Journal of Agricultural and Applied Economics, 42,3(August 2010):537–541

Discussion: What Have We Learned from the New Suite of Risk Management Programs of the Food, Conservation, and Energy Act of 2008?

Bradley D. Lubben and James L. Novak

New revenue-based support programs in the 2008 Farm Bill represent a fundamental shift in farm programs and risk management decision-making. However, complexity, uncertainty, economics, and, arguably, an incomplete analysis of the new Average Crop Revenue Election (ACRE) program all contributed to low enrollment in the new program in 2009. An effective analysis of ACRE should consider farm programs as part of an integrated risk management portfolio, including crop insurance, marketing, and other risk management tools as opposed to a separate lottery program. Improving this integration could be one of the most significant consequences of the 2008 Farm Bill.

Key Words: farm bill, commodity programs, risk management

JEL Classification: Q18

The 2008 Farm Bill clearly delivered a new, much more complex farm income safety net to producers. On top of the existing price-based support programs (marketing loans, Direct Payments [DPs], and Counter-Cyclical Payments [CCPs]), the federally subsidized crop insurance programs, and the history of *ad hoc* disaster assistance programs, Congress added two revenue-based support programs: the Average Crop Revenue Election (ACRE) program and the Supplemental Revenue (SURE) assistance program. Both represent a shift toward revenue in the design of farm income support policy. ACRE focuses on crop-specific revenue instead of price. SURE focuses disaster assistance on whole-farm crop revenue instead of crop-specific quantity and quality losses. Both will impact farm program, crop insurance, marketing, and other risk management decisions in very different ways than traditional federal farm policy.

Bradley D. Lubben is assistant professor and extension public policy specialist, Department of Agricultural Economics, University of Nebraska–Lincoln, Lincoln, Nebraska. James L. Novak is extension economist and professor, Department of Agricultural Economics and Rural Sociology, Auburn University, Auburn, Alabama.

Contributions of the Presented Papers

The invited papers consider these differences and analyze the impact of the new programs. All of the papers seem to see ACRE as more insurance-like than a historic farm program support mechanism. Barnaby et al. analyzed and addressed ACRE and SURE as being adjunct insurance products. ACRE was characterized as "a put option." Zulauf et al. examine overlaps between insurance and the two programs. Harris comments specifically about the offsets of reductions in DPs and marketing loan protection under ACRE with the SURE program. Historic farm programs (2002 and previous), although designed to reduce income risk, have not generally been analyzed as insurance programs,

which brings up a question: is this a fundamental shift in farm and political thinking? Will future farm programs and insurance products finally be linked together in some rational fashion? Barnaby et al. seem to indicate that this will be the case, at least on the insurance side.

Harris did a good job of outlining the political situation surrounding the implementation of the ACRE program and the reasons for southern region lack of participation. Prefarm bill discussions and analysis may have led farmers to hope for more than they got out of the program. It certainly led to a lot of confusion. As presented by Barnaby et al., discussions ranged from program payments triggered by farm-level losses to those triggered by county or state losses to the current law requiring both farm-level and state-level triggers. In the South, current law reducing DP and loan rates under ACRE participation led to less than favorable comparisons of ACRE to the Direct and Counter-Cyclical Program (DCP). This was especially the case for cotton and peanut producers and for the reasons outlined by Harris. Figure 1 provides a relative comparison of the effective price protection provided by ACRE in 2009. The effective price that would trigger ACRE payments is 90% of the ACRE guarantee price (2-year marketing year national average price) assuming no yield deviation from the ACRE benchmark. From cotton and peanut producer perspectives, the new ACRE program offered no better effective price protection than the existing DCP; thus, the cut in the DP and the marketing loan rate meant a penalty for ACRE participants. Thankfully for those producers, the existing DCP was preserved. For several other commodities (corn, sorghum, wheat, and soybeans), ACRE offered a substantially higher price protection level relative to the existing DCP. For SURE, Harris also did well in highlighting the partial offset for reduced DPs and marketing loan rates experienced under ACRE. Tradeoffs and alternatives with insurance products were also well covered by Barnaby et al.

In all three studies, SURE, ACRE, and insurance are characterized as protecting the revenue of the farm operation. From a risk protection standpoint, although farm yields (5-year Olympic averages based on planted acreage) are part of the farm-level trigger for ACRE, national prices (2-year average) instead of more current posted county or Crop Revenue Coverage (CRC) insurance prices are part of the farm revenue trigger. Zulauf et al. highlighted these differences and the fundamental timing of coverage and a relationship to CRC. Cup and cap imposed limits are also significant, especially in times of volatile (downside) swings in market prices.

