

ENTERPRISING RURAL FAMILIES FINANCIAL INVENTORY PROLOG

A balance sheet presents a financial snapshot of a business at a point in time. It is a summary of all assets and liabilities of a business and owner equity (net worth), as of the specific date it is filled out. As such, the balance sheet provides a picture of the financial characteristics of a firm at a point in time. The balance sheet is historical in the sense that it reflects the cumulative effect of past transactions, but it does not show how the existing financial position was achieved.

Please note that the e-Family Business Course is configured for small and family businesses in both the farm/ranch setting and a non-agricultural setting. Therefore, the Balance Sheet provided here is a compilation of both ranch and non-ranch forms. Use those categories which apply to *your* small business.

BALANCE SHEET FOR WHAT ENTITY?

The business entity and/or personal entity for which a balance sheet is prepared must be identified. In traditional accounting, the balance sheet presents the financial position of a given business entity as distinct and separate from its owners. This follows the Generally Accepted Accounting Principle (GAAP) called "business entity." Following this guideline even a single proprietorship business is kept separate from the owner. Consequently, you are asked to separate your finances into two balance sheets – your business and your personal financial situation.

ASSETS AND LIABILITIES

A balance sheet is a systematic organization of everything owned and owed by a business. All things of value owned or owed to the business are called assets. All obligations or debt owed someone else by the business are referred to as liabilities. The difference between the value of all assets and the value of all liabilities is net worth or owners equity. For example, let's say a business sold all its assets and paid all its liabilities on the date a balance sheet is prepared. The amount that is left over is the business net worth.

One of the first steps in completing a balance sheet is to inventory and value assets. Assets have value for at least two reasons. First, the asset can be sold to generate cash. Second, it is used to produce a product or service which is sold to generate income. On a balance sheet assets are divided into two categories: current and long-term assets. These divisions are based on the time required to convert the asset into cash (liquidity) and the useful life of the asset.

CURRENT ASSETS

Those assets most easily converted to cash are listed in this category. They represent cash or other assets that can be converted to cash without disrupting future production of the business. Most current assets will be used up or converted to cash within one year of the balance sheet date or during one established cycle of operations. Examples of agricultural current assets are grain and

forage inventories, market livestock, cull livestock, accounts receivable and prepaid expenses. General business current assets examples in descending order of liquidity are:

- Accounts Receivable: The amounts due from customers in payment for merchandise or services.
- Inventory: Includes raw materials on hand, work in process, and all finished goods either manufactured or purchased for resale. Inventory value is based on unit cost and is calculated by any of several methods.
- Temporary Investments: Interest- or dividend-yielding holdings expected to be converted into cash within a year. Also called marketable securities or short-term investments, they include certificates of deposit, stocks and bonds, and time deposit savings accounts. According to accounting principles, they must be listed on the balance sheet at either their original cost or their market value, whichever is less.
- Prepaid expenses: Benefits, goods, or services a business pays for in advance of use. Examples are insurance protection, floor space and office supplies.

FIXED (LONG-TERM, NON-CURRENT) ASSETS

These assets, frequently called plant and equipment, represent working assets that yield services to the business over a period of time, on an ongoing basis. Their sale would seriously disrupt the business. Examples of such assets include depreciable livestock, machinery and equipment, and land and improvements. Investments in cooperatives and other entities also fit here, although not perfectly so. Often there is variation in the liquidity of such investments due to their limited marketability. In many cases their conversion to cash could also disrupt ongoing business activities. Also included in this category would be long-term investments such as stocks, bonds, and savings accounts kept for a year or more and that typically yield interest or dividends.

Regardless of current market value, land is listed at its original purchase price, with no allowance for appreciation or depreciation. Other fixed assets are listed at cost, minus depreciation. Fixed assets may be leased rather than owned. Depending on the leasing arrangement, both the value and liability of the leased property may need to be listed on the balance sheet.

OTHER ASSETS

Resources not listed with any of the above assets are grouped here. Examples include tangibles, such as outdated equipment which can be sold to the scrap yard, and intangibles, such as trademarks and patents.

Totaling current, non-current, and other assets results in total assets of the business.

CURRENT LIABILITIES

Current liabilities are debt obligations that are payable on demand or due within the next 12 months from the date on the balance sheet, or within one cycle of operation. Typically they include the following, which generally are listed in the order due:

- Accounts Payable: Amounts owed to suppliers for goods and service purchased in connection with business operations.

Short-Term Debt: The balances of principal due to pay off short-term debt for borrowed funds.

