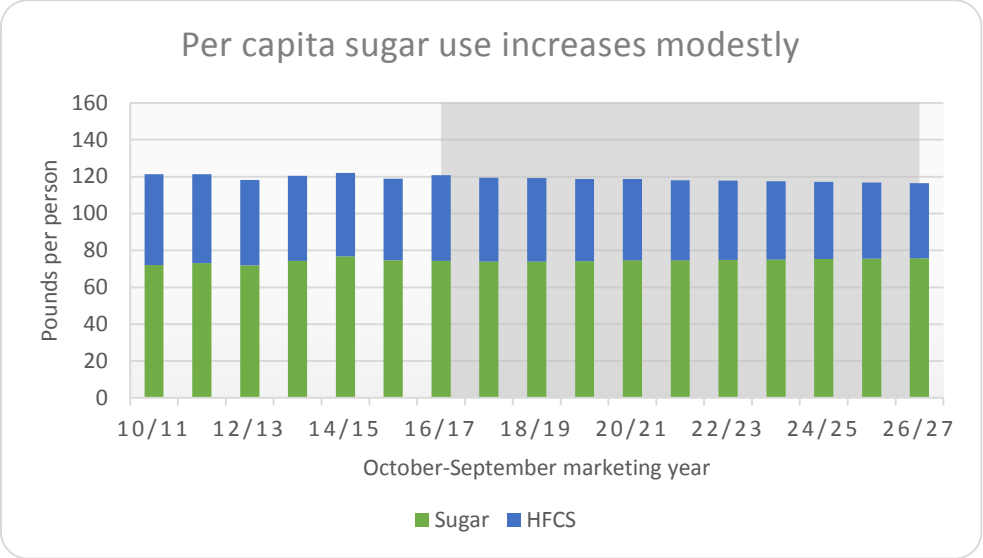


Sugar

Raw and refined sugar prices increase modestly in 2017/18 to 29 and 34 cents per pound, respectively, before leveling off beyond the 2018/19 marketing year. Average prices remain above the loan rates but are well below the prices experienced in 2010/11.



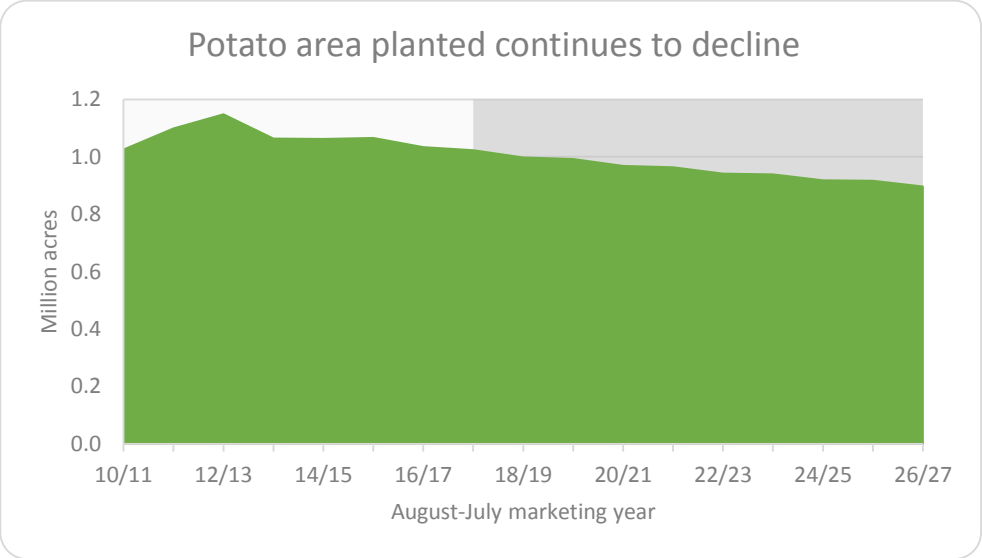
Domestic sugar use in total is projected to reach 13.3 million tons by 2026/27. Sugar imports remain fairly flat assuming no major changes to current trade policy. This leaves rising domestic production to fill consumer demand.



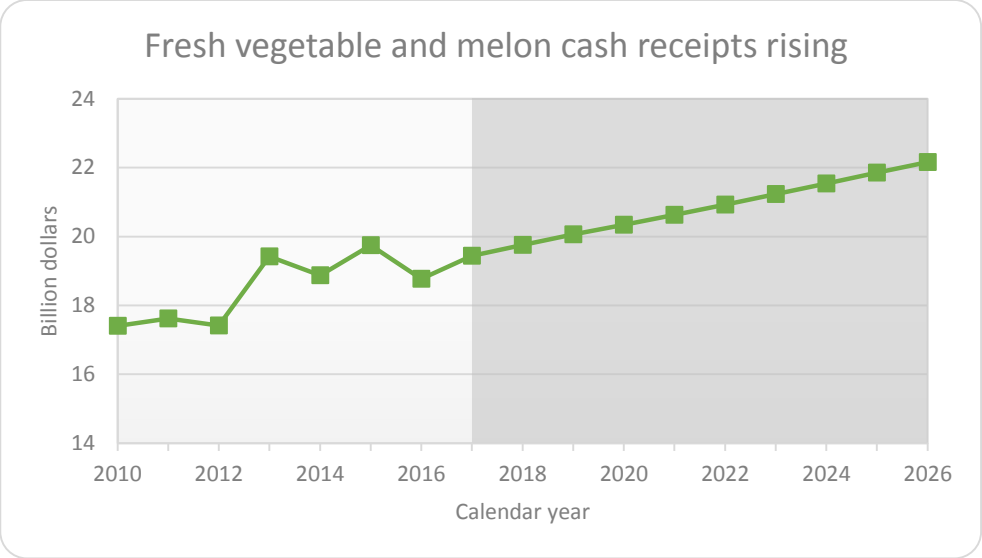
Per capita sugar demand is estimated to rise over the projection period. The increase in sugar use per capita comes at the expense of high fructose corn syrup (HFCS), which is projected to decrease slightly.

Potato, fresh vegetables, fruits and nuts

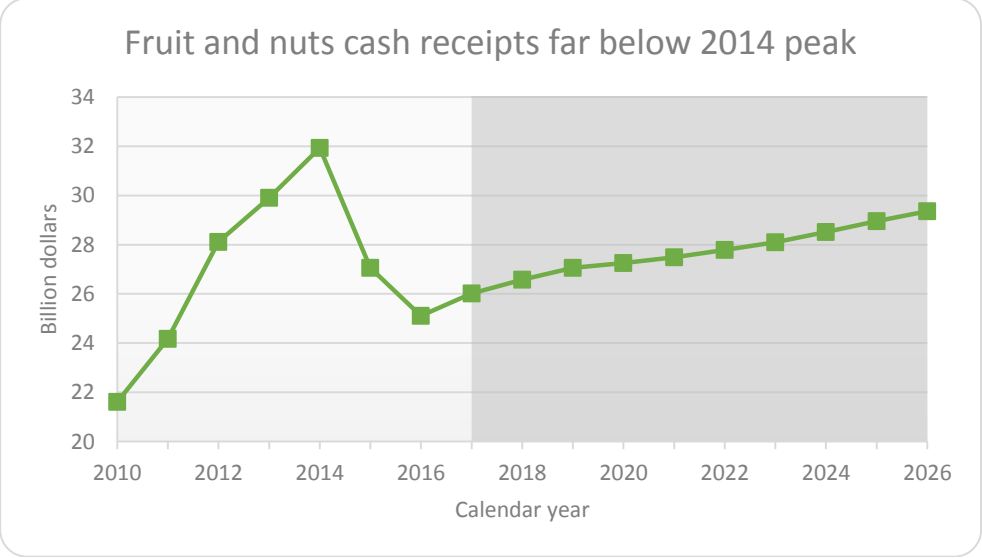
Since a peak in marketing year 2012/13, potato area planted has been on a downward trend. Area planted declined by three percent in 2016/17 compared to the previous year, and is expected to decline slightly in 2017/18. Despite a steady decline in domestic consumption since 2012/13, strong exports are expected to keep projected potato prices around $9 per hundredweight.

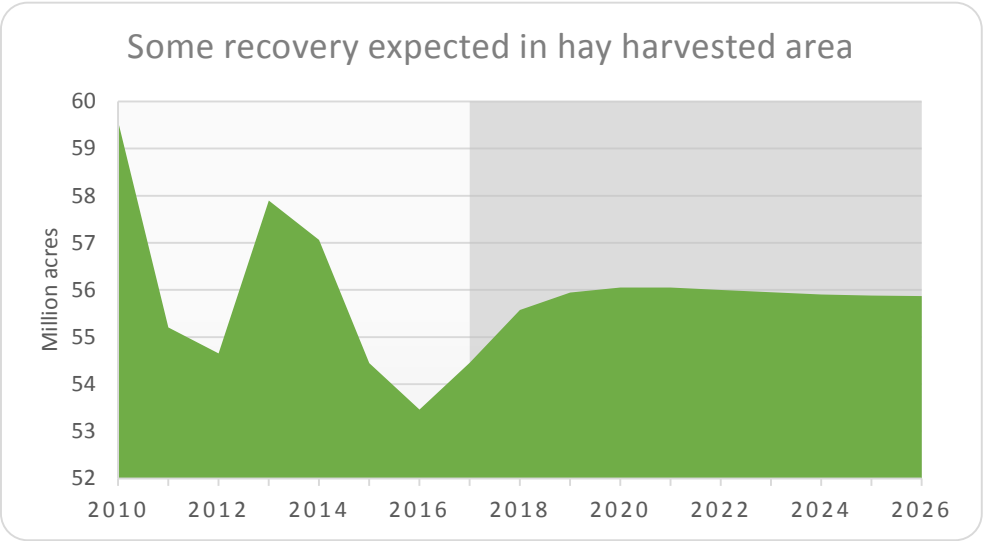


Total cash receipts for fresh vegetables and melons continue to increase steadily. Cash receipts for 2016 are estimated at $18.7 billion. Imports remain strong in response to growth in domestic consumption. While area planted has been on a decline since 2000, higher yield keeps production stable.



Cash receipts for fruits and nuts for 2016 were estimated at $25.2 billion. Domestic consumption continues to increase, leading to strong growth in imports. Expected near-record almond production in 2016/17 may put downward pressure on almond prices and cash receipts. The projected cash receipts for the industry, however, are still uncertain as they depend on how other fruit and tree nut crops perform.





Hay

Some recovery in hay prices is expected to start in 2017/18 as cattle numbers increase. The change in prices entices some acres back into hay that had left with falling prices. The increase levels out in 2019 and remains flat thereafter.

Upland cotton supply and use

August-July year	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Area					(Million acres)						
Planted area	9.88	10.47	10.49	10.43	10.21	10.13	10.09	10.04	10.06	10.09	10.16
Harvested area	9.33	8.93	8.93	8.89	8.69	8.63	8.61	8.55	8.57	8.62	8.66
					(Pounds per harvested acre)						
Yield	844	820	827	837	844	851	858	866	875	884	892
					(Million bales)						
Supply	20.08	20.27	20.61	20.80	20.77	20.84	20.95	21.00	21.16	21.37	21.59
Beginning stocks	3.66	4.98	5.17	5.25	5.46	5.49	5.51	5.52	5.51	5.46	5.45
Production	16.40	15.29	15.43	15.54	15.30	15.34	15.43	15.48	15.65	15.91	16.13
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	3.29	3.21	3.17	3.17	3.17	3.18	3.19	3.19	3.18	3.17	3.16
Exports	11.81	11.89	12.20	12.17	12.10	12.15	12.25	12.31	12.52	12.75	12.99
Total use	15.10	15.10	15.37	15.34	15.28	15.33	15.44	15.50	15.71	15.92	16.15
Ending stocks	4.98	5.17	5.25	5.46	5.49	5.51	5.52	5.51	5.46	5.45	5.44
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	4.98	5.17	5.25	5.46	5.49	5.51	5.52	5.51	5.46	5.45	5.44
Prices, program provisions					(Cents per pound)						
Farm price	66.7	63.3	63.7	62.3	62.2	62.4	63.3	64.1	65.4	66.2	67.4
Adjusted world price	59.9	56.1	56.8	55.4	55.4	55.7	56.8	57.9	59.5	60.5	62.2
Loan rate	52.0	49.4	52.0	51.1	50.4	50.2	50.2	50.0	50.3	50.5	50.7
					(Dollars per ton)						
Cottonseed price	192.63	195.92	201.75	202.72	202.84	200.92	200.66	200.83	199.56	198.64	197.17
					(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.	674.15	630.23	640.13	636.47	641.04	646.21	659.52	671.69	689.16	702.65	719.98
Variable expenses/a.	497.62	505.45	507.01	515.61	530.32	545.34	562.43	580.41	596.89	611.47	624.29
Market net return/a.	176.52	124.78	133.12	120.87	110.73	100.87	97.09	91.28	92.27	91.18	95.69
Marketing loan benefits/a.*	0.00	30.08	39.80	43.47	39.99	35.70	33.83	32.53	25.37	26.94	22.55
Insurance net indemnities/a.	13.09	50.96	52.69	51.07	52.60	52.99	53.33	54.08	55.47	56.71	58.88

*Marketing loan benefits, transition payments and insurance net indemnities are averaged across all acres.

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	0.866	0.880	0.901	0.909	0.905	0.901	0.893	0.887	0.882	0.877	0.872
Sugar beet planted	1.163	1.236	1.280	1.286	1.278	1.285	1.287	1.297	1.304	1.313	1.321
Sugar beet harvested	1.126	1.212	1.255	1.262	1.254	1.260	1.263	1.272	1.279	1.288	1.295
Yield					(Tons per harvested acre)						
Cane sugar	4.49	4.43	4.45	4.48	4.51	4.53	4.55	4.57	4.60	4.62	4.64
Beet sugar	4.82	4.50	4.58	4.66	4.75	4.82	4.90	4.98	5.07	5.16	5.25
Supply and use					(Thousand tons)						
Production	9,318	9,351	9,756	9,956	10,031	10,153	10,248	10,386	10,543	10,700	10,854
Cane sugar	3,891	3,898	4,012	4,077	4,081	4,080	4,059	4,052	4,054	4,053	4,050
Beet sugar	5,427	5,453	5,744	5,879	5,950	6,074	6,190	6,334	6,489	6,647	6,804
Imports	2,646	2,598	2,633	2,580	2,597	2,631	2,661	2,655	2,627	2,601	2,583
Domestic use	12,087	12,184	12,324	12,486	12,584	12,736	12,864	12,998	13,129	13,258	13,393
Exports	34	31	31	30	29	29	27	26	25	24	24
Ending stocks	1,897	1,631	1,665	1,686	1,701	1,720	1,738	1,757	1,773	1,791	1,811
Prices					(Cents per pound)						
N.Y. spot raw sugar	28.07	28.52	29.22	28.79	29.06	28.87	29.06	29.13	29.26	29.35	29.32
Refined beet sugar	32.12	32.68	33.60	32.94	33.25	32.93	33.13	33.18	33.29	33.36	33.26

All projections are averages across 500 stochastic outcomes.

