farmdoc DAILY

Department of Agricultural and Consumer Economics, University of Illinois Urbana-Champaign

Mark Your Financial Progress

Bradley L. Zwilling, Brandy Krapf, and Dwight D. Raab

Illinois FBFM Association and Department of Agricultural and Consumer Economics University of Illinois

September 20, 2013

***farmdoc daily* (3):179**

Recommended citation format: Zwilling, B., B. Krapf and D. Raab. "Mark Your Financial Progress." *farmdoc daily* (3):179, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, September 20, 2013.

Permalink: http://farmdocdaily.illinois.edu/2013/09/mark-your-financial-progress.html

The Farm Financial Standards Council has identified several key measures to analyze the financial strength of a farm business. These measures are in the areas of:

1. liquidity,
2. solvency,
3. profitability, and
4. financial efficiency.

The averages for these key measures for 2,536 Illinois farm operators can be found in Table 1. These measures are also calculated by farm type. Due to the effects that weather and other outside factors may have on a farm business for any one year, it is better to monitor these measures over time and to identify trends than it is to rely too heavily on these measures for any one year when making business decisions.

Table 1. Financial Characteristics of Illinois Farms, 2012, By Type of Farm and All Farms

Item	All Farms	Grain Farms	Hog Farms	Dairy Farms	Beef Farms
Number of Operators	2,536	2,421	37	50	28
Operator Age	56	56	53	52	52
Tillable Operator Acres	734	747	631	355	391
Percent Owned	26.1%	25.4%	29.5%	46.5%	39.5%
ASSETS					
Cash and Equivalents	$232,839	$238,189	$173,577	$75,606	$129,305
Crops and Feed	460,234	469,267	441,976	184,515	195,647
Market Livestock	20,032	7,617	374,231	17,838	629,378
All Other Current Assets	109,155	111,411	113,035	24,734	59,718
Total Current Assets	822,260	826,485	1,102,819	302,693	1,014,049
Intermediate Assets	802,580	807,934	764,210	692,301	587,251
Fixed Assets	1,781,048	1,790,660	1,992,008	1,268,883	1,585,891
Total	$3,405,889	$3,425,080	$3,859,038	$2,263,878	$3,187,191
LIABILITIES					
Operating (< one year)	$175,627	$170,738	$332,643	$87,727	$547,831
Current part IT & LT	45,601	45,486	63,985	40,673	40,082
CCC Loans	1,853	1,937	0	158	0
All Other Current Liabilities	63,707	64,256	74,743	23,891	72,785
Total Current Liabilities	286,789	282,417	471,372	152,449	660,698
Intermediate Liabilities	95,384	95,039	128,479	91,567	88,312
Long Term Liabilities	273,645	270,358	420,384	299,837	317,223
Total Liabilities	655,818	647,814	1,020,235	543,853	1,066,234
Net Worth	2,750,068	2,777,262	2,838,803	1,720,025	2,120,958
Total Liabilities and Net Worth	$3,405,889	$3,425,080	$3,859,038	$2,263,878	$3,187,191
INCOME DATA					
Gross Farm Returns	$761,504	$767,720	$950,004	$476,070	$484,706
Operating Expenses	435,317	436,130	657,274	309,932	295,601
Depreciation	58,449	59,123	49,338	43,367	39,104
Operating Profit	267,739	272,467	243,392	122,771	150,001
Interest Expense	20,661	20,064	43,297	22,394	39,274
Farm Operating Income	$247,078	$252,403	$200,095	$100,377	$110,726
RATIOS					
LIQUIDITY					
Working Capital	$396,050	$407,675	$429,242	$133,433	$210,561
Current Ratio	3.07	3.12	2.30	2.17	1.60
Working Cap./ Gross Farm Ret.	0.52	0.53	0.45	0.28	0.43
SOLVENCY					
Debt/Farm Equity %	22.2%	21.5%	38.5%	32.9%	54.8%
Debt/Farm Asset %	18.2%	17.7%	27.8%	24.9%	35.4%
PROFITABILITY					
Return on Farm Assets %	8.3%	8.5%	4.7%	3.5%	3.9%
Return on Farm Equity %	9.8%	10.2%	7.3%	3.1%	5.2%
FINANCIAL EFFICIENCY					
Interest Expense Ratio	1.9%	1.8%	3.6%	4.0%	5.7%
Operating Expense Ratio	56.0%	55.7%	68.0%	64.6%	63.5%
Depreciation Expense Ratio	7.3%	7.3%	5.6%	8.2%	7.9%
Farm Operating Income Ratio	33.5%	34.1%	21.7%	19.0%	20.9%
Asset Turnover Ratio	0.30	0.30	0.24	0.23	0.20

Lets' take the above four areas and consider the measures that can be used to analyze the financial strength of a farm business.

