# A Midterm Review of the 2014 Farm Bill

By Vincent H. Smith

February 2016

The current farm bill, formally titled the Agricultural Act of 2014, was signed into law by President Barack Obama on February 7, 2014. The act's provisions radically changed the structure of price and revenue-per-acre subsidy programs for crops that have received subsidies for more than 70 years.[1] Subsidy policies for dairy producers were also revamped.[2] In addition, disaster aid programs for livestock producers, for which funding had ceased at the end of 2011, were modified and refunded, generally on more favorable terms. Federal crop insurance programs were expanded, and at least notionally, conservation programs were rationalized.[3] Additionally, the scope of one long-standing initiative was substantially reduced—the Conservation Reserve Program, a cropland retirement program under which farmers are paid to place part or all of their cropland into conserving uses.[4]

The 2014 farm bill provisions cover the period from its passage on February 7, 2014, to September 30, 2018, the end of the 2018 fiscal year. By that time, either a new farm bill will have been passed, the provisions of the 2014 farm bill will be extended for up to a couple of years (as with several previous farm bills), or all major provisions of the 2014 farm bill will be terminated (an unlikely outcome).

When the 2014 farm bill was being debated, the chairs and ranking members of the House and Senate agricultural committees claimed that the changes in the agricultural subsidy provisions of the 2014 farm bill, coupled with cutting $800 million a year in food stamp spending, would reduce annual government spending on the farm bill by about $1.7 billion. Funding requirements for new subsidy programs would be smaller than those for the farm subsidy programs that would be terminated (for example, the Direct Payments program, which had been funded at about $5 billion a year since 2002, and the Milk Income Loss Contract program) and downsized (the Conservation Reserve Program).

The new programs included Price Loss Coverage (PLC), Agricultural Risk Coverage (ARC), a supplementary revenue insurance product for program crops, a heavily subsidized "STAX" (staked income protection plan) insurance program for cotton, and a quasi-insurance Dairy Margin Protection Program for milk producers. According to the January 2014 estimates from the Congressional Budget Office (CBO), all the new programs together would involve estimated annual average expenditures of about $4.2 billion from 2015 to 2024. However, terminating other subsidy policies—such as the Direct Payments program, under which annual subsidies were approximately $4.9 billion over the period 2002–13—would apparently lead to lower total annual average outlays on farm programs.

The estimated savings from discontinued and downsized farm programs, coupled with an annual food stamp program (SNAP) cut of $800 million, would therefore, according to the congressional agricultural committees, yield a much-trumpeted net savings of more than $1.5 billion a year for Congress to allocate to tax cuts or other programs. In subsequent congressional discussions about federal spending, the chairs and ranking members of the House and Senate agricultural committees have continued to assert that no spending cuts should come out of the 2014 farm bill budgets because "agriculture had already given at the office."[5]

The purpose of this paper is to assess whether those claims turned out to be valid or were ever plausible in the first place. The evidence strongly supports a different hypothesis. By the time the 2004 farm bill was signed into law, there was never any real likelihood that farm subsidy spending would be lower under the 2014 farm bill provisions than under the previous farm policy mix. Most of the cost-saving claims made by the Senate and House agricultural committees were specious. They were largely derived from a commodity price baseline used by the CBO, one the CBO was required to adopt. That price baseline presumed that the historically high crop prices that many farmers had enjoyed since 2007 would be sustained for major program crops such as corn and wheat over the entire four-year period covered by the 2014 farm bill and well beyond.

The savings claimed by the House and Senate agricultural committees were based on the January 2014 CBO estimates of the proposed farm bill legislation. Those estimates were developed with the required use of baseline agricultural commodity price forecasts for major crops (especially corn and wheat) that, as discussed later, were widely viewed as optimistic at the time. As a result, the January 2014 CBO estimates of the costs of the new farm bill programs were convenient fodder for what have turned out to be implausible cost-saving claims on the part of agricultural committee members. Both at the time the farm bill was being debated in January 2014 and subsequently, the assumptions the CBO was required to use about agricultural commodity prices did not appear to be credible.

The actual costs of the new subsidy programs are turning out to be much higher than the CBO predicted in early 2014 and higher than the expenditures on the programs they replaced. If current futures market prices for contracts for the major crops receiving subsidies are realized in 2016, 2017, and 2018, then spending on the new programs will outstrip spending on the Direct Payments program they replaced by several billion dollars a year. So what, then, of the claims by House and Senate agricultural committee members that "agriculture gave at the office" in the 2014 farm bill? Not much.