Hay supply and use

May-April year	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27
					(Million acres)						
Harvested area	53.5	54.5	55.6	55.9	56.1	56.1	56.0	56.0	55.9	55.9	55.9
					(Tons per acre)						
Yield	2.52	2.41	2.42	2.43	2.44	2.45	2.46	2.46	2.47	2.47	2.48
Supply and use					(Million tons)						
Production	134.8	131.1	134.5	135.9	136.8	137.3	137.6	137.8	137.9	138.2	138.5
Disappearance	130.1	128.4	129.7	130.8	131.3	131.7	131.9	132.0	132.1	132.2	132.4
Ending stocks	25.1	23.0	23.0	23.2	23.6	24.0	24.3	24.7	24.9	25.3	25.6
					(Dollars per ton)						
All hay farm price	131.75	146.35	150.78	151.61	151.84	150.30	150.25	149.97	150.04	150.31	149.53

All projections are averages across 500 stochastic outcomes.

Potato supply and utilization

August-July year	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Area					(Thousand acres)						
Planted area	1,034	1,023	998	993	969	964	942	939	918	917	897
Harvested area	1,008	1,009	984	979	955	951	929	926	906	905	885
Yield					(Hundredweight per harvested acre)						
	437	436	440	445	450	455	459	464	469	474	478
Supply					(Million hundredweight)						
	494	493	488	491	487	490	486	490	486	490	487
Production	441	439	433	435	430	432	427	430	425	428	423
Imports	53	54	55	56	57	58	59	60	61	62	63
Domestic use	442	436	429	430	423	424	417	418	411	413	406
Exports	75	76	78	81	83	86	89	91	94	97	100
Total use	517	513	508	511	506	510	505	509	506	510	506
Prices					(Dollars per hundredweight)						
Farm price	8.90	9.02	9.20	9.00	9.27	9.12	9.41	9.23	9.50	9.28	9.55
Crop insurance participation					(Percent of acreage)						
	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2
Returns and payments					(Dollars)						
Gross market revenue/a.	3,889	3,929	4,052	4,004	4,171	4,146	4,321	4,284	4,454	4,398	4,572
Variable expenses/a.	2,228	2,273	2,318	2,365	2,412	2,460	2,509	2,559	2,611	2,663	2,716
Market net return/a.	1,661	1,656	1,734	1,639	1,759	1,686	1,812	1,725	1,844	1,735	1,856
Premium subsidy/a.	62	65	66	69	68	71	71	74	73	77	75

Fresh vegetable supply and utilization

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Area					(Million acres)						
Planted area	2.69	2.65	2.62	2.59	2.57	2.55	2.53	2.51	2.48	2.46	2.44
Harvested area	2.57	2.54	2.51	2.49	2.47	2.45	2.43	2.41	2.39	2.37	2.35
Yield					(Quantity index per acre)						
	50	50	51	51	52	53	54	54	55	56	56
Supply					(Quantity index)						
	209	207	210	213	216	219	222	225	227	230	233
Production	128	127	128	128	129	129	130	131	132	132	133
Imports	81	80	82	85	87	89	91	94	96	98	101
Domestic use	185	183	185	188	190	193	196	198	200	203	205
Exports	24	24	24	25	25	26	26	27	27	28	28
Total use	209	207	210	213	216	219	222	225	227	230	233
Prices					(Price index, 2011=100)						
Producer price	102	108	110	112	114	115	117	118	120	122	124
Cash receipts					(Million dollars)						
Vegetables	13,128	13,782	14,085	14,376	14,648	14,927	15,215	15,504	15,802	16,103	16,398
Other vegetables	5,641	5,653	5,667	5,680	5,691	5,702	5,713	5,723	5,735	5,746	5,757
Total receipts	18,770	19,435	19,752	20,056	20,339	20,629	20,928	21,227	21,537	21,849	22,155

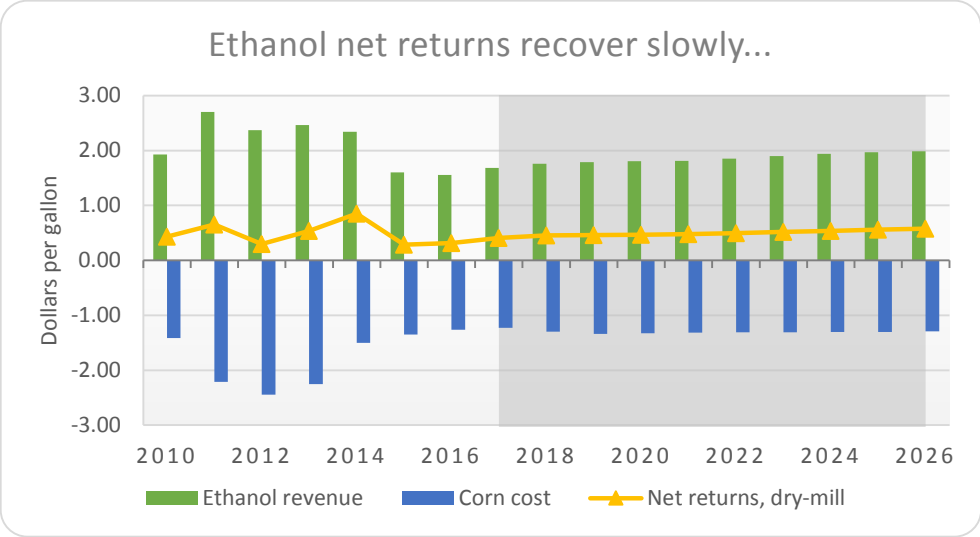
Non-citrus fruit supply and utilization

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
					(Million acres)						
Bearing area	2.06	2.05	2.05	2.05	2.04	2.04	2.04	2.04	2.03	2.03	2.03
					(Quantity index per acre)						
Yield	57	67	68	69	70	71	72	73	74	75	76
					(Quantity index)						
Supply	188	211	215	219	223	228	232	236	240	244	249
Production	117	137	138	140	142	144	146	148	149	151	153
Imports	71	74	76	79	81	84	86	88	91	93	95
Domestic use	162	184	188	192	195	199	202	205	209	212	215
Exports	3,356	2,998	3,072	3,154	3,221	3,301	3,395	3,494	3,608	3,728	3,845
Total use	3,518	3,182	3,260	3,345	3,416	3,499	3,597	3,700	3,817	3,940	4,060
Prices					(Price index, 1982=100)						
Producer price	127	113	114	115	114	114	114	114	114	115	115
Cash receipts					(Million dollars)						
Non-citrus fruits	14,890	15,427	15,772	16,074	16,234	16,407	16,621	16,836	17,107	17,395	17,662
Other fruits	10,216	10,598	10,807	10,978	11,021	11,075	11,168	11,260	11,403	11,561	11,701
Total receipts	25,106	26,025	26,579	27,052	27,254	27,482	27,789	28,097	28,510	28,956	29,363

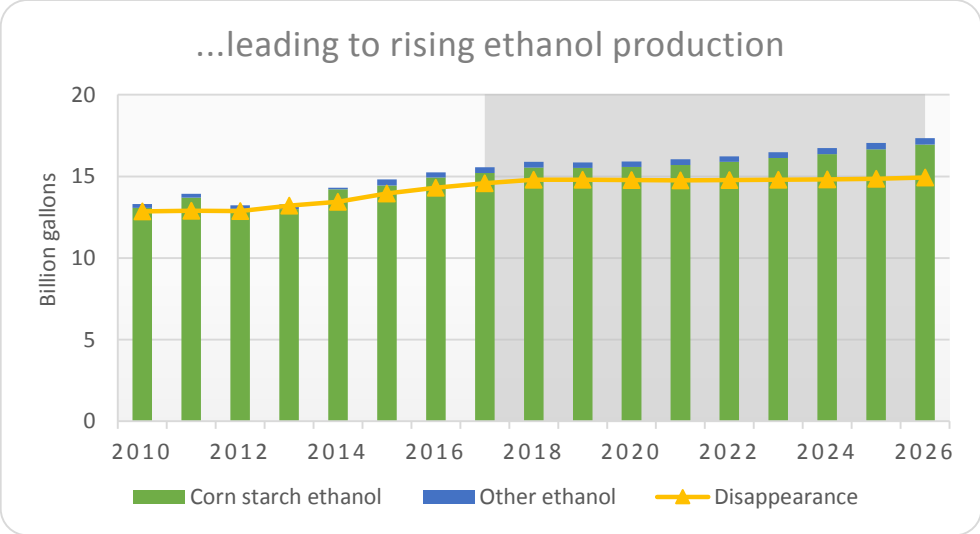
Biofuels

Ethanol

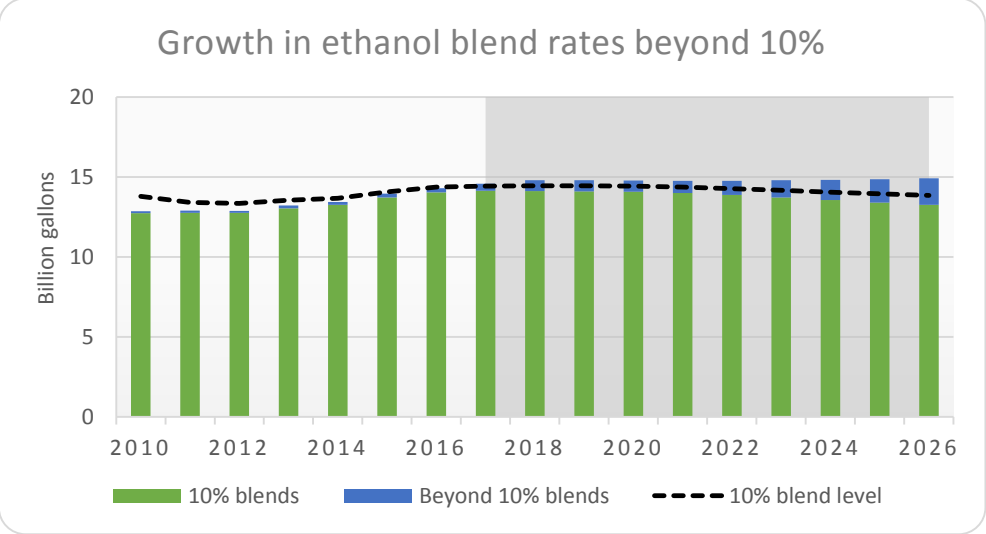
Ethanol rack prices are projected to increase slowly, eventually reaching $2.00 per gallon by 2026. As corn prices remain flat through the period, dry-mill net returns experience modest gains.

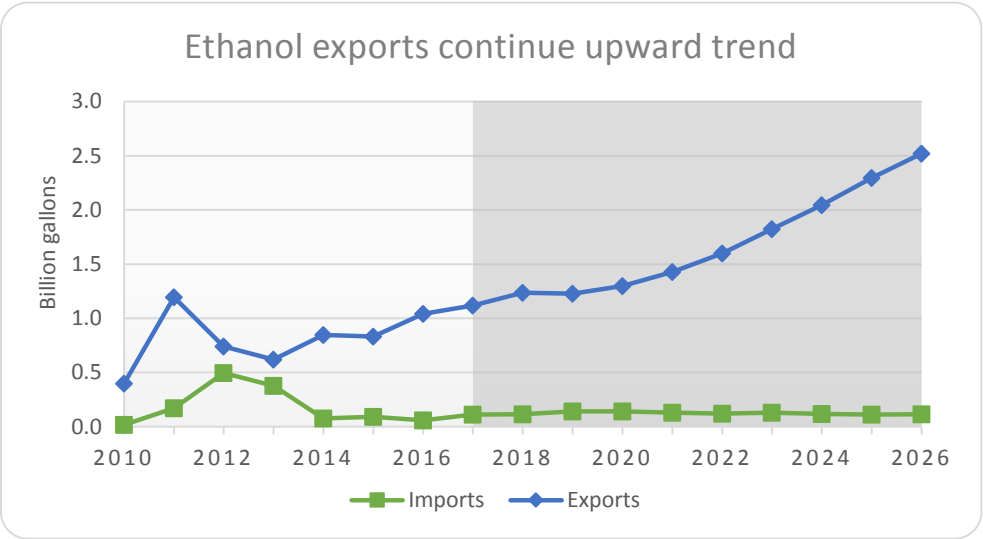


Rising net returns lead to continued growth in ethanol production. Conventional ethanol production is projected to reach nearly 17 billion gallons by 2026, with non-corn sources adding an additional 0.4 billion gallons. Domestic ethanol disappearance sees some growth initially before leveling off around 15 billion gallons.

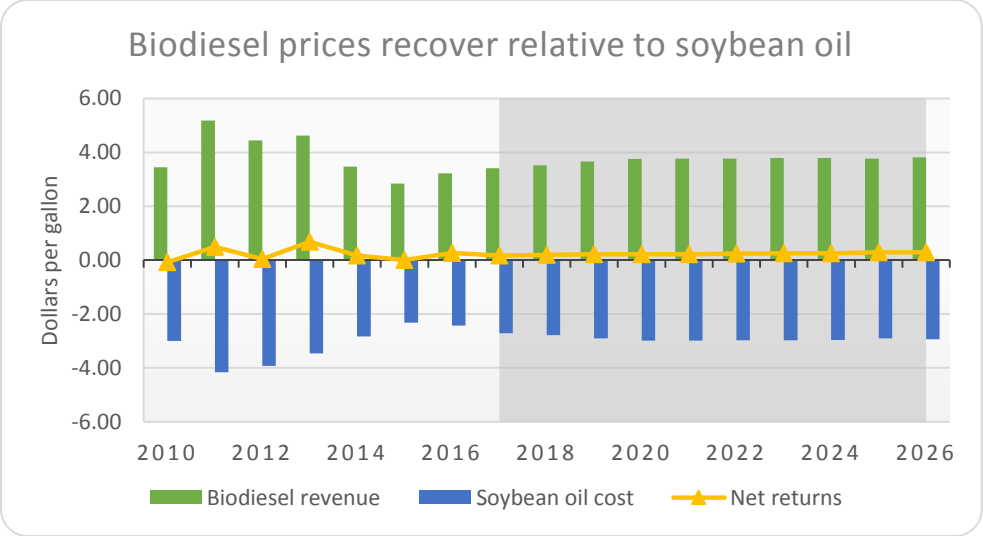


In order to meet rising RFS requirements, there is a substitution toward higher level ethanol blends (e.g. E15 and E85) at the expense of E10. As a result, the average inclusion rate of ethanol increases beyond the 10 percent level as early as 2018 and remains higher through the projection period.



