

POLITICAL ECONOMY OF THE 2014 FARM BILL

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This article assesses the political economy of the 2014 U.S. farm bill, with a focus on the farm support safety net. The farm bill secured substantial bipartisan majorities in a politically contentious Congress. Planned outlays are predominately for nutrition assistance programs directed toward a traditional nonfarm constituency in the farm bill coalition, while annual fixed direct payments to farmers are eliminated but replaced with enhanced downside risk protection against low prices or revenue. The new support programs may prove more or less costly than the foregone fixed payments, with farmers offered a choice between a price countercyclical program with increased reference prices and a revised moving-average revenue guarantee program. The role of insurance is enhanced, notably by replacing past support programs with a new upland cotton revenue insurance program and dairy milk-to-feed margin protection program. Open policy issues that are highlighted include the costs and distortionary effects of moving-average revenue benchmarks versus fixed reference prices, the overall level of insurance premium subsidies, the potential for overlap between commodity and insurance programs, and lastly, food, environmental, and biofuels concerns that reflect the diverse portfolio of products demanded from agriculture. In an international context, we conclude that the 2014 farm safety net likely would not have been enacted had multilateral agreement been reached on the 2008 Doha Round World Trade Organization negotiating documents. Conversely, the 2014 farm bill makes achieving those limits more difficult. Research is discussed that can elucidate the ongoing political economy of U.S. farm policy and help shape future program design.

Key words: Agricultural Act of 2014, agricultural policy, commodity programs, crop insurance, conservation, policy research agenda, Supplemental Nutrition Assistance Program (SNAP), 2014 farm bill, U.S. farm subsidies, World Trade Organization (WTO).

JEL codes: K33, N52, Q17, Q18, Q28.

This article assesses the domestic and international political economy of the Agricultural Act of 2014 (2014 farm bill) with a focus on the continuation of a farm safety net via the commodity and crop insurance titles. Passed in February 2014 after extended

debate, the new farm bill reaffirms longstanding U.S. support for its farmers through 2018. Framed by a period of high crop prices, and with federal budget deficits deepened by six years of economic recession and slow recovery, the time may have seemed propitious to lessen the role and fiscal cost of U.S. farm policy. Instead, farmers and their congressional allies mostly succeeded in maintaining public assistance.

The farm safety net that emerged is complex but can be abstracted to a few main points. Fixed direct payments of about \$4.5 billion annually are eliminated, ending a program first enacted in 1996. Countercyclical support, which has a long precedent in U.S. farm policy, is strengthened. Specifically, downside risk protection is enhanced for both what are commonly referred to as “shallow losses” associated with individual farm insurance deductibles and “multiple year losses” associated with year-over-year

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persistent low prices or revenue. Also strengthened is the core role for federally subsidized, privately delivered, within-year crop insurance for production-period risk around which the terms shallow and multiple year losses arose in the farm bill debate.¹ Although crop prices remained relatively high when the farm bill was enacted, it was unclear whether the various proximate causes, including more than doubling of corn ethanol production since 2006, would continue to sustain high price levels. Strengthening the downside safety net in this circumstance highlights the following policy issue: What share of U.S. farm risk should the public bear? Whether the share assumed by new 2014 farm bill programs will be more or less costly than the fixed direct payments they replace is uncertain.

With agriculture being a small but relatively prosperous and concentrated sector of the economy, U.S. farm policy can plausibly be viewed as an equilibrium result of organized group lobbying (Anderson, Rausser, and Swinnen 2013; Orden, Blandford, and Josling 2010). Each farm bill is driven by specific contestation among farm and nonfarm political interests. Yet farm support policy and other dimensions of farm bills also retain continuity best assessed in retrospect. In the 2014 farm bill, notable evolution occurred in risk assistance programs but key past farm policy reforms that lessen their distortionary effect are retained. Benefits are provided to traditional nonfarm constituencies, including conservation and nutrition assistance, and are extended to new nonfarm stakeholders. Maintaining this broad coalition is vital to enacting a farm bill and provides multiple paths to securing congressional majorities. The permanent farm support laws from 1938 and 1949 that each farm bill temporarily supplants are retained. Thus, in the domestic political context, the stage is set for considering another farm bill starting with

the strengthened risk protection of the 2014 programs.

In an international context, we conclude the United States is unlikely to exceed its World Trade Organization (WTO) domestic support commitment. Support is more likely to exceed the tighter constraints proposed by the December 2008 WTO Doha Round negotiating documents. Had a Doha agreement been reached, it is unlikely the 2014 farm bill would have been enacted as it is, while its enactment makes achieving the Doha limits more difficult. In contrast, the WTO rulings in the Brazil-U.S. cotton case led to substantive changes in the safety net for upland cotton.

The remainder of the article is organized as follows. First, to provide a background for the programs adopted in the 2014 farm bill, the main arguments that framed the four farm bill debates of the past two decades are reviewed and a few key features of the 1996, 2002, and 2008 farm bills are summarized. The 2014 farm support policies are then discussed in more depth, with a focus on the revised commodity support programs, their potential cost, and the expanded reliance on insurance programs. The conservation, nutrition, and other provisions of the farm bill that ensure a wide coalition of stakeholders are summarized and the new farm bill assessed in the context of U.S. WTO commitments and potential future trade negotiations. The article concludes with a discussion of research that can elucidate the ongoing political economy of U.S. farm policy and can help shape the design of farm policy going forward.

Continuity and Change in U.S. Farm Policy

The last four farm bills were enacted with large bipartisan congressional majorities under differing control of Congress and the presidency (table 1). Each bill engendered extensive debate and to varying degrees turned the farm safety net in a different direction while continuing support for farmers and expanding the farm bill coalition.

