



# Financial Literacy



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# Financial Literacy



## ▶ Objectives

1. Evaluate important Ratios.
2. Importance of ALM.
3. Importance of Trends.

Take this time to learn about key financial reports with easy to follow explanations of the statement of financial condition. Board members will learn about important aspects of trend analysis and how to calculate significant ratios to make managing a credit union's finances less overwhelming by consistently using several comprehensive asset liability management tools.

# Financial Literacy



- ▶ Where can you find financial history on your credit union and/or other credit unions?

[www.ncua.gov](http://www.ncua.gov)

- ▶ Click on Financial Performance Report

# Financial Literacy



<b>Risk</b>	<b>Definition</b>
Credit risk	The potential for loss resulting from the failure of a borrower or counterparty to perform on an obligation.
Compliance risk	The potential for loss arising from violations of laws or regulations or nonconformance with internal policies or ethical standards.
Concentration risk	The risk arising from excessive exposure to certain markets, industries, or groups.
Interest rate risk	A type of market risk that involves the potential for loss due to adverse movements in interest rates.
Liquidity risk	The risk that a credit union will be unable to meet its obligations when they become due, because of an inability to liquidate assets or obtain adequate funding.
Market risk	The potential for loss resulting from movements in market prices, including interest rates, commodity prices, stock prices, and foreign exchange rates.
Operational risk	The risk of loss resulting from inadequate or failed internal processes, people, and systems or from external events.
Reputation risk	The potential for loss arising from negative publicity regarding an institutions business practices.
Strategic risk	The potential for loss arising from adverse business decisions or improper implementation of decisions.

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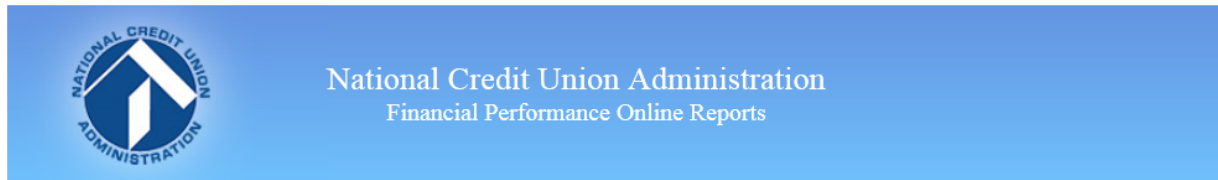
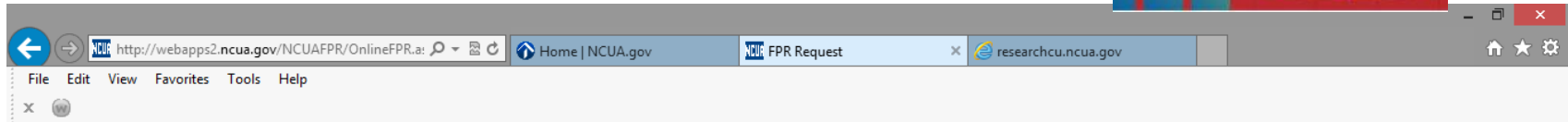


The screenshot shows a web browser window with the address bar containing <http://webapps2.ncua.gov/NCUAFPR/>. The page title is "Home | NCUA.gov" and the browser tab is "NCUA Options". The main content area features the NCUA logo and the text "National Credit Union Administration Financial Performance Report". Below this, a welcome message reads: "Welcome to NCUA's Financial Performance Report (FPR) System. Please select one of the following options:" followed by three radio button options:

- I want an FPR emailed to me for one credit union.
- I want an FPR emailed to me that aggregates data from multiple credit unions based on credit union information.
- I want to view a 2-page FPR summary for one credit union online.

An "OK" button is located below the options. A link for "FPR Help" is provided. A notice states: "Notice: Peer average ratios and aggregate FPRs are available approximately 6-8 weeks after the cycle date." A paragraph explains that reports are based on reliable sources but no guarantee is given for data accuracy. At the bottom, a note says: "If you request an FPR this system will generate the report in the form of a macro-enabled Excel file, attach it to an email, and send it to you. If you do not have Excel". The Windows taskbar at the bottom shows the time as 9:29 AM on 1/19/2014.