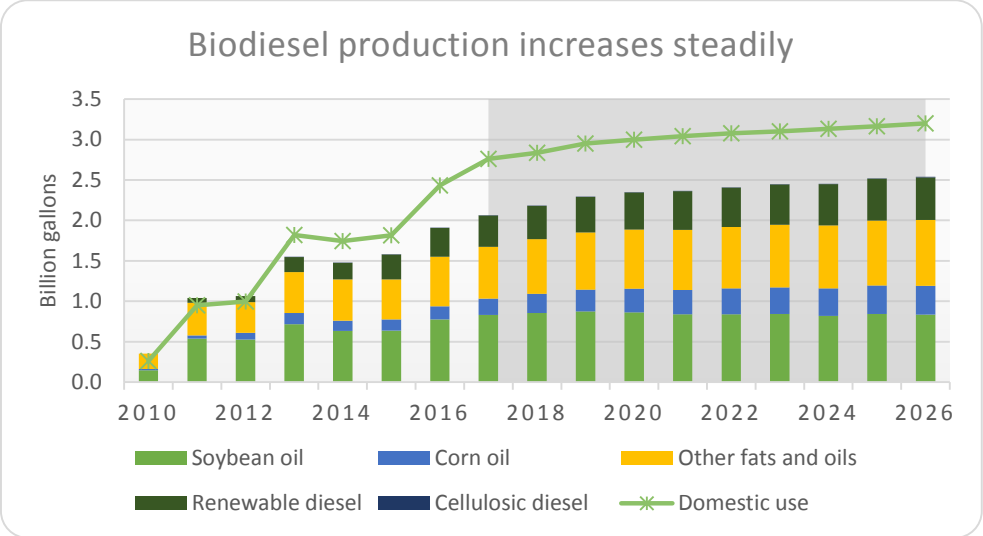


The increasing gap between ethanol supply and domestic disappearance implies additional growth in ethanol exports. Export demand is also supported by rising crude oil prices. Ethanol imports remain low as the RFS requirements for advanced biofuels are expected to be met with additional biomass-based diesel.



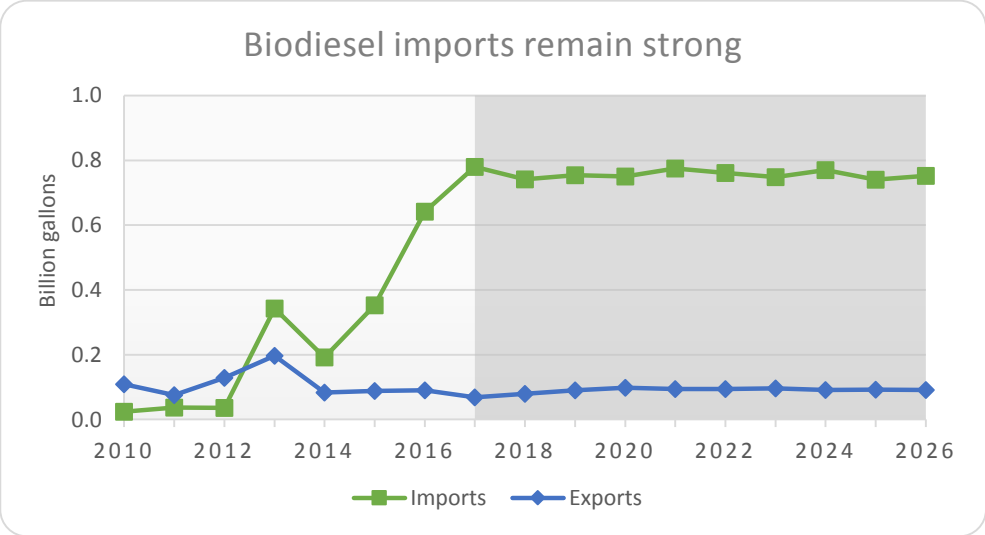
Biomass-based diesel

The expired blenders tax credit for biodiesel and rising soybean oil prices more than offset a slight rise in biodiesel prices in the first year of the projection, which leads to a slight dip in 2017 net returns. Net returns recover in later years, eventually reaching $0.29 per gallon by 2026.



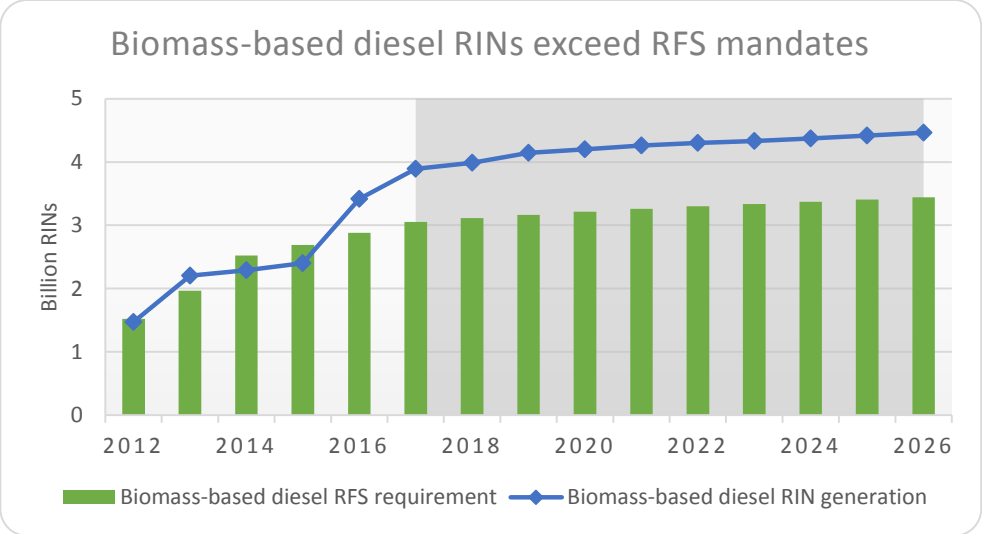
As biodiesel prices recover, biodiesel production increases, in total, to over 2.5 billion gallons. Biodiesel production from soybean oil remains fairly level, with modest growth in biodiesel from corn oil, other fats and oils, and renewable diesel.

Biomass-based diesel imports rose sharply in 2016, and we project a small increase in 2017 before imports level out just below 0.8 billion gallons per year. Biodiesel exports have remained fairly flat the last few years and are expected to remain flat for the projection period. The status of the biodiesel blenders credit remains a key uncertainty and could change the trade situation dramatically.

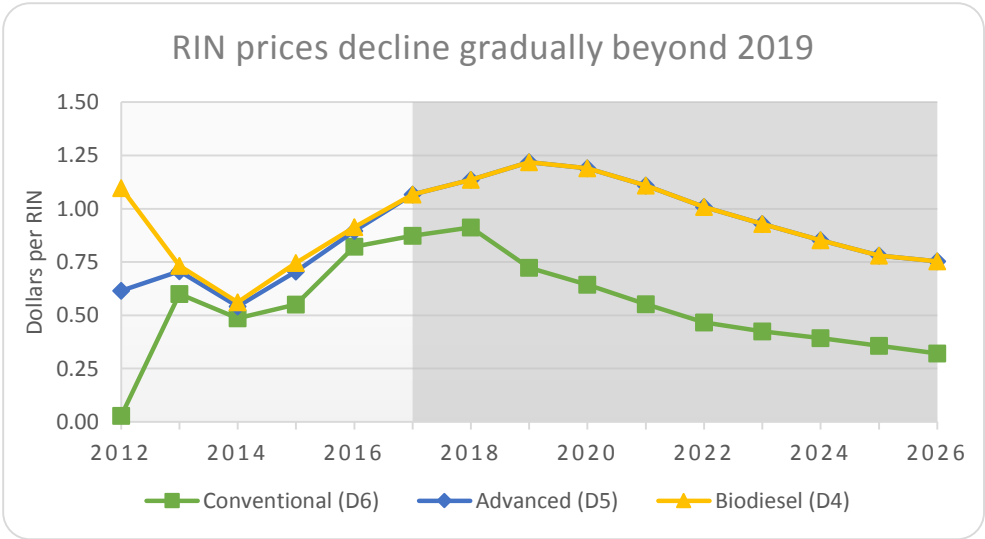


Renewable Fuel Standard

In 2016, biomass-based diesel (D4) RIN generation exceeded its RFS requirement for by a sizable margin. We project this gap to increase slightly in 2017 and grow slightly each year after, eventually reaching nearly 1 billion RINs. These excess RINs are projected to be applied toward the broader RFS requirements.



In recent years, D4 and D5 RIN prices have been within a few cents of each other. Going forward, we project those prices to remain equivalent as the excess D4 RINs are used to meet the D5 requirements. As markets adjust to rising RFS requirements, the RIN prices decline.



Ethanol supply and use

Calendar year	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Petroleum fuel prices					(Dollars per barrel)						
Petroleum, W. Texas Interm.	43.17	53.20	55.64	62.30	69.33	76.59	83.81	90.52	96.66	102.24	106.74
Petroleum, refiners' acquis.	40.05	47.89	50.64	57.35	64.66	72.02	79.16	85.83	91.80	97.29	102.00
					(Dollars per gallon)						
Unl. gasoline, FOB Omaha	1.56	1.78	1.85	2.02	2.23	2.43	2.64	2.83	2.98	3.13	3.25
Unleaded gasoline, retail	2.14	2.36	2.39	2.55	2.75	2.95	3.16	3.34	3.50	3.64	3.77
					(Million gallons)						
Motor gasoline use*	143,664	144,261	144,451	144,481	144,283	143,695	142,779	141,670	140,535	139,470	138,543
Ethanol supply and use											
Production	15,255	15,550	15,896	15,862	15,920	16,042	16,230	16,474	16,734	17,042	17,333
From corn	14,927	15,203	15,542	15,517	15,579	15,702	15,884	16,118	16,366	16,662	16,943
Other conventional	325	337	332	322	316	312	315	323	333	341	349
Cellulosic	3	11	21	23	26	28	30	33	36	38	42
Imports	57	111	116	141	140	128	120	128	117	112	115
Domestic disappearance	14,306	14,572	14,799	14,797	14,781	14,760	14,766	14,791	14,814	14,861	14,929
Exports	1,041	1,119	1,237	1,228	1,298	1,427	1,598	1,822	2,045	2,297	2,521
Ending stocks	865	836	812	790	771	754	741	730	723	718	716
Ethanol prices					(Dollars per gallon)						
Conventional rack, Omaha	1.55	1.68	1.76	1.79	1.81	1.81	1.85	1.90	1.94	1.97	1.99
Other advanced rack	1.63	1.88	1.98	2.28	2.35	2.37	2.40	2.40	2.40	2.39	2.42
Effective retail	1.31	1.40	1.39	1.60	1.69	1.78	1.90	1.99	2.06	2.13	2.18
Ethanol/gasoline retail	61%	59%	58%	63%	61%	60%	60%	60%	59%	59%	58%
RIN values											
Conventional ethanol	0.82	0.87	0.91	0.72	0.64	0.55	0.47	0.42	0.39	0.36	0.32
Advanced ethanol	0.90	1.07	1.14	1.22	1.19	1.11	1.01	0.93	0.85	0.78	0.75

* Includes fuel ethanol

All projections are averages across 500 stochastic outcomes.

Renewable Fuel Standard

Calendar year	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Applicable percent standard											
Overall	10.10%	10.70%	10.80%	10.90%	11.00%	11.10%	11.20%	11.30%	11.40%	11.50%	11.60%
Advanced biofuels	2.01%	2.38%	2.43%	2.48%	2.53%	2.58%	2.63%	2.68%	2.73%	2.78%	2.83%
Cellulosic biofuel	0.13%	0.17%	0.22%	0.27%	0.32%	0.37%	0.42%	0.47%	0.52%	0.57%	0.62%
Biomass-based diesel	1.59%	1.67%	1.70%	1.72%	1.75%	1.77%	1.80%	1.82%	1.85%	1.87%	1.90%
Required volume					(Million gallons)						
Overall	18,292	19,347	19,456	19,561	19,660	19,749	19,830	19,905	19,981	20,058	20,138
Advanced biofuels	3,640	4,347	4,456	4,561	4,660	4,749	4,830	4,905	4,981	5,058	5,138
Cellulosic biofuel	162	171	183	187	191	195	199	203	207	212	217
Biomass-based diesel	2,882	3,053	3,111	3,166	3,217	3,261	3,299	3,334	3,369	3,405	3,444
Gaps: Conventional	14,651	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000
Advanced	596	1,123	1,162	1,208	1,252	1,294	1,332	1,368	1,405	1,441	1,478

Biomass-based diesel sector

Calendar year	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Biomass-based diesel supply					(Million gallons)						
Production	1,906	2,062	2,181	2,290	2,347	2,363	2,410	2,450	2,453	2,519	2,538
From soybean oil	775	831	856	875	861	837	840	841	820	843	833
From corn oil	164	202	236	267	293	304	318	331	337	351	357
From other fats and oils	612	640	675	708	731	743	760	774	782	801	813
From cellulosic diesel	1	1	1	2	2	3	3	4	4	5	5
Renewable diesel	354	388	414	438	460	476	488	500	510	519	529
Net imports	551	712	662	664	653	681	667	652	679	648	660
Biomass-based diesel use											
Domestic disappearance	2,431	2,760	2,835	2,950	2,997	3,042	3,076	3,101	3,132	3,166	3,198
Ending stocks	186	200	208	213	216	217	218	219	219	220	221
Fuel prices and tax credit					(Dollars per gallon)						
Biodiesel, rack	3.22	3.41	3.52	3.66	3.75	3.77	3.77	3.80	3.79	3.77	3.81
#2 Diesel, refiner sales	1.37	1.70	1.78	1.95	2.15	2.36	2.57	2.76	2.91	3.06	3.18
#2 Diesel, retail	2.31	2.72	2.81	2.99	3.20	3.40	3.61	3.79	3.94	4.09	4.21
Biodiesel tax credit	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RIN values											
Per RIN gallon	0.91	1.07	1.14	1.22	1.19	1.11	1.01	0.93	0.85	0.78	0.75
Per physical gallon	1.37	1.60	1.70	1.83	1.78	1.66	1.51	1.39	1.28	1.17	1.13

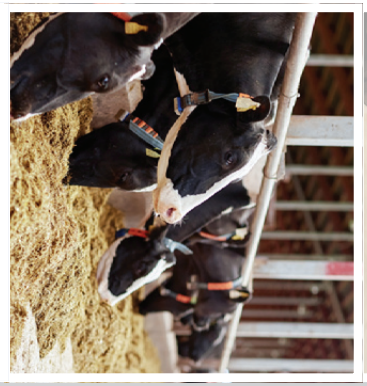
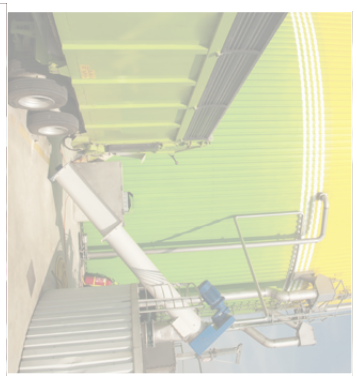
All projections are averages across 500 stochastic outcomes.

