

CUNA

CU Finance for Non-Financial Managers and Volunteers

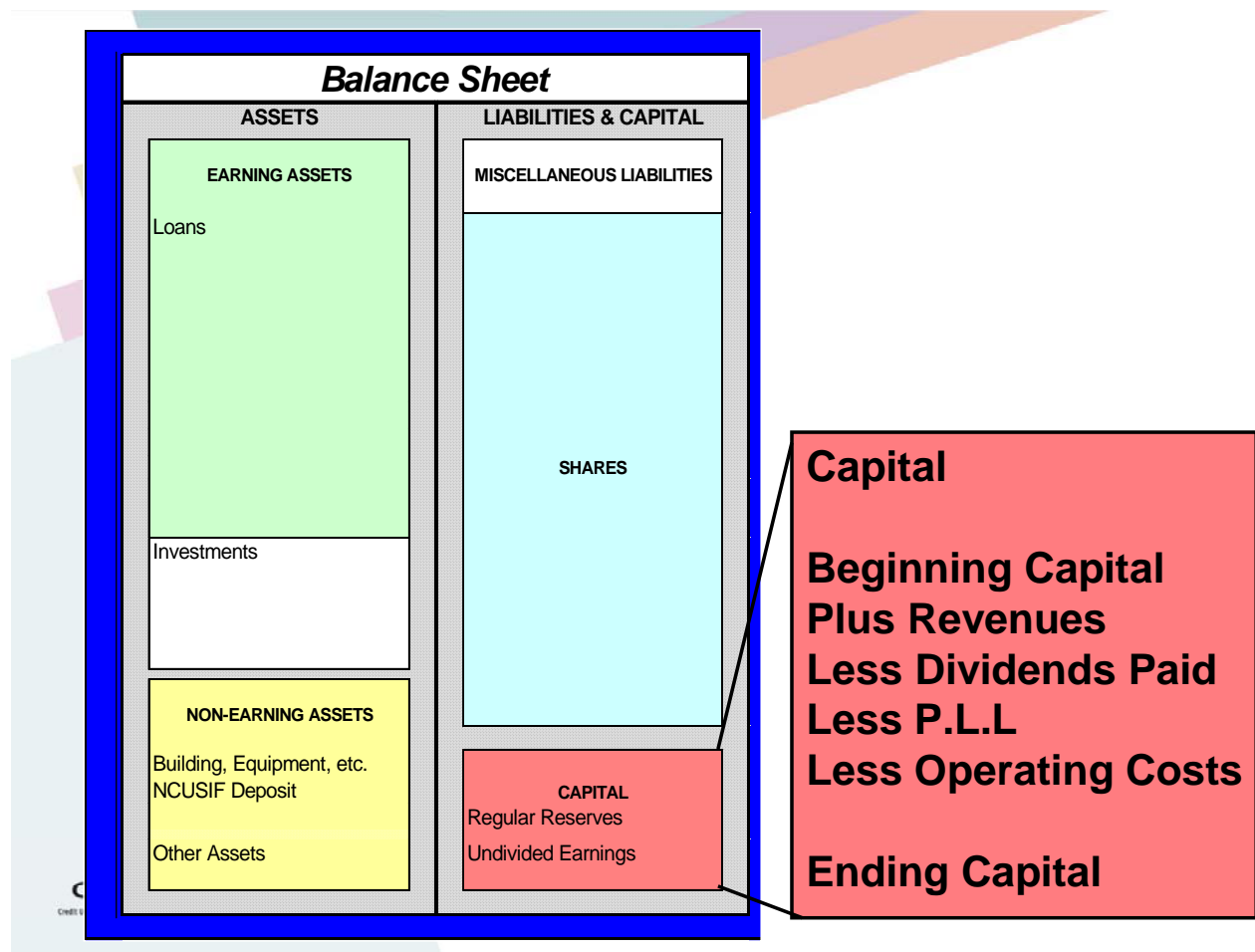
Session Workbook – Session Two

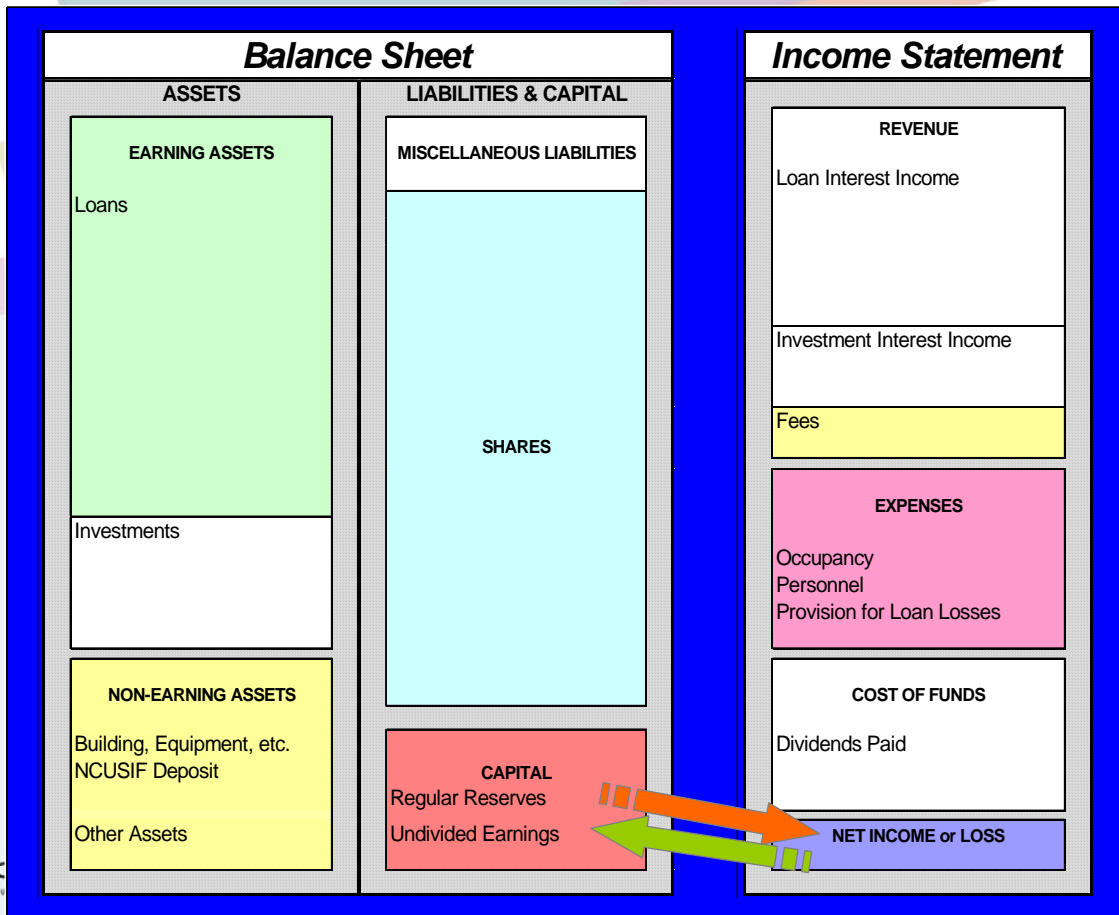
By Tim Harrington email: tharrington@forTeamResources.com

The Financial Statement Game: Going Deeper into Where the Numbers Come From

Basic Financial Statements

- Balance Sheet or Statement of Financial Condition
- Income Statement
- Statement of Cash Flows





Basic Building Blocks of Accounting

- Assets = What you have
- Liabilities = What you owe
- Capital = What you own
- Revenues = What comes in
- Expenses = What goes out

The Cruelties of Accrual Accounting

CASH BASIS

Record cash when it is received

Record expense when it is paid

ACCRUAL BASIS

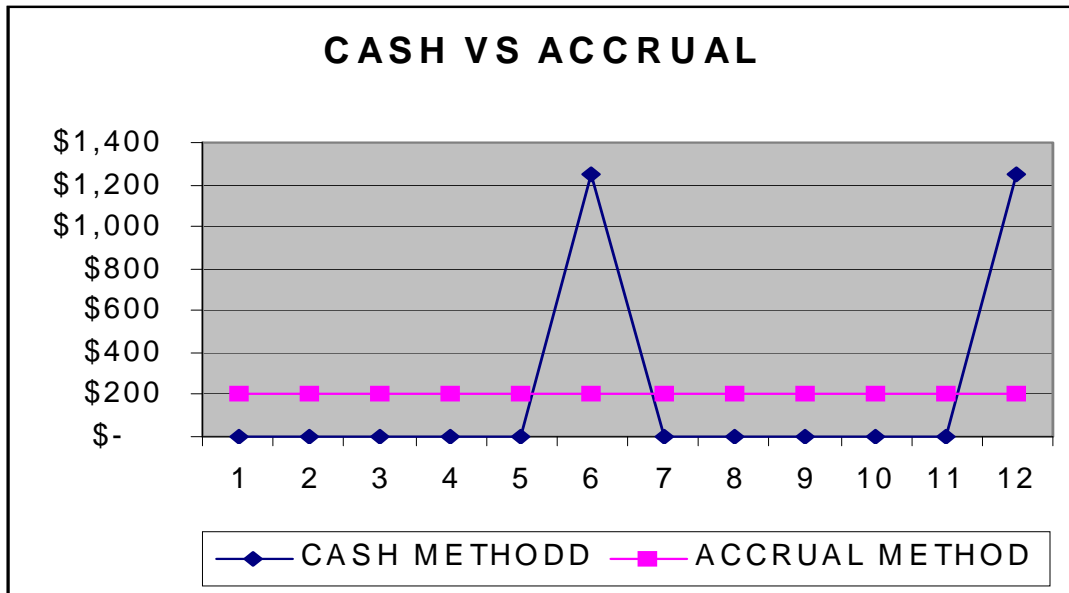
Recognize expense **BEFORE** we pay the cash.

Why? Because we incurred the expense even if we don't pay for it yet.

Recognize income **BEFORE** we receive the cash.

Why? Because we earned it, even if we don't get the cash yet.

Example: CU invests in a \$100,000 CD that pays interest June and December
 Cash basis: record income of \$1,250 in June and \$1,250 in December
 Accrual basis: record income of \$208.33 each month



Accrual basis shows when things were actually earned or actually owed, not when the cash changed hands

Now we're starting to record things when we:

- earn it
- owe it
- use it

Generally Accepted Accounting Principles (GAAP)

Matching Principle: We match an income or an expense to the period that is benefited by it.

An income when it is _____,

An expense when it is _____.

Consistency Principle: Use same accounting principles and techniques year to year for comparative purposes

Prudence Principle: We will be cautious, understating rather than overstating our assets and overstating rather than understating our liabilities.

Historical _____ Unit concept: Values are reported in dollars that have not been affected by inflation

Prepaid Expenses

We Want to Join CUNA.

