



readiness - response - recovery

Planning the long-term recovery of your farm

6. Is my farm financially sound?

The net worth, cash flow, and earnings statements described in Articles 3, 4, and 5 of this series provide the basic information for assessing the financial health of your farm. However, it is important that you build on this basic information to create a more accurate and complete picture of your financial situation. Take another step and calculate specific measures of your farm's financial performance—solvency, liquidity or cash flow, profitability, debt repayment capacity, and financial efficiency. Individually and in combination, these additional guideposts will help you evaluate past performance, identify strengths and weaknesses, and plan for the future. There are 16 in all. Many farm families are unfamiliar with these specific measures and may wish to seek help in calculating and interpreting them.

Solvency

“Solvency” looks at the relationship between business assets and liabilities on one particular day. It provides an indication of the farm's ability to repay debts from the sale of assets as a last resort. It



also helps gauge the ability of the farm or business to withstand financial difficulties, should these arise, by borrowing against equity.

Three ratios are commonly used:

1. Debt : Assets
2. Equity : Assets
3. Debt : Equity

All three are similar and consider the relationships among the market value of the farm assets, borrowed capital and related obligations, and the family contribution (equity). The risk of business failure is greater when farm debt is high, relative to farm assets or owner equity. Many lenders do not wish to make new

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loans if the Debt-to-Asset ratio exceeds 0.5, meaning the farm already owes 50 cents for each dollar of farm asset value.

Liquidity

There are two measures of “liquidity” or the availability of funds to operate the farm:

4. Current Ratio

5. Working Capital

The Current Ratio measures the relationship between the value of farm assets that are easily convertible to cash within the next 12 months (current assets) and the farm liabilities that come due within the same period. Examples of current assets are cash on hand and crops in storage and available for sale. Examples of current liabilities include accounts payable and loan payments that are due during the next 12 months. A ratio of current assets to current liabilities of at least 1.2:1 is desirable and suggests the farm can meet its short-term obligations.

Working Capital is the amount of money available for running the farm. It is calculated as the difference between the value of current assets and current liabilities.

Profitability

This is the foundation of a successful business and measures how effectively you have been using the resources at your disposal. In other words, what did your farm really earn by using these resources?

Profitability can be measured in four ways:

6. Net Farm Income—This measures the combined returns to the unpaid contributions made by your family, including your labor, your investment (equity capital), your management skill, and your willingness to accept financial risk.

7. Rate of Return on Farm Equity (Net Worth)—This is calcu-

lated from Net Farm Income by deducting the value of your work, then dividing the result by the value of your equity in the farm, which yields a Rate of Return. If your farm operation is healthy, the Rate of Return should be higher than the interest rate charged by lenders.

8. Rate of Return on Farm Assets (Investment)—This is calculated in a similar manner as Net Farm Income, i.e., by deducting the value of your work, but you also add back any interest you actually paid. The resulting amount is divided by the total value of the farm assets to get a Rate of Return. If your farm is healthy, this rate also should be higher than the interest rate charged by lenders.

9. Operating Profit Margin Ratio—This shows Net Farm Income From Operations as a percentage of farm income, in effect, showing how many cents on the dollar you managed to hold on to.

Repayment capacity

As the trend to larger farms continues, farmers increasingly rely on debt financing. In some cases, long-term leases are used as a substitute for buying equipment or breeding livestock with borrowed funds. Repayment Capacity measures the ability of the business to repay loans and long-term capital leases. This is important because a farmer may borrow from several sources or have several different loans with one lender, and it can be difficult to keep track of overall loan and lease activity.

Two measures are used to describe the ability of your farm to meet its debt and capital lease obligations:

10. Term Debt and Capital Lease

Coverage Ratio

11. Capital Replacement and Term Debt Repayment Margin

The Coverage Ratio looks at the amount of money available to make payments relative to the size of those payments. Unlike the other measures, this one considers non-farm income and withdrawals for family living, in addition to business contributions. A 1:1 ratio means there is exactly enough money available. A higher ratio shows there is a safety margin above current obligations or that payments on some additional debt could be covered. A high ratio is desirable.

The Repayment Margin shows the dollar amount of the difference between payments and available cash. It can be used to gauge the impact of changes in farm prices or costs on debt repayment capacity and to measure the ability of the business to repay additional debt.

Financial efficiency

“Financial efficiency” measures farm performance in broad financial terms. Farmers are accustomed to production efficiency measures like crop yields per acre and average daily gain in livestock. Financial efficiency looks at various aspects of the performance of investments or expenses in producing revenue.

There are five important ratios:

12. Asset Turnover Ratio

13. Operating Expense Ratio

14. Depreciation Expense Ratio

15. Interest Expense Ratio

16. Net Farm Income From

Operations Ratio

Asset Turnover Ratio measures how hard your investment in farm assets is working for you. This ratio

Farmers increasingly rely on debt financing as the trend to larger farms continues.

is calculated by dividing annual farm revenue by the value of the farm assets. A larger number is desirable because it indicates that each dollar you have invested is producing more dollars in revenue.

The other ratios describe the relationships between different types of expenses and revenue (e.g., Operating Expense Ratio). Low ratios are desirable because they show that expenses are low relative to the revenue they produced. However, when these ratios are too high, you cannot tell whether it is because revenue is too low, expenses are too high, or a combination of both.

These 16 measures, the so-called "Sweet 16," provide a comprehensive picture of the financial health and performance of any farm

business. Some of these measures are useful in an absolute sense, but they are most useful if there are standards or benchmarks for farms similar to yours for comparison. Farming is a competitive business, and it is helpful when you can see if you are outperforming your competition.

RESOURCES

Additional computer tools and information on Farm Income Statements are available from the Iowa State University "Ag Decision Maker" Web site at

<http://www.extension.iastate.edu/agdm/decisionaids.html>

Click on "Finance"

Scroll down to the "Financial" heading

- Click on Financial Performance Measures for a spreadsheet to calculate these financial performance measures.

- For more information on how to prepare these financial performance measures, go to

<http://www.extension.iastate.edu/agdm/wholefarm/pdf/c3-55.pdf>

- For a spreadsheet to create a five-year trend analysis, go to <http://www.extension.iastate.edu/agdm/wholefarm/xls/c3-56interprfintrendsheets.xls>

- For more information on how to interpret these financial performance measures, go to

<http://www.extension.iastate.edu/agdm/wholefarm/pdf/c3-56.pdf>

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