

FINPACK[®]

Balance Sheet Interpretation



Financial analysis starting point

BALANCE SHEETS



Balance Sheets: Financial analysis starting point

- **Financial Statement: Balance Sheet.**
- **A snapshot of:**
 - Assets - Everything owned or payable to the business
 - Liabilities - All obligations owed
 - Net Worth (Owners Equity) - What's left – Assets minus Liabilities



Balance Sheet

- **The foundation upon which the business stands**
- **How strong is it?**



Why start with the Balance Sheet?

- **Documents financial position of the business.**
 - Liquidity – is there enough ‘cash’ available to operate & take advantage of opportunities?
 - Solvency – if all assets were liquidated, would all liabilities be paid?
- **Evaluates credit risk.**
- **Evaluates strengths and weaknesses of the business financial position.**
 - Provides an overview of collateral (assets) owned by the operation.



Balance Sheet Structure

<u>Assets</u>	<u>Liabilities</u>
Current (< 1 year)	Current
Intermediate (1–10 yrs)	Intermediate
Long Term (> 10 years)	Long Term
Personal	Personal
	Total Liabilities
	<u>Net Worth</u>
Total Assets	Total Liabilities + Net Worth



Balance Sheet Overview

Assets	Liabilities
Current (< 1 year)	Cash accounts Crop inventories Livestock held for sale
Intermediate (1–10 yrs)	Prepaid expenses Supplies
Long Term (> 10 years)	Accounts receivable
	Total Liabilities
	Net Worth
Total Assets	Total Liabilities + Net Worth

Cash accounts
Crop inventories
Livestock held for sale
Prepaid expenses
Supplies
Accounts receivable

Balance Sheet Overview

Assets	Liabilities
Current (< 1 year)	Current
Intermediate (1-10 yrs)	<ul style="list-style-type: none"> • Machinery & Equipment • Breeding Livestock • Titled Vehicles • Perennial Crops (Fruit, Hay) • Other Intermediate
Long Term (> 10 years)	
	Net Worth
Total Assets	Total Liabilities + Net Worth

Machinery & Equipment
Breeding Livestock
Titled Vehicles
Perennial Crops (Fruit, Hay)
Other Intermediate



Balance Sheet Overview

Assets	Liabilities
Current (< 1 year)	Current
Intermediate (1–10 yrs)	Intermediate
Long Term (> 10 years)	Land Land Improvements Buildings Perennial Crops Other Long Term
Total Assets	Total Liabilities + Net Worth

Balance Sheet Overview

Assets	Liabilities
<p>Accounts payable Accrued interest Accrued expenses Operating loans Principal due on term debt</p>	Current
	Intermediate
	Long Term
	Total Liabilities
	Net Worth
Total Assets	Total Liabilities + Net Worth

Balance Sheet Overview

Assets	Liabilities
Current (< 1 year)	Current
<p>Loans with an original term of from 1 to 10 years minus the CPLTD</p>	Intermediate
	Long Term
	Total Liabilities
	Net Worth
Total Assets	Total Liabilities + Net Worth

Balance Sheet Overview

Assets	Liabilities
Current (< 1 year)	Current
Intermediate (1-10 yrs)	Intermediate
Loans with an original term of greater than 10 years minus the CPLTD	Long Term
	Total Liabilities
	Net Worth
Total Assets	Total Liabilities + Net Worth

Balance Sheet Overview

Assets	Liabilities
Current (< 1 year)	Current
Intermediate (1–10 yrs)	Intermediate
Long Term (> 10 years)	Long Term
	Total Liabilities
	Net Worth
Total Assets	Total Liabilities + Net Worth



Balance Sheet Overview

Assets	Liabilities
Current (< 1 year)	Current
Intermediate (1–10 yrs)	Intermediate
Long Term (> 10 years)	Long Term
	Total Liabilities
	Net Worth
Total Assets	Total Liabilities + Net Worth



Balance Sheet Overview

Assets	Liabilities
Current (< 1 year)	Current
Intermediate (1–10 yrs)	Intermediate
Long Term (> 10 years)	Long Term
Personal	Personal
	Total Liabilities
	Net Worth
Total Assets	Total Liabilities + Net Worth