## The 2013 CBO Baseline Forecasts of Agricultural Commodity Prices and Spending Estimates for the 2014 Farm Bill

The CBO is required to estimate the costs to the federal government of potential legislative initiatives. This process, known as scoring, has been applied to all farm bills over the past 30 or so years. A widespread practice by congressional committees interested in obtaining approval for their legislative initiatives has been to utilize the rules of the game that cause the CBO to use assumptions that minimize scoring estimates.

In the 2014 farm bill, under PLC and ARC—the two most extensive new subsidy programs—in any given year, on a per-acre basis, the subsidy payment for any specific crop will be heavily influenced by the prices farmers received for that crop. The two programs cover major crops planted in almost every state in the nation, such as corn, soybeans, and wheat, as well as crops such as cotton, peanuts, and rice that are more concentrated in politically influential regions and states, such as California, Florida, Georgia, and Texas.

The PLC, while often described as an insurance program, is in fact more like a price-support-based, income-transfer program—and certainly farmers pay no premiums to obtain program benefits. For each crop, on the basis of recent historical yields and planting decisions, a farm establishes a production volume that is eligible for a PLC payment. The 2014 farm bill established a trigger or reference price for each PLC subsidy crop, as

shown in Table 1. Over the marketing year for an eligible crop, when the average national price received by farmers, as estimated by the US Department of Agriculture (USDA) National Agricultural Statistical Service, falls below the crop's reference price, the farmer receives a payment equal to the difference between the reference and national average price on each unit of eligible production (pounds of peanuts, bushels of corn or wheat, etc.).

**Table 1. Price Loss Coverage Reference Prices**

| Commodity | Marketing Year | Unit | Statutory Price Loss Coverage Trigger Price |
|---|---|---|---|
| Wheat | Jun. 1–May 31 | Bushel | $5.50 |
| Barley | Jun. 1–May 31 | Bushel | $4.95 |
| Oats | Jun. 1–May 31 | Bushel | $2.40 |
| Peanuts | Aug. 1–Jul. 31 | Pound | $0.2675 |
| Corn | Sep. 1–Aug. 31 | Bushel | $3.70 |
| Grain Sorghum | Sep. 1–Aug. 31 | Bushel | $3.95 |
| Soybeans | Sep. 1–Aug. 31 | Bushel | $8.40 |
| Dry Peas | Jul. 1–Jun. 30 | Pound | $0.1100 |
| Lentils | Jul. 1–Jun. 30 | Pound | $0.1997 |
| Large Chickpeas | Sep. 1–Aug. 31 | Pound | $0.2154 |
| Small Chickpeas | Sep. 1–Aug. 31 | Pound | $0.1904 |
| Sunflower Seed | Sep. 1–Aug. 31 | Pound | $0.2015 |
| Canola | Jul. 1–Jun. 30 | Pound | $0.2015 |
| Flaxseed | Jul. 1–Jun. 30 | Bushel | $11.284 |
| Mustard Seed | Sep. 1–Aug. 31 | Pound | $0.2015 |
| Rapeseed | Jul. 1–Jun. 30 | Pound | $0.2015 |
| Safflower | Sep. 1–Aug. 31 | Pound | $0.2015 |
| Crambe | Sep. 1–Aug. 31 | Pound | $0.2015 |
| Sesame Seed | Sep. 1–Aug. 31 | Pound | $0.2015 |
| Rice (long grain) | Aug. 1–Jul. 31 | Pound | $0.1400 |
| Rice (med/short grain) | Aug. 1–Jul. 31 | Pound | $0.1400 |
| Rice (temporate japonica) | Oct. 1–Sep. 30 | Pound | $0.1610 |

For example, as shown in Table 1, the reference price for wheat PLC payments is $5.50 a bushel. If the national average price for wheat for the 2015 crop is forecasted to be $5.75, as the CBO assumed in the 2013 price baseline it used to estimate wheat PLC payments for the farm bill, then no PLC payments would be made to any wheat producer for their 2015 crop. Suppose, however, that for the crop harvested in 2015 and sold between June 2015 and May 2016 (the marketing year for a 2015 wheat crop), the national average price for wheat were to be around $4.70, as recent spot and futures market contract prices for wheat currently suggest is likely to be the case.[6] Then a farmer would receive a $0.80 payment for each eligible bushel. If that farmer had the 40,000

bushels of PLC subsidy eligible wheat production typically associated with planting about 1,000 acres of wheat, she would obtain a $32,000 subsidy payment because of the relatively low wheat price. A larger farm with 200,000 bushels of eligible wheat production (with a history of planting about 6,000 acres to wheat) would receive $160,000 in government subsidies.