Cost: \$1.20 per year

Membership period runs from January 1 to December 31

We pay for the benefit in advance of receiving the benefit

So we "_____ - _____" for the benefit

CUNA is going to benefit us little-by-little during the year, so we are going to use up our prepayment little-by-little

We call this a _____ EXPENSE

The amount we "prepaid" is going to benefit future periods...kind of like a Fixed Asset

So we treat the original payment as an "asset" not an expense, not yet

We are going to use up 1/12th of the prepaid amount every month

$$\$1.20 / 12 = \$0.10 \text{ per month}$$

Income Statement 9th Month

Interest Income from Loans	\$3.20
Interest Income from Investment	<u>\$0.08</u>
Total Interest Income	\$3.28
Cost of Funds	<u>\$1.99</u>
Net Interest Margin	\$1.29
Operating Expenses (Deprec)	\$0.08
Provision for Loan Losses	\$0.00
"Used-up" Prepaid Expense	<u>\$0.10</u>
Total Exp and PLL	<u>\$0.18</u>
Net Profit	<u>\$1.11</u>

Another
Contra-
Asset

Assets		LIABILITIES & CAPITAL	
Cash	\$11.05		
Fixed Assets	\$12.00		
Accum. Deprec	(\$0.40)		
Net F/A	\$11.60		
Prepaid Exp	\$1.20		
Amortized Ppd	(\$0.10)		
Net Ppd	\$1.10	SHARES	\$198.90
Investment	\$39.00		
Loan	\$160.00	Capital	\$18.85
Allowance	(\$5.00)		
Net Loans	\$155.00		
Total Assets	\$217.75	Total Liabilities and Capital	\$217.75

End
of 9th
month



Other Prepays

- Prepaid Insurance
- Prepaid Bond
- Prepaid Supplies
- Prepaid League Dues
- Prepaid Annual Meeting
- Etc.

What if you incur an expense but don't have to pay it yet?
We accrue the expense.

We have to have an audit every year.

The auditors come in at the end of the year, but the audit is for the whole year...from January 1 to December 31

When do we record the cost or the expense? When we incur it.
Monthly...little-by-little.

We book it before we pay it.

So we owe it, we just haven't paid it

What do we call something we owe? A _____.

Accrued Audit Expense

Your uncle, Arthur Anderson says he'll audit your books for \$2.40. He'll do the audit at the end of the year and won't charge you until after he is done.

But this audit is for the whole year. How do we record it?

How much will we owe for the year?

$$\$2.40 / 12 \text{ months} = \$0.20 \text{ per month}$$

We owe \$0.20 the first month, but haven't paid it yet

Assets	LIABILITIES & CAPITAL
Cash \$11.05	Accrued Exp \$0.20
Fixed Assets \$12.00	
Accum. Deprec (\$0.40)	
Net F/A \$11.60	
Prepaid Exp \$1.10	
Investment \$39.00	SHARES \$198.90
Loan \$160.00	
Allowance (\$5.00)	
Net Loans \$155.00	
	Capital \$18.85
Total Assets \$217.75	Total Liabilities and Capital \$217.95

Book the amount you will owe here

Income Statement 10th Month

Interest Income from Loans	\$3.20
Interest Income from Investment	<u>\$0.08</u>
Total Interest Income	\$3.28
Cost of Funds	<u>\$1.99</u>
Net Interest Margin	\$1.29
Operating Expenses (Deprec)	\$0.08
Provision for Loan Losses	\$0.00
"Used-up" Prepaid Expense	\$0.10
"Owed" Accrued Expense	<u>\$0.20</u>
Total Exp and PLL	<u>\$0.38</u>
Net Profit	<u>\$0.91</u>

End of 10th month

Assets		LIABILITIES & CAPITAL	
Cash	\$12.34	Accrued Exp	\$0.20
Fixed Assets	\$12.00		
Accum. Depre	(\$0.48)		
Net F/A	\$11.52		
Prepaid Exp	\$1.00		
Investment	\$39.00	SHARES	\$198.90
Loan	\$160.00	Beg. Cap	\$18.85
Allowance	(\$5.00)	Net Profit	\$0.91
Net Loans	<u>\$155.00</u>	End. Cap	<u>\$19.76</u>
Total Assets	<u>\$218.86</u>	Total Liabilities and Capital	<u>\$218.86</u>



Other Accruals

- Accrued Income (have-Asset)
- Accrued Interest Income
- Etc.

Accrued Expenses (owe-Liability)
Accrued Dividends Payable
Accrued Vacation Payable
Etc.

IMPORTANT VALUATION ACCOUNT

Are your members going to pay back every loan you make to them?
What does GAAP say about overstating assets?
Principle of Conservatism
So what do you suppose we do?

ALLOWANCE FOR LOAN AND LEASE LOSSES (ALLL)

Amount based on estimates of what part of our total loans will some day be lost.

A.L.L.L. is a Contra-Asset, that means it takes away from the assets
Of the \$150 in loans in our 'portfolio' how much will be lost over time?

CALCULATING THE ALLOWANCE FOR LOAN & LEASE LOSSES

Statement of Financial Accounting Standards No. 5, *Accounting for Contingencies* (FAS 5), provides the basic guidance for recognition of a loss contingency, such as the collectibility of loans (receivables), when it is probable that a loss has been incurred and the amount can be reasonably estimated.

Statement of Financial Accounting Standards No. 114, *Accounting by Creditors for Impairment of a Loan* (FAS 114) provides more specific guidance about the measurement and disclosure of impairment for certain types of loans. Specifically, FAS 114 applies to loans that are identified for evaluation on an individual basis. Loans are considered impaired when, based on current information and events, it is probable that the creditor will be unable to collect all interest and principal payments due according to the contractual terms of the loan agreement.

