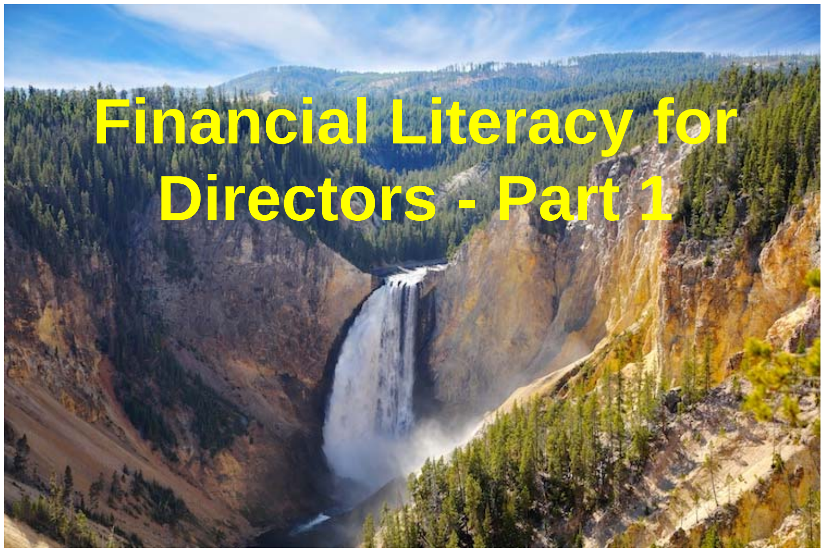
Financial Literacy for Directors - Part 1



By Tim Harrington, CPA

TIM Touch Inspire Motivate

Montana Credit Union Network

About Tim Harrington, CPA

Graduate of Gonzaga University

27 years credit union experience

35 years business/consulting experience

Consulted on over 1,500 credit union projects

A regular speaker at CUNA and League Conferences, speaking at over 1,000 events in all 50 states and 3 countries

Former Chairman of the Board of successful $150 million dollar credit union

Financial Literacy Regulation

Federal Reg 701.4(b)(3)

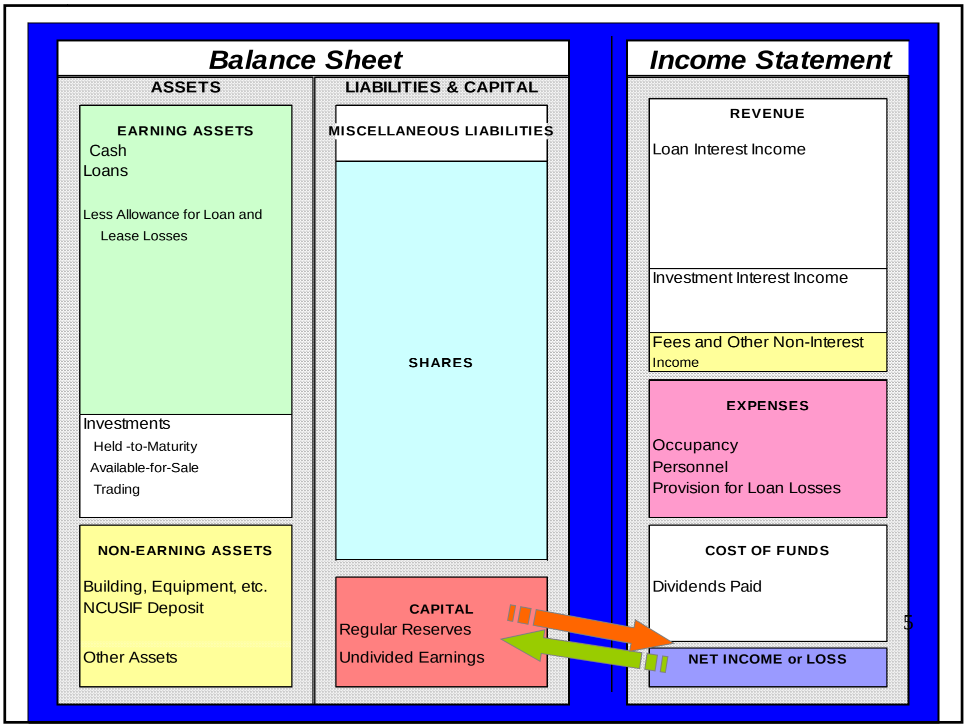
Montana SB 53 Section 1(1)(c)