Balance Sheet: Timing

- **Best: End of business year**
 - Closes books for the year
 - Minimize cyclical changes in the year
 - Measure net worth change over a consistent period
 - Consistently look at inventory to see if changes
- **But can be completed at any time.**



Jessie Steele - Painted Sky Ranch

Case Example: Analyzing The Balance Sheet



Farm Financial Scorecard

Using Recommended Measures from the Farm Financial Standards Council (FFSC)

Year: 20__

		Your Farm:			Desired Trend
Liquidity					
Current Ratio	_____	Vulnerable 1.3	2.0	Strong	↑
Working Capital as % of Gross Revenue	_____ %	10%	30%		↑
Working Capital as % of Operating Expense*	_____ %	20%	40%		↑
Solvency					
Debt-to-Asset Ratio	_____ %	Vulnerable 60%	30%	Strong	↓
Equity-to-Asset Ratio*	_____ %	40%	70%		↑
Debt-to-Equity Ratio*	_____	1.5	0.43		↓
Profitability					
Rate of Return on Assets	_____ %	Vulnerable 4%	8%	Strong	↑
Rate of Return on Equity	_____ %	3%	10%		↑
Operating Profit Margin Ratio	_____ %	15%	25%		↑
Asset Turnover Ratio	_____ %	30%	45%		↑
Repayment Capacity					
Debt Coverage Ratio	_____	Vulnerable 1.25	1.75	Strong	↑
Replacement Coverage Ratio	_____	1.1	1.5		↑
Term Debt & Finance Lease Coverage Ratio*	_____	1.25	1.75		↑
Financial Efficiency					
Operating Expense Ratio	_____ %	Vulnerable 80%	60%	Strong	↓
Depreciation Expense Ratio	_____ %	10%	5%		↓
Interest Expense Ratio	_____ %	10%	5%		↓
Net Farm Income Ratio	_____ %	10%	20%		↑

Farm Financial Scorecard

z.umn.edu/Scorecard



Balance Sheet Analysis

- **Liquidity**
- **Balance Sheet Structure**
- **Solvency**
- **Net Worth Change**



Liquidity

- **The ability to meet financial obligations as they come due, without disrupting business operations.**
 - Can the operation generate enough cash to pay operation bills, family living expenses, taxes, and make debt payments on-time?



Balance Sheet Analysis

- **LIQUIDITY**
 - Working Capital
- **Balance Sheet Structure**
- **Solvency**
- **Net Worth Change**



Working Capital: What is it?

Current Assets — Current Liabilities



Working Capital

- **Your best tool for overall risk management.**
 - Cash and liquid assets (those turned to cash quickly) available for:
 - Surviving an economic downturn
 - Take advantage of opportunities



Jessie Steele: Working Capital Position

FINPACK[®]				<i>Jessie Steele - Painted Sky Ranch 12/31/20x4 Balance Sheet</i>				
Current Assets				Value	Current Liabilities			Balance
Cash and checking (Schd A)				32,500	Accrued interest			2,358
Prepaid expenses and supplies				-	Accounts payable and other accrued expenses			-
Growing crops				-				
Accounts receivable				-		Int	P & I	Principal
Hedging accounts				-	Current loans (Schd U)	Rate	Due	Balance
Other current assets				-	Principal due within 12 months on term liabilities			6,193
Crops (Schd G)	Quantity	Value/Unit						
Hay	104	110.00/ton	11,440					
Livestock held for sale				-				
Total Current Assets				43,940	Total Current Liabilities			8,551

Liquidity Measures

- **Current Ratio**

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

- Measures the extent to which current assets would pay a business' current liabilities (bills, loans, etc.)