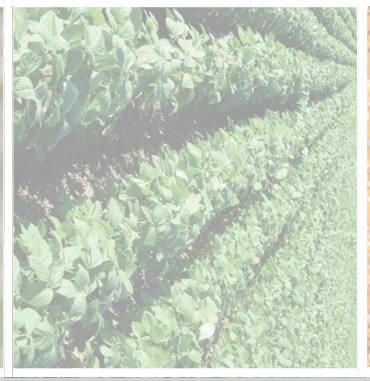
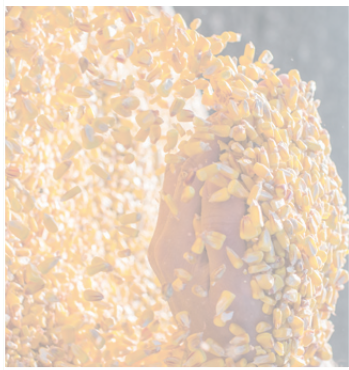
Biofuel plant returns

Calendar year	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Biodiesel costs and returns					(Dollars per gallon)						
Biodiesel value	3.22	3.41	3.52	3.66	3.75	3.77	3.77	3.80	3.79	3.77	3.81
Glycerin value	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Soyoil cost	-2.43	-2.71	-2.79	-2.91	-2.98	-2.99	-2.97	-2.98	-2.97	-2.91	-2.94
Other operating costs	-0.58	-0.59	-0.59	-0.60	-0.61	-0.61	-0.62	-0.63	-0.63	-0.64	-0.65
Net operating return	0.27	0.17	0.19	0.22	0.22	0.22	0.24	0.25	0.25	0.28	0.29
Corn milling for ethanol					(Million bushels)						
Corn wet milled for ethanol	552	597	594	588	587	585	586	590	593	595	597
Corn dry milled for ethanol	4,684	4,877	4,993	4,980	4,994	5,031	5,085	5,156	5,232	5,326	5,414
(Share de-oiling DDGS)	86%	88%	89%	91%	92%	94%	96%	97%	98%	98%	98%
Dry mill ethanol costs, returns					(Dollars per gallon)						
Ethanol value	1.55	1.68	1.76	1.79	1.81	1.81	1.85	1.90	1.94	1.97	1.99
Distillers grains value	0.39	0.37	0.39	0.40	0.39	0.39	0.39	0.39	0.39	0.39	0.39
Corn oil value*	0.11	0.11	0.12	0.13	0.13	0.13	0.12	0.12	0.11	0.11	0.11
Corn cost	-1.26	-1.23	-1.30	-1.34	-1.33	-1.31	-1.31	-1.31	-1.30	-1.30	-1.29
Fuel and electricity cost	-0.10	-0.15	-0.13	-0.13	-0.14	-0.14	-0.16	-0.18	-0.19	-0.19	-0.20
Other operating costs	-0.38	-0.38	-0.39	-0.39	-0.39	-0.40	-0.40	-0.41	-0.41	-0.42	-0.42
Net operating return	0.32	0.41	0.46	0.46	0.47	0.48	0.50	0.52	0.54	0.56	0.58

* Weighted by share of dry mills de-oiling DDGs

All projections are averages across 500 stochastic outcomes.

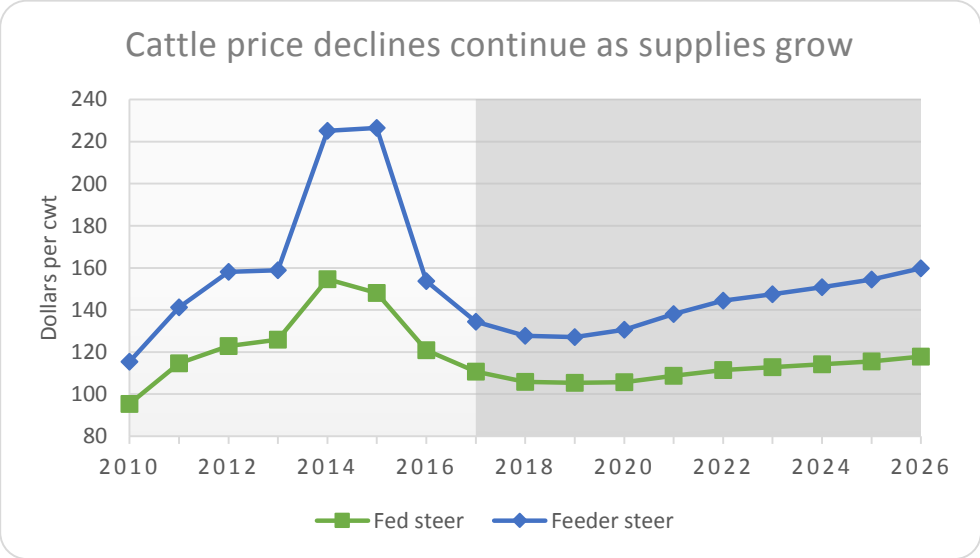




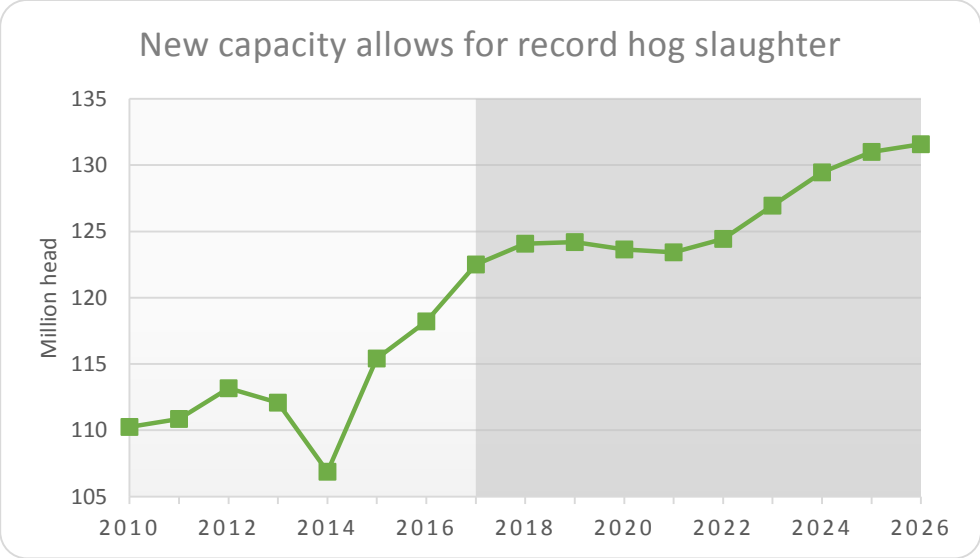
Livestock & dairy

Cattle and hogs

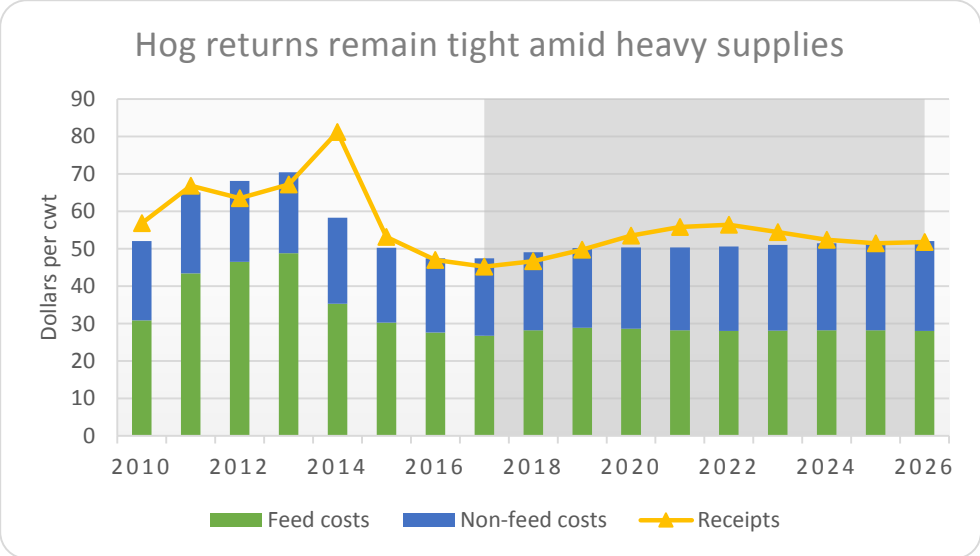
Cattle prices continue to be pressured by higher inventory levels and larger meat supplies. The beef cow herd has grown nearly six percent over the past three years, with further expansion likely in 2017. Even though prices have retreated sharply from the levels of 2014-15 which helped to fuel the expansion, it will take time for cattle and beef supplies to adjust to weaker returns and to curtail output.

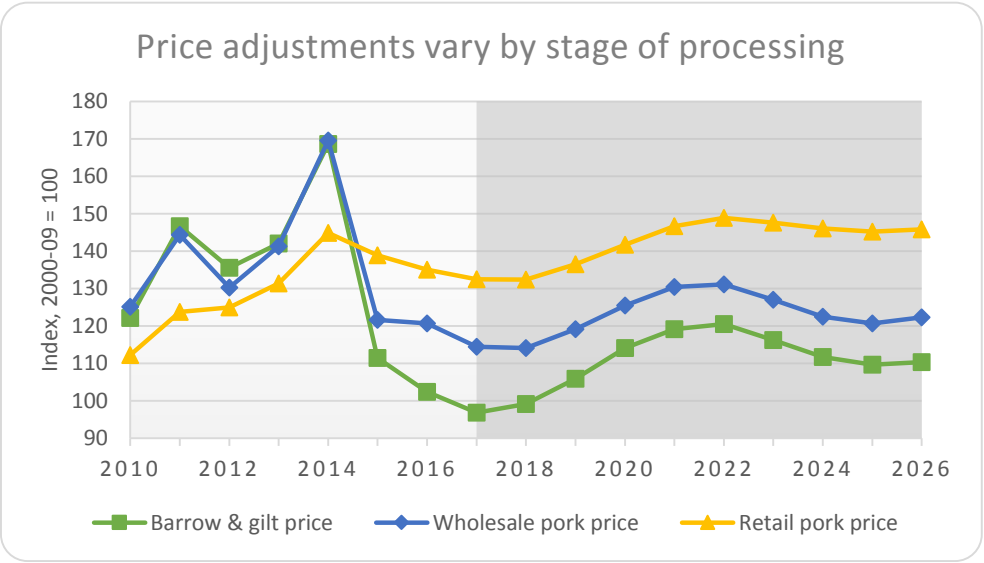


Hog slaughter capacity is increasing in response to record high pork packer margins in recent years. The fourth quarter of 2016 included several weeks when slaughter facilities were operating at or near their maximum capability. This led to reduced bid prices for hogs, and allowed the wholesale to farm price spread to achieve record highs. As new slaughter facilities begin operation later this year and in 2018, competition for available hogs will increase, and wholesale to farm spreads will tighten.



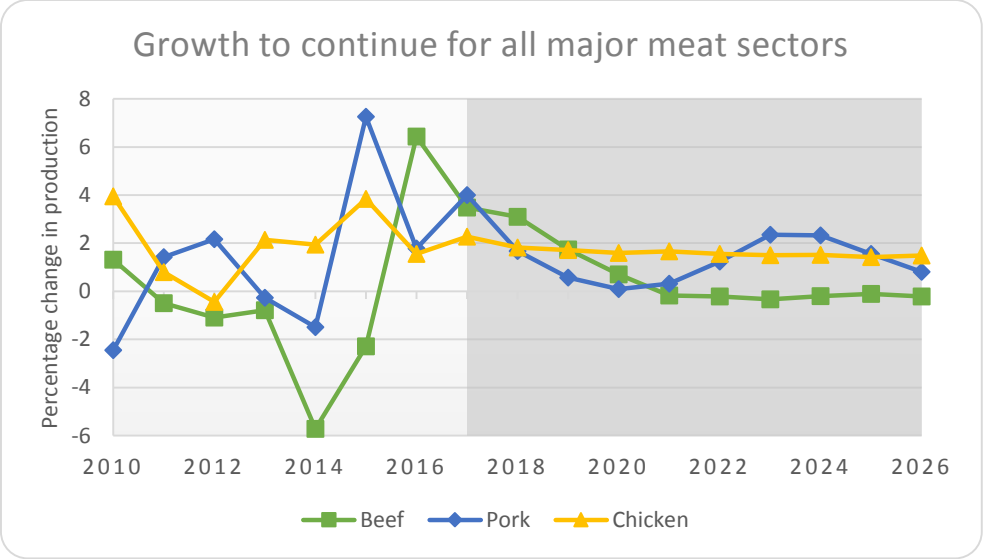
With reduced feed costs for the third consecutive year in 2016, farrow-finish producer returns were near breakeven levels. As sow inventories continue to grow, hog prices are not expected to post much recovery in the next two years. This will keep financial pressure on hog producers. Other livestock producers will also struggle to maintain profitability.



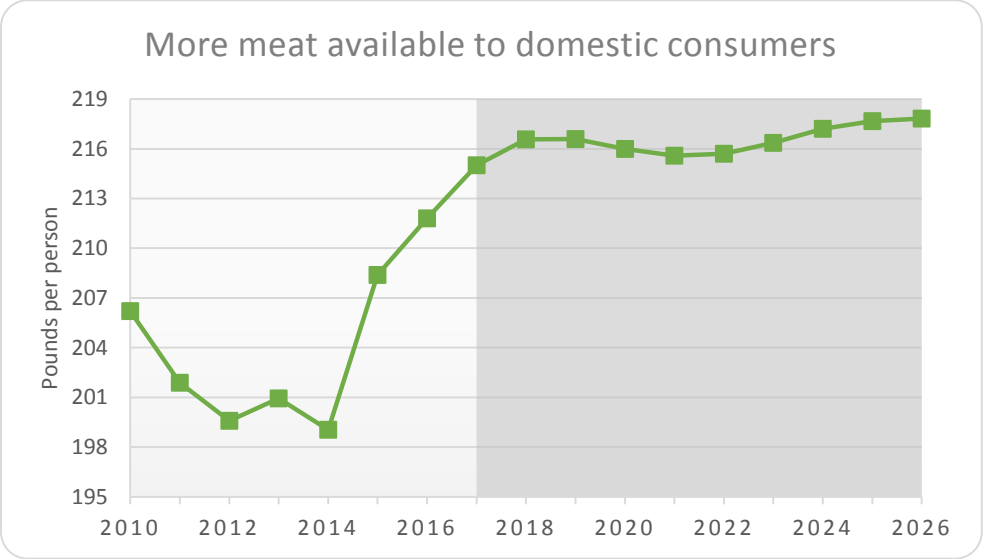


Meat

Retail meat prices have been declining, though not as rapidly as wholesale and farm meat and animal prices. Retail prices tend to exhibit less volatility than other segments of the marketing chain. When meat supplies are large, producers typically receive a lower percentage of consumer dollars spent for meat. However, new pork processing facilities should allow hog farmers to increase their share of industry returns in late 2017 and 2018.