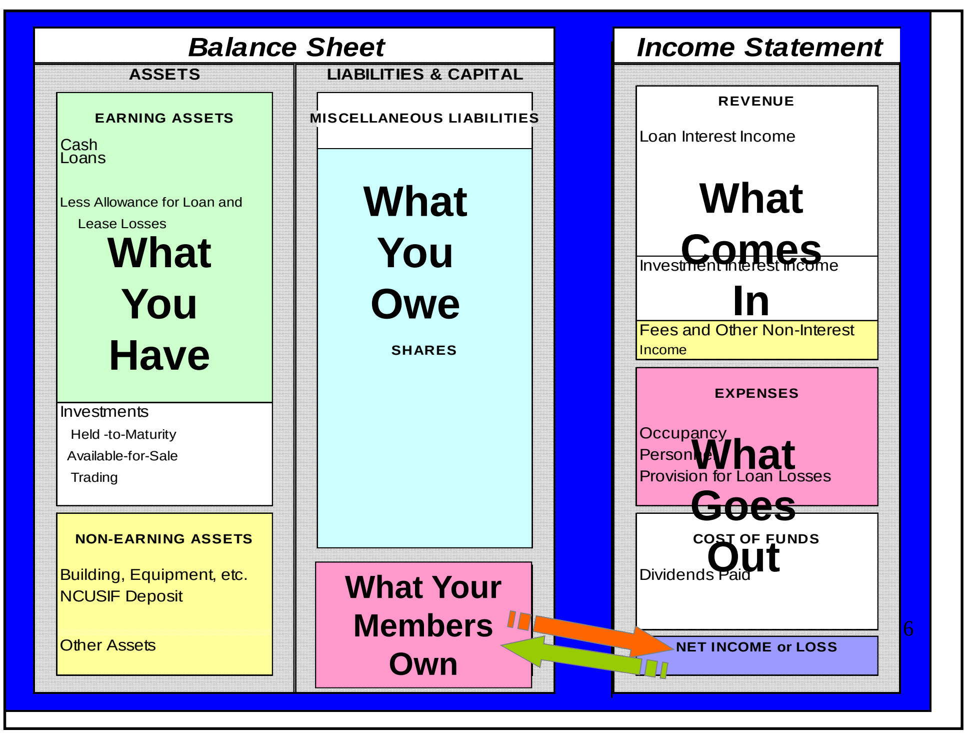
At the time of election or appointment, or within a reasonable time thereafter, not to exceed six months, have at least a working familiarity with basic finance and accounting practices, including the ability to read and understand the Federal credit union's balance sheet and income statement and to ask, as appropriate, substantive questions of management and the internal and external auditors

Financial Literacy Policy

Should identify:

- Risks within Your credit union
- Level of financial literacy Directors need
- Individual analysis and plan for each Director in order to achieve financial literacy
  - Can consider past education or experience
    - CPA, Financial background, etc.
  - Should include supplemental education where deficiencies are identified


Balance Sheet
ASSETS
LIABILITIES & CAPITAL
EARNING ASSETS
Cash
Loans
Less Allowance for Loan and Lease Losses
Investments
Held -to-Maturity
Available-for-Sale
Trading
NON-EARNING ASSETS
Building, Equipment, etc.
NCUSIF Deposit
Other Assets
MISCELLANEOUS LIABILITIES
SHARES
CAPITAL
Regular Reserves
Undivided Earnings
Income Statement
REVENUE
Loan Interest Income
Investment Interest Income
Fees and Other Non-Interest Income
EXPENSES
Occupancy
Personnel
Provision for Loan Losses
COST OF FUNDS
Dividends Paid
NET INCOME or LOSS
5


Balance Sheet
ASSETS
LIABILITIES & CAPITAL
EARNING ASSETS
Cash
Loans
Less Allowance for Loan and Lease Losses
What You Have
Investments
Held -to-Maturity
Available-for-Sale
Trading
NON-EARNING ASSETS
Building, Equipment, etc.
NCUSIF Deposit
Other Assets
MISCELLANEOUS LIABILITIES
What You Owe
SHARES
What Your Members Own
Income Statement
REVENUE
Loan Interest Income
What Comes In
Investment Interest Income
Fees and Other Non-Interest Income
EXPENSES
Occupancy
Personnel
Provision for Loan Losses
What Goes Out
COST OF FUNDS
Dividends Paid
NET INCOME or LOSS
6

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	(1,100)
Net Loans	152,400
INVESTMENTS	
Held to maturity	50,000
Avail for sale	5,000
TOTAL	55,000
Less Allowance for Investment Losses	
NON-EARNING ASSETS	
Property and equip	1,500
NCUSIF	2,000
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
CDs	4,000
Total Shares	193,000
CAPITAL	
Regular reserve	8,000
Undivided earn	10,900
Total Capital	18,900
TOTAL LIABS/CAP	**$ 227,000**

Income Statement

REVENUE	
INTEREST INCOME	
Loans	$11,000
Investments	1,500
TOTAL	12,500
COST OF FUNDS	
DIVDENDS PAID	4,200
Net Interest Income	8,300
EXPENSES	
Provision for Loan Losses	1,000
Occupancy / Personnel / Systems	7,800
TOTAL	8,800
NON-INTEREST INCOME	
Fee Income	700
Service Charges	800
Other Income	400
	1,900
NET INCOME	**$ 1,400**

7

What are the most important items to watch?

It depends on your strategy,

But there are some <u>Basics:</u>

- Capital to Assets Ratio
- ROA and Spread Analysis
- Loan to Share Ratio
- Delinquency and Charge-off Ratios
- But if you have Areas of High Risk, you'll need more

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	(1,100)
Net Loans	152,400
INVESTMENTS	
Held to maturity	50,000
Avail for sale	5,000
TOTAL	55,000
Less Allowance for Investment Losses	

NON-EARNING ASSETS	
Property and equip	1,500
NCUSIF	2,000
Other assets	100
TOTAL ASSETS	**$ 227,000**

