

3rd Quarter 2016 • 31(3)

A publication of the Agricultural & Applied Economics Association



# Current Perspectives on the Crop Insurance Farm Safety Net

Thomas P. Zacharias and Mechel S. Paggi JEL Classifications: G22, G28, H30, Q12, Q14 Keywords: Agriculture, Farm Safety Net, Insurance

In 2013, *Choices* featured an article entitled, "Ten Considerations Regarding the Role of Crop Insurance in the Agricultural Safety Net" (Zacharias and Collins, 2013). The "Ten Considerations" was "penned" during the course of debate over what would ultimately become the 2014 Farm Bill, which was signed into law February 7, 2014. Fast forward to 2016 and there is an opportunity to once again contribute to the discussion on crop insurance and the safety net.

Since February 2014, the crop insurance industry—as currently represented by 17 insurance companies, 12,000 to 15,000 licensed agents, and about 5,000 certified crop adjusters—has been actively implementing and delivering the provisions of the new legislation. Provisions of the bill were implemented during the 2014 crop year and most of the new policies were in place for the 2015 crop year. With respect to crop insurance, an abbreviated list of the provisions and policies include: Conservation Compliance, Beginning Farmer and Rancher Benefits, Whole Farm Revenue Protection, Supplemental Coverage Option (SCO), Stacked Income Protection for Cotton, and the Actual Production History (APH) Yield Exclusion (YE) Provision. Implementation of the 2014 Farm Bill crop insurance provisions was an incredible demonstration of what was achieved by an effective public-private partnership.

That said, no sooner had the "ink" of the 2014 Bill "dried", when the farm sector and the crop insurance industry lived through the last quarter of 2015 under the storm clouds of the Bipartisan Budget Act of 2015. The Budget Act proposed a \$3 billion reduction in crop insurance private sector delivery funding over ten years. Ultimately funding was restored, but not without a rapid Herculean effort on the part of farm and commodity groups as well as the uncompromising support of Congressional proponents of farm policy and crop insurance.

In the "Ten Considerations" a case was made for public support of an insurance-based farm safety net. The operational characteristics of the insurance component of the safety net are:

- 1. farmers pay a portion of the cost of crop insurance,
- 2. farmers only receive a payment in the event of an insurable loss,
- 3. insurance is delivered through the private sector, and
- 4. taxpayers share in the cost of the insurance safety net component with both farmers and insurance companies.

As the farm safety net evolves either through agency action or a new farm bill, now is the time to add to "the List" of considerations that will need to be evaluated as an ongoing process of reforming and improving upon the U.S. farm safety net. The list is not intended to be all inclusive. The issues raised are

ripe for economic and political analysis, and as always, it is imperative that the analyst attempt to provide a tangible metric or set of objective criteria for evaluating the issues.

## Intra Versus Inter Seasonal Safety Net Concerns

There is a fundamental issue in the tradeoff between the "within-season risk management farm safety net" and the "across-season" farm safety net design. The current crop insurance system is the policy instrument used to address intra-seasonal revenue risk. Title I of the 2014 Farm Bill addresses interseasonal risk with commodity specific provisions. Both crop insurance and Title I provisions cover price and yield risk at varying levels of spatial and temporal aggregation. A further consideration, well beyond the scope of this piece, is farmers' use of privately available risk management tools and the use of these tools in conjunction with the publicly provided safety net. Barring any fundamental paradigm shift, crop insurance with continuous "tweaks" will most likely be used to address intra-seasonal revenue risk. Inter-seasonal risk management solutions are no doubt more difficult to design and prescript. It is not clear that there are well defined "policy metrics" for evaluating the simultaneous performance of both intra and inter-seasonal policy instruments. Until such "metrics" are established and a few more data points are observed, it would seem to be premature to unfairly criticize or advocate any radical departure from the current path.

## Regional and Commodity Considerations

The 2014 Farm Bill attempted to address both regional and commodity specific risks on several different levels. It did so by allowing choices with respect to Title I provisions and expanded crop insurance coverages. Given that agricultural risks vary across regions and commodities, the elements of choice and flexibility are important considerations in the political economy of the farm bill process. No doubt, these elements will be a prominent feature in the policy mix going forward.

