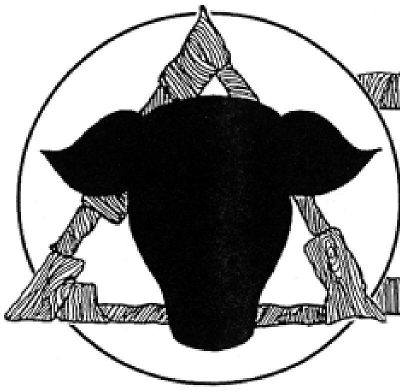

Managing for
Today's Cattle Market
and Beyond

Understanding Your Financial Situation

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Understanding your financial situation is important for agricultural producers at any point in time but is especially important at the present time for livestock producers. Measuring financial performance is vital during times of depressed prices received for agricultural products. The tendency for agricultural managers historically has been to try to produce their way out of difficult times, but unless they measure financial performance, they could be producing their way out of business as easily as producing their way out of difficult times. The bottom line is, if managers don't measure financial performance, they won't know what influence changes in production practices will have on financial performance and with today's prices, guesswork is not acceptable.

This article will focus on two major areas for producers to get a handle on the financial performance of their operations, financial statements required to measure financial performance, and then financial performance measures. The Farm Financial Standards Council (FFSC) has recommended a minimum set of financial statements which include a balance sheet, income statement, statement of cash flows, and statement of owner equity. Basic concepts and formats for these statements will be discussed. The council also has recommended sixteen financial performance measures as a starting point in an evaluation of an agricultural operation. These sixteen measures are grouped into liquidity, solvency, profitability, financial efficiency and repayment capacity measures. Each category of measurement will be discussed along with a presentation of calculation procedures and general guidelines for interpretation.

Financial Statements

The primary goal of financial reporting and analysis is to provide information that is useful to the internal and external users of this information. Internal users of financial information are people who control the resources of the operation, or the decision makers. External users are people who do not directly control the resources of the operation. These would include bankers, accountants, the Internal Revenue Service, and possibly stockholders.

The Balance Sheet: The balance sheet, or statement of financial position, presents a financial snapshot of a business at a point in time. It is a summary of all assets, liabilities and owner equity and their relationship to each other as of the date the balance sheet is filled out. The balance sheet reflects the cumulative effect of past transactions but does not describe how the existing financial position was achieved.

The FFSC made general recommendations regarding the format for the balance sheet. Assets and liabilities should be segregated into current and non-

current categories. Non-current asset categories should be further segregated into machinery and equipment, breeding livestock, buildings and improvements and land. Non-current liability categories should be broken down into real estate debt and notes payable, other than real estate debt. The balance sheet should present both cost basis and fair market value information for capital assets, formatted in one of two methods, a double column approach or market values on the face of the balance sheet with disclosure of cost information attached. The owner equity section of the balance sheet should contain a valuation equity component and a retained earnings/contributed capital component. Valuation equity represents the difference between the net book value and market value. Retained earnings in the business and contributed capital of the owners in the business represent the remainder of owner equity.

The Income Statement: The primary purpose of an income statement is to compute the profit of a business over a specified period of time. An income statement may also be referred to as an operating statement or a profit and loss statement. This statement addresses the question: "Did the business make a profit during the time period specified?" The result is net income. The time period specified is called the accounting period and usually covers a twelve month period. Net income should explain the change in owner equity between the beginning and ending balance sheets.

The revenue section is the first portion of the income statement. Gross revenue on an accrual basis is calculated here. This means that both cash and non-cash revenues are included. Net income from operations is calculated by subtracting accrual expenses from gross revenue. Accrual expenses include cash and non-cash expenses incurred to generate the revenue. Net income from operations plus gains/(losses) on the sale of capital assets equals net accrual income. This format will allow calculation of several important financial ratios which will be discussed shortly.

Statement of Cash Flows: One key to financial success is maintaining sound cash flows. The statement of cash flows provides a summary of cash receipts and cash payments during a specified time period. This statement format breaks the cash flows into operating, investing and financing activities. This information is very helpful to managers in identifying and controlling cash flows. What did the manager do with cash earned from business operations? What did the manager do with cash obtained from financing or from the sale of investments? Where did the cash for new investments or repaying debt originate - from operations, from debt financing, or sale of investments? These are questions that can be answered with information from this financial statement.

Statement of Owner Equity: Owner equity and net worth are terms often used interchangeably by non-accountants and essentially mean the same thing. Owner equity is used in statements prepared for business only entities. Net worth is used in statements prepared for combined business and personal entities. The main concept of this statement is to reconcile owner equity reported at the beginning of the accounting period with that reported at the end of the period. This reconciliation verifies that the financial statements are in agreement.

The statement of owner equity is organized in such a manner as to clearly identify changes in owner equity. Owner equity can change via only a few sources. The first source of change is from retained earnings and contributed capital. Retained earnings are the portion of net income reinvested into the business. Contributed capital is capital invested into the business from outside sources. The second source of change is from valuation equity, discussed previously.

Financial Performance

In today's capital intensive agricultural operations the need for measurement of financial performance is crucial to provide lenders and investors information regarding the "health" of the operation. Financial analysis of an agricultural operation must evaluate "financial position" and "financial performance." Financial position refers to the total resources of the operation and the claims against those resources at a single point in time. Financial performance refers to the results of production and financial decisions made over one or more periods of time. Financial ratios are the tool used to provide financial performance measures. Table 1 provides exact financial ratios for each measurement category that will be discussed here.

Liquidity: Liquidity refers to the ability of a business to meet financial obligations as they come due without hurting the normal operations of the business. It is a measure of a firms ability to repay current

debts by converting current assets into cash. Liquidity is a short run concept since we are dealing in current assets and current liabilities. In general, the more cash that is available to pay current debts, the more liquid the firm is said to be. FFSC recommendations for liquidity measures include the current ratio and working capital.