Liquidity is an assessment of a farm's ability to meet current cash-flow needs. The amount of working capital (current assets less current liabilities) and the current ratio (current assets divided by current liabilities) are two frequently used measures of liquidity. The median amount of working capital as of December 31, 2012 for the 2,536 farm operators was $396,050, up over $55,000 from $340,554 a year earlier. Hog farms had the greatest level of working capital, averaging $429,242, while dairy farms had the least, averaging $133,433. Most of the assets of a dairy farm–the dairy herd, buildings, and land–are noncurrent assets. The median current ratio for all the farms was 3.07, up from 2.76 a year ago. Grain farms recorded the highest (most healthy) current ratio, and beef farms the lowest. The 2012 current ratio was the highest for any year during the last 15 years.

Solvency is a measure of the farm's overall financial strength and risk-taking ability. The average net worth of the 2,536 farm operators at the end of 2012 was $2,750,068, up from $2,287,223 the year before. Average farm and nonfarm incomes in 2012 were above family living requirements, thus enabling net worth increases. Increasing land values have also boosted the net worth of those operators who own land. Hog farms had the highest net worth, followed by grain farms, with dairy farms recording the lowest for this year.

The **debt-to-farm equity** and **debt-to-farm asset** indicators show how debt capital is combined with equity capital. This is useful in looking at the risk exposure of the business. The median debt-to-farm asset percentage for all farms was 18.2. The debt-to-farm asset percentage ranged from 17.7 for grain farms to 35.4 for beef farms. The median debt-to-farm asset level of 18.2% was at its lowest level for at least 15 years.

A measure of a farm's **profitability** is useful in examining its ability to meet family living demands and retire term debt. It is also useful in measuring the farm's ability to utilize assets and equity to generate income. The median return on farm assets for the 2,536 farm operators was 8.3 percent, down from 9.5 percent a year earlier. Grain farms recorded the highest returns, averaging 8.5 percent, while dairy farms recorded the lowest, averaging 3.5 percent. Return on farm equity in 2012 ranged from 10.2 percent for grain farms to 3.1 percent for dairy farms. The median was 9.8 percent, down from 11.5 percent in 2011.

The interest, operating, and depreciation expense ratios relate these various expense categories as a percentage of the value of farm production. The farm operating income ratio measures the return to labor, capital, and management as a percentage of the value of farm production. These measures can be used to evaluate the financial efficiency of the farm business. The interest-expense ratio averaged 1.9 percent for the 2,536 farm operators, ranging from 1.8 percent for grain farms to 5.7 percent for beef farms. The 1.9 percent was down from 2.1 percent in 2011. The 2012 figure is the lowest since at least 1995. The farm operating income ratio ranged from a high of 34.1 percent for grain farms to 19.0 percent for dairy farms. The median for all farms in 2012 was 33.5 percent, down from 35.0 percent in 2011. The 2008 through 2012 5-year average farm operating income ratio is 30.1 percent. The 2012 farm operating income ratio is above the 5-year average.

The authors would like to acknowledge that data used in this study comes from the local Farm Business Farm Management (FBFM) Associations across the State of Illinois. Without their cooperation, information as comprehensive and accurate as this would not be available for educational purposes. FBFM, which consists of 5,700 plus farmers and 60 professional field staff, is a not-for-profit organization available to all farm operators in Illinois. FBFM staff provide counsel along with recordkeeping, farm financial management, business entity planning and income tax management. For more information, please contact the State FBFM Office located at the University of Illinois Department of Agricultural and Consumer Economics at 217.333.5511 or visit the FBFM website at www.fbfm.org.