



**Editor's note:** Kent Vickre and Dwight Raab write a tax and finance column for each issue of Pioneer GrowingPoint® magazine. Vickre is state coordinator of the Iowa Farm Business Association. Raab is state coordinator of Illinois Farm Business Farm Management. They address issues that influence agribusiness success.

## Learn to read the financial signals

Use some key ratios to monitor your financial health.

**M**onitoring your "financial health" should be a year-round process of reviewing costs, past trends and the impact on your financial situation. And it's true each producer has his or her own style of making business decisions.

However, with the fluctuations in commodity markets and input costs producers have seen in the past year, we're seeing increased focus on financial risk management. This is especially true when producers are making capital purchase decisions. These long-term decisions typically affect cash flows and efficiencies the most.

To review your businesses, you'll need several financial statements:

1. Balance sheet or net worth. This lists the farm assets and liabilities at a specific date, typically Dec. 31 for the calendar year for taxpayers.
2. Income statement. This lists farm revenue and expenses for a specific period, typically Jan. 1 to Dec. 31.
3. Cash flow statement. This lists the sources and uses of the business over a specific period, again typically Jan. 1 to Dec. 31.

After you have updated these documents, you can start some ratio analysis and review the financial health of your business. The financial ratios are classified into five categories; liquidity, solvency, profitability, repayment capacity and financial efficiency.

There are more than 20 key financial ratios. However, this article will focus on the five ratios primarily producers and lenders typically use to evaluate a business. The results from the ratios are discussed as:

- Green Light = Good
- Yellow Light = Caution
- Red Light = A warning to seek some financial guidance.

**LIQUIDITY.** Liquidity measures the farm business' ability to meet financial obligations without disrupting the normal business operations as they come due.

**Current ratio.** This ratio indicates the extent to which farm assets, if liquidated, would cover current farm liabilities. The higher the ratio, the greater the liquidity.

Calculation	Statement, Located
Total current farm assets	Balance Sheet
÷ Total current farms liabilities	Balance Sheet
=	

### Current Ratio Analysis:

- Green Light = 1.5 or Greater
- Yellow Light = 1 to 1.5
- Red Light = Less than 1

**SOLVENCY.** This measures the amount of debt and other expense commitments in respect to the owner's equity. It represents the ability to repay all financial obligations assuming all assets are sold. It's also an indication of the ability for the business to continue when financial adversity occurs.

**Equity/asset ratio.** This ratio defines financial position. Specifically, it measures the proportion of total farm assets financed by the owner's own equity. The higher the value of the ratio, the more total capital supplied by the owner(s) and less by the creditors.



Calculation	Statement, Located
Total farm equity	Balance Sheet
÷ Total farm assets	Balance Sheet
=	

#### Equity/Asset Ratio Analysis:

Green Light = 70% or Greater

Yellow Light = 30% to 70%

Red Light = Less than 30%

**PROFITABILITY.** This is the extent that profit is generated for the use of land, labor, management and capital.

**Rate of return on farm asset ratio.** This ratio measures the rate of return on farm assets and often is used as an overall index of profitability. The higher the ratio's value, the more profitable the farming operation will be.

Calculation	Statement, Located
Net farm income from Operations	Income Statement
+ Farm interest expense	Income Statement
- Family living (owner withdraws)	Cash Flow
=	
÷ Average total farm assets	Balance Sheet
=	

Rate of return on farm assets analysis: An "average" return for farms is between 3 percent and 6 percent. However, depending on the farm "classification" (assets are mostly owned or are either mostly rented or leased assets), the "analysis" may vary.

#### For mostly owned asset:

Green Light = 5% or Greater

Yellow Light = 1% to 5%

Red Light = Less than 1%

#### For mostly rented /leased assets:

Green Light = 11% or Greater

Yellow Light = 3% to 11%

Red Light = Less than 3%

**REPAYMENT CAPACITY.** This measures the ability to repay farm debt with farm and non-farm income.

**Term debt and capital lease coverage.** This measures the ability of the borrower to cover all term debt and capital lease payments.

Calculation	Statement, Located
Net farm income from Operations	Cash Flow
+ Total non-farm income	Cash Flow
+ Depreciation	Cash Flow
+ Interest on term debt & capital leases	Cash Flow
- Total income tax expense	Cash Flow
- Family living (owner withdraws)	Cash Flow
=	
÷ Annual scheduled principal & interest Payments on term debt & capital leases	Cash Flow
=	

#### Term Debt and Capital Lease Coverage Analysis:

Green Light = 150% or Greater

Yellow Light = 110% to 150%

Red Light = Less than 110%

**FINANCIAL EFFICIENCY.** We use this calculation to measure how the business uses its assets to generate revenue and the efficiency of production in the farm business.

**Operating expense ratio.** This reflects the relationship of all operating expenses to gross revenue. It's a measure of maximizing profits.

Calculation	Statement, Located
Total operating expenses	Income Statement
- Depreciation	Income Statement
- Interest	Income Statement
=	
÷ Gross Revenue	Income Statement
=	

Rate of Return on Farm Assets Analysis: Depending on the farm "classification," this analysis may vary.

#### For mostly owned asset:

Green Light = Less than 55%

Yellow Light = 55% to 65%

Red Light = Greater than 65%

#### For mostly rented /leased assets:

Green Light = Less than 65%

Yellow Light = 65% to 75%

Red Light = Greater than 75%

Other Key considerations when evaluating capital purchases are:

**Cost per acre.** Consider the useful life of the asset. Using an "economic depreciation" instead of tax depreciation better reflects the accrual "true" cost. For most accrual farm analysis, a 10-year, 10-percent salvage value, straight-line depreciation is an "economic depreciation."

As a benchmarking comparison, the average power and machine cost per acre from the Iowa Farm Business Association was \$88.89 for 2008. This figure includes fuel and oil, repairs, machine hire and economic depreciation. Looking at capital purchases from an economic cost standpoint ensures these purchases will improve your operation's profitability.

**Tax Management.** When considering capital purchases, review the tax consequences with your tax preparer. How you elect to depreciate the asset will affect your cash flow.

**Conclusion:** Financial measures are only one part of making good management decisions. These measurements are convenient ways to compare your farm operation both over time and against the averages or standards. These measures will help you ask the right questions about your operation, but they don't provide the answers. You can use them to determine the best solutions for your operation. 