



## Balance Sheet Ratios and Analysis for Cooperatives

**Net Working Capital:** The difference between total current assets and total current liabilities. It indicates the extent to which short-term debt is exceeded by short term assets.

**Formula:** Current Assets - Current Liabilities

**Current Ratio:** This relationship gauges how able the business is to pay current debts using only its current assets. It is also called the WORKING CAPITAL RATIO. Higher ratios indicate a greater ability to pay debts. However, too high a ratio may indicate poor asset management.

**Formula:** Total Current Assets / Total Current Liabilities

**Quick Ratio:** Popularly called the ACID TEST RATIO, indicates the extent to which a company could pay current debt without relying on future sales. Quick assets are highly liquid, immediately convertible to cash. In addition to accounts receivable, they include marketable securities.

**Formula:** Cash + Accounts Receivable (+ any other quick assets) / Current Liabilities

**Debt to Equity:** This ratio compares the amount invested in the business by creditors with that invested by members. The higher the ratio, the higher the creditors' claims on the assets, possibly indicating the cooperative is extending its debt beyond its ability to repay. However, an extremely low ratio may indicate that the co-op is managing its assets too conservatively.

**Formula:** Total Debt (or Liabilities) / Total Equity (or Net Worth)

**Return on Member Equity:** A measurement of the co-op's rate of return on member investment. Always given as a percentage. It shows the interest rate net profits yield on member equity.

**Formula:** Net Savings X 100 / Member Equity

**Long-Term Debt to Working Capital:** Indicates creditor contribution to liquid assets.

**Formula:** Long-term Debt / Net Working Capital

**Inventory:** Indicates the desirable inventory level for the working TO WORKING CAPITAL: capital employed.

**Formula:** Inventory / Net working capital

**Long-Term Debt to Capitalization:** Indicates the proportion of total capitalization provided by long-term debt.

**Formula:** Long-term Debt / Total capitalization

### Balance Sheet Analysis for Cooperatives

**Definition:**

The balance sheet presents a detailed listing of what a business owns, owes and its net worth at a specific point in time. It is a stock measure of the business' financial condition.

The basic equation of the balance sheet is: **Assets = Liabilities + Equity**

**What is our present position?**

Two considerations are important: *liquidity and solvency.*

Three methods can be used to interpret a balance sheet: trend analysis

1. over several years
2. year-to-year comparison
3. month-to-month comparison industry analysis - compare the business to others that are similar compare to lender/regulatory requirements or standards

### What is liquidity?

Liquidity is a measure of the business' ability to pay its bills on time. It is the relationship between current assets and current liabilities. Liquidity is a sensitive barometer of month to month operations.

### How do we measure liquidity?

- **Net working capital:** The difference between total current assets and total current liabilities. It indicates the extent to which short-term debt is exceeded by short-term assets.  
**Formula:**  $\text{Current Assets} - \text{Current Liabilities}$
- **Current ratio:** This relationship indicates whether the business is able to pay current debts using only current assets. It is also call the WORKING CAPITAL RATIO. Higher ratios indicate a greater ability to pay debts. However, too high a ratio may indicate poor asset management.  
**Formula:**  $\text{Total current Assets} / \text{Total Current Liabilities}$
- **Quick ratio:** Also called the Acid Test Ratio. Indicates the extent to which a company can pay current debt without relying on future sales. Quick assets are highly liquid, immediately convertible to cash. In addition to accounts receivable, they include marketable securities.  
**Formula:**  $\text{Cash} + \text{Accounts Receivable} + \text{Other Quick Assets} / \text{Current Liabilities}$

### Questions to Ask About Liquidity

- Did working capital increase or decrease?
- What factors caused any changes in working capital?
- What are the trends in:
  - current and quick ratios from year to year?
  - working capital to annual sales, especially compared to receivables and inventories in relation to sales volume?
- How much working capital should we have for the type of business we are in?

### What is Solvency?

Solvency is the relationship of long term debt to owners' equity. It is a measure of the proportion of long term capital being provided by the creditors (debt) versus the owners (equity). It indicates who is financing the permanent assets of the company.

### How do we Measure Solvency?

- **Solvency ratio:** Indicates the amount invested in the business by the creditors with that invested by the members. The lower the ratio, the higher the creditors' claims on the assets, possibly indicating the cooperative is extending its debt beyond its ability to repay. However, an extremely high ratio may indicate that the cooperative is managing its assets too conservatively.  
**Formula:**  $\text{Net Worth} / \text{Long Term Debt}$
- **Adjusted Solvency Ratio:** Tangible net worth divided by Long Term Debt. Tangible net worth equals total net worth minus investments in other companies and other intangibles such as goodwill, non-compete agreements, etc.).  
**Formula:**  $\text{Tangible Net Worth} / \text{Long Term Debt}$

### Questions to Ask about Solvency

- What proportion of the permanent assets is funded by creditors versus member owners?
- What has been the trend in this relationship over the past few years?
- What is our long range goal or target solvency position?
- How restrictive are the conditions imposed on us by our creditors?
- What are the trends in "tangible" net worth?

### How Can We Improve Our Balance Sheet?

One way to improve the balance sheet is to increase profits, especially useable profits. Useable profitability (net funds generated from operations) is a measure of the cash that is generated by operations. Useable profitability can be put to work to support future growth, repay long term debt, retire member equities and maintain adequate working capital.

### Common Measures of Profitability

- **"Own" Profitability = Total after-tax net margins (profits)  
MINUS (Patronage refunds received from other cooperatives  
+ 20% cash patronage refund paid  
+ Extra ordinary income  
+ Dividends on stock)  
PLUS (Depreciation  
+ Extraordinary losses)**
- **Net funds from operations = Net Margins (excluding extra ordinary income or losses)  
MINUS Patronage Refunds Received**
- **Debt Coverage Ratio = Long Term Debt divided by Net Funds Generated.**
- **Return on Assets = Net Margin as a percent of Total Average Assets**
- **Return on Equity = Net Margins as a percent of Total Net Worth**
- **Profitability to Sales = Net Margins as a percent of Annual Sales Volume**

### Questions to ask about Profitability

- What are the year to year trends in Net Funds Generated from operations?
- How steady or volatile are the year to year trends in Net Funds Generated?
- What portion of average Net Funds Generated is committed to long term debt service?
- After debt service, what portion is available for other priorities?
- What are the year to year trends in the Debt Coverage Ratio?
- How do our trends in ROA and ROE compare with other similar firms?

### Develop a Plan to Build for Future Opportunities

- Identify present weaknesses in the balance sheet.
- Establish standards or goals for the balance sheet position desired.
- Set priorities based on your current balance sheet position and where you're headed.