Evaluating the Financial Viability of the Business

Just as it is important to construct a new building on a strong foundation, it is important to build the economic future of your business on a sound financial base. Evaluating the financial viability of your business will help you understand the financial strengths and weaknesses of your business position. With knowledge of your financial situation you are in a better position to respond to current economic forces within the industry.

There are three major financial objectives that businesses usually monitor to track their financial performance:

- Solvency to track changes in the net worth of the business;
- Profitability to monitor the earnings of the business; and
- Liquidity to estimate cash flow available for short term payments.

Solvency

Solvency analysis compares the capital (assets) invested in the business with the sources of capital, debt and equity. In almost every business, one of the primary goals is to grow net worth or equity over time. In periods of low profits, a strong equity position helps the business survive and may also provide the borrowing capacity needed to make business adjustments.

The balance sheet is the financial tool used to evaluate solvency. It provides the foundation for all of the remaining financial analysis. It is very difficult to evaluate where you are and what resources you have available for adjusting to economic forces without an accurate balance sheet.

If you do not have a current balance sheet, you may be able to get a copy from your lender. Otherwise, you can build one from scratch. There is a set of financial statement forms at the end of this section that includes a balance sheet format. It is available in PDF format at http://www.extension.iastate.edu/Publications/FM1824.pdf. Other possible sources include:

- FINPACK Farm Financial Software, available through many local Extension offices.
- Assessing and Improving Your Farm Solvency, http://www.agnr.umd.edu/MCE/Publications/PDFs/FS540.pdf

Asset Valuation

It is becoming more and more common for agricultural balance sheets to include Cost and Market valuations for capital assets.

- Cost – capital assets are valued at their original purchase cost less depreciation. Cost value balance sheets are most useful in evaluating year to year progress.
- Market – capital assets are valued at their estimated current market value. This is most useful in evaluating the financial soundness of the business and borrowing capacity.

Market value balance sheets are still the standard used by most agricultural lenders. For the purpose of this analysis, it is probably most useful to value assets at their conservative market value net of selling costs.

Measuring Solvency

The Debt to Asset Ratio is the most common measure used to evaluate business solvency.

Debt to Asset Ratio = (Total Liabilities / Total Assets) * 100

Simple rules of thumb for evaluating solvency (Debt to Asset) position are:

Strong	Under 30 %
Caution	30 to 60 %
Vulnerable	Over 60 %

Businesses that are in a **Strong** solvency position have a firm foundation upon which to build or change their operations. They may be experiencing profitability or cash flow problems because of the current economic situation, but their financial position should open up doors to alternatives and borrowing capacity that allow them to survive and adjust to more profitable strategies.

Businesses whose debt to asset ratio raises the **Caution** flag need to do some serious financial planning to assure, as much as possible, that their net worth position is not going to continue to erode. If so, they need to look at their options. Their lender should still be willing to work with them but may not be willing to lend enough money to make major changes in facilities or equipment. In the worst case, they may need to consider exiting the business while there is still substantial net worth left.

Businesses in a **Vulnerable** solvency position have limited ability to borrow additional funds. They need to look at options that improve net worth growth without investing more money in the business. Some examples might include using existing facilities more fully and/or improving operating efficiencies. Other options could include adding non-farm income and reducing family living costs.

Profitability

Profitability analysis involves analyzing how much money the business is making. Profitability is measured using an Income Statement. Most non-farm businesses are required to complete an accrual income statement for tax purposes so it is relatively easy to evaluate their profitability.

Farmers and ranchers, unless they are very large, are not required to do accrual accounting for tax purposes. While cash accounting provides flexibility for tax management, it leaves agricultural producers in a position of evaluating their profitability based on a system whose general purpose is to reduce income. Therefore, for many growers, tax statements to do not provide a reliable source of information for evaluating farm business profitability.

Accrual Adjusted Income Statement

An accrual adjusted income statement adjusts the cash income and expenses reported for tax purposes for changes in inventories of crops, growing livestock, and assets that would have been included in taxable income had they been sold during the period covered. It also adjusts for changes on prepaid expenses, accounts payable and other items that would have been recorded as expenses had they been paid.

The set of financial statements included at the end of this section includes an accrual adjusted income statement format. The FINPACK Farm Financial Software, available through many local Extension offices, also includes a tool to calculate accrual net farm income.

