

Crop Insurance and Disaster Assistance

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Background

The 1996 Federal Agricultural Improvement and Reform (FAIR) Act implemented farm program contract payments that do not increase as agricultural prices fall, shifting farm policy toward a greater emphasis on risk management and, in particular, on crop insurance. This shift has resulted in the introduction of new types of insurance policies; especially those that provide both yield and price protection. Several new and innovative crop policies were initiated immediately after the 1996 Act, and new policies including whole-farm, livestock, and other types of insurance continue to be proposed for government subsidization and reinsurance.

In addition to the introduction of new products, the list of crops for which insurance is available has grown from approximately 50 in the early 1990s to more than 100 in 2000. Crops currently covered by federally-subsidized insurance include not only major field crops, but also many types of fruits, vegetables, nuts, certain specialty crop trees, nursery stock, and rangeland. In some areas, guarantee levels as high as 85 percent of normal yield or revenue are being offered for selected crops.

The importance of agricultural insurance was re-emphasized in the Agricultural Risk Protection Act of 2000 (ARPA or P.L.106-224). This legislation was estimated at the time of its passage to provide \$8.2 billion in assistance over fiscal years 2001-2005, largely in the form of additional premium subsidies for crop and revenue insurance. ARPA also shifts the focus of new product development research away from USDA's Risk Management Agency (RMA) to the private sector. RMA continues to oversee federally subsidized crop insurance programs, and the Federal Crop Insurance Corporation Board of Directors approves new products for subsidization and reinsurance.

In addition, the legislation removes the Noninsured Assistance Program (NAP) area trigger (which required that the area must realize a 35 percent loss before any individual losses could qualify for payments), requires NAP participants to sign up before planting time, and requires producer payment of a processing fee. Under both NAP and catastrophic crop insurance coverage (CAT), losses in excess of 50 percent of the producer's established yield are compensated at 55 percent of an established price. ARPA also increases federal subsidies on revenue-based products at the same percentages provided to yield-based products.

Although the types of federally subsidized insurance products have expanded in recent years, the traditional individual-yield based, Multiple Peril Crop Insurance (MPCI) continued to be the most popular product in 2000. APH (based on a 4-to-10-year “Actual Production History” yield series for the grower) pays an indemnity if a producer’s yield on a given farm unit falls below his or her production guarantee. APH offers catastrophic (CAT) yield coverage (50 percent), with premiums fully subsidized by the government, and optional higher (“buy-up”) levels with partially subsidized premiums. As with other federal crop insurance products, APH covers all natural causes of loss (drought has historically accounted for about two-thirds of indemnities), with policies delivered by private companies that are reinsured by the government.

Protecting against both yield and price risk, revenue insurance has attracted considerable interest from producers, particularly for corn and soybeans in the Midwest. Crop Revenue Coverage (CRC), developed by a private insurance company in 1996, is currently the most popular revenue insurance product, followed by the product Revenue Assurance (RA). Revenue insurance choices expanded with the introduction of Group Risk Income Protection (GRIP) and Adjusted Gross Revenue (AGR) insurance in 1999. GRIP adds a revenue component to the production-based GRP (Group Risk Plan) area-yield insurance and is offered on a commodity-by-commodity basis. AGR bases coverage on income reported on Schedule F of the grower’s federal income tax return, or on a current-year farm plan.

Issues

Despite coverage expansion and new product introductions, dissatisfaction with crop insurance has been an issue since before the 1980s. Significant reform of the federal crop insurance program has occurred twice in the past decade alone. Issues continue to arise regarding the efficiency and effectiveness of crop insurance in providing a tool for mitigating farming risks and the relationship between

ad hoc disaster assistance, commodity programs, and crop insurance:

- **Does disaster assistance mitigate the effectiveness and efficiency of the crop insurance program, and should we avoid a dual system of crop insurance and disaster assistance?**

With low and declining prices in 1997 and 1998, Congress passed emergency assistance four times between 1998 and 2000, totaling about \$25 billion. This assistance has at times also included yield loss provisions. Although some believe that crop insurance—where producers pay a portion of the premium and companies have a key role in delivery and new product development—should be the primary risk protection focus, it has been very difficult politically to eliminate ad hoc emergency assistance. Indeed, reform of the crop insurance program focused on eliminating the need for ad hoc disaster assistance in both 1980 and 1994 legislation. In both time periods, this was largely a budget issue and not a risk management issue. Despite such legislation, ad hoc disaster assistance continues to appear. Observers argue that the continuation of ad hoc disaster assistance has hindered the widespread adoption of crop insurance.

- **Is insurance coverage adequate and available to producers who want it, and what should be done for livestock producers?**

A longstanding issue has been the availability of insurance coverage for new commodities as well as access to products in all locations. Although USDA has expanded insurance availability to many new specialty crops in recent years, some producers have voiced concern that insurance availability is often limited to major producing areas and that animal agriculture has been excluded from coverage. In addition, concern has been expressed as to the availability of new products in areas where premium rates are at high levels. Insurance agents may not be able to justify their investment of time or money into offering new products due to the impact of high rates

on producer participation, or in situations where agriculture is a small portion of the local economy.

