



Heart of the Farm

Financial Management Factsheet Series

Understanding the Farm Business Balance Sheet

Part II: Interpretation and Analysis

The first financial management report often created for the farm business is the Balance Sheet. It provides insight of farm solvency and liquidity. What is meant by Solvency and Liquidity?

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The balance sheet is a report of the farm business' financial position (strength) at a point in time. Position can be analyzed and interpreted using the Farm Financial Standards Council (FFSC) measures which are applied across production agriculture.

The FFSC recommends 21 measures across five criteria of solvency, liquidity, profitability, repayment capacity and financial efficiency in evaluating the farm's financial position and performance.

Balance sheet information indicates the farm's solvency. Solvency measures the farm's ability to pay its debts and what remains to the owners if the farm were sold. Solvency, measured by debt-to-asset,

equity-to-asset and debt-to-equity ratios, is at the heart of analyzing and interpreting the farm's financial position.

Market-based balance sheets are often used for analyzing solvency. In contrast, a cost-based balance sheet will generally reflect a lower solvency position because assets remain at cost rather than appreciated values. It is therefore important to be aware of which balance sheet is being used in the analysis.

The three FFSC measures for solvency are merely different views of the same farm—seeing it from a lender's perspective (debt-to-asset) versus a producer's perspective (equity-to-asset).

The *debt-to-asset ratio* is calculated

by dividing the total liabilities by the total assets and multiplying the result by 100, expressing it as a percentage. This ratio indicates what proportion of total farm assets are owed to creditors. Lenders may prefer this ratio as it indicates their investment in the business.

A higher debt-to-asset ratio indicates the farm has greater risk exposure.

Generally a farm is considered at higher risk when its debt-to-asset ratio is greater than 70%, and conversely, stronger when this ratio is less than 30%. In other words, a farm business has a higher risk position when for every dollar of assets there is seventy cents of debt. Specifically, the ratio depends on the type, size, and ownership structure of the farm.

Farm Business Financial Management Model



The **Financial Model** illustrates the management-to-decision-making process, and the tools used to make decisions. Beginning with collecting and organizing financial information (records) through an accounting system, the information is then transformed into financial statements for analysis and interpretation of the farm's financial position and performance. Through the budgeting process, analysis for feasibility, profitability and risk-ability, allow for making the best decisions for the farm business.

The *equity-to-asset ratio* is calculated by dividing the owner's equity by the total farm assets and multiplying the result by 100. This ratio represents the proportion of the total farm assets claimed by the owner(s), as owner's equity.

The higher the value of this ratio, the more total capital has been supplied by the owner(s) and less by the creditors. A farm business is generally stronger when its equity-to-asset ratio is greater than 70%, and conversely, less strong when this ratio is 30% or less. Again, the measure will vary depending on type, size, and ownership structure of the farm.

The *debt-to-equity ratio* is expressed as a percentage and is calculated by dividing the total farm liabilities by the owner's equity and multiplying the result by 100. It is a lender versus owner view of the farm. It indicates how much the owners have leveraged their equity in the business. **The higher the value of this ratio, the more total capital has been supplied by the creditors and less by the owner(s).**

Balance sheet information also indicates the farm's liquidity.

Liquidity measures how well the farm generates cash to pay operating expense, family living, taxes, and satisfy debt obligations on a timely basis. The FFSC recommends three measures of liquidity, including the current ratio, working capital, and working capital to gross revenue.

The *current ratio* and *working capital* both measure the extent to which current farm assets, when sold today, would pay off current farm liabilities.

The *current ratio* is calculated by dividing the total current farm assets by the total current farm liabilities.

Working capital is calculated by subtracting the total current farm liabilities from the total current farm assets. **A higher current ratio (> 1.5) or higher working capital amount indicates greater liquidity.** However, both measures must consider the type and size of farm, and the point in the production cycle, along with the value placed on assets.

The *working capital to gross revenue ratio* is calculated by dividing the working capital by gross revenues. It

The Balance Sheet is used to calculate Solvency and Liquidity measurements.

Assets
Liabilities
Net Worth (Owner's Equity)

provides insight of working capital relative to farm size. **A higher working capital to gross revenue ratio indicates greater liquidity.**

Liquidity problems occur when there is a sudden drop of income, poorly structured debt, high current liabilities which force sales at unprofitable prices, and when large unplanned expenses develop.

Summary

This factsheet discusses how the farm's position, measured by solvency and liquidity, is calculated from the balance sheet. We may begin to understand the farm's performance by evaluating the balance sheet and the income statement together to calculate profitability ratios.

Next up....

Heart of the Farm Financial Series: Understanding the Income Statement Part I

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Special thanks to reviewers:

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Heather Schlessler, Dairy and Livestock Agent, University of Wisconsin-Extension, Marathon County
Nate Splett, University of Wisconsin-River Falls Emeritus, & University of Wisconsin Center for Dairy Profitability
Jenny Vanderlin, University of Wisconsin Center for Dairy Profitability

The Heart of the Farm – Women in Agriculture program addresses the needs of farm women and men by providing education on pertinent topics, connecting them with agricultural resources, and creating support networks. <http://fyi.uwex.edu/heartofthefarm>

For other farm financial information and resources contact: Center for Dairy Profitability: <http://cdp.wisc.edu>

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