Farm Families' Savings: Findings from the ARMS Survey

Farmers are not unique in their ability or willingness to save. They are influenced by the same factors that affect savings in other sectors of the population—age, education, cultural and other socioeconomic attributes and, of course, income levels. The level and source of farm household income is governed by how the household allocates its own labor and financial assets. These allocation decisions affect the composition and stability of household income and therefore the level and disposition of household savings.

Continued large government outlays for disaster assistance and other unearned compensation are viewed by some as evidence of farmers' inability or unwillingness to save. Policies that would provide incentives to encourage farmers to save as one means to stabilize incomes and better prepare for retirement are thus being discussed. A recent report by the Employee Benefits Research Institute points out that saving for retirement is small, not well understood, and a subject of an ongoing debate in the general population. Further, 63 percent of current workers expect to keep working for pay after formal retirement.

The concept of farmer savings accounts is not new to the farm bill debate (*AO* May 1999) and such accounts have been implemented in other countries, including Australia and Canada (Net Income Savings Account program). Recent evidence from USDA's Agricultural Resource Management Study (ARMS) survey provides information about the savings behavior of farmers, focusing not only on how much farmers save but also on how they save. Savings rates are sensitive to characteristics of farms and farmers, and the portfolio of savings and investment instruments varies considerably across the sector. Savings and farm family financial assets at the household level are distinguished from farm business investments.

Clearly, savings are beneficial both for farmers and others. Among the principal rationales for saving are:

- to maintain a certain standard of living after retirement (retirement or life-cycle motive);
- to provide for the education of children and grandchildren;
- to purchase big-ticket items such as equipment and appliances; and
- to guard against unexpected income shocks (precautionary motive).

Households are vulnerable to various sources of risk (in earnings, health, and mortality), and the markets for insuring against such risks are often unavailable, or when available the coverage is not complete. In instances where insurance is available, many farmers view the coverage as unaffordable or consider it an acceptable risk to purchase no insurance.

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But, if farmers are able to save during "good times" and draw on the reserves in "bad times," then the impact from relatively large farm income swings can be dampened and there would be less need for government policies that decrease income variability. In other words, farmers can self-insure against risk by "income smoothing." Savings play a direct role in helping farm households maintain a standard of living from year to year since they can be used to maintain consumption during income shortfalls. The key to understanding the role of "precautionary savings" is to identify how these savings can be used as complements to other risk-management strategies. The financial impact of income variability depends not only on the degree to which production and revenue risks are insured but also on the extent to which farm household income sources are effectively diversified.

What Is Known About Farmers' Savings & Investments?

Previous analysis of family savings behavior has been limited by data availability. Information on household savings (which can be held either as farm inventory, cash, or some type of financial or nonfinancial asset) is generally inferred from data on consumption and income or estimated by examining changes in net worth. To avoid inference errors, the 1999 ARMS queried farm operators about nonfarm assets owned by the operator and by other members of the operator's household. Along with information about assets and liabilities of the household's farm business, ARMS collected information on several different categories of household assets.

In order to provide some context for interpreting the survey results, a general characterization of the economic climate in 1999 is necessary. By most accounts, 1999 represented the bottom of the most recent downturn in commodity prices. Record receipts for farm commodities were achieved in 1996, followed shortly thereafter by a collapse in commodity prices, which led to a dramatic decline in the value of agricultural production and lower market returns.

At the same time, the general economy was in the eighth year of an economic expansion, with relatively low interest rates and unemployment, substantial stock market gains, and increases in home values. This discrepancy between prosperity in the general economy and lower market returns in the farm economy created a conflicting financial planning environment for many farm families. In 1999, 78 percent of farm households saved out of current income; surveys of the general population suggest that 50-60 percent of families saved during the last decade. Within the general population, families headed by the self-employed were more likely to be savers (63 percent) than all families.

