



NACUC
NATIONAL ASSOCIATION
OF CREDIT UNION CHAIRS

—2025 LEADERSHIP DEVELOPMENT SEMINAR—

PARK CITY, UTAH

May 18 - 20, 2025

Hotel Park City

FINANCIAL LITERACY TRAINING

NACUC.ORG



NATIONAL ASSOCIATION OF CREDIT UNION CHAIRS

CONNECTING CREDIT UNION BOARD LEADERS

Financial Literacy Training - 2025

Tim Harrington, CPA ret

Timothy P. Harrington, Inc. dba

TEAMResources



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Presented by Timothy Harrington, CPA



Tim Harrington is a Certified Public Accountant who has consulted with financial institutions since 1992. Since 1996, Tim has been President of TEAM Resources, a firm that provides consulting, strategic planning and training to financial institutions from coast-to-coast. He is the author of the popular the books:

- **Eisenhower on Enlightened Leadership**
- **Living a Life that Matters: Into the Light**
- **Credit Union Guide to Strategic Governance**

Tim is a faculty member of 3 national credit union schools on governance, finance and management, and has spoken to hundreds of thousands of directors, executive management and staff throughout the Northern Hemisphere.

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CAMELS

Just Good Ole' Financial Ratios

Capital Adequacy

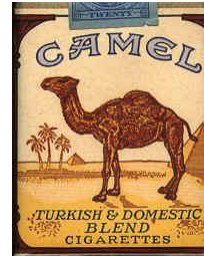
Asset Quality

Management (includes volunteers)

Earnings

Liquidity – Cash Flow and Sources

Sensitivity – Interest Rate Risk



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CAMELS

Measured on a Scale of 1 to 5

1 - Indicates strong performance

2 - Indicates satisfactory performance

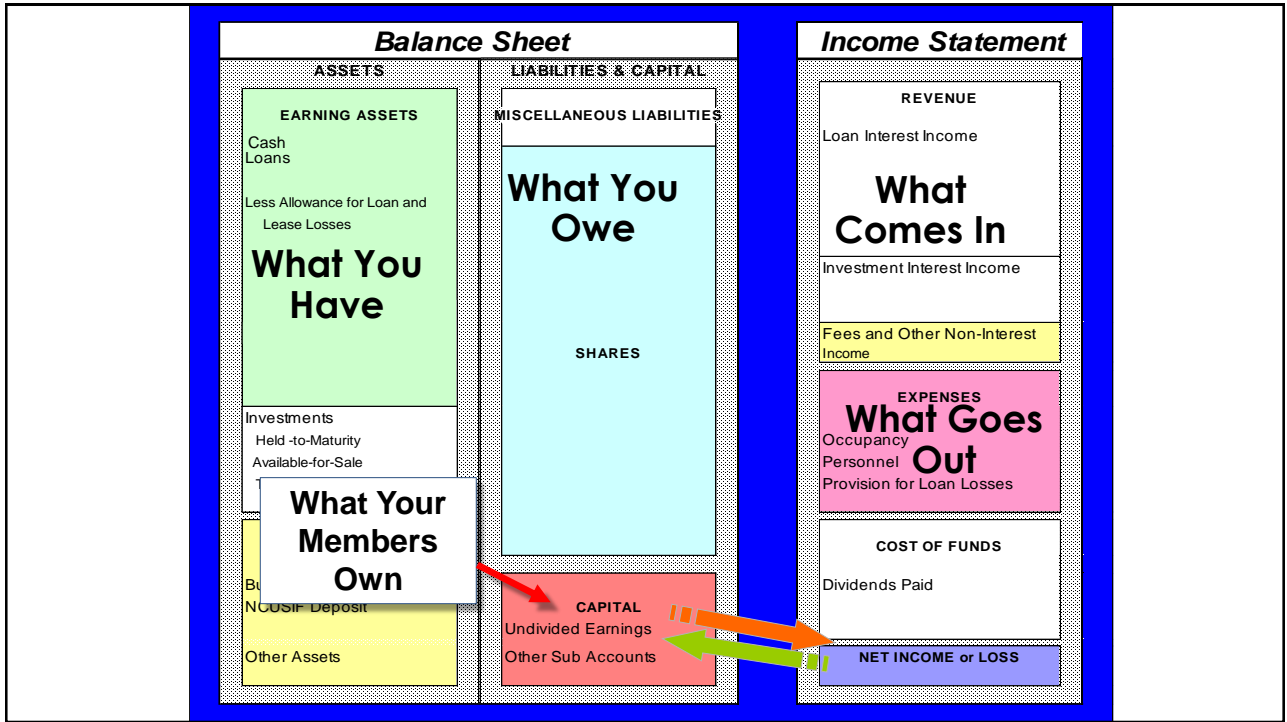
3 - Performance is of supervisory concern

4 - Performance serious supervisory concern

5 - Performance is critically deficient

4

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Key Ratios to Know and Understand

- **Capital to Assets Ratio**
- **Delinquency Ratio/Charge-off Ratio**
- **Net Interest Margin (Spread)**
 - Yield on Assets (interest income ratio)
 - Cost of Funds (interest expense ratio)
 - Net Interest Margin
 - Operating expense ratio
 - Provision for Loan Loss ratio
 - Non-Interest Income ratio
 - **Return on Assets (profit ratio)**
- **Loan to Share Ratio**

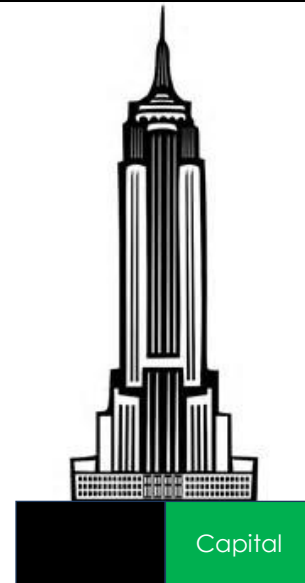
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Capital to Assets

Capital is your 'Stability' account

- Grows with profit.
- Shrinks with losses.
- Cushion for the unknowns
- Percentage of Asset Size



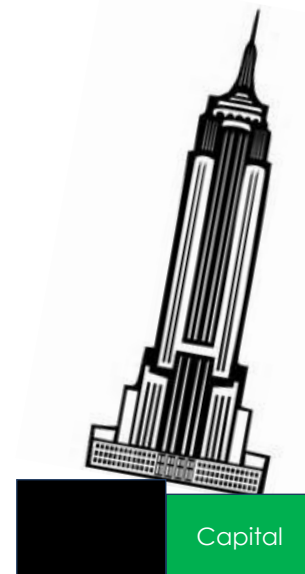
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Capital to Assets

HOWEVER...

If Asset size grows, and Capital size doesn't keep up, your structure becomes unstable.



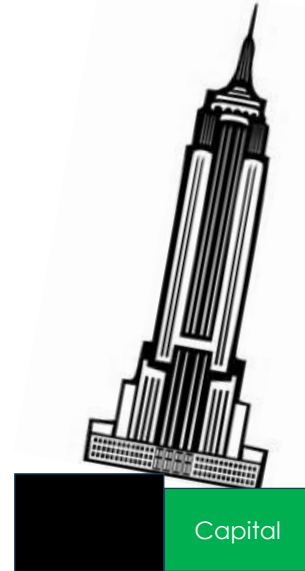
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Capital to Assets

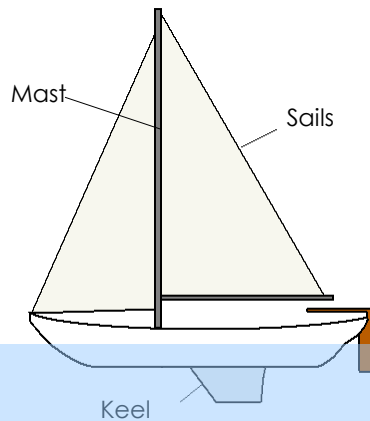
HOWEVER...

If Asset size grows, and Capital size doesn't keep up, your structure becomes unstable.



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If Assets grow and Capital doesn't keep up,
the credit union becomes unstable



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If a Big Wind comes
up...

Negative economic
change,

Large Charge-offs,

Your sailboat could tip

Mast

Sails

keel

**CU needs more
Capital**

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What is Capital?

Capital is not cash

- It is the accumulated earnings and losses since you started the credit union.
- Tells you what portion of your assets belong to the member owners and what part is owed to creditors
- Your 'rainy day' fund
- Your 'hibernation' fat

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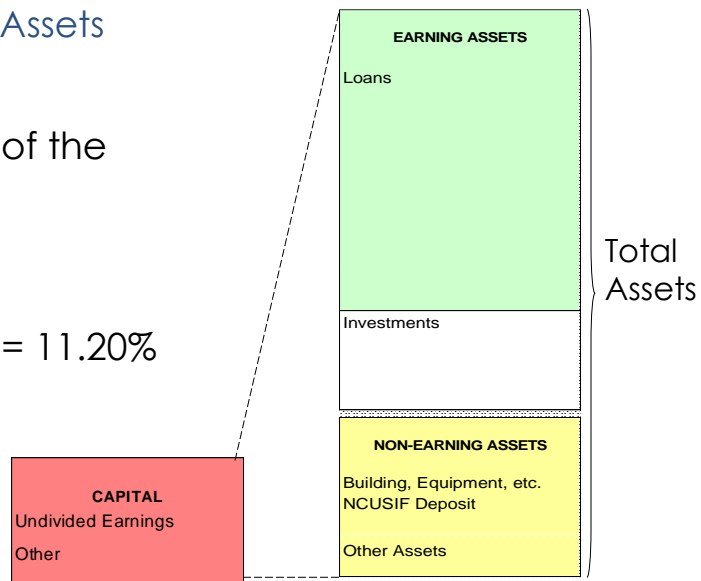
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Capital To Assets Ratio

Total Capital/Total Assets

Measure's stability of the credit union

National Average = 11.20%



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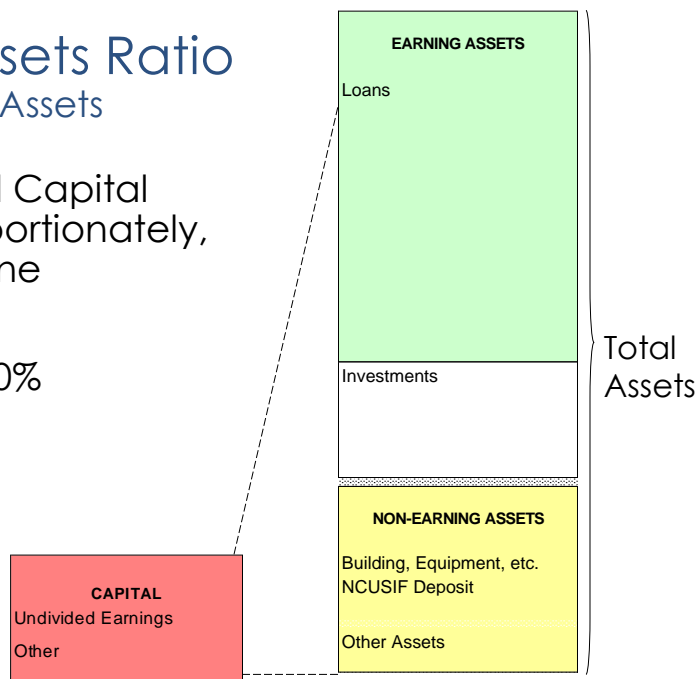
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Capital To Assets Ratio