## Individual versus Area Coverage and the Crop Insurance Product Mix

The dichotomy between individual coverage and area coverage stills plays a role in the discussions of current and future reforms to the farm safety net. For the most part, farmers consistently select individual crop insurance coverage over area plans. Area and similarly designed index plans appear to require further refinement if these plans are to have greater market penetration.

## The Government Budget Constraint

On a practical policy level, the government budget constraint is referred to as the "baseline." In the broader context, it represents society's willingness and ability to pay for a given policy. With respect to crop insurance, this essentially comes down to premium support for farmers and crop insurance delivery expense. Somewhat akin to issues surrounding inter versus intra seasonal safety net considerations, the budget will have to be allocated across programs and then a determination will have to be made within a specific program area. The essential question is how is the budget to be allocated among competing ends? In terms of contributions by agricultural economists and other analysts, what metrics and criteria can be used to better understand the allocation process?

## Related Policy Objectives and Concerns

#### Environmental and Conservation Considerations

Conservation Compliance provisions were put in place with the 2014 Farm Bill. At this stage, it would appear that sign-up and participation have gone reasonably well with more than 98% of insured growers (Willis, 2016). It would also appear that additional environmental and conservation objectives will continue to be "interwoven" into the design features of the safety net. An example of a "concern" would

be the introduction of a new farming practice that is considered to be environmentally beneficial yet risk increasing. Careful attention will need to be given to both short-term implementation of such initiatives and longer-term incentives.

#### Trade Issues

The value of crop insurance premium support is one component of U.S. product-specific amber box domestic support. Under existing World Trade Organization (WTO) rules, the combined value of all support in this category is counted against a permitted total aggregate measure of support (AMS). If the total value exceeds the permitted AMS, adjustments to programs would have to be made. At this time, it is not expected that the total value of U.S. amber box support programs will exceed our current AMS allowance for the foreseeable future. Unless there is a new agreement on domestic agricultural support programs, the potential risk for changes in the U.S. crop insurance program from the WTO lies more in the potential for a "Brazil Like" challenge. In this case the challenge would come from the assertion that crop insurance increases production and decreases world prices. That said, while there may be general agreement that crop insurance subsidies affect production there is no agreement on how much or even in what direction. However, any effect on production will have an effect on commodity prices. This is clearly another issue of importance for policy analysts to address.

## A Longer Implementation "Runway"

Although not a specific policy objective per se, a relevant concern is the issue of implementation. Implementation of any new legislation is a difficult task. Both USDA's Risk Management Agency (RMA) and the private sector delivery system did yeomen's work in implementing the 2014 Farm Bill. Going forward, it would be highly desirable, yet highly unlikely, that the implementation "runway" be given more careful consideration. Implementation is a costly enterprise, and mistakes and poor timing can lead to dreaded "unintended consequences."

# Critical Research Agenda

## Relevant Demand and Supply Elasticities

Although there have been some recent developments in the estimates of revised demand elasticities for crop insurance, more effort is required. Supply elasticities, that is, farmer participation and production responses with respect to farm safety net policy provisions, specifically crop insurance, are even less well developed. Reasoned policy analysis and debate simply cannot take place without robust estimates of these effects.

## Optimal Program Design

In addition to more relevant econometric analysis of the safety net, it would be highly desirable to see more effort expended on what can be defined as "optimal program" design. Examples of this type of analysis include the works of Innes (2003) and more recently Bulut, Collins, and Zacharias (2012) and Bulut (2016). It often seems to be the case that safety net design is analyzed from an ad hoc formulation rather than a formal and explicit objective or criterion function. The debate would benefit greatly from better use of theoretical and analytical constructs as opposed to piecemeal policy prescriptions. The reality is, of course, that policy determinations will not be the result of a formal modeling structure. However, understanding the realized policy relative to an "optimal design" will provide meaningful insights and improve the decision making process going forward.

