

VIEWS *from the Director...*



The subject of risk management has been the focus of considerable attention among Congressional leaders, agency representatives, and land-grant institutions having an interest in the well-being of our nation's farming community. Certainly, the latter part of the 1990s has introduced a number of opportunities and challenges to our nation's agricultural system. In light of the vital contribution that agriculture makes to the economy of many of our rural areas in the South, this issue of *Southern Perspectives* highlights some of the key elements associated with risk management.

The set of authors that we have assembled in this issue of our newsletter represents some of the leading experts on this subject. A portion of the articles are devoted to risk management as it pertains to agriculture.

Included are discussions of what is meant by the terms "risk" and "risk management," factors which have intensified the interest in this subject, and some approaches for managing risk.

Our attention, however, extends beyond agriculture. Consideration is given to the relevance of risk management in the context of rural communities. As one of our authors so poignantly observes, the nonfarm economy is of vital importance to the agricultural sector given that off-farm income represents one of the key diversification strategies for many farm families. As such, it makes sense to discuss the risks that face several rural communities and to highlight some of the creative approaches that rural communities might consider in their efforts to reduce their risks

(such as economic diversification, community indexing, business cooperatives and value-added enterprises).

With this issue, we introduce our readers to the new mission, goals and priority issues of the SRDC. The Center's new plan of work has been endorsed by its Board of Directors and Technical Advisory Committee. The document will serve as the map for guiding the work of the Center over the course of the next 3-5 years. We are also pleased to introduce you to the newest members of our SRDC staff. They are an outstanding addition to our office who stand ready to serve the rural development needs of our region's land-grant university system.

Bo Beaulieu
Director

Risk and the Rural Community: Coping with Economic and Natural Disaster

Barry K. Goodwin
North Carolina State University

The economic well-being of local communities can be influenced by many factors. Small communities are generally not very diversified in terms of the sources of income for their citizens and resources for supporting community infrastructure and services. Rural communities are often largely dependent upon agriculture and thus may be subject to the effects of cyclical movements in the overall farm economy. Furthermore, in

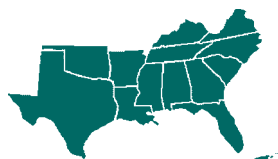
light of the regional nature of production of many crops and livestock commodities, local communities may be highly dependent on a particular crop or commodity. For example, the collapse of hog markets in the late 1990s was a significant blow to many local communities in important hog producing regions.

The economic health of local communities may also be heavily influenced by natural events such as earthquakes,

forest fires and hurricanes. For instance, Hurricane Floyd dealt a devastating blow to Eastern

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North Carolina in 1999. Local communities will spend many years recovering from the effects of extensive flooding brought about by the storm.

The objective of this article is to evaluate the dimensions of risk facing communities in the rural South. This begins with a discussion of the meaning of “risk” and the various sources of risk that may face communities. Then, options available for the management of risk are explored. Involvement of state and federal governments in risk management assistance and the provision of disaster relief is also examined. Furthermore, the dimensions of risk that extend beyond the obvious issues related to economic well-being, including health and environmental concerns, will be investigated. Finally, the last section contains a summary and offers concluding remarks regarding risk.

What is “Risk?”

Even the most casual reader will immediately have an idea of what the term “risk” generally pertains to. However, the concept is often quite difficult and is frequently used in many different, and sometimes contradictory ways. On a fundamental level, a precise definition of risk can be elusive. This confusion may hamper discussions of risk and indeed may make the development of risk management tools, such as insurance, difficult. In general, economists use the term “risk” to describe unanticipated and unpredictable movements in a variable of importance, typically income or revenue. The more volatile and unpredictable sources of income are, the riskier income is generally considered to be. Changes that are anticipated are generally not considered to be determinants of risk since decisions can be conditioned on the events and thus, the mistakes that arise from surprises can be avoided.

From a statistical point of view, economic risk is generally measured in terms of the standard deviation of income or perhaps more appropriately, by the coefficient of variation, which expresses the standard deviation in relative terms as a proportion of

the mean. This latter correction accounts for the fact that activities with a higher level of income will generally have a higher variance without implying a greater degree of risk.

A distinction is sometimes made between risk and uncertainty. Frank Knight made a now famous distinction between risk, where the odds associated with events are known with certainty but the outcomes are not, and uncertainty, where neither the odds nor outcomes are known. The odds associated with a casino game represent risk while the odds associated with a pari-mutuel bet, where the probabilities are unknown, also represent uncertainty. Statisticians and economists often use data and prior knowledge about a situation to assess the probabilities associated with events, such that uncertainty about risks may be reduced or even eliminated if enough data exist. Indeed, this forms the basis of the actuarial work that underlies the construction of insurance contracts.

Sources of Risk for Rural Communities

A myriad of factors may influence the risks that face rural communities. In general, the economic well-being of a community is directly influenced by the income of its citizens. Thus, any event that negatively impacts the income of individuals in a community is likely to have consequences for the community as a whole. Rural communities are often heavily dependent upon a single enterprise for their livelihood. This lack of diversification can be an important factor contributing to the economic risk of the community. For example, a rural community of farmers that specialize in a particular crop is likely to be vulnerable to swings in the market for that crop. In similar fashion, a mining community is likely to be vulnerable to downturns in the market for the commodity just as Silicon Valley is likely to be affected by soft market conditions in the high-tech industries.

This lack of diversification is more likely to be found among small, rural communities. Such communities are often dependent

risk *n.*

1. The possibility of suffering harm or loss; danger.
2. A factor, thing, element, or course involving uncertain danger; a hazard
3.
 - a. The danger or probability of loss to an insurer.
 - b. The amount that an insurance company stands to lose.
4.
 - a. The variability of returns from an investment.
 - b. The chance of nonpayment of a debt.
5. One considered with respect to the possibility of loss: a poor risk.