Estimate - based on:

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

Apply ratio to current loan balance by segment

From NCUA Letter to CUs 02-CU-09

ALLOWANCE FOR LOAN & LEASE LOSSES

	Current Balance	12 Month Average Loss Ratio	Allowance Required	24 Month Average Loss Ratio	Allowance Required
Vehicle	\$ 4,327,156	0.49%	\$ 21,409	0.39%	\$ 16,688
Mobile home	\$ 7,946	0.00%	\$ -	0.00%	\$ -
signature	\$ 839,783	0.89%	\$ 7,514	1.54%	\$ 12,967
Mortgage	\$ 157,835	0.00%	\$ -	0.00%	\$ -
Visa	\$ 631,442	1.29%	\$ 8,171	1.74%	\$ 10,961
Total	\$ 5,964,162	0.61%	\$ 37,095	0.64%	\$ 40,616
Current Bal			\$ 41,506		\$ 41,506
Adjustment Required			\$ (4,411)		\$ (890)



Another Important Valuation Concept

INVESTMENTS

MARK TO MARKET

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

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

Accounting for Investments

Trading - an investment that your CU has purchased for speculative purposes.

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.

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

Marking Investments to Market

Mutual Fund	Original Cost	Current Fair Value	Gain or (Loss)
A	\$100,000	\$ 95,000	(\$5,000)
B	80,000	80,000	
C	65,000	62,000	(3,000)
	<u>\$245,000</u>	<u>\$237,000</u>	<u>(\$8,000)</u>

If AFS or Trading:

Reduce book value to Market Value

Mutual Fund	Current Balance Sheet Value	Current Market Value	Gain or (Loss)
A	\$ 95,000	\$104,000	
B	80,000	82,000	
C	62,000	62,000	
	<u>\$237,000</u>	<u>\$248,000</u>	<u>\$11,000</u>
	(B)	(C)	(C-B)

If AFS or Trading:

Increase book value to Market Value



Assets		LIABILITIES & CAPITAL	
Cash	\$49.18		
Fixed Assets	\$12.00		
Accum. Deprec	(\$0.16)		
Net F/A	\$11.84		
Investment	\$39.00	SHARES	\$198.90
Market loss	4.00		
Investment	\$35.00		
Loan	\$120.00	Capital	\$19.12
Repos	\$0.00	Unrealized Inv.	
Allowance	(\$2.00)	Loss	(\$4.00)
Net Loans	\$118.00	Capital (after)	\$15.12
Total Assets	\$214.02	Total Liabilities and Capital	\$214.02