Using Schedule F Tax Statements

It may be impossible to complete an accurate accrual adjusted income statement. In that case, the only option may be to use tax information. If so, it is recommended that you use the average net farm income from several years' Schedule F tax forms. In theory, the average of the net income from three or more year's taxes will wash out the effects of year-to-year inventory changes. Livestock producers should add the income from sales of raised cull breeding livestock to the Schedule F net income.

The bottom line of the income statement, Net Farm Income, is the amount of money the business contributed during the period for owner withdrawals for family living and taxes. If, over a period of time, net farm income it is not enough to cover owner withdrawals, other sources of income will be needed or net worth will decline.

Measuring Profitability

The most common measure of profitability is the Rate of Return on Assets (ROA).

$$ROA = \frac{\text{Net Farm Income + Interest Expense - Value of Unpaid Labor \& Management}}{\text{Total Farm Assets}}$$

Value of Unpaid Labor and Management is an estimate of the amount of income unpaid farm operators could have earned from off-farm employment.

Rate of Return on Assets can be directly related to interest rates. The goal when borrowing capital is to earn a higher return than the interest rates being paid. Businesses with low debt to asset ratios can operate with a lower ROA because they are paying interest charges on a smaller portion of their assets.

Business profitability can vary a great deal from one period to the next. Managers should take care when basing decisions on results from only one period. With that in mind, some simple rules of thumb for evaluating your Rate of Return on Assets are:

Strong	Over 8 %
Caution	3 to 8 %
Vulnerable	Under 3 %

A **Strong** ROA indicates that the business is operating efficiently. If there are cash flow problems, it may be that the business is not large enough to support the number of people or families drawing from it. Or it may be that there is too much short-term debt placing undue pressure on cash flows. In that case, maybe debt repayment schedules can be restructured.

If the ROA raises the **Caution** flag, take a closer look at business efficiencies. Are there adjustments that could be made to control costs, improve marketing, or use facilities and equipment more intensively?

For businesses where the ROA analysis comes up **Vulnerable**, managers need to dig deeper to try to figure out why the business was not profitable. It is human nature to blame problems on factors beyond management control, like foreign competition. The management challenge is to position the business so that it can react to those outside forces.

Liquidity

Liquidity deals with how much cash the business could convert or generate in the short term, usually one year, to meet financial obligations. Holding inventories of cash and liquid assets is a risk management strategy to cushion the business from short-term financial downturns. Unfortunately, cash flow pressures often prevent businesses from holding liquid assets. And even if they can, it is difficult to invest those liquid assets in places that yield a high rate of return. So there is often a conflict between liquidity and profitability.

The Cash Flow Statement is the most common tool for analyzing the liquidity of your business. It can be either a summary of sources and uses of cash from the past period or a projection of cash flows for the future. Many agricultural lenders require a cash flow projection as part of any credit application.

The set of financial statements included at the end of this section includes a cash flow statement. Other sources of projected cash flow formats include:

- FINPACK Farm Financial Software, available through many local Extension offices
- Cash Flow Projection and Operating Loan Determination, http://www.oznet.ksu.edu/library/agec2/mf275a.pdf

Measuring Liquidity

The most common measure of liquidity is the Current Ratio. It is useful for businesses that have substantial current assets. Businesses with limited current assets have little liquidity no matter what the current ratio says.

$$\text{Current Ratio} = \frac{\text{Total Current Assets}}{\text{Total Current Liabilities}}$$

Simple rules of thumb for evaluating your Current Ratio:

Strong	Over 1.75
Caution	1.1 to 1.75
Vulnerable	Under 1.1

Businesses with a **Strong** Current Ratio have established a healthy risk management cushion for difficult economic times. Their challenge is to make sure they are earning a reasonable return on their liquid assets.

If the Current Ratio raises the **Caution** flag, management needs to monitor cash flows carefully. A low current ratio will not make the business unprofitable but it might make it difficult to take advantage of opportunities as they arise.

Businesses with a **Vulnerable** Current Ratio are in a precarious position. Businesses don’t usually go out of business because they lose all their net worth; they go out because they can’t pay their bills. Businesses that fall in this category need to take immediate action. First, determine if there is a profitability problem, a solvency problem, or are owner withdrawals putting too much strain on the business. Maybe adding non-farm income is an option. Operators in this position should work very closely with financial advisors, creditors and others to craft a plan that will get their operation back on the road to financial security.