Source: <http://www.dictionary.com>

upon a single plant or mill that is a major employer. In the rural South, many communities have experienced the negative consequences of textile mill closures as textile and apparel manufacturers have moved their operations to other countries with cheaper labor sources. Consider the recent closure of the world’s largest manufacturing mill for cotton denim, the Swift Denim plant in Erwin, North Carolina. The impact of the closing of the plant was emphasized in an October 31, 2000, newscast (WRAL-TV). A plant employee was quoted as saying, “This is my home— this is shutting down my home.” The plant accounted for 740 jobs in the town of 4,000. The town has suffered as its tax base is eroding and individuals are forced to move or look elsewhere for employment.

Many large metropolitan areas share such concerns as even they may be subject to sector-wide downturns. For example, consider the experiences of large steel producing areas such as Pittsburgh and the effects of a softening demand for new automobiles on Detroit and other regions dependent upon the automobile industry. Recent concerns regarding downturns in the economy have given many large and small communities reason for concern. McGinn and

Naughton report that layoffs in “dot-com” industries have increased 600 percent since July 2000. Layoffs in the retail sector increased 47 percent between December 1999 and December 2000. Layoffs in the automobile sector increased 207 percent over this same period and this industry has recently been shocked by word of large layoffs by Daimler-Chrysler. In short, such sector-wide shocks and individual plant closing are a major source of risk for communities, large and small.

Communities may also be vulnerable to the risks associated with natural disasters. As we noted above, the shocks resulting from Hurricanes Fran and Floyd on North Carolina and Hurricane Andrew on Florida will be realized for many years. Weather catastrophes such as ice storms, floods, hurricanes, tornadoes and drought may lead to income risks as local income sources are affected. Likewise, natural disasters such as earthquakes and fires may be important sources of risk to communities. These natural disasters also may be sources of risks that have implications beyond the effects on employment and income earning potential of a community. In particular, the community’s health and well-being may also be threatened by such events.

Management of Risk

A number of measures may be taken to minimize and manage exposure to risk. A fundamental first step often involves diversification. To the extent that the sources of risk are not systemic, diversification of income or revenue streams across different sources may lower a community’s exposure to risk. Therefore, it may be beneficial for a local economy to be diversified across different industries. In the case of agriculture, it may be preferable for individual farmers to be well-diversified in terms of producing multiple crops and livestock commodities. Of course, the potential for such diversification varies according to the characteristics and capabilities of an individual area. Some regions may only be suitable for producing a single commodity and thus may not have very much potential for diversification.

Insurance markets often offer individuals the opportunity to insure against the risks that they face. Likewise, commercial interests and local governments may also turn to private insurance markets to offer a hedge against risks. In many cases, private insurance markets offer liability protection. Individual insurance companies usually reinsure their catastrophic risks by buying protection in the international reinsurance market. This was tested by Hurricane Andrew in 1992, which brought about insured losses that exceeded \$15 billion in Florida alone. Following Hurricane Andrew’s destruction, international reinsurers had to pay large claims.

In many cases, private markets do not offer coverage and government insurance is instead the primary source of liability protection. Federal, state and local governments play an important role in regulating private insurance markets. Provisions of coverage and rates are generally subject to the approval of state insurance commissioners. The extent to which government is involved because the private market has failed is debatable. A compelling argument that is counter to such market failure considerations is that private insurance does not exist in many cases because the private sector has been crowded out by government subsidized insurance. Regardless, the government has been deeply involved in providing insurance coverage as well as disaster relief to the uninsured for decades. Federally-subsidized crop insurance has been in existence for the last 60 years. Also, the National Flood Insurance Program has been offering heavily subsidized insurance to assets in flood-prone areas since its establishment in 1968.

Governments also play an important role in disaster prevention, mitigation and relief. For example, the Flood Control Act of 1936 brought about a national program of building structural flood control projects. The Federal Emergency Management Agency (FEMA) provides disaster relief to state and local governments. Such relief is generally secured upon a request of the governor of the affected state. Upon

declaration of a major disaster, FEMA provides a mechanism for channeling federal funds to states and local municipalities in order to repair infrastructure and municipal facilities that generally are uninsured. These federal funds typically require some degree of matching by state funds. Sometimes, governors will also utilize national guard resources to assist with disaster relief. Additionally, FEMA has a number of programs to assist individuals in affected areas, including emergency grants and loans for housing and food and small business disaster grants. The Small Business Administration (SBA) may also distribute some forms of federal disaster assistance to homeowners and businesses.

Other Aspects of Risk

The article’s discussion of risks has generally pertained to the obvious sources, such as natural disasters or economic events that diminish employment opportunities in a town. There are other, more subtle aspects of risk that are important as well. The health of a local population may be threatened by other factors. For example, the location of a manufacturing plant that releases toxic substances or a repository for storing hazardous materials may influence the well-being of a local population. Concerns regarding animal wastes, nuclear and toxic wastes, groundwater contamination, and other public health issues may also be relevant to the risk faced by a community. Local governments often use zoning regulations as a means of controlling such risks. Regardless of the means, the government clearly has an important role in regulating such activities in order to protect uninformed and unprotected residents from such risks.