Nationally, in 2014, farmers enrolled 27 million acres of wheat in the PLC program with an average PLC payment yield of 46.2 bushels per acre.[7] So US taxpayers are likely to give wheat farmers $0.80 of PLC subsidy per bushel for 1.06 billion bushels of eligible wheat production in 2016 (85 percent of the enrolled acres multiplied by the payment yield). Thus, just for wheat, the PLC program will probably cost taxpayers more than $800 million in 2016, not the zero amount that the CBO reported as its PLC subsidy estimate for wheat in its January 2014 score of the likely costs of the 2014 farm bill.

The ARC program is also a straightforward subsidy program, not an insurance program. Almost all the farmers who selected the ARC program for their crop chose the county ARC program.[8] In that program, subsidy payments are triggered when, on a countywide basis for a given crop year, the estimated countywide average revenue per acre falls below a per-acre revenue trigger (called the revenue guarantee). The countywide average per-acre revenue for a crop for the current crop year is defined as the countywide average per-acre yield for a crop multiplied by the crop's national average price (the same price used to compute PLC subsidy payments). The ARC per-acre revenue trigger is defined as 86 percent of the Olympic average (drop the high and low values in the numbers) of the crop's countywide yields over the previous five years multiplied by the Olympic average of the average national market price for the crop over the same five year period (called the benchmark price by USDA). However, if the five-year national market price history includes one year or more in which that price falls below the crop's PLC trigger price, then the PLC trigger price is used in place of the national average market price in computing the ARC trigger revenue for a crop. This practice has the potential to substantially inflate ARC subsidies in a market environment in which crop prices moderate.

**Table 2. Proportional Allocation by All US Farms of Acres Eligible for Price Loss Coverage (PLC) and Agricultural Risk Coverage (ARC) Subsidies Between the Two Programs**

| Eligible Crops | PLC | ARC[9] | Total |
|---|---|---|---|
| Barley | 75% | 25% | 100% |
| Canola | 97% | 3% | 100% |
| Corn | 7% | 93% | 100% |
| Crambe | 65% | 35% | 100% |
| Dry Peas | 44% | 56% | 100% |
| Flaxseed | 63% | 37% | 100% |
| Grain Sorghum | 66% | 33% | 100% |
| Lentils | 53% | 48% | 100% |
| Large Chickpeas | 23% | 77% | 100% |
| Long Grain Rice | 100% | 0% | 100% |
| Medium Grain Rice | 96% | 4% | 100% |
| Mustard | 56% | 44% | 100% |
| Oats | 32% | 68% | 100% |
| Peanuts | 100% | 0% | 100% |
| Rapeseed | 44% | 56% | 100% |
| Safflower | 63% | 37% | 100% |
| Sesame | 84% | 16% | 100% |
| Small Chickpeas | 23% | 77% | 100% |
| Soybeans | 3% | 97% | 100% |
| Sunflowers | 56% | 44% | 100% |
| Temperate Japonica Rice | 62% | 38% | 100% |
| Wheat | 42% | 58% | 100% |
| US Total | 23% | 76% | 100% |

Source: USDA Farm Service Agency.

At the county level, crop yields are much less volatile than at the farm level, and so, as with PLC subsidies, ARC payments are likely to be largely determined by national average market prices. Nationally, corn growers enrolled 93 percent of acres eligible for either a PLC or ARC subsidy in the county ARC program. A series of record and near-record prices for corn between 2009 and mid-2014 resulted in a five-year Olympic average benchmark price for corn of $5.29 per bushel for the 2014 corn crop. The baseline 2014–15 marketing-year price forecast used by the CBO in January 2014 to score ARC corn subsidy outlays in 2015 for the 2014 corn crop was $4.45, 16 percent lower than the benchmark price. That price forecast implied that ARC payments to corn growers would be relatively modest and that any acres enrolled in the corn PLC program could well receive no subsidies.

The CBO uses a statistical model to project potential expenditures, allowing for the fact that while the expected corn price for the 2014–15 marketing year was $4.45, the price could be substantially lower or higher. Therefore, the CBO April 2014 baseline projections (described by the CBO as very similar to the January 2014 score) forecasted that ARC corn subsidy expenditures for the 2014 crop would be about $835 million, assuming about 41 percent of corn acres would be enrolled in the ARC program but 59 percent would be enrolled in the

PLC program. The PLC program for corn was projected to cost taxpayers $1.12 billion for the 2014 corn crop. So the CBO forecast for total spending on corn subsidies through the PLC and ARC programs was $1.95 billion.

