Farm Program Price Protection to Decline Sharply After 2016 Crop Year

Economic Report
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Summary

Lower prices of corn, soybeans and wheat are expected to result in higher farm payments for 2015 crops and possibly for 2016 as well. However, the picture is expected to change dramatically in 2017. Corn and soybean farmers will likely receive little or no financial assistance from ARC after the 2016 crop year, based on USDA's projections of Agriculture Risk Coverage (ARC) and Price Loss Coverage (PLC) payments using expected prices and other variables. In crop year 2017, the declining price trigger (based on historical prices) reduces ARC payments to zero for corn and soybeans, and nearly zero for wheat in 2018. Moreover, due to the sharp decline in effective price protection (e.g., corn at $3.40 per bu. in 2017 and $3.18 in 2018), ARC payments would not kick in until prices drop below these levels.

Lower potential payment and price protection stems from the design of the ARC program. The price portion of the ARC trigger declines as recent (i.e., low) farm prices enter into the guarantee formula. ARC was selected on more than 90 percent of corn and soybean base acres and 57 percent of wheat base. Farmers who selected PLC will have greater price protection in 2017 for corn and wheat and in 2018 for all crops because that trigger (reference price) was fixed in the 2014 farm bill.

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Farm programs are designed to assist farmers when crop prices drop below trigger levels, and the size of the payment varies inversely with season-average farm prices. For crop years 2014-2018, payments are made under either Agricultural Risk Coverage (ARC) or Price Loss Coverage (PLC), depending on the program farmers selected in 2015.

At program signup (spring 2015), ARC-County offered relatively high but declining price protection through 2018 for corn, soybeans, and wheat. PLC offered a relatively low but fixed level of price protection. Farmers who received 2014-crop payments in the fall of 2015 used them to help cover cash costs.

Farm program payments are made on 85 percent of a farm's base (historical) acreage when crop prices (or revenue) fall below effective trigger levels. For ARC, the effective price trigger embedded in the ARC revenue guarantee is equal to 0.86 times the average farm price for the most recent five years, excluding the high and low prices. For PLC, the price trigger is the reference price in the farm bill ($3.70 per bushel for corn, $8.40 per bushel for soybeans, and $5.00 for wheat). As an alternative to ARC-County and PLC, a few farmers selected ARC-Individual (whole-farm guarantee rather than crop-by-crop).

Expected Returns Plus Government Payments to Decline

Low prices are expected to trigger farm program payments for crops harvested in 2015 and 2016. Using USDA's payment projections in the "Commodity Estimates Book" and base acres by crop, ARC payments for 2015 crops are expected to average $63 per base acre for corn, $23 for soybeans, and $23 for wheat. (See table on page 2.) Compared with the 2014 crop, the combined return (market plus ARC payment) in 2015 would go up slightly for corn but down for soybeans and wheat. For 2016, if prices weaken further from levels in 2015 as expected, the combined return would decline for corn, soybeans and wheat (except wheat with PLC). This analysis assumes that plantings match the farmer's base. Farmers may plant more or less than their base acres.

A major downshift in payment potential occurs in crop year 2017. The declining price trigger (based on historical prices) reduces ARC payments (per-base acre) to zero (or near zero) for both corn and soybeans in 2017, and to $1 per base acre for wheat in 2018. At this point, farmers would depend completely on market returns. The exception is PLC payments for wheat, which is at least $30 per base acre for 2016 through 2018.

Note: In this analysis, the per-base-acre payment estimates for ARC and PLC are equal to USDA's payment projections divided by base acres. The actual ARC per-acre payment rate can vary widely from county to county (between zero and a formula maximum) because it is based on actual county yields as well as the national price. Market return equals the national average yield times average price, as projected by USDA in its December 2015 baseline.