Adding Up the Evidence

Financial analysis is a diagnostic, but not necessarily a prescriptive process. In other words, it may reveal a problem, but it may not point to a specific solution. The remainder of the resources available through this site will help business managers dig deeper into their operations to look for adjustments and creative options for their individual situations. Producers who understand ‘Where Am I?’ financially are in a much better position to evaluate alternatives for generating more income, controlling costs, and improving their bottom line.

Developed by Dale Nordquist, Center for Farm Financial Management, University of Minnesota

Balance Sheet

Name________________________________ Date________________

FARM ASSETS	Cost Value	Market Value	FARM LIABILITIES	Market Value
Checking and Savings Accounts			Accounts payable	
			Farm taxes due	
			Short-term notes and credit lines	
Crops held for sale or feed			Accrued interest - short	
Invest in growing crops			- intermediate	
Commercial feed on hand			- long-term	
Prepaid expenses			Due in 12 mo. - intermediate	
Market livestock			- long-term	
Supplies on hand			Other	
Accounts receivable				
Other				
Total Current Assets			**Total Current Liabilities**	
Unpaid Patronage Dividends			Notes and contracts, remainder	
Breeding livestock			Other	
Time certificates				
Farm securities				
Other				
Machinery and Equipment				
Total Intermediate Assets			**Total Intermediate Liabilities**	
Buildings/improvements			Notes and contracts, remainder	
Farmland			Other	
Farm Securities				
Other				
Total Long-term Assets			**Total Long-term Liabilities**	
A. Total Farm Assets			**B. Total Farm Liabilities**	

Current Assets (market) / Current Liabilities = _________ Current ratio	**Farm Net Worth, Cost Value (A - B)**		
Total Liabilities / Total Assets (market) = _________ Debt to asset ratio	**Farm Net Worth, Market Value (A - B)**		

Balance Sheet (continued)

PERSONAL ASSETS		PERSONAL LIABILITIES	
Bank accounts, stocks, bonds		Credit card, charge accounts	
Automobiles, boats, etc.		Automobile loans	
Household goods, clothing		Other loans, taxes due	
Real estate		Real estate, other long-term loans	
E. Total Personal Assets		**Total Personal Liabilities**	
G. Total Personal Net Worth (E - F)			
H. Total Net Worth, Market Value (D + G)			

INCOME STATEMENT

Name________________________________ Date________________

INCOME			EXPENSES	
Cash income			**Cash Expenses**	
Sale of livestock bought for resale			Breeding fees	
Sales of livestock, grain, other products			Car and truck expenses	
Patronage dividends			Chemicals	
Agricultural program payments			Conservation expenses	
Crop insurance proceeds			Custom hire	
Custom hire income			Employee benefits	
Other cash income			Feed purchased	
Sales of breeding livestock			Fertilizer and lime	
A. Total Cash Income			Freight, trucking	
Income Adjustments	Ending	Beginning	Gasoline, Fuel, Oil	
Crops for sale or feed			Insurance	
Livestock held for sale			Interest paid	
Accounts receivable			Labor hired	
Unpaid patronage div.			Pension and profit-share plans	
Breeding livestock			Rent of land, buildings, equipment	
Subtotal of Adjustments	**B.**	**C.**	Repairs, maintenance	
D. Home Used Production			Seeds, plants	
E. Gross Farm Revenue (A + B - C + D)			Storage, warehousing	
F. Net Farm Income From Operations (F - N)			Supplies purchased	
Sales of farm capital assets			Taxes (farm)	
Previous cost value or new purchase			Utilities	
Cost of capital assets sold			Veterinary fees, medicine	
G. Capital Gain or Loss			Other cash expenses	
			Livestock purchased	
			I. Total Cash Expenses	

Income Statement (continued)

		Expense Adjustments	Beginning	Ending
		Investment in growing crops		
		Prepaid expenses		
		Feed and supplies on hand		
			Ending	Beginning
		Accounts payable		
		Farm taxes due		
		Accrued interest		
		Subtotal of Adjustments	**K.**	**L.**
		M. Depreciation		
H. Net Farm Income (G + H)		**N. Gross Farm Expenses (J + K - L - M)**		

Statement of Cash Flows

Name_______________________________ Date________________

Cash Farm Income and Expenses		
Total Cash Income		
Total Cash Expenses		
Capital Assets		
Sales of Capital Assets		
Purchases and Net Cost of Trades		
Financing		
New Loans Received		
Principal Paid		
Nonfarm		
Nonfarm Income and Receipts		
Nonfarm Expenditures		
Cash on Hand, Farm and Nonfarm		
Beginning of Year		
End of Year		
Total		

If all cash transactions are included correctly, the totals for the two columns will be equal.