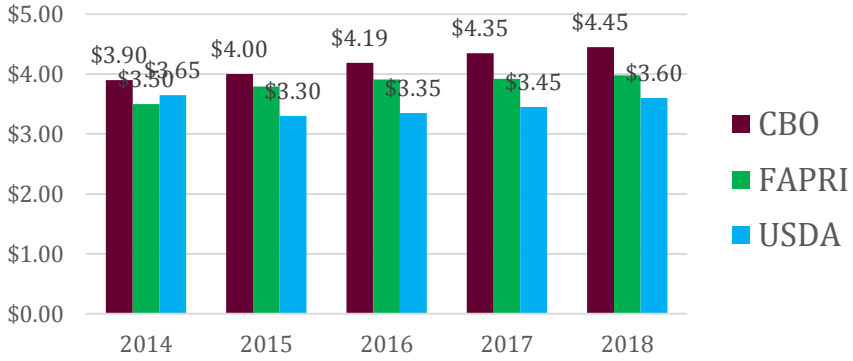
The actual 2014–15 national marketing year average corn price reported by the USDA was $3.70—30 percent lower than the corn ARC benchmark price. Not surprisingly, most corn producers received substantial ARC subsidies for the 2014 crop marketing year. In December 2015, the USDA reported that total ARC expenditures for the 2014 corn crop were $3.7 billion.[10] The CBO forecast of $1.95 billion for the subsidy costs of the 2014 corn crop for the ARC and PLC programs was therefore 47 percent lower than actual taxpayer outlays for that crop. The main reason for the downside error was an overly optimistic assessment of the price of corn in the 2014–15 crop marketing year.

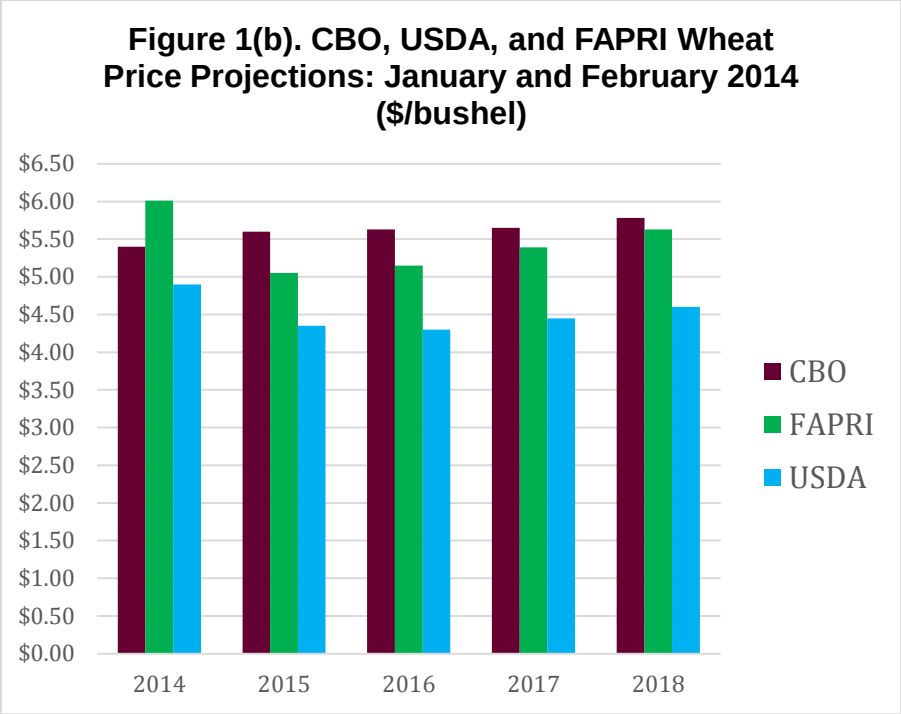
## Commodity Prices and CBO Price Forecasts