Under the first Republican-controlled Congress in four decades and with rising crop prices, the 1996 farm bill ended annual supply controls and most public-stock programs. Prior to this farm bill, farmers had gained increased planting flexibility but some production restrictions that originated in depression-era New Deal farm programs also

¹ What are commonly referred to as shallow losses are single-year production period losses that are not covered by individual farm insurance because they are smaller than the insurance deductible. These losses and related assistance are thus defined relative to insurance yield and revenue guarantees. What are commonly referred to as multiple year losses are somewhat less clearly defined to result from low prices or revenue that persists over more than one year. Assistance for these losses is determined relative to a benchmark established by Congress in the farm bill that, as described in the article, may not adjust or may not adjust fully with changes in market prices and revenue. Multiple year losses are not covered by insurance because the prices used to determine the insurance guarantees are reset each crop year and thus adjust downward by the next crop year with a persistent low price level.

Table 1. Composition of Congress and Farm Bill Votes, 1996 through 2014 Farm Bills

Final short title	Public law	President	House		Senate	
			Party control	Farm bill vote	Party control	Farm bill vote
Federal Agriculture Improvement and Reform Act of 1996	104–127 (4/4/1996)	Clinton	Republican <i>228R/206D/1I</i>	318–89 <i>211R/106D/1I</i>	Republican <i>53R/47D</i>	74–26 <i>52R/22D</i>
Farm Security and Rural Investment Act of 2002	107–171 (5/13/2002)	Bush	Republican <i>222R/211D/2I</i>	280–141 <i>141R/137D/2I</i>	Democrat <i>49R/50D/1I</i>	64–35 <i>43D/20R/1I</i>
Food, Conservation, and Energy Act of 2008	110–234 (5/22/2008)	Bush	Democrat <i>202R/233D</i>	316–108 <i>216D/100R</i> (veto override)	Democrat <i>49R/49D/2I</i>	82–13 <i>45D/35R/2I</i> (veto override)
Agricultural Act of 2014	113–79 (2/7/2014)	Obama	Republican <i>232R/200D</i>	251–166 <i>162R/89D</i>	Democrat <i>45R/53D/2I</i>	68–32 <i>44D/22R/2I</i>

Note: Votes are for farm bill conference report, except 2008 veto override; D stands for Democrat; R stands for Republican; I stands for Independent. Party affiliation at time of farm bill vote (3 House seats vacant at 2014 farm bill vote). Membership and yea votes by party are in italics.

Sources: compiled by authors based on membership and roll call votes reported at www.congress.gov, www.senate.gov, and www.clerk.house.gov.

remained in place. Commodity support had evolved by the mid-1990s into two payment tiers. One tier provided countercyclical payments on a fixed (program base) acreage, and historic yield when market prices were below stipulated target prices. A second, more-distortionary tier provided payments on current output when market prices were below lower support prices known from their origin as loan rates.

The 1996 farm bill unexpectedly replaced the target price countercyclical program with fixed direct payments tied to historic program acres and yields but decoupled from both market prices and farmers' planting decisions. Since these direct payments were made regardless of whether market prices were low or high, they were received even as crop prices rose above previous target price levels. Reform advocates hoped this windfall might be a transition out of commodity programs, while program proponents noted that Congress remained the final guarantor of a safety net (Orden, Paarlberg, and Roe 1999).

As farm support proponents had argued, Congress stepped in with *ad hoc* payments when prices fell in 1998. Continued low prices and farm income led a politically-divided Congress to retain the fixed direct payments and revive a target price countercyclical program in the 2002 farm bill. Planting flexibility was retained and the 2002 farm bill did not reintroduce annual supply controls or public-stock programs eliminated

by the 1996 farm bill, nor substantially raise loan rates.

During the 2008 farm bill debate, a Democrat majority Congress prioritized food assistance. Eligibility was expanded (Wilde 2013), and renaming the Food Stamp Program as the Supplemental Nutrition Assistance Program (SNAP) signaled a shift from food access to improved nutrition. A conservation program for planted acres (working lands) was reauthorized, increasing the orientation of the conservation title beyond its traditional focus on land retirement. Despite a surge in crop prices related in part to biofuels mandates (de Gorter, Drabik, and Just 2013), and a consequent decline in countercyclical payments, farm groups were generally wary of changes to their safety net. Fixed direct payments were retained, despite criticism of their legitimacy when crop income was high (Orden, Blandford, and Josling 2010). The optional Average Crop Revenue Election (ACRE) program embodied several innovations sought by Midwest grain producers including a moving-average revenue benchmark and a focus on shallow losses.

With low national economic growth but strong crop markets, between 2008–2010 and 2011–2013 average annual SNAP expenditures rose from \$50 billion to \$74 billion while average net farm income rose from \$74 billion to \$121 billion. Spending on farm supports became politically unsustainable as

Table 2. CBO Budget Scores, Agriculture Act of 2014, FY2014–FY2023 Outlays

Farm bill title	Billions dollars (10-year totals)		
	Projected outlays	Projected change from 2008 farm bill baseline	
Farm support programs	134.3	–8.6	
Commodity programs (Title I), of which	44.5	–14.3	
Repeal Direct Payments			–40.8
Repeal Countercyclical Payments			–1.5
Repeal ACRE			–4.7
Price Loss Coverage (PLC)			13.1
Agriculture Risk Coverage (ARC)			14.1
Dairy Program			0.9
Supplemental Disaster Assistance			3.7
Crop insurance (Title XI), of which	89.8	+5.7	
Supplemental Coverage Option (SCO)			1.7
Stacked Income Protection Plan (STAX)			3.3
Conservation (Title II), of which	57.6	–4.0	
Conservation Reserve Program			–3.3
Conservation Stewardship Program			–2.3
Agricultural Conservation Easement			1.2
Nutrition (Title IV)	756.4	–8.0	
Other titles	8.1	+4.1	
Total	956.4	–16.5	

Note: Other titles are Trade (III), Credit (V), Rural Development (VI), Research, Extension, Related Matters (VII), Forestry (VIII), Energy (IX), Horticulture (X), and Miscellaneous (XII). Source: Congressional Budget Office (2014).

average insurance payments to farmers net of farmer-paid premiums rose from \$2.5 billion to \$9.1 billion, exceeding direct payments in each year from 2011 to 2013. With farm income being high, but facing yield and price variability, most farm groups endorsed wider calls to eliminate direct payments but defended crop insurance and called for additional strengthening of a safety net (Zulauf and Orden 2014). Yet debate over the form of stronger risk assistance became mired in longstanding differences among competing regional and commodity interests (Barnett and Coble 2011).