Solvency: Solvency is a measure of the firms risk-bearing ability. Solvency measures provide an indication of the firm's ability to repay all financial obligations if all assets were sold. It also can indicate the ability to continue operations as a viable business after a financial adversity strikes which would result in increased debt or reduced equity. Solvency, as compared to liquidity, is a long run concept since these measures deal with the ability of the business to survive in the future. Solvency measures recommended by the FFSC include debt/asset ratio, equity/asset ratio and debt/equity ratio.

Profitability: Profitability measures the profit generated from the use of available resources such as land, labor, capital and management. It is a goal of every business to be profitable. One thing not understood by everyone is the fact that a business can be liquid and solvent and not be profitable. This can usually be traced to inefficient use of resources in the operation. This fact demonstrates the need for using more than one category of financial performance measure. The FFSC has recommended rate of return on assets, rate of return on equity, operating profit margin ratio and net income as basic measures of profitability.

Financial Efficiency: Financial efficiency measures the intensity with which a business uses its assets to generate gross revenues. This is measured by the asset turnover ratio. Operational ratios represent the total composition of gross revenues. These ratios are operating expense ratio, depreciation expense ratio, interest expense ratio and net income from operations ratio. In general, the only one of these ratios with a rule of thumb is the interest expense ratio, which should be less than 0.15:1 to allow for a profitable operation.

Repayment Capacity: Repayment capacity measures the ability of a borrower to repay term debt from net income. Without capital contributions from outside sources, principal payments on term loans must come from net income after owner withdrawals. The ability of the operation to meet short term obligations was discussed in relation to liquidity. Repayment capacity is a long run concept resulting from the long term profitability of the operation. Term debt and capital lease coverage ratio, and capital replacement and term debt repayment margin are two measures of repayment capacity recommended by the FFSC.

What Does It All Mean?

In times of low prices received for livestock produced, the first area to be affected in the operation is cash flows. Sufficient levels of cash are not generated from the sale of the livestock and profitability in general is the first to suffer. Remember, the statement of cash flows will shed light on which activities are generating cash within the operation. Reduced profitability, measured by net income and return on assets within an operation leads to serious problems in both the short run and long run. In the short run, liquidity is reduced and producers find it hard to meet current obligations on time. One of the first ratios a lender will evaluate is the current ratio. The rule of thumb is if the current ratio is less than 1.5:1, the operation may experience trouble meeting it's current obligations and debt levels begin to increase or assets are sold to meet obligations. Repayment capacity is also adversely affected as a result of reduced profitability and lenders will watch this measure as time goes along. If reduced profitability persists over time, ultimately solvency is adversely affected. Solvency measures the risk bearing ability of the operation. This ratio is carefully watched by lenders and when solvency erodes, borrowing power also erodes. If the debt to asset ratio goes above 0.5:1, creditors have a greater claim on the assets than the operators and the business is no longer considered solvent.

Livestock producers must know their financial position and performance in order to plan for the future. Right now the future is dim and producers must have a plan laid out with their lenders in order to get through until higher livestock prices return. Without financial analysis to guide this planning process, financial ruin has a greater probability of occurring than longevity in the livestock business.

Table 1. Financial Performance Measures

Measures of Performance	Calculation Method	Rule of Thumb
Measures of Liquidity		
Current Ratio	Current Assets Current Liabilities	Value => 1.5:1
Working Capital	Current Assets - Current Liabilities	Monitor for Increasing Trend Over Time
Measures of Solvency		
Debt/Asset Ratio	Total Liabilities Total Assets	Value<= 0.5:1, Monitor for Decreasing Trend Over Time
Equity/Asset Ratio	Total Equity Total Assets	Value => 0.5:1, Monitor for Increasing Trend Over Time
Debt/Equity Ratio	Total Liabilities Total Equity	Value <= 0.5:1, Monitor for Decreasing Trend Over Time
Measures of Profitability		
Rate of Return on Assets	Net Income from Operations + Farm Interest Expense	Higher Value, More Profitable
	- Owner Withdrawals for Unpaid Labor and Management Average Total Assets	
Rate of Return on Equity	Net Income from Operations - Owner Withdrawals for Unpaid Labor and Management Average Total Equity	Higher Value, More Profitable
Operating Profit Margin Ratio	Net Income from Operations + Farm Interest Expense - Owner Withdrawals for Unpaid Labor and Management Gross Revenues	
Measures of Financial Efficiency		
Asset Turnover Ratio	Gross Revenues Average Total Assets	Monitor Increasing Trend Over Time

Operating Expense Ratio	Total Operating Expenses - Depreciation/amortization Expense Gross Revenues	
Depreciation Expense Ratio	Depreciation/amortization Expense Gross Revenues	
Interest Expense Ratio	Total Interest Expense Gross Revenues	Generally <= 0.15:1
Net Income from Operations Ratio	Net Income from Operations Gross Revenues	
Measures of Repayment Capacity		
Term Debt and Capital Lease Coverage Ratio	Net Income from Operations + Non-farm Income + Depreciation/amortization Expense + Interest on Term Debt & Capital Leases - Income Tax Expense - Withdrawals for Family Living Annual Scheduled Principal and Interest Payments on Term Debt Capital Leases	Value Greater Than 1:1 Monitor Increasing Trend Over Time
Capital Replacement and Term Debt Repayment Margin	Net Income from Operations + Non-farm Income + Depreciation/amortization Expense - Income Tax Expense - Withdrawals for Family Living = Capital Replacement and Term Debt Repayment Capacity - Principal Payments on Term Debt and Capital Leases	Monitor Increasing Trend Over Time

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