Market Returns Plus Program Payments Using USDA Baseline and Outlay Projections							
Wheat		**2014**	**2015f**	**2016f**	**2017f**	**2018f**	**Trend**
Yield	bu/ac	43.7	43.6	45.9	46.3	46.7	
Price	$/bu	5.99	5.00	4.40	4.50	4.60	
Market return	$/ac	262	218	202	208	215	
ARC payment	$/base acre	8	23	23	20	1	
PLC payment	$/base acre	0	16	36	33	30	
Market return + ARC	$/ac	270	241	225	228	216	
Market return + PLC	$/ac	262	234	238	241	244	
Corn		**2014**	**2015f**	**2016f**	**2017f**	**2018f**	**Trend**
Yield	bu/ac	171.0	169.3	168.1	170.1	172.1	
Price	$/bu	3.70	3.65	3.60	3.65	3.70	
Market return	$/ac	633	618	605	621	637	
ARC payment	$/base acre	41	63	37	0	0	
PLC payment	$/base acre	0	5	10	5	0	
Market return + ARC	$/ac	674	681	642	621	637	
Market return + PLC	$/ac	633	623	615	626	637	
Soybeans		**2014**	**2015f**	**2016f**	**2017f**	**2018f**	**Trend**
Yield	bu/ac	47.5	48.3	46.7	47.2	47.7	
Price	$/bu	10.10	8.90	8.65	8.80	8.95	
Market return	$/ac	480	430	404	415	427	
ARC payment	$/base acre	6	23	30	0	0	
PLC payment	$/base acre	0	0	0	0	0	
Market return + ARC	$/ac	486	453	434	415	427	
Market return + PLC	$/ac	480	430	404	415	427	

Source: FCA-ORP-AEPT using USDA Baseline (Dec. 2015) for national average yield and price, and USDA's Commodity Estimates Book (Feb 2016) for total ARC and PLC outlays.

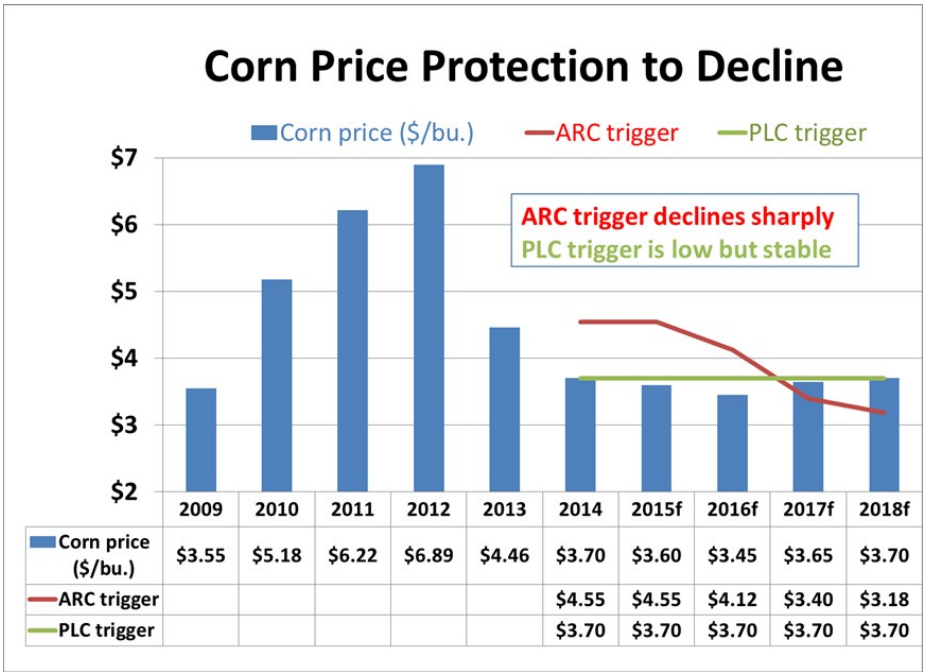
Note: Payment estimates represent a national average payment per base acre and are equal to USDA's outlay projections divided by base acres by crop. The USDA outlays are point estimates and exclude an "add-on" outlay for variability around the point estimate. Program payment is for the same crop year as market returns but is paid about 1 year after harvest (i.e., in fiscal year equal to crop year +2). USDA released updated forecasts of 2015 and 2016 yields and prices at the Agricultural Outlook Forum on February 25-26, 2016 (not used in this table).