- Current Portion of Long-Term Debt: Current amount due of total balance on notes whose terms exceed 12 months.
- Interest Payable: Any accrued amounts due for use of both short-and long-term borrowed capital and credit extended to the business.
- Taxes Payable: Amounts estimated by an accountant to have been incurred during the accounting period. For accounting purposes, this total may differ from the actual tax total required by the Internal Revenue Codes, since taxes payable are based on accounting income and not taxable income. (Note: Income taxes are business obligations for corporations; proprietorships and partnerships do not pay income taxes; the income is reported on the owners' personal returns.)
- Accrued Payroll: Salaries and wages currently owed but not yet paid.

Also included are operating notes, lease payments and accrued rent. In general, current liabilities represent the liquidity requirements of the business during the next operating year.

FIXED (LONG-TERM, NON-CURRENT) LIABILITIES

As you have probably guessed, non-current liabilities are debts on equipment, machinery, breeding livestock, and land and improvements. Recall that the current year's principal payment and accrued interest was listed as a current liability. Thus, only the remaining loan balance is included as a non-current liability. Care must be taken to adjust the loan balance downward by the annual principal payment to avoid double counting. Only the remaining loan balance after subtracting the annual principal payment is entered as a long-term liability.

LEASING

The treatment of leased property represents unique problems in the development of financial statements. In the past, a large majority of leases were only for one year. However, longer term leases represent both a liability to be paid as well as an asset to the firm. As a result, lenders are becoming increasingly aware of the value and obligations associated with long-term leases. The accounting profession has established accounting standards indicating the market value of assets acquired through long-term leases should be included as assets. At the same time the present value of the lease payments should be included as a liability. This procedure recognizes that a lease has both value and a long-term obligation.

DEFERRED TAXES

One more category of liabilities exist which require discussion at this point. These liabilities are deferred taxes on current and non-current assets. Deferred taxes are a dollar estimate of the income tax liability that would be triggered by conversion of current and/or non-current assets to cash. Since an income tax liability would not be triggered without a gain on the sale of assets, the deferred tax is only a market value liability concept and is shown as a separate entry in the respective liability sections of the balance sheet. The cost column represents an ongoing business,

in contrast to the market value column, which estimates values that would result if assets were liquidated.

Summing current and non-current liabilities gives the total liabilities of the business.

The basic accounting equation is:

$$\text{Assets} = \text{Liabilities} + \text{Owner's Equity (or net worth)}.$$

Therefore, owner's equity is calculated by subtracting total business liabilities from total business assets. Net worth or equity represents the owner's financial claim on assets. It indicates the amount the owner would receive if all assets were sold and all financial obligations were paid.

METHOD OF VALUATION

All entries on a balance sheet are given dollar values. This represents no problems for liabilities because everything owed is in dollars. However, there is a problem of placing a value on some assets in completing the balance sheet. Asset value is the product of physical quantity and price. The problem of placing a value on assets becomes more difficult as we move from current to long-term assets.

There are two general methods used to determine asset values on balance sheets. These two methods are cost basis and market basis. The cost basis column of the balance sheet shows assets valued at cost whenever possible. The market basis column of the balance sheet shows assets valued at net market price whenever possible. It is recommended that both values be included on a single balance sheet in two separate columns.

Accounting convention suggests valuation of assets based on cost, even though assets may have been purchased several years ago. With cost-based accounting, capital assets are valued at the original cost less the accumulated depreciation since purchase. The resulting value is called book value. Cost basis balance sheets are conservative and ignore increases in asset values due to inflation. This provides the advantage of measuring real increases in net worth. On a cost basis balance sheet, net worth will increase only if there is some positive retained earnings. Using cost-based valuation procedures for capital assets, also provides data to analyze the financial progress over time through reinvestment of earnings.

The following guidelines are suggested to develop asset values for the cost basis column of the balance sheet.

1. All assets that are to be sold within one year should be valued at net selling price.
2. All supplies should be valued at cost.
3. Crops growing in the field are normally valued at the amount of cash that has been invested in the crop.
4. Working capital assets, such as machinery and breeding stock should be valued at the adjusted basis listed in the depreciation schedule.

5. Real estate improvements should be valued at the adjusted basis listed on the depreciation schedule.
6. Land is normally valued at its basis.

Lenders commonly express the need for a balance sheet based on current market value. The current market value of capital assets purchased several years ago is frequently quite different from the cost less depreciation value. Therefore, cost-based accounting may not correctly reflect the market value of capital assets. As a result, the market basis column of a balance sheet provides a more accurate measure of liquidity and owner equity. The disadvantage is that increases in net worth may be solely due to inflation of land values and other assets and not the result of business profits.

The purpose of the market value is to more accurately reflect the asset values and owners equity in current dollars. The cost basis method is a modified market basis. As a result, identical values will be used in both columns for all business assets except machinery, equipment and real estate. For these items, well established markets should be used to estimate the current value. If there is not a well established market, the capital item can be valued by using one of three methods. These methods are:

1. Replacement cost less depreciation
2. Replacement cost for an equivalent function less depreciation
3. Income capitalization.