AFS Treatment
Available for Sale

Investment at local bank dropped from \$39 to \$35 Market Value

Investment value reduced to Market Value on books

Capital is reduced. -\$4



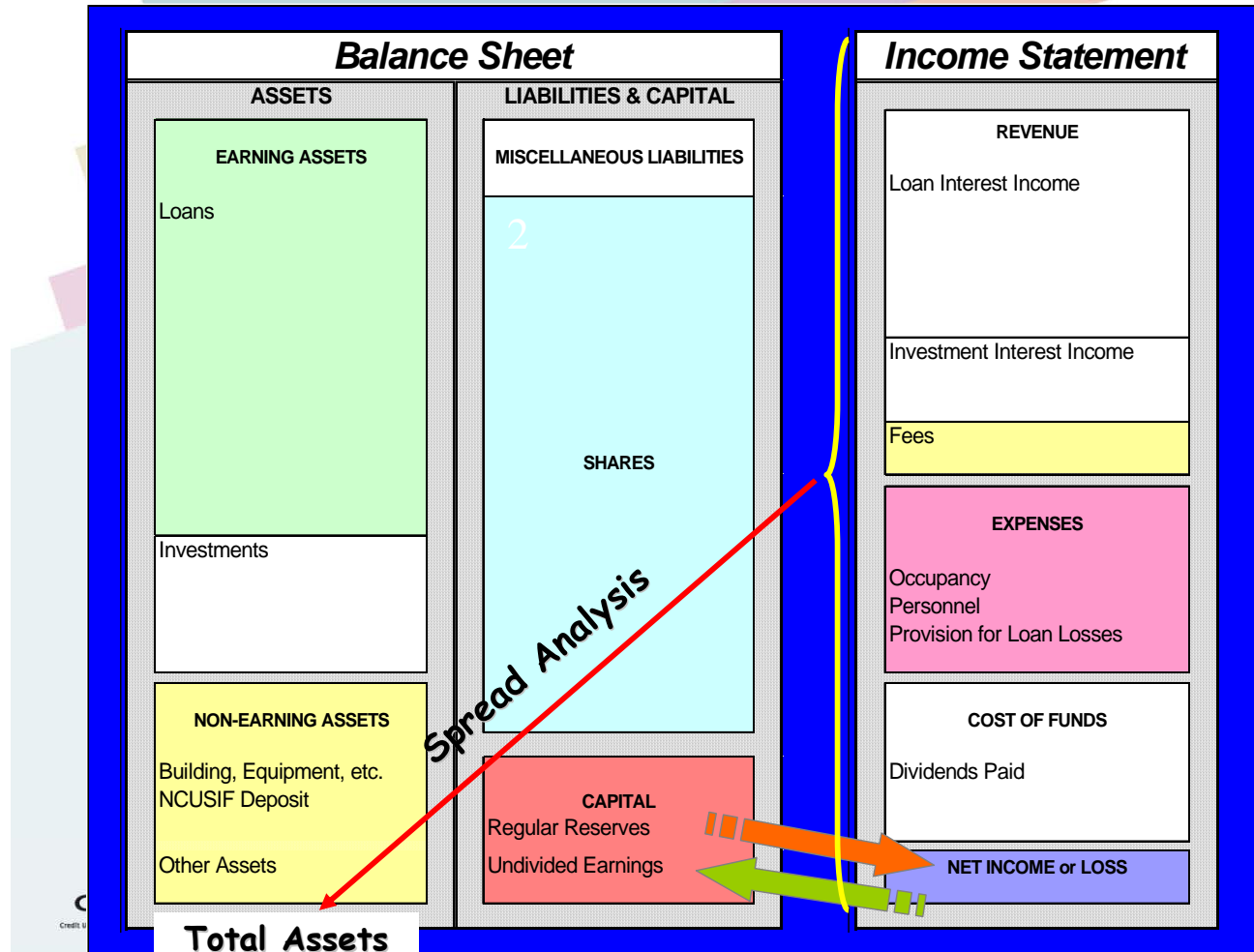
CREDIT UNION PROFITABILITY

At a \$10,000,000 CU	12/31/09	12/31/97
Interest income	\$ 496,000	763,000
Less: Cost of funds	<u>(175,000)</u>	<u>(364,000)</u>
Net Interest Margin	321,000	399,000
Less: Operating costs	(329,000)	(332,000)
Less: Provision for loan losses	<u>(111,000)</u>	<u>(44,000)</u>
Net loss before other income	(136,000)	23,000
Plus: Other revenues		
(Fee income, Other)	<u>136,000</u>	<u>78,000</u>
Equals: Net Profit or Loss	<u>\$ 16,000</u>	<u>102,000</u>

TRADITIONAL SPREAD ANALYSIS

	12/31/09	12/31/97
Yield: Interest income	4.96	7.63
Less: Cost of funds	<u>(1.75)</u>	<u>(3.64)</u>
Net Interest Margin	3.21	3.99
Less: Operating costs	(3.29)	(3.32)
Less: Provision for loan losses	<u>(1.11)</u>	<u>(0.44)</u>
Net loss before other income	(1.20)	0.23
Plus: Other revenues (Fee income, Other)	<u>1.36</u>	<u>0.78</u>
Equals: Net Profit or Loss	<u>0.16</u>	<u>1.02</u>

Elements of Spread



1. Yield on Average Assets

Total Interest Income from Loans and Investments / Average Assets

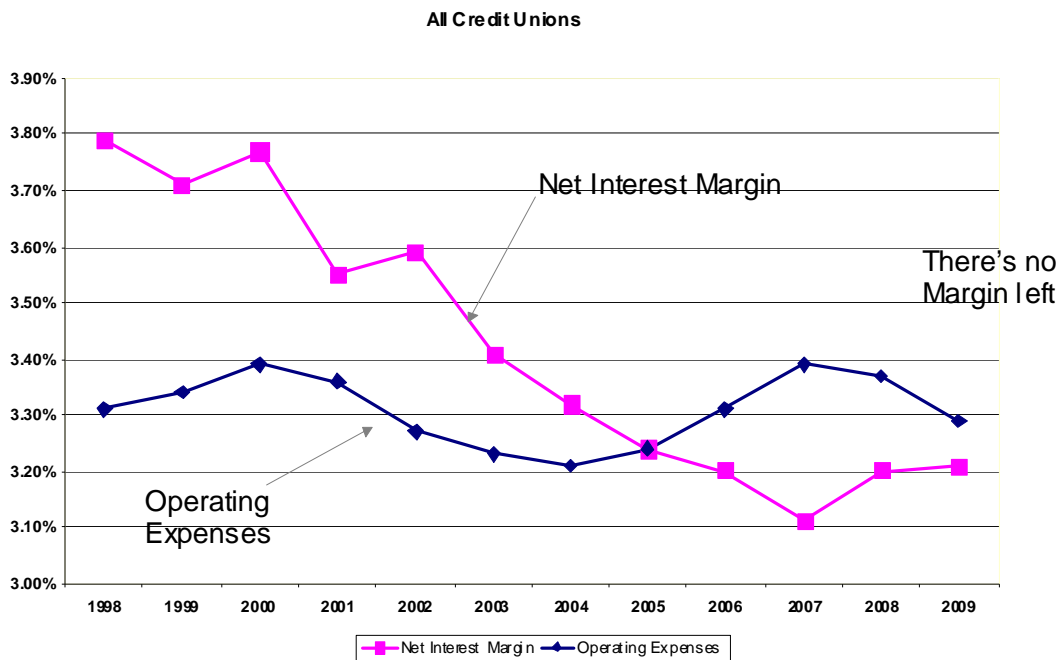
National Average = _____%

2. Cost of Funds

Total Dividends and Interest Paid / Average Assets

National Average = _____%

Net Interest Margin & Operating Expense Ratio



3. Operating Expenses to Average Assets

Operating Expenses = Total operating expenses - Provision for loan losses

Major expense categories:

