Farm Income and Financial Performance

Profitability measures are strongly associated with farm size. The average operating profit margin and average rates of return on assets and equity are negative for small farms, but positive for large-scale and nonfamily farms (table 5). These ratios are higher for very large farms than for large farms, reflecting very large farms' higher level of sales.

Average profit measures, however, obscure the wide variation in financial performance among farms, including small farms. Although nearly half or more of the farms in each small farm type had a negative operating profit margin in 2004, other small farms were much more profitable (fig. 9). For example, between 15 percent and 28 percent of each small farm type had an operating profit margin of at least 20 percent. Nevertheless, an even greater share of large-scale family farms had profit margins that high—36 percent for large family farms and 42 percent for very large family farms. In addition, most of the farms in both of these groups had a positive operating profit margin.

A large majority of each small farm type generated a positive net farm income, although average net farm income was low compared with large and very large family farms (table 5). Overall, net farm income averaged $25,000 per farm in 2004—up 37 percent from the previous year—reflecting a good year for the farm sector. Seventy percent of farms in 2004 earned positive net farm income, and these profitable farms accounted for the bulk of agricultural activity. They generated 81 percent of the total value of production and operated 66 percent of the land in farms.

Selected Financial Ratios

On average, both limited-resource and residential/lifestyle farms had an operating expense ratio greater than 100 percent in 2004. In other words, operating expenses exceeded gross cash farm income. The remaining categories of small farms—retirement, low-sales, and medium-sales—generated enough income to cover expenses. Large-scale family farms and nonfamily farms each had an operating expense ratio of about 70 percent, similar to that of medium-sales farms. Such a ratio provides a more comfortable margin between expenses and income than that experienced by smaller farms.

Family farms with annual gross sales of at least $100,000—medium-sales, large, and very large farms—have a higher debt/asset ratio than smaller family farms. As a result, they are also more likely to be marginally solvent (positive net farm income, but with a debt/asset ratio above 40 percent).[6] In contrast, limited-resource, residential, and low-sales small farms are more likely to fall in the marginal-income category (negative net farm income, but with a debt/asset level of no more than 40 percent). This reflects their higher operating expense ratios, which means they are more likely to generate negative net income. Vulnerable farms—with negative net income and a debt/asset ratio above 40 percent—are rare in all farm types, and amount to less than 3 percent of all farms. Residential/lifestyle farms make up 56

[6] In the late 1980s, ERS developed a measure of financial position that considered both income and solvency. Under this classification system, farms were classified as being in one of four financial categories: favorable, marginal-income, marginal-solvency, or vulnerable. For definitions of the four categories, see footnote 6 in table 5.

Table 5

Selected performance measures, by farm type, 2004

Item	Small family farms					Large-scale family farms			
				Farming-occupation					
	Limited-resource	Retire-ment	Residential/ lifestyle	Low-sales	Medium-sales	Large	Very large	Nonfamily farms	All farms
					Number				
Total farms	197,734	338,671	837,542	395,781	133,299	86,087	71,708	47,103	2,107,925
					Percent				
Profitability measures:									
Rate of return on assets[1]	-4.0	*-1.5	-2.0	-2.7	#-0.4	2.5	6.8	7.1	**0.5
Rate of return on equity[2]	-4.4	-1.7	-2.8	-3.2	**-1.3	*1.8	6.7	7.1	#-0.1
Operating profit margin[3]	-86.7	*-27.8	-35.5	-36.1	#-2.4	10.8	18.3	23.8	**3.0
					Dollars per farm				
Income measures:									
Net farm income	**1,812	9,655	4,544	9,098	39,084	87,499	287,921	175,795	25,003
					Percent				
Farms with positive net farm income	66.7	79.5	62.8	68.7	76.9	82.2	83.8	72.2	69.6
Financial efficiency measure:									
Operating expense ratio[4]	143.3	83.7	106.8	89.8	74.0	69.1	70.2	70.4	75.3
Solvency measure:									
Debt/asset ratio[5]	*3.9	2.5	8.0	*5.4	10.8	13.1	16.7	7.2	8.8
Solvency and income measure:									
Financial position—[6]									
Favorable	65.9	79.1	60.0	67.0	71.6	71.8	69.2	69.4	66.7
Marginal income	32.3	19.4	33.1	28.9	19.8	15.3	11.3	26.1	27.6
Marginal solvency	d	d	*2.8	*1.7	5.3	10.4	14.6	*2.8	2.9
Vulnerable	d	d	4.0	#2.4	*3.3	2.5	4.9	*1.7	2.8

d = Data suppressed due to insufficient observations.

* = Standard error is between 25 percent and 50 percent of the estimate.

** = Standard error is between 51 percent and 75 percent of the estimate.

= Standard error is greater than 75 percent of the estimate.