LIABILITIES & CAPITAL

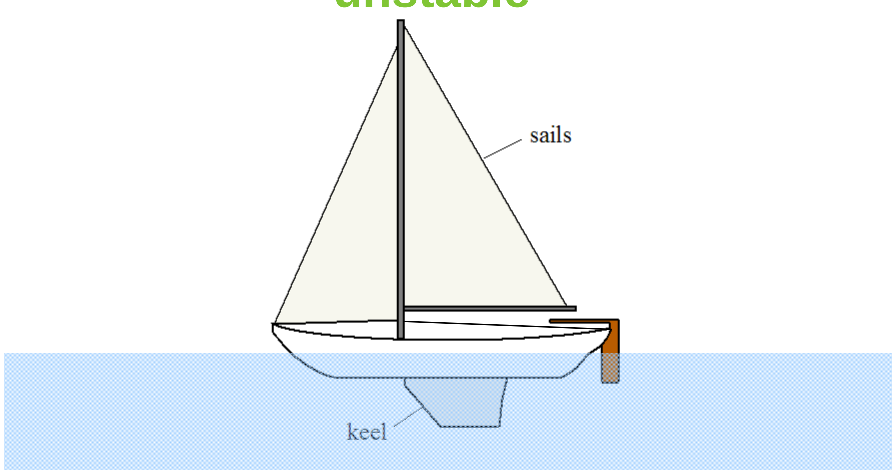
MISCELLANEOUS LIABS	
Miscellaneous Liabs	$ 15,100
SHARES	
Share savings	68,000
Share drafts	35,000
Money market	45,000
IRAs	41,000
CDs	4,000
Total Shares	193,000

CAPITAL	
Regular reserve	8,000
Undivided earn	10,900
Total Capital	18,900
TOTAL LIABS/CAP	**$ 227,000**

Income Statement

REVENUE	
INTEREST INCOME	
Loans	$11,000
Investments	1,500
TOTAL	12,500
COST OF FUNDS	
DIVDENDS PAID	4,200
Net Interest Income	8,300
EXPENSES	
Provision for Loan Losses	1,000
Occupancy Personnel Systems	7,800
TOTAL	8,800
NON-INTEREST INCOME	
Fee Income	700
Service Charges	800
Other Income	400
	1,900
NET INCOME	**$ 1,400**

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

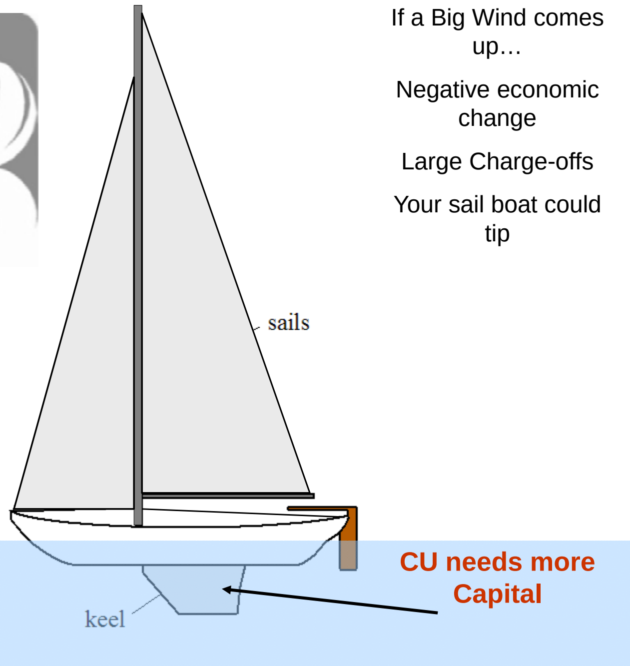


If a Big Wind comes up…

Negative economic change

Large Charge-offs

Your sail boat could tip



What is Capital?

Capital is not cash

It is the accumulated earnings and losses since you started the credit union.

It is also called:

- **Net Worth**
- **Equity**

Capital always has two parts:

- Regular Reserve – rarely changes
- Undivided Earnings – changes with P and L

Capital Account Has Several Sub-Accounts

Capital has at least two parts:

- **Regular Reserve** – rarely changes
- **Undivided Earnings** – changes with Profit/Loss

And it probably has some other parts, such as:

- Accumulated Unrealized Gain or Loss on Available for Sale Securities – reports market value fluctuations of certain investments
- Other Comprehensive Income (OCBA – other comprehensive basis of accounting) – usually reports excess or shortage in Defined Benefit Program

Balance Sheet

ASSETS		LIABILITIES & CAPITAL	
EARNING ASSETS		**MISCELLANEOUS LIABS**	
Cash	$ 16,000	Miscellaneous Liabs	$ 15,100
LOANS		**SHARES**	
Unsecured	13,500	Share savings	68,000
Vehicle	110,000	Share drafts	35,000
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			
Held to maturity	50,000		
Avail for sale	5,000		
TOTAL	55,000		
Less Allowance for Investment Losses			
NON-EARNING ASSETS		**CAPITAL**	
Property and equip	1,500	Regular reserve	8,000
NCUSIF	2,000	Undivided earn	10,900
Other assets	100	Total Capital	18,900
TOTAL ASSETS	$ 227,000	TOTAL LIABS/CAP	$ 227,000

Income Statement

REVENUE	
INTEREST INCOME	
Loans	$11,000
Investments	1,500
TOTAL	12,500
COST OF FUNDS	
DIVDENDS PAID	4,200
Net Interest Income	8,300
EXPENSES	
Provision for Loan Losses	1,000
Occupancy, Personnel, Systems	7,800
TOTAL	8,800
NON-INTEREST INCOME	
Fee Income	700
Service Charges	800
Other Income	400
	1,900
NET INCOME	$ 1,400