Without a farm sector consensus and with continued budget gridlock after the 2012 mid-term elections, the divided 112th Congress enacted a stop-gap measure to extend most provisions of the 2008 farm bill for one year, through September 2013. Sequester budget cuts took effect in March 2013 (including \$6 billion over 10 years to agricultural spending). In June 2013, the Senate passed a farm bill but the House of Representatives defeated an Agriculture Committee bill as a conservative caucus vociferously criticized both farm support and nutrition entitlement programs. The House of Representatives then passed separate bills on farm programs and nutrition assistance, reducing SNAP spending by

5%, a reduction 10 times greater than the Senate had proposed. The ongoing budget and entitlements stalemate (including a deep divide over health care legislation) culminated in October 2013 in the first partial federal government shutdown since 1995. This brought a fiscal truce later in the month and in its wake, under scrutiny to demonstrate the ability to govern, the 113th Congress passed the Agricultural Act of 2014.

Actual spending will differ, but the Congressional Budget Office (CBO) scoring of projected outlays when the 2014 farm bill was enacted provides a snapshot of its scope (table 2). With a 79% share, and assuming continuation of the 2014 law, nutrition programs dominate total projected outlays for the 10 fiscal years between 2014 and 2023. For the first time, both crop insurance (9%) and conservation (6%) spending are each projected to exceed commodity program spending (5%). While all other titles account for just 1% of total spending, included within this are many small programs that helped garner support for the farm bill.

A Redesigned Crop Safety Net

The 2014 farm bill redesigns price and revenue crop programs and expands reliance on

Table 3. Introductory Description, Agricultural Act of 2014 Farm Safety Net

Title I: Commodity programs	
Price Loss Coverage (PLC) (revised target price program)	Crop price program. Payment made if price is below reference price fixed by Congress (table 4). No premium is paid but payment made on a fixed historic payment yield and on 85% of historic program acres.
Agriculture Risk Coverage (ARC) (revised revenue program)	Crop revenue program with 2 versions: county and individual. Revenue benchmark changes with yield and market price subject to a minimum price (PLC reference price). Payment for revenue loss between 14% and 24% of benchmark. No premium paid but payment is made on 85% (county) or 65% (individual) of historic program acres.
Marketing Loan (continuing program)	Crop price program. Payment made on current output if price is below loan rate fixed by Congress. Loan rates are less than PLC reference prices (table 4). Loan rates are unchanged except cotton loan rate from a fixed \$0.52/pound, to a range of \$0.45–\$0.52/pound.
Dairy Margin Protection Program (MPP) (new program)	Replaces dairy price and income support programs. Payment made to participating dairy farmers if margin between milk prices and feed costs is below \$4/100 pounds with no premium. Option to pay a premium to insure margin up to \$8/100 pounds for coverage of 25% to 90% of historic milk production. Government purchase of dairy products for domestic food programs authorized when margin guarantee payments are triggered.
Sugar (continuing program)	Largely unchanged; loan rate above world price protected by import restrictions.
Supplemental Agricultural Disaster Assistance (renewed program)	Four disaster aid programs first authorized in 2008 farm bill for livestock, farm-raised catfish, honeybees, orchard trees, and nursery stock are authorized retroactively and made permanent.
Title XI: Insurance programs	
Crop yield and revenue insurance (continuing program)	Yield and revenue insurance at farm enterprise and smaller units, as well as at county. Farmer elects coverage and pays part of actuarially fair premium, averaging 38%. All planted acres can be insured.
Supplemental Coverage Option (SCO) (new program)	Yield or revenue insurance that makes insurance payment if county yield or revenue is between 86% and coverage level elected for underlying individual farm insurance contract. Available if not enrolled in ARC. Farmer pays 35% of actuarially fair premium.
Stacked Income Protection Plan (STAX) (new program)	Revenue insurance for upland cotton only. Insurance payment received if county revenue is between 90% and coverage level elected for underlying individual insurance or can be purchased as stand-alone contract. Farmers pay 20% of actuarially fair premium.

Source: Zulauf and Orden (2014); see also U.S. Congress (2014) and Congressional Research Service (2014).

crop insurance (table 3). Higher downside risk assistance is provided for multiple years of low prices or declining revenue. Despite debate on tying payments to current production, payments largely remain

decoupled, with farmers retaining planting flexibility on a fixed program acreage. Decoupling is partly tempered by options to update program yields and reallocate program acres among crops, but loan rates were

not increased and remain at levels well below recent market prices except for sugar, cotton, and peanuts.

The redesign of crop insurance includes the Supplemental Coverage Option (SCO), a new county shallow loss program designed to partly cover losses that fall under the crop insurance deductible. Safety net policy for upland cotton and dairy are redesigned into a new upland cotton insurance program and a new dairy Margin Protection Program (MPP). In sum, while repeal of fixed direct payments reduced projected support over 10 years by \$41 billion, and eliminating ACRE and the 2008 target price countercyclical program saved an anticipated \$6 billion, the CBO projected that 82% of these savings were retained in various safety net programs authorized in the commodity and crop insurance titles.

Insights on the impetus to redesign the crop safety net can be gleaned by comparing direct payments with crop insurance payments net of farmer-paid premiums across states and crops (Zulauf and Orden 2014). For 42 of 49 states (Alaska not included), their shares of net insurance payments from 2004–2013 were within two percentage points of their share of direct payments. The largely similar distribution by state and high net insurance payments in 2011–2013 made it easier for farmers collectively to give up direct payments while protecting crop insurance. In contrast, net insurance payments as a ratio to direct payments vary notably by crop: from 12% and 39% for rice and peanuts, to 92%, 121%, and 135% for corn, cotton, and sorghum. This ratio partly explains why rice and peanuts resisted the elimination of direct payments and argued for high target prices to replace them, while cotton could opt for an insurance program.