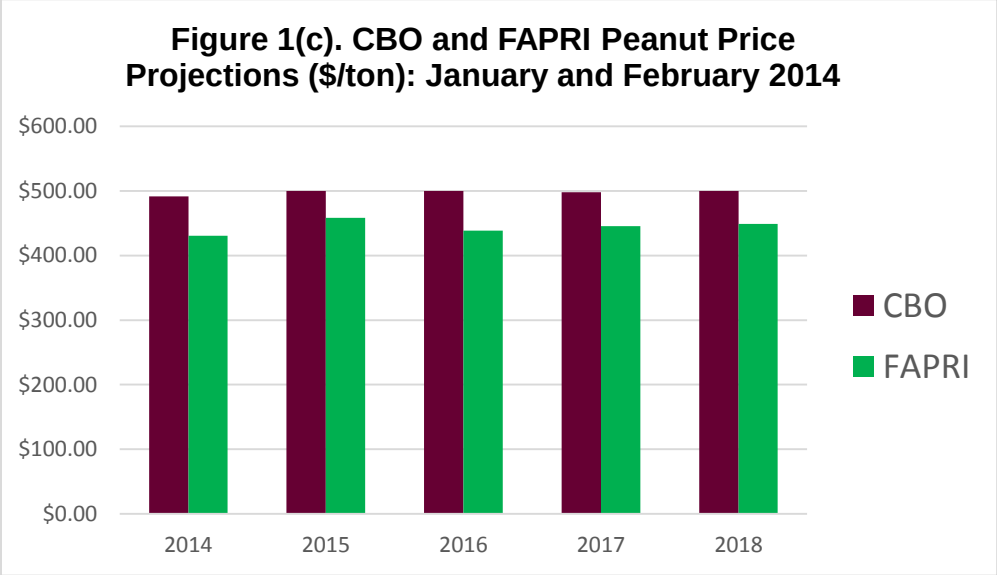
It is one thing to have hindsight; we now have much more information about corn, wheat, and other prices and can be much wiser. On an annual basis, the major new programs in the farm bill are now likely to cost several billion dollars more than the CBO estimated they would and substantially more than would have been spent on Direct Payments had that program been renewed. Therefore, a fundamentally important question therefore is whether the CBO price forecasts used to score the farm bill in January 2014 were reasonable at that time.[11] Other price forecasts for major large-acre commodities such as corn and wheat were available in January and early February of 2014 from the USDA and the Food and Agricultural Policy Research Institute (FAPRI). So it is useful to compare the baseline price assumptions used by the CBO with those USDA and FAPRI forecasts for the four-year period covered by the 2014 farm bill (2014–18).

Figures 1(a) and 1(b) show the January 2014 CBO baseline price forecasts, early February 2014 USDA forecasts, and early February 2014 FAPRI forecasts for corn and wheat prices for the 2014–18 crop years. Figure 1(c) shows the early 2014 CBO and FAPRI forecasts over the same period for peanut prices. (The USDA did not provide forecasts for peanut prices.) For corn, depending on the year (2014–18), the CBO forecasts were between $0.25 and $0.90 a bushel higher than the USDA forecasts (6 percent to 18 percent) and between $0.21 and $0.47 a bushel higher than the FAPRI forecasts (5 percent to 10 percent). For wheat, the CBO forecasts were between $0.50 and $1.20 higher than the USDA forecasts, lower than the FAPRI forecast for 2014, and between $0.15 and $0.55 higher than the FAPPRI forecasts for the other four years. For peanuts, as noted earlier, only the CBO and FAPRI forecasts are available, but the CBO forecasts were between $51 and $62 per ton higher than the FAPRI forecasts.

**Figure 1(a). CBO, USDA, and FAPRI Corn Price Projections: January and February 2014 ($/bushel)**






This evidence supports the hypothesis that, in early 2014, the CBO was required to use a price baseline in developing its estimates of PLC and ARC budget outlays that included significantly higher price forecasts for some major crops than other groups were predicting. Not surprisingly, ARC and PLC payments for these crops were always likely to be much more substantial than the CBO budget scores provided to Congress in early 2014.

Additional insight is provided by the data in Figures 2(a), 2(b), and 2(c), in which the early 2014 CBO price forecasts for corn, wheat, and peanuts are compared with the price forecasts used by the CBO for the same crops to develop their updated estimates of farm subsidy expenditures, published in January 2016.[12]