Notably excluded from all three papers, it should be noted that whole farm revenue insurance products also already exist. These are

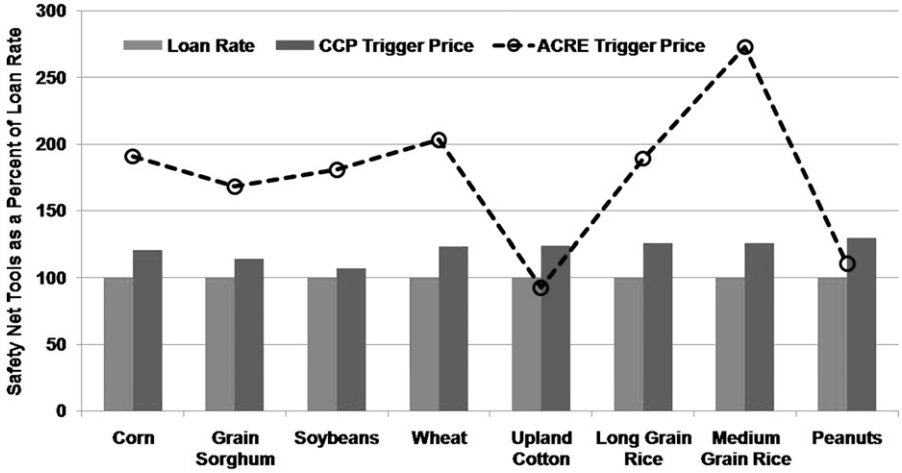

Figure 1. Relative Support Levels by Program Crop for 2009 (Source: USDA Farm Service Agency)

AGR and AGR-Lite. In the papers, SURE is characterized as a group risk program. As pointed out in the Barnaby paper, group risk insurance products also exist. The complementary and potentially competing nature of these products was noted in the papers. For crop insurance vs. ACRE, Zulauf et al. found "the overlap in coverage to be less than five percent of all ACRE payments." Barnaby et al. seem to make a stronger case for linkages of SURE, ACRE, and insurance.

Illinois and Kansas results are found to vary as a result of climate (Zulauf et al.). Barnaby et al. characterize regional differences as the difference between an in-the-money and an out-of-the money put, which should be adjusted. However, we would argue, at least for the Southeast, that this adjustment took place by farmers voting not to participate with their most significant cash crops.

In Kansas and Illinois, the crops (corn, beans, wheat) did not trigger loan program payments during the study period. This would contrast to cotton and peanut crops as highlighted by Harris. He stated, "The comparative higher production and base value of these crops create greater participation costs for the producer if ACRE is elected. Low prices would be a significant factor in southern participation. Basically cotton and peanuts were way out of the money (refer again to Figure 1 for ACRE support levels relative to existing marketing loan and CCP support levels). The premium cost of participation was too high. As Zulauf et al said: ". . . over the 2002 to 2008 crop years, counter-cyclical payments have been made each year to cotton, in all but one year to peanuts, and in four years to rice. To many corn belt producers, this stark difference in payment history suggests that, while the counter-cyclical program is addressing the risk faced by southern program crop producers, it does not address the risks they face."

The Zulauf et al. and Barnaby et al. papers both looked at crops for which the program was designed. This was highlighted in the Zulauf et al. paper. Harris listed some of the differences in southern (or at least southeastern) crop production from the Midwest. For cotton production, current insurance products and DCP farm programs seem to offer more protection than ACRE. For peanuts, there are additional marketing issues. We do not believe the double signup issue was as important as the foregoing issues. However, the complexity and newness of the program and confusion attending its implementation certainly were factors in participation.

Analysis Framework

Thus, beyond program costs and expected program payments, arguably the increased complexity of the new programs is perhaps a reason for low participation in ACRE in 2009 with national enrollment at less than 10% of farms and 15% of acreage (USDA Farm Service Agency, 2009). Another compelling reason for the low signup could be a fundamental shortcoming in the way producers think (and the way educators teach) regarding this complex set of farm program payments and participation decisions.

Producers often think of farm program payments and decisions as separate and distinct from their farm production and risk management decisions. The introduction of fixed, decoupled payments in the 1996 Farm Bill (later to be named Direct Payments) that allowed flexibility in production decisions (and "freedom to farm") likely contributed to this mindset. In this separate and distinct view, farm programs are a separate lottery to be maximized (or optimized over a risk–return frontier). In this lottery framework, producers rightly consider ACRE to be more risky than DCP. For Midwestern crops (corn, soybeans, sorghum, wheat), the DCP program includes a guaranteed fixed DP and virtually no expectation of CCPs or marketing loan benefits. In comparison, ACRE includes only 80% of the DP in addition to a risky ACRE payment. Thus, for ACRE to be preferred to DCP in the lottery framework, the expected ACRE payment would have to average more than the 20% foregone DP to be preferred by a risk-neutral producer and would have to average even more to offset the increased riskiness of ACRE payments faced by a risk-averse producer. Evidence of this mindset and aversion to ACRE showed up in farmer discussions and accounts during the signup period, including a Kansas producer quoted by DTN/The Progressive Farmer as saying ". . .what

I'm seeing in [the] ACRE program is the dollars would be much more volatile, versus the steady money in direct payments" (Hill, 2009).