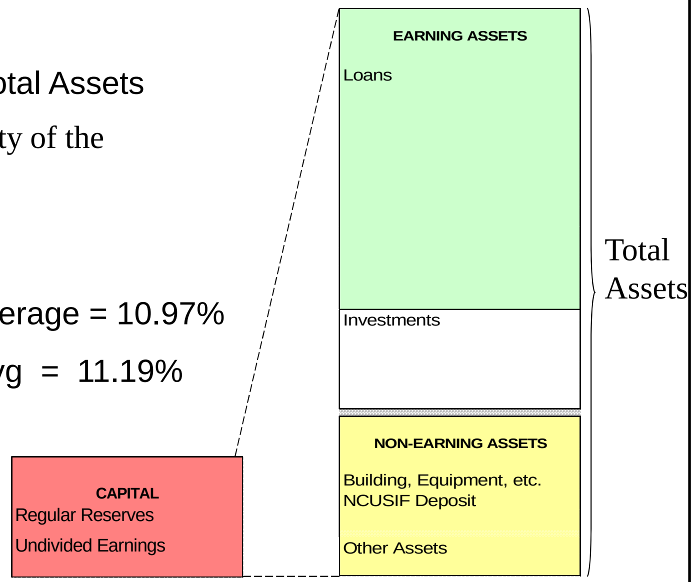
Capital To Assets Ratio

Total Capital/Total Assets

Measures stability of the credit union

National Average = 10.97%

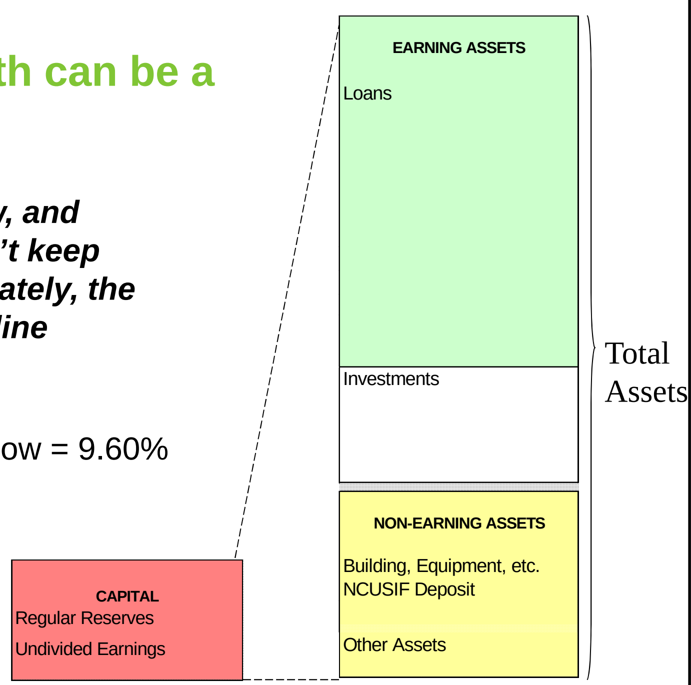
Montana Avg = 11.19%

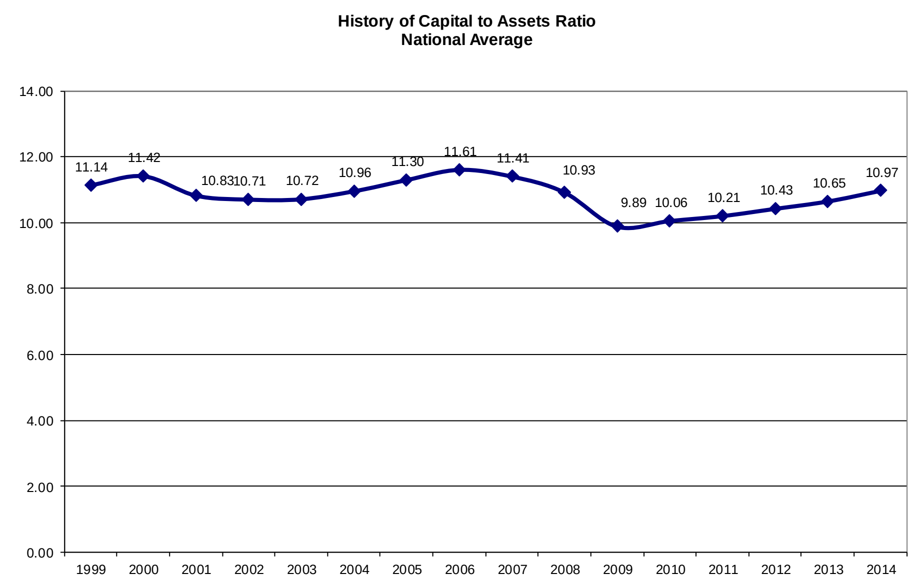


Why growth can be a problem

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

Woops! Now = 9.60%





17

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.

How much Capital is enough?

Project worst 3 years possible

If at end, > 4%, you may have enough

Namely, three years with rapid asset growth and financial losses.

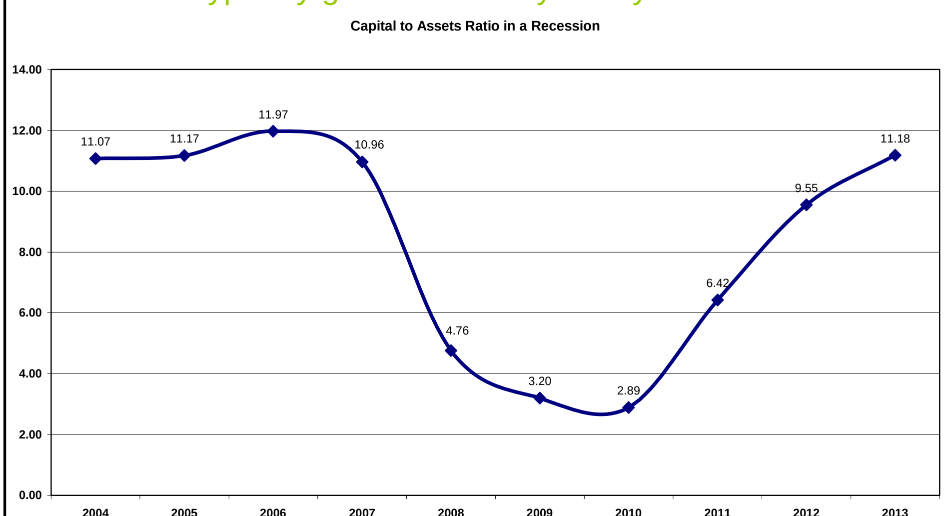
Prompt Corrective Action Rules

Depends on how much risk your assets and liabilities represent

Depends on level of growth

Capital can disappear fast

And typically grows back very slowly!