Jessie Steele: Current Ratio

Current Assets				Value	Current Liabilities				Balance
Cash and checking (Schd A)				32,500	Accrued interest				2,358
Prepaid expenses and supplies				-	Accounts payable and other accrued expenses				-
Growing crops				-					
Accounts receivable				-	Current loans (Schd U)		Int Rate	P & I Due	Principal Balance
Hedging accounts				-	Principal due within 12 months on term liabilities				6,193
Other current assets				-					
Crops (Schd G)		Quantity	Value/Unit						
Hay		104	110.00/ton	11,440					
Livestock held for sale				-					
Total Current Assets				43,940	Total Current Liabilities				8,551

$$\text{Current Ratio} = \$43,940 \div \$8,551 = 5.14$$



Ways to Build Working Capital

- **Make Money**
 - Business profits drive liquidity
- **Don't spend all of it**
 - Major drains on liquidity:
 - High family living costs
 - Purchasing long-term assets with cash
- **Refinance / Restructure Debt**



How to Build Working Capital

- **Decrease purchases of capital items**
 - Machinery
 - Buildings
 - Land
- **Don't finance capital purchases with operating credit**
 - Mismatches assets/liabilities
- **Decrease family living expenses**



Balance Sheet Analysis

- **Liquidity**
- **BALANCE SHEET STRUCTURE**
- **Solvency**
- **Net Worth Change**



Balance Sheet Structure

- **Where is the equity?**
 - More assets than liabilities in a category.
- **Does the balance sheet have borrowing capacity for capital replacement?**
- **Are assets financed with appropriately termed loans?**



Balance Sheet Structure

- There is no correct balance sheet structure

– Having equity in each category is preferred.

– Want liquidity to be nimble and equity in longer term categories as a back up.

Current Assets			Value	Current Liabilities				Balance
Cash and checking (Schd A)			32,500	Accrued interest				2,358
Prepaid expenses and supplies			-	Accounts payable and other accrued expenses				-
Growing crops			-					
Accounts receivable			-		Int	P & I		Principal
Hedging accounts			-	Current loans (Schd U)	Rate	Due		Balance
Other current assets			-					
Crops (Schd G)	Quantity	Value/Unit		Principal due within 12 months on term liabilities				6,193
Hay	104	110.00 /ton	11,440					
Livestock held for sale			-					
Total Current Assets			43,940	Total Current Liabilities				8,551
Intermediate Assets			Market	Intermediate Liabilities (Schd V)				
Brdg Ivst (Schd I)	No.	Value		Loan	Int	Principal	P & I	Principal
Cows	117	175,500		My CDFI-Cows Refi	Rate	Balance	Due	Due
Yearlings	-	-		SBA-EIDL	3.75	20,308	1,200	368
Heifers	30	22,500						Intermed
Bulls	5	17,500						Balance
Machinery (Schd J)		71,250						
Titled vehicles (Schd K)		31,000						
Other intermed. (Schd L)		6,250						
Total Intermediate Assets		324,000		Total Intermediate Liabilities				185,896
Long Term Assets			Market	Long Term Liabilities				
Land		-		Loan	Int	Principal	P & I	Principal
Bldgs & improve. (Schd N)		11,500			Rate	Balance	Due	Due
Other long term assets		-						Lg Term
Total Long Term Assets		11,500		Total Long Term Liabilities				-
Total Farm Assets		379,440		Total Farm Liabilities				194,447
Personal Assets		-		Personal Liabilities (Schd X)				3,682
Total Assets		379,440		Total Liabilities				198,130
				Net Worth				181,310

Balance Sheet Analysis

- **Liquidity**
- **Balance Sheet Structure**
- **SOLVENCY**
- **Net Worth Change**



Solvency

- **Net Worth**
- **Financial risk position of the overall business**
- **Future borrowing capacity**
 - Collateral values
- **Solvency ratios**
 - Debt to asset
 - Equity to asset
 - Debt to equity