Total Capital/Total Assets

If Assets grow, and Capital doesn't grow proportionately, the Ratio will decline

Woops! Now = 9.90%



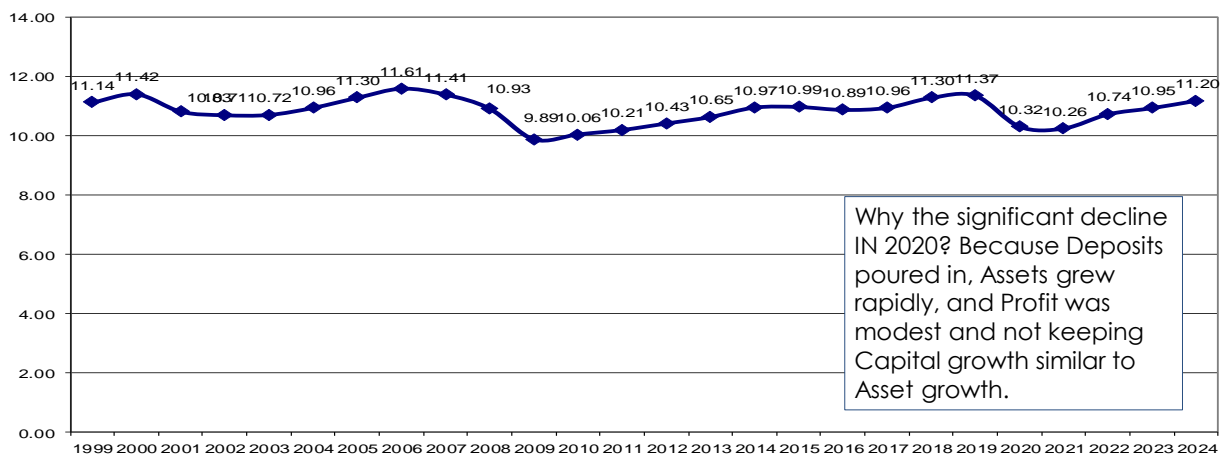
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Range: 9.89% to 11.61%

History of Capital to Assets Ratio National Average



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NCUA Calculation a bit different

NET WORTH / TOTAL ASSETS

(Regular Reserve + Appropriation for Non-Conforming Investments [*SCU Only*] + Other Reserves + Undivided Earnings + Uninsured Secondary Capital [*Low-Income Designated CU Only*] + Net Income or (Loss)) / Total Assets *

*Total assets means a credit union's total assets as measured by either the:

- (i) average quarterly balance of the four most recent calendar quarters; or
- (ii) average monthly balance over the three calendar months of the calendar quarter; or
- (iii) average daily balance over the calendar quarter; or (iv) quarter-end call report balance for the calendar quarter.

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How much Capital is enough?

Suggestion: Project worst 3 years possible
(combination of Asset Growth and Net Losses)

If at end, the ratio is greater than 4%, you may have enough

Prompt Corrective Action Rules

Depends on how much risk your assets and liabilities represent

Depends on level of growth

Depends on profitability of CU

Depends on future plans

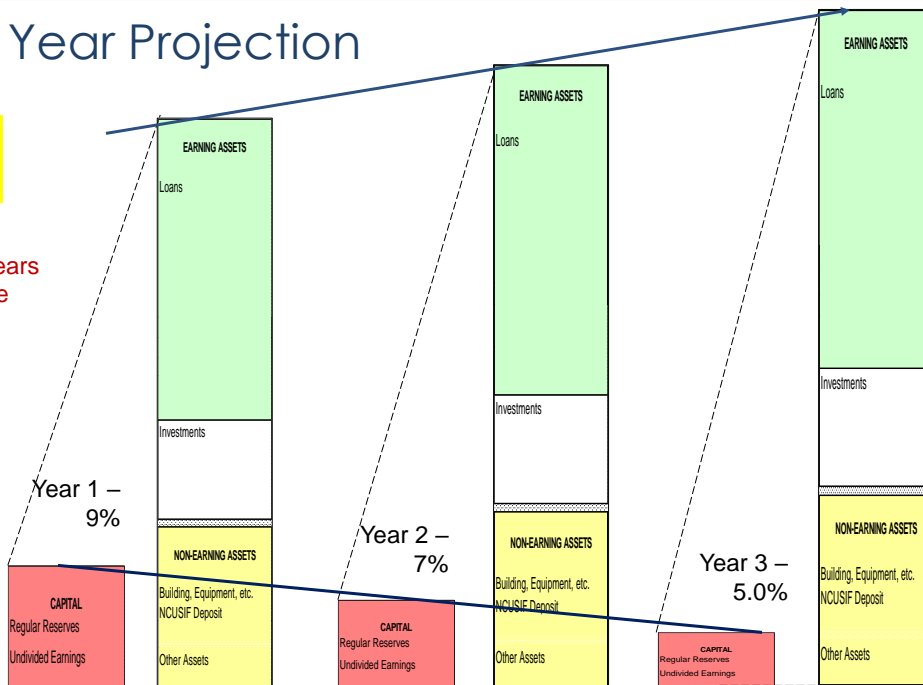
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Three Year Projection

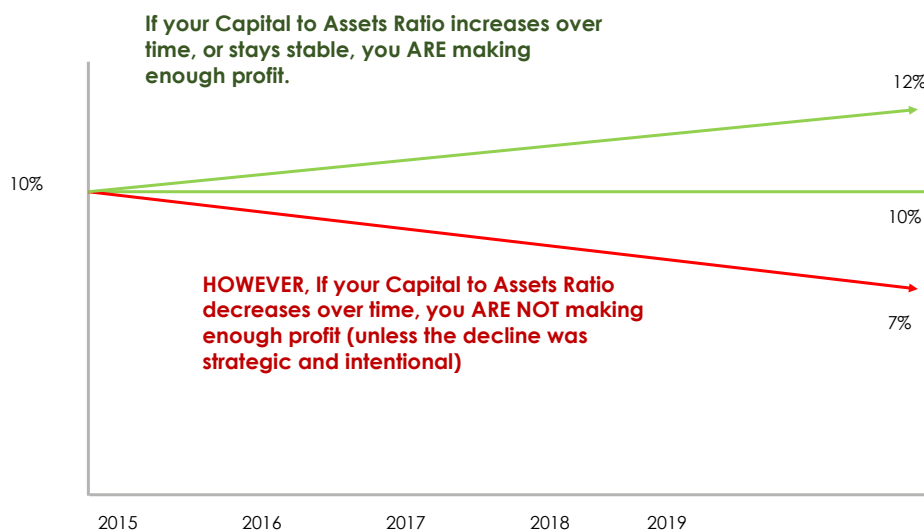
Today
10.5%

Worst 3 years
imaginable



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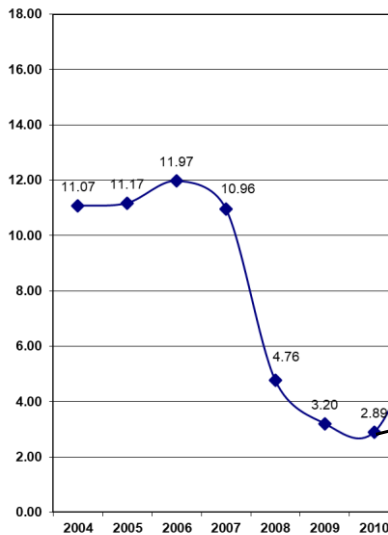
The Capital to Assets Gauge



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Capital can disappear fast and grows back slowly

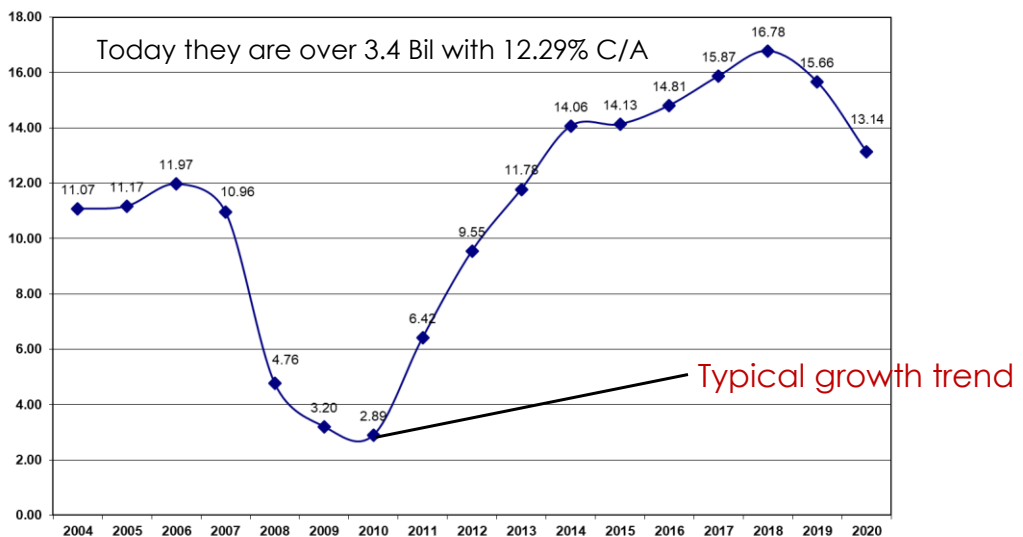
Capital to A



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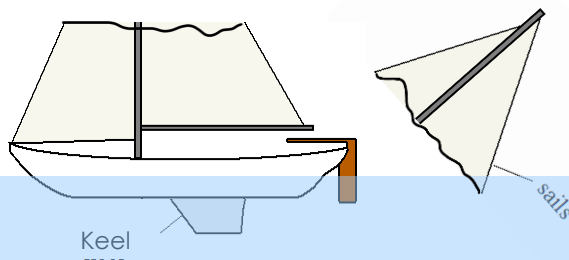
Capital can disappear fast and grows back slowly

