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AGRICULTURAL RISK MANAGEMENT AND THE ROLE OF THE PRIVATE SECTOR

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With passage of the 1996 Farm Bill, one often hears people talk about the "sea change" that has occurred in agriculture, the declining role of the Federal Govt, and the increased risks faced by agricultural producers. Even those who believe that the 1996 Farm bill represents a more gradual evolution of farm policy changes that began with the 1985 farm bill, acknowledge the need for increased risk management and the potential role for the private sector in meeting these needs.

Federal agricultural risk management programs have becoming increasingly more costly, and account for a larger share of total agricultural program spending. Over the next 5 years the Federal crop insurance program will become one of the largest components of agricultural spending (and by far the most variable). In 1990, crop insurance outlays were less than a tenth the size of deficiency payments. By 2002, they are estimated to total \$1.8 billion, compared to \$4 billion for production flexibility contracts.

The role of the private sector has increased as well. Volume on agriculture futures and options contracts has generally been up over the last few years. New futures and options contracts have been introduced on a variety of commodities including fluid milk and regional corn yields. Elevators and other grain merchants are offering exchange-based instruments tailored to better meet the marketing needs of their clients. On the poultry and livestock side, there has been significant growth in production and marketing contracting.

With this has come questions as to what is the appropriate Federal role. Should the government be developing and subsidizing products that may compete with privately offered instruments? Should the government provide a catastrophic safety net for the sector? Do government regulations offer producers sufficient protection, or are they overly restrictive and thus prevent private markets from developing financial instruments to meet their risk management needs?

Arguments for Government Involvement in Agricultural Risk Markets

The argument for Federal involvement stems from what economists often term "market failure." Because of one reason or another, the market fails to provide a good or service. In agriculture,

the most commonly cited reasons for market failures are the asymmetric distribution of knowledge about the risk and the highly correlated nature of agricultural risks. Under the former problem, the person who buys the insurance knows more about their risk than the person who is selling it. This can lead to adverse selection. The highly correlated nature of the risks makes it difficult for an insurer to spread their risks geographically (e.g., Midwest drought).

But even these reasons for government involvement are not ironclad. Adverse selection problems are not unique to crop insurance, yet other lines of insurance are offered without direct Federal involvement. While agricultural risks may be highly systemic in nature, the capacity in world commercial reinsurance markets is sufficiently large to at least theoretically absorb North American crop insurance losses, in part, because they are presumably uncorrelated with other insurance lines.

It is important to distinguish between the role of the Federal government in providing risk transfer mechanisms and that of providing income enhancement. While agricultural programs are often touted for their stabilizing role, the fact is that they have oftentimes provided significant transfers to producers from taxpayers or consumers or both. Private markets can do little to raise average farm income.

Futures and Options

Organized trading in agricultural futures dates back to the 1870s in this country. Despite years of writings about the benefits of futures trading by economists and extension agents, use of futures and options has been limited. Comprehensive survey data is not readily available, but most studies suggest that between 10-15 percent or so of corn, wheat and soybean producers use futures and options.

Why is this the case? One reason is that in the past producers have had agricultural programs like nonrecourse loans to fall back on. As loan rates came down below market clearing levels in the late 1980s, volume on the exchanges picked up. Average daily volume of agricultural contracts traded on the CBOT for 1996-97 was 250,000--a 70 percent increase over average trading levels in 1991 and 1992. Again, we don't know how much of this is due to increased direct use of futures and options by producers. However, greater planting flexibility (witness soybeans), elimination of acreage reduction programs, and increased exports due in part to NAFTA and the Uruguay Round have certainly stimulated volume.

The second reason is that a large volume of production is hedge indirectly through cash forward sales at the local elevator. The Economic Research Service estimates that in 1993, almost 25 percent of corn producers and 30 percent of cotton producers produced their crop under some type of marketing contract. In recent years we have seen the development of exchange-based cash instruments like flex options, basis contracts, hedge-to-arrive contracts--all designed to give producers more flexibility in marketing decisions.

There has been a much interest in the [next generation] of cash contracts--for example, revenue-based contracts based on county crop yields and December corn futures. Under the current ban on trading of so-called agricultural trade options, such developments are limited, but many hope to see the Commodity Futures Trading Commission allow a much more open trading environment.

