DEPARTMENT OF AGRICULTURAL ECONOMICS

Financial and Economic Terms

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Cash and Cash Flow Terms

Cash refers to cash and funds in checking accounts, savings accounts, and certificate of deposits; and is generated by business sales and other receipts minus cash operating expenses, debt payments, capital purchases, and family living expenses.

Cash Available is the amount of cash that the business has for meeting cash flow requirements.

Cash Flow Budget is similar to a statement of cash flows (defined below) but is comprised of budgeted dollar amounts rather than the actual dollars flowing in and out of the business. A cash flow budget can be compared to the statement of cash flows periodically to determine if, when, and where the actual cash flows vary significantly from the budgeted amounts.

Cash Required is the amount of cash that is needed to meet all of the cash needs of the operation which include operating expenses, living expenses, debt payments, and capital purchases.

Liquidity is the ability of the business to generate sufficient cash to meet total cash demands without disturbing the ongoing operation of the business.

Net Cash Flow From Operations is the amount of cash that is available after cash operating expenses are subtracted from cash operating income.

Repayment Capacity measures the ability of the business to generate sufficient income to meet its debt obligations. Repayment capacity reflects the ability of the business to pay scheduled principal payments on term debt and unaccounted carryover operating debt as well as interest on debts from net cash flow from operations plus net nonfarm cash flow minus taxes, family living expenses, and unaccounted cash withdrawals.

Statement of Cash Flows is a financial statement that shows the dollars flowing in and out of the business.

The cash flow statement is usually divided into operating, investing, and financing activities. Cash flows are usually presented by the week, month quarter, or year for each income and expense category. This statement is particularly valuable for analyzing the management of cash in the business.

Income and Income Statement Terms

Accrual Basis of Accounting is a method of accounting under which revenues are recognized in the accounting period when earned regardless of when cash is received, and expenses are recognized in the accounting period when incurred regardless of when cash is paid.

Cash Basis of Accounting is a method of accounting under which revenues are recorded when cash is received and expenses are recognized when cash is paid.

Income Statement (or Profit and Loss Statement) is a summary of accrual adjusted revenues and expenses for a specific time period such as an operating or accounting year. The income statement is useful in analyzing the financial performance or profitability of the business. An income statement can also be developed for a specific enterprise.

Profitability is the ability of the business to generate income in excess of expenses. Profitability can be analyzed using several different methods through the use of the income statement and balance sheet, all of which are useful in identifying specific profitability attributes of the business.

Gross Income Values

There are different measures of gross income or receipts from the business. Three important measures are:

Gross Farm Income (GFI) is the income to the business based on sales plus other receipts minus the cost of items purchased for resale, such as feeder livestock, plus or minus changes in operating inventories. This accrual based income reflects the value of production whether sold or not.

Gross Revenue (GR) is the income to the business based on sales plus other receipts plus or minus changes in operating inventories. This accrual basis income reflects the value of production whether sold or not.

Value of Farm Production (VFP) is the income to the business based on sales plus other receipts minus cost of items purchased for resale, such as feeder livestock, minus cost of purchased feed plus or minus changes in operating inventories. This accrual basis income reflects the value of production whether sold or not.

Expense or Cost Values

There are various expense or cost values utilized in economics and accounting. The definition, and thus derivation, will depend on the financial statement being developed and in what context the business is being analyzed. Some important expense or cost values are:

Variable Costs represent expenses that vary with output for the production period under consideration. Seed, fuel, feed and fertilizer are variable costs.

Fixed Costs represent expenses of an overhead nature which do not vary with changes in output for the production period under consideration. Real estate taxes, depreciation and interest on land are fixed costs.

Cash Costs are those costs that result in an actual payment of cash. Example of cash costs include seed, fertilizer, labor, and fuel.

Non-Cash Costs are those costs that do not result in an actual payment of cash. Examples include depreciation, the change in prepaid expenses, changes in inventory, and accrued taxes.

Direct Expenses are expenses, such as fertilizer and seed, that are directly related to a production activity.