Capital to Assets Ratio in a Recession

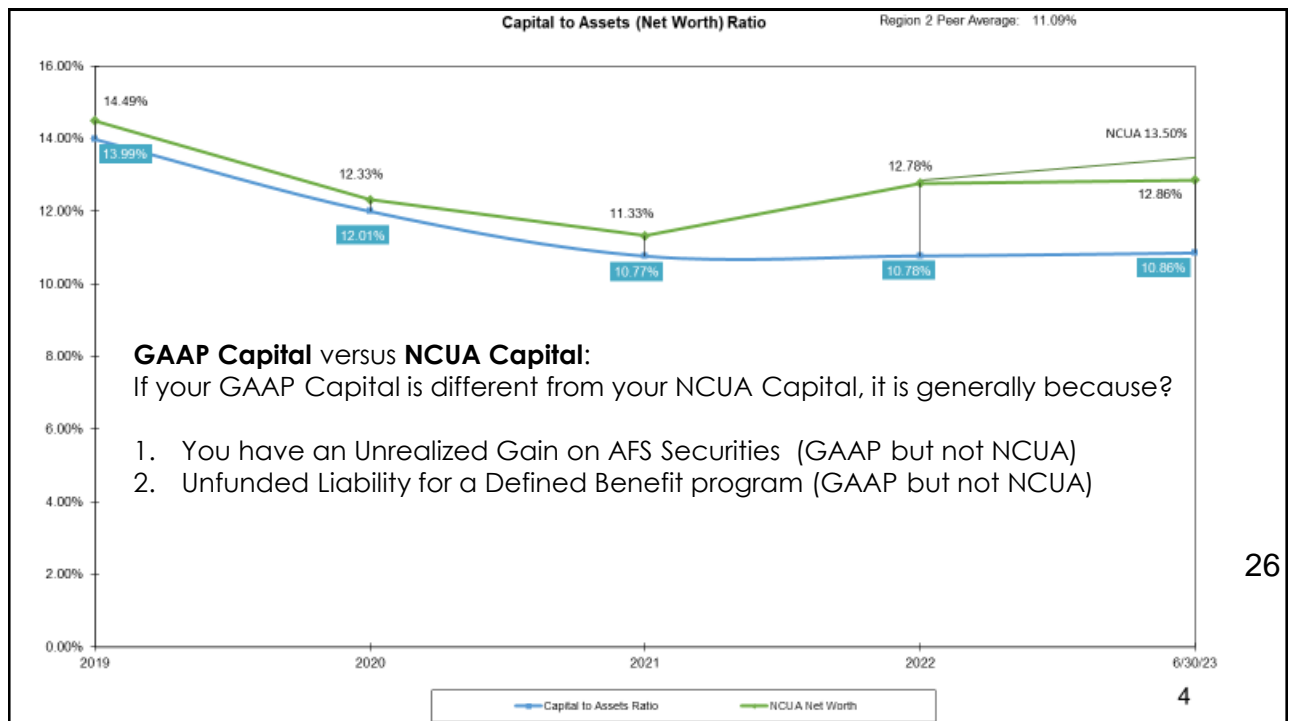


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As a “last ditch effort” the credit union
can ‘shrink’ into its Capital



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How much Profit do we need?

Capital Growth Calculator		Fill in white cells, do not change gray cells					
Calculate ROA Needed							
Five Year Projection		12/31/2024	12/31/2025	12/31/2026	1/1/2028	12/31/2028	12/31/2029
ANTICIPATED ASSET GROWTH		10.00%	7.00%	-5.00%	6.00%	6.00%	
TOTAL ASSETS	\$ 351,201,000	\$ 386,321,100	\$ 413,363,577	\$ 392,695,398	\$ 416,257,122	\$ 441,232,549	
TOTAL CAPITAL	\$ 34,589,000	\$ 38,632,110	\$ 42,369,767	\$ 41,233,017	\$ 44,747,641	\$ 48,535,580	
\$ INCREASE IN CAPITAL (SAME AS NET PROFIT NEEDED)		\$ 4,043,110	\$ 3,737,657	\$ (1,136,750)	\$ 3,514,624	\$ 3,787,940	
% INCREASE IN CAPITAL		11.69%	9.67%	-2.68%	8.52%	10.00%	
ACTUAL CAP/ASSETS %		9.85%					
DESIRED CAP/ASSETS %		10.00%	10.25%	10.50%	10.75%	11.00%	
ROA NEEDED		1.10%	0.93%	-0.28%	0.87%	0.88%	

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Prompt Corrective Action Rules

- 7% or higher Well capitalized
- 6%-6.99% Adequately capitalized
- 4%-5.99% Undercapitalized
- 2%-3.99% Significantly undercapitalized
- Less than 2% Critically undercapitalized

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Prompt Corrective Action Rules

- **Mandatory Supervisory Actions**
 - Below 7% - transfer 0.1% of Total Assets to Regular Reserve each month
 - Below 6%
 - Develop a Net Worth Restoration plan
 - Limit asset growth
 - No new member business loans
- **Discretionary Supervisory Actions**

The lower you go, the more authority the regulators take away from management and the board

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Capital for Complex CUs

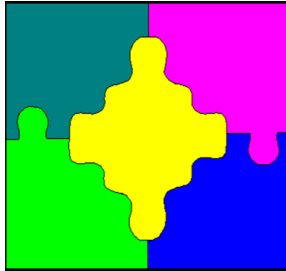
Complex Credit Unions must calculate capital differently
 “Complex” refers to CUs >\$500 MM with complex instruments

Must calculate Capital using:

- a. the **Risk Based Capital Rule**, or
- b. The **Complex Credit Union Leverage Ratio – CCULR**
 The CCULR is the regular NCUA Net Worth Ratio for credit unions that qualify.

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Understanding the Five Puzzle Pieces of Profitability



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Which CU is Doing Better? Why we use Comparable ratios

		\$10 Bil CU	\$100 Mil CU
Interest income		\$ 496,000,000	5,630,000
Cost of funds		(175,000,000)	(1,6400,00)
Net Interest Margin		321,000,000	3,990,000
Operating costs		(329,000,000)	(3,3200,00)
Provision for loan losses		(111,000,000)	(440,000)
Net loss before other income		(120,000,000)	230,000
NII – Non-interest income (Fee income, Other)		136,000,000	780,000
Net Profit or Loss		\$ 16,000,000	1,020,000
Total Capital		\$ 500,000,000	\$10,000,000

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Which CU is Doing Better?

Why we use Comparable ratios

As a % of Average Assets		\$10 Bil CU		\$100 Mil CU
Yield: Interest income		4.96%		5.63%
Less: Cost of funds		(1.75%)		(1.64%)
Net Interest Margin (NIM-Spread)		3.21%		3.99%
Less: Operating costs		(3.29%)		(3.32%)
Less: Provision for loan losses		(1.11%)		(0.44%)
Net loss before other income		(1.20%)		0.23%
Plus: NII-Non-interest income (Fee income, Other)		1.36%		0.78%
Equals: Return on Assets (ROA)		0.16%		1.02%
Capital to Assets Ratio		5.00%		10.00%

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Puzzle Pieces of Profitability...

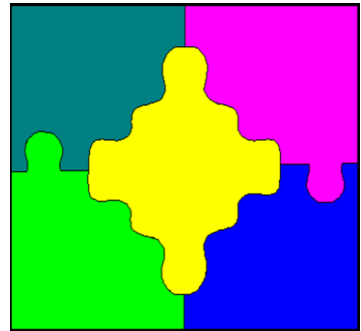
and We Need to Make a Profit

Credit unions make money 2 ways:

- Interest Income
- Non-Interest Income

Credit unions spend money 3 ways:

- Cost of Deposits (Cost of Funds)
- Operating Expenses (cost of people, buildings, and systems)
- Provision for Loan Losses (cost caused by bad loans)



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Spread Analysis (ROA)

National Averages

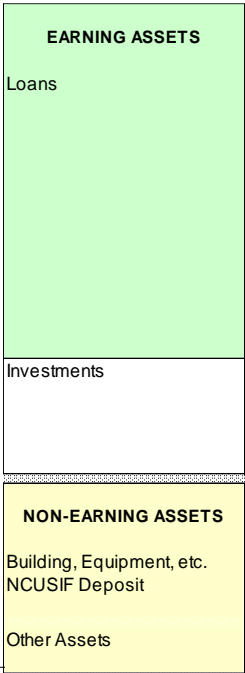
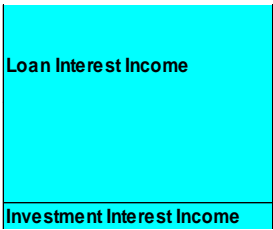
As a % of Average Assets	12/31/24	12/31/97
Yield: Interest income	5.05%	7.63%
Less: Cost of funds	(1.93)	(3.64)
Net Interest Margin	3.12	3.99
Less: Operating costs	(3.03)	(3.32)
Less: Provision for loan losses	(0.62)	(0.44)
Net loss before other income	(0.53)	0.23
Plus: Non-interest income	1.16	0.78
Equals: Net Profit or Loss (ROA)	0.63%	1.02%

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Yield on Average Assets

Total Interest Income from Loans and Investments / Average Assets

National Average = 5.05%



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Spread Analysis (ROA)

National Averages

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Yield: Interest income	5.05%	7.63%
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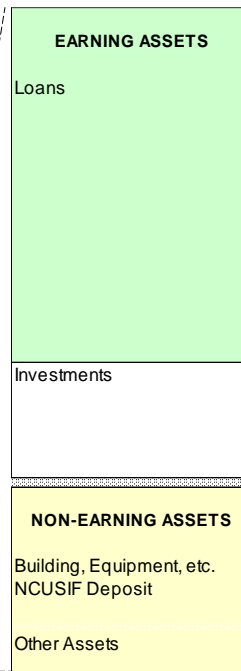
Cost of Funds

Total Dividends and Interest paid /
Average Assets

Cost of borrowing money from
members to loan out at a higher
price to other members

National Average = 1.93% ←

Dividends Paid



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What is Net Interest Margin?

Net Interest Margin: the net amount between Yield on Assets and Cost of Funds

- **NIM**
 - **Spread**
 - You don't control your Interest Income, the Market does
 - You don't control you Interest Expense, the Market does
- You try to control the spread between the two: **NIM or Spread**

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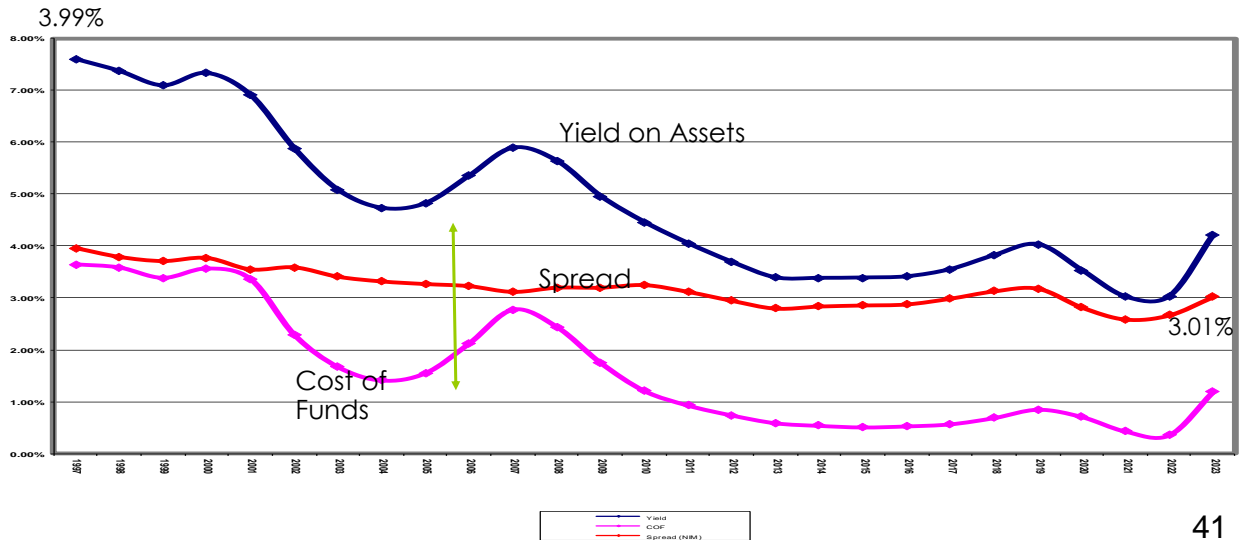
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Spread or Net Interest Margin (NIM) Goal: Can you keep it stable... or grow it?