Crop and Revenue Insurance

Crop insurance participation has increased dramatically since the 1988 drought when only 25 percent of eligible area was enrolled. Currently almost two-thirds of eligible area is enrolled. Some of the increase is due to the linkage requirement of the 1994 Crop Insurance Reform Act that mandates sign up for catastrophic (50 percent yield) coverage if a producer receives other commodity program benefits such as production flexibility contract payments, but significantly, participation in so-called [buy up] coverage is up as well.

There has also been significant growth in development of revenue products. Crop Revenue Coverage (CRC) was introduced two years ago on a pilot basis for corn and soybean producers in Nebraska and Iowa. It is currently offered in most areas of the country where soybeans, wheat and corn are grown and is also available for cotton and sorghum. Two other revenue products--Income Protection and Revenue Assurance--are available on a regional basis and more products are currently being considered.

Significantly, many of these products have been and are being developed by the private sector. The revenue products receive approximately the same level of subsidies as Federal multiple peril crop insurance (MPCI) policies. In addition, private companies offer a range of unsubsidized insurance products, including crop hail policies, and add-ons to MPCI such as replacement value coverage and additional yield guarantees that allow producers to insure their crops at higher than the maximum 75 percent coverage level offered under the MPCI policy.

Most insurance policies cover crop but not livestock risks. While producers may be able to get insurance to protect their cattle from getting hit by lightning, it is more difficult to find insurance that will protect them against a disease outbreak that could potentially devastate a herd. There has been interest on the part of insurance companies in developing business interruption insurance for companies; however, the size of the risks and the potential for moral hazard have likely prevented such policies to be developed at an affordable price.

But livestock could be potentially covered under whole farm insurance. Under this type of policy, a producer would receive an indemnity payment when total farm revenue fell below a revenue guarantee. A whole farm insurance proposal is currently under consideration by the Federal government with private sector development.

There is also considerable interest in the development of individual savings accounts for producers similar to the Net Income Stabilization Account (NISA) in Canada. Under NISA, producers can place up to 20 percent of their eligible sales into a savings account. Contributions up to 3 percent of eligible sales are matched dollar-for-dollar by the government. Accounts may be maintained at local banks with the government providing a three percent interest subsidy on the producer contribution. The farmer's contribution is taxed in the year it is deposited; government contributions are taxed only in the year in the year withdrawals are made. Withdrawals from the account are allowed only when net income (sales minus expenses) falls below a five-year average or below a minimum income level. Balances can be withdrawn at retirement.

What Is the Proper Federal Role?

Should the Federal government be in the business of "retailing" risk management products (e.g., product development, rate setting, sales)? With the 1996 Farm bill, there is far less direct intervention by the government in agricultural markets. Nonetheless, USDA continues to have a large role in the development of risk management products. For example, the Risk Management Agency continues to set crop insurance rates for Multiple Peril Crop Insurance products. But many have argued that this a role that the private sector could be better suited to perform. As discussed above, over the past three years, we have seen the private sector development of revenue based contracts. Recent legislative proposals would give the private insurance companies a more direct role in establishing premium rates.

Others have argued that the Federal government should be primarily concerned with a role at the "wholesale" level as catastrophic reinsurer. USDA currently provides catastrophic protection to crop insurance companies through its reinsurance treaty. There is a large commercial market for reinsurance and that there has been interest expressed by some insurance companies to take on more risk in exchange for the possibility of higher returns. However, there are large areas of the countries where the returns are too variable and the chances of catastrophic losses too large to think that the private sector would ever be willing to offer protection without charging very high premiums. Arguably a public role for govt to continue to provide protection.

Lastly, there is a question of subsidies. For example, in the crop insurance program, the government provides subsidies to producers to offset the costs of the premium, subsidies that reimburse crop insurers for delivery of the product, and subsidized underwriting gains through the reinsurance agreement. Critics have pointed out that this gives crop insurers an unfair advantage over other merchants of risk management products (e.g., elevator operators). The size of the subsidies will likely come under increasing scrutiny as crop insurance costs become larger relative to other programs.

CONCLUSIONS

The 1996 Farm bill has provided a strong impetus for innovation in agricultural risk management instruments by the private sector. While this is a trend that started long before passage of the 1996 farm bill, the reduction of the price-based safety net for producers will likely create a further demand for such instruments. Debate on what the proper role for government is part of the groundwork that will be taken up by the Commission on 21st Century Agriculture.

The private sector has long provided risk management instruments and is well suited to tailor products to suit the needs of producers. I believe that it is important for the government not to [crowd out] innovation, but rather work with the private sector to provide producers and others in the agricultural industry prudent means to manage risks.