Source of financial statements: Farm Financial Statements, William Edwards, Iowa State University, http://www.extension.iastate.edu/Publications/FM1824.pdf

Inventory of Resources and Talents

One of the purposes of TAA Technical Assistance is to help business owners find a profitable future direction for their business. The direction you take your business will depend on several factors, including:

What you want to do (your goals)
What is happening within the industry, and
The package of skills, resources, and talents you and the other stakeholders in your business can pull together to implement a change.

Your resources come in at least two forms: 1) the hard assets and financial resources that are included on your balance sheet and 2) the knowledge, interests, and abilities that you can draw on from your management team. This section will focus on these personal attributes. It will ask a series of questions that are intended not to highlight weaknesses, but rather to help you build on your strengths and avoid the pitfalls of mapping a direction for your business that does not match your skills, likes, or values.

Production and Operations Management	Yes	No
Are your skills best suited to high volume commodity production?		
• Do you have a history of producing high yields or rates of production per unit?	______	______
• Are you a low cost producer?	______	______
• Do you stay on top of new technologies?	______	______
• Do you get things done on time?	______	______
• Is expansion an option or interest?	______	______
• Do you gain your competitive advantage by producing more per unit at a lower cost?	______	______
Or, are your skills best suited to niche market or value added products?		
Are you good at juggling multiple production schedules?	______	______
Do you monitor production activities and quickly make adjustments if problems surface?	______	______
Do you have a history of producing high quality products?	______	______
Do you gain your competitive advantage by marketing multiple products at a high margin?	______	______

No matter the type of operation, efficient production is important. But it may be more important for some than for others. For producers of traditional agricultural commodities, the goal is to be the lowest cost producer. If you can keep costs per unit down and produce enough volume, you can generally be successful in commodity production.

For direct marketers, value added producers, and other non-traditional operations, efficient production is still important. But product quality and efficient marketing may well be more important than producing the highest production rates at the lowest costs. The world is full of stories of companies that have been very successful just because they out-marketed the other guys. Producing these types of products takes a different mindset. You may spend more of your time outside of production activities while managing others. You will spend more time in your office and less time on your tractor. If you can be happy doing these activities and you have skills in those areas, you may want to consider a transition into this type of operation.

Marketing

Are your skills best suited to marketing traditional agricultural commodities?

	Yes	No
• Would you rather be out in the field or in the production facilities than negotiating with buyers?	______	______
• Do you feel time on the phone is wasted time?	______	______
• Do you have the option to contract your production?	______	______
• Do you negotiate input costs?	______	______
• Do you lock in a profit when it is offered to you?	______	______

Or, do you have skills suited to marketing niche market, value added, wholesale, or retail products?

	Yes	No
• Do you like to negotiate deals?	______	______
• Are you good at closing a deal?	______	______
• Do you know how to estimate the market for a product?	______	______
• Do you develop good relationships with buyers and sellers?	______	______
• Do you have skills in advertising and promotion?	______	______
• Are you good at making pricing decisions?	______	______
• Do you know who your competitors are?	______	______
• Do you target your products at a specific market?	______	______

Is there a market for your product? Most commodity producers have not had experience with estimating market size, target marketing, advertising and promotion, and pricing. These are skills that may be needed if you plan to move into a “niche” market or if your plans include direct marketing or processing of farm products. Many commodity producers have the ability to move into these areas but they may need to educate themselves on the techniques. There are classes and other resources in community colleges and other institutions in most communities to help you improve these skills.