ARC Program Triggers to Decline Sharply In 2017 for Corn, Soybeans and Wheat

The corollary to declining payments through 2018 is declining price protection for farmers. Importantly, beginning in crop year 2017, downside price protection for farmers in the ARC program is much lower than in 2014-2016. For farms under ARC, which includes the majority of corn, soybean, and wheat acreage, the ARC moving-average trigger essentially ensures that farmers will be facing declining income protection as prices shift to lower levels.

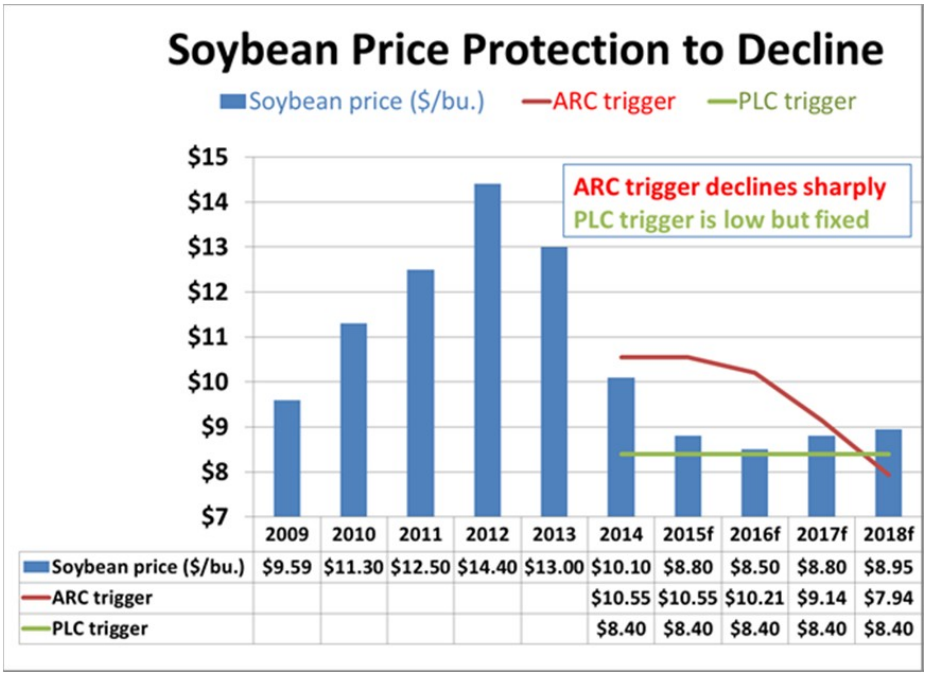
As illustrated in the charts below, the price for corn at which the ARC payment is likely triggered declines from $4.55 per bushel in 2015 to $3.40 in 2017 and $3.18 in 2018. Similarly, for soybeans, the price component of the ARC trigger falls from $10.55 per bushel in 2015 to $9.14 in 2017 and below $8 in 2018. These trigger levels are below the current total economic cost of production for many producers. Like corn and soybeans, the ARC trigger also declines sharply for wheat in 2017 and 2018. While corn and wheat farmers who selected ARC are generally not covered for lower prices in 2017 and 2018, their ARC payments were "front loaded" (i.e., expected high payments in 2014-2016 and expected low payments in 2017-2018) via relatively high guarantees for the 2014-2016 crops.

For all three crops, PLC provides substantial downside price protection, but this is important only for wheat because 43 percent of wheat base is covered by PLC. The PLC share is only 7 percent for corn and 3 percent for soybeans. PLC is considered "deep loss," meaning that the size of the payment is not subject to a per-acre or per-bushel maximum. In contrast, ARC is "shallow loss" program, whereby the per-acre payment is limited to 10 percent of the historical county revenue. Under payment limit rules, a farmer's total program payments cannot exceed $125,000 for the combined ARC/PLC payments plus marketing loan benefits across all commodities.