Summary and Conclusions

This article outlined several dimensions of risk that may face individuals and local communities in the rural South. Although threats to employment and income opportunities are generally perceived to be major sources of risk, other factors including vulnerabilities to natural disasters as well as the hazards associated with wastes and other

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Risky Business

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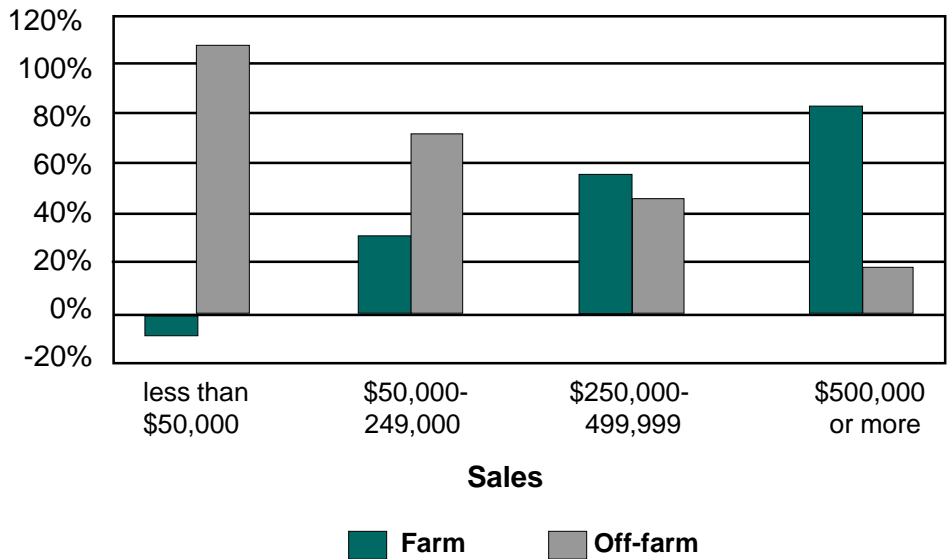
Risk is the spice of life, but its burdens are heavy ^[1]

“R”isk” seems to be the current buzzword in agriculture. Farmers, members of Congress, university professors, USDA administrators, and farm organization leaders all seem to be talking about the importance of “risk management” and the role of government “safety nets.” Conferences on managing risk in agriculture have been held around the country and farm publications continually emphasize farmers’ exposure to risk. Also, Congress recently passed legislation to improve and reform USDA efforts in providing crop and revenue insurance products to farmers and in educating farmers about the potential benefits of those programs.

In a companion article, Keith Coble explains why many in the agricultural community are currently focused on risk. Is risk really such a terrible thing? Remember the old adage “nothing ventured, nothing gained?” In a modern capitalist economy, that saying generally rings true. Over the long-run, risk and return are typically related. The more risk one is willing to accept, the greater the potential return. For example, the expected return on a stock market mutual fund will generally be higher than the expected return on a savings account. But, the mutual fund will also expose the investor to more risk. Mutual fund investors can actually lose some or all of their invested capital—something that since depression-era banking reforms is unheard of for investments in savings accounts.

Entrepreneurship is all about taking risks. Savvy entrepreneurs, however, seek to manage their exposure to risk. That is, they attempt to manage their business activities such that over the long run they are exposed to no more risk than is necessary to achieve their targeted rate of return. This article briefly describes some

Figure 1. Sources of farm operator household income by sales, 1997.



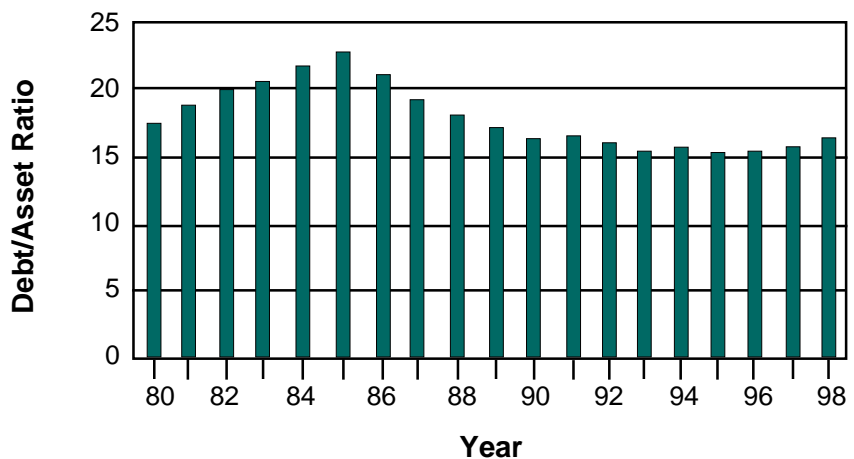
Source: USDA/ERS

of the risk management practices used by farm families. The list is by no means comprehensive. It is only a sampling of widely used practices. Yet the sampling is sufficient to demonstrate a fundamental principle—*risk management always comes at a cost.*

Diversification

The old saying opines that it is unwise to put “all your eggs in one basket.” In other words, diversify your risks. Farm families practice diversification in many ways. They may diversify across various farm enterprise—different crops, or a combination

Figure 2. Average U.S. farm debt to asset ratios.



Source: USDA/ERS

of crops and livestock. If prices and/or production are low for one enterprise, then perhaps they will be high for another enterprise. Farm families sometimes protect against weather-related production risk by farming in different regions. This geographic diversification insures that the farm's entire production is not susceptible to a single localized peril such as flooding or hail. In general, if the revenue that streams from each enterprise or location are not perfectly positively correlated, diversification will reduce the variability in overall farm income. But, there is also a cost to diversification. Some enterprises may not be as profitable as others. In addition, diversified producers must forego any efficiencies associated with specialization.