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Report Cycle:  Report Interval:   
Charter Number:  To Find a Credit Union: [Click Here](#)

**Note to Users:**

Data presented in the Financial Performance Report (FPR) viewed online may differ from the FPR that is emailed to you if data has been recently uploaded. Normally, Call Report uploads and data corrections are reflected on the online FPR twenty-four hours after upload. If you require more detailed Call Report data, you may use the FPR request process to have up to 17 additional data pages and 2 pages of graphs emailed to you. Peer average ratios for the current Call Report cycle are not available until the data collection is complete and validated. If you request FPRs prior to the release of peer average ratios, the current cycle data should be considered preliminary, non-validated data. NCUA will notify users when the peer ratios are available for the current cycle.

[FPR Help](#)



# Financial Literacy



Browser window: http://webapps2.ncua.gov/NCUAFPR/FPRONLineR | Home | NCUA.gov | FPRONLineRatio | researchcu.ncua.gov

Line Item	Dec-2009	Dec-2010	Dec-2011	Dec-2012	Dec-2013	Peer Avg.
<b>CAPITAL ADEQUACY</b>						
Net Worth/Total Assets	10.41	11.11	12.08	12.54	13.56	N/A
Net Worth/Total Assets--Including Optional Total Assets Election (if used)	10.41	11.11	12.08	12.54	13.56	N/A
Total Delinquent Loans / Net Worth \3	14.21	4.26	6.94	2.99	1.91	N/A
Solvency Evaluation (Estimated)	111.40	112.67	114.42	115.04	116.57	N/A
Classified Assets (Estimated) / Net Worth	6.32	5.93	4.23	3.00	2.12	N/A
<b>ASSET QUALITY</b>						
Delinquent Loans / Total Loans \3	1.89	0.61	1.17	0.55	0.37	N/A
*Net Charge-Offs / Average Loans	0.82	0.71	0.55	0.31	0.29	N/A
Fair (Market) HTM Invest Value/Book Value HTM Invest.	101.26	102.91	102.61	102.21	100.00	N/A
Accum Unreal G/L On AFS/Cost Of AFS	0.00	0.00	0.00	0.00	0.00	N/A
Delinquent Loans / Assets \3	1.48	0.47	0.84	0.37	0.26	N/A
<b>EARNINGS</b>						
*Return On Average Assets	0.42	1.10	1.55	1.46	1.07	N/A
*Return On Average Assets Excluding Stabilization Income/Expense & NCUSIF Premium \2	0.54	1.34	1.70	1.54	1.15	N/A
*Gross Income/Average Assets	6.55	6.12	5.59	4.94	4.51	N/A
*Yield on Average Loans	6.63	6.32	5.92	5.33	4.88	N/A
*Yield on Average Investments	2.68	1.98	1.65	1.25	1.14	N/A
*Fee & Other Op Income / Avg. Assets	0.86	0.86	0.84	0.89	0.86	N/A
*Cost of Funds / Avg. Assets	1.67	1.10	0.68	0.45	0.31	N/A
*Net Margin / Avg. Assets	4.88	5.03	4.91	4.48	4.20	N/A
*Operating Exp./ Avg. Assets	3.77	3.30	3.03	2.88	2.99	N/A
*Provision For Loan & Lease Losses / Average Assets	1.06	0.58	0.29	0.12	0.11	N/A
*Net Interest Margin/Avg. Assets	4.02	4.17	4.07	3.59	3.34	N/A
Operating Exp./Gross Income	57.53	53.89	54.18	58.44	66.29	N/A
Fixed Assets & Foreclosed & Repossessed Assets / Total Assets \1	2.82	2.76	2.64	3.89	3.98	N/A
*Net Operating Exp./Avg. Assets	3.25	2.80	2.57	2.45	2.59	N/A

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- ▶ Let's first look at Net Worth/Capital Ratio.

