

Proposals for Whole-Farm Risk Management Assistance

In recent farm policy debates, several proposals for a whole-farm revenue safety net program have been put forward. Such programs would be based on revenues from all farming activities combined, would not be linked to the production of particular commodities, and could offer a safety net to all farms. Prominent among these are farm income-stabilization (savings) accounts and whole-farm revenue insurance.

Income-Stabilization (Savings) Accounts

Farm income-stabilization (or savings) accounts are designed to encourage farmers to manage risk by making deposits to special accounts in high-income years and making withdrawals, when needed, in low-income years. The government would provide incentives, such as tax deferrals and/or matching contributions, to encourage farmer participation and to help farmers accumulate reserves. Thus far, the farm income-stabilization account proposals have been put forward as supplements to other farm programs, but none of the proposals has been enacted. Examples of proposed farm income-stabilization account programs include:

- **Farm and Ranch Risk Management (FARRM) Accounts.** FARRM accounts would allow farmers to take a Federal income tax deduction for a deposit of up to 20 percent of eligible farm income (defined as taxable net farm income from Schedule F, plus net capital gains from the sale of farm assets including livestock but not land). Deposits would be made into interest-bearing accounts and earnings would be distributed and taxed annually. Withdrawals from principal would be at the farmer's discretion and taxable in the year withdrawn. Deposits could stay in the account for up to 5 years, with new amounts added on a first-in, first-out basis. Deposits not withdrawn after 5 years would incur a 10-percent penalty. FARRM accounts were first proposed following the passage of the 1996 Federal Agriculture Improvement and Reform Act to encourage farmers to save a portion of the transition payments during the relatively high-income years of 1996-97. FARRM accounts were introduced in Congress in 1998, have been reintroduced several times, and were part of the administration's budget proposals in 2001 and 2002.
- **Counter-Cyclical Accounts (CCAs).** With CCAs, the government would match farmer deposits to special savings accounts—up to a limit. The producer could deposit such amounts as the producer considered appropriate, but government contributions would be limited to 2 percent of the producer's 5-year average adjusted gross revenue and could not exceed \$5,000 for any applicable year. Funds in the accounts would earn interest at commercial rates. A farmer would be allowed to withdraw from the account only when his or her adjusted gross revenue fell below 90 percent of its average over the 5 previous

years. The withdrawal amount would be limited to what would be needed to raise current adjusted gross revenue up to 90 percent of the 5-year average gross revenue. CCAs were proposed in the initial version of the 2002 farm bill that passed the Senate, but were dropped from that bill by the House-Senate conference committee (Library of Congress, H.R. 2646).

- Individual Risk Management Accounts (IRMAs).** The IRMA program would offer both tax deferrals and government matching contributions as incentives for producers to make deposits to special accounts. Producer deposits would be deductible from pretax income; deposits and interest would be taxable only upon withdrawal. The government would make matching deposits of 2 percent of Schedule F gross farm income. IRMA balances would be limited to the equivalent of 150 percent of a producer's annual average Schedule F gross farm income over the previous 3 years. Producers would be allowed to withdraw from their IRMA only when income fell below 80 percent of its average over the previous 3 years. The withdrawal amount would be limited to what would be needed to raise current income to 80 percent of the 3-year average.

IRMAs were proposed in 1999 by the Alabama Farmers Federation study committee. The Alabama proposal tied IRMA to Federal crop insurance and implied that funding for IRMA would come in part from crop insurance subsidies. Under the proposal, a producer who deposited at least 2 percent of gross farm income in an IRMA would receive catastrophic crop insurance (CAT) coverage at no cost, but additional insurance purchased would not be subsidized.

Table 1

Proposed income-stabilization accounts offer tax deferrals, matching deposits

Program	Eligibility	Incentives	Limits on deposits	Conditions on withdrawal of funds
Farm and Ranch Risk Management Accounts	Positive net farm income	Federal income tax deferred on amount of deposit	Annual deposit cannot exceed 20% of net farm income	Funds can be withdrawn at anytime, must be withdrawn in 5 years
Counter-Cyclical Accounts	Average gross farm income greater than \$50,000 or limited-resource farm	Government matching deposits, tax deferral on earnings	Up to 2% of gross income, maximum matching deposit of \$5,000	When annual gross income falls below 90% of its 5-year average
Individual Risk Management Accounts	None specified	Government matching deposits, tax deferral	Up to 2% of gross income, additional deposits allowed in high income years, balance cannot exceed 150% of average gross income	When annual gross income falls below 80% of its 3-year average

Source: ERS analysis of proposed programs.