- Occupancy
- Personnel
- Operations

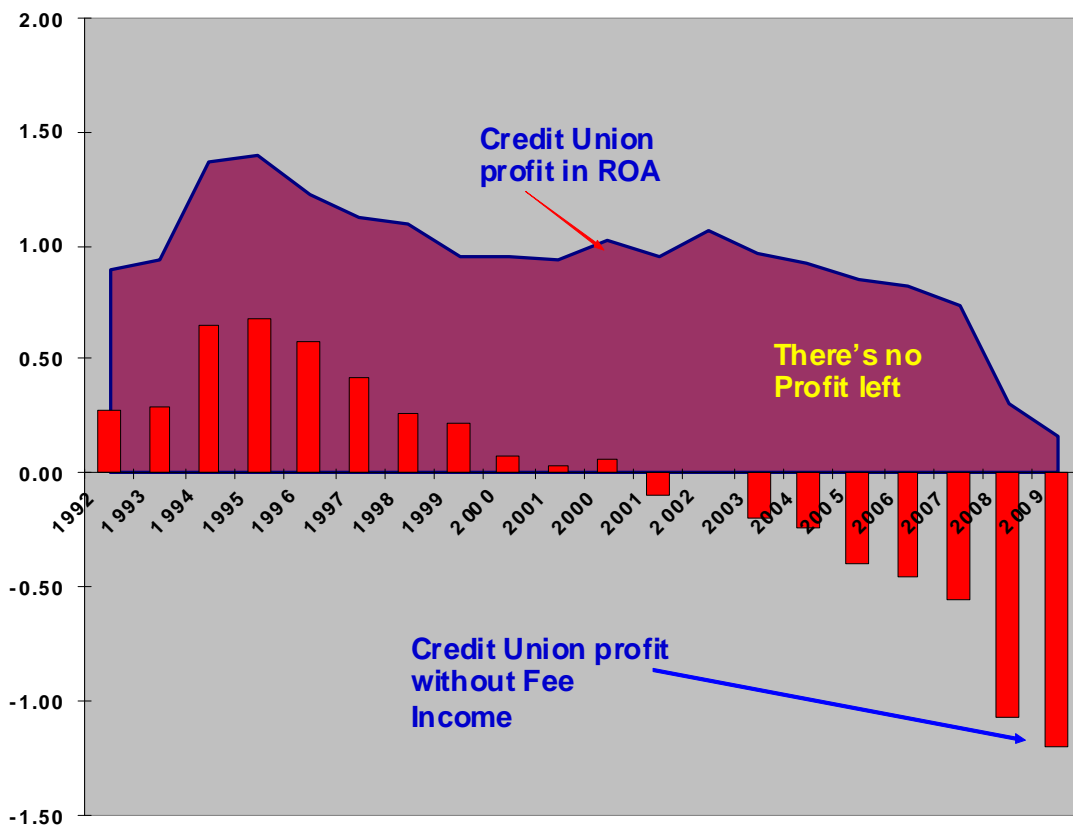
National Average = _____%

4. Provision for Loan Losses (PLL or PLLL)

Total Provision for Loan Losses expense / Average Assets

National Average = _____%

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



5. Service Revenues Fee (Non-interest Income) Income to Average Assets

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

National Average = _____%

6. Return on Assets (ROA or ROAA)

Measures the credit union's profitability

$$\frac{\text{Net Income}}{\text{Average Assets}} = \text{ROA}$$

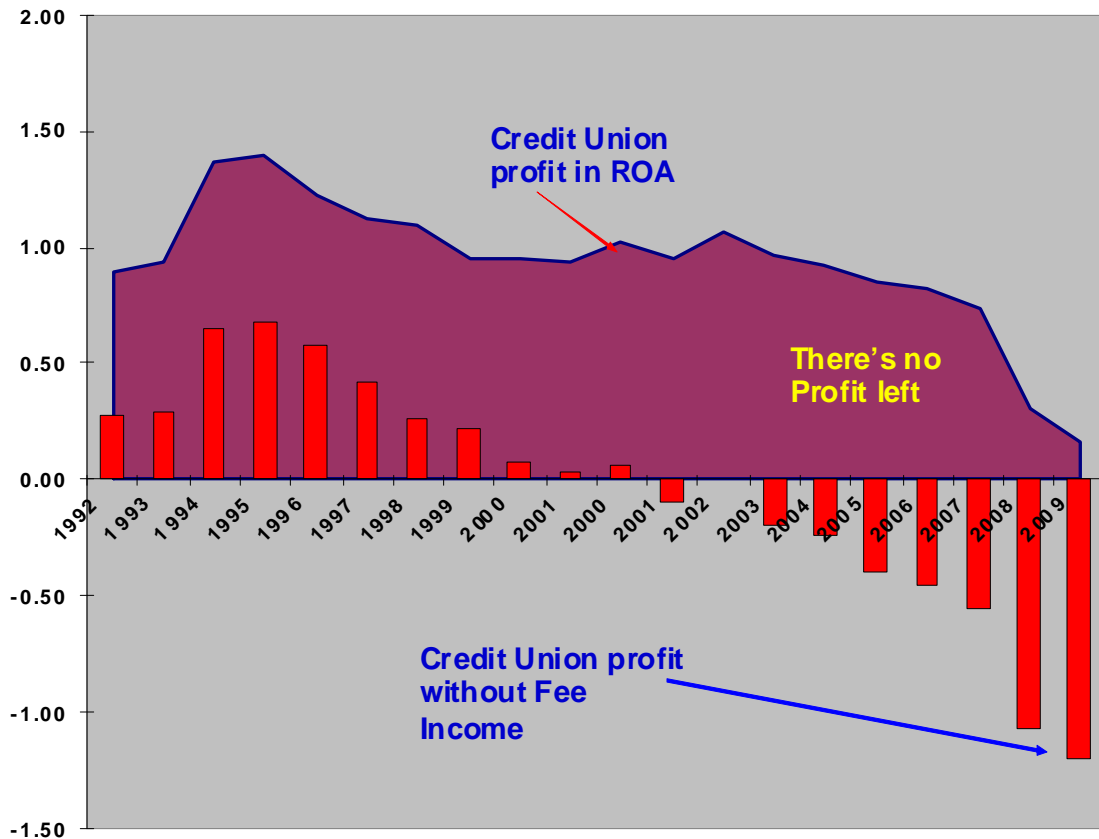
National Average _____%

Balance Sheet		Income Statement	
ASSETS		REVENUE	
EARNING ASSETS		INTEREST INCOME	
Cash	\$ 16,000	Loans	\$ 14,000
LOANS		Investments	3,000
Unsecured	13,500	Fees	1,900
Vehicle	110,000	TOTAL	18,900
Real estate	30,000	EXPENSES	
Total loans	153,500	Occupancy	} 7,800
Less allowance	(1,100)	Personnel	
Net Loans	152,400	Provision for	} 1,000
INVESTMENTS		Loan Losses	
Held to maturity	50,000	TOTAL	8,800
Avail for sale	5,000	COST OF FUNDS	
TOTAL	55,000	Dividends Paid	8,700
NON-EARNING ASSETS		NET INCOME	
Property and equip	1,500	NET INCOME	\$ 1,400
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			
Regular reserve	8,000		
Undivided earn	10,900		
Total Capital	18,900		
TOTAL LIABS & CAP	\$ 227,000		

Loan to Share Ratio

$\frac{\text{Total Loans}}{\text{Total Shares and Deposits}} = \text{Loan to Share Ratio}$

National Average = _____%



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

Low Loan to Share ratio often results in lower income

How do we fix this problem?

_____ Assets
 Loans
 Investments
 _____ - _____ Assets
 Cash
 Fixed Assets
 Other Assets

Earning Assets