Off-farm Income

Many farm families diversify their household income across farm and off-farm sources. Figure 1 presents 1997 data for sources of farm operator household income. Those farms in the lowest sales classification, less than \$50,000 in sales, actually experienced negative farm income. On average, for farms in this sales classification, household income came entirely from off-farm sources. For farms with sales between \$50,000 and \$249,999, off-farm income was slightly over 70 percent of household income. Even farms with sales between \$250,000 and \$499,999 relied on off-farm income for 44 percent of household income. For the largest sales classification, off-farm income is less than 20 percent of household income. Off-farm employment generates a stream of income that is typically less variable than farm income. Even if off-farm income reflects investment income, the variability in overall-household income may be reduced if the stream of investment income is largely uncorrelated with farm income. Since off-farm income is simply another form of diversification, the benefits and potential costs are similar to those described above.

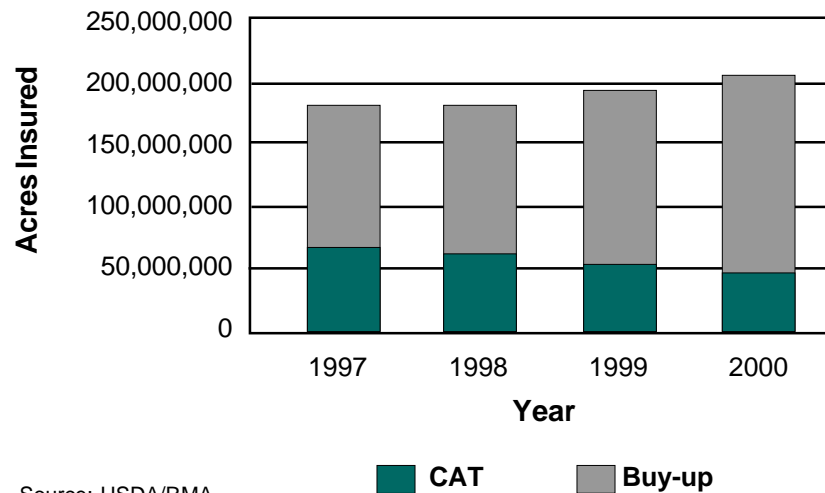
Debt Reduction

Principal and interest payments on

borrowed capital are fixed expenses that must be paid regardless of variations in farm revenue. Thus, the higher the farm household debt burden, the more the family standard of living is susceptible to the risk of low commodity prices or yields. Debt reduction lowers fixed expenses and allows the farm family more flexibility to

paying an insurance premium, farmers may "buy-up" to yield insurance coverage with lower deductibles and co-payments. In many regions, purchasers of buy-up insurance can choose between multiple peril crop yield insurance and revenue insurance. Where multiple peril crop yield insurance protects only against yield losses,

Figure 3. U.S. crop acres insured by federal crop and revenue insurance products.



Source: USDA/RMA

respond to low-farm revenue in ways that do not significantly impact the household standard of living. In addition, reducing debt now increases the likelihood that farm families can borrow to weather difficult times in the future. A standard measure of indebtedness is the ratio of debt to assets. On average, U.S. farm debt to asset ratios have declined since 1985 (Figure 2). Debt can be used to expand the scale of operation and leverage higher returns on personal equity invested in the farm. Thus, those who manage risk by reducing debt forego the opportunity for higher returns on invested-equity capital.

Crop and Revenue Insurance

Many crop farmers manage yield risk by purchasing federal multiple peril crop yield insurance. Farmers only pay a minimal administrative fee for low-level catastrophic (CAT) yield insurance. These CAT policies contain a 50 percent deductible and a 45 percent co-payment. By

revenue insurance protects against losses in revenue—the product of yield and price. All federal crop insurance products are purchased from private insurance companies. The federal government helps pay for insured losses and subsidizes farmer premium costs. Figure 3 shows that the total U.S. acreage insured under federal crop insurance products has increased recently while at the same time more farmers are choosing to purchase buy-up coverage.

Forward Pricing

Price variability is an important source of risk for many agricultural producers. To manage exposure to price risk, many farm families choose to establish prices for their commodities prior to physical delivery. This can be done in a number of ways, some of which are fairly straightforward. For example, as part of a vertically-coordinated supply chain, farmers enter

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Why Today's Focus of Risk Management?

Keith Coble

Mississippi State University

In recent years, agricultural risk management has received significant attention in the press, the land-grant system, and among policy-makers in Washington, D.C. Numerous conferences around the country have addressed the issue of how producers can do a better job managing the risks that are inherent in agriculture. This article provides an overview of why this attention has come about and suggests where the debate on these issues may turn in the near future.

Several factors have contributed to the renewed attention to agricultural risk management. The most obvious is that since high market prices in the mid 1990s, there has been a significant decline in many major crop commodity prices. These declines have been attributed to a number of factors, the most obvious being a decline in world market demand as economies in Asia and other parts of the world slowed and purchased fewer U.S. agricultural commodities. This problem is compounded by the fact that for several consecutive years, aggregate U.S. and world crop production has been near average or better in spite of regional crop disasters such as have occurred in the Mid-South this year. This has contributed to increases in a number of crop commodities stocks that exerts downward pressure on market prices. The increasing supply of agricultural products resulting from continuing technological advances in agricultural production also tends to push agricultural prices lower. As new genetics and equipment that make production more efficient are adopted, potential production continually increases. Rapid structural change occurring in many sectors of the agricultural economy is another force motivating the attention on risk management. Many perceive the loss of independence associated with integrated or contract production as a threat to the existing rural economy. Integrated production has been argued to replace price and yield risk with another set of risks largely related to the