Potential Eligibility, Benefits, and Costs of Income-Stabilization Account Proposals

Income-stabilization account proposals vary in benefits and program costs. While all three proposals used a tax-based measure of income to determine eligibility to make deposits to and, in some cases, make withdrawals from the accounts, they differed in the types and levels of government incentives to participate and in the potential benefits to farmers and costs to the government.

Eligibility to participate in the FARRM accounts program would be limited to individual taxpayers—that is, sole proprietors, partners, and Subchapter S shareholders—who reported positive eligible farm income. To benefit from the tax deferral, the farmer also must owe Federal income tax in the year of the deposit. Based on Internal Revenue Service (IRS) tax data for 2000, we estimate that about 37 percent of all farmers would be eligible to deposit an estimated \$3.5 billion resulting in tax deferral costs of about \$0.9 billion per year. Some of this cost could be recovered as farmers pay taxes on FARRM account withdrawals in subsequent years.

To be eligible for the CCA program, a producer would either have to earn average gross income over the previous 5 years of \$50,000 or be a limited-resource farmer. Based on 2000 IRS tax data, we estimate that about 25 percent of farm sole proprietors would be eligible and would receive an average government matching deposit of about \$2,100. Total potential annual matching government deposits for farm sole proprietors would be \$1.2 billion.

Partners in farm partnerships and shareholders in small business corporations (Subchapter S) also would be eligible. Average matching government deposits would be higher for Subchapter S shareholders, since such entities are generally larger and fewer shareholders would be excluded from the program by the \$50,000 gross farm income requirement. Potential matching deposits for farm partners and Subchapter S shareholders would be \$306 million and \$56 million, respectively. Thus, the total annual potential cost

Table 2

Estimated annual eligibility, potential deposits, and benefits vary by proposed income-stabilization account program

Proposed program	Eligible farmers ¹		Potential deposits ²	Potential benefits to farmers	
	Number	Percent		Tax deferral	Matching deposits
			-----Billion dollars-----		
FARRM Accounts	1,088,546	37	3.5	0.9	n/a
Counter-Cyclical Accounts	688,943	24	3.2	n/a	1.6
Individual Risk Management Accounts	2,714,000	93	5.4	0.7	2.7

¹Number of farmers is the number of taxpayers reporting farm income or loss.

²Farmer deposits plus Government matching deposits.

n/a = not applicable.

Source: ERS analysis of 2000 Internal Revenue Service tax data.

for all participants in CCAs would be about \$1.6 billion; with the government's matching of the farmers' contributions, the total amount deposited in CCAs could be in excess of \$3.2 billion.

The IRMA proposal did not contain specific eligibility requirements. Assuming that participants would only have to have some gross farm income, we estimate that potential matching deposits under IRMA, according to 2000 tax data, could be as much as \$2.7 billion. Since farmers could deposit more than the 2 percent of gross income the government would match, the total potential account balance could exceed \$5.5 billion. Although nearly all farmers would be eligible for IRMA, many of the accounts are likely to be small and therefore would provide little risk protection. Average potential deposits across all forms of organization would average only about \$1,000. Potential matching deposits would be largest for Subchapter S shareholders (about \$3,400) and partners in farm partnerships (about \$2,500).

Income-Stabilization Account Programs in Australia and Canada

For several years, Australia and Canada have each operated whole-farm income-stabilization account programs. Their experiences provide information about likely farmer participation and program operation in the United States.

Australia has had an income-stabilization account program, the Farm Management Deposits (FMD) program, since 1999. The incentive for farmers to make deposits under the program is a tax deduction for deposits. As long as the funds remain in the account for at least 12 months, taxes are deferred until the funds are withdrawn. In this regard, the FMD program resembles the farm savings account proposals that have been considered in the United States, particularly FARRM accounts.

Despite implementation of the program in a period of relatively favorable farm income, participation has been low. By the end of 2002, only about 10 percent of dairy farms and 15 percent of all other farms were participating in the program. Still, participating farm operators had accumulated large balances in a relatively short period. By the end of 2002, there were nearly A\$2 billion in 39,500 FMD accounts, for an average account balance of about A\$48,000. The primary reason that farmers have been able to accumulate such balances in a short period of time is that there is no annual deposit limit, only a maximum total deposit cap of A\$300,000. The only limit on the annual tax deduction is that it cannot exceed the primary production income for the year. As a result, during the record year of 2001-02, farmers deposited about 10 percent of the net value of farm production or about A\$1 billion.