_____ you money

Non-earning Assets

_____ you money, or prevent you from making money

Non-Earning Assets to Total Assets

Measures the percentage of assets that do not contribute directly to the credit union's profitability

Maximum allowed by Regulation = 5%

National Avg. _____%

Net Interest Margin or Spread Analysis

Yield on Assets

Income from loans and investments / Average assets

Less: Cost of Funds (COF)

Dividends paid / Average assets

Equals: Net Interest Margin (Spread)

Less: Operating Expense Ratio

Total operating expenses / Average assets

Less: Provision for Loan Loss Ratio

P.L.L. / Average assets

Plus: Fee Income and Other Non-Interest Income Ratio

Fees and other NII / Average assets

Equals: Return on Average Assets (Profit Percentage)

Desk Work:

Yield on Assets $\frac{\text{Interest Inc}}{\text{Average Assets}}$ _____ = _____

Cost of Funds $\frac{\text{Dividends/Int pd}}{\text{Average Assets}}$ _____ = _____

Net Interest Margin Yield minus Cost of Funds = _____

Operating Expense: $\frac{\text{Operating Exp}}{\text{Average Assets}}$ = _____ = _____
Ratio

Provision for L.L.: $\frac{\text{P.L.L.}}{\text{Average Assets}}$ = _____ = _____

Ratio Average Assets

Service Revenue: $\frac{\text{Fee Income}}{\text{Average Assets}} = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

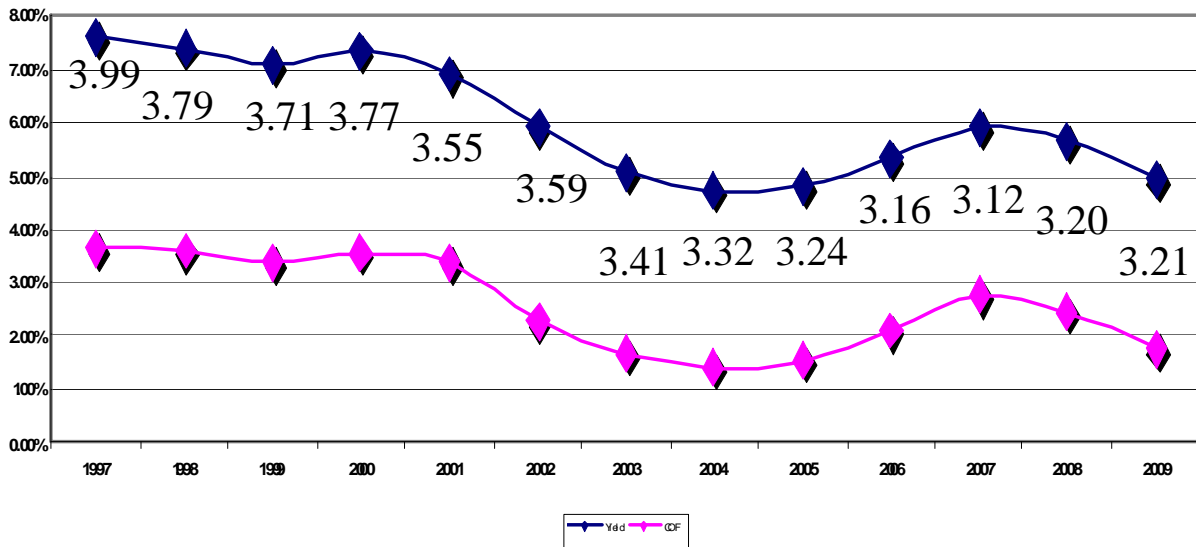
Return on Average: $\frac{\text{Net Income}}{\text{Average Assets}} = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$
Assets

Other Key Ratios

Capital to Assets: $\frac{\text{Capital}}{\text{Assets}} = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

Loan to Share: $\frac{\text{Total Loans}}{\text{Total Shares}} = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