**Figure 2(a). CBO Corn Price 2013 and 2016 Baseline Forecasts ($/bushel)**

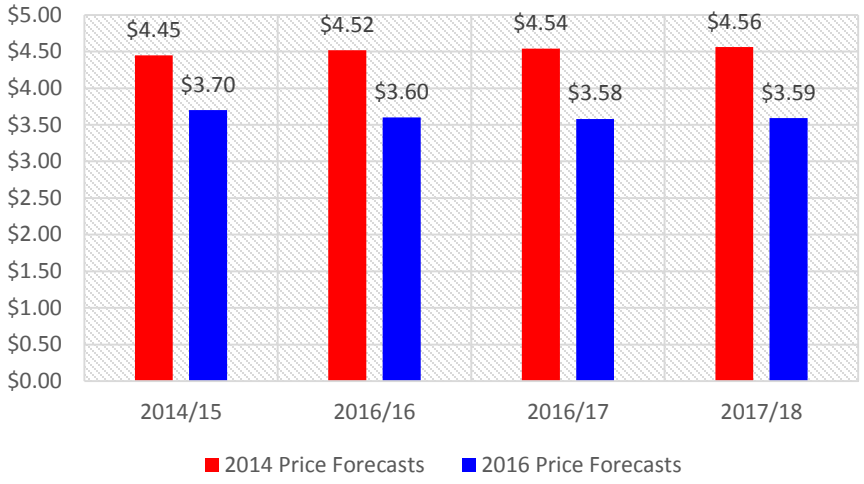
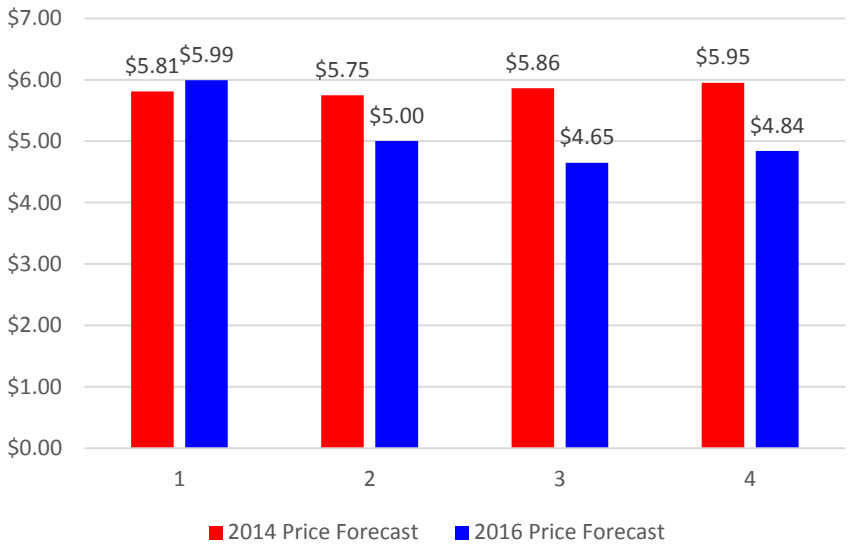
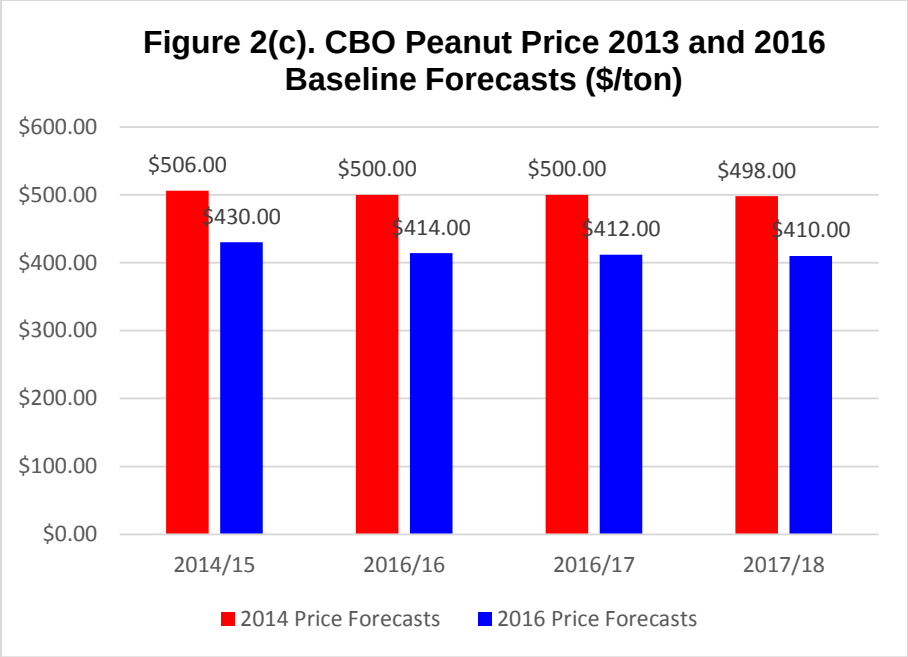



**Figure 2(b). CBO 2014 and 2016 Wheat Price Baseline Forecasts ($/bushel)**






For corn, the CBO 2016 price forecasts for each crop year are 17 percent to 20 percent lower than the forecasts the CBO used in early 2014 to estimate the potential costs of the ARC and PLC programs. At the time the farm bill was being debated, for example, the CBO forecast for the price of corn in 2015 was $4.52; in 2016, the CBO had lowered that forecast price to $3.60. For wheat, there is a similar story. With the exception of the forecast price for the crop harvested in 2014 (where the 2016 CBO price, the actual national average price received by farmers for their 2014 wheat crop, is 3 percent higher than the 2014 CBO forecast price), the CBO's January 2016 price forecasts for the other three years are between 13 percent and 20 percent lower. The CBO 2016 peanut price forecasts for each of the four years are also much lower—between 15 percent and 18 percent lower than the CBO's 2014 forecasts.