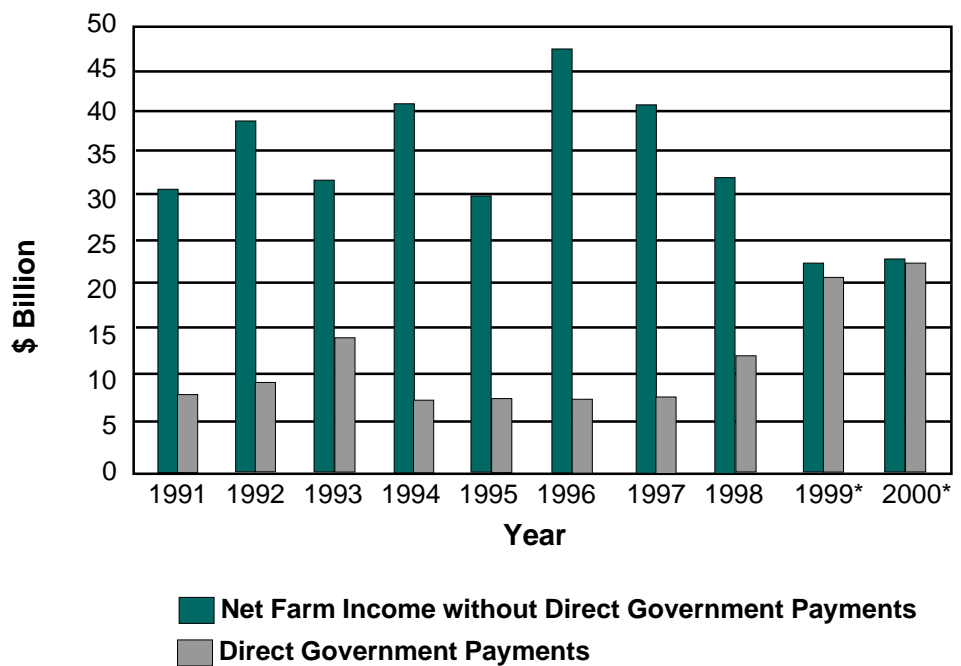
relative power of the integrator and the contractee. A prime example of this issue is the rapid transition occurring in the hog industry.

When considering the increased attention to agricultural risk management, farm policy changes cannot be ignored. As most know, the 1996 Farm Bill has been widely perceived as a watershed event in that it eliminated the deficiency payment program and the associated set-aside provisions that required participating producers to idle a percentage of their acres. The Freedom to Farm Bill did leave market loan programs in place. And with the recent price declines, the loan programs have come into play for most of our major agricultural commodities. The elimination of the deficiency payment program and set asides took away the price risk protection afforded by the deficiency payments, and also the mechanism by which the U.S. government could

manage the supply of agricultural commodities in response to variation of price. In the policy debate that has ensued since the passage of Freedom to Farm, many have argued that this change in farm policy has left agricultural producers at greater risk.

Since 1996, U.S. net farm income, excluding direct government payments, have declined by nearly half (ERS). Figure 1 shows the U.S. net farm income excluding direct government payments and the level of direct government payments for the years of 1991-2000. Declines in market revenue have in part been offset by increased government payments. The increase in government payments have largely been the result of Congress enacting ad hoc disaster payments in each of the past three years. These disaster payments are the first enacted since 1994 when a significant effort to eliminate ad hoc disaster bills occurred. Interestingly, the primary motivating factor behind recent

Figure 1. Net farm income 1991-2000.



Source: USDA/ERS

*indicates forecast

disaster bills has been low market prices rather than yield losses, which was the justification for disaster bills in the late 1980s and the early 1990s. Recently, policy makers have given significant attention to what should be done to modify the 'safety net' provided to agricultural producers. Many have called for modifications of the current farm bill and some have called for these changes to be made immediately, rather than at the 2002 expiration of the current farm bill. Others have argued that it is too soon to do that. Ultimately, this year's most significant agricultural policy legislation has been the Agricultural Risk Protection Act, which was primarily directed towards modification of federal crop insurance programs. This bill devotes \$8.2 billion additional dollars to subsidizing the crop insurance program in the United States over a five-year period. A large portion of that cost will be used to increase premium subsidies to producers. The bill also mandates significant efforts in new product development, efforts to develop livestock insurance policies, and includes provisions which mandate that there will be efforts to increase risk management education available to producers.

Where are we headed?

Given this context, it is useful to ask where are we headed in the agricultural risk management discussion. Turning first to the policy question, as we approach the expiration of the current farm bill, there is likely to be an increased attention given to farm policy beginning in the spring of 2001. Much of the preliminary discussion has centered around how agricultural producers can be given greater protection from downside risk. Policy makers are wrestling with the fact that producers prefer to maintain the flexibility afforded by the 1996 Farm Bill, but want protection when farm prices or revenue drop. The two major parties have neither given significant details to what they might be willing to propose. The 2000 presidential candidates both talked of safety nets for agricultural producers. The Republican candidate, George Bush, tended to emphasize savings account plans which would allow producers to save, on a

tax-free basis, funds in good years that could be carried over to bad income years. The Democratic candidate, Al Gore, had largely espoused a counter cyclical revenue plan. This plan would trigger payments to producers based on variations in national crop revenue.

Besides the policy debate, there are trends in agriculture that are likely to continue to influence how producers manage risk. We would identify several trends that are significant. First of all, there has been a recognition in recent years that traditional tools, such as forward pricing protects only one producer risk, that is price. On the other hand, tools such as crop yield insurance protect the producer from yield risk only. The advent of revenue insurance has forced many to consider that risk tools may interact. Thus, there is a trend toward more integrated thinking with regard to risk management. Efforts are underway to design new instruments that come closer to meeting the specific needs of producers. Some of these will probably be truly innovative steps forward, and others may fail to perform or even exacerbate a producer's risk.