All reserves excluding allowance for loan loss + Undivided Earnings  
Total assets

- ▶ Measures –
  - Capital adequacy
  - Insolvency
  - Growth of assets
  - New products and services
  - Bonus dividends/loan interest refunds



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- ▶ What happens if your assets grow, but not your Equity (reserves & undivided earnings)?

Example: A credit union has 10 million in assets and capital of 10% which means that it has 1 million dollars in capital or

$$1,000,000 / 10,000,000 = 10\%$$

Now it grows to 20 million in assets, but no growth in equity:

$$1,000,000 / 20,000,000 = 5\%$$

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<b>Net Worth</b>		<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
CU 1	Net Worth/Total Assets	7.73	8.69	9.6	10.6	11.26
CU 2	Net Worth/Total Assets	17.34	15.33	16.02	13.98	11.46
CU 3	Net Worth/Total Assets	8.08	7.92	7.67	7.53	6.85
CU 4	Net Worth/Total Assets	23.51	17.26	17.2	18.81	18.2
CU 5	Net Worth/Total Assets	9.87	10.13	9.3	9.41	9.16

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Asset Growth		2008	2009	2010	2011	2012
CU 1	*Asset Growth	8.73	-1.51	8.46	14.3	11.54
CU 2	*Asset Growth	19.46	1	-7.9	-7.32	1.65
CU 3	*Asset Growth	11.49	9.72	9.13	6.44	11.68
CU 4	*Asset Growth	14.39	43.86	8.88	-6.58	1.27
CU 5	*Asset Growth	9.34	0.74	12.48	4.36	9.21

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- ▶ Let's look at Delinquency as well as Net Charge-off ratios.

## Delinquency Ratio

$$\frac{\text{Dollar amount of loans delinquent (60+ days)}}{\text{Total dollar amount of loans outstanding}}$$

## Net Charge-off Ratio

$$\frac{\text{Total dollar amount of Charge-Offs Minus Total dollar amount of Recoveries}}{\text{Total dollar amount of loans outstanding}}$$

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- ▶ Let's look at Delinquency as well as Net Charge-off ratios.
- ▶ Measures –
  - Asset quality and state of economy
  - Risk – concentration/interest rate
  - Loan/credit policy
  - Forecast charge-offs and provisions
  - Collection department

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Deqlinquency/Charge-off		2008	2009	2010	2011	2012
CU 1	Delinquent Loans / Total Loans \3	2.15	2.06	1.72	1.6	1.57
	*Net Charge-Offs / Average Loans	1.43	1.52	1.29	0.83	0.52
CU 2	Delinquent Loans / Total Loans \3	3.72	5.5	11.5	5.53	3.57
	*Net Charge-Offs / Average Loans	0.85	1.88	2.1	6.98	4.81
CU 3	Delinquent Loans / Total Loans \3	0.79	0.99	0.64	1.32	1.11
	*Net Charge-Offs / Average Loans	0.61	0.17	0.25	0.35	0.21
CU 4	Delinquent Loans / Total Loans \3	1.49	0.45	0.85	0.93	1.26
	*Net Charge-Offs / Average Loans	0.62	0.64	0.87	0.86	1.08
CU 5	Delinquent Loans / Total Loans \3	0.6	0.4	0.32	0.18	0.16
	*Net Charge-Offs / Average Loans	0.68	0.71	0.11	0.12	0.32

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## ▶ Measures of Earnings

Return on average assets (ROA): Provides the broadest and most popular measure of credit union earnings.

$$\text{ROA} = \frac{\text{Net Income} = (\text{Total Income} - \text{Total Expense})}{\text{Average assets}}$$

	ROA	2008	2009	2010	2011	2012
CU 1	*Return On Average Assets	0.18	0.84	1.64	2.35	1.85
CU 2	*Return On Average Assets	0.57	-1.61	-0.59	-3.18	-2.39
CU 3	*Return On Average Assets	-0.42	0.58	0.43	0.33	0.12
CU 4	*Return On Average Assets	-0.04	1.2	1.41	0.39	-0.38
CU 5	*Return On Average Assets	0.32	0.34	0.31	0.51	0.57