## What the New 2014 Farm Bill PLC and ARC Programs Are Now Likely to Cost

In early 2014, the CBO provided estimates of total PLC and ARC spending on all crops eligible for the new PLC and ARC price and revenue support programs for each of the four years to which the 2014 farm bill actually applies, as well as six additional "out" years. Subsidies in those out years are likely to be determined by different or modified programs under a new 2018 farm bill, and so the out-year estimates are fundamentally irrelevant. In January 2016, the CBO provided updated estimates of the total subsidy costs for all crops in the new PLC and ARC programs for the same period. Both sets of estimates are presented in Figure 1 for the four crop years actually covered by the 2014 farm bill legislation.

In 2014, the CBO forecasted that, in total, the PLC and ARC programs would cost taxpayers an average of $3.24 billion a year over the four crop years covered by the new farm bill. In effect, these estimates allowed the House and Senate agricultural committees to claim that, compared to the $4.9 billion that had previously been spent on the direct payments program for the same crops, the PLC and ARC programs would save about $1.7 billion a year.

In January 2016, as discussed earlier, the CBO provided revised estimates of the taxpayer costs of the same two programs for the same period. According to the new CBO estimates, these programs are now expected to cost

the federal government an annual average of $6.13 billion between 2014 and 2018. In terms of cold, hard cash, taxpayers are now likely to spend an average of $2.9 billion more a year than the CBO originally forecast, an increase of 89 percent. Thus, over the entire four-year period covered by the 2014 farm bill, taxpayers will spend $11.6 billion more on ARC and PLC subsidy payments than the CBO estimated in their January 2014 baseline.

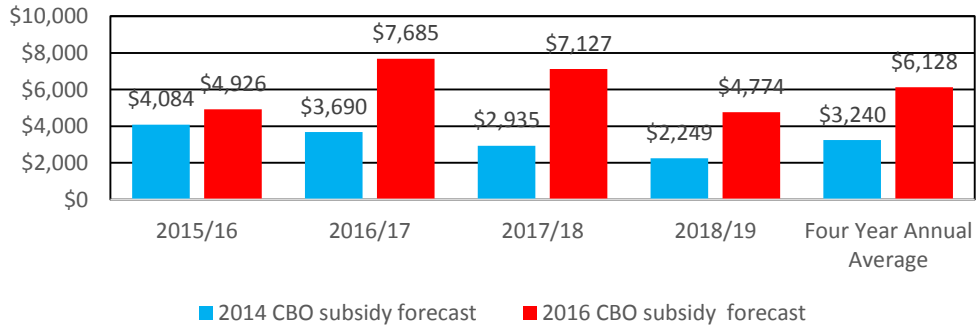
Further, the current CBO $6.13 billion estimate of the annual average cost of the ARC and PLC subsidy programs is $1.2 billion dollars higher than the annual $4.9 billion cost of the direct payments program, which they replaced. Thus, over the four years covered by the 2014 farm bill, ARC and PLC spending on income transfers that continue to flow to mainly large and wealthy farm operations and landowners will exceed the amount that would have been spent on direct payments over the same period by about $5 billion dollars.

## Summary

The current evidence on the costs to the federal government and taxpayers of PLA and ARC, the two major new programs introduced in the 2014 farm bill, shows that trading out of direct payments into PLC and ARC has caused farm-subsidy spending to go up by about $1.5 billion a year (a 30 percent increase), not down by about $1 billion, as the House agricultural committee leadership continues to claim.[13] So in 2014, if the House and Senate agricultural committees did "give at an office," it was not at the federal budget deficit reduction office. Instead, they increased the size of the gifts they have been sending to the mailboxes of farmers raising corn, wheat, peanuts, rice, soybeans, peas and lentils, barley, and sunflowers.