A related change in risk management is that producers are likely to see increasingly complex risk management tools available and more alternatives. Therefore, it is easy to envision the scenario where producers are going to have a real menu of options available. This may provide the opportunity to tailor the use of various tools to their particular need. However, that is likely to lead to a situation where producers are going to need more and better information to evaluate risk management tools. Producers are going to need objective information and advice to guide them in making these kinds of complex decisions. Ultimately, producers will need to become even more astute risk managers. The outcome of the upcoming policy debate is likely to modify, but not reverse, this need.

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Risk and the Rural Community

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health concerns are also important sources of risk.

Diversification is one fundamental measure that can be used to control risk. As stated earlier, diversification may lower overall risk if risks are not systemic. Private and public insurance markets are available to provide some degree of protection against risks, and in many cases, federally subsidized insurance is available (e.g., crop and flood insurance).

Federal, state, and local governments also play an important role in mitigating risk and providing relief in situations where disasters occur. The regulatory functions of government are often a significant factor that may help to prevent risk exposure. Likewise, government may play a vital role in providing resources both to individuals and communities that have suffered disasters. However, the bottom line remains that regardless of the precautions taken, risk has the ability to affect anyone.

References and Suggestions for Further Readings

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A Rural Community Safety Net

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Public policy makers discuss safety nets often these days. The term means many different things to different people. In agriculture, safety nets often refer to transition payments, crop insurance, and other mechanisms designed to support falling prices, crop failure, and low revenue. For people in poverty, welfare and food and nutrition programs constitute a partial safety net. The concept of a safety net for a community, however, is less clear. To some extent, the safety net programs designed to help farmers and residents in poverty also help the rural communities in which they reside. Yet, no comprehensive safety net program specifically intended to manage the economic risk of a community exists.

Economic base theory tells us the community's economic sector that trades with other areas—the basic or export sector—is essential to survival. This sector obtains important additional income for the community by selling community goods and services to those outside the community. Other sectors simply recycle existing community dollars. Without such “recycling” firms, however, community income would be spent in other locales, depleting the town's resources. A new business addition to either sector can be a significant economic catalyst, providing important new job opportunities and local income enhancement.

Given the critical role businesses play, firm retention, expansion, and attraction are necessary strategies for rural community economic development. Consequently, many rural communities are competing for the retention and attraction of businesses. To win, they stake future tax revenue, infrastructure investments, and other scarce community resources. They may not, however, correctly, if at all, measure the risk of the gamble when calculating the expected payoff. The town may be tying their future to a single firm or a single industry. Often, towns fight the hardest for large manufacturing firms that can employ a substantial share of the community's population. If the firm fails or leaves, the community's primary source of income is gone. A community may also fail to recognize the similarity of its firms. Does the viability of the community firms all depend on the stability of the same industry (e.g., coal) or input (e.g., cost of fuel)? If so, the demise of one firm may signal the demise of all. Communities can be just as vulnerable if the firms are linked by relying on each other's production.

Communities clearly need to make careful, comprehensive evaluations of business investment decisions. Just as an individual investor needs a diversified portfolio of investments, communities should also consider the economic diversity—and thus, income risk—associated with the business in question. However,

No comprehensive safety net program specifically intended to manage the economic risk of a community exists.

many risky decisions have already been made, leaving very vulnerable communities. Other decisions may be made based on politics rather than community welfare. The positive short-term political feedback associated with bringing in a major firm, or retaining one threatening to leave, may be impossible to resist.

We are left to ask then, what can be done to help communities who are deserted by companies that supported their economy? What kind of safety net can be provided? The most common first choice is to look towards the government for a solution. In the current policy environment, however, trimming down rather than extending welfare programs is the norm. The creation of a comprehensive (probably costly) community public safety net program is not likely in the current political climate. Even if it were possible, such a program would likely be unwise. It may cause local communities to take on more risk and be less concerned about creating sustainable economies.

Alternatively, an ingenious market-based solution could be created using innovations in the capital market. Consider indexing the community economic measures to similar measures for the region or the nation. For example, one might use per capita income, poverty or even some aggregate measure of local economic activity that is calculated in a fashion

similar to GDP (gross domestic product). The reason for indexing relative to the regional or national numbers is that no one could insure the downturns in the overall economy. The community index would be designed to gauge the well-being of the community relative to a larger region or to the nation.

Given such indexing, it may be possible to insure the risk of the community versus the region. A base would be established so that the index reflects some average value of the community's position relative to the region or nation. As the index drops below certain thresholds, it would reflect some significant problem in the community relative to the overall economy. If the index is properly constructed using careful underwriting, traders or reinsurers in the capital markets could provide the needed capital to indemnify the community or businesses in the community when there is a problem. Obviously, the community or the businesses would give up some premium in the short-term to obtain this protection.

Such an index does not negate the need for the community to attempt to minimize its economic risk and long-term vulnerability. To the contrary, the better the community is at this effort, the lower the premiums for the insurance against downturns in local economy. Beyond completing more comprehensive evaluations of

business investment decisions that correctly account for risk, communities should consider two other strategies. First, they could help create more cooperative forms of business in their town. Cooperatives have been one of the main forces behind rural economic development since at least the 1930s and the spirit of cooperation is prevalent in rural areas. By virtue of being locally owned and controlled, with benefits distributed back to the community, cooperatives are compelled to relate to communities differently than

other organizational structures. They may also be in an ideal position to use index contracts that protect against severe problems in the local economy since they can serve as risk aggregators.

Second, communities need to incorporate an economic diversity objective into their development plans. They need to have an appropriate number of basic and non-basic firms that will ensure the capture and retention of income in the community. As much as possible, firms need to

represent a cross-section of uncorrelated industries. For example, food processing and other value-added agribusiness firms are currently promoted as vehicles for economic growth in rural communities. The 1996 FAIR Act specifically mentions the use of value-added enterprises as an important rural development tool. However, in rural communities comprised primarily of farm families, this strategy could be devastating with a widespread or consistent fall in commodity prices.