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Spread Analysis (ROA) National Averages

As a % of Average Assets

Yield: Interest income

12/31/24 12/31/97

5.05% 7.63%

Less: Cost of funds

(1.93) (3.64)

Net Interest Margin

3.12 3.99

Less: Operating costs

(3.03) (3.32)

Less: Provision for loan losses

(0.62) (0.44)

Net loss before other income

(0.53) 0.23

Plus: Non-interest income

1.16 0.78

Equals: Net Profit or Loss (ROA)

0.63% 1.02%

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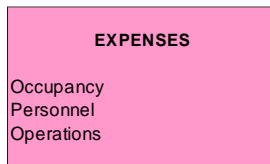
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Operating Expenses to Average Assets

Total operating expenses / Average Assets

Remember to always
**EXCLUDE Provision for Loan
Losses** from this calculation!

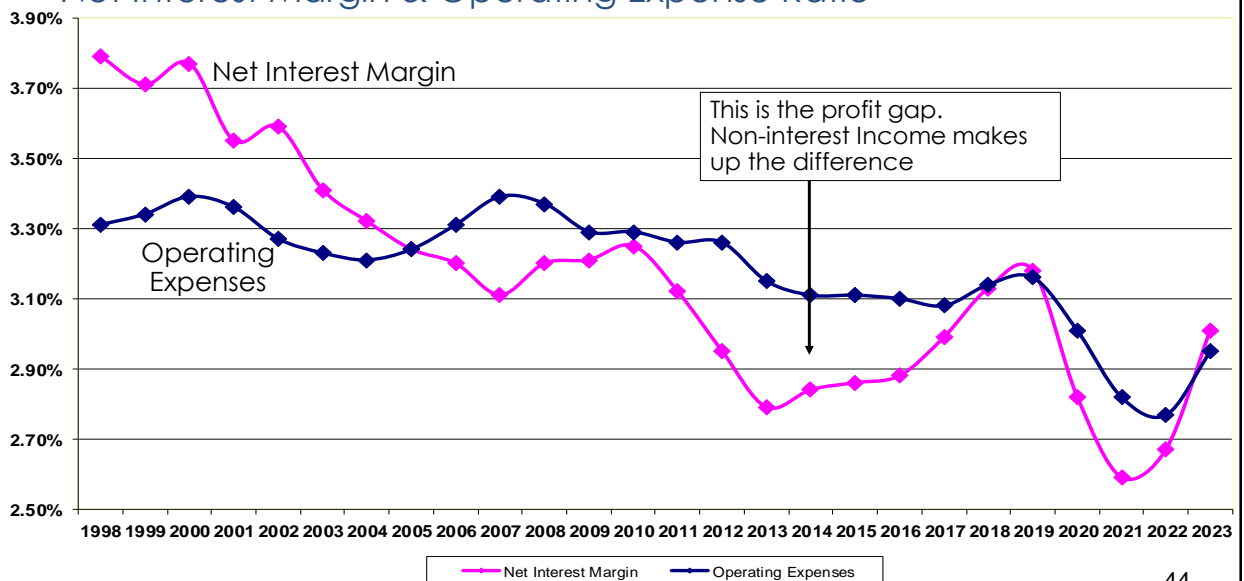
National Average = 3.03% ←



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All Credit Unions Net Interest Margin & Operating Expense Ratio



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Spread Analysis (ROA) National Averages

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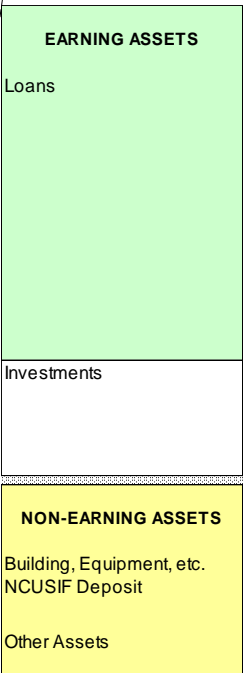
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Provision for Loan Losses to Average Assets

Total Provision for Loan Losses
Expense / Average Assets

National Average = 0.62% 

Provision for Loan Losses



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**Not for Profit,
Not for Charity,
But for Service**

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Sources of Non-Interest Income

Not Just Fees!!!

- **Fee Income** – NSF and late loan fee
- **Service Revenues** – Courtesy Pay
- **Commission Income** – sales of something
- **Interchange Income** – Debit and Credit cards
- **Sales of Mortgage Loans**
- **Other Non-Interest Sources** – CUSO selling some product or service

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Spread Analysis (ROA)

National Averages

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Net loss before other income	(0.53)	0.23
Plus: Non-interest income	1.16	0.78
Equals: Net Profit or Loss (ROA)	0.63%	1.02%

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Non-Interest Income (Fee and Service Revenues) to Average Assets

Measure's the contribution of non-interest income to profitability

National Average = 1.16%

FEES

EARNING ASSETS

Loans

Investments

NON-EARNING ASSETS

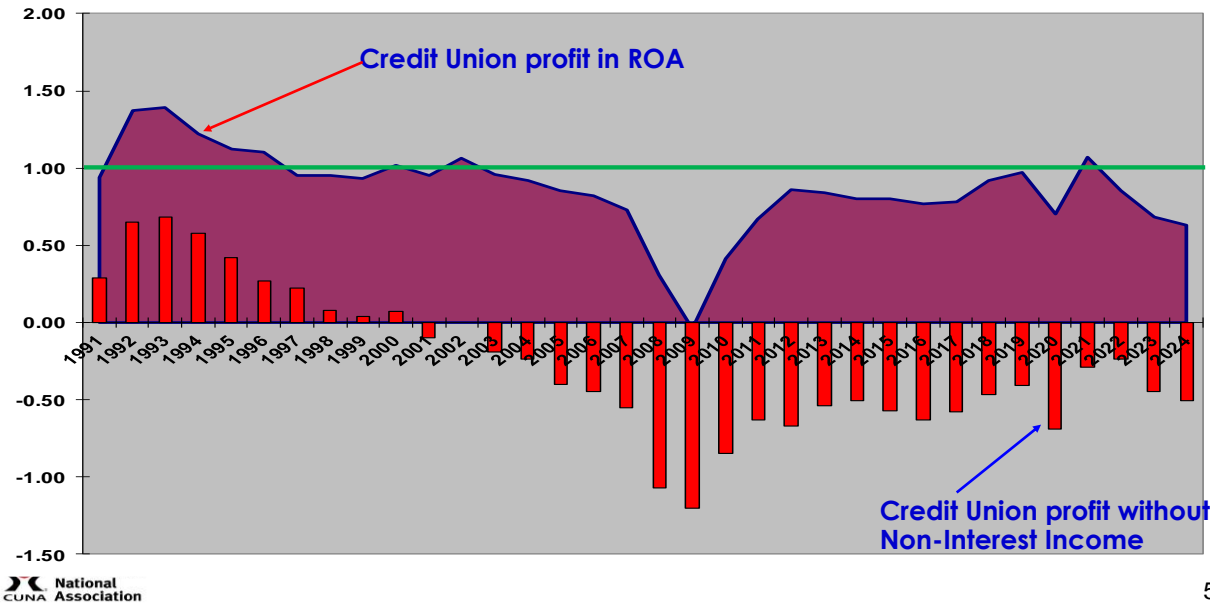
Building, Equipment, etc.
NCUSIF Deposit

Other Assets

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Non-Interest Income – We're NII Dependent



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Spread Analysis (ROA) National Averages

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Net loss before other income	(0.53)	0.23
Plus: Non-interest income	1.16	0.78
Equals: Net Profit or Loss (ROA)	0.63%	1.02%

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Return on Average Assets (ROAA or ROA)

Net income / Average assets*

*Average assets = Total assets last period + Total assets this period / 2

Measures a credit union's profitability

National Average = 0.63%

NET INCOME or LOSS

EARNING ASSETS

Loans

Investments

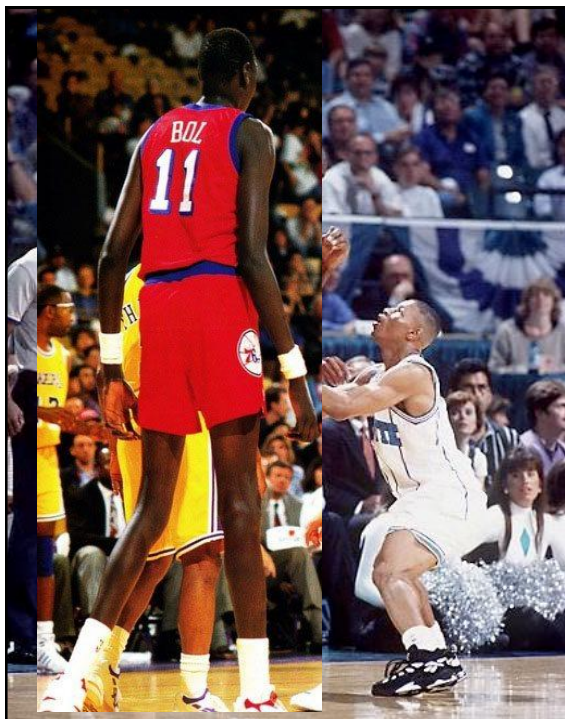
NON-EARNING ASSETS

Building, Equipment, etc.
NCUSIF Deposit

Other Assets

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Why Peers don't really help

Manut Bol played at 7'7"
Muggsy Bogues played at 5'3"

On Average, they were 6'5"

Peer info is just a conglomeration of financial data from hundreds of credit unions.

peer info does not:

- Reflect local market difference
- Strategic choices
- Business model differences

All Peer averages can show you is how different you are than the imaginary average