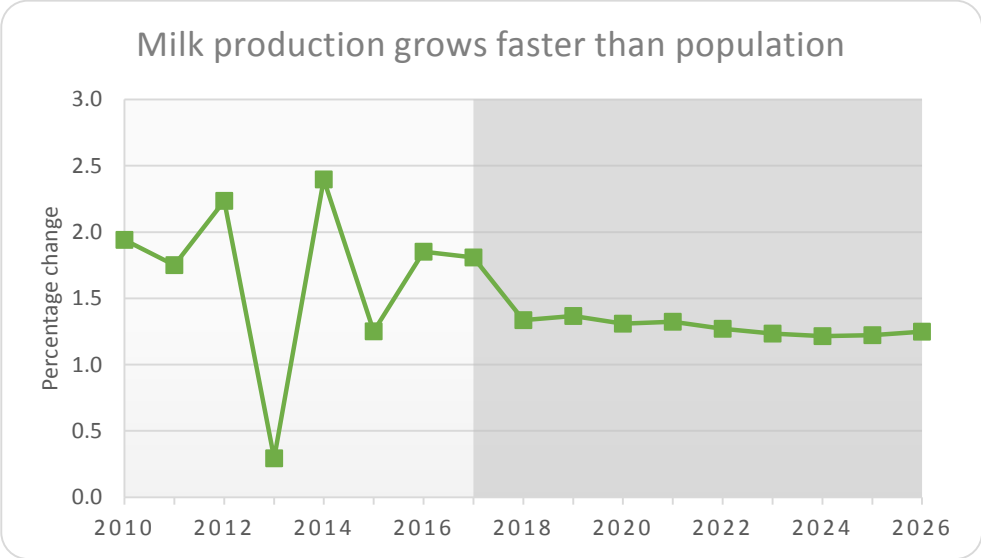
After remaining fairly steady from 2008-2014, total U.S. meat production began increasing sharply in 2015. Reductions in feed costs and good demand strength in domestic and international markets have factored into recent growth. With relatively stable feed costs projected for the next couple of years, supplies of all meat products will continue to increase faster than the rate of U.S. population growth through 2018.



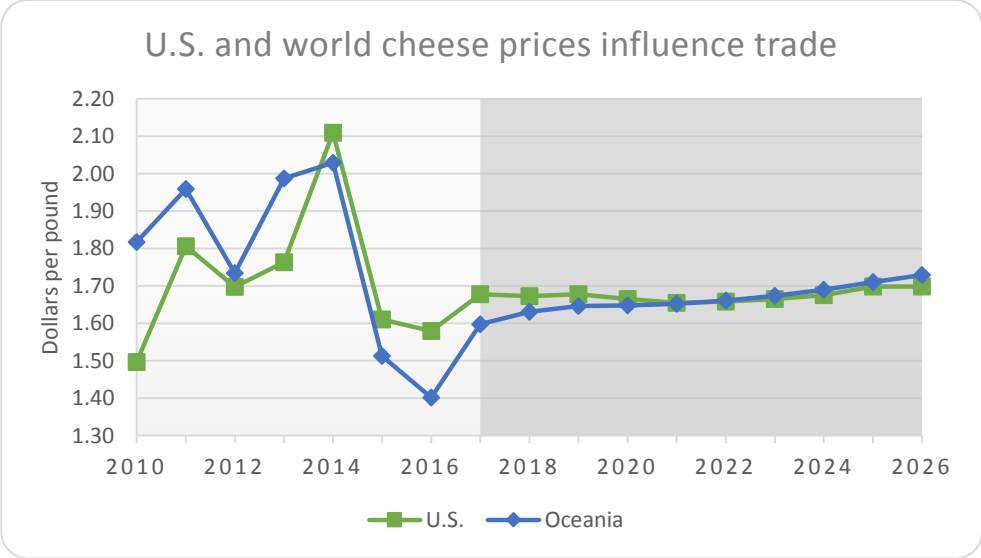
As increases in meat production outpace increases in meat exports, the domestic market will have more meat available. This will limit the volatility in projected prices relative to the volatility exhibited between 2013 and 2016. If demand strength deteriorates or feed prices rise unexpectedly, the financial situation for livestock producers could become very difficult in a short amount of time.

Dairy

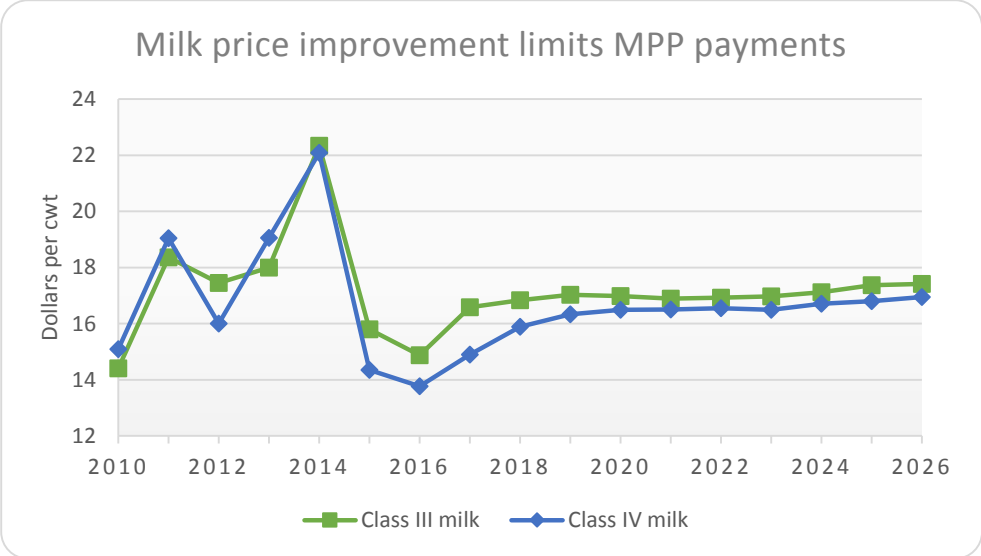
Milk production grew nearly two percent in 2016, even as milk prices declined for the second consecutive year. Most states reduced dairy cow inventory during the past twelve months, though gains in Texas, New Mexico, Idaho and Michigan more than offset other declines. Even as projected supply growth slows in 2018, growth will still outpace increases in U.S. population, underscoring the need for domestic and international demand for dairy products to remain strong.



U.S. cheese and butter prices posted a strong premium to international dairy product prices for much of the past two years. This has limited net exports of products, but has shielded U.S. dairy producers from the steep declines in the international market. International prices have rebounded in recent months, and the gap between U.S. and world cheese prices has narrowed. With heavy supplies, trade is an important factor in milk price projections.



The Margin Protection Program (MPP-Dairy) has seen less participation than many assumed would occur. The program did make payments to producers signed up for higher levels of coverage in 2016, as the all milk price fell below $15 per hundredweight last spring. With feed prices also factoring into the margin calculation, few if any payments are projected to be made as milk prices rise. However, the program does provide downside risk protection as an insurance product.



Cattle and hogs

Calendar year	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
CATTLE					(Million head)						
Beef cows (Jan. 1)	30.3	30.8	31.0	31.1	31.0	30.8	30.6	30.4	30.2	30.1	29.8
Dairy cows (Jan. 1)	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.4	9.4	9.4	9.4
Cattle and calves (Jan. 1)	92.0	93.4	94.2	94.4	94.1	93.7	93.3	92.9	92.6	92.3	92.0
Cattle on feed (Jan. 1)	13.2	12.9	13.5	13.8	13.9	13.8	13.9	13.8	13.8	13.8	13.8
Calf crop	35.1	35.4	35.6	35.6	35.5	35.3	35.1	34.9	34.7	34.6	34.4
Cattle slaughter	31.2	32.1	32.9	33.4	33.5	33.3	33.2	33.0	32.8	32.7	32.5
Cattle imports	1.7	1.7	1.7	1.8	1.9	2.0	2.0	2.0	2.0	2.0	2.0
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	120.86	110.66	105.86	105.38	105.64	108.71	111.43	112.82	114.13	115.51	117.87
600 - 650 #, Oklahoma City											
Feeder steers	153.72	134.37	127.66	127.06	130.67	138.03	144.50	147.50	150.76	154.41	159.74
Utility cows, Sioux Falls	71.45	63.83	62.35	62.15	62.69	65.32	67.67	68.84	69.91	71.09	73.02
Cow-calf returns					(Dollars per cow)						
Receipts	708.22	680.83	658.18	661.93	685.25	722.81	753.37	771.29	790.28	812.69	842.24
Feed expenses	386.91	386.14	388.65	388.15	383.45	380.04	377.99	378.82	380.83	383.23	385.41
Non-feed expenses	282.07	281.27	285.37	293.74	302.61	312.55	322.42	330.59	338.82	347.31	356.92
Net returns	39.25	13.43	-15.83	-19.96	-0.80	30.22	52.96	61.89	70.63	82.15	99.91
HOGS					(Million head)						
Hogs for breeding (Dec. 1*)	6.00	6.09	6.08	5.98	5.84	5.74	5.71	5.76	5.80	5.79	5.73
Market hogs (Dec. 1*)	62.9	65.4	66.4	66.6	66.3	66.0	66.0	66.8	67.9	68.7	69.1
Sows farrowed	11.96	12.09	12.03	11.83	11.61	11.48	11.49	11.60	11.66	11.62	11.51
Pig crop	125.6	128.6	129.6	129.2	128.6	128.8	130.7	133.7	136.1	137.4	137.8
Barrow and gilt slaughter	115.0	119.2	120.9	121.1	120.6	120.5	121.5	124.0	126.4	128.0	128.6
Hog imports	5.7	5.8	5.9	5.9	6.0	6.0	6.0	6.0	6.0	6.0	6.0
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	46.16	43.64	44.69	47.75	51.43	53.72	54.34	52.40	50.36	49.43	49.76
Farrow-finish returns											
Receipts	47.01	45.20	46.67	49.77	53.51	55.83	56.45	54.48	52.42	51.47	51.81
Feed expenses	27.59	26.79	28.19	28.91	28.68	28.23	28.06	28.11	28.18	28.19	28.06
Non-feed expenses	19.88	20.66	20.87	21.27	21.69	22.09	22.52	22.94	23.31	23.67	24.00
Net returns	-0.47	-2.24	-2.39	-0.40	3.15	5.51	5.87	3.44	0.93	-0.40	-0.25

* Preceding year

All projections are averages across 500 stochastic outcomes.

Meat sector

Calendar year	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Beef					(Million pounds)						
Production	25,289	26,170	26,980	27,449	27,641	27,591	27,532	27,438	27,382	27,352	27,293
Imports	3,006	2,779	2,699	2,644	2,672	2,721	2,755	2,809	2,857	2,898	2,940
Domestic use	25,769	26,347	26,907	27,171	27,293	27,260	27,232	27,206	27,204	27,216	27,204
Exports	2,519	2,628	2,756	2,906	3,010	3,048	3,050	3,035	3,029	3,028	3,025
Ending stocks	690	665	680	697	708	712	716	721	727	732	736
Pork											
Production	24,952	25,951	26,386	26,535	26,561	26,645	26,974	27,606	28,246	28,686	28,919
Imports	1,096	1,091	1,080	1,053	1,034	1,036	1,034	1,036	1,041	1,047	1,057
Domestic use	20,848	21,589	21,900	21,891	21,712	21,653	21,819	22,264	22,744	23,067	23,215
Exports	5,229	5,365	5,548	5,694	5,885	6,026	6,176	6,352	6,516	6,647	6,752
Ending stocks	560	649	667	670	669	671	683	709	736	754	763
Broiler											
Production	40,240	41,162	41,915	42,636	43,318	44,042	44,728	45,400	46,087	46,743	47,437
Domestic use	33,797	34,388	34,806	35,214	35,673	36,201	36,731	37,234	37,752	38,259	38,799
Exports	6,626	6,928	7,247	7,560	7,784	7,980	8,139	8,310	8,481	8,634	8,788
Ending stocks	780	766	770	776	783	792	801	809	818	825	833
Turkey											
Production	5,985	6,156	6,253	6,301	6,346	6,401	6,449	6,485	6,520	6,552	6,589
Domestic use	5,423	5,544	5,630	5,676	5,703	5,742	5,775	5,797	5,818	5,835	5,856
Exports	570	630	651	663	682	698	714	730	746	762	778
Ending stocks	245	268	280	283	286	289	291	292	293	292	292
Wholesale prices					(Dollars per hundredweight)						
Boxed beef cutout	206.62	187.46	179.64	178.80	180.62	185.06	189.10	191.27	193.61	196.12	199.86
Pork cutout	78.33	74.28	74.10	77.35	81.47	84.65	85.11	82.45	79.50	78.33	79.41
National wholesale broiler	84.30	83.48	85.60	87.81	89.02	89.55	89.98	90.34	90.80	91.28	91.76
Natl. wholesale turkey hens	117.10	107.39	103.51	103.58	103.56	103.59	103.57	103.91	104.56	105.38	106.10
Retail prices					(Dollars per pound)						
Beef	5.96	5.60	5.44	5.42	5.47	5.62	5.81	5.97	6.10	6.24	6.40
Pork	3.75	3.67	3.67	3.79	3.93	4.07	4.13	4.10	4.05	4.03	4.05
Broiler	1.90	1.90	1.93	1.97	2.00	2.03	2.06	2.09	2.11	2.14	2.17
Turkey	1.55	1.54	1.53	1.55	1.57	1.59	1.61	1.64	1.67	1.70	1.73
Per capita consumption					(Pounds, retail)						
Beef	55.6	56.4	57.2	57.3	57.1	56.6	56.1	55.6	55.2	54.8	54.4
Pork	49.9	51.3	51.6	51.1	50.3	49.8	49.8	50.4	51.2	51.5	51.5
Broiler	89.5	90.4	90.7	91.1	91.5	92.2	92.8	93.4	94.0	94.6	95.2
Turkey	16.7	17.0	17.1	17.1	17.0	17.0	17.0	16.9	16.9	16.8	16.7
Total	211.8	215.0	216.6	216.6	216.0	215.6	215.7	216.4	217.2	217.7	217.8

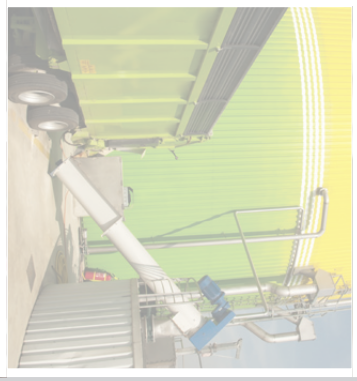
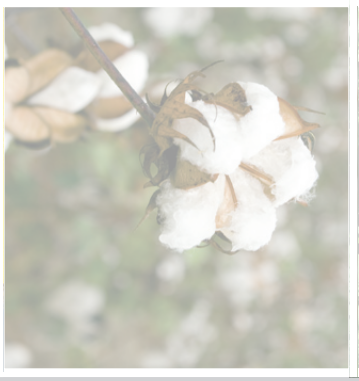
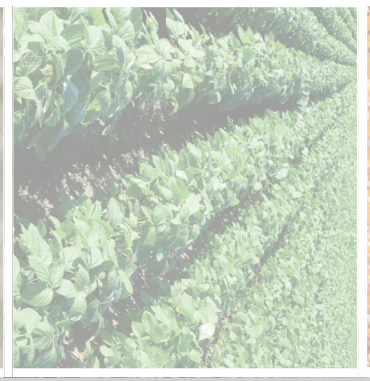
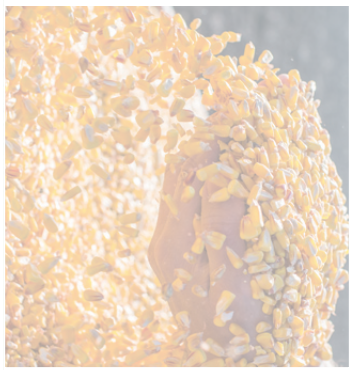
All projections are averages across 500 stochastic outcomes.