In the end, the existence of economic diversity and local control means a more sustainable development path for rural communities. Sustainability, by definition, greatly reduces the need for a safety net. Until truly sustainable communities are developed, however, new and creative solutions for vulnerable communities need to be found.

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Risky Business

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directly into production contracts with buyers. This is seen most often in livestock sectors but is increasingly being used in crop sectors as well. Currently, a more standard model in crop sectors is when farmers enter into cash forward contracts with grain elevators. In both models, the contract establishes either the price at delivery or the method that will be used to determine price at delivery. More complex forward pricing strategies involve the use of exchange-traded futures or options contracts. By forward pricing, farmers protect themselves against the potential for lower prices in the future. Yet, many forward-pricing strategies also imply that farmers are unable to take advantage of higher prices should they occur. Forward-pricing strategies that do allow farmers to take advantage of future price increases (e.g., put options) require an up-front premium payment similar to insurance contracts.

Input choices

Farmers routinely make input decisions based, at least in part, on risk management considerations. For example, farmers invest in irrigation equipment to

protect against yield losses due to insufficient soil moisture. In this sense, the decision to purchase irrigation equipment is not unlike a decision to purchase crop yield insurance. Decisions regarding pesticide purchase and application have risk management implications, as do crop variety choices. One seed variety may promise higher yields than another variety during a normal growing season but may be more susceptible to yield losses caused by disease or temperature extremes. Thus, even input choices have important risk management implications. This has become even more apparent in recent years with the emergence of genetically engineered crops. Among currently available genetically engineered crops are those that offer protection against common diseases or insect pests. Of course, when purchasing seed, farmers pay a premium for the genetically engineered crop technology.

Life, disability, liability, and property and casualty insurance

Farms are business entities. As with any business, farm families make important choices regarding the standard selection of business insurance products. Many farm families carry life and disability insurance on the primary farm operator(s).

Liability insurance is becoming increasingly important, especially for farms that utilize hired labor. Most farms will utilize property and casualty insurance to protect the part of farm-family wealth that is invested in buildings and equipment.

These are just a few examples of common risk management practices utilized by farm families. While the specific practices differ they share this common element: *risk protection always comes at a cost*. The farm families that use these and other risk management practices accept a relatively stable stream of losses—the explicit or implicit cost of the risk management practice—in exchange for the unlikely, but possible, risk of a large and financially devastating loss.

References

[1] Anonymous. Quoted in Rejda, George E. 1995. *Principles of Risk Management and Insurance*. New York: Harper Collins.

For more information on risk management strategies for farm families visit the National Risk Education Library at <http://www.agrisk.umn.edu/>

Barry J. Barnett is an assistant professor and an assistant economist at Mississippi State University in the Department of Agricultural Economics.

New SRDC Plan of Work is Adopted

Since the creation of the Southern Rural Development Center over a quarter of a century ago, times have changed. Rural places, once struggling to retain their population base, now find themselves facing an influx of new and culturally diverse residents. Low-skilled, low-educated workers, once the key ingredients for attracting industries to rural areas of the South, now prove to be major barriers to advancing the economic and social progress of these localities. Additionally, the local leadership structure, once dominated by a handful of powerful and entrenched leaders, must now pursue creative avenues to engage a broader group of people in helping guide the future of their rural communities.

Therefore, the SRDC opted to take a serious look at the nature of their activities. With the support and endorsement of its Board of Directors and its Technical Advisory Committee, the

SRDC began a systematic effort in the Summer of 2000 to engage a sizable number of land-grant research faculty and Extension educators in assessing the importance and relevance of the SRDC's current initiatives. In addition, the group was asked to outline the key issues emerging in the region and the role that the Southern Rural Development Center might play in addressing these issues over the course of the next 3-5 years. The sizable amount of input received was carefully classified into major rural development thematic areas. The Fall 2000 meeting of the SRDC's Technical Advisory Committee (TAC) was largely devoted to studying the recommendations offered by those surveyed.

As an outgrowth of the TAC meeting, the SRDC has refined its mission, goals and priority issues. The new mission statement is intended to further clarify the principal purpose of the SRDC.

SRDC Mission Statement:

To strengthen the capacity of the region's 29 land-grant institutions to address critical

contemporary rural development issues impacting the well-being of people and communities in the rural South.

Changes to the Center's goals and priority issues are designed to promote Center activities that are attuned to the critical rural development issues emerging in the South.

SRDC Goals:

- Stimulate the formation of multi-state research teams;
- Coordinate the development and revision of educational materials and maintain a centralized repository of educational resources;
- Organize and deliver high priority rural development research and educational workshops/conferences;
- Provide leadership for the preparation of science-based rural development policy reports;
- Build partnerships that link the South's land-grant university system with other key entities committed to rural development activities in the region.

SRDC Priority Issues:

- Strengthen the engagement

of rural people and organizations in the civic life of their communities

- Promote sound rural economic and workforce development strategies that improve job quality and the competitiveness of workers in the rural South
- Assist rural communities in developing sound strategies for addressing the challenges associated with the expansion of urban and suburban localities into rural areas
- Expand efforts to improve health care access in the rural South, and explore strategies for reducing the prevalence of food insecurity and hunger among the region's most vulnerable rural populations
- Explore the prevalence of a "digital divide" among various populations and communities in the South, and assist in the development of educational programs that advance the information technology capacity of rural people and places

Collectively, the new mission statement, goals and five priority issues will guide the work of the SRDC over the course of the next three to five years.

SRDC adds three new employees

The Southern Rural Development Center has recently made three new additions to its staff.