Redesign of Commodity Programs

Differing regional and crop interests resulted in the authorization of four programs that address shallow and multiple year losses in the 2014 farm bill. Programs that address shallow losses are SCO and Agriculture Risk Coverage (a revision of ACRE), with county (ARC-CO) and individual (ARC-IC) versions.² Programs that address multiple

year losses are Price Loss Coverage (PLC), a revised target price countercyclical program, and the two ARC options. It is unlikely that the 2014 farm bill would have been enacted without these distinct programs. Broadly, the Midwest, upper Great Plains states, and the South favored the policy design of ARC-CO, ARC-IC, and PLC, respectively (Zulauf and Orden 2014). Rather than force a common program, the 2014 farm bill allows a one-time irrevocable choice among these programs for the 2014–2018 crop years, with a decision deadline of April 7, 2015 set in the bill's implementation.

Target prices (renamed reference prices) are fixed by Congress and were mostly increased 30–50% in PLC (table 4). A revealing comparison is the reference price versus recent market prices, measured in table 4 as a five-year Olympic average (drop the high and low years) of the 2009–2013 U.S. crop year prices. Relative to this average, reference prices ranged from around 70% for corn and soybeans to just over 100% for peanuts and long grain rice. Thus, reference prices were differentially set relative to market prices, with peanuts and long grain rice being favored.

Payments occur for PLC when U.S. crop year price is less than the reference price. In contrast, payments occur for ARC when revenue for a crop year is less than 86% of its benchmark revenue. Benchmark revenue is a five-year Olympic moving average of county or farm crop yields per planted acre multiplied by the five-year Olympic moving average of U.S. crop year prices, except that the price entering the average for any year cannot fall below the reference price. The PLC provides assistance for low prices that range from the reference price down to the loan rate. The ARC can provide assistance at prices above the reference price, but ARC assistance is for a narrower range of losses between 14% and 24% of its revenue benchmark. The ARC provides assistance of at least limited duration against multiple year losses due to its reference price minimum and because its benchmark adjusts more slowly than the market in a period of sharply declining revenue.

or farm yield; ACRE used state yield. The coverage range is narrower for ARC and its Olympic moving-average price component eliminates the impact of highest and lowest years on its revenue benchmark but was a simple two-year moving average for ACRE. Edwards (2011) discusses why ACRE enrollment was modest.

² The ARC differs from ACRE on several key parameters: ARC pays on a share of historic program acres while ACRE generally paid on a share of planted acres. The ARC uses county

Table 4. Comparison of Prices, Selected U.S. Program Crops

Crop	Loan rate 2014	Target price 2013	PLC reference price 2014	Olympic average U.S. crop year price 2009–2013
Barley	\$1.95	\$2.63	\$4.95	\$5.36
Corn	\$1.95	\$2.63	\$3.70	\$5.28
Oats	\$1.39	\$1.79	\$2.40	\$3.25
Peanuts	\$0.1775	\$0.2475	\$0.2675	\$0.2583
Long grain rice	\$6.50	\$10.50	\$14.00	\$13.60
Medium/short grain rice	\$6.50	\$10.50	\$14.00	\$18.20
Sorghum	\$1.95	\$2.63	\$3.95	\$5.10
Soybeans	\$5.00	\$6.00	\$8.40	\$12.27
Wheat	\$2.94	\$4.17	\$5.50	\$6.60
Upland cotton	\$0.45–\$0.52	\$0.7125	not eligible	\$0.773

Note: Units are \$/bushel, except \$/pound for peanuts and upland cotton, and \$/100 pounds for rice.

Sources: Congressional Research Service (2014), and authors' calculations.

Figure 1 shows indicators of possible payments per program acre by ARC-CO and PLC calculated for the 2014 crop year using U.S. price and yield projections from the December 2014 World Agricultural Supply and Demand Estimates (WASDE; USDA 2014). As explained by Zulauf and Schnitkey (2014), these values are only indicative because they are based on U.S., not county or farm, yields and revenue.³ Payments are indicated by ARC-CO for corn, sorghum, and wheat, and by PLC for corn, peanuts, long grain rice, and sorghum at the mid-price projections (average of WASDE low and high price estimates), as shown in the middle panel of the figure. Payments by ARC-CO for corn and PLC for peanuts and long grain rice are consistent with positions that representatives of these crops took during the 2014 farm bill debate. The PLC payments for corn and no payment for medium/short grain rice illustrate that outcomes may not align with lobbying positions.

The uncertainty surrounding payments is illustrated under the range of December 2014 WASDE projected prices for the 2014 crop year.⁴ The outcomes for corn are especially informative as payments are sensitive

to program and crop year price. At the high price versus mid-price projection for corn (\$3.80 vs. \$3.50), payment drops from \$67 to \$30 per acre for ARC-CO and disappears for PLC. At the low price projection (\$3.20), PLC estimated payment increases to \$56 from \$22 per acre at the mid-price. The lower corn price does not increase the per acre ARC-CO payment because, even at the mid-price, it is at the cap of 10% of benchmark revenue.

The wide difference in per acre payments imply a wide range of possible total program costs, with a key factor being the enrollment decisions of farmers. At the mid-prices for the 2014 crop year, ARC-CO indicative cost is \$6.1 billion (\$5.7 billion for corn) and PLC cost is \$0.7 billion if all base acres are enrolled in the program that makes the largest per acre payment (table 5).⁵ As a comparison, total costs are \$2.6 billion (\$1.9 billion for corn) for the 2014 crop year if all acres for all crops are enrolled in PLC.