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## ► Measures of Earnings

2012	*Yield on Average Loans	*Yield on Average Investments	*Fee & Other Op.Income / Avg. Assets	*Cost of Funds / Avg. Assets	*Net Interest Margin/Avg. Assets	*Net Operating Exp. /Avg. Assets
CU 1	5.98	1.27	2.53	0.22	4.7	4.22
CU 2	7.42	0.76	1.61	0.41	2.82	4.07
CU 3	6.15	0.82	1.51	0.2	2.56	3.08
CU 4	7.58	1.41	0.51	0.9	4.58	4.5
CU 5	5.41	0.83	1.43	0.19	2.27	2.33



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	Total Loans / Total Shares	Fixed Assets / Total Assets
2012		
CU 1	96.07	4.47
CU 2	35.34	3.22
CU 3	38.39	1.45
CU 4	88.89	4.48
CU 5	39.71	0.91

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## ▶ Productivity

2012	Borrowers / Members	Members / Full-Time Employees	Avg. Shares Per Member	Avg. Loan Balance	*Salary And Benefits / Full-Time Empl.
CU 1	87.41	224.96	\$9,103	\$10,005	\$59,585
CU 2	38.74	297.5	\$4,509	\$4,114	\$39,470
CU 3	39.61	404.88	\$4,763	\$4,616	\$29,198
CU 4	72.01	385.58	\$5,345	\$6,605	\$53,614
CU 5	33.46	462.11	\$5,861	\$6,955	\$38,053

<b>CU 1</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Net Worth/Total Assets	7.73	8.69	9.6	10.6	11.26
Delinquent Loans / Total Loans \3	2.15	2.06	1.72	1.6	1.57
*Net Charge-Offs / Average Loans	1.43	1.52	1.29	0.83	0.52
*Return On Average Assets	0.18	0.84	1.64	2.35	1.85
*Yield on Average Loans	7.12	6.8	6.64	6.29	5.98
*Yield on Average Investments	3.16	3.34	2.14	2.62	1.27
*Fee & Other Op.Income / Avg. Assets	2.06	2.28	2.32	2.59	2.53
*Cost of Funds / Avg. Assets	1.57	0.81	0.42	0.25	0.22
*Net Interest Margin/Avg. Assets	4.65	5.1	5.21	5.01	4.7
Fixed Assets / Total Assets \1	5.18	5.29	4.99	4.57	4.47
*Net Operating Exp. /Avg. Assets	3.97	3.99	3.97	3.87	4.22
Total Loans / Total Shares	89.37	93.47	90.39	89.37	96.07
Borrowers / Members	82.73	81.38	81.34	84.14	87.41
Members / Full-Time Employees	211.13	230.84	235.2	233.93	224.96
Avg. Shares Per Member	\$8,629	\$8,125	\$8,316	\$8,930	\$9,103
Avg. Loan Balance	\$9,321	\$9,332	\$9,241	\$9,485	\$10,005
*Salary And Benefits / Full-Time Empl.	\$48,497	\$53,219	\$55,256	\$59,059	\$59,585
*Asset Growth	8.73	-1.51	8.46	14.3	11.54