Dairy sector

Calendar year	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Milk supply											
Dairy cows (thou. head)	9,329	9,336	9,317	9,316	9,328	9,339	9,349	9,357	9,363	9,370	9,380
California	1,769	1,764	1,754	1,748	1,745	1,743	1,741	1,741	1,740	1,740	1,741
Wisconsin	1,278	1,277	1,272	1,270	1,270	1,270	1,270	1,269	1,268	1,267	1,266
New York	620	620	617	615	614	614	613	612	610	609	608
Idaho	595	605	612	620	628	636	642	649	654	659	665
Pennsylvania	529	526	521	518	516	513	511	509	507	505	504
Minnesota	461	461	459	458	457	455	454	452	451	449	447
Texas	474	481	485	490	495	499	504	507	511	515	519
Michigan	419	427	433	440	447	453	459	465	471	476	482
New Mexico	315	310	307	304	302	299	297	296	294	293	292
Ohio	265	263	261	260	259	258	257	255	254	252	251
Rest of U.S.	2,605	2,602	2,595	2,594	2,597	2,598	2,600	2,601	2,602	2,604	2,607
Milk yield (lbs. per cow)	22,777	23,172	23,531	23,854	24,135	24,426	24,710	24,993	25,280	25,571	25,862
Milk production (bil. lbs.)	212.5	216.3	219.2	222.2	225.1	228.1	231.0	233.9	236.7	239.6	242.6
Min. FMMO class prices					(Dollars per hundredweight)						
Class I mover	14.80	16.88	17.54	17.99	18.03	18.06	18.11	18.17	18.36	18.69	18.72
Class II	14.35	15.60	16.58	17.03	17.19	17.20	17.24	17.19	17.41	17.50	17.65
Class III	14.87	16.58	16.83	17.03	16.98	16.88	16.92	16.97	17.12	17.37	17.42
Class IV	13.77	14.90	15.88	16.33	16.49	16.50	16.54	16.49	16.71	16.80	16.95
All milk price	16.20	17.76	18.31	18.63	18.66	18.63	18.67	18.69	18.87	19.09	19.16
Actual dairy prod. margin	8.18	9.89	10.02	9.98	10.00	10.09	10.19	10.21	10.39	10.59	10.68
Wholesale prices					(Dollars per pound)						
Butter, CME	2.08	2.06	1.95	1.90	1.86	1.89	1.89	1.88	1.90	1.90	1.90
Cheese, Amer., 40#, CME	1.58	1.68	1.67	1.68	1.67	1.66	1.66	1.67	1.68	1.70	1.70
Nonfat dry milk, AA	0.85	0.98	1.15	1.23	1.27	1.25	1.26	1.26	1.27	1.28	1.30
Dairy product production					(Million pounds)						
American cheese	4,729	4,803	4,856	4,917	4,984	5,055	5,124	5,186	5,250	5,311	5,377
Other cheese	7,366	7,560	7,688	7,806	7,925	8,052	8,178	8,296	8,417	8,537	8,660
Butter	1,907	1,942	1,974	2,014	2,046	2,084	2,113	2,148	2,183	2,220	2,257
Nonfat dry milk	2,303	2,395	2,481	2,546	2,591	2,640	2,695	2,744	2,797	2,863	2,929
Dairy product exports											
American cheese	114	137	154	164	174	179	183	185	186	186	187
Other cheese	513	543	544	550	563	573	581	589	596	603	610
Butter	31	49	45	49	59	63	68	73	76	79	82
Nonfat dry milk	1,257	1,307	1,370	1,425	1,454	1,483	1,520	1,552	1,589	1,623	1,660
Per capita consumption					(Pounds)						
Butter	5.8	6.0	6.0	6.0	6.1	6.1	6.1	6.2	6.2	6.3	6.3
Nonfat dry milk	3.2	3.3	3.4	3.4	3.4	3.4	3.4	3.5	3.5	3.6	3.6
Total cheese	36.3	36.8	36.9	37.1	37.3	37.6	37.8	38.0	38.3	38.5	38.8
American	14.2	14.4	14.4	14.4	14.4	14.5	14.6	14.7	14.7	14.8	14.9
Other	22.1	22.4	22.6	22.7	22.9	23.0	23.2	23.4	23.5	23.7	23.9
Total fluid milk	173.1	170.6	169.0	167.7	166.4	165.0	163.6	162.3	160.9	159.5	158.2

All projections are averages across 500 stochastic outcomes.

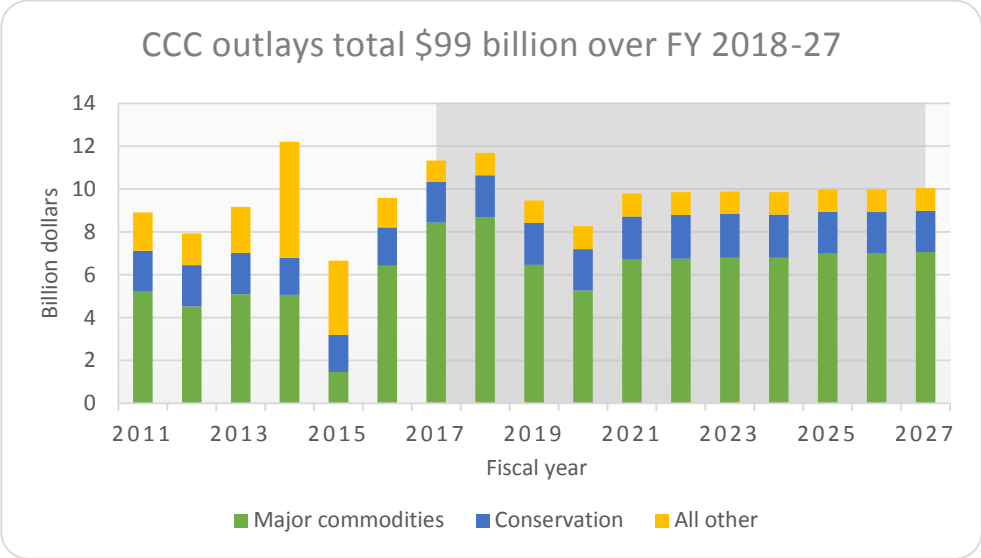


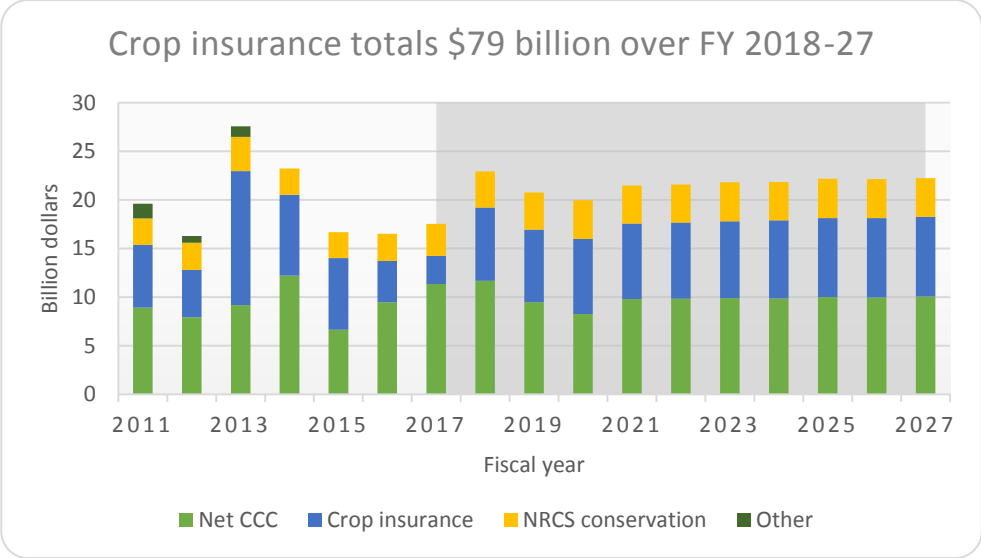
Aggregate indicators

Government costs

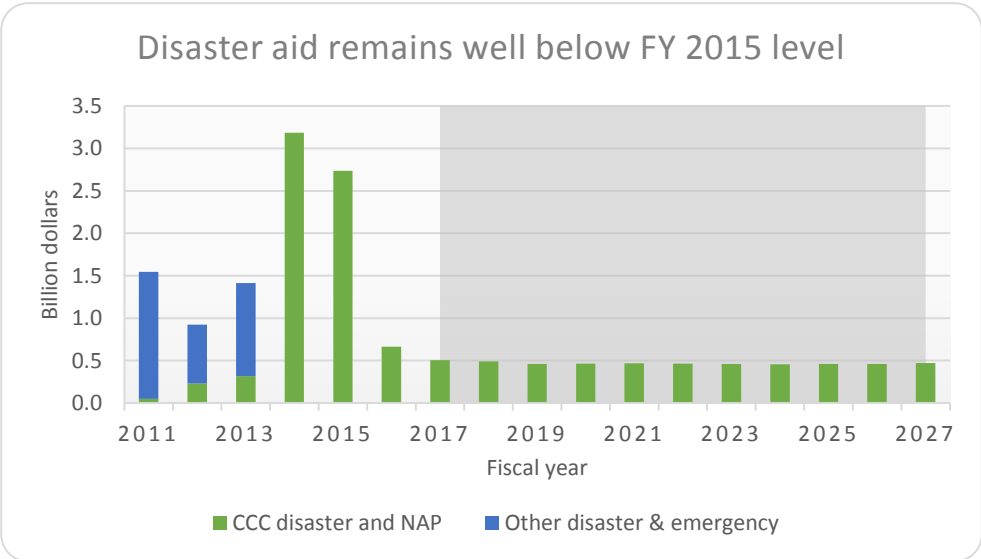
Net CCC outlays are expected to increase in fiscal year (FY) 2017, when the large ARC and PLC payments associated with the 2015/16 marketing year are made. Projected outlays decline in FY 2019 and 2020, with lower ARC payments, but then rebound in FY 2021 given the assumption that farmers will be able to shift their ARC-PLC election under a new farm bill. Between FY 2018 and FY 2027, spending on major commodity programs totals $69 billion and net CCC outlays total $99 billion.

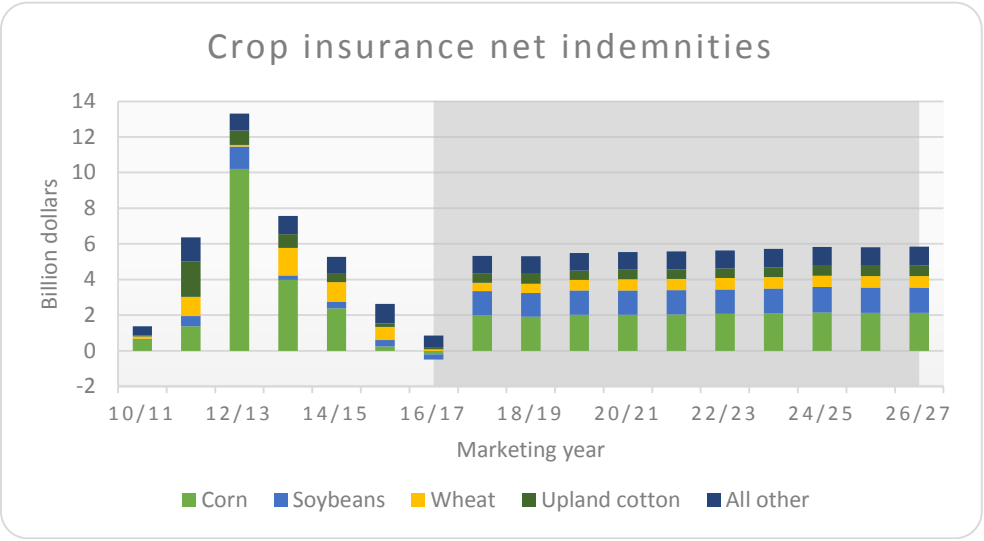


Mandatory government outlays under the crop insurance program and certain conservation and disaster programs are not included in the CCC account. Crop insurance net outlays total $79 billion between FY 2018 and FY 2027. Total mandatory outlays for these accounts total $217 billion over that same ten-year period.