Finally, it may be worth noting that, as was the case with the Direct Payments programs, in the PLC and ARC programs a farmer receives a payment even if he plants none of the crop to which the subsidy is attached. This is because the farm's payment is based on the farm's historical production record. A cynic might comment that yet again the farm lobby managed to simply negotiate for another subsidy program that, just like the Direct Payments program, requires them to do no work. In fairness, as Bruce Babcock has pointed out, because the ARC and PLC programs decouple subsidies from current production decisions, they are less distortionary and economically wasteful programs than policies such as the federal crop insurance programs, which provide incentives for farmers to expand crop production in increasingly risky environments.[14] The flip side is that substantial amounts of government funds are being given to a relatively wealthy lobbying group for no obvious reason other than the convenient practice of crony capitalism.

**Figure 3. CBO 2014 and 2016 Budget Forecasts of Total Subsidy Expenditures on the Farm Bill Revenue (ARC) and Price (PLC) Support Programs ($ million)**



## Notes

1. Programs crops include the following commodities: barley, corn, cotton, grain sorghum, peas and lentils, minor oils seeds (for example, canola, mustard seed, safflower, and sunflower), peanuts, rice, soybeans, and wheat. David Orden and Carl Zulauf, "Political Economy of the Farm Bill," *American Journal of Agricultural Economics* 97, no. 5 (2015): 1298–1331.
2. Daniel A. Sumner, Joseph V. Balagtas, and Jiang Yu, "US Dairy Subsidies Remain Convoluted and Costly," in *The Economic Welfare and Trade Relations Effects of the 2014 Farm Bill*, ed. Vincent H. Smith (Bingley, England: Emerald Publishing Group, 2016).
3. Brian D. Wright, "Multiple Peril Crop Insurance," in *The Economic Welfare and Trade Relations Effects of the 2014 Farm Bill*, ed. Vincent H. Smith, (Bingley, England: Emerald Publishing Group, 2016).
4. Eric Lichtenberg, "Conservation in the Farm Bill and US Agri-Environmental Policy," *Choices*, September 2014.
5. For example, the chairs and ranking members of the House and Senate committees made such claims in relation to a modest reduction in crop insurance subsidies included in the November 2015 Bipartisan Budget Act. A similar assertion was made in a letter on February 2, 2016, from the House agricultural committee chair and ranking member to Tom Scott, chair of the House Budget Committee, begging for increased subsidies for cotton farmers.
6. For example, the March 2016 soft wheat contract on the CME closed on January 28, 2016, at $4.76/bushel, a price that is likely higher than the average price received by farmers for their 2015 crop for two reasons. First, prices in March are typically higher than in the previous June, July, and September when most farmers harvest their wheat. Second, prices paid to farmers are lower, because the Chicago price involves no basis, even though there are substantial delivery costs that result in farm gate prices that are lower than spot prices at contract delivery points.
7. USDA Farm Service Agency, "Table 7. National Average Price Loss Yields Compared with Countercyclical Payment Yields," February 9, 2016, http://www.fsa.usda.gov/programs-and-services/arcplc_program/index.
8. Only about 1 percent of all acres enrolled in PLC or ARC were placed in ARC individual, a program in which a farm's yield history and current yields play a role in determining subsidies, and those acres were heavily concentrated in one state, Montana.
9. The total shares for ARC include acres allocated to the county based ARC program and the individual farm-based ARC program. Nationally, only 1 percent of all crop acres eligible for PLC or ARC payments were placed in the individual farm-based ARC program. Among the major program crops, 2 percent of the acres eligible for wheat payments were enrolled in an individual farm ARC, while almost no corn or soybean acres were placed in that program.
10. Not surprisingly, PLC corn payments were zero.
11. Congressional Budget Office, *CBO's April 2014 Baseline for Farm Programs*, April 14, 2014.
12. Congressional Budget Office, *CBO's January 2016 Baseline for Farm Programs,* January 25, 2016.
13. Other studies have drawn similar conclusions. See, for example, David Orden and Carl Zulauf, "Political Economy of the Farm Bill," *American Journal of Agricultural Economics* 97, no. 5 (2015): 1298–1331; Vincent H. Smith, Bruce Babcock, and Barry K. Goodwin, *Field of Schemes: The Taxpayer and Economic Welfare Costs of Shallow-Loss Farming Programs*, American Enterprise Institute, May 30, 2012; and Vincent H. Smith, Bruce Babcock, and Barry K. Goodwin, *Field of Schemes Mark II: The Taxpayer and Economic Welfare Costs of Price Loss Coverage and Supplementary Insurance Coverage Programs*, American Enterprise Institute, September 12, 2012.
14. Bruce Babcock, "Welfare Effects of Title One Programs," in *The Economic Welfare and Trade Relations Effects of the 2014 Farm Bill*, ed. Vincent H. Smith, (Bingley, England: Emerald Publishing Group, 2016).