Indirect Expenses are expenses, such as real estate taxes, that are not directly related to a production activity.

Accrual Farm Expense is the amount of expense, even if not paid, that are associated with production for the operating or calendar year.

Depreciation is the allocation of the original cost of a capital asset over the useful life of the asset.

Financial Costs include all expenses in the accrual adjusted income statements. Expenses include cash costs, depreciation, and noncash adjustments, such as accounts payable and accrued interest.

Prepaid Expenses are expenditures made in the current operating or accounting period that will be used in a future period to realize revenue.

Total Costs is the sum of fixed and variable costs.

The method of calculating total operating expenses or total expenses depends on what you are trying to analyze, and which gross income valuation method you utilize (GFI, GR, and VFP). The following are three common methods of expense determination.

Total Operating Expenses (GFI) is the sum of cash and noncash expenses plus or minus the associated accrual and expense inventory adjustments. Includes the cost of purchased feed, but does not include purchases of items purchased for resale and interest expense.

Total Operating Expenses (GR) is the sum of cash and noncash expenses plus or minus the associated accrual and expense inventory adjustments. Includes the cost of purchased feed and purchases of items purchased for resale, but does not include interest expense.

Total Operating Expenses (VFP) is the sum of cash and noncash expenses plus or minus the associated accrual and expense inventory adjustments. Does not include the cost of purchased feed, purchases of items purchased for resale, or interest expense.

Total Expenses (GFI) is equal to total operating expenses (GFI) plus interest expense.

Total Expenses (GR) is equal to total operating expenses (GR) plus interest expense.

Total Expenses (VFP) is equal to total operating expenses (VFP) plus interest expense.

Net Income and Return Values

The income statement, which provides a summary of accrual adjusted gross revenue and expenses, in conjunction with the balance sheet, allows for the derivation of various net income and return values, such as:

Net Farm Income From Operations is equal to gross farm income (GFI) minus total expenses (GFI). (Or, gross revenue (GR) minus total expenses (GR); or, value of farm production (VFP) minus total expenses (VFP).)

Net Farm Income is equal to net farm income from operations plus the gain (or loss) from the sale of capital assets and change in base values of breeding livestock. Net Farm Income is accrual adjusted and represents a return to operator's labor, management and equity capital.

Net Profit Margin shows the portion of gross revenue that the business receives as profit.

Return to Capital is a measure of the operator's capital earnings from the business and is equal to net farm income plus interest expense minus a charge for the operator's labor and management.

Return to Management is a measure of the operator's management earnings from the business and is equal to net farm income minus a charge for the operator's labor and equity capital.

Return to Labor and Management is a measure of the earnings to labor and management from the business and is equal to net farm income plus hired labor expense minus a charge for the operator's equity capital.

Return to Capital, Labor, and Management is a measure of the earnings to capital, labor, and management from the business and is equal to net farm income plus hired labor expense plus interest expense.

Assets, Liabilities, and Balance Sheet Terms

Accumulated Depreciation is the amount of depreciation expense taken on machinery, equipment, and building assets from their acquisition date to the balance sheet.

Average Owner Equity is the average of the beginning and ending owner equity for an operating or calendar year.

Balance Sheet is a financial statement that shows the financial condition of the business at a particular point in time. The statement lists all assets and liabilities, and the resultant owner equity. For analysis purposes, the effect on equity (net worth) should be analyzed by valuing assets at both the book value (cost minus accumulated depreciation), and the fair market value.

Book Value is equal to the original cost or basis of an asset minus any accumulated depreciation. This information is usually obtained from the depreciation schedule.

Cost Basis is another term for book value.

Leverage is the relationship between debt and equity. Earnings on debt must be greater than the cost of debt to have a positive impact on business growth.

Market Value is the value that would be received for the business's assets if the business was liquidated on the same date the balance sheet was prepared.

Statement of Owner Equity is a financial statement that reconciles the change in owner equity between the beginning and ending balance sheets.