[1]Return on assets = 100% X (net farm income + interest paid - charge for unpaid operators' labor and management) / total assets.

[2]Return on equity = 100% X (net farm income - charge for unpaid operators' labor and management) / net worth.

[3]Operating profit margin = 100% X (net farm income + interest paid - charge for unpaid operators' labor and management) / gross farm income.

[4]Operating expense ratio = 100% X total cash operating expenses / gross cash farm income.

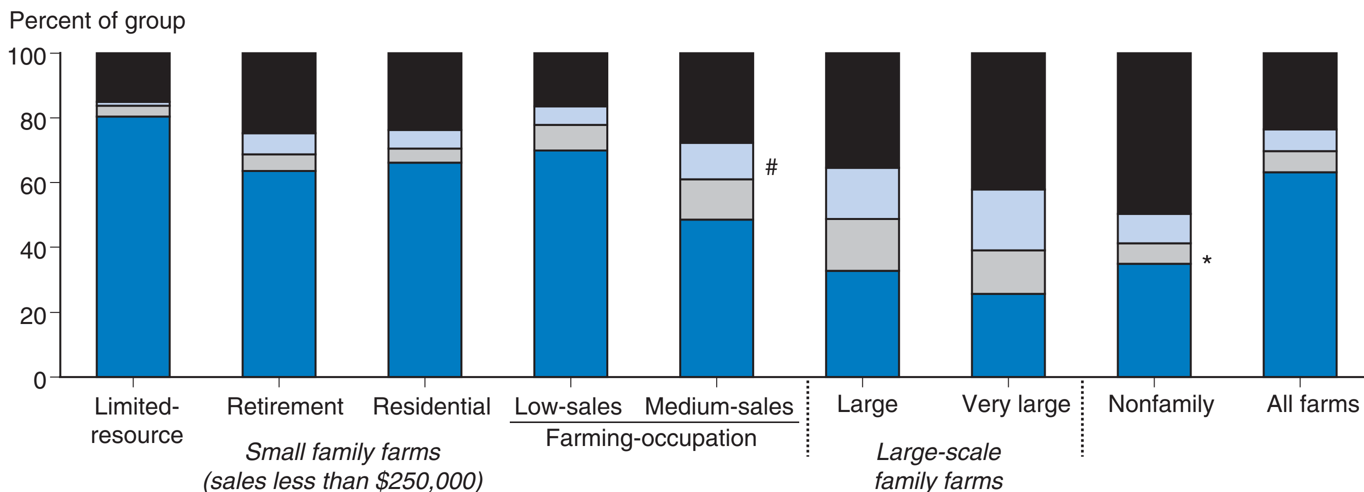
[5]Debt/asset ratio = 100% X total liabilities/total assets.

[6]Financial performance classification based on farm income and debt/asset ratio:

- Favorable: positive net farm income and debt/asset ratio no more than 40 percent.
- Marginal-income: negative net farm income and debt/asset ratio no more than 40 percent
- Marginal-solvency: positive net farm income and debt/asset ratio greater than 40 percent.
- Vulnerable: negative net farm income and debt/asset ratio greater than 40 percent.

Source: USDA, Economic Research Service, 2004 Agricultural Resource Management Survey, Phase III.

Figure 9
Farms by operating profit margin, 2004
Small family farms are more likely to have a negative operating profit margin



Note: Operating profit margin = 100% X (net farm income + interest paid – charge for unpaid operators' labor and management)/gross farm income.
* = Standard error is between 25 percent and 50 percent of the estimate.
# = Standard error is greater than 75 percent of the estimate.

Source: USDA, Economic Research Service, 2004 Agricultural Resource Management Survey, Phase III.

percent of the vulnerable group, but their operators are unlikely to depend on the farm for their livelihood.

Most U.S. farms have a favorable financial position, which means they generate positive returns and have a debt/asset ratio no more than 40 percent. Two out of three U.S. farms and at least 60 percent of each farm type were classified as such in 2004.

Loans and Lenders

Many farmers operate with seasonal production loans that are taken out and repaid within the same calendar year, but 41 percent of farms reported outstanding loans as of December 31, 2004 (table 6). This relatively low incidence of debt contributes to the small share of farms with a vulnerable or marginally solvent financial position. Operations with year-end loan balances ranged from one-fifth for retirement farms to three-fourths or more for medium-sales, large, and very large farms. This suggests that the farms most likely to be in debt are larger and most likely to benefit from using credit as a source of capital.

