



Mark H. Smith
I N C O R P O R A T E D

ALM POLICIES THAT WORK FOR YOUR CREDIT UNION

PRESENTED BY: CYNTHIA R. WALKER, CEO

(Webinar will begin on the hour)

INTEREST RATE RISK PROGRAM

Required for credit unions over \$50 million, but represents best practices for all CUs

Interest rate risk programs and policies are not a one-size-fits all

Requires judgement based on CU's business objectives and ability to withstand risk

Size, complexity, predictability of cash flows and risk exposure

Central to safety and soundness

ELEMENTS OF AN INTEREST RATE RISK PROGRAM

Requires a written policy on interest-rate risk management

Establish board oversight

Empowers management

Establish adequate IRR measurement and monitoring systems

Implement internal controls – ensure the program is adhering to IRR limits

Utilize the results in decision making

We are going to focus on the policy, but all the components of an interest rate risk program must be identified in the policy

POLICY

PURPOSE



- Decisions
- Desired outcomes
- Strategic objectives

- Limits
- Restraints
- Allowed & prohibited practices

- Consistent
- Relative

POLL QUESTION #1

WRITTEN POLICY ELEMENTS

Identify committees, persons or other parties responsible for review of the credit union's IRR exposure;

Direct actions to ensure management takes steps to manage IRR so that IRR exposures are

- identified,
- measured,
- monitored, and
- controlled

State the frequency management will report on measurement results to the board

- routine
- timely
- sufficient detail to assess risk

<https://www.federalregister.gov/documents/2012/02/02/2012-2091/interest-rate-risk-policy-and-program>

WRITTEN POLICY ELEMENTS - CONTINUED

Set risk limits for IRR exposures based on selected measures

- Income simulation
- Net economic value

Choose interest rate shocks, that the credit union will perform using the selected measures;

- Instantaneous and parallel
- Magnitude such as 100, 200, 300 bps



Provide for periodic review changes in IRR exposures and compliance with board approved policy and risk limits;

- % change in NII
- % change in NW
- Min post shock NW
- Remediation

Consider addressing low rate environment and adjusting shock magnitude when applicable

WRITTEN POLICY ELEMENTS - CONTINUED

Provide for assessment of the IRR impact of any new business activities prior to implementation

- New loan products
- New services
- Shift in investment strategies

Provide for at least an annual evaluation of policy to determine if it is still commensurate

- Size
- Complexity
- Risk Profile

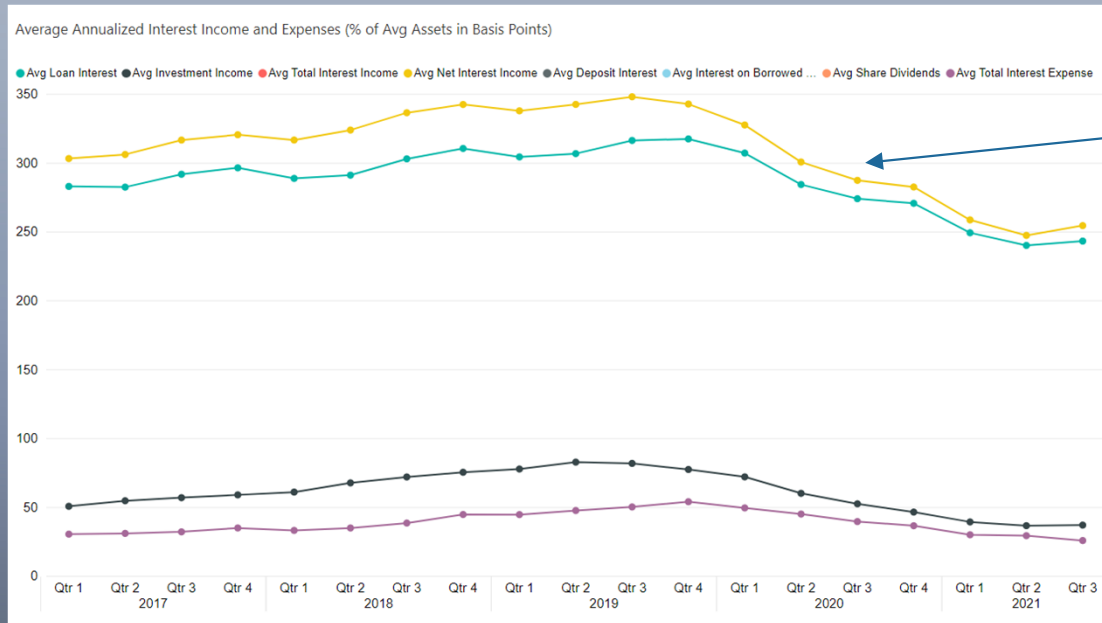
OTHER POLICY ITEMS TO THINK ABOUT

- Reevaluate risk tolerance to reflect current conditions.
- Adjust risk limits to reflect CU's financial condition if it has changed.
- Develop corrective actions when exceptions to policy, limits, and authorizations.
- Consider stress testing major assumptions – sensitivity testing