Farm households, like their nonfarm counterparts, have diverse financial portfolios. Farmers were asked about four classes of savings:

- retirement accounts (excluding Social Security);
- stocks and bonds;
- cash and other liquid accounts like checking and savings; and
- real estate and other assets not part of the farm business.

Approximately 31 percent of the total assets of an average farm household are held in other nonfarm assets—real estate and businesses aside from the farm, off-farm houses, recreational vehicles, and other assets. One-fourth of nonfarm assets are in the form of retirement accounts (IRA, 401K, Keogh, and others). Nonfarm assets held as cash, checking, money market accounts, bonds, and certificates of deposit (CDs) comprise 21 percent, and stocks and mutual funds comprise 22 percent.

For all U.S. households, financial assets represent about 35 percent of total assets, with retirement accounts one of the largest components. Excluding entitlement to Social Security, 49 percent of households in the general population held tax-deferred retirement accounts, while 35 percent of farm families participated in tax-deferred savings plans.

Off-farm investment by farm households in various forms has increased in recent years. The average farm household possesses both financial and physical assets, of which physical assets represent the largest share (almost 90 percent). The most important asset of the farm business is land, which constitutes more than 70 percent of the total value of farm assets. Other assets include farm machinery (tractors, combines, and other implements), land improvements, buildings, and livestock.

Total assets of an average farm household increased 34 percent in nominal terms, from $423,659 in 1993 to $633,525 in 1999. Farm business assets increased 23 percent in nominal dollars, from an average of $354,747 in 1993 to $435,438 in 1999. Meanwhile, average household nonfarm assets more than doubled during the same period, from $67,912 in 1993 to $198,087 in 1999.

Investment in various types of nonfarm assets varies by level of farm household income. Farm households with incomes of $100,000 or more have less money invested in checking, money market accounts, and CDs than farm households with incomes of less than $15,000.

Households of residential/lifestyle farms have more money invested in retirement accounts than any other group—off-farm income is the main source of income for these families, and off-farm jobs often have fringe benefits that include contributions into retirement or profit-sharing accounts. Off-farm employment usually provides access to affordable health care, which reduces the need for farm operators with off-farm jobs to save against unexpected health issues. Households of limited-resource farms have 63 percent of their nonfarm assets in cash, checking, money market accounts, bonds, and CDs and other liquid nonfarm assets.

Defining Terms

Life cycle: Series of stages through which an individual passes during a lifetime. The concept can provide a well-defined linkage between the consumption patterns of the individual and expectations of income and savings as one passes from childhood, through education, training, participation in the workforce, and into retirement. For farm operators it can trace the stages of the business from entry into farming, growth of the farm, consolidation, and retirement and transfer of the farm.

Precautionary motives: The motivation behind farm households' saving to meet unexpected shortfalls in income (such as health, market returns) and smooth consumption.

Precautionary saving*:* Currency plus any holdings quickly convertible into cash without great loss. Defined as the ratio of total money available in the form of liquid assets, such as checking, savings in money market accounts, bonds, and certificates of deposit (CDs) to total savings.

Income smoothing: Offsetting the effects of swings in income, often by accumulating savings. Saving during "good times" can help farm households maintain their standard of living from year to year.

Average propensity to save: The ratio of savings to farm household income at any given income level.

Financial assets: Financial assets include money held in cash; bank accounts (checking and saving accounts, certificates of deposit, and money market accounts); money invested in tax-exempt bonds; taxable bonds; tax-deferred accounts such as Individual Retirement Accounts, 401K, Keoghs, and other retirement accounts; other financial assets (whole life insurance, trusts).

Households of very large farms have the highest investment in nonfarm assets ($258,354 on average), followed by residential/lifestyle farm operator households ($236,577) with substantial investment in other nonfarm assets and in IRA, 401K, and Keogh plans. Limited-resource farm households have the least amount of nonfarm investment ($67,011). Almost all farm households (93 percent) have money invested in cash and checking, money market accounts, bonds, and CDs. Seventy percent of farm households have assets in other nonfarm assets, and nearly 65 percent of farm households have money invested in some form of retirement account.

