Chapter 11- Analyzing Quicken Farm Records with FINPACK

FINPACK is a computerized farm financial planning and analysis system. It will help you evaluate your financial situation, explore alternatives, and make informed decisions about the future direction of your farm. It is not a record keeping system. Instead, FINPACK gives you the tools to effectively use your Quicken records in managing your farm.

FINPACK includes three programs to help you manage your farm finances:

FINLRB - for long range planning
FINFLO - for cash flow planning
FINAN - for year end analysis

FINAN is a year end financial analysis that answers the question “Where am I?” It provides an in-depth look at financial progress over the previous year and helps identify strengths and weaknesses. FINAN can provide a whole farm analysis and individual enterprise analyses.

FINLRB, or financial long range budgeting, helps chart the financial performance of a farm business under different future courses of action. It answers the “What If?” or “Where do I want to be?” types of questions in terms of liquidity, solvency, profitability, repayment capacity and financial efficiency. Future plans such as expansion, new enterprises, different enterprise combinations or debt restructuring are compared against the current operation or “Base Plan.”

FINFLO projects monthly cash flows for future years based on projected or current production, marketing and financial plans. Once you have determined where you want to be, FINFLO helps to answer the question “How am I going to get there?” In addition to cash flow projections, FINFLO can be used to prepare projected income statements and balance sheets for up to 15 years.

These FINPACK programs allow you to analyze past performance, make financially informed future plans and prepare monthly or multiple year cash flow projections for your farm business in terms of solvency, liquidity, profitability, repayment capacity and financial efficiency. All FINPACK programs generate ratios and measures that are consistent with the recommendations of the Farm Financial Standards Council.

The first step in doing any type of analysis on your farm business is the completion of the **balance sheet** at the end of the business year. The balance sheet shows as of a given date (usually December 31 or January 1) what you own (your assets), what you owe (your liabilities) and your net worth, the difference between assets and liabilities. A complete set of Quicken farm records that includes all your asset and liability accounts will help in providing the financial information needed for your balance sheet.

Critical to the completion of the balance sheet is the need to take inventories at the end (or beginning) of the year. These inventories should include all supplies on hand that are used in the farm business, all market and breeding livestock on hand, all stored and purchased feeds, all grain held for sale and all machinery and equipment. The market value of these current and intermediate assets are added to the market value of your land and buildings (long term assets) to give the market total value of your assets. Other assets that might be included would be the value of non-farm assets including non-farm investments and real estate. These assets will add to your net worth, but will not be included in any analysis of the farm business.

On the liabilities side of the balance sheet will be all your loan balances, the principal due on those balances in the next 12 months plus any accrued interest, accrued real estate taxes and any accounts payable as of the date of the balance sheet. Again, you can include any non-farm or personal liabilities, as these will affect your net worth.

FINPACK includes a balance sheet so that the numbers can be transferred into any of the various programs. The FINLRB and FINFLO programs require a single balance sheet and the FINAN program requires a beginning and an ending balance sheet for the year being analyzed.

The output of the FINPACK programs is primarily financial in nature and includes the sixteen ratios and measures recommended by the Farm Financial Standards Council. These sixteen ratios and measures and their interpretation, in most cases, is based on the market value of the assets included on the balance sheet. The FINPACK output also shows how most of the measures are calculated. Each of the sixteen measures fall into one of the following five categories: liquidity, solvency, profitability, repayment capacity and financial efficiency.

Liquidity is the ability of your farm business to meet financial obligations as they come due, to pay family living expenses and taxes and make debt payments. The ratios measuring liquidity are calculated from the balance sheet and include:

- Current ratio - is the ratio of current assets to current liabilities. It measures the extent to which current farm assets, if sold tomorrow, would pay off current farm liabilities.

- Working capital - indicates the amount of working capital for the short term from the business. Working capital is the difference between current assets and current liabilities.

- Solvency - the ability of your business to pay all its debts if it were sold tomorrow. Solvency is important in evaluating the financial risk and borrowing capacity of the business. These ratios are calculated from the balance sheet and include:

- Farm debt-to-asset ratio - is the lender's share of the business. It compares total farm debt to the total value of farm assets. The higher the ratio the greater the financial risk and the lower the borrowing capacity.

- Farm equity-to-asset ratio - is your share of the business. It compares farm equity to the total value of farm assets. Adding the debt-to-asset ratio and the equity-to-asset ratio must equal 100%.

- Farm debt-to-equity ratio - compares the lender's ownership of the business to your ownership. It also indicates how much the owner(s) have leveraged the equity in the business.

- Profitability - the difference between the value of goods produced and the cost of the resources used in their production. Over time, profits drive the liquidity and solvency of a farm business. Without adequate profits, future growth in net worth from the farm operations is not possible. The following profitability measures come from the income statement:

- Net farm income - represents a return to unpaid labor and management and equity invested in the business. Any net farm income not withdrawn from the business for family living and taxes is retained earnings and increases your farm net worth.
- Rate of return on farm assets - is the average interest rate earned on the total investment in the farm business. Unpaid labor and management are assigned a value before the return on total farm assets is calculated.

- Rate of return on farm equity - is the interest rate being earned on your equity investment in the farm. This return can be compared to returns available if your equity were in alternative investments with a comparable risk.

- Operating profit margin - shows how effectively funds are spent on operating expenses to generate business income. If the operating expenses are low relative to the value of farm production, the business will have a good operating margin. A low profit margin can be caused by low product prices, high operating expenses or inefficient production.

- Repayment capacity shows your ability to repay all term debts on a timely basis. Repayment capacity includes non-farm income and is not a measure of business performance alone. These ratios and measures come from the cash flow statement and are:

- Term debt coverage ratio - tells whether your business generated enough cash to cover all (farm and non-farm) intermediate and long term debt payments. A ratio less than 100% indicates that the business had to run up open accounts, borrow money or sell assets to meet scheduled loan payments.

- Capital replacement margin - is the amount of money remaining after all operating expenses, taxes, family living costs and scheduled debt payments have been made. It represents the money available for purchasing or financing new capital assets or paying off additional debt.

- Financial efficiency - shows how effectively your business uses assets to generate income. Financial efficiency ratios help answer the questions - is each asset being used to the fullest potential? and what are the effects of production, pricing, financing and marketing decisions on gross income?

- Asset-turnover ratio - measures capital productivity or capital efficiency. Generating a high level of production with low capital investment will give a high asset-turnover ratio. If the turnover is low, you will want to consider alternatives to use capital invested more efficiently or sell low return investments.

- Operating expense ratio - shows the proportion of gross farm income used to pay operating expenses, not including depreciation and interest.

- Depreciation expense ratio - indicates how fast the business wears out capital assets and what proportion of gross farm income is needed to maintain the capital used in the business. This ratio should be looked at over time since it can be misleading during major expansions or contractions or if you use depreciation from Schedule F.

- Interest expense ratio - shows what percentage of gross farm income is used to pay for the use of borrowed capital.

- Net farm income ratio - compares net farm income (profit) to gross income. It shows what percentage of gross farm income is left after all farm expenses are paid.

FINAN, FINLRB and FINFLO generate the above mentioned 21 ratios and measures to serve as guidelines for making decisions about your farm business. The following table, **Farm Finance Scorecard**, developed by K. Becker, K. Kauppila, G. Rogers, R. Partsons, D. Nordquist, and R. Craven, University of Vermont Extension,and the Center for Farm Financial Management, University of Minnesota lists all the 21 measures and the suggested guidelines for each of them.