To illustrate the inter-temporal dynamics of payments, especially for ARC-CO, assume (for simplicity of illustration) that yields and prices stay constant at projected 2014 levels through 2018. At the WASDE mid-prices, ARC payments remain above \$6 billion for crop year 2015 then decline to \$3.6

³ Cost of ARC-IC is not included in the comparison. The ARC-CO is a similar program with larger enrollment expected and is easier to model since it is administered on a program crop-by-program crop basis, whereas ARC-IC is administered in a complex way based on all program crop acres and acres planted to program crops on the farm unit that an individual operator elects into it.

⁴ The WASDE price projections increased in July/August, declined in September/October, and rose again in January/February/March 2015. The December 2014 price projections are also useful for illustrative purposes in the context of this variability.

⁵ More precise estimates of total cost can be made once program enrollment and county yields are known by using a weighted average of estimated county per acre payments. Using state level yields for 2014, available just prior to this article going to press, and the January 2015 WASDE mid-price projections (generally slightly higher than December), showed total ARC-CO costs for crop year 2014 if all acres enroll in the program paying the most as \$5.5 billion using U.S. yields versus \$5.3 billion when using state yields.

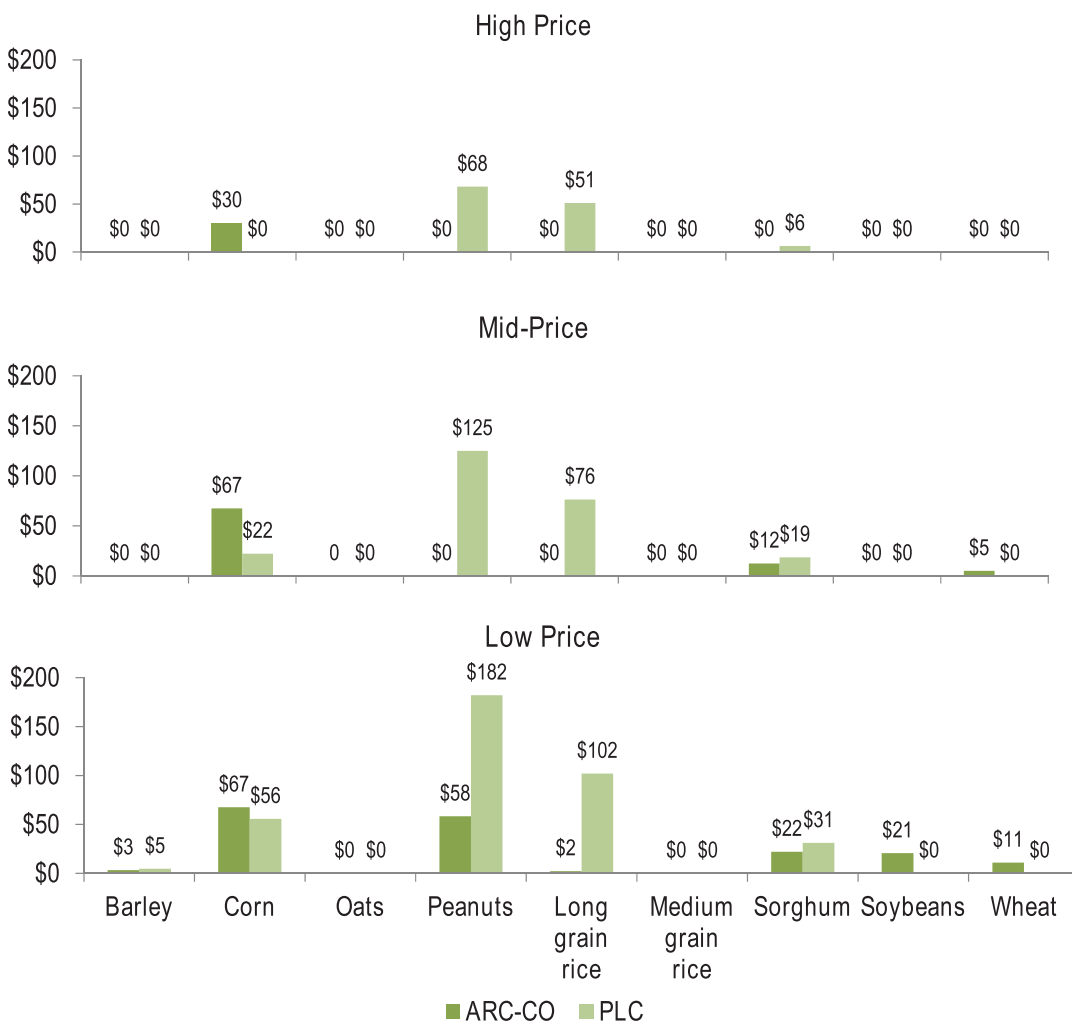


Figure 1. Indicators of potential 2014 crop year ARC-CO and PLC payments per program acre using December 2014 WASDE U.S. price and yield projections

Note: The ARC-CO payment indicators are calculated using December 2014 WASDE yield projections; PLC payment indicators are calculated using the 2014 farm bill program yield update option. Indicators are adjusted for the 85% program acre payment factor. Source: Zulauf and Schnitkey (2014). Table 5 sources has calculation details for peanuts.

billion for 2016 and \$0 for 2017 and 2018. In contrast, annual PLC payments do not change.⁶ Similar payment patterns occur at low and high prices. Thus, a key enrollment decision that producers faced is whether they preferred support from ARC-CO (which, particularly for corn, would likely be larger for 2014 and maybe 2015 and 2016 than from PLC), or the potential for larger support

from PLC retained through 2018 if market prices end up well below the reference prices.⁷

⁷ Under our simplifying assumptions, ARC-CO payments for corn for crop years 2014 and 2015 are at their cap at both the WASDE low and mid-price, while ARC-CO payments increase for wheat and start to be made for soybeans at the low prices and assuming that program acres are enrolled in the program that pays the most for 2014. The enrollment decision's effect on payments for corn is most acute. Corn payments for the 2014 crop with all acres enrolled in ARC-CO would exceed payments if all corn acreage was enrolled in PLC by \$3.8 billion at the December 2014 WASDE mid-price, but only by \$0.9 billion at the WASDE low price. Over the five years between 2014 and 2018, ARC-CO payments would exceed PLC payments for corn by \$5.6 billion at the mid-price, but would be less than PLC

⁶ The SCO costs do not enter our cost indicators. The CBO projects SCO cost to be about \$200 million annually; FAPRI (2013) estimated annual SCO costs somewhat higher than CBO for the House and Senate versions of the farm bill.