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Different Business Models

Different Spread Results

Know Your Model

	Avg CU	MOMMs CU	Low Op CU
Yield	5.05	7.31	3.18
Cost of funds	(1.93)	(1.79)	(2.04)
NIM	3.12	5.52	1.14
Operating exp	(3.03)	(4.61)	(0.87)
PLL	(0.62)	(1.76)	(0.01)
Net before NII	(0.53)	(0.85)	0.26
Non-Interest Income	1.16	1.72	0.24
ROA	0.63	0.87	0.50
Capital/Assets	11.20%	14.0%	14.0%

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Balance Sheet		Income Statement
ASSETS	LIABILITIES & CAPITAL	
EARNING ASSETS	MISCELLANEOUS LIABS	REVENUE
Cash \$ 16,000	Miscellaneous Liabs \$ 15,100	INTEREST INCOME
LOANS	SHARES	Loans \$11,000
Unsecured 13,500	Share savings 68,000	Investments 1,500
Vehicle 110,000	Share drafts 35,000	TOTAL 12,500
Real estate 30,000	Money market 45,000	
Total loans 153,500	IRAs 41,000	
Less allowance (1,100)	CDs 4,000	
Net Loans 152,400	Total Shares 193,000	
INVESTMENTS	CAPITAL	COST OF FUNDS
Held to maturity 50,000	Regular reserve 8,000	DIVIDENDS PAID 4,200
Avail for sale 5,000	Undivided earn 10,900	Net Interest Income 8,300
TOTAL 55,000	Total Capital 18,900	
Less Allowance for Investment Losses		EXPENSES
NON-EARNING ASSETS		Provision for Loan Losses 1,000
Property and equip 1,500		Occupancy Personnel Systems 7,800
NCUSIF 2,000		TOTAL 8,800
Other assets 100		NON-INTEREST INCOME
TOTAL ASSETS \$ 227,000	TOTAL LIABS/CAP \$ 227,000	Fee Income 700
		Service Charges 800
		Other Income 400
		TOTAL 1,900
		NET INCOME \$ 1,400

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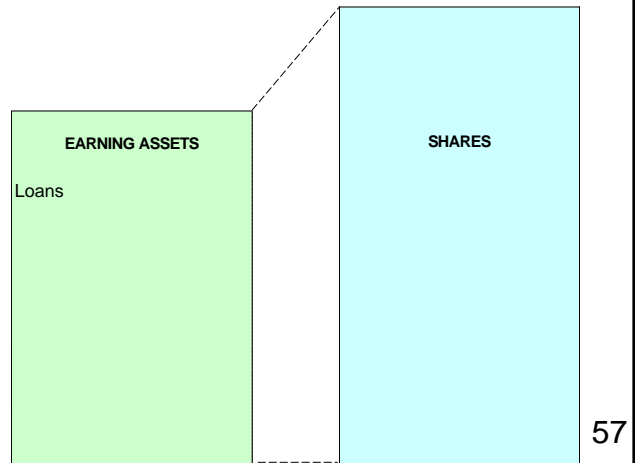
Loan to Share Ratio

Total Loans / Total Shares and Deposits

Measures the credit unions use of its best earning asset

What % of our Deposits is currently loaned out to members?

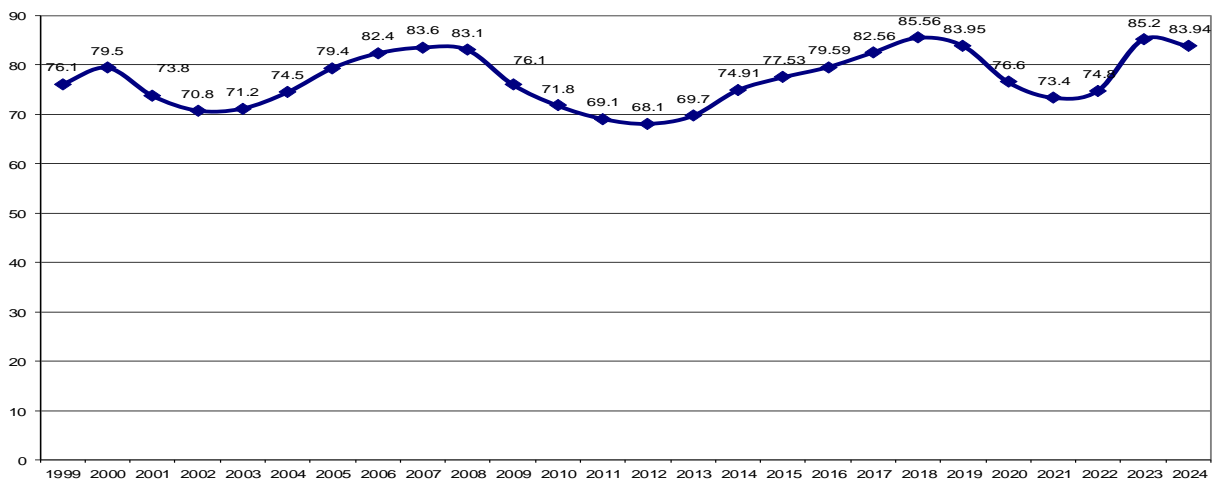
National Average = 83.94%



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History of Loan to Share Ratio
National Average



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Which is better, low loan to share or high loan to share ratio?

It Depends

The Loan to Share Ratio tells you only how well you turn deposits into loans

If the loans are poorly underwritten, loan losses could undermine a high Loan to Share Ratio

If the loans are underpriced, the weak Yield could undermine the high Loan to Share Ratio

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Delinquency and Charge-offs

- **Delinquency ratio**

Delinquent loans over 60 days old / Total loans

- **Charge-off ratio**

Charge-offs (less recoveries) / Average loans

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Delinquency and Charge-offs

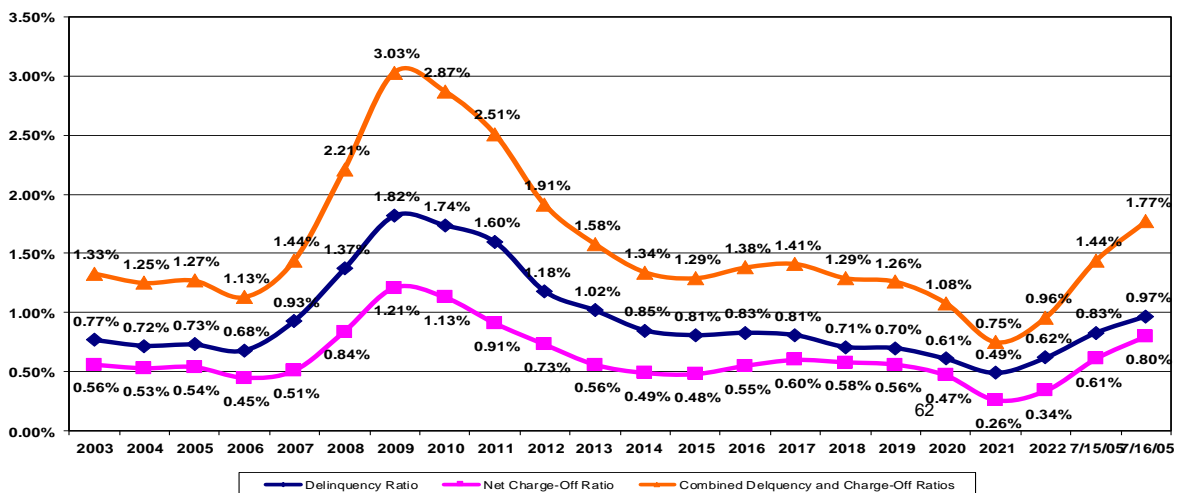
	Normal	Average 12/34/24	Modest Means	
Delinquency	0.75%	0.97%	2.10%	
Net Charge-offs	0.50%	0.80%	1.00%	
Combined	1.25%	1.77%	3.00%	

*But what is considered a healthy ratio depends on the credit union's **Business Model and Strategy***

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Delinquency and Charge-offs

History of Delinquency and Charge-Offs
National Averages



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Allowance for Loan & Lease Losses

ALLL or ALL or ACL

CECL – Current Estimated Credit Losses:

An amount based on management's best estimate of losses over the life of the loan (or life of the portfolio)

A.L.L.L. is a **Contra-Asset**, that means it takes away from the assets

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Balance Sheet		Income Statement	
ASSETS		LIABILITIES & CAPITAL	
EARNING ASSETS Cash \$ 16,000 LOANS Unsecured 13,500 Vehicle 110,000 Real estate 30,000 Total loans 153,500 Less Allowance for Loan Loss. (1,100) Net Loans 152,400 INVESTMENTS Held to maturity 50,000 Avail for sale 5,000 Allow Inv Loss TOTAL 55,000 NON-EARNING ASSETS Property and equip 1,500 NCUSIF 2,000 Other N. E. assets Other assets 100 TOTAL ASSETS \$ 227,000		MISCELLANEOUS LIABS Miscellaneous Liabs \$ 15,100 SHARES Share savings 68,000 Share drafts 35,000 Money market 45,000 IRAs 41,000 Other 4,000 Total Shares 193,000 CAPITAL Undivided earn 18,900 Gains (Losses) on Investments Other Total Capital 18,900 TOTAL LIABS & CAP \$ 227,000	
		REVENUE INTEREST INCOME Loans \$ 14,000 Investments 3,000 Non-Interest Income Fees/Serv Revs 1,900 TOTAL 18,900 EXPENSES Occupancy Personnel } 7,900 Provision for Loan Losses 1,000 TOTAL 8,800 COST OF FUNDS Dividends Paid 8,700 NET INCOME NET INCOME \$ 1,400	

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Allowance for Loan and Lease Losses – Before charge-off

Monthly
Expense
Usage this
month
\$0



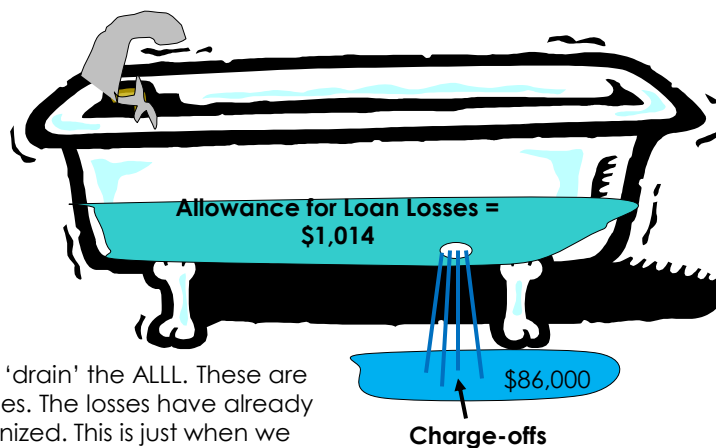
The ALLL is like a reservoir of loan losses ready to be used. The loss has already been incurred at the time the loan became impaired. We are just waiting for the loan to finally wither and drop

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Loans Charged-off

Monthly
Expense
Usage this
month
\$0



Charge-offs 'drain' the ALLL. These are not new losses. The losses have already been recognized. This is just when we finally remove the loan from the books.