<b>CU 2</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Net Worth/Total Assets	17.34	15.33	16.02	13.98	11.46
Delinquent Loans / Total Loans \3	3.72	5.5	11.5	5.53	3.57
*Net Charge-Offs / Average Loans	0.85	1.88	2.1	6.98	4.81
*Return On Average Assets	0.57	-1.61	-0.59	-3.18	-2.39
*Yield on Average Loans	7.46	7.52	7.79	7.47	7.42
*Yield on Average Investments	0.8	1.38	1.18	0.78	0.76
*Fee & Other Op.Income / Avg. Assets	2.62	1.95	2.31	2.02	1.61
*Cost of Funds / Avg. Assets	1.71	1.5	0.86	0.59	0.41
*Net Interest Margin/Avg. Assets	3.38	3.36	3.85	3.41	2.82
Fixed Assets / Total Assets \1	3.6	3.23	3.34	3.33	3.22
*Net Operating Exp. /Avg. Assets	3.38	3.72	2.96	3.73	4.07
Total Loans / Total Shares	72.83	66.31	63.49	52.11	35.34
Borrowers / Members	66.59	55.97	52.91	44.24	38.74
Members / Full-Time Employees	262.2	337.25	543.6	291.33	297.5
Avg. Shares Per Member	\$4,394	\$4,356	\$3,966	\$3,922	\$4,509
Avg. Loan Balance	\$4,806	\$5,161	\$4,760	\$4,619	\$4,114
*Salary And Benefits / Full-Time Empl.	\$28,836	\$36,631	\$51,480	\$33,068	\$39,470
*Asset Growth	19.46	1	-7.9	-7.32	1.65

<b>CU 3</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Net Worth/Total Assets	8.08	7.92	7.67	7.53	6.85
Delinquent Loans / Total Loans \3	0.79	0.99	0.64	1.32	1.11
*Net Charge-Offs / Average Loans	0.61	0.17	0.25	0.35	0.21
*Return On Average Assets	-0.42	0.58	0.43	0.33	0.12
*Yield on Average Loans	7.31	7.04	6.85	6.77	6.15
*Yield on Average Investments	1.98	2.1	1.37	1.06	0.82
*Fee & Other Op.Income / Avg. Assets	1.89	1.73	1.63	1.54	1.51
*Cost of Funds / Avg. Assets	1.06	0.79	0.55	0.33	0.2
*Net Interest Margin/Avg. Assets	3.48	3.6	3.08	2.91	2.56
Fixed Assets / Total Assets \1	2.4	2.02	1.78	1.67	1.45
*Net Operating Exp. /Avg. Assets	3.84	3.55	3.42	3.4	3.08
Total Loans / Total Shares	56.48	50.67	42.18	42.16	38.39
Borrowers / Members	30.56	31.27	32.14	38.23	39.61
Members / Full-Time Employees	513.29	506.71	423.88	438.4	404.88
Avg. Shares Per Member	\$2,958	\$3,310	\$3,788	\$4,174	\$4,763
Avg. Loan Balance	\$5,467	\$5,364	\$4,971	\$4,603	\$4,616
*Salary And Benefits / Full-Time Empl.	\$27,917	\$29,340	\$25,786	\$30,550	\$29,198
*Asset Growth	11.49	9.72	9.13	6.44	11.68

<b>CU 4</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Net Worth/Total Assets	23.51	17.26	17.2	18.81	18.2
Delinquent Loans / Total Loans \3	1.49	0.45	0.85	0.93	1.26
*Net Charge-Offs / Average Loans	0.62	0.64	0.87	0.86	1.08
*Return On Average Assets	-0.04	1.2	1.41	0.39	-0.38
*Yield on Average Loans	6.6	8.47	8.1	7.51	7.58
*Yield on Average Investments	3.57	3.28	1.86	1.3	1.41
*Fee & Other Op.Income / Avg. Assets	0.43	0.44	0.37	0.46	0.51
*Cost of Funds / Avg. Assets	1.26	1.11	0.99	1.27	0.9
*Net Interest Margin/Avg. Assets	3.37	5.09	4.78	3.74	4.58
Fixed Assets / Total Assets \1	4.78	3.29	3.08	3.37	4.48
*Net Operating Exp. /Avg. Assets	3.73	3.18	2.79	3.03	4.5
Total Loans / Total Shares	62.3	85.59	71.86	78.32	88.99
Borrowers / Members	96.58	83.21	77.83	74.15	72.01
Members / Full-Time Employees	353.33	434.53	400.15	334.94	385.58
Avg. Shares Per Member	\$6,392	\$7,118	\$7,168	\$6,130	\$5,345
Avg. Loan Balance	\$4,123	\$7,321	\$6,617	\$6,475	\$6,605
*Salary And Benefits / Full-Time Empl.	\$41,529	\$43,490	\$42,686	\$41,348	\$53,614
*Asset Growth	14.39	43.86	8.88	-6.58	1.27