Prompt Corrective Action

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

Prompt Corrective Action

- **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

End of Part 1

By Tim Harrington, CPA

TIM Touch Inspire Motivate

Montana Credit Union Network

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	(1,100)
Net Loans	152,400
INVESTMENTS	
Held to maturity	50,000
Avail for sale	5,000
TOTAL	55,000
Less Allowance for Investment Losses	

NON-EARNING ASSETS	
Property and equip	1,500
NCUSIF	2,000
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
CDs	4,000
Total Shares	193,000

CAPITAL	
Regular reserve	8,000
Undivided earn	10,900
Total Capital	18,900

TOTAL LIABS/CAP	**$ 227,000**

Income Statement

REVENUE	
INTEREST INCOME	
Loans	$11,000
Investments	1,500
TOTAL	12,500
COST OF FUNDS	
DIVDENDS PAID	4,200
Net Interest Income	8,300
EXPENSES	
Provision for Loan Losses	1,000
Occupancy, Personnel, Systems	7,800
TOTAL	8,800
NON-INTEREST INCOME	
Fee Income	700
Service Charges	800
Other Income	400
	1,900
NET INCOME	**$ 1,400**

Credit Union Profitability
ROA and Spread Analysis

Spread Analysis:

Dividing the Income Statement amounts by Average Assets

26

The 'Banking' Business

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 of bad loans)

27

Which CU is Doing Better? Why we use Comparable ratios

	10 Bil CU	10 Mil CU
Interest income	**$ 496,000,000**	**563,000**
Cost of funds	**(175,000,000)**	**(164,000)**
Net Interest Margin	**321,000,000**	**399,000**
Operating costs	**(329,000,000)**	**(332,000)**
Provision for loan losses	**(111,000,000)**	**(44,000)**
Net loss before other income	**(120,000,000)**	**23,000**
NII – Non-interest income (Fee income, Other)	**136,000,000**	**78,000**
Net Profit or Loss	**$ 16,000,000**	**102,000**

Total Capital **$ 500,000,000** **$1,000,000**

28

Spread: Divide Income Statement by the Size of the Credit Union

As a % of Average Assets	10 Bil CU	10 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%

29

Spread Analysis (ROA) Averages

As a % of Average Assets	USA 12/30/14	Montana 12/31/14
Yield: Interest income	3.38	3.08
Less: Cost of funds	(0.54)	(0.39)
Net Interest Margin (NIM-Spread)	2.84	2.69
Less: Operating costs	(3.11)	(2.88)
Less: Provision for loan losses	(0.28)	(0.12)
Net loss before other income	(0.55)	(0.31)
Plus: Non-interest income	1.35	0.99
Equals: Net Profit or Loss (ROA)	0.80	0.68

30

Spread Analysis (ROA)
National Averages

As a % of Average Assets	USA 12/30/14	Montana 12/31/14
Yield: Interest income	3.38	3.08
Less: Cost of funds	(0.54)	(0.39)
Net Interest Margin (NIM-Spread)	2.84	2.69
Less: Operating costs	(3.11)	(2.88)
Less: Provision for loan losses	(0.28)	(0.12)
Net loss before other income	(0.55)	(0.31)
Plus: Non-interest income	1.35	0.99
Equals: Net Profit or Loss (ROA)	0.80	0.68

31

What is Net Interest Margin?

Net Interest Margin (NIM)

- **AKA: 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

32

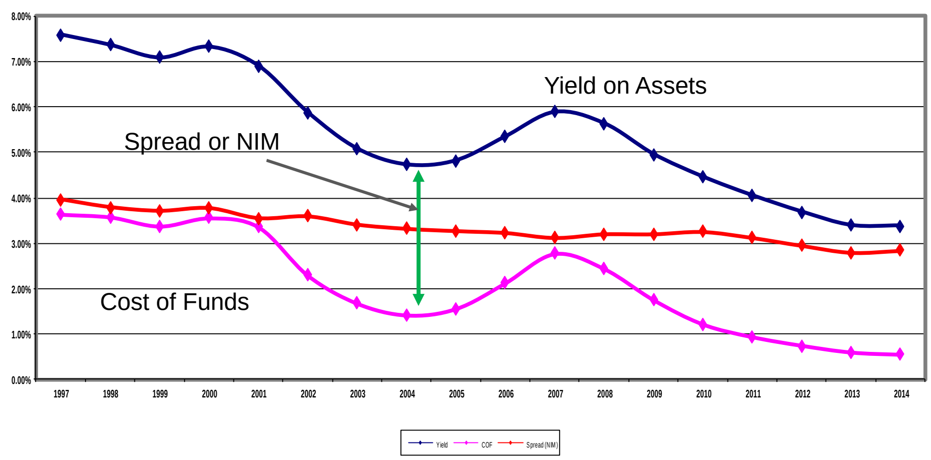
Spread Analysis (ROA)
National Averages

As a % of Average Assets	USA 12/30/14	Montana 12/31/14
Yield: Interest income	3.38	3.08
Less: Cost of funds	(0.54)	(0.39)
Net Interest Margin (NIM-Spread)	2.84	2.69
Less: Operating costs	(3.11)	(2.88)
Less: Provision for loan losses	(0.28)	(0.12)
Net loss before other income	(0.55)	(0.31)
Plus: Non-interest income	1.35	0.99
Equals: Net Profit or Loss (ROA)	0.80	0.68

33

Spread or Net Interest Margin (NIM)

Goal: Can you keep it stable… or grow it?



