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New Dimensions in Risk Management Policy

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Risk management and the provision of "safety nets" for U.S. farmers has been an important aspect of U.S. agricultural policy for the last 75 years. Over most of this period, the primary policy instrument for providing risk management protection was crop yield insurance. Such insurance, commonly known as "multiple-peril crop insurance" or "actual production history" insurance provided protection against yield losses resulting from any cause, with the exception of fraud or negligence.

The federal crop insurance program is currently marketed and serviced by private insurance companies. However, an extensive reinsurance agreement is in place that allows private insurers to delegate high risk policies to the government. The reinsurance agreement also places limits on the losses that private insurers can realize and, in addition, provides reimbursements for administrative and operating costs. The overall result is strong incentives for the participation of private crop insurers in underwriting, marketing, and servicing crop insurance plans. This issue of the *NC State Economist* summarizes recent developments in agricultural risk management.

Background

Over most of its history, the U.S. crop insurance program has been characterized by relatively low participation and weak actuarial performance. One factor that undoubtedly has inhibited participation in the federal crop insurance program is the consistent provision of ad-hoc disaster relief by Congress. This has been particularly true over the past 25 years, as Congress has been consistent in providing ad-hoc relief in response to yield losses and low prices. Congressional rhetoric has frequently included the argument that crop insurance is intended to be the main risk management policy for farmers. However, Congress has time and again been shown to be lacking in discipline when it comes to limiting ad hoc disaster assistance. The 1994 Crop Insurance Reform Act intended to replace ad-hoc disaster relief provisions with heavily subsidized crop insurance. The act introduced a new form of coverage—known as "Catastrophic Coverage" or "CAT." CAT offered protection at 50% of the producers' average yields and 55% of the expected price. This meant that any yield that was less than 50% of a grower's average yield would trigger an indemnity payment equal to the difference between 50% of the average yield and the realized yield times 55% of the expected price.

Since this coverage was intended to replace disaster payments, participation was made mandatory for any producer receiving other government program benefits. However, mandatory participation proved to be unpopular among farmers, and so Congress quickly reversed itself and lifted the purchase requirements. It is interesting to note that a recent budget proposal of the Risk Management Agency (RMA), the agency of the USDA that manages the crop insurance program, includes provisions to again make minimal levels of crop insurance mandatory in order to qualify for other farm program benefits.

In the years that followed the 1994 act, low prices and localized yield shortfalls were quickly met with ad-hoc disaster assistance in the form of disaster and market loss assistance payments. The 1994 act also provided substantial increases in the premium subsidy. According to Dismukes and Glauber, the average real marginal subsidy cost rose from $3.31 to $10.51 per acre. The exact subsidy amount varied across different plans and coverage levels—with CAT coverage being completely subsidized except for a small, fixed administrative fee.

Risk management policy took on new importance in the latter part of the 1990s. The Clinton administration made "safety nets" an important focus of policy efforts. In addition, important changes in commodity programs that took place with the 1996 FAIR Act stimulated interest in other farm policies that could target risk—namely crop insurance. In 2002, Congress passed the Agricultural Risk Protection Act (ARPA). ARPA included provisions for many important changes to crop insurance. Premium subsidies were increased substantially. After the implementation of ARPA, the real marginal subsidy cost averaged about $26 per acre. In recent years, total premium subsidies have exceeded $2.5 billion and have accounted for nearly 60% of the total premium (Dismukes and Glauber). That is, the federal government pays, on average, 60 cents of each dollar of premium. This also implies that, if the insurance is actuarially fair (i.e., accurately rated), the average producer will get back $1 for every 40 cents that they pay in premiums.

ARPA also included a number of provisions intended to stimulate the development of new insurance products and to substantially expand coverage to crops and commodities not insured under the previous program. The legislation provided significant resources for the reimbursement of research and development costs by private insurance providers and for risk management partnerships that would lead to new risk management tools. The RMA was barred from direct participation in research and development activities, and a procedure for the submission and prompt review of new insurance products was formalized.

A number of other provisions for the development of new insurance products were included in the act. Development of pilot plans for livestock commodities were mandated by ARPA. Studies of multi-year contracts, good experience discounts, cost of production insurance, alternative revenue insurance plans, and forage and rangeland coverage were also included in the legislation. ARPA also was intended to make the program more attractive to producers by allowing them to replace low yields with 60% of the county average yield when calculating their insurance guarantee. This had the effect of substantially raising the level of protection provided to growers. Finally, underserved states—meaning those states that had had limited experience with crop insurance—were targeted with directed funds for the enhancement of insurance offerings.