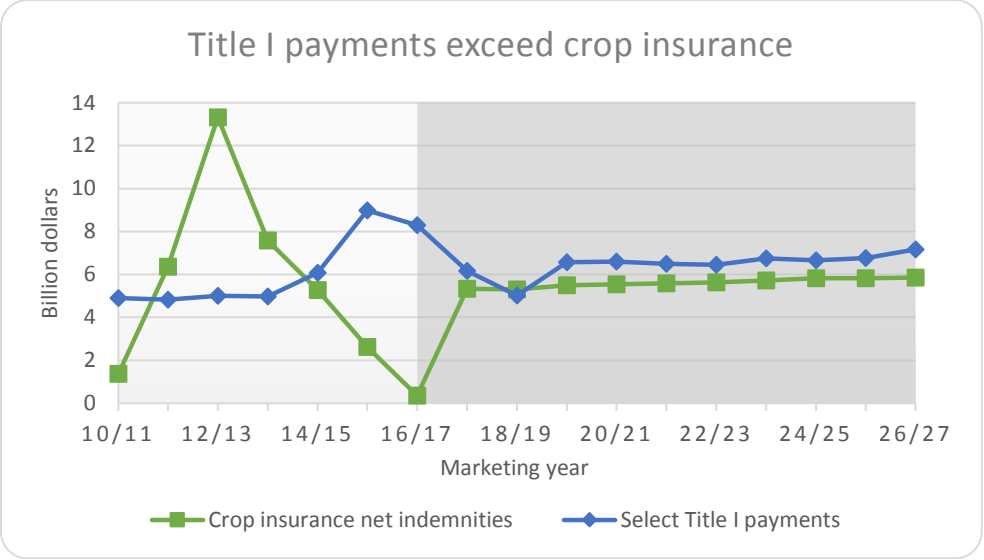
Livestock forage assistance accounted for a large spike in disaster aid in FY 2014 and FY 2015. CBO projects that livestock aid and the non-insured assistance program (NAP) will average less than $500 million per year from FY 2018 to FY 2027. Other disaster aid from FY 2008-FY 2013 was provided from non-CCC accounts.



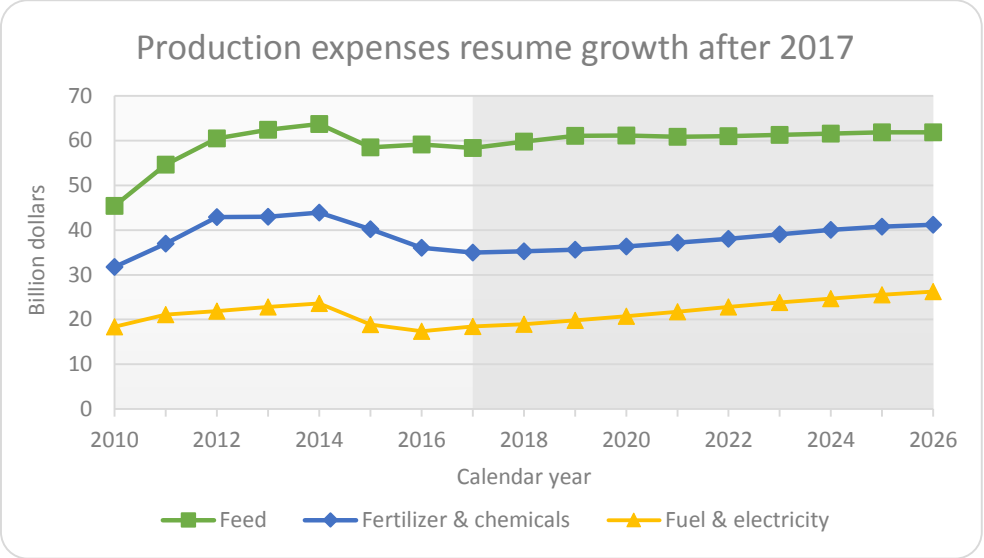


Crop insurance

Crop insurance net indemnities are indemnities minus producer paid premiums. In 2012/13 net indemnities topped $13 billion with over $10 billion from corn alone. This was the result of a drought. Better growing conditions have led to decreased net indemnities with corn and soybeans even having negative expectations in 2016/17. Going forward, corn and soybeans account for the majority of the crop insurance costs.



For crops harvested in 2015 and 2016, Title I payments (mostly from ARC, PLC and marketing loans benefits) far exceeded crop insurance net indemnities. In the projection period, net indemnities average between $5 billion and $6 billion per year, a little less than Title I payments. In past baselines, crop insurance net indemnities often exceeded Title I payments. However, projected crop prices in this baseline reduce crop insurance benefits and increase Title I payments.

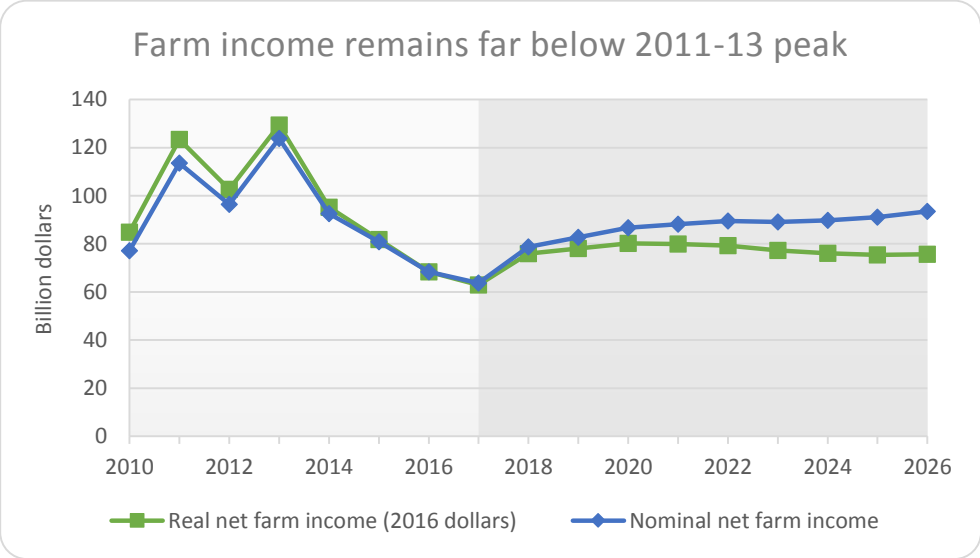


Farm receipts, expenses

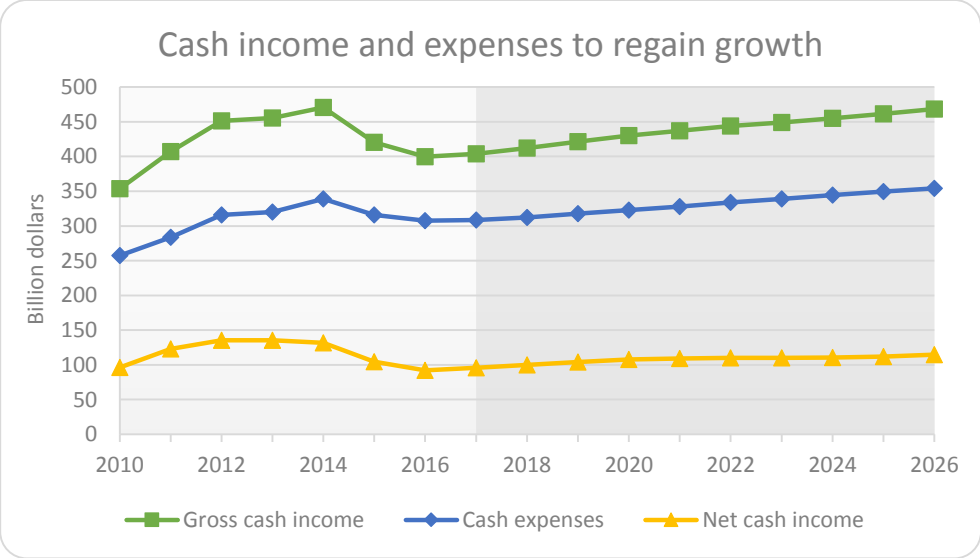
In 2016 lower fertilizer, seed and fuel prices resulted in the lowest farm production expenses since 2012. Projected increases in petroleum prices drive higher fuel costs. Feed and fertilizer costs rebound after 2017, but both remain below the 2014 level.

Farm income

After reaching record levels in 2013, nominal farm income has been on the decline since 2014. It is projected that in 2017 it will be 48 percent lower than 2013 record. Nominal net farm income from 2017-2026 is projected to average about $85 billion per year. Adjusted for inflation, real net income in 2016 dollars is projected to average about $75 billion per year in the same period.

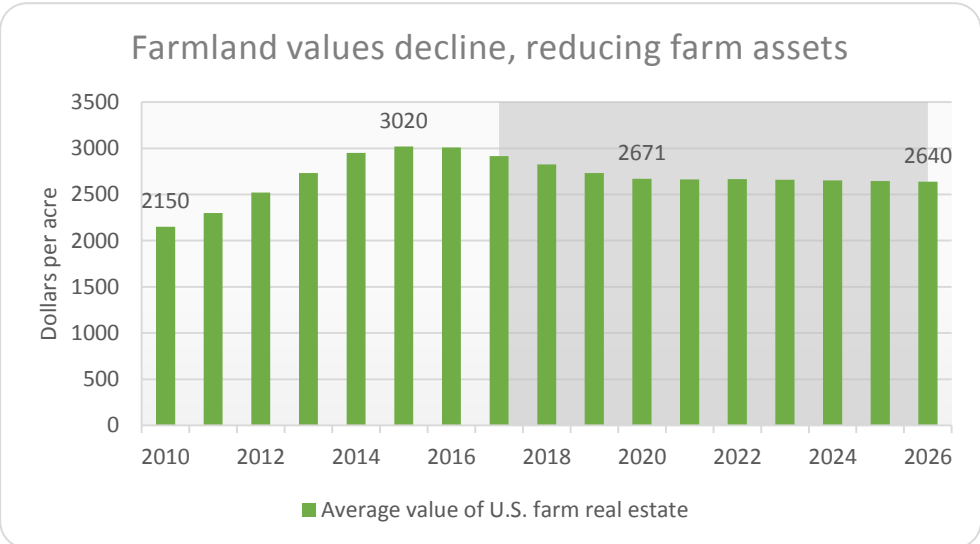


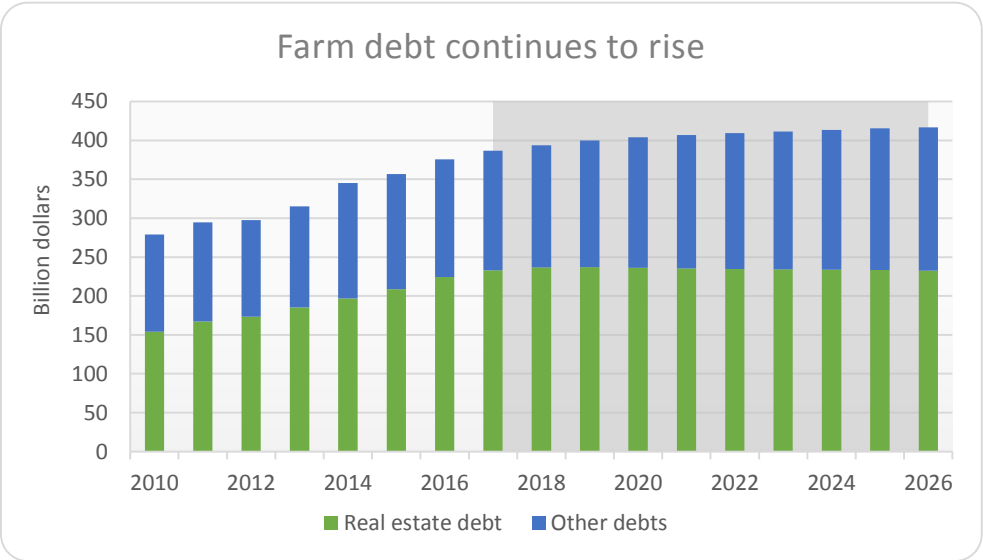
After reaching record levels in nominal terms in 2014, gross cash income sharply declined in 2015 and 2016 due to lower prices for many agricultural commodities. Starting in 2017 gross cash income is projected to grow. The accelerated growth in cash expenses between 2017 and 2026 limits the increase in net cash income.



Farm real estate values

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 $339 per acre (11 percent) between 2016 and 2020. Actual results will differ across the country and will be sensitive to developments in agricultural markets and the economy.





Farm debt

Farm debt has been steadily increasing. Real estate debt that reached historic highs in 2016 has been the major driver behind the overall farm debt.

Net government outlays

Fiscal year	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
						(Million dollars)					
Feed grains											
Corn	4,508	3,492	1,572	1,262	2,539	2,679	2,605	2,592	2,754	2,729	2,794
Sorghum	252	421	292	243	317	323	315	323	317	317	326
Barley	3	25	111	103	100	96	95	98	104	111	117
Oats	19	26	20	15	24	25	24	24	25	25	25
Food grains											
Wheat	1,205	2,331	1,662	1,180	1,361	1,290	1,245	1,292	1,330	1,355	1,380
Rice	482	823	638	607	625	588	534	489	480	436	430
Oilseeds											
Soybeans	1,231	359	861	500	435	466	556	563	625	629	618
Peanuts	565	687	665	696	700	707	728	714	714	706	721
Other oilseeds	85	112	116	110	110	115	120	120	122	125	133
Other selected commodities											
Upland cotton	62	318	417	445	404	370	349	340	274	291	249
Dairy	26	98	116	113	123	83	219	231	240	262	262
Subtotal, selected commodities	8,439	8,693	6,469	5,275	6,739	6,742	6,790	6,787	6,985	6,986	7,055
CCC conservation											
Conservation reserve	1,891	1,960	1,944	1,924	1,987	2,047	2,047	2,027	1,955	1,937	1,937
Other CCC conservation	5	1	1	1	1	1	1	1	1	1	1
Other CCC											
Disaster payments, NAP	504	491	460	465	468	466	461	457	459	460	473
Other net costs	497	550	594	601	596	594	591	589	588	589	589
Net CCC outlays	11,335	11,695	9,469	8,266	9,791	9,850	9,890	9,860	9,989	9,973	10,055
NRCS conservation	3,286	3,723	3,823	4,006	3,928	3,920	4,012	3,956	4,030	4,001	4,009
Crop insurance	2,917	7,522	7,486	7,710	7,770	7,820	7,902	8,035	8,150	8,160	8,196
Total mandatory outlays	17,538	22,939	20,778	19,982	21,490	21,590	21,804	21,851	22,169	22,134	22,260

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 2017: Oct. 1, 2016-Sep. 30, 2017).

All projections are averages across 500 outcomes.

Selected direct government payments

Marketing year	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27
						(Million dollars)					
ARC payments	4,517	2,898	1,953	639	665	747	765	801	803	831	830
PLC payments	3,634	2,861	2,537	5,339	5,366	5,208	5,166	5,397	5,385	5,468	5,923
Marketing loans	141	400	525	596	559	544	522	542	469	456	414
Total	8,293	6,159	5,016	6,574	6,590	6,498	6,452	6,740	6,657	6,755	7,167

Note: Includes selected payments for feed grains, food grains, oilseeds, and upland cotton.

All projections are averages across 500 outcomes.