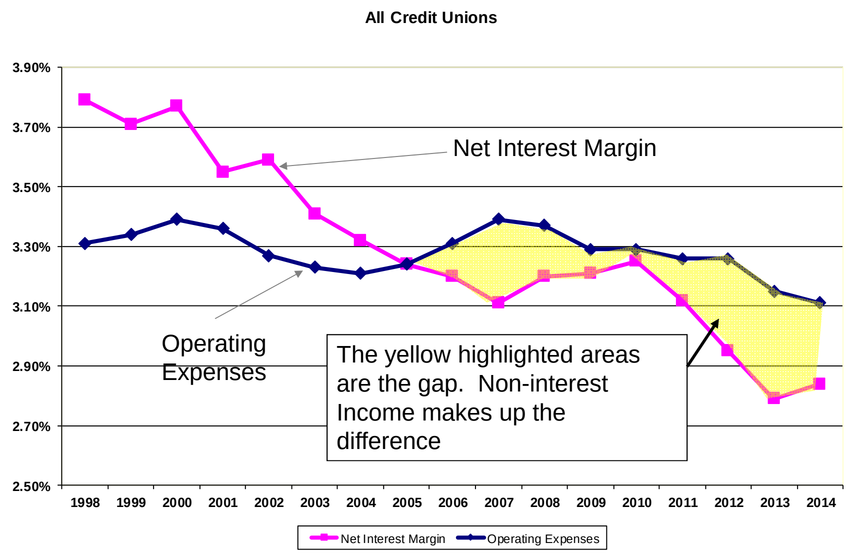
34

Spread Analysis (ROA)
National Averages

As a % of Average Assets	USA 12/30/14	Montana 12/31/14
Yield: Interest income	**3.38**	**3.08**
Less: Cost of funds	**(0.54)**	**(0.39)**
Net Interest Margin (NIM-Spread)	**2.84**	**2.69**
Less: Operating costs	**(3.11)**	**(2.88)**
Less: Provision for loan losses	**(0.28)**	**(0.12)**
Net loss before other income	**(0.55)**	**(0.31)**
Plus: Non-interest income	**1.35**	**0.99**
Equals: Net Profit or Loss (ROA)	**0.80**	**0.68**

35

Net Interest Margin & Operating Expense Ratio



36

Spread Analysis (ROA)
National Averages

As a % of Average Assets	USA 12/30/14	Montana 12/31/14
Yield: Interest income	3.38	3.08
Less: Cost of funds	(0.54)	(0.39)
Net Interest Margin (NIM-Spread)	2.84	2.69
Less: Operating costs	(3.11)	(2.88)
Less: Provision for loan losses	(0.28)	(0.12)
Net loss before other income	(0.55)	(0.31)
Plus: Non-interest income	1.35	0.99
Equals: Net Profit or Loss (ROA)	0.80	0.68

37

Non-Interest Income
Not Just Fees!!!

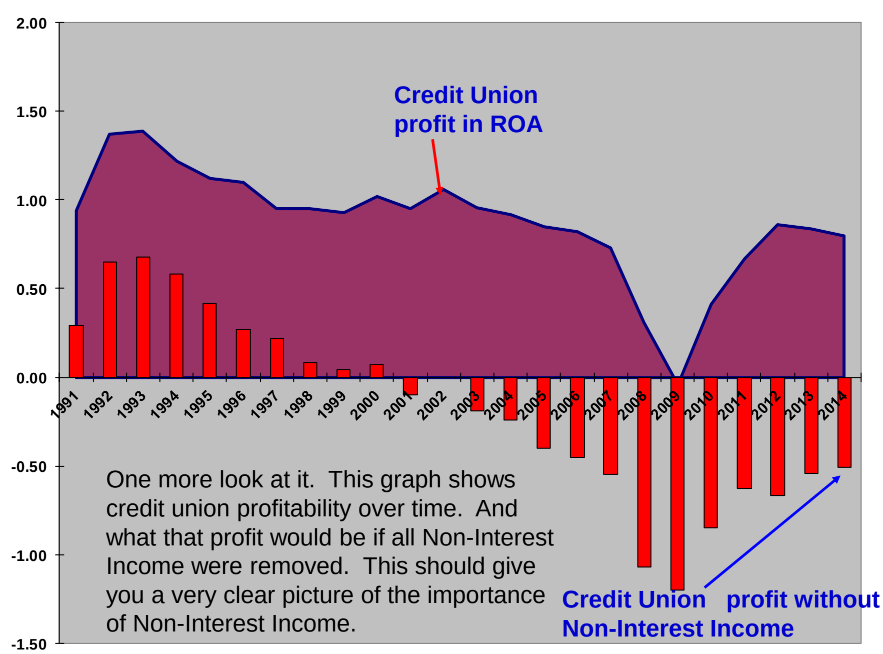
- **Fee Income** – NSF and late loan fee
- **Service Revenues** – Overdraft Privilege/ Courtesy Pay
- **Commission Income** – sales of something
- **Interchange Income** – Debit and Credit cards
- **Other Non-Interest Sources** – CUSO selling some product or service

38

Spread Analysis (ROA) National Averages

As a % of Average Assets	USA 12/30/14	Montana 12/31/14
Yield: Interest income	3.38	3.08
Less: Cost of funds	(0.54)	(0.39)
Net Interest Margin (NIM-Spread)	2.84	2.69
Less: Operating costs	(3.11)	(2.88)
Less: Provision for loan losses	(0.28)	(0.12)
Net loss before other income	(0.55)	(0.31)
Plus: Non-interest income	1.35	0.99
Equals: Net Profit or Loss (ROA)	0.80	0.68

39



One more look at it. This graph shows credit union profitability over time. And what that profit would be if all Non-Interest Income were removed. This should give you a very clear picture of the importance of Non-Interest Income.