People Skills	Yes	No
Are your skills best suited to managing a sole proprietorship?		
• Do you feel a need to be actively involved in all or most production activities?	______	______
• Would you rather be out doing than directing others?	______	______
• Do you feel frustrated training employees?	______	______
• Do you worry about others getting things done right?	______	______
Or, do you have the skills needed to manage multiple employees?		
• Do you like to work in a team setting?	______	______
• Are you comfortable delegating tasks to others?	______	______
• Are you able to constructively criticize employees?	______	______
• Do you have specific hiring procedures?	______	______
• Do you have specific training procedures for new employees?	______	______
• Are you comfortable with firing employees?	______	______
• Do you get satisfaction out of seeing someone else succeed?	______	______
• Do you like to delegate production tasks to others?	______	______
• Are you good at training others to do production tasks?	______	______

Many feel that they have to grow to be competitive in today's business world, but there are still many very successful small businesses. Moving from a business with few employees to a multiple employee business is one of the biggest challenges for most business managers (inside and outside of agriculture). Those who successfully make the transition tend to be very happy with the change. They find that they can get away with assurance that things are getting done while they are gone. They build managerial capacity in the next generation and they get a great deal of satisfaction out of seeing others grow and be successful. But not everyone has the skills to be a people manager. If you are not comfortable with your skills in this area, there are two options: 1) get help and training in personnel management; or 2) stay small and look for other ways to improve profitability.

Money Management Skills

	Yes	No
Should you consider hiring accounting and financial services?		
• Do you use your records only for tax purposes?	______	______
• Do you let accounting functions slide as long as possible?	______	______
• Does your lender complete your balance sheet for you?	______	______
• Do you place financial reports in your files without examining them?	______	______
• Would you rather do just about anything else but accounting?	______	______
• Do you lack trust in your lenders?	______	______
Or, do you have the skills to manage the finances of the business?		
• Do you know your production costs per unit?	______	______
• Do you like to do your own accounting?	______	______
• Do you read and understand financial reports?	______	______
• Do you develop a financial plan at the beginning of each production or accounting cycle?	______	______
• Do you monitor deviations from your financial plan and make mid-term adjustments to your plans?	______	______
• Do you periodically analyze the financial performance of your business?	______	______
• Do you work well with you lenders?	______	______
• Do you cover risks with adequate insurance and other risk management tools?	______	______
• Do you know how your living costs?	______	______
• Do you know your net worth?	______	______

Financial management is an area where many agricultural producers feel least comfortable. Again, there are a lot of resources within the Extension Service and local community and technical colleges to help you improve these skills. This is also an area where you might consider hiring outside help or joining a farm management group if one is available in your area. Hiring accounting and tax services, however, may not provide you with a great deal management information. You still need to understand the reports and monitor financial performance.

Other Resources

Other resources include the physical assets you own, the other assets you can acquire through lease or other means, and the financial resources that you can access in terms of equity capital and borrowing capacity. If you are considering a major business adjustment, consider how well adapted each of these resources is to your new business plan. Is the business large enough to support you and other stakeholders? Is your land base suited to high yield and high quality production of your selected products? Are production facilities and equipment adequate? Has asset replacement been adequately considered in you financial plans? Is an adequate and well educated labor force available? These are among the questions that you should honestly answer before you commit to investing more in your business operation.

Summary of Strengths and Weaknesses

After considering the resources, talents, and interests of the operation and the management team, it may be helpful to summarize the strengths and weaknesses of the operation. The worksheet on the following page provides a framework for this summary.

Summary of Resources and Talents

Strengths	Weaknesses
Production and operations	
Marketing	
People skills	
Money management	
Other resources	

Other Publications

Checking Your Farm Business Management Skills, Farm Business Management for the 21st Century, Purdue Extension, West Lafayette, Indiana, by Michael Boehlje, Craig Dobbins, and Alan Miller.

Are Your Farm Business Management Skills Ready for the 21st Century?, Self-Assessment Checklists to Help You Tell, Farm Business Management for the 21st Century, Purdue Extension, West Lafayette, Indiana, by Michael Boehlje, Craig Dobbins, and Alan Miller.

Building a Sustainable Business, A Guide to Developing a Business Plan for Farms and Rural Businesses, Minnesota Institute for Sustainable Agriculture, St. Paul, Minnesota, by Gigi DiGiacomo, Robert King, and Dale Nordquist.

Developed by Dale Nordquist, Center for Farm Financial Management, University of Minnesota