Crop insurance

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
						(Million dollars, crop year)					
Total premiums	9,310	9,967	9,813	10,065	10,138	10,191	10,309	10,544	10,652	10,705	10,765
Producer-paid premiums	3,458	3,686	3,623	3,723	3,749	3,770	3,815	3,904	3,943	3,961	3,979
Premium subsidies	5,853	6,281	6,190	6,342	6,389	6,421	6,494	6,639	6,709	6,744	6,786
Total indemnities	3,816	9,017	8,928	9,215	9,288	9,347	9,447	9,620	9,763	9,776	9,830
Loss ratio	0.41	0.90	0.91	0.92	0.92	0.92	0.92	0.91	0.92	0.91	0.91
						(Million dollars, crop year)					
Net indemnities	358	5,331	5,305	5,492	5,539	5,576	5,632	5,716	5,820	5,815	5,851
Corn	-199	1,978	1,910	2,018	2,016	2,039	2,069	2,111	2,153	2,137	2,129
Soybeans	-296	1,379	1,324	1,362	1,371	1,362	1,369	1,389	1,421	1,405	1,413
Wheat	81	461	529	589	624	636	641	638	643	654	655
Upland cotton	129	533	553	533	537	537	538	543	558	572	598
All other	644	979	989	990	991	1,002	1,015	1,035	1,044	1,047	1,056
						(Million dollars, fiscal year)					
Net outlays	4,239	2,917	7,522	7,486	7,710	7,770	7,820	7,902	8,035	8,150	8,160

All projections are averages across 500 outcomes.

Farm cash receipts

Calendar year	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
						(Billion dollars)					
Feed grains	56.01	56.58	59.25	61.33	62.00	62.36	63.11	63.78	64.39	65.20	65.71
Food grains	11.08	10.86	11.50	12.16	12.42	12.58	12.60	12.62	12.65	12.70	12.66
Oilseeds	41.22	40.35	40.59	40.78	40.72	40.25	39.95	40.15	40.40	40.59	40.84
Cotton	5.92	6.02	6.03	6.10	6.03	6.00	6.06	6.14	6.25	6.40	6.56
Sugar	2.54	2.66	2.78	2.84	2.87	2.90	2.93	2.97	3.01	3.06	3.10
Other crops	70.96	72.55	73.99	75.33	76.34	77.39	78.54	79.69	80.97	82.28	83.53
Cattle	67.56	62.31	61.08	61.50	62.40	64.81	66.80	67.65	68.57	69.63	71.31
Hogs	19.72	18.91	19.65	21.04	22.62	23.66	24.20	23.89	23.51	23.43	23.77
Dairy products	34.21	38.17	39.87	41.12	41.73	42.21	42.83	43.43	44.38	45.43	46.17
Poultry, eggs	39.71	40.82	42.73	44.51	45.62	46.44	47.23	48.04	48.89	49.77	50.60
Other livestock	6.94	6.98	7.13	7.35	7.58	7.83	8.05	8.23	8.42	8.62	8.85
Total cash receipts	355.86	356.21	364.59	374.09	380.34	386.41	392.32	396.60	401.44	407.11	413.09

All projections are averages across 500 outcomes.

Farm production expenses

Calendar year	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
						(Billion dollars)					
Feed	59.16	58.36	59.80	61.09	61.18	60.86	60.98	61.28	61.59	61.88	61.85
Purchased livestock	23.46	21.88	21.12	21.06	21.52	22.62	23.45	23.78	24.17	24.60	25.30
Seed	20.82	20.40	20.31	20.44	20.65	20.92	21.19	21.44	21.70	21.97	22.23
Fertilizer and chemicals	36.07	34.99	35.24	35.62	36.37	37.22	38.08	39.07	40.06	40.78	41.20
Fuels and electricity	17.38	18.48	18.94	19.77	20.76	21.76	22.81	23.81	24.69	25.52	26.27
Interest	16.55	18.28	19.40	20.62	21.49	22.09	22.59	23.01	23.37	23.70	23.99
Contract and hired labor	33.93	35.26	35.96	36.60	37.04	37.52	38.07	38.61	39.24	39.90	40.54
Capital consumption	40.20	39.69	39.30	38.96	38.73	38.67	38.73	38.83	38.95	39.08	39.23
Rent to landlords	19.64	19.81	19.65	19.52	19.52	19.62	19.63	19.58	19.52	19.45	19.41
All other	82.70	83.26	84.19	85.55	86.94	88.40	89.96	91.59	93.16	94.70	96.16
Total production expenses	349.91	350.41	353.89	359.22	364.20	369.68	375.48	381.00	386.45	391.58	396.18

All projections are averages across 500 outcomes.

Farm income statistics

Calendar year	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
						(Billion dollars)					
1. Farm receipts	386.54	390.69	400.99	411.47	418.62	425.51	432.28	437.51	443.31	449.87	456.77
Crops	187.72	189.03	194.13	198.55	200.39	201.47	203.20	205.36	207.67	210.24	212.39
Livestock	168.14	167.19	170.46	175.53	179.95	184.94	189.12	191.25	193.76	196.87	200.70
Farm-related	30.68	34.47	36.40	37.38	38.28	39.10	39.96	40.91	41.88	42.77	43.67
2. Government payments	13.00	13.41	11.23	10.05	11.68	11.71	11.59	11.64	11.77	11.75	11.81
3. Gross cash income (1 + 2)	399.54	404.10	412.22	421.51	430.31	437.22	443.87	449.15	455.08	461.62	468.58
4. Nonmoney income	18.81	19.51	20.04	20.40	20.67	20.84	20.92	20.93	20.92	20.91	20.91
5. Value of inventory Change	-0.15	-9.46	0.37	0.02	-0.10	-0.17	0.18	0.06	0.19	0.13	0.13
6. Gross farm income (3 + 4 + 5)	418.20	414.15	432.63	441.94	450.88	457.89	464.97	470.14	476.20	482.67	489.62
7. Cash expenses	307.63	308.46	312.09	317.59	322.68	328.13	333.81	339.18	344.50	349.49	353.94
8. Total expenses	349.91	350.41	353.89	359.22	364.20	369.68	375.48	381.00	386.45	391.58	396.18
9. Net cash income (3 - 7)	91.90	95.64	100.13	103.92	107.63	109.09	110.06	109.96	110.58	112.13	114.64
10. Realized net farm inc (3 + 4 - 8)	68.44	73.20	78.37	82.70	86.78	88.38	89.31	89.08	89.55	90.95	93.31
11. Net farm income (6 - 8)	68.29	63.74	78.74	82.72	86.68	88.21	89.49	89.14	89.74	91.09	93.44
Deflated (2016 $)	68.29	62.90	75.94	78.11	80.17	79.89	79.31	77.28	76.05	75.45	75.63

All projections are averages across 500 outcomes.

Land rental rates and real estate values

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Rental rates						(Dollars per acre)					
Cropland	136.00	132.66	131.91	131.19	131.15	131.71	131.64	131.23	130.75	130.29	129.94
Pasture	13.00	12.51	12.19	12.05	12.05	12.16	12.28	12.39	12.44	12.48	12.54
Value of farm real estate	3,010	2,916	2,826	2,730	2,671	2,664	2,665	2,660	2,652	2,645	2,640

All projections are averages across 500 outcomes.

Land use for major crops and the conservation reserve

Marketing year	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Planted area					(Million acres)						
Corn	94.00	92.15	92.93	93.59	93.43	93.29	93.53	93.55	93.59	93.69	93.67
Soybeans	83.43	87.06	85.11	84.48	84.47	84.25	83.95	84.01	84.08	84.03	84.03
Wheat	50.15	46.18	46.76	47.14	47.46	47.56	47.35	47.03	46.80	46.54	46.27
Upland cotton	9.88	10.47	10.49	10.43	10.21	10.13	10.09	10.04	10.06	10.09	10.16
Sorghum	6.69	6.92	6.93	6.91	6.91	6.92	6.93	6.95	6.96	6.96	6.97
Barley	3.05	3.14	2.90	2.87	2.84	2.77	2.69	2.61	2.50	2.40	2.31
Oats	2.83	2.91	2.91	2.88	2.87	2.90	2.91	2.93	2.93	2.94	2.95
Rice	3.15	2.92	3.01	2.98	2.97	2.99	3.02	3.02	3.02	3.04	3.04
Sunflowers	1.60	1.61	1.56	1.52	1.51	1.50	1.50	1.50	1.50	1.49	1.48
Peanuts	1.67	1.61	1.63	1.62	1.61	1.60	1.58	1.57	1.55	1.55	1.54
Sugar beets	1.16	1.24	1.28	1.29	1.28	1.28	1.29	1.30	1.30	1.31	1.32
Sugar cane (harvested)	0.92	0.93	0.95	0.96	0.96	0.95	0.95	0.94	0.93	0.93	0.92
12 crop planted area	258.54	257.15	256.48	256.68	256.51	256.16	255.78	255.45	255.23	254.97	254.66
Hay (harvested)	53.46	54.45	55.57	55.94	56.05	56.05	56.00	55.95	55.90	55.88	55.87
12 crops + hay	312.00	311.61	312.06	312.62	312.56	312.21	311.78	311.40	311.13	310.85	310.53
Conservation reserve (CRP)	23.88	23.40	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00
12 crops + hay + CRP	335.88	335.01	335.06	335.62	335.56	335.21	334.78	334.40	334.13	333.85	333.53
Double-crop soybeans	3.86	3.76	3.72	3.77	3.79	3.77	3.72	3.70	3.68	3.66	3.63
12 crops + hay + CRP - double-crop soybeans	332.02	331.25	331.33	331.85	331.77	331.44	331.06	330.70	330.45	330.19	329.90

All projections are averages across 500 stochastic outcomes.

Balance sheet of the farm sector

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
					(Dollars per acre)						
Assets	2,868	2,789	2,732	2,669	2,630	2,626	2,627	2,621	2,615	2,610	2,607
Real estate	2,388	2,326	2,259	2,188	2,144	2,139	2,139	2,135	2,130	2,124	2,120
Other assets	480	462	473	482	486	487	488	486	485	486	487
Debts	376	387	394	400	404	407	409	411	414	415	417
Real estate	224	233	237	237	236	235	235	234	234	233	233
Other debts	151	154	157	163	168	172	175	177	180	182	184
Debt-to-asset ratio	13.1%	13.9%	14.4%	15.0%	15.4%	15.5%	15.6%	15.7%	15.8%	15.9%	16.0%

All projections are averages across 500 outcomes.

Consumer price indices for food

Calendar year	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
						(1982-84=100)					
Total food	247.9	252.2	258.5	265.3	272.2	279.2	286.3	293.4	300.5	307.8	315.3
(Inflation rate)	0.3%	1.7%	2.5%	2.6%	2.6%	2.6%	2.5%	2.5%	2.4%	2.4%	2.4%
Food at home	239.1	241.7	247.3	253.5	259.8	266.3	272.9	279.3	285.9	292.7	299.6
Cereal and bakery	273.1	275.2	281.4	287.9	294.2	300.6	307.1	313.8	320.7	327.8	334.9
Meat	247.7	244.3	247.6	253.7	260.6	267.9	275.2	281.9	288.4	295.2	302.5
Dairy	217.3	224.0	230.8	236.8	242.4	248.0	253.9	259.9	266.3	272.9	279.4
Fruit and vegetables	296.3	303.8	311.7	319.5	327.3	335.2	343.2	351.3	359.6	368.0	376.5
Other food at home	209.5	213.1	218.4	223.7	228.8	233.9	239.1	244.4	249.9	255.3	260.9
Sugar and sweets	215.3	219.8	226.7	233.3	238.5	244.0	249.5	255.3	261.3	267.3	273.4
Fats and oils	225.9	231.7	237.7	244.2	251.1	258.0	264.6	271.5	278.6	285.5	292.8
Other prepared items	224.1	227.4	233.4	239.5	245.5	251.6	257.8	264.0	270.5	276.9	283.5
Non-alc. beverages	167.3	170.3	173.9	177.4	180.4	183.5	186.6	189.8	193.1	196.5	199.9
Food away from home	262.7	269.2	276.6	284.1	291.8	299.6	307.5	315.4	323.3	331.4	339.6

All projections are averages across 500 stochastic outcomes.

Consumer expenditures for food

Calendar year	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
						(Dollars per person)					
Total food per capita	4,535	4,694	4,864	5,040	5,211	5,378	5,547	5,714	5,884	6,057	6,229
Food at home	2,230	2,286	2,352	2,420	2,486	2,553	2,620	2,687	2,756	2,826	2,897
Food away from home	2,304	2,408	2,512	2,621	2,725	2,825	2,926	3,027	3,128	3,230	3,333
Multiply by population for:						(Billion dollars)					
Total U.S. food expenditures	1,470	1,534	1,603	1,674	1,744	1,814	1,885	1,957	2,030	2,105	2,180

All projections are averages across 500 stochastic outcomes.

Stochastic results

Marketing year	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Corn price					(Dollars per bushel)						
90th percentile	3.50	4.45	4.94	4.85	4.79	4.78	4.74	4.78	4.74	4.73	4.70
Expectation	3.38	3.60	3.77	3.76	3.71	3.70	3.71	3.70	3.70	3.69	3.65
10th percentile	3.27	2.83	2.72	2.71	2.70	2.76	2.75	2.72	2.68	2.68	2.69
Soybean price					(Dollars per bushel)						
90th percentile	9.82	12.28	12.76	12.96	12.43	12.35	12.59	12.73	12.43	12.50	12.18
Expectation	9.46	9.57	9.84	9.91	9.79	9.57	9.53	9.57	9.51	9.47	9.43
10th percentile	9.13	7.31	7.28	7.27	7.10	7.04	6.99	6.73	6.71	6.78	6.72
Wheat price					(Dollars per bushel)						
90th percentile	3.85	5.53	6.33	6.93	6.93	6.71	6.67	6.69	6.62	6.69	6.63
Expectation	3.79	4.44	4.90	5.15	5.20	5.20	5.13	5.14	5.11	5.09	5.02
10th percentile	3.74	3.39	3.43	3.55	3.60	3.71	3.72	3.59	3.49	3.53	3.56
PLC payments					(Million dollars)						
90th percentile	3,802	4,612	4,687	12,557	12,565	12,104	11,992	13,283	12,903	12,937	13,590
Expectation	3,634	2,861	2,537	5,339	5,366	5,208	5,166	5,397	5,385	5,468	5,923
10th percentile	3,443	1,204	870	860	922	894	851	832	714	794	829
ARC payments					(Million dollars)						
90th percentile	5,118	5,532	4,510	1,514	1,649	1,816	1,814	1,955	1,865	1,963	1,940
Expectation	4,517	2,898	1,953	639	665	747	765	801	803	831	830
10th percentile	3,825	820	248	47	57	92	69	64	68	69	71
Crop ins. net indemnities					(Million dollars)						
90th percentile	461	8,642	9,608	9,782	10,048	10,303	9,940	9,631	10,189	9,868	9,994
Expectation	358	5,331	5,305	5,492	5,539	5,576	5,632	5,716	5,820	5,815	5,851
10th percentile	243	3,063	2,141	2,054	2,124	2,350	2,562	2,701	2,451	2,741	2,773