40

Spread Analysis (ROA)
National Averages

As a % of Average Assets	USA 12/30/14	Montana 12/31/14
Yield: Interest income	**3.38**	**3.08**
Less: Cost of funds	**(0.54)**	**(0.39)**
Net Interest Margin (NIM-Spread)	**2.84**	**2.69**
Less: Operating costs	**(3.11)**	**(2.88)**
Less: Provision for loan losses	**(0.28)**	**(0.12)**
Net loss before other income	**(0.55)**	**(0.31)**
Plus: Non-interest income	**1.35**	**0.99**
Equals: Net Profit or Loss (ROA)	**0.80**	**0.68**

41

Different Business Models
Different Spread Results
Know Your Model

	Avg CU	MOMMs CU	Low Op CU
Yield	3.08	9.00	3.52
Cost of funds	(0.39)	(0.40)	(0.77)
NIM	2.69	8.60	2.75
Operating exp	(2.88)	(8.50)	(1.48)
PLL	(0.12)	(2.71)	(0.11)
Net before NII	(0.31)	(2.61)	1.16
Non-Interest Income	0.99	4.17	0.50
ROA	0.68	1.56	1.66
Capital/Assets	11.2%	12%	20%

42

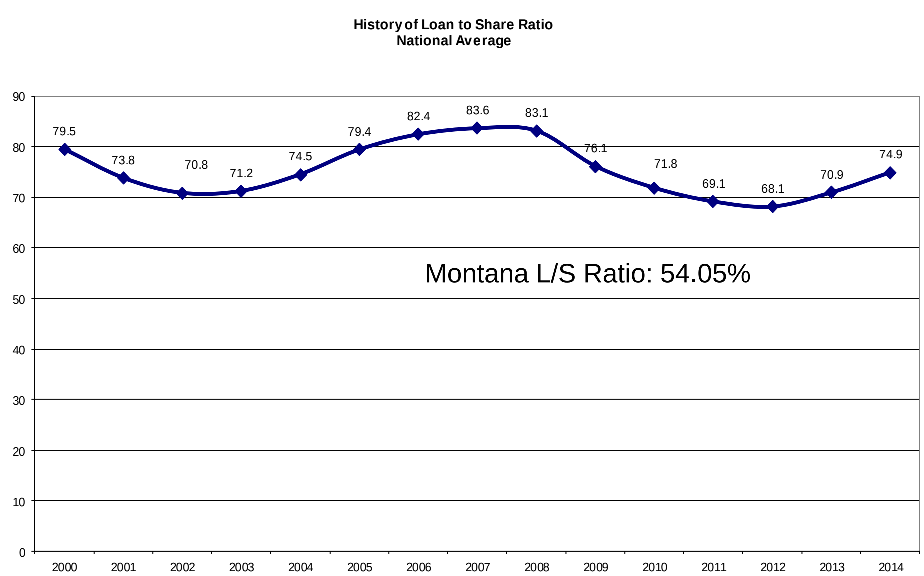
Loan to Share Ratio – eg. 76.96%

Balance Sheet

ASSETS		LIABILITIES & CAPITAL	
EARNING ASSETS		**MISCELLANEOUS LIABS**	
Cash	$ 16,000	Miscellaneous Liabs	$ 15,100
LOANS		**SHARES**	
Unsecured	13,500	Share savings	68,000
Vehicle	110,000	Share drafts	35,000
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			
Held to maturity	50,000		
Avail for sale	5,000		
TOTAL	55,000		
Less Allowance for Investment Losses			
NON-EARNING ASSETS		**CAPITAL**	
Property and equip	1,500	Regular reserve	8,000
NCUSIF	2,000	Undivided earn	10,900
Other assets	100	Total Capital	18,900
TOTAL ASSETS	**$ 227,000**	**TOTAL LIABS/CAP**	**$ 227,000**

Income Statement

REVENUE	
INTEREST INCOME	
Loans	$11,000
Investments	1,500
TOTAL	12,500
COST OF FUNDS	
DIVDENDS PAID	4,200
Net Interest Income	8,300
EXPENSES	
Provision for Loan Losses	1,000
Occupancy, Personnel, Systems	7,800
TOTAL	8,800
NON-INTEREST INCOME	
Fee Income	700
Service Charges	800
Other Income	400
	1,900
NET INCOME	**$ 1,400**



Loan to Share Ratio measures how efficiently Deposits are turned into Loans. Usually, higher is better

44

ALLOWANCE FOR LOAN & LEASE LOSSES

Amount based on estimates of what part of our total loans are currently impaired.