However, ACRE, DCP, and other farm programs are best thought of not as a separate lottery, but as part of the producer's risk management portfolio. From this perspective, analyzing farm program payments and crop revenue together presents an almost opposite conclusion. ACRE is by definition inversely correlated to crop revenue on the farm. Even under scenarios of low correlation between farm and state yields, the required farm trigger implies ACRE payments occur on the farm only when farm crop revenue is average or less. Because ACRE is inversely correlated with crop revenue, the expected income from ACRE plus crop revenue is less risky than the expected income from DCP plus crop revenue. Although ACRE may be more risky than DCP, ACRE plus crop revenue is less risky than DCP plus crop revenue. Thus, the risk-averse producer should actually have been willing to give up some expected return and still have preferred ACRE to DCP as opposed to demanding more returns from ACRE before signing up for it.

None of the papers consider a complete analysis of this lottery vs. portfolio issue. Furthermore, none of the farm program decision tools available from Extension and other sources across the country during signup in 2009 fully considered this relationship. Many of the available decision tools analyzed expected farm program payments using a deterministic method. Some analyzed expected farm program payments in a stochastic framework. None analyzed farm program payments plus crop revenue in a stochastic framework. Had the decision been presented this way, the interest and participation in ACRE might have been substantially higher.

Having noted the shortcomings of the papers and the Farm Bill educational efforts in general in addressing this risk management portfolio decision, it should also be noted that very little comprehensive analysis of the complete risk management portfolio exists. It may be because of the inherent complexity of the analysis. A recent study of producer risk management decisions illustrates this complexity in noting that producers effectively face more than 4,000 combinations of crop insurance and marketing tools to consider (Pennings et al., 2008). Under such complexity, producers are unable to consider all possibilities and are forced to bracket or segment their decisions. It is exactly this type of segmented analysis that describes the producer's lottery perspective on ACRE and may explain the lower-than-expected enrollment in ACRE in 2009.

Although the crop insurance and marketing decisions studied by Pennings et al. were complex, even they did not consider the impact of farm program tools on risk management decisions. Figure 2 presents a convenient picture of the complete set of farm program safety net tools coupled with the crop insurance tools and the general price hedging decision. Although not a complete model for analysis, the figure gives some insight into the complexity of the new farm income safety net. It also reinforces the need for future research and education on incorporating

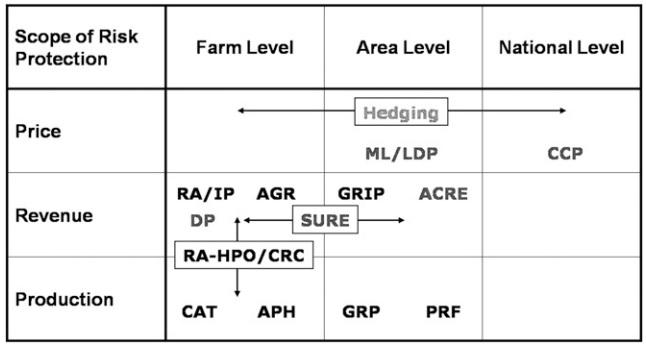

Figure 2. The Farm Income Safety Net

analysis of all of the tools into an integrated risk management strategy.

Summary

All three of the papers blended together well. Harris listed reasons for southern avoidance of the ACRE program, highlighting the marketing and production risks of cotton and peanut crops. Barnaby et al.'s approach to the three programs was excellent. For years we have heard that *ad hoc* disaster assistance competes with and hindered the success of crop insurance. Zulauf et al.'s approach illuminated the reasons for participation vs. nonparticipation based on risk protection offered. Perhaps we are finally getting to the point of integrating agricultural policies into a coherent risk protection package rather than *ad hoc* politically designed programs. If so, it has only taken three-fourths of a century.

References

Hill, P. "ACRE Prospects Mixed for Wheat: Producers Weight Wheat Options Under New Crop Program." *DTN/The Progressive Farmer*. Internet site: www.dtnprogressivefarmer.com (Accessed July 15, 2009).

Pennings, J.M.E., O. Isengildina-Massa, S.H. Irwin, P. Garcia, and D.L. Good. "Producers' Complex Risk Management Choices." *Agribusiness* 24,1(2008):31–54.

USDA Farm Service Agency. "2009 DCP/ACRE Enrollment Summaries (Spreadsheet)." Washington, DC: U.S. Department of Agriculture. Internet site: www.fsa.usda.gov/Internet/FSA_File/dcp_enrol_rpt_prelim_10022009.xls (Accessed October 20, 2009).