Brandon, MS native and University of Mississippi alumna *Sally Adkins Garriga* is the new writer/editor for the Southern Rural Development Center. Garriga comes to the Center from Oktibbeha County Hospital where she held the position of marketing and public relations

assistant. At OCH, she was responsible layout and design of a monthly newsletter, press releases and fliers, as well as the supervision of events and interns.

Garriga holds a bachelor's degree in journalism with an emphasis in public relations from the University of Mississippi and is currently pursuing a master's degree in educational technology with a minor in communication from Mississippi State University.

Garriga and her husband, Michael who also works at Mississippi State University, reside in Starkville.

Michelle Lee Green recently assumed the duties of administrative secretary for the Center. Green is a Starkville native and a Starkville Academy and Mississippi State University alumna. She received a bachelor's degree in music education from MSU in 1994.

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Southern Region Community Development Institute

May 14-18, 2001

New Braunfels, TX

This conference is designed to provide Extension specialists, regional directors, county agents and paraprofessionals, with a unique opportunity to be an active participant in an intensive, state-of-the-art training program related to community development. It is designed to provide participants with an expanded understanding of: (1) the current nature of infrastructure, (2) the essential elements of sound community development Extension programming, and (3) tools and

strategies for working with communities on economic, social and service infrastructure enhancements.

The conference will be held at The John Newcombe Tennis Ranch and Conference Center located at 325 Mission Valley Road. The total cost is \$478 per person single occupancy or \$318 per person double occupancy and includes lodging, meals and breaks.

Registration is limited to the first 40 applicants and is \$275.00 per person. A registration fee of \$525.00 is needed if a person wishes to receive three (3) Mississippi State University Graduate Credit Hours. For more information about this conference, contact the Southern Rural Development Center at Box 9656, Mississippi State, MS 39762, 662-325-3207 or bonniet@srdc.msstate.edu.

NAMES

in the News

William H. "Bill" Brown was recently named the new vice chancellor for research and director of the research branch for the Louisiana State University AgCenter. He succeeds R. Larry Rogers, who has led the research branch of the LSU AgCenter since 1996. Brown has been working in Louisiana since 1976, and attained the title of associate vice chancellor for the LSU AgCenter last year. Before coming to Louisiana, Brown taught and conducted research at Mississippi State University. He holds bachelor's, master's and doctoral degrees in agricultural engineering from the University of Missouri at Columbia.

Colien Hefferan is the new administrator of the U. S. Department of Agriculture's Cooperative State Research Extension and Education Service. Hefferan joined the USDA in 1979 as an economist with the Family Economics Research Group, Agricultural Research Service and then transferred to the Cooperative State Research Service in 1988, where she served as

Deputy Administrator of CSREES. Prior to her work with CSREES, Hefferan served on the faculty at Pennsylvania State University, University of Maryland and as a research fellow at the Australian National University in Canberra. Hefferan received a bachelor's degree from the University of Arizona and her master's and doctorate from the University of Illinois.

Ivory Lyles was recently named the University of Arkansas Cooperative Extension Services's Associate Vice President for Agriculture-Extension. Lyles is a Scott County, Mississippi native, and previously held extension positions in Mississippi, Ohio and Tennessee. He holds a bachelor's degree in agricultural economics from Alcorn State University, a master's degree from Mississippi State University and a doctorate in agricultural education and education administration from The Ohio State University.

Charles J. Scifres, associate vice president of Agriculture at the

University of Arkansas, Fayetteville since 1994, is the new associate vice chancellor for Agriculture and Life Science at Texas A&M University. By accepting this position, Scifres also becomes the chief operating officer of the Agriculture Experiment Station. Clarence R. "Dick" Creger was serving as the interim deputy director of the Station.

M. Scott Smith, former associate dean for research and associate director of the College of Agriculture at the University of Kentucky, recently was named the new dean and director of the College of Agriculture. He succeeds C. Oran Little who retired December 2000.

C.A. Speer is the new dean of the College of Agricultural Sciences and Natural Resources and Tennessee Agricultural Experiment Station at the University of Tennessee. Speer established the Center for Bison and Wildlife Health at Montana State University and served

as its Director. He holds a bachelor's degree from Colorado State University and master's and doctorate degrees from Utah State University. Tom Klindt had been serving as interim dean since the retirement of Don Richardson in February 2000.

Alton Thompson recently assumed the role of dean for the North Carolina A&T School of Agriculture and Environmental and Allied Sciences. He was formerly a department chair for the Department of Agricultural Education, Economics and Rural Sociology. Thompson holds a bachelor's degree from North Carolina Central University and a master's and doctorate from The Ohio State University.

Gregory J. Weidemann, associate director of the Arkansas Agricultural Experiment Station, will serve as interim dean of the University of Arkansas' Dale Bumpers College of Agricultural, Food and Life Sciences. Weidemann replaces Charles J. Scifres.

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New Employees

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Green was an assistant band director at Starkville Academy for three years and then became the Heritage Academy Elementary School music teacher, where she taught for another three years. Before joining the SRDC, she held a position as a teller at Merchants and Farmers Bank.

Green's husband Byron is the Minister of Music and Youth at Fellowship Baptist Church. With their 2-year-old daughter, Alex, Green and her husband live in Starkville.

The Center's new accounting assistant is *Laura Gilliam Jordan*. Jordan is also a Starkville native and Starkville Academy graduate. She holds a bachelor's degree in business administration from Mississippi State University and has 19 years of banking experience.

Dale, Jordan's husband, is employed by Mitchell Memorial Library at Mississippi State University. She and her husband, and their 4-year-old son Caleb, reside in Starkville.

SOUTHERN

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