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

CECL – Current Estimated Credit Losses: New Method coming

45

CALCULATING THE ALLOWANCE FOR LOAN & LEASE LOSSES

Estimate based on:

- Segment loans by type with their historical loss ratio
- Consider all known relevant internal and external factors that may affect loan collectability
  - Market trends
  - Economy, local, regional, national
  - Policy changes and their affect on collections
- Apply ratio to current loan balance by segment

NCUA Letter to CUs 02-CU-09

46

Balance Sheet

ASSETS		LIABILITIES & CAPITAL	
EARNING ASSETS		**MISCELLANEOUS LIABS**	
Cash	$ 16,000	Miscellaneous Liabs	$ 15,100
LOANS		**SHARES**	
Unsecured	13,500	Share savings	68,000
Vehicle	110,000	Share drafts	35,000
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			
Held to maturity	50,000		
Avail for sale	5,000		
TOTAL	55,000		
Less Allowance for Investment Losses			
NON-EARNING ASSETS		**CAPITAL**	
Property and equip	1,500	Regular reserve	8,000
NCUSIF	2,000	Undivided earn	10,900
Other assets	100	Total Capital	18,900
TOTAL ASSETS	**$ 227,000**	**TOTAL LIABS/CAP**	**$ 227,000**

Income Statement

REVENUE	
INTEREST INCOME	
Loans	$11,000
Investments	1,500
TOTAL	12,500
COST OF FUNDS	
DIVDENDS PAID	4,200
Net Interest Income	8,300
EXPENSES	
Provision for Loan Losses	1,000
Occupancy, Personnel, Systems	7,800
TOTAL	8,800
NON-INTEREST INCOME	
Fee Income	700
Service Charges	800
Other Income	400
	1,900
NET INCOME	**$ 1,400**

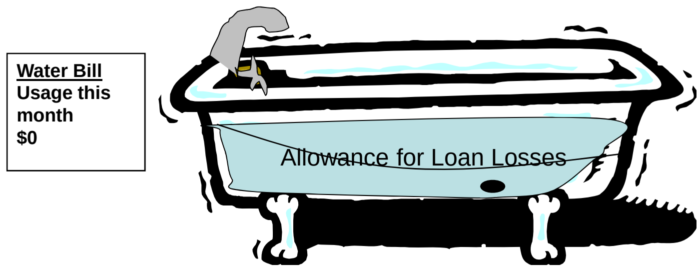
ALLOWANCE FOR LOAN & LEASE LOSSES

LOAN TYPE	Current Month End Balance	24 Month Loss Ratio	Allowance Needed
Unsecured	$3,500	2.10%	$74
Credit Card	$10,000	3.50%	$350
New Vehicle	$35,000	0.70%	$245
Used Vehicle	$75,000	0.79%	$593
Real Estate	$30,000	0.10%	$30
TOTAL	$153,500	0.64%	**$1,291**
	CURRENT BALANCE		$1,100
	ADJUSTMENT REQUIRED		$191

The ALL amount on the Balance Sheet would increase to this amount
…to get there, Provision for Loan Loss Expense be this amount for the month

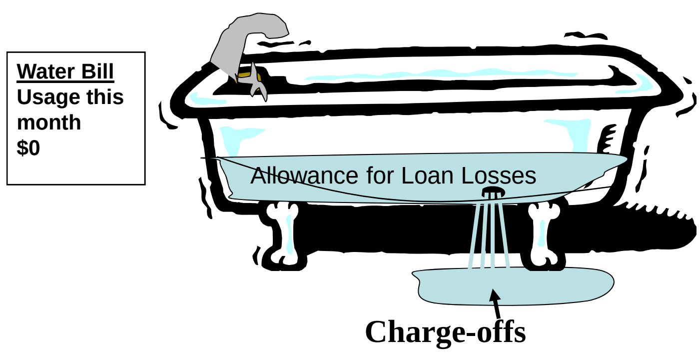
48

Allowance for Loan and Lease Losses – Before charge-off



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

Loans Charged-off, Allowance is depleted



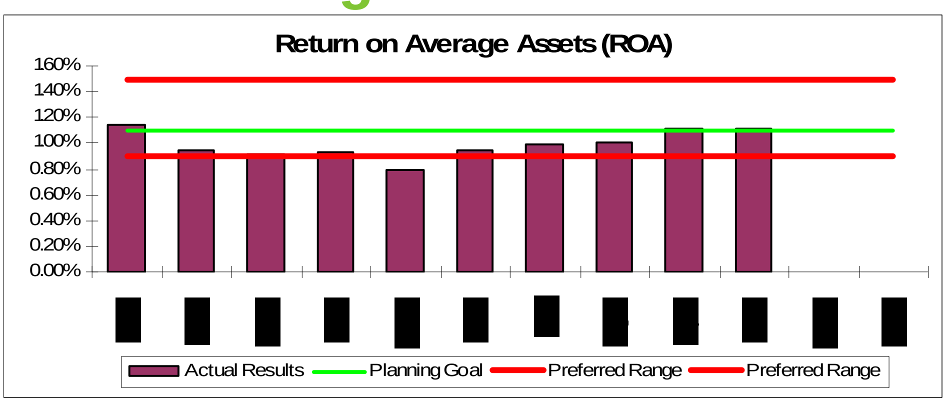
Charge-offs 'drain' the ALLL. These are not new losses. The losses have already been recognized. This is just when we finally remove the loan from the books.

Allowance must be refilled.

The cost of refilling it goes through the Income Statement as an Expense: the Provision for Loan Losses Expense

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

Using a Dash Board



www.forTeamResources.com

52

TIM Touch Inspire Motivate

Timothy Harrington, CPA

TEAM Resources

800-788-9542
Tim@TimothyHarrington.net
@TimTeamResource
www.linkedin.com/in/timothypharrington1
www.TimothyHarrington.net/blog.html