Table 5. Total Cost Indicators for ARC-CO and/or PLC, 2014–2018 Crop Years

Crop Year	Low Price		Mid-Price		High Price	
	ARC/PLC	Only PLC	ARC/PLC	Only PLC	ARC/PLC	Only PLC
	Billion dollars					
2014	\$7.5/\$1.0	\$5.7	\$6.1/\$0.7	\$2.6	\$2.6/\$0.4	\$0.4
2015	\$7.5/\$1.0	\$5.7	\$6.1/\$0.7	\$2.6	\$2.6/\$0.4	\$0.4
2016	\$6.0/\$1.0	\$5.7	\$3.6/\$0.7	\$2.6	\$0.2/\$0.4	\$0.4
2017	\$1.3/\$1.0	\$5.7	\$0.0/\$0.7	\$2.6	\$0.0/\$0.4	\$0.4
2018	\$0.0/\$1.0	\$5.7	\$0.0/\$0.7	\$2.6	\$0.0/\$0.4	\$0.4
Total	\$22.3/\$5.0	\$28.5	\$15.8/\$3.5	\$13.0	\$5.4/\$2.0	\$2.0
Combined Total	\$27.3		\$19.3		\$7.4	

Note: Cost indicators assume either all program acres are enrolled in the program that would pay the most for crop year 2014 (ARC/PLC column) or all acres are enrolled in PLC (only PLC column). Prices and yields are assumed to remain at 2014 projected levels through 2018.

Source: Authors' calculations using U.S. price projections from December 2014 WASDE (except peanuts), 2012 crop year program acres for crops shown in figure 1, and yields as described in figure 1 notes. Yield for peanuts is from the USDA/National Agricultural Statistics Service (NASS) November 2014 Crop Production report. The 2014 crop year price for peanuts is estimated using regression analysis and monthly prices reported by NASS since the August start of the peanut crop year.

Inclusion of support program choices in the 2014 farm bill implies several policy design issues remain open. Important issues for shallow losses are whether assistance is delivered by insurance or commodity programs and whether farmers co-pay a share of a premium or receive payment on only a share of acres. An important design issue for multiple year losses is whether downside risk is capped at a lower value in exchange for assistance for declines in revenue at prices above the reference price. Related multiple year loss design issues include whether focus is placed on price or revenue, and whether policy parameters are fixed or move with the market. Farm policy has been trending toward reliance on policy parameters that adjust with the market, as illustrated by the increasing importance of crop insurance with its guarantees reset each year based on market prices for that crop year. Nevertheless, a strong proclivity remains among many farm groups, and in Congress, for fixed parameter levels to provide downside risk assistance; its strength is demonstrated by PLC and the integration of reference prices into the ARC revenue benchmark.

Redesign of Insurance

Insurance outlays, which include premium subsidies, administrative and operating cost reimbursements to private insurance companies, and government reinsurance for underwriting gains and losses were projected at \$90 billion by the CBO, an increase of \$5.7 billion compared to the 2008 farm bill baseline. A main reason for the increase is the new shallow loss Stacked Income Protection Plan (STAX) for upland cotton. The STAX becomes the only support program for upland cotton other than a loan rate program. The more radical redesign of the upland cotton safety net compared to other program crops was driven in large part by the WTO Brazil-U.S. cotton case. Agreement was reached to terminate this long WTO dispute once the 2014 farm bill was enacted (Schnepf 2014). Brazil opposed any fixed reference price for upland cotton, including its incorporation into insurance products. The U.S. cotton industry endorsed replacing its traditional programs with the highly-subsidized STAX to resolve the dispute and in anticipation of outlays projected by the CBO to be \$3.3 billion over 10 years; a substantial subsidy but only half of the \$6.7 billion of fixed direct and countercyclical payments (not shown separated for cotton in table 2) projected if the 2008 farm bill safety net was extended.

Resolution of the WTO cotton case is an institutional success of the 2014 farm bill but the enhanced reliance on insurance as

payments by \$5.4 billion at the low price. We do not extend the analysis beyond the 2018 crop year, but CBO builds into its baseline that farmers will be able to shift between the programs in crop year 2019. This matters to projected baseline spending (and hence to the level of spending Congress will have as a starting point for the next farm bill).

the safety net for cotton raises a number of policy issues. Insurance products do not address low price or revenues that extend over multiple years and any attempt to add assistance (or large marketing loan program payments) could test whether the cotton case outcome is a meaningful check on U.S. farm policy. The creation of STAX also may signal the Balkanization of crop insurance as farm bills become a legislative vehicle to negotiate insurance plans differentiated by crop.

In eliminating the cotton fixed direct and countercyclical payment programs, Congress converted 17.9 million cotton program acres to generic program acres. These acres can be planted to any program crop and can receive payments by the program elected for that crop. Thus, for generic program acres, program payments may distort planting decisions. If market prices for program crops are below their reference prices and returns for cotton are low, 2013 USDA cost of production data suggest generic base acres may be planted to long grain rice and peanuts. Per acre profits are higher for these two crops than for other program crops at reference prices and for cotton at low prices.

The new dairy MPP (a Title I commodity program not a Title XI insurance program) provides milk-to-feed cost margin protection. Authorization of MPP doubled projected CBO outlays for milk to \$1.8 billion over 10 years. The 2014 farm bill also authorizes margin insurance for crops, with rice suggested as the first crop for implementation. Farm organizations have tried to reintroduce crop production costs into the safety net ever since cost of production adjustment for target prices was removed in the 1980 farm bill. While only initial steps have been taken, crop margin insurance may evolve into a dominant insurance product. A potential issue is that, unless designed appropriately, margin insurance may guarantee a profit to some of the largest farms due to their lower production costs. This would distort the structure of production among farms of differing sizes.