Spread or Net Interest Margin



78 bp decline

Delinquency and Charge-offs

Delinquency ratio

Delinquent loans over 60 days old / Total loans

Charge-off ratio

Charge-offs (less recoveries) / Average loans

Recovery ratio

Recoveries / Charge-offs

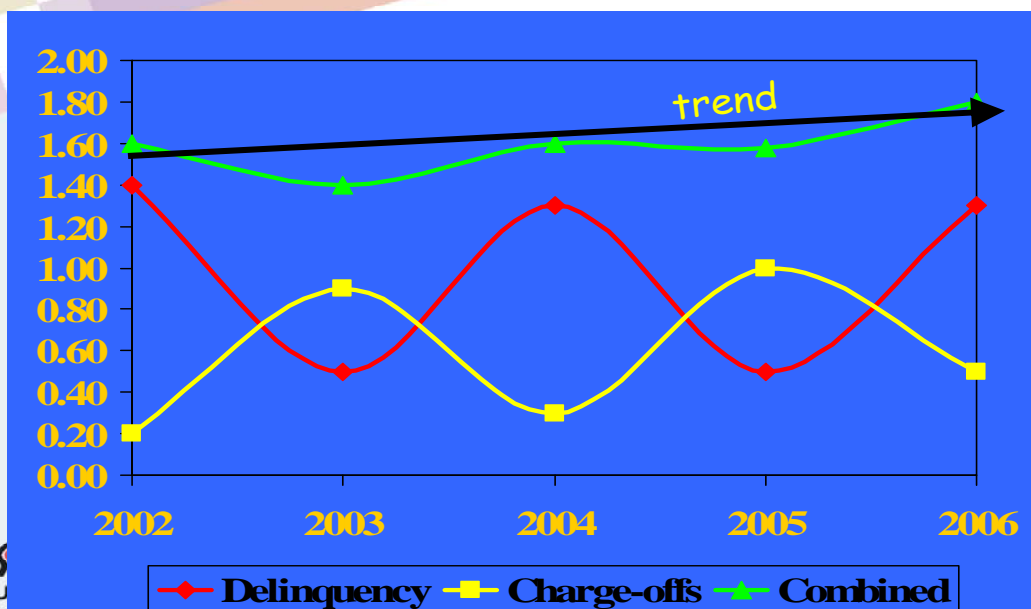
It is important to consider Delinquency and Charge-offs together!

Delinquency and Charge-offs

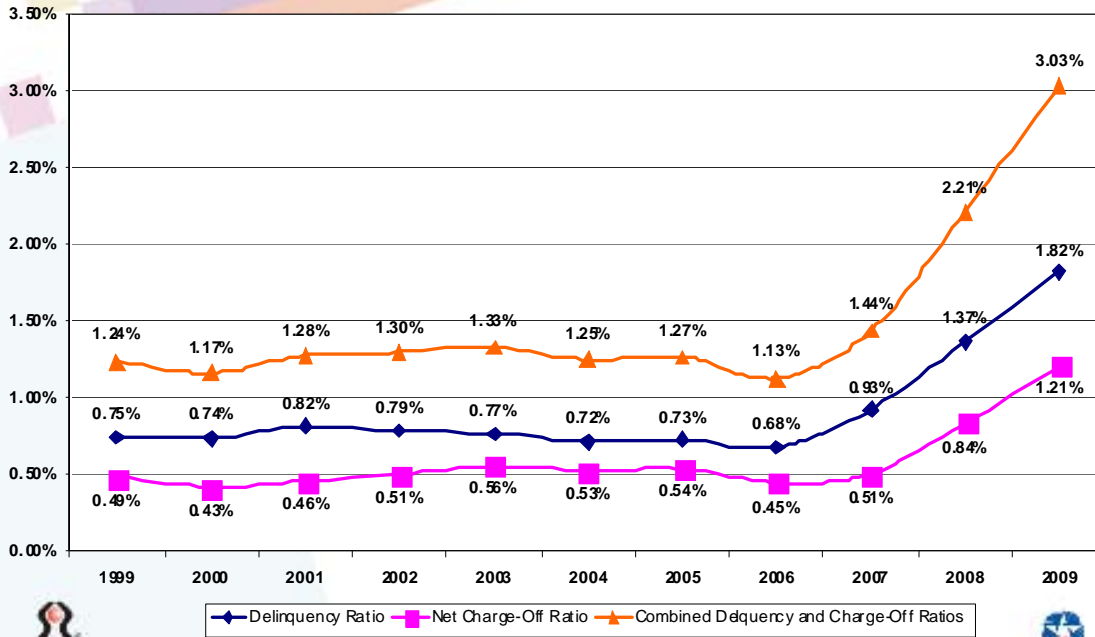
It is important to consider Delinquency and Charge-offs together!

	Normal	12/31/09
Delinquency	0.75%	1.82%
Charge-offs	<u>0.40%</u>	<u>1.21%</u>
Combined	<u>1.15%</u>	<u>3.03%</u>

Delinquency and Charge-offs Combined Reliable Trend Information



History of Delinquency and Charge-Offs National Averages



Recovery Ratio

Recovery Ratio - Percentage of previously charged off loans that are subsequently recovered

Should be within a reasonable range

- 10% of Charge-offs - probably not collecting well enough after loan charged-off
- 20% if Charge-offs - probably charging off loans too soon

Comparative Financial Statements

Important to compare the current information you're reviewing, such as:

- Current month this year to same month last year
- Year-to-date this year to year-to-date last year
- Current month this year to budget for month
- Year-to-date this year to year-to-date budget

Financial Statement Perspectives

Management: Depends on Area

Lending: Loan Growth and sales, portfolio mix

Teller operations: Over and short

Member service: New accounts and incentives, maybe member satisfaction

Collections: Delinquency and Charge-offs

Administration: Salary, Operating Costs,
Spread, ALM issues

Marketing: Color of paper

Using an Instrument Panel