Investment in nonfarm assets differs among operator age groups, showing the classic pattern suggested by the life-cycle theory of household savings and investment: over an individual's life cycle, wealth is built up during working years and consumed during retirement. Off-farm investment is highest ($271,522) in the 55-64 age group, followed by the 45-54 age group ($205,208). The majority of investment assets is in the form of retirement accounts and other nonfarm assets. These two age groups best represent the wealth accumulation phase of the life cycle. Households headed by operators younger than 35 have the least amount of off-farm investment. However, almost 50 percent of their off-farm assets are invested in nonfarm assets such as real estate and businesses not part of the farm—off-farm houses, recreational vehicles, and other assets.

Formal education tends to be a good indicator of nonfarm investment as well as earning ability over the long term (both from farm and off-farm work). The 1999 ARMS data show a positive correlation between investment in nonfarm assets and educational level of the farm operator. Farm operators with less formal education have more money in cash, checking, money market accounts, bonds, and CDs compared with other groups. Producers with a higher level of formal education are more likely to take advantage of off-farm investment opportunities. Those with graduate-level schooling and beyond have distributed their nonfarm assets approximately equally into retirement accounts (31 percent) and other nonfarm assets (32 percent).

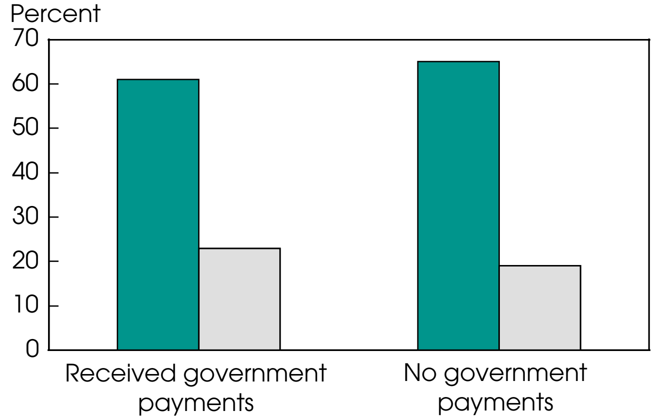
The Role of Government Payments, Insurance, & Income Sources

To help determine which farm households need incentives to save, and which would benefit from additional savings, ARMS data were used to separate farm households into three different groups, that were then compared with their counterparts:

- farm households who receive government payments and those who do not;
- farm households who purchase some type of insurance and those who do not; and
- farm households who depend mainly on farming for their income (greater than 80 percent of all income), and households with multiple sources of income.

The analysis shows that savings rates are lower for farm households that receive government payments than for those that did

Precautionary Savings Are Higher for Farmers Who Participate in Government Programs, . . .



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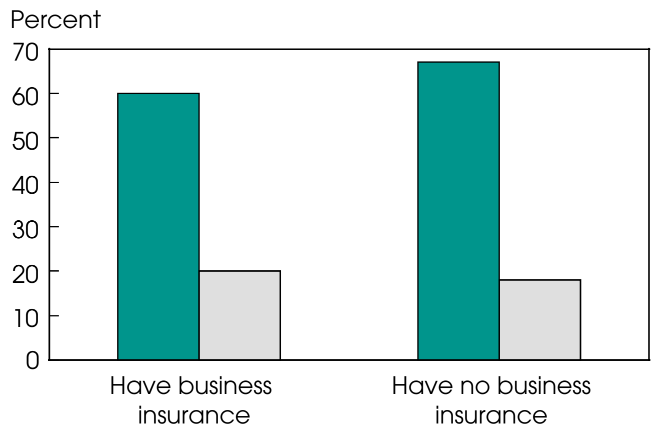
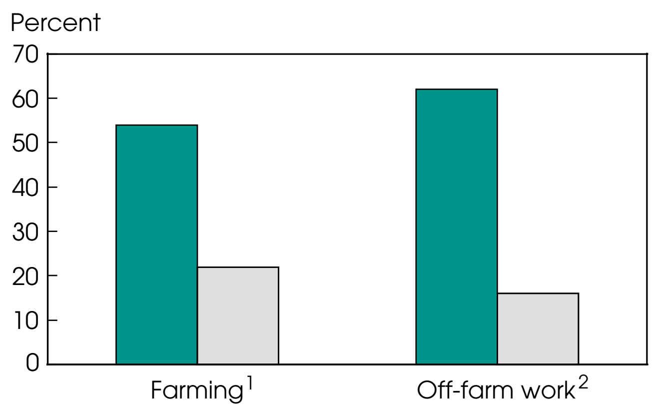