To address these problems adequately, the use of both methods of valuation is emphasized. Each method provides useful information in determining the financial position of a business. They are also helpful in identifying reasons for a change in the business financial position.

STRUCTURE OF BALANCE SHEET

The structure of the balance sheet is derived from the basic accounting equation which states:

$$\text{Assets} = \text{Liabilities} + \text{Owner's Equity.}$$

As the name implies, a balance sheet must balance. It balances because assets can only be funded by equity or debt capital. The equality holds at all times, as any transaction causing a change in one side will cause an identical change in the other side.

Another way to consider the balance sheet is to think of total assets as being the total owned capital in the business. Liabilities represent debt capital (claims by others against the assets). Owner equity (residual claim by the owner against the assets) can be called equity capital. In this way the fundamental accounting equation becomes:

$$\text{Total Owned Capital} = \text{Debt Capital} + \text{Equity Capital}$$

In a proprietorship or partnership, equity is each owner's original investment, plus any earnings after withdrawals. In a corporation, the owners are the shareholders - those who have invested

capital (cash or other assets) in exchange for shares of stock. The corporation's equity is the sum of contributions plus earnings retained after paying dividends. It is detailed as follows:

- **Capital Stock:** The total amount invested in the business in exchange for shares of stock at value up to the par value. Par is the per-share price assigned to the original issue of stock, regardless of subsequent selling prices.
- **Capital Paid-In in Excess of Par:** The amount in excess of par value that a business receives from shares of stock sold at a value above par.
- **Treasury Stock:** When a company buys back its own stock or when a closely held business buys out other owners. The value of the stock is recorded here and ordinarily does not receive dividends.
- **Retained Earnings:** The total accumulated net income minus the total accumulated dividends declared since the corporation's founding. These earnings are part of the total equity for any business. However, the figure is usually listed separately from owner investments on corporate balance sheets which are done for the benefit of shareholders.

USES OF THE BALANCE SHEET

The last aspect of the balance sheet is to look at how the information is used. The primary use of a balance sheet is to measure the financial strength and position of the business. In particular, it provides data to analyze two financial characteristics of the firm - solvency and liquidity. As indicated earlier, it shows what you would have left if the business was forced to sell assets and pay off all debt. In addition to the overall financial position of the business, the balance sheet also:

1. Reports the amount and type of debt and equity capital, often called the financial structure of the business.
2. Provides an indication of the business ability to meet its financial obligation in a timely manner (liquidity).
3. Is usually required when applying for a loan and can be used to show the financial position of the business to outside parties.
4. Is useful in preparing income tax reports.

FINANCIAL RATIOS/INDEXES

These measures provide a method for looking at different levels of performance within a business. They are used to measure aspects of Liquidity, Solvency, Profitability, Financial Efficiency, and Repayment Capacity. We will look at Liquidity and Solvency measures with our balance sheet.

MEASURES OF LIQUIDITY

Liquidity refers to the ability of a business to meet its current financial obligations without hurting the normal operations of the business. Such things as selling off long-term assets would hurt normal operations. Thus, liquidity represents a measure of a firm's ability to repay current debts by converting current assets into cash. The three measures most often used to evaluate liquidity are the current ratio, the current debt ratio, and working capital.

CURRENT RATIO

Perhaps the most common measure of liquidity for a business is the ratio of current assets to current liabilities. As the name implies, it is calculated by dividing current assets by current liabilities.

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

As discussed earlier, current liabilities include financial obligations that must be repaid during the coming year. On the other hand, current assets are items that will be liquidated during the next year in the normal course of operations. Thus, the ratio of current assets to current liabilities is a common measure of liquidity. If the current ratio is 1.0, the value of current assets is just equal to the value of current liabilities. When this ratio is less than 1.0, it suggests the business is not in a liquid position. It may have to liquidate (sell) some long-term assets or refinance some current liabilities to meet its financial obligations. If the ratio is greater than 1.0, the business is considered to be in a liquid position.

However, remember that the current ratio is calculated from the balance sheet, which reports your financial position at a specific date. The financial position of a business can change during the year. Thus, a rule-of-thumb money lenders like to use is a current ratio of 1.5 to 2.0 calculated at the end of the calendar year. A current ratio of 1.5 indicates there are \$1.50 of current assets for each \$1.00 of current liabilities in the business. This is a strong ratio value. Even if commodity prices declined or losses occurred, the business could still repay current liabilities. In looking at the trend of this ratio over time, the desired movement would be an increase in the current ratio.

CURRENT DEBT RATIO

The ratio of current liabilities to total liabilities is also useful in estimating liquidity. It is calculated as current liabilities divided by total liabilities.