Insuring livestock and additional specialty crops could be a step in the positive direction from an equity and risk mitigation standpoint. Indeed, the Agricultural Risk Protection Act of 2000 allows pilot programs for livestock (limited to \$10 million for the first two years), and proposals for pilots for livestock have been put forward, beginning in late 2000.

Whole-farm types of approaches, such as AGR, have generated considerable interest. RMA's pilot whole-farm product the Adjusted Gross Revenue program, or AGR is still in the trial stage.

- **Does subsidized insurance provide risk management, income support — or both — and what are the impacts of increasing subsidies?**

Subsidized insurance historically has been viewed as a risk management tool, but with increasing levels of subsidization — and occasional calls for using insurance as a replacement for contract payments and marketing loan benefits — its counter cyclical income support functions have become more visible. Insurance subsidies are calculated as a percent of the policy's total premium, and the dollar-value of the subsidy is the highest in the highest-risk areas (where premium rates are highest). In such situations, the subsidy can have a particularly significant effect in reducing producers' production costs and indirectly help support incomes.

Most economists argue that insurance is an inefficient way to support incomes, and that direct approaches to income support (such as contract payments) are more transparent and lead to fewer regional distortions. Indeed, one issue voiced by some producers in low-risk areas is that the premium rates they are charged are too high relative to their risk of loss, and that increasing subsidies leads to a greater dollar-value of transfer to higher risk areas. Recent research indicates that there may well be basis to such claims. According to a recent USDA report on insurance for corn and soybeans in Iowa, lower-risk producers may be overcharged for APH crop insurance and Crop Revenue Coverage policies relative to expected indemnity payments, while

higher-risk producers may be undercharged for those products (Makki and Somwaru). The nature of individual yield-based crop insurance makes it very difficult to accurately rate producers. This is caused by information asymmetries that could potentially be eliminated by using area-based insurance programs.

In addition, subsidized insurance can lead to distorted production incentives, particularly in areas where the realized value of the subsidy is the greatest. A recent simulation analysis examined the impact of subsidized insurance on plantings, using expected net indemnity as the subsidy measure (calculated as total indemnity minus farmer premium, and reflecting the new ARPA premium subsidy levels). The authors found that acreage for 8 major field crops would be expected to expand by about 900,000 acres, with wheat accounting for about one-third of the total (Vandever and Young).

- **Can revenue insurance be designed to provide better protection to producers?**

Most revenue insurance policies (including CRC, IP, and RA) are based on projected futures prices at planting time and, thus, provide an intra-seasonal guarantee. If futures prices are low, the revenue insurance guarantee is also low, and the policy offers limited protection against losses. Approaches that are not based on seasonal prices, however, and that are, for example, based on a target price or target revenue concept, carry several adverse consequences. By incorporating non-market signals, production incentives across crops could easily be distorted, costs to both producers and the government could be significantly higher, and such actions run contrary to the U.S. trade position in the WTO negotiations.

- **What is the most cost-effective way to help farmers when natural disasters occur?**

Mitigation of farming risks (including both yield and price risk) can be accomplished through a variety of policies. Benefits to the nation from the preservation of farm financial stability must be weighed against the costs to taxpayers. In the 1999 reinsurance year (starting July 1, 1999), for example, the crop insurance system cost taxpayers

approximately \$2.2 billion, with private insurance companies that deliver policies receiving about one-third of the total. In contrast, much uncertainty surrounds ad hoc emergency disaster assistance. For the 1998-2000 production years, emergency assistance averaged about \$2 billion annually for low-yield and low-quality payments, — primarily for crops.

The most cost-effective way to provide a natural disaster assistance program is not clear-cut. Emergency assistance delivered through the government is politically popular and straightforward. However, producers cannot rely on the existence, amount, or timing of emergency funds as part of their long-term risk management strategy. In contrast, the existence of crop insurance may increase bankers' willingness to lend to farmers, and may help farmers to make better long-term risk management decisions.

- **Should insurance be provided within a broader context of education and other risk mitigating tools?**

Farmers must deal with production, financial, legal, marketing, political, and personal/family risks. Insurance is just one tool for managing risk, and mitigating risk in one area may entail increasing other risks. For example, taking costly steps to reduce production or marketing risks may, in fact, increase financial risks. Each individual must weigh the purchase of insurance — as well as the use of other types of risk reduction strategies — in the context of his or her own unique set of risks. Education as a policy tool can help farmers to identify and weigh their unique risks against existing policies, as was recognized in the Agricultural Risk Protection Act and recent agricultural appropriations acts.

Options and Consequences

Five major policy options and consequences might be considered in the 2002 farm bill debate. These are:

- **Maintain the current federally subsidized insurance program along with a mix of other policies**

This option would continue the current federally-subsidized multi-peril crop and revenue insurance programs, private hail insurance, and disaster-induced emergency assistance. A dual system may result in inefficiencies in resource use and creates difficulties for farmers, bankers, rural businesses, and others in planning because of the ad hoc nature of emergency programs. With changes in the Federal crop insurance program in recent years, farmers have access to a wider array of options to choose among for their risk management needs. Even so, some farmers, particularly those with livestock and certain specialty crops, have the potential to remain without insurance alternatives.