Since 2002, widespread drought in Australia has sharply reduced income and slowed the growth of deposits. By 2004, the accounts had grown to A\$2.6 billion with the number of accounts increasing by about 10 percent to 43,309. Participation in Australia's FMD program is highest for the largest and most profitable farms. An analysis of Australian farms found that farms with FMD accounts were larger, had higher rates of return and more liquid

assets, even without considering the FMD accounts, than farms without such accounts (Martin).

Canada has had an even longer experience with an income-stabilization program. The Canadian Net Income Stabilization Accounts (NISA) program began operation in 1992. This program provided generous incentives for farmers to make deposits, including matching government contributions and a 3-percentage-point interest rate bonus on account balances. After over a decade of operation, over half of all Canadian farms participated in the NISA program. Participation varied considerably, however, by the size of the farming operation. In 2001, only about a third of farms with farm business receipts under C\$10,000 had a NISA account. Given the administrative costs to participate, many farmers with low sales may have felt that there was little or no net benefit from participating in NISA. Participation for farms with sales above C\$10,000 was significantly higher, at about 57 percent.

After several years of operation, a number of farmers had accumulated little or no NISA balances while some farmers had accumulated large balances but chose not to withdraw funds when eligible. In 2001, for example, 113,000 NISA participants were eligible to make withdrawals totaling C\$1.5 billion, but only 49,500 of eligible producers (44 percent) withdrew a total of C\$536 million (35 percent of the available funds). Further, one in eight NISA participants had chosen either not to access their accounts or accessed their accounts only once in 6 years, although funds were available for withdrawal in every year (Strain and Andrusiak, 2003). This suggests that the economic incentives of the interest rate bonus and potential tax liability on withdrawn funds encouraged farmers to borrow or use other techniques to cover shortfalls in income rather than draw down their NISA accounts. Beginning in 1998, NISA was supplemented by disaster assistance programs: the Agriculture Income Disaster Assistance (AIDA) Program in 1998 and 1999 and the Canadian Farm Income Program (CFIP) for 2000 through 2003. These programs were designed to cover losses beyond a 30-percent drop in income by supporting income up to 70 percent of a producer's historical average.

In 2004, NISA, along with CFIP, was replaced by the Canadian Agricultural Income Stabilization (CAIS) program, which combines both income stabilization and disaster assistance. CAIS was designed to address major shortcomings identified with the NISA program. With CAIS, coverage is immediately available to participants and does not depend on the accumulation of an account balance. Also, a participant does not receive a government contribution until the participant experiences a drop in income. This avoids the situation under NISA in which some participants continued to accumulate balances but did not withdraw funds during low-income years. In this situation, the government continued to make matching deposits and pay interest rate bonuses even though the income stabilization objectives of the program were not necessarily furthered by such outlays.

CAIS has several characteristics of a fully subsidized whole-farm income insurance program. CAIS allows participants to shift the risk of drops in income to an insurer, the government in this case, rather than using the accumulation of funds in individual accounts. Participants establish insured amounts of income based on recent history. Unlike insurance, participants are not charged a risk-based premium. Instead, they make a deposit, which in the

first years of the CAIS program was a proportion of the amount of income insured. It was recently changed to a flat fee per C\$1,000 of margin insured. Because CAIS makes immediate and ongoing protection available to all participants, beginning farmers can access stabilization and disaster coverage in their first year and coverage can continue in situations where a stabilization account balance might be exhausted, such as back-to-back disasters.

Under CAIS, the amount of income to be covered is based on a producer's margin. The margin is defined as income minus expenses directly related to the primary production of agricultural commodities on the farm. In particular, income is the sale of agricultural commodities and proceeds from production (crop) insurance but excluding other government payments; expenses are costs such as feed, fertilizer and pesticides. CAIS payments are made when a farmer's claim-year margin falls below his or her reference margin, which is an Olympic average of the producer's margin for the previous 5 years. (An Olympic average is a 5-year average that "drops" the highest and lowest values.)

The CAIS participant annually selects a level of protection, that is, a proportion of his or her margin, and makes the appropriate deposit. Substantial government benefits are paid if the participant experiences a decline in income. As the producer's loss deepens, government assistance increases. The first 15 percent of a producer's loss (the part between 100 percent and 85 percent of the margin) would be shared 50-50 with the government. For the next 15 percent of loss, the government's share is 70 percent of the drop in margin. For the portion of the decline less than 70 percent of the reference margin, the producer would receive 80 percent from the government.