. . .and Whose Income Source Is Mainly Farming



1. Households that depend on farming for at least 80 percent of their income.
2. Households that earn their income entirely from off-farm sources, of which wages and salaries make up 50 percent of total off-farm income.

Average propensity to save
Precautionary savings

Propensity to save is the ratio of savings to farm household income.
Precautionary savings is the ratio of household liquid assets to total savings.
Source: Agricultural Resource Management Study (ARMS) Survey. 1999, USDA.

Economic Research Service, USDA

Special Article

not. This suggests either that government payments become a substitute for savings, or that program participation decreases the amount of perceived income risk. Farm households that received payments from the government (42 percent) saved less on average than those who received no payments. However, farm households that received government payments have higher precautionary savings—the ratio of funds in checking, savings accounts, money market accounts, bonds, CDs, and cash to total savings and investment off the farm.

Buying insurance is another way farms and farm households cope with uncertainties in income. In 1999, approximately 78 percent of farm businesses bought some type of insurance. Farm households that bought business insurance have on average a lower propensity to save compared with the uninsured. As with government payments, farm households that purchased business insurance have higher precautionary savings compared with farm households who did not.

Finally, farm households' income sources are associated with the way they save. In 1999, approximately 13 percent of farm households depended on farming as their major source of income. This group's average propensity to save was 54 percent, and precautionary savings was 22 percent. On the other hand, farm households that earned their entire income from off-farm sources, of which wages and salaries made up 50 percent of their total off-farm income, have a higher average propensity to save (62 percent) and lower precautionary savings (16 percent).

Farm bill legislation has addressed the issue of risk management in farming from several perspectives, including commodity program adjustments, crop insurance, and new forms of insurance such as revenue insurance. More recently, tax-deferred savings accounts have been considered as an additional complementary risk management tool. Data collected by USDA show that, like nonfarm households, farmers are diversified in their choice of investments. Farm households have money invested in a variety of outlets ranging from stocks and bonds to other business pursuits. Even so, farmers have a substantial portion of their wealth in real estate.

Differences in savings rates between farm program participants and other farm households suggest that further investigation is necessary to determine the cause and effect of the difference in behavior. Providing some portion of government payments in the form of tax-deferred savings accounts will likely increase savings. The effectiveness of the additional savings in smoothing income will need to be examined in the context of its impacts on use of other risk management tools. For example, a savings program may not have the desired impact if fewer farmers enroll in crop insurance as a result of tax-deferred savings accounts.

The lower savings rate observed for farms that purchased insurance provides evidence of the complex interaction with use of other risk management tools. The analysis presented here also suggests that farm households that depend on farming as their main source of income may need some additional incentives to increase their savings.

The disparity in savings rates may merely reflect the economic environment in agriculture during 1999, with lower levels of farm income encouraging more farm families to save. The real dilemma may be getting more farmers to save during times of economic prosperity.

A key consideration in evaluating savings-incentive policy is the adequacy of the amount saved to provide income smoothing, and the interaction between household savings and farm business liquidity. On average, farm household savings amount to only 6 percent of farm business expenses. This may be sufficient to handle minor income shocks, including those from unexpected input cost increases such as a rise in fuel prices, but would not compensate for much larger or catastrophic occurrences. AO

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