## Performance Evaluation and Chance

Before proceeding further, farm policy analysts and practitioners—including these authors—should probably read or re-read Kahneman's 2011 <u>Thinking, Fast and Slow</u>. Two thoughts come to mind: 1)

sample size considerations and 2) the role of luck or chance. Regarding sample size, there are not many, and almost not any, actual data points to critically evaluate the performance of the current Farm Bill. Regarding the role of chance, it matters a great deal when certain events occur and how such uncertainty is resolved. These events can be political—such as the outcome of the 2016 election, or weather-related—such as the 2012 drought, or economic—such as the recent downturn in the farm economy.

There is a considerable policy literature on the timing of uncertainty and resolution of temporal lotteries (Kreps and Porteus, 1978). Previous reviews of the agricultural economics literature suggest a dearth of analysis on this subject matter (Taylor and Zacharias 2002; Zacharias 1993). The sequence and occurrence of political and economic events will no doubt shape future policy perspectives and prescriptions. Perhaps, the next iteration of the farm safety net debate could be an interesting case study of the policy instruments selected relative to the timing of uncertain events occurring during the debate. It will be interesting to observe if these considerations filter into future analytical and empirical efforts. Hopefully, attempts will be made to minimize the bias associated with particular "anchoring" events.

Lastly, analysis of farm safety net policy is likely to be a mainstay for the foreseeable future. The importance of quality peer-reviewed empirical and theoretical work in this area cannot be underestimated.

## For More Information

- Bulut, H., K.J. Collins, and T.P. Zacharias. 2012. Optimal Coverage Level Choice with Individual and Area Insurance Plans. *American Journal of Agricultural Economics*. 94(4): 1013-1023.
- Bulut, H. 2016. Managing Catastrophic Risk in Agriculture through Ex-Ante Subsidized
- Insurance or Ex-Post Disaster Aid. Paper presented at the 2016 Annual Meeting of the SCC-76 Economics and Management of Risk in Agriculture and Natural Resources Group, Pensacola, FL.
- Innes, R. 2003. Crop Insurance in a Political Economy: An Alternative Perspective on Agricultural Policy. *American Journal of Agricultural Economics*. 85 (2). 318-335.
- Kahneman, D. 2011. Thinking, Fast and Slow. New York, NY: Farrar, Straus and Giroux
- Kreps, D.M. and E.L. Porteus. 1978. Temporal Resolution of Uncertainty and Dynamic Choice Theory. *Econometica*. 46(1).
- Taylor C.R. and T.P. Zacharias. 2002. Programming Methods for Risk-Efficient Choice. In R.E. Just and R.D. Pope, eds., *A Comprehensive Assessment of the Role of Risk in U.S. Agriculture*. Kluwer Academic Publishers.
- Willis, B. 2016. *Risk Management Agency Update*. Presentation at the Crop Insurance Industry Convention, Indian Wells, California.
- Zacharias, T.P. 1993. Representation of Preferences in Dynamic Optimization Models Under Uncertainty. In C.R. Taylor ed. *Applications of Dynamic Programming to Agricultural Decision Problems*. Boulder, CO: Westview Press.

Zacharias, T.P., and K.J. Collins. 2013. "Ten Considerations Regarding the Role of Crop Insurance in the Agricultural Safety Net". Choices. Quarter 3. Available online: http://choicesmagazine.org/choices-magazine/theme-articles/current-issues-in-risk-management-and-us-agricultural-policy/ten-considerations-regarding-the-role-of-crop-insurance-in-the-agricultural-safety-net

#### Author Information

Thomas P. Zacharias (tomz@ag-risk.org) is President, National Crop Insurance Services, Inc. Mechel S. Paggi (mpaggi@csufresno.edu) is Director Emeritus, Institute for Food and Agriculture, College of Agricultural Sciences and Technology, California State University, Fresno, CA.

©1999–2016 CHOICES. All rights reserved. Articles may be reproduced or electronically distributed as long as attribution to Choices and the Agricultural & Applied Economics Association is maintained. Choices subscriptions are free and can be obtained through http://www.choicesmagazine.org.