Solvency is the measure of the dollar value that would remain if all assets were converted into cash and all debts paid. A business is solvent if total assets are greater than total liabilities, and insolvent if liabilities exceed assets.

Balance Sheet Assets

The asset side of the balance sheet will include the following types of values.

Assets are resources owned by or owed to the business such as livestock, equipment, real estate, and notes receivable.

Current Assets are cash and near cash items that can be converted to cash with little loss in value. Current assets include cash, savings and time deposits, marketable securities, short term notes receivable, inventories that would be expected to be turned over in the operating year such as feeder livestock , grain, supplies, prepaid expenses, cash invested in growing crops.

Non-Current Assets represent the breeding livestock, equipment, machinery, buildings and real estate of the business. Noncurrent assets may be grouped according to economic life such as intermediate (2-10 years), and long term (greater than 10 years).

Total Assets equals the sum of the business and nonbusiness assets listed on the balance sheet.

Balance Sheet Liabilities

The liability side of the balance sheet will include the following type of values.

Liabilities refers to debts owned by the business.

Current Liabilities are those liabilities that will come due within one year. Included are principal payments on current loans, portion of principal payments on noncurrent liabilities due within the current year, accounts payable, accrued interest, taxes, rents, and leases.

Non-Current Liabilities are liabilities that will come due in a time period greater than one year and include the principal balance of real estate and non real estate loans and the noncurrent portion of deferred taxes.

Deferred Taxes are contingent income tax liabilities that would be realized if all the farm assets were liquidated. Deferred taxes are separated into current and noncurrent portions.

Total Liabilities equals the sum of all liabilities (debt) listed on the balance sheet.

Retained Earnings is a measure of the real growth in the business and is equal to the change in net worth adjusted for inflation, or deflation, in asset values.

Owner Equity, or **Net Worth**, is the difference between total assets and total liabilities. This value provides an indication of the dollar amount actually owned by the owner, and thus, represents the capital base available to handle adversity.

Economic and Other Terms

Economic Analysis includes the consideration of the opportunity cost of equity capital and owned land in the calculation of costs. The analysis serves as a guide to finding the optimal use of resources to generate the highest net income possible for the business.

Economic Cost includes the opportunity costs charged for owned land (e.g., what it could be leased for) and owner equity capital (e.g., a 3 month treasury bill rate) in addition to financial costs. Opportunity cost represents the return that could be received for a resource in its next best use.

Family Living Withdrawals are cash withdrawals paid by the business to cover family living expenses. In terms of the effect on the farming operation, family living withdrawals can be viewed as compensation for the owner/operator's management and labor. Actual withdrawals in excess of the amount needed to cover family living expense must be considered capital distributions in order to reconcile the retained earnings and statement of cash flows. Family living withdrawals, as compensation for the owner/operator's labor and management, are used to calculate cost of production, return on assets, return on equity, and repayment capacity.

Financial Efficiency is a measure of how efficiently farm assets are being used to generate revenue. The operational ratios are also used to measure efficiency.

Financial Statements provide accounting information regarding the financial position, net farm income, and net cash flow of the business. The balance sheet, income statement, statement of owner equity, and statement of cash flows comprise the basic set of financial statements.

Opportunity Cost is the income that could have been received if a resource had been used in its most profitable alternative use. The opportunity costs for long-term resources such as land, buildings and equipment often difficult to estimate. One common method of estimating the opportunity cost for long-term assets is to apply an interest rate that represents the cost of borrowed capital or the return on savings accounts to the value of the asset. For owned land, another common method is to use a rental rate.

Savings and Consumption Margin is the after tax income available for savings and consumption withdrawals or distributions. If withdrawals for family living and distribution exceed the savings and consumption margin, then equity will decline if not offset by a change in valuation of assets.

Unit Cost of Production (Break-even Price) is the cost of production for the primary product. This cost can be compared to commodity price to evaluate the competitiveness of the enterprise. This value also represents the price of the primary product that would result in break-even being achieved. At this price, total enterprise revenue is exactly equal to total enterprise costs which results in zero net income.

References

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