The overall level of subsidies for crop insurance is a more general issue. As the 2014 farm bill demonstrates, insurance subsidies are strongly supported by farmers and in the political arena. Yet economic analysis is divided over whether any rationale exists

for such subsidies (Coble and Barnett 2012; Goodwin and Smith 2012). The argument for public subsidies is that the cost of providing private crop insurance is high due to moral hazard and adverse selection in crop production and high levels of systemic risk. Even if this argument is accepted, there are opportunities to reduce the current insurance costs.

Moral hazard and adverse selection can be managed by using yields of individual farms. Cooper et al. (2012) find these yield histories are preferred to USDA's Risk Management Agency (RMA) method of largely using county level risk to set premium rates. In a simulation model incorporating a stylized version of RMA methods, they find that an average subsidy rate of approximately 35% is sufficient to have 80% of land insured.

In regard to the systemic risk argument, it is well established that idiosyncratic risk can be managed by non-subsidized private insurance markets. Empirical evidence from both the aggregate performance of U.S. crop insurance (Zulauf and Orden 2014) and at the individual farm level (Zulauf et al. 2013) suggest systemic risk is at most around 45% of total risk in crop production. These authors make a rule-of-thumb argument that the average subsidy rate not exceed the share of risk that is systemic, which is notably smaller than the average current subsidy rate of 62%.

Increased reliance on insurance in the 2014 farm bill also raises issues about the implied income transfers associated with premium subsidies, even if insurance rates including the subsidies are actuarially fair, and about the impact of these subsidies on production, prices, and the environment (Smith and Bekkerman 2015). Sumner and Zulauf (2012) provide a summary of studies of the economic and environmental effects; while impacts are found, disagreement exists over their magnitude. It is reasonable to hypothesize that the impact of insurance may be muted by the resetting of insurance prices each year to reflect market conditions or by production-related constraints on planting decisions. Conversely, the reviewed studies predate the large increases in subsidy levels and insured acres, or may miss certain channels by which subsidized insurance affects crop production (Miao, Hennessy, and Feng 2014).

Conservation, SNAP, and the Broader Farm Bill Coalition

Provisions to bring together a broad political coalition are evident throughout the 2014 farm bill. The environmental focus to farm policy continues; after vigorous debate, wetland and highly erodible land conservation compliance requirements were extended to crop insurance premium subsidies. A new basic political equilibrium was reached—crop insurance cannot be both a farm safety net pillar and excluded from the expectation that farmers protect the environment in exchange for public support. Other indicators of a continued environmental focus in the farm bill include continuation of conservation programs for working lands and livestock facilities and restored funding for conservation easements that had elapsed (Ludden and Pease 2014). The Conservation Reserve Program acreage cap and projected cost are reduced, but the cap is still 24 million enrolled acres in 2018. Thus, both the 2008 and 2014 farm bills continued a program whose elimination could have addressed concerns over high crop prices, in contrast to a fence row-to-fence row planting mentality that dominated during the 1970s period of farm prosperity.

A key rural/urban coalition—between stakeholders in farm support and domestic food assistance programs—survived in 2014 despite intense pressure from political conservatives to reduce entitlement expenditures and the short-lived separation of nutrition from the farm bill by the House of Representatives. Projected spending on nutrition programs was reduced only by 1% over 10 years. The 2014 farm bill strengthened other coalition partnerships. Combined projected outlays on titles other than commodity, conservation, nutrition, and insurance are increased by 50%. Disaster aid programs for livestock, catfish, honeybees, orchards, and nursery stock authorized in the 2008 farm bill only through September 2011 were reinstated and made permanent.

A continued farm/environment/food assistance coalition will be central to the political economy of future farm bills. Opportunities to expand this coalition abound, but so too do challenges, as the United States grapples with issues over the role of farm production in nutrition, health, and environmental quality and the potential role for public policy in these areas. An example in the 2014 farm

bill of the opportunities for coalition building is the consolidated Regional Conservation Partnership Program, which provides a mechanism for local, regional, or watershed environmental issues to be addressed through leveraging public with private funds.

Important to the farm bill coalition is the retention of the permanent laws that each farm bill supplant. Under permanent laws, farm policy would revert to unworkable price-support and production-restricting programs enacted more than 60 years ago. Yet over 250 organizations jointly urged Congress to retain this outdated legislative framework (1st Farm Credit Services et al. 2013). These organizations recognize that retaining the permanent laws creates a powerful incentive to pass each new farm bill, thus providing opportunities to pursue their diverse policy agendas.

WTO Considerations

While the Doha Round negotiation has faltered since 2008, compliance of the U.S. farm safety net programs with the existing WTO disciplines, or tighter disciplines that could be negotiated, remains an issue. Since ARC-CO and PLC make payments on historic program acres with planting flexibility, they likely will be notified as non-product-specific support (see Brink 2011 for description of the WTO notification categories).⁸ We conclude from analysis along the lines of our above WASDE-based calculations (and as further presented in Zulauf and Orden 2014) that ARC-CO and PLC expenditures under the 2014 farm bill are unlikely to cause U.S. notified non-product-specific support to exceed an allowed *de minimis* threshold of 5% of the total value of agricultural production. Under this threshold, non-product-specific expenditures do not count against the U.S. commitment that its annual domestic support stay below \$19.1 billion.

Arguments have long been made that U.S. crop insurance subsidies notified as non-product-specific support through 2011 are product-specific (Goodloe and Glauber 2012). In a decision purportedly not related to enactment of the 2014 farm bill, the U.S.