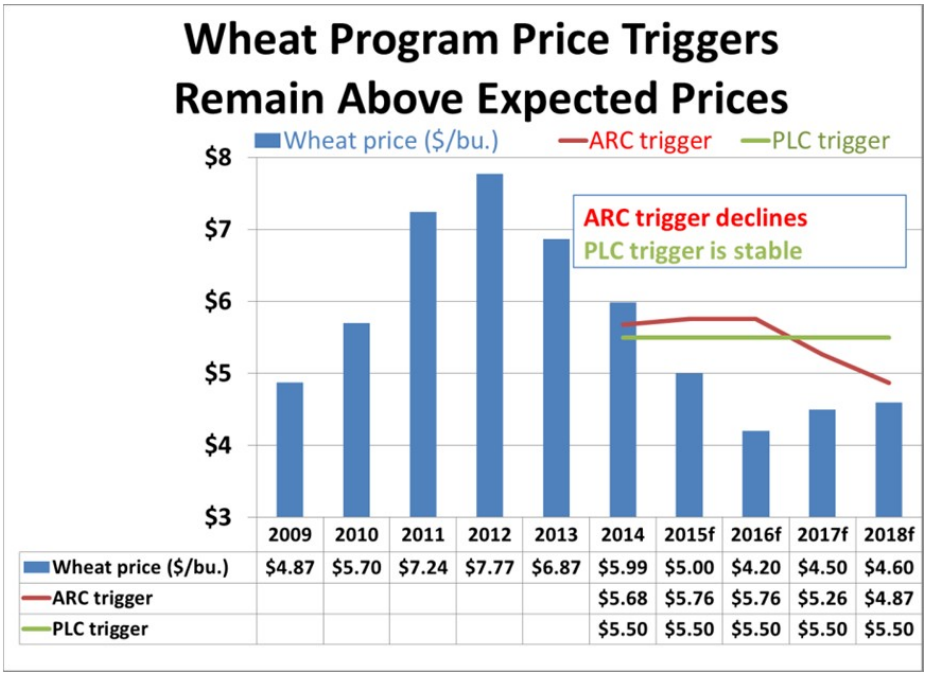


	2009	2010	2011	2012	2013	2014	2015f	2016f	2017f	2018f
Corn price ($/bu.)	$3.55	$5.18	$6.22	$6.89	$4.46	$3.70	$3.60	$3.45	$3.65	$3.70
ARC trigger						$4.55	$4.55	$4.12	$3.40	$3.18
PLC trigger						$3.70	$3.70	$3.70	$3.70	$3.70

Source: FCA-ORP-AEPT using 2014 farm bill program parameters and USDA data, including the *Grains and Oilseeds Outlook* at the Agricultural Outlook Forum (February 25-26, 2016) and USDA's baseline projections.



	2009	2010	2011	2012	2013	2014	2015f	2016f	2017f	2018f
Soybean price ($/bu.)	$9.59	$11.30	$12.50	$14.40	$13.00	$10.10	$8.80	$8.50	$8.80	$8.95
ARC trigger						$10.55	$10.55	$10.21	$9.14	$7.94
PLC trigger						$8.40	$8.40	$8.40	$8.40	$8.40



	2009	2010	2011	2012	2013	2014	2015f	2016f	2017f	2018f
Wheat price ($/bu.)	$4.87	$5.70	$7.24	$7.77	$6.87	$5.99	$5.00	$4.20	$4.50	$4.60
ARC trigger						$5.68	$5.76	$5.76	$5.26	$4.87
PLC trigger						$5.50	$5.50	$5.50	$5.50	$5.50

Source: FCA-ORP-AEPT using 2014 farm bill program parameters and USDA data, including the *Grains and Oilseeds Outlook* at the Agricultural Outlook Forum (February 25-26, 2016) and USDA's baseline projections.

Crop Insurance Guarantees Decline in 2016

Unlike farm programs, federal crop insurance policies do not provide price protection from one crop year to the next because the price guarantee resets each year. Crop insurance price guarantees will decline in 2016. The price guarantee is $3.86 per bushel for corn (down 29 cents from 2015), $8.85 for soybeans (down 88 cents), and $5.20 for hard red winter wheat (down 110 cents).