Average debt levels also varied with size, ranging from just over $200,000 for medium-sales farms to nearly $600,000 for very large farms. Smaller family farms averaged less than $100,000 in outstanding debt. Regardless of farm type, real estate and other long-term loans accounted for most debt. Real estate

Table 6

Farms reporting outstanding loans, by lender and farm type, 2004

Item	Small family farms			Farming-occupation		Large-scale family farms			
	Limited-resource	Retire-ment	Residential/ lifestyle	Low-sales	Medium-sales	Large	Very large	Nonfamily farms	All farms
	Number								
Total farms[1]	#178,433	322,856	824,579	#419,662	138,390	100,870	82,585	40,004	**2,107,377
	Percent								
Share of farms reporting outstanding loans[2]	#26.2	17.0	41.4	#41.0	74.4	73.0	82.3	*32.9	**41.4
	Dollars per farm								
For farms with outstanding loans:									
Average debt[3]	#50,551	63,154	82,030	#84,908	210,957	*265,223	594,084	*364,334	**153,557
	Percent								
Type of debt:[3]									
Short-term debt	#9.7	**17.9	*5.9	*14.4	21.9	*19.0	26.1	*16.8	*18.0
Real estate	**63.3	68.8	83.6	65.4	55.7	54.1	51.7	60.4	62.0
Other long-term debt	#27.0	*13.3	10.4	*20.2	22.4	*26.9	22.2	*22.7	20.0
Debt-asset ratio[3]	#10.6	11.1	17.5	**12.8	18.7	20.6	**21.2	16.5	*17.8
	Billion dollars								
Outstanding loan balances[2]	#2.3	*3.3	30.5	#14.3	19.2	*18.0	39.2	*4.7	*131.6
	Percent of group								
Outstanding loans, by lender:[2]									
Farm Credit System	#27.0	**6.6	11.4	**10.3	*27.1	*29.6	37.1	*32.7	*24.6
Commercial banks	#37.0	66.1	57.4	**54.3	*44.7	*48.0	43.2	41.4	*49.0
Farm Service Agency	#2.2	d	*2.4	#6.1	*5.4	*2.0	**2.3	**1.0	*3.1
Life insurance companies	d	d	#0.1	#1.8	#0.1	#0.7	**1.9	#2.4	*1.1
Other[4]	#33.8	22.2	*28.7	#27.5	22.7	*19.6	*15.5	*22.5	#22.2
	Percent of U.S. total								
Outstanding loans, by lender:[2]									
Farm Credit System	1.9	*0.7	10.8	4.6	16.1	16.4	44.7	4.8	100.0
Commercial banks	1.3	3.4	27.2	12.1	13.3	*13.4	26.3	3.0	100.0
Farm Service Agency	1.3	d	17.9	21.5	25.7	8.9	22.5	*1.2	100.0
Life insurance companies	d	d	d	d	d	d	53.1	*7.9	100.0
Other[4]	#2.7	*2.5	*30.0	**13.4	*14.9	*12.1	*20.7	*3.6	100.0
All lenders	#1.8	*2.5	23.2	*10.9	14.6	13.7	29.8	3.6	100.0

d = Data suppressed due to insufficient observations.

* = Standard error is between 25 percent and 50 percent of the estimate.

** = Standard error is between 51 percent and 75 percent of the estimate.

= Standard error is greater than 75 percent of the estimate.

[1]The number of farms differs from that in previous tables because this table is based only on version 1 of the survey.

[2]Based on the outstanding loan balances for up to five loans that were reported on the survey. Information collected about individual loans included the interest rate, purpose of the loan, and lender (identified from a list of 17 potential lenders).

[3]Includes all debt, not just the balances of the five reported outstanding loans. Note that debt/asset ratios in table 6 are higher than those in table 5, because table 6 excludes farms with no outstanding debt.

[4]Loans from the Small Business Administration, State and county government lending agencies, savings and loan associations, implement dealers, financing corporations, input suppliers, cooperatives and other merchants, contractors, other lenders, individuals, and credit cards.

Source: USDA, Economic Research Service, 2004 Agricultural Resource Management Survey, Phase III, version 1.

debt accounted for 84 percent of total debt for residential/lifestyle farms, compared with just over half of total debt on medium-sales and large-scale farms. This high share of real estate debt for residential/lifestyle farms likely reflects substantial mortgages on farm dwellings.

Farm loans originate from a variety of sources. Commercial banks accounted for about 49 percent of the total outstanding loan balances reported by farm operators at the end of 2004. Banks also accounted for a substantial portion of loan balances (37 to 66 percent) for each farm type. The Farm Credit System (FCS) supplied another 25 percent of loan balances.

The Farm Service Agency (FSA) accounts for only 3 percent of all reported balances. Although it makes loans directly to farmers, FSA also guarantees loans made by other lenders. These loans are excluded from estimates of loans held by FSA, but are included in the estimates of debt held by the lenders who made the loan. FSA's direct loans are targeted at beginning farms and farms with smaller credit needs. FSA appears to be serving smaller farms, with 47 percent of its loans going to small farms where the operators report farming as their major occupation. In contrast, only 21 percent of FCS loans and 25 percent of bank loans go to these operations.