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

The current debt ratio indicates the debt structure of the business or the amount of total liabilities that must be paid within the next year. For example, if the ratio, equals .30, this suggests that for each dollar of total liability, \$.30 must be repaid during the next year. The higher the ratio, the higher the amount that must be repaid.

It is difficult to get specific guidelines for this ratio. For example, it is thought that the lower this ratio the better the financial position of the firm. However, this isn't necessarily true. If a business has only one operating loan and no long term liabilities, the current debt ratio would be 1.00. Such a business may be in excellent financial condition, particularly if it owns the long-term assets. As a result, it is probably better to compare the current debt ratios for a specific business over time. This allows the manager to see any changes and to find out why the ratio changed.

WORKING CAPITAL

Another measure of liquidity is working capital. It is defined as current assets minus current liabilities.

$$\text{Working Capital} = \text{Current Assets} - \text{Current Liabilities}$$

Working capital can be calculated using either of the asset values (cost or market value) discussed earlier. However, since working capital reflects a business ability to meet current obligations, the market value is regarded as being the best to use.

Obviously, if current assets equal current liabilities, working capital is zero. This value shows that the greater the working capital the more liquid the business. However, it is difficult to establish general rules concerning the amount of working capital desired for a farm/ranch. One problem is comparing the working capital position of different sized businesses. For example, working capital of \$10,000 for a business with \$20,000 in current assets is quite different from working capital of \$10,000 for a business with \$80,000 in current assets.

While specific guidelines may be difficult to develop, the manager can monitor trends in working capital over time. A decline in working capital over time is a strong indication of a worsening liquidity position. This may lead to problems of debt servicing (repayment) and credit availability. The desired trend is an increase in working capital over time.

MEASURES OF SOLVENCY

Solvency is a measure of the firm's risk-bearing ability. In particular, it measures the ability of the firm to pay all debts without any losses if the business were sold. Liquidity is a short-run concept. It used current assets and liabilities. Solvency is a long-run concept. The- idea behind this measure is that all assets are sold and converted to cash and all liabilities are repaid. Three common measures of solvency are Owner Equity, the Debt-to-Asset ratio and the Debt-to-Equity ratio.

OWNER EQUITY (NET WORTH)

Owner equity is perhaps the most easily understood measure of solvency. It is simply total assets less total liabilities. The amount of net worth (equity) the operator has provides an indication of solvency and risk-bearing ability of the business. A trend of increasing equity over time is an indication of financial progress and increased solvency of the business. However, looking at owner equity alone makes it difficult to compare operations of different sizes. Furthermore, it does not allow comparison of equity claims to claims by creditors of the business. For these reasons, ratios are often used as measures of solvency and risk-bearing ability of a business.

DEBT-TO-ASSET RATIO

The ratio of total debt to total assets shows the dependence of the business on debt. It also reflects the ability to use additional credit without hurting risk-bearing ability. The ratio is calculated by dividing total liabilities by total assets.

$$\text{Debt-To-Asset Ratio} = \frac{\text{Total Liabilities}}{\text{Total Assets}}$$

The ratio indicates the fraction of assets financed by debt. For example, a ratio of .51 means that for each \$1 of assets the firm has \$.51 of debt. The ratio also indicates the exposure of the firm to risk, in relation to its asset values. General guidelines for this ratio are difficult to develop. Most lenders become hesitant in loaning additional funds to a firm when this ratio exceeds .5. Above the .5 level, the creditors would own more of the business assets than the owner. Again, the trend of the debt-to-asset ratio should be monitored and the desired movement would be a decrease in the ratio. A decrease in the ratio suggests an improved equity position. In addition, it suggests a stronger financial position for the business. It may also indicate a higher risk-bearing ability.

DEBT-TO-EQUITY RATIO

As the title suggests, this ratio measures the relationship between total liabilities and owner equity. The debt-to equity ratio is calculated by dividing total liabilities by net worth.

$$\text{Debt-To-Equity ratio} = \frac{\text{Total Liabilities}}{\text{Owner Equity}}$$

As with the debt-to-asset ratio, the debt-to-equity ratio compares the equity and debt funds used by a business. When the debt-to-equity ratio equals 1.0, total liabilities are just equal to net worth. This corresponds to a debt-to-asset ratio of .5. A debt-to-equity ratio of 1.0 means that for each dollar of equity, the business is also borrowing a dollar. As a general rule, the maximum acceptable ratio from the lenders viewpoint is 1.0. This ratio is also known as the leverage ratio. A decrease is desired for this ratio over time. This suggests an increasing equity position for the owner.

By now you have probably noticed that the debt-to-equity ratio and debt-to-asset ratio really measure the same thing. The choice of which one to use in evaluating solvency of a business is up to the analyst.

In summary, solvency measures determine the long-run ability to repay all liabilities if all assets are converted to cash. It also measures risk-bearing ability by comparing the use of equity funds and debt funds in financing the business.