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ALLOWANCE FOR LOAN & LEASE LOSSES

LOAN TYPE	Portfolio Balance this Month	Allowance Req. Previous Month	Allowance Req. this Month
Used Auto	\$ 65,000,000	\$ 507,000	\$ 593,000
New Auto	\$ 35,000,000	191,000	\$ 215,000
Credit Card	\$ 10,000,000	\$ 320,000	\$ 350,000
Other Unsecured	\$ 3,500,000	\$ 45,000	\$ 74,000
First Mortgage	\$ 30,000,000	\$ 23,000	\$ 40,000
Home Equity Mortgage	\$ 10,000,000	\$ 14,000	\$ 19,000
	\$ 153,500,000	\$ 1,100,000	\$ 1,291,000
Less Charge-offs at month end		\$ 86,000	
Net Allowance		\$ 1,014,000	\$ 1,291,000
ADJUSTMENT REQUIRED			\$ 277,000

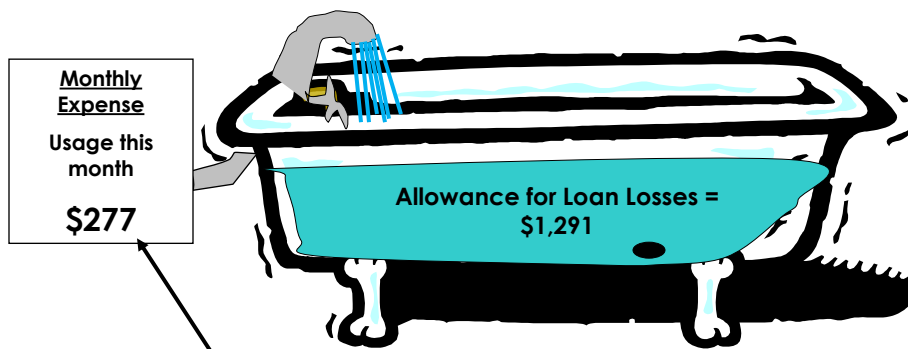
The ALLL increases to this amount

The Provision for Loan Loss Expense would be this amount for the month

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Restoring the ALLL through the Income Statement – Provision for Loan Losses



The Provision for Loan and Lease Losses is the current monthly charge-to restore the ALLL. It represents matching the expense to the period the loss actually occurred.

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MARK TO MARKET

Credit unions must revalue the carrying amount on their books of investments under certain circumstances

This is similar to the concept of ALLL

Balance Sheet		Income Statement
ASSETS	LIABILITIES & CAPITAL	
EARNING ASSETS	MISCELLANEOUS LIABS	REVENUE
Cash \$ 16,000	Miscellaneous Liabs \$ 15,100	INTEREST INCOME
LOANS	SHARES	Loans \$11,000
Unsecured 13,500	Share savings 68,000	Investments 1,500
Vehicle 110,000	Share drafts 35,000	TOTAL 12,500
Real estate 30,000	Money market 45,000	
Total loans 153,500	IRAs 41,000	COST OF FUNDS
Less allowance (1,100)	CDs 4,000	DIVIDENDS PAID 4,200
Net Loans 152,400	Total Shares 193,000	Net Interest Income 8,300
INVESTMENTS		EXPENSES
Held to maturity 50,000		Provision for Loan Losses 1,000
Avail for sale 5,000		Occupancy } 7,800
TOTAL 55,000		Personnel } 7,800
Less Allowance for Investment Losses		TOTAL 8,800
NON-EARNING ASSETS	CAPITAL	NON-INTEREST INCOME
Property and equip 1,500	Regular reserve 8,000	Fee Income 700
NCUSIF 2,000	Undivided earn 10,900	Service Charges 800
Other assets 100	Total Capital 18,900	Other Income 400
TOTAL ASSETS \$ 227,000	TOTAL LIAB/CAP \$ 227,000	NET INCOME \$ 1,400

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Accounting for Investments

Held to Maturity (HTM) - an investment that your CU has the intent and capacity to carry until the investment matures and is paid back

Carry on your books at historical (or amortized) value unless:
 OTTI – a decline in value that is Other than a Temporary Impairment

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Accounting for Investments

Trading/Equity - an investment that your CU has purchased for speculative purposes. (All Equity investments must be categorized as "Trading")

Carry on your books at market value. Run the increase or decrease in market value through your income statement as an income or expense, even if you did not sell the investment.

Note: You may have Equity securities in your retirement fund portfolio that will need to follow these accounting rules

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Accounting for Investments

Available for Sale (AFS) – any investment that is not HTM or Trading.

Carry on your Balance Sheet at market value but run the increase or decrease in value through your Equity

New Account: Unrealized Gain or Loss on AFS Securities

Most Credit Unions have most of their investments in AVS

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Balance Sheet	
ASSETS	
EARNING ASSETS	
Cash	\$ 16,000
LOANS	
Unsecured	13,500
Vehicle	110,000
Real estate	30,000
Total loans	153,500
Less Allowance for Loan Loss.	(1,100)
Net Loans	152,400
INVESTMENTS	
Held to maturity	50,000
Avail for sale	5,000
Allow Inv Loss	
TOTAL	55,000
NON-EARNING ASSETS	
Property and equip	1,500
NCUSIF	2,000
Other N. E. assets	
Other assets	100
TOTAL ASSETS	\$ 227,000
LIABILITIES & CAPITAL	
MISCELLANEOUS LIABS	
Miscellaneous Liabs	\$ 15,100
SHARES	
Share savings	68,000
Share drafts	35,000
Money market	45,000
IRAs	41,000
Other	4,000
Total Shares	193,000
CAPITAL	
Undivided earn	18,900
Gains (Losses) on Investments	
Other	
Total Capital	18,900
TOTAL LIABS & CAP	\$ 227,000

AFS will often require a new Capital (Equity) account:

Accumulated Gains or Losses on AFS

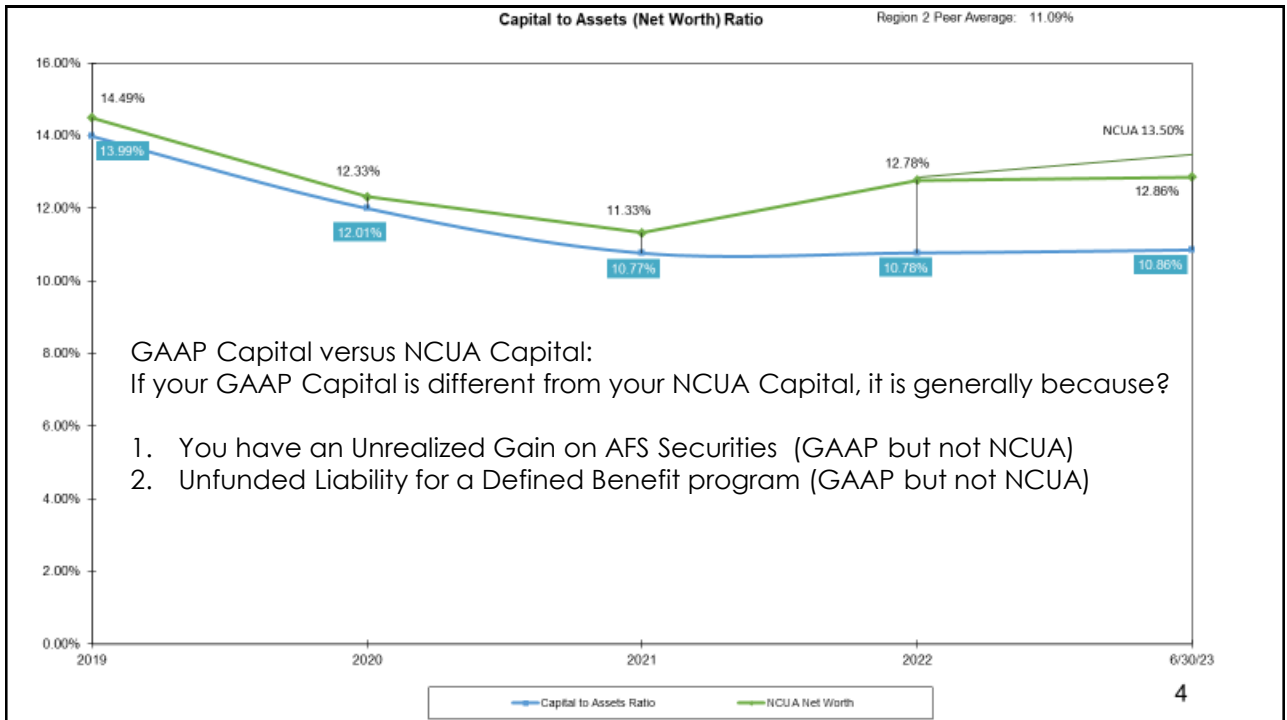
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Effect of Investment Market Value being less than Book Value

EQUITY:	
Undivided Earnings ³	27,007,160
Other Reserves	0
Appropriation For Non-Conforming Investments (SCU Only)	0
Equity Acquired in Merger	2,442,992
Noncontrolling Interest in Consolidated Subsidiaries	0
Accumulated Unrealized G/L on Cash Flow Hedges	0
Accumulated Unrealized G/L on AFS Securities	N/A
Accumulated Unrealized Losses for OTTI (due to other factors) on HTM Debt Securities	0
Accumulated Unrealized Gains (Losses) on Available for Sale Debt Securities ⁴	-4,598,534
Other Comprehensive Income	0
Net Income	0
	24,851,618

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Risk: An ALM Primer

Tim Harrington, CPA

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In ALM, Keep it Simple

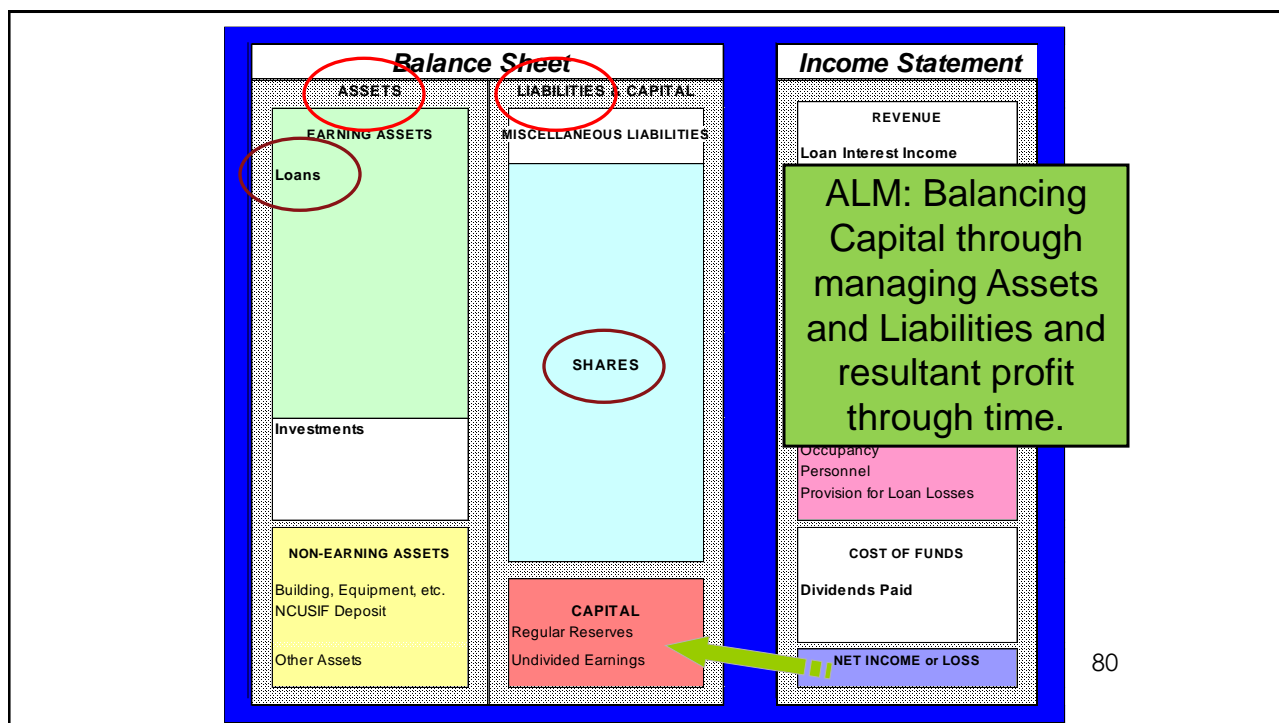
Watch “Capital at Risk” in your ALM Reports

ALM reports are not standardized. ALM providers use a variety of terms unique to them.