<b>CU 5</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Net Worth/Total Assets	9.87	10.13	9.3	9.41	9.16
Delinquent Loans / Total Loans \3	0.6	0.4	0.32	0.18	0.16
*Net Charge-Offs / Average Loans	0.68	0.71	0.11	0.12	0.32
*Return On Average Assets	0.32	0.34	0.31	0.51	0.57
*Yield on Average Loans	7.27	6.69	6.32	5.77	5.41
*Yield on Average Investments	2.32	1.77	1.28	0.95	0.83
*Fee & Other Op.Income / Avg. Assets	1.53	1.71	1.44	1.49	1.43
*Cost of Funds / Avg. Assets	1.22	0.72	0.5	0.27	0.19
*Net Interest Margin/Avg. Assets	3.33	3.01	2.71	2.44	2.27
Fixed Assets / Total Assets \1	1.41	1.29	1.14	1.05	0.91
*Net Operating Exp. /Avg. Assets	3.78	3.3	2.97	2.53	2.33
Total Loans / Total Shares	46.02	47.01	41.17	41.19	39.71
Borrowers / Members	31.16	30.31	29.95	31.75	33.46
Members / Full-Time Employees	505.8	529.26	535.78	503.89	462.11
Avg. Shares Per Member	\$3,928	\$3,969	\$4,705	\$5,182	\$5,861
Avg. Loan Balance	\$5,801	\$6,157	\$6,469	\$6,723	\$6,955
*Salary And Benefits / Full-Time Empl.	\$39,283	\$39,854	\$41,209	\$39,838	\$38,053
*Asset Growth	9.34	0.74	12.48	4.36	9.21

# Financial Literacy



## ▶ Asset Liability Management

1. Identify financial goals
2. Identify interest-rate, credit, and liquidity risk
3. Develop & maintain accurate risk measurements techniques
4. Integrate ALM into the management process
5. Evaluate management strategies before implementation
6. Implement strategies to maximize performance



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- ▶ Asset Liability Management
- ▶ 3 Components in a ALM program
  - ALM concepts – a CU must understand the risk involved in its operations
  - ALM management information systems – a CU needs to be able to monitor risk
  - ALM management decision–making process – an asset–liability committee called ALCO is formed to help a CU manage risk

The main types of risk – Credit Risk; Liquidity Risk; and Interest–rate Risk

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## ▶ Asset Liability Management

Two approaches to measuring interest-rate risk:

- 1. Measures the impact of net income as interest rates change.
- 2. Measures the long-term economic impact of interest rate changes on capital.

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## ▶ Asset Liability Management

### Terms used in ALM reports:

Net interest income simulation – test a range of different interest-rate scenarios and management’s reaction to them.

GAP analysis – attempt so classify existing rate-sensitive assets and liabilities by maturities or when repricing occurs to measure interest-rate sensitivity.

Net economic value analysis – measures the effect of interest-rate risk on capital.

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## ▶ Asset Liability Management

- Good Information is critically important for sound ALM management decision-making.
- Good software – whether simple or complex – do several things well:

they reflect member, management, and board behavior;  
they measure what decision maker care about;  
they capture business strategies;  
and they point to solutions

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## ▶ Trend Analysis

The comparison of financial results from different time periods to identify a pattern!

- ▶ It provides a reasonable base for projecting future growth rates, changes to balance and income statements based on changes in programs and interest rates!

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- ▶ As much as credit unions are alike, they are different.
- ▶ Know your credit union. What are the risks? Are you getting monthly reports that highlight important ratios and trends?
- ▶ Get help.

# Financial Literacy



## ▶ References:

- ▶ M18 – Management Enrichment Training Program – Asset–Liability Management for Executives

V02 – Volunteer Achievement Program – Financial Reports

V409 – Volunteer Achievement Program – Financial Management

CUNA’s Training on Demand Series for Volunteers – “Ten Ratios Every Volunteer Should Know” by Tim Harrington.