**APPENDIX B: FINANCIAL PERFORMANCE USING 5 MEASURES**

Full document can be found at:[**https://www.extension.iastate.edu/agdm/wholefarm/pdf/c3-55.pdf**](https://www.extension.iastate.edu/agdm/wholefarm/pdf/c3-55.pdf)

**Liquidity:** Farms with good liquidity typically have current ratios of at least 3.0 or higher. Dairy farms or other farms that have continuous sales throughout the year can safely operate with a current ratio as low as 2.0, however. Conversely, operations that concentrate sales during several periods each year, such as cash grain farms, need to strive for a current ratio higher than 3.0, especially near the beginning of the year. In recent years, current ratios for many farms have risen rapidly.

The amount of working capital needed depends on the size of the operation. Records show that working capital measured at the beginning of the year is typically equal to about 40 to 70 percent of the farm’s annual gross revenue. For dairy farms, working capital can be as low as 30 percent of gross revenue, but cash grain farms may need as much as 50 percent.

**Solvency:** Total debt-to-asset ratios tend to be higher for larger farms and for farms that specialize in livestock feeding. Ratios of 10 to 30 percent are common among Iowa farms, although many operate with little or no debt. A high debt load does not make farms less efficient, but principal and interest payments eat into cash flow. High efficiency farms are able to service a higher debt load safely.

**Profitability:** Net farm income is highly variable from year to year, and is closely tied to the size and efficiency of the operation. It also depends on the amount of debt the farm is carrying. The rate of return on farm assets is quite variable, too, but average long-term rates of 6 to 10 percent have been common in Iowa. High-profit farms may average more than 12 percent, while low-profit farms often realize a return of only 2 percent or less.

The average rate of return on farm equity measures how fast farm net worth is growing, excluding changes in land and machinery values. Highly leveraged farms may earn little or no return on equity when interest rates are high. On the other hand, if the farm’s overall return on assets is higher than the cost of borrowed money, the return on equity may be quite high and net worth will grow rapidly.

**Repayment Capacity.** The farm record data that was available did not contain enough information to calculate historical repayment capacity measures. However, the term debt coverage ratio should at least be great than 1.0, and the capital debt repayment margin should be large enough to cover any possible shortfalls in cash flow that cannot be paid from savings or other sources of short-term liquidity. These measures include nonfarm income and expenses, so do not measure business performance.

If comparisons show that a farm’s financial performance is below average, further analysis should be done to determine the sources of the problem. Areas of possible concern are production efficiency, marketing, purchasing of inputs, and the scale of the operation in relation to the size of the work force. Enterprise analysis and production records can help identify problems that contribute to poor financial performance.

**Financial Efficiency.** Asset turnover ratios for typical farms are about 30 to 40 percent, but they can range from 20 to 30 percent for low profit farms and up to 40 to 50 percent for high profit farms. The asset turnover ratio measures the efficient use of investment capital while the operating profit margin ratio measures the efficient use of operating capital. Because they are substitutes for each other (owned and rented land, for example), farms that are high in one measure may be low in the other.

Farms with mostly rented land should have higher asset turnover ratios than farms with mostly owned land, generally around 50 percent. Rented farms also will have higher operating expense ratios because rent paid is included in operating expenses. Likewise, rented farms will tend to have lower depreciation and interest expense ratios than owned farms. Typically, about 60 to 70 percent of gross revenue goes for operating expenses, 5 to 10 percent goes for depreciation, and under 5 percent goes for interest.