- **Eliminate crop insurance and focus on free disaster assistance**

Because of the complicated nature of federally subsidized insurance programs, the cost of a dual system, and other factors, some observers advocate the elimination of federally subsidized insurance and instead prefer reliance on free disaster assistance. Free disaster assistance could either be statutory, as were disaster programs in the 1970s, or enacted on an ad hoc basis. Neither approach is without pitfalls. Statutory disaster programs of the 1970s were criticized at the time as expensive, even though they were narrowly focused on program crops. Taxpayers generally bear the total cost of disaster programs, and the benefits from statutory programs would tend to accrue into land values and incomes, particularly in the riskiest areas.

Ad hoc programs create particular problems. They result in uncertainty for farmers and other rural businesses because the availability of assistance is not known until after the disaster and passage of legislation. For producers who experience a weather-related disaster that is not widespread, assistance under such an approach could easily be non-existent due to the lack of public support. Those benefiting to the greatest degree from an ad hoc approach would be producers in areas that have a considerably higher

degree of production risk, and more political clout, than for the United States as a whole.

- **Move to private insurance without federal subsidies or reinsurance**

Another option is the elimination of the public sector role as the subsidizer of insurance policies and reinsurer of company risk, leaving the development and pricing of insurance policies solely to private companies. For many decades, private companies have successfully written limited hail insurance policies. Hail losses are independent among growers, however, and the companies do not face the catastrophic losses, and the potentially large financial exposure in offering these policies that they would in situations of widespread droughts (as in 1988), floods (as in 1993), or other multi-peril events that require large payments.

Because of the potentially catastrophic nature of multi-peril insurance losses, a program solely in the hands of the private sector would likely look quite different than the existing crop insurance program. Private companies would not offer policies in high-risk areas (or for high-risk crops), focusing primarily on low-risk areas/crops where catastrophic losses would be minimized and potential profits maximized. Without subsidization and reinsurance by the Federal government, private companies would need to include the costs of delivery and company risk management in the premium rate charged to farmers. With the addition of these costs, and the payment of the entire premium (in the absence of any subsidy), the cost to producers, even in low-risk areas, would increase steeply.

- **Use vouchers as a subsidy tool rather than premium subsidies**

The current subsidization system for crop insurance results in the transfer of the greatest dollar value of subsidy to producers in the highest-risk areas. This is because the subsidy is calculated as a percentage of the total premium, and premium rates are the highest in the highest risk areas. If the current insurance program were used as a basis for a voucher-based system, the dollar value of the existing

subsidy would be made transparent. Participating farmers would receive a voucher containing an explicit dollar amount that could be used for the purchase of crop or revenue insurance. A producer would take a voucher to his or her insurance company of choice to apply against a policy's premium.

While such an approach is simple in concept, using the current dollar value of subsidy levels in constructing vouchers would, however, be politically quite difficult. In crop year 2000, the average subsidy per acre for Texas cotton was \$19.15 — compared with \$4.34 for Illinois corn. Although the out-of-pocket cost per acre of cotton is considerably greater than the per acre cost of corn, making such differences public would be untenable to many. In addition, implicit in most discussions of vouchers is the withdrawal of federal reinsurance, which would make the program considerably less attractive to private company participants. A completely different approach to calculating the value of vouchers might well be necessary. Such an approach might be the basis for using vouchers for the purchase of other risk management tools — such as payment of the premium for an options contract — as well as for insurance.

- **Emphasize whole-farm insurance**

A whole-farm approach to insurance, in which the guarantee would be based on the revenue from the producer's entire operation or a subset of designated commodities, would provide a more comprehensive approach to managing whole-farm risk than the current crop-by-crop approach. As mentioned, whole-farm insurance has been initiated as the AGR program which bases safety net coverage on the commodity revenues reported on a grower's Schedule F tax return. However, a pilot project of this program, being conducted in a few northeast and southern states, has met with limited acceptance by producers. Other types of whole-farm insurance could be designed that focus on farm risk management accounts (which emphasize self-insurance through building up cash reserves to be used in times of income shortfalls).

A whole-farm strategy could eliminate concerns about a revenue safety net for non-insured commodities (such as livestock and certain specialty crops). Such an approach would be less likely to distort markets because farmers' planting decisions would be less likely to be altered, and the costs of administration and program delivery could be greatly reduced, particularly if the program used IRS tax returns. Depending on the design, such an approach could be of lower cost — but it also may not provide the protection that current programs offer to producers.

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Conclusions

Because of the recurring nature of natural disasters, risk management policy — embodied in both crop insurance and emergency ad hoc legislation — has been continuously in the policy spotlight. As with other policies, the approaches enacted often depend on the farm financial situation, the extent of the federal budget surplus, and other factors. The upcoming farm bill debate will likely include, implicitly or explicitly, provisions that address risk management, particularly given the persistence of emergency ad hoc payments addressing not only price, but also yield, concerns.

References and Suggested Readings

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