Solvency Measures

- **Debt to Asset Ratio**

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

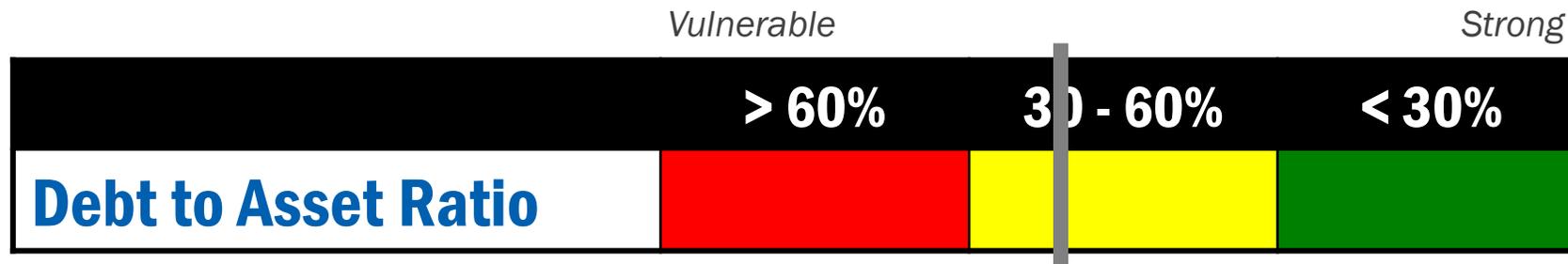
- What proportion of total farm assets is owed to creditors (a.k.a, the creditors' claims against the assets).



Jessie Steele: Debt to Asset Ratio

Total Farm Assets	379,440	Total Farm Liabilities	194,447
Personal Assets	-	Personal Liabilities (Schd X)	3,682
Total Assets	379,440	Total Liabilities	198,130
		Net Worth	181,310

$$\text{Debt to Asset Ratio} = \$198,130 \div \$379,440 = 52\%$$



Maintaining & Improving Solvency Position

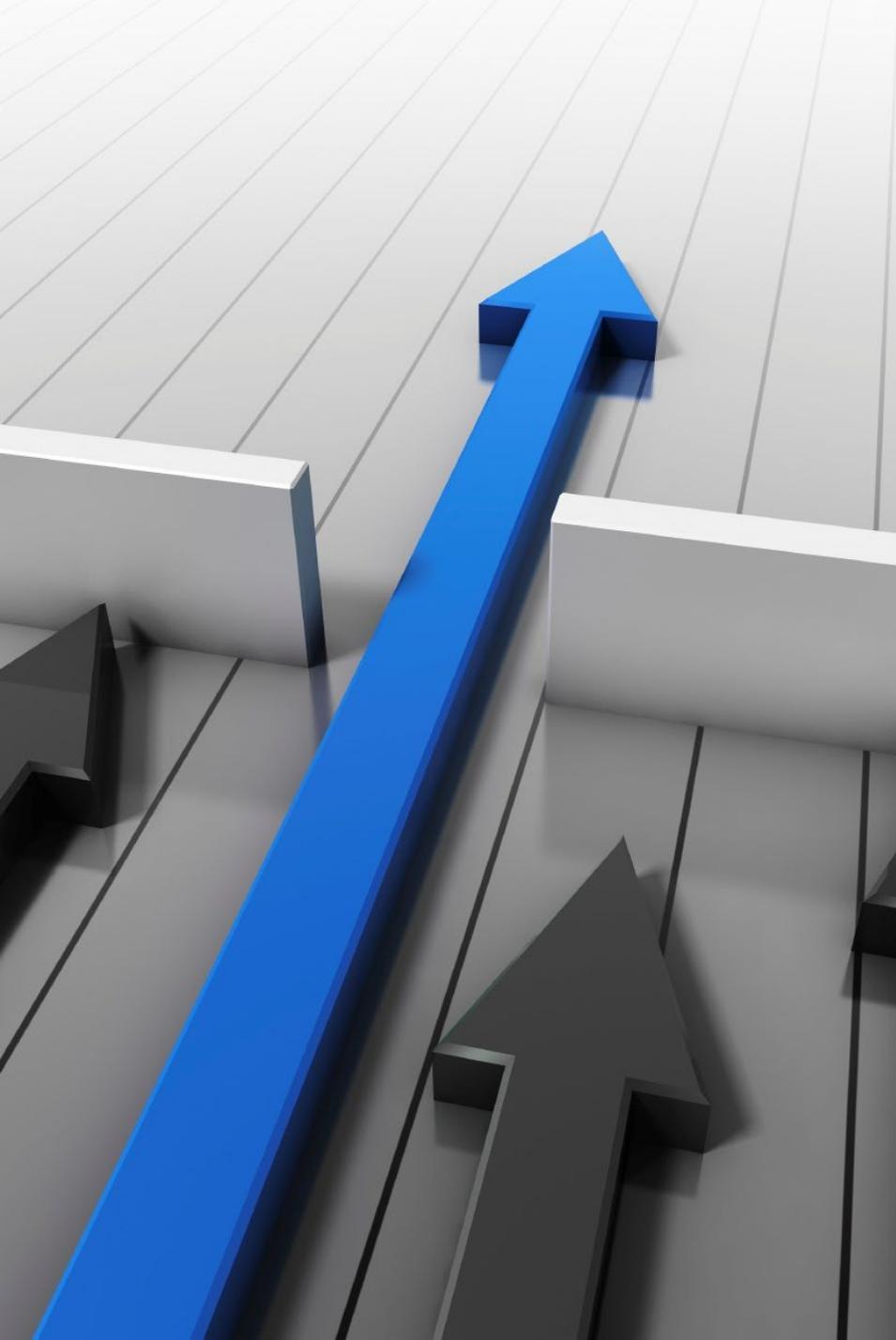
- **Invest in productive, profitable farm assets**
 - Avoid purchases solely for tax purposes
- **Sell unneeded assets and use funds to reduce debt**
 - Avoid buying “toys”
- **Consider which is better: Leasing, buying, or using custom services**