CAIS does cover negative margins. If the producer satisfies certain criteria, the producer is eligible to receive 60 percent of the program-year margin decline that falls within the negative margin. However, the maximum total government contributions that a farmer can receive under CAIS in a given year is capped at the lesser of C\$3 million, or 70 percent of the margin decline of the program-year margin, relative to the reference margin. Any negative portion of the program-year margin is included in the calculation of the 70-percent cap.

Whole-Farm Revenue Insurance

Insurance, particularly crop yield and revenue insurance, is a large part of the farm safety net in the United States (Glauber). In 2005, about 200 million acres of cropland—including 75 percent to 80 percent of the planted acres of corn, soybeans, wheat, and cotton—were insured under federally subsidized crop insurance. The total amount of insurance coverage, or liability, was about \$44 billion in 2005, or 40 percent of U.S. farm output. Farmers paid about \$1.7 billion in insurance premiums for this coverage, while the U.S. Government paid about \$2.5 billion, 60 percent of total premiums. Federal crop insurance coverage is available for more than 100 different crops; corn, soybeans, wheat, and cotton account for about 75 percent of total insurance premiums. Federal crop insurance offers revenue-insurance plans, an alternative to yield-insurance plans, for several major field crops. The revenue-insurance plans, first offered in 1996, accounted for

more than 60 percent of insured acres of corn, soybeans, and wheat in 2005.

For nearly all Federal crop insurance, including revenue insurance, coverage is on a farm-level crop-by-crop basis. Some have suggested that a modified crop-by-crop revenue-insurance program, which would use target prices instead of market prices to determine insurance coverage, could replace parts of the farm safety net for major field crops (Babcock and Hart, summer 2005). Others have suggested that whole-farm revenue insurance, which would cover the combined income of all farm enterprises, be considered as a safety net for a wide variety of farming operations (American Farm Bureau Federation).

Insurance, which is based on transferring and pooling individual risks, differs from stabilization or savings accounts, which rely on the accumulation of reserves in individual accounts. Under the Federal crop insurance program, farmers obtain coverage by paying a portion of an insurance premium that is based on estimates of the probability and magnitude of drops in revenue. The Federal crop insurance program currently has two pilot programs, Adjusted Gross Revenue (AGR) and Adjusted Gross Revenue-Lite, which operate on whole-farm revenue-insurance principles. Although experience with these pilot programs is limited, they provide some indications as to how a whole-farm revenue-insurance program could be developed.

AGR and AGR-Lite participants insure against drops in adjusted gross farm income, measured from historical filings of the Internal Revenue Service Form 1040 (Schedule F). A producer can insure at a coverage level of 65 percent, 75 percent, or 80 percent of farm-average gross revenue over the previous 5 years. Indemnities are paid if a producer suffers a shortfall relative to the revenue guarantee. The amount of the loss covered by the insurance is the difference between actual revenue and the guarantee, multiplied by the payment rate selected in advance. Under the pilot programs, the payment rates are 75 percent and 90 percent. Both AGR and AGR-Lite require a producer to submit annual farm plans so that coverage can be adjusted to account for changes such as farm size and enterprise mix that would result in less income.

The AGR and AGR-Lite pilot programs have limits that keep them from being full-fledged whole-farm insurance programs. AGR and AGR-Lite are intended to be used by producers of commodities for which commodity crop yield and revenue insurance—such as Multiple-Peril Crop Insurance yield coverage, Revenue Assurance, Crop Revenue Coverage, and Income Protection—are not available. AGR limits the share of farm income that can come from animals and animal products to 35 percent and limits total insurance liability to \$6.5 million per policy. AGR-Lite does not have a restriction on income from animal and animal products. The maximum limit on AGR-Lite is \$1 million.

The AGR and AGR-Lite pilot programs are very small compared with other types of Federal crop insurance. About 1,000 AGR and AGR-Lite policies have been in effect each year from 2003 to 2005, versus about 1.2 million policies of all types of Federal crop insurance. Annual premiums for AGR and AGR-Lite average about \$12 million, versus \$3.8 billion for the entire crop insurance program.

The actuarial experiences of AGR and AGR-Lite are short. AGR was first offered in 1999 and AGR-Lite in 2003. The AGR program underwent substantial changes beginning with the 2001 insurance year in attempts to make it more attractive to producers. The number of AGR policies reached 944 in 2003 but declined to 864 in 2004 and 708 in 2005. In 2005, total premiums for AGR were \$11.9 million, of which \$6.5 million were premium subsidies. The number of AGR-Lite policies reached 165 in 2005. During 1999-2004, farmers received \$56.5 million in indemnities under AGR and AGR-Lite policies, about 140 percent of total premiums and 325 percent of the producer-paid premium amounts.