What I always ask them to show me is “Under this scenario, how much Capital is at risk?”

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What Risks Could We Watch?

- Credit Risk
- Interest Rate Risk
- Liquidity Risk
- Transaction Risk
- Compliance Risk
- Strategic Risk
- Concentration Risk
- Growth Rate Risk

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Credit Risk

Risk that we won't get our money back from a loan or investment

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Credit Risk

Risk that the credit union:

- Will make weak loans
- Will make loans to weak borrowers
- Will get involved in investments that might not pay back

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Measuring Credit Risk

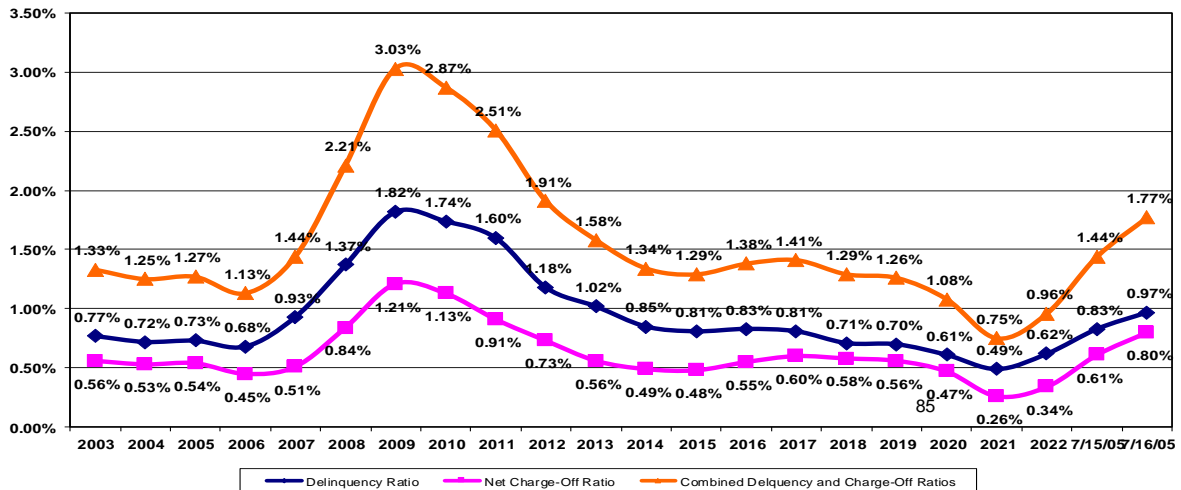
- ✓ Delinquency Ratio Lagging Indicators
- ✓ Net Charge-off Ratio
- ✓ Earning assets to non-earning assets ratio
- ✓ Trend in credit score or grade mix of your loan portfolio **Predictive**
- ✓ Product mix of your loan portfolio
- ✓ Mix of your investment portfolio

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Delinquency and Charge-offs

History of Delinquency and Charge-Offs
National Averages



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Credit Risk

Your Goal is NOT risk avoidance

Your Goal is **RISK INTELLIGENCE**

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Know Your Risk and Return in Each Credit Tier

	INDIRECT	%	Loan Balance	Interest Income	Gross Yield	Admin Costs	% Net CO	COF	DEALER COMM	Net Yield
A+ PAPER		42.7%	\$ 298,187,085		5.54%	0.20%	0.07%	1.25%	0.33%	3.69%
A PAPER		22.2%	\$ 155,226,776		6.63%	0.20%	0.23%	1.25%	0.33%	4.62%
B PAPER	86.1%	21.2%	\$ 148,294,462		8.16%	0.40%	0.74%	1.25%	0.33%	5.44%
C PAPER		12.8%	\$ 89,547,268		10.15%	0.80%	1.32%	1.25%	0.33%	6.45%
D PAPER		1.0%	\$ 7,119,608		12.53%	1.50%	1.44%	1.25%	0.33%	8.01%
E PAPER		0.0%	\$ 263,194		12.93%	1.80%	2.59%	1.25%	0.33%	6.96%
No Score		0.0%	\$ 144,740		13.50%	1.80%	12.05%	1.25%	0.33%	-1.93%
Not Rep	13.91%	0.0%	\$ 153,620		5.46%	1.80%	0.00%	1.25%	0.33%	2.08%
TOTAL			\$ 698,936,753	\$ -						

This report can help you see beyond Charge-offs.

Charge-offs are not automatically bad. They are bad if they cause a Tier to not be profitable.

As can be seen from this credit union, the highest loss ratio, C Tier Paper, has a Net Yield substantially higher than A+ and A Tier Paper

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Risk Based Pricing = Sharing

Credit Score	A	B	C	D
Desired Net Yield	3.00	3.50	4.00	5.00
Charge-offs	0.40	0.60	1.20	2.40
Admin costs	0.20	0.40	0.80	1.50
Dealer fee	0.33	0.33	0.33	0.33
Cost of funds	1.90	1.90	1.90	1.90
Loan Rate	<u>5.83</u>	<u>6.73</u>	<u>8.23</u>	<u>11.13</u>

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Compare yield and term to alternative investments

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Interest Rate Risk

The risk of loss due to rising or falling interest rates.

Arises when a credit union's assets do not mature or re-price at the same interval as its liabilities

If interest rates change, what will happen to:

- Net Interest Margin?
- Net Income?
- Capital?

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Interest Rate Risk

Risk that credit union:

- Will lose money due to long-term, fixed rate loans or investments
- Funded by short-term, variable rate deposits

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Interest Rate Risk

At time loan is made:

Loan rate	4.90%
Your COF at time of loan	<u>0.80%</u>
Spread	<u>4.10%</u>

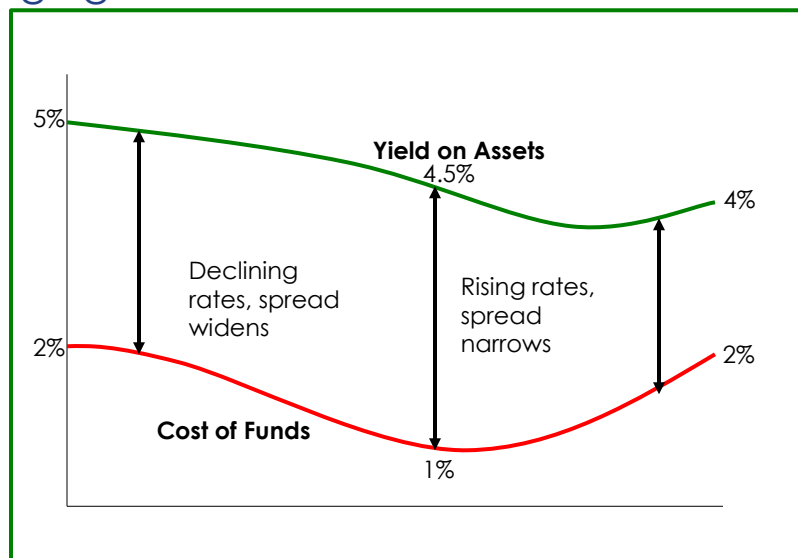
2 years later, rates rise 220 bp:

Loan rate	4.90%
Your COF at time of loan	<u>2.80%</u>
Spread	<u>2.10%</u>

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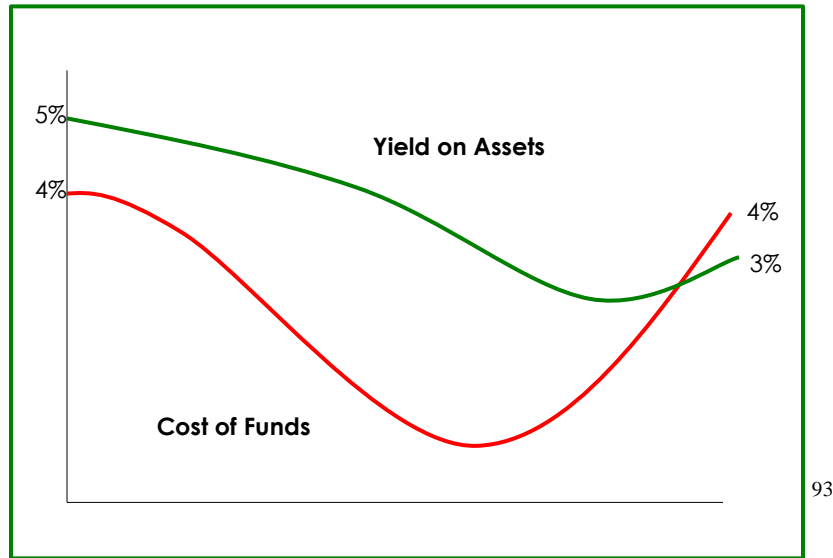
Normal Banking Cycle: Spread widens and narrows with changing rates



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Interest Rate Risk: Catastrophic!



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Causes of Interest Rate Risk

Making Fixed Rate Loans in A Variable Rate World

- Fixed rates over long term
- Terms of fixed rate loans and shares
- Adjustable rate loans,
 - Floors, ceilings, re-pricing period

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Measuring Interest Rate Risk

Always pay attention **Capital at Risk**

Compare rate sensitivity of the credit union's earning assets to that of its interest-bearing liabilities

- Gap Analysis
- Net Economic Value (NEV) Calculations
- Income Simulations

Computer simulations

Shock tests

- ✓ Measuring effect on asset values if interest rates rise or fall 300, 400 or 500 basis points

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Net Economic Value: Book Value vs. Market Value: Capital at Risk

Net economic value (NEV) measures the effect of interest rate risk on capital

NEV measures balance sheet's value at a future fixed point in time

NEV = "present value" of Assets - "present value" of Liabilities: The end result is the "present value" of Capital at some point in the future.