⁸ Payments on generic acres and by MPP are likely to be notified as product-specific support. The ARC-IC may also be notified as product-specific due to the role that acres planted to program crops play in determining its benchmark revenue.

indicated in its notification for 2012 (submitted December 8, 2014) that it henceforth would classify all crop insurance premium subsidies, not just STAX subsidies, as product-specific. While justified on economic grounds, this decision is convenient for the United States, making it even less likely that ARC-CO and PLC payments will cause the *de minimis* threshold for non-product-specific support to be exceeded.

Expenditures under the 2014 farm bill are more likely to exceed several of the proposed tighter limits on developed country domestic support included since December 2008 in the Doha Round negotiating documents (Glauber and Westhoff 2015; Zulauf and Orden 2014). It seems reasonable to conclude that the United States would not have enacted the 2014 farm bill as it is, had the December 2008 proposals been adopted and phased in. Conversely, enactment of the 2014 farm bill makes it more difficult for the United States to contribute to attaining tighter limits on domestic support at a global level in future negotiations.

In contrast, the Brazil-U.S. cotton case may have impacts beyond the U.S. upland cotton safety net. A core complaint by Brazil was that the WTO Agreement on Subsidies and Countervailing Measures specifies that sector-specific government programs cannot cause serious prejudice to the interests of another member by significantly suppressing world prices or otherwise significantly distorting market conditions. By extension, the cotton ruling suggests PLC could be subject to potential WTO challenge if U.S. prices stay below the reference price for an extended period. The ruling also suggests that grounds may exist to file a complaint if total U.S. subsidies for a given crop, including insurance subsidies, distort trade or suppress world prices for a crop.

Policy Research Agenda

The U.S. farm lobby and broader farm bill coalition demonstrated their continued political power by securing a new farm bill in 2014 from a divided Congress that enacted little major legislation. Six years of high crop prices and incomes did not bring an end to farm support programs. Continuing qualitative and quantitative assessments of why U.S. farm policy has survived, evolved as it has, and will develop in the future are merited.

A recent survey of political economy models and empirical evaluations of the determinants of agricultural policies worldwide by Anderson, Rausser, and Swinnen (2013) focuses on the micro-foundations of private-agent and political-actor decisions. Among the concepts these authors discuss from the political economy literature, the 2014 farm bill illustrates the importance of organized industry lobbying, demonstrates the relevance of status quo bias, countercyclical bias and aversion to loss, and underscores the role of information, particularly the role of complex program details that are better understood by directly-involved stakeholders than by the general public. Among relevant questions are whether the longstanding farm bill coalition will remain intact (as we suggest it will), or whether various forces will disrupt the basic equilibrium this coalition has secured. Spending on the enhanced downside risk safety net of the 2014 farm bill may prove less or more than the fixed direct payments farmers gave up, a one-time card they have played. If expenditures prove lower and a small baseline of outlays emerges for the next farm bill, then 18 years of fixed direct payments may be the transition out of commodity programs once envisioned by reform advocates. If costs prove higher and budget deficit concerns are an important policy driver, additional pressure may be felt to reduce spending under the new safety net.

There are also policy research questions at the international level. The EU continues to make large fixed direct payments, on the order of 40 billion euro per year. How the different trans-Atlantic approaches to farm policy will impact the policy decisions of middle-income countries where an increase in farm support may be anticipated as agriculture's share of GDP declines needs to be monitored. In addition, with the 2014 farm bill in place, there is a need to assess in empirical trade models the market access gains the U.S. might require to accept tighter constraints on domestic support in international negotiations.

In terms of the design of U.S. farm support, we have highlighted several issues that remain open under the 2014 farm bill. As argued by Goodwin (2014), such open policy design issues suggest a research agenda that can help shape programs adopted in subsequent farm bills by elucidating policy impacts and trade-offs.

The ARC is on more even footing with target price countercyclical programs than ACRE was in the 2008 farm bill. Important to reducing the domestic and international distortions caused by farm support is understanding the production impacts of moving-average revenue versus fixed price support programs, as well as of per acre payment caps. Moreover, ARC with its reference price minimum in determining revenue benchmarks is a hybrid program between the earlier ACRE program (with no price minimum) and PLC. Desirability of a hybrid program from an economic perspective needs to be assessed.

While termination of the WTO Brazil-U.S. upland cotton case is a success of the 2014 farm bill, creating generic program acres will fuel further debate on the relationship between government payments and planting decisions. Research can demonstrate whether generic program acres stimulate excess production of program crops. This can provide information on one of the hotly debated issues in the 2014 farm bill; do fixed reference prices paid on planted acres distort production decisions.

The emergence of crop insurance as a farm safety net pillar means its cost and market and environmental effects will almost certainly be leading farm bill topics. No objectively-based evidence exists for the current matrix of subsidy levels. Thus, research is needed on the overall average level of the crop insurance subsidy, which we argue is currently too high, and the least distorting pattern of subsidy levels by insurance type and loss coverage. Research is also needed on the costs and benefits of various crop insurance add-on features, such as the harvest price option, prevented planting, and the yield exclusion feature adopted in the 2014 farm bill. Impacts, including costs and benefits, of insuring the difference between gross revenue and cost of production require assessment.

Research topics that span between commodity programs and crop insurance include how to best interface and thus minimize the overlap between assistance for multiple year losses from low prices or revenues and assistance for within-year production period losses. The potential for risk overcompensation needs analysis, as does the relative costs and benefits of reducing total farm subsidies through reduced payment acres versus higher farmer-paid insurance premiums.

Beyond farm support programs, a broad, complicated set of policy issues emerge from agriculture's expanding portfolio of products, including food, environmental quality, and fuel. Examples abound. Policies involving land retirement and other land use options are evolving. Congress has not revoked the biofuels mandates despite the recent period of high crop prices, but future biofuel volume requirements are uncertain. The emergence of SNAP in 2008 signals a continued evolution of food programs from a focus on calories to a focus on nutrition. In short, the increasing portfolio of society's desired products from agriculture calls for a rich, diverse tapestry of research that can affect U.S. farm bills as well as negotiations over the environment and international trade.

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