Balance Sheet Analysis

- **Liquidity**
- **Balance Sheet Structure**
- **Solvency**
- **NET WORTH CHANGE**





Net Worth Change

- **The best measure of overall financial performance.**
- **Net worth growth only happens 2 ways:**
 - Earning more than spending
 - Increase asset values

	Dec 31, 20x1	Dec 31, 20x2	Dec 31, 20x3	Dec 31, 20x4
	<i>As Refinanced</i>			
Current Assets				
Cash and checking	9,000	25,000	32,500	32,500
Crop inventory	10,290	10,450	12,430	11,440
Total current assets	19,290	35,450	44,930	43,940
Intermediate Assets				
Breeding livestock	148,500	200,850	214,500	215,500
Machinery and equipment	11,000	17,100	42,390	71,250
Titled vehicles	46,000	39,100	33,235	31,000
Other intermediate assets	6,250	6,250	6,250	6,250
Total intermediate assets	211,750	263,300	296,375	324,000
Long Term Assets				
Buildings and improvements	-	12,350	11,733	11,500
Total long term assets	0	12,350	11,733	11,500
Total farm assets	231,040	311,100	353,038	379,440
Total personal assets	0	0	0	0
Total assets	231,040	311,100	353,038	379,440
Current Liabilities				
Accrued interest	1,091	2,512	2,438	2,358
Principal due within 12 months on term loans	5,554	5,226	5,693	6,193
Total current liabilities	6,645	7,738	8,131	8,551
Intermediate & Long Term Liabilities				
Intermediate loans	184,001	199,806	193,084	185,896
Long term loans	0	0	0	0
Total farm liabilities	190,646	207,544	201,215	194,447
Personal liabilities	7,299	6,144	4,939	3,682
Total Liabilities (including deferreds)	197,944	213,688	206,154	198,130
Annual Noncurrent Debt Payments				
Farm P & I payments	18,977	20,177	20,177	20,177
Personal P & I payments	1,440	1,440	1,440	1,440
Equity				
Net worth	33,096	97,412	146,884	181,310
Net worth change	0	64,316	49,472	34,426

Net Worth Change

- **Multiple year trend: Analyze net worth change year over year**

Guided Balance Sheet Demonstration



Next Steps: Prepare a Balance Sheet

- **Tool available: FINPACK's Guided Balance Sheet**
- **Available for DBAN Cooperators at no cost.**
 - Complete the form provided by SERME
 - Provide the following:
 - Organization
 - Name(s) of team member(s) wanting access
 - Address
 - Email address(es)
 - The FINPACK Team will then initiate your access and provide login information.