Recent Developments

These legislative changes have had very significant effects on the crop insurance program as a whole. Perhaps the most significant change to the U.S. crop insurance program was the introduction of revenue insurance—which insured against revenue shortfalls that resulted from any combination of low prices and/or low yields. The 1994 Crop Insurance Reform Act mandated study of a cost of production form of insurance. Independently, an insurance company introduced a rider that repaid yield losses at harvest-time prices rather than at a price projected before planting. The distinction is important in that low yields tend to imply high prices and vice versa. This rider went a long way toward allowing producers to guarantee a given level of revenue. Considerations of cost of production insurance and these private market developments led to the introduction of a number of crop revenue insurance plans in the late 1990s.

A number of crop revenue insurance plans currently exist. Perhaps most prominent is Crop Revenue Coverage (CRC) and Revenue Assurance (RA). The plans have minor differences but essentially both function to guarantee a minimal level of revenue. Other revenue insurance plans include Income Protection (IP), Gross Revenue Income Protection (GRIP), and Adjusted Gross Revenue (AGR and AGR-lite).

CRC and RA both guarantee a minimum level of revenue, but each also has the feature that lost yields are reimbursed at harvest time prices. This guarantees revenues but also may allow for higher revenues than the minimum guarantee if prices are sufficiently high and a yield shortfall is realized. This feature is attractive to producers that forward contract because it allows them to insure the quantity that is forward contracted, thus eliminating a substantial source of risk. It should be noted that this particular aspect of coverage is optional with RA.

A unique form of revenue insurance was introduced in the late 1990s. This plan —known as Adjusted Gross Revenue (AGR) coverage—bases its revenue guarantee and payments on the farmer's Schedule F from federal income tax returns. AGR was constructed to address a perceived shortage of risk management programs for producers of minor crops for which crop insurance did not exist. The plan is not crop-specific. Any crop can be covered. Total liability is limited to $6.5 million, and no more than 35% of total liability can be derived from livestock commodities. The AGR plan also requires producers of crops that have standard crop insurance plans available to purchase standard coverage if the total share of revenues accounted for by such crops exceeds 50%.

The AGR plan was extended recently to form a new insurance program known as AGR-Lite. This plan is a less restrictive version of AGR with a smaller liability limit. AGR-Lite removes the requirement that producers purchase standard crop insurance if such is available and lifts the limitation on livestock product coverage. AGR-Lite was developed by the Pennsylvania Department of Agriculture and has been expanded to a number of other states (17 at present), including North Carolina. The plan initially had a liability limit of $250,000. This limit has been raised to $1 million for 2006. This makes a large proportion of growers eligible for participation in the AGR-Lite program.

The initially low liability limit is thought by many to have inhibited participation in the program. The program is quite complex and thus expensive to underwrite and adjust claims on. As such, its attractiveness to insurance providers was very limited. Insurers are compensated in proportion to the total premium, meaning that smaller policies generate smaller returns for the insurer. The expansion of liability limits will likely lead to substantial expansion in participation in the AGR-Lite plan.

In addition to revenue insurance products, traditional crop insurance has been expanded to include livestock and aquaculture products. There are several livestock policies (e.g., Livestock Gross Margin and Livestock Risk Protection) that address the risk management needs of pork and beef producers. In addition, a number of plans provide coverage for quality losses and prevented planting. Major efforts are underway to develop plans that cover rangeland and forage production. These plans include weather-based instruments.

The federal crop insurance program currently offers 22 different plans of insurance, covering over 100 commodities with liability exceeding $40 billion. A number of pilot programs exist for minor crops, including clams, wild rice, forage seed, mint, and raspberries. At present, 14 private insurance companies are eligible to sell and service crop insurance. New products and programs must be submitted to the FCIC board of directors for review. The research and development process provides strong incentives for private developers to submit plans for consideration.

In short, risk management has become an important focus of agricultural policy. Legislative changes over the past ten years have brought about significant expansions in the scope and coverage of crop insurance. The extent to which such expansions will continue is unclear. The program is costly in light of its highly subsidized nature. One would also expect that, with time, many new products will be dropped if participation rates are not high enough to merit continuation of the plan. However, it does appear likely that crop insurance will play an important role in U.S. agricultural policy for years to come, and that new and innovative plans of insurance will continue to be developed.

For Further Information

Dismukes, Robert and Joseph Glauber. "Why Hasn't Crop Insurance Eliminated Disaster Assistance?" *Amber Waves* Volume 3(June 2005):34-41.

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