Book Value or Current Value:

Assets	-	Liabilities	=	Capital	Capital to Assets Ratio
\$1,000	-	\$ 900	=	\$ 100	\$100 / \$1,000 = 10.0%

Future Value: (after a 3 % Pt. (300 bp) increase in market rates):

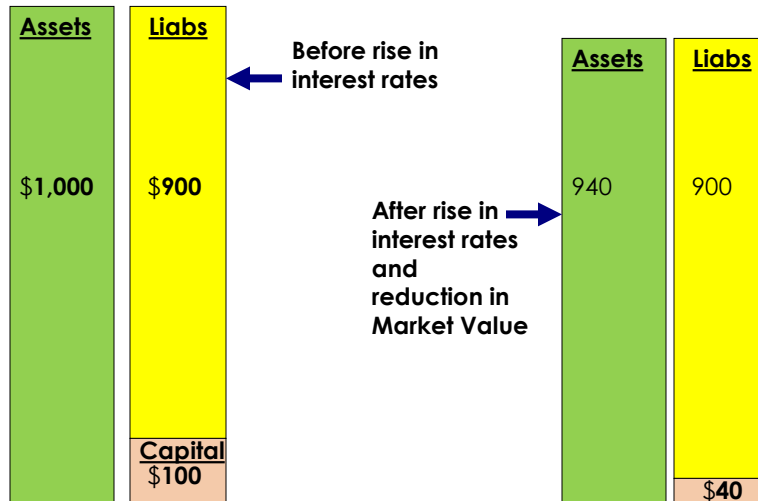
Assets	-	Liabilities	=	Capital	Capital to Assets Ratio
\$ 940	-	\$ 900	=	\$40	\$40 / \$940 = 4.3%

**Capital
at Risk:
57%**

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Net Economic Value: Book Value vs. Market Value



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Capital at Risk

From NCUA Financial Performance Report
(only available for CUs under \$500 MM in assets)

Line Item	Dec-2020	Dec-2021	Dec-2022	Dec-2023	Dec-2024	Peer Avg.
CAPITAL ADEQUACY RATIOS						Ratio
Net Worth/Total Assets for Prompt Corrective Action ⁶	11.02	10.18	11.21	13.59	13.93	11.92
Net Worth + ALLL or ACL / Total Assets + ALLL or ACL	11.36	10.49	11.50	13.86	14.16	12.38
Risk-Based Capital Ratio	N/A	N/A	N/A	N/A	N/A	N/A
SENSITIVITY TO MARKET RISK						After Stress test
Est. NEV Tool Post Shock Ratio ⁴	11.30	10.19	8.68	10.87	11.62	8.76
Est. NEV Tool Post Shock Sensitivity ⁴	-11.39	-12.98	-26.09	-25.67	-21.84	-30.10

Capital at Risk

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Liquidity Risk

Risk that adequate cash will not be available to fund loans, meet withdrawal demands, or pay bills

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Liquidity Risk

1. Do we know what our sources of cash are going to be?
2. Do we know what are uses of cash are going to be?
3. Do we have access to loans or lines of credit?
4. How much cash and liquid investments do we have?

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Causes of Liquidity Risk

- Investments not liquid
- Loans or investments not paying as planned
- New loans exceeding new deposits
- Deposits leaving the C.U.
- Financial losses
- Lack of alternative funding sources
 - Loans from others
 - Lines-of-credit

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Measures of Liquidity

Ungood Federal Credit Union

Liquidity Projection - Cash-Flow Projection

January, 200X

	ACTUAL Jan 0X	ACTUAL Feb 0X	Mar-0X	Apr-0X
BEGINNING CASH BALANCE	\$ 24,480,091	\$ 28,081,931	\$ 30,209,082	\$ 22,281,008
ASSUMPTIONS				
NET LOAN (GROWTH) DECREASE	\$ 2,415,510	\$ 2,210,170	\$ (754,776)	\$ (758,927)
DEPOSIT GROWTH (DECREASE)	\$ 3,707,806	\$ 1,366,869	\$ 456,244	\$ 457,612
CDs MATURING GROWTH (DECREASE)	\$ (2,701,680)	\$ (1,638,779)	\$ (7,779,542)	\$ (8,575,551)
ESTIMATED NET INCOME	\$ 180,204	\$ 188,891	\$ 150,000	\$ 150,000
NET LIQUIDITY INCREASE (DECREASE)	\$ 3,601,840	\$ 2,127,151	\$ (7,928,074)	\$ (8,726,866)
ENDING LIQUIDITY BALANCE	\$ 28,081,931	\$ 30,209,082	\$ 22,281,008	\$ 13,554,142
LIQUIDITY MINIMUM ESTABLISHED BY THE ALM COMMITTEE	\$ 15,525,625	\$ 15,423,515	\$ 15,488,545	\$ 15,484,158
LIQUIDITY EXCESS (SHORTAGE)	\$ 12,556,306	\$ 14,785,567	\$ 6,792,463	\$ (1,930,016)

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Managing Liquidity

- Appropriate pricing on deposits
- Ability to sell investments early
- Keeping loans and investments relatively short term
- Lines-of-credit at Corporate, bank or FHLB
 - Borrow from Corporate or FHLB
- Willingness and ability to sell loans or participations

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What Can You Focus On?

1. Maintain **Deposit Growth** at a manageable pace
2. Watch **Duration** on Earning Assets (life of the asset)
3. Monitor projections of **Capital at Risk** and be prepared to restructure your Balance Sheet
4. Review **Concentration Limits** in IRR and ALM policies

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What Can You Focus On?

- Monitor your **Capital to Assets Ratio** (Net Worth Ratio)
 - Its direction and your expectations
- Monitor your **Spread** Analysis and ROA
- If the Capital to Assets Ratio is falling, determine what it would take to improve Profit (ROA) and return your Capital to Assets Ratio back to 'stable'
- **Project** out what might happen to Capital/Assets ratio
- Monitor other Key Ratios in Graphic Form or a Dashboard

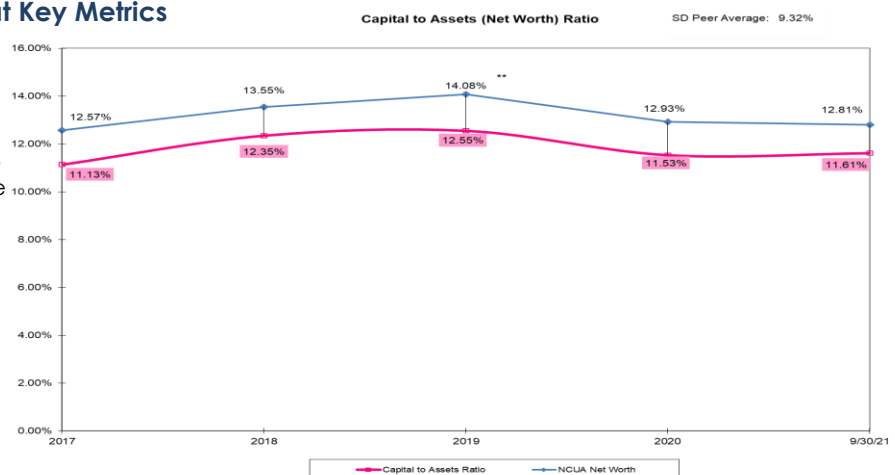
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A Quick Look at Key Metrics

Monitor a Graph of your Capital to Assets Ratio. Is the trend 'stable' or 'improving'? Or is it declining?

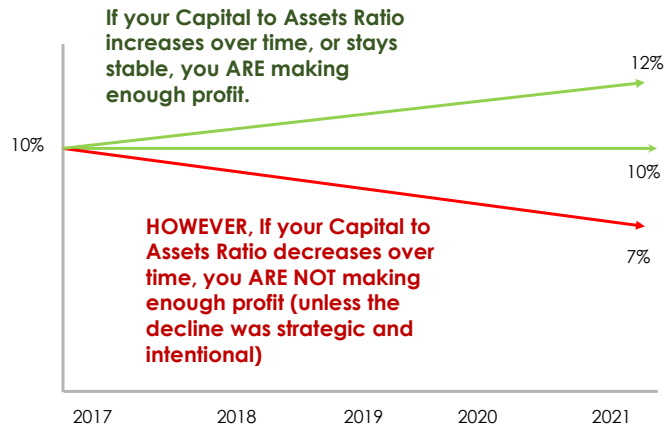
And why?



Spread Analysis	2016	2017	2018	2019	2020	9/30/2021
Interest Income/Avg Assets	3.40%	3.55%	3.70%	3.89%	3.27%	2.59%
Interest Expense/Avg Assets	0.16%	0.17%	0.18%	0.27%	0.21%	0.17%
Net Interest Margin	3.24%	3.37%	3.52%	3.62%	3.05%	2.41%
PLL /Average Assets	0.46%	0.09%	0.75%	0.51%	0.02%	-0.21%
Operating Expenses	3.91%	4.00%	4.03%	4.06%	3.72%	3.44%
Other Revenues	1.81%	1.80%	1.94%	1.85%	1.46%	1.49%
ROA before NCUA Exp	0.69%	1.09%	0.69%	0.91%	0.77%	0.67%
NCUA Stabilization Expense	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Return on Average Assets	0.69%	1.09%	0.69%	0.91%	0.77%	0.67%

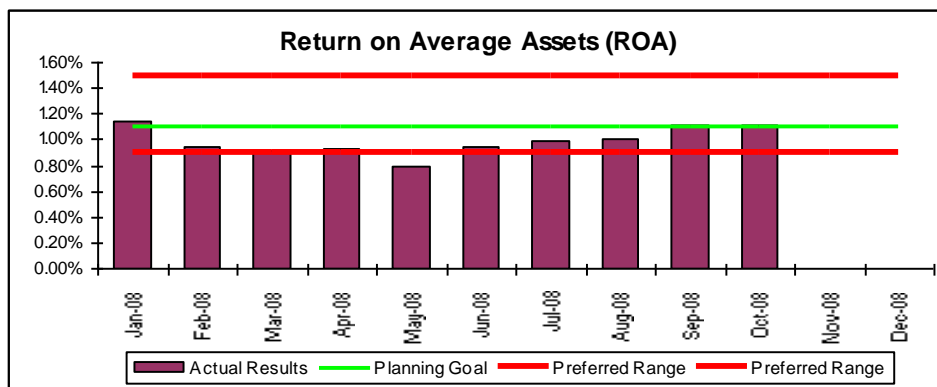
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The Capital to Assets Gauge

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Using an Instrument Panel



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Free DashBoard

<http://forteamresources.com/products/free-downloads/>

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LTA Commercial Package

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The Little Book of Credit Union Board Best Practices

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