



Mark H. Smith
INCORPORATED


**BASIC NET ECONOMIC VALUE
(NEV) TRAINING FOR
CREDIT UNION BOARD AND ALCO**

PRESENTED BY: MARK H SMITH

Webinar will begin on the hour

TODAY'S OBJECTIVE

Introduce attendees to the concept of
NEV (net economic value)



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LET'S TALK ABOUT YOUR CREDIT UNION

Member-owned financial cooperative
 Business with no guarantee of success
 Must be profitable—capital
 Highly leveraged
 Business like decisions

THE BALANCE SHEET EQUATION

Assets	=	Liabilities	+	Capital
↓		↓		↓
\$100	=	\$90	+	\$10

GAAP Capital = 10%

THE BALANCE SHEET EQUATION

The GAAP book value may mislead

Economic value often varies from book

THE BALANCE SHEET EQUATION

Economic Value is the Real World

- May be plus or negative
- Ignore at your peril
- Net present value of future cash flows

NET ECONOMIC VALUE (NEV) ANALYSIS

- The nature is more elusive
- Book values may not reflect economic value
- Goes to the economic substance
- Market value reflects economic value
- Not a future simulation

POLLING QUESTION #1

FOUR PARTS TO NEV

- Economic value of loans
- Economic value investments
- Economic value of debt
- Economic value of deposits
- What's Left = Net Economic value (NEV) of capital

ECONOMIC VALUE OF ASSETS

Net present value of future cash flow

- Market value for investments
- Estimated for loans

ECONOMIC VALUE OF INVESTMENTS

- Ten-year T bond (bullet) issued at 2.0%, par
- Rates increase to 3.0%
- Opportunity cost = 1.0%

ECONOMIC VALUE OF INVESTMENTS (CONTINUED)

In PV terms:

- PV of \$20 per year, & \$1,000 at maturity (ten years)
- Discounted at 3.0%
- Economic value = \$915 = Market value
- Discount from par = \$85 = Opportunity cost

NEV FOR LOANS

Same principle

More complex

Less market guidance



OUTCOME

When interest rates rise, the market value of your asset declines—leaving two choices

- Sell the asset and recognize the loss
- Hold onto the asset to maturity

OUTCOME (CONTINUED)

The cost of the choices is equal. The only difference is timing:

- Whether to realize the loss immediately, or
- Suffer the opportunity cost over time

OUTCOME FOR ASSETS

Up-rate shock scenarios for assets usually negative

Result is a decrease in the net economic value

ECONOMIC VALUE IMPACTS DEPOSITS

- Shares & deposits are financial instruments
- 90% of assets purchased (leverage)
- Economic substance may vary from form
- Foolish to ignore

POLLING QUESTION #2

ECONOMIC VALUE IMPACTS DEPOSITS

- Non-maturity shares/deposits
- Maturity deposits

ECONOMIC VALUE IMPACTS DEPOSITS (CONTINUED)

- Borrowed from members
- Less than market
- NMS technically short-term
- Substance may be very long-term
- Often not rate sensitive

ECONOMIC VALUE IMPACTS DEPOSITS (CONTINUED)

Credit unions borrow funds from members

- Below market rates
- Intermediate- to long-term

Great economic value

CONCLUSION

In the deposit world, economic value is often expressed as an amount less than book value

This is good

It offsets the discount on the assets

It works in the credit union's favor

NEV EXAMPLE

Total Assets = Liabilities + Net Worth (Capital)

As of 12/31/XX

Assets		Liabilities and Net Worth (Capital)	
Loans	\$ 6.0	Borrowed Funds:	
Investments	4.0	From financial institutions	\$ 1.0
		From members (shares and deposits)	8.0
		Total borrowed funds	9.0
		Net Worth (Capital)	1.0
Total Assets	\$10.0	Total Liabilities and Net Worth (Capital)	\$10.0

NEV EXAMPLE (CONTINUED)

Total Assets = Liabilities + Net Worth (Capital)

As of 12/31/XX

Assets Devalue by 3%

Assets		Liabilities and Net Worth (Capital)	
Loans	\$ 5.82	Borrowed Funds:	
Investments	3.88	From financial institutions	\$ 1.0
		From members (shares and deposits)	8.0
		Total borrowed funds	9.0
		Net Worth (Capital)	1.0
Total Assets	\$ 9.70	Total Liabilities and Net Worth (Capital)	\$10.0

NEV EXAMPLE (CONTINUED)

Total Assets = Liabilities + Net Worth (Capital)

As of 12/31/XX

Assets		Liabilities and Net Worth (Capital)	
Loans	\$ 5.82	Borrowed Funds:	
Investments	3.88	From financial institutions	\$ 1.0
		From members (shares and deposits)	8.0
		Total borrowed funds	9.0
		Net Worth (Capital)	0.7
Total Assets	\$ 9.70	Total Liabilities and Net Worth (Capital)	\$9.70

Net Worth Original Amount	=	\$1.0
Shocked Amount	=	\$0.7
At Risk	=	\$0.3

NEV EXAMPLE (CONTINUED)

Impact

Assets Devalue	→	3%
Net Worth (capital) Devalue	↺	30%

POLLING QUESTION #3

THE BANK OF EPHRAIM

Failure resulted in the FDIC assuming a liability of about \$41 million in insured deposits

After a bidding war, a large bank agreed to accept the \$41 million liability for \$36 million being paid by FDIC

Value of deposits = About \$5 Million

SUMMARY

- The concept of economic value is real
- NEV captures all of the IRR in the balance sheet
- Opportunity cost; interest income not earned
- The same principles that apply to assets apply to liabilities
- Strongly encourage economic value approach

POLLING QUESTION #4

THANK YOU!

Who we are:

Mark H. Smith, Inc. has been sharing risk management advice with credit unions for over 30 years. We've gained significant insight from working with hundreds of credit unions through multiple rate cycles during that time.

What we do:

- ☆ We provide ALM and Liquidity Risk Management advice to credit unions through our quarterly **ALMPro**® service.
- ☆ We take a common-sense approach to help credit unions prepare for regulators and offer comprehensive client support toward that end.
- ☆ We offer Third-Party ALM Policy and Process Validation and can provide complete Deposit Analysis services.

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