POLL QUESTION #2

CURRENT ENVIRONMENT

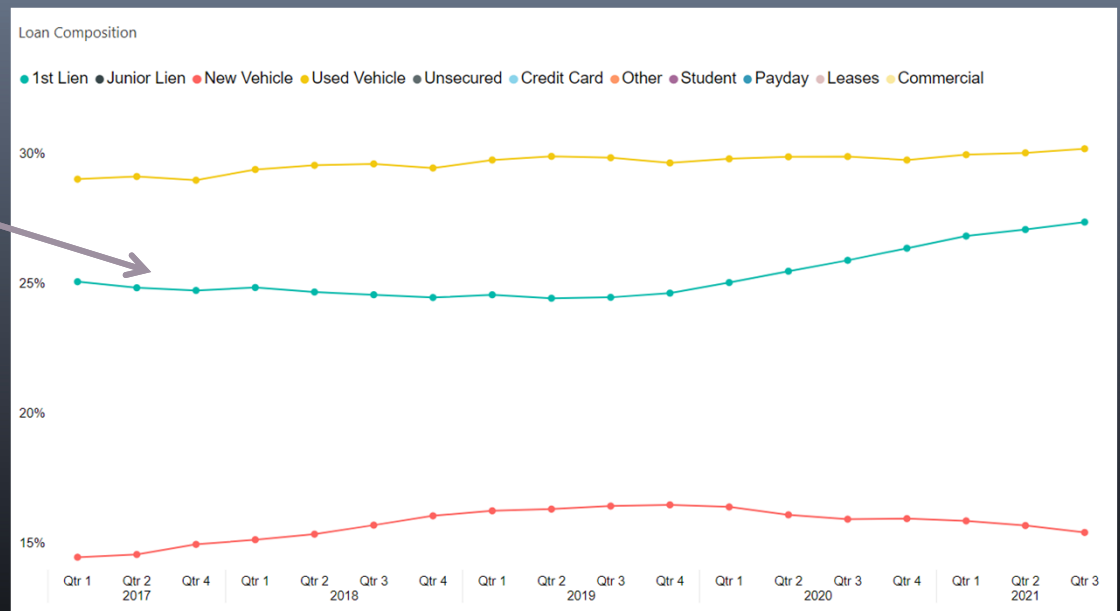


Net interest margins are compressed

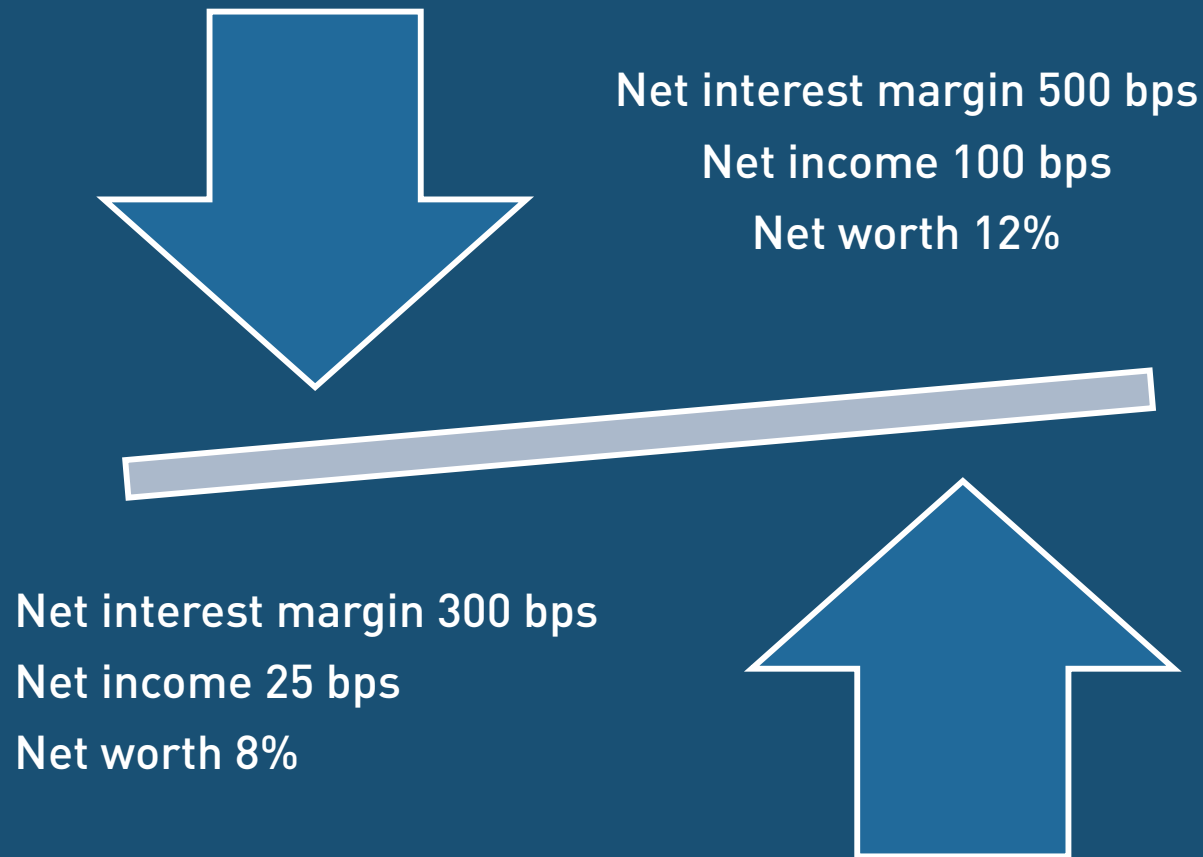
Rates are low but going up

Mortgage loans increased

Return to more normal interest rates could present challenges and risk



SET RISK LIMITS CONSISTENT WITH THE CU'S CURRENT FINANCIAL CONDITION



THE PURPOSE OF RISK LIMITS

Limit the impact of interest rate risk on net worth and long-term viability for the credit union

Change in net worth and the resulting net worth ratio is the focus for NEV – this is not PCA net worth

Income simulation limits are set to control decline in net interest income but should also consider future net worth as earnings change

+ / -

Is it a problem if earnings increase or the net worth ratio improves?

Remove the +

BEWARE

Broad based limits allow management flexibility in managing IRR

Broad based limits may allow the opportunity to get into big trouble

Set limits that are realistic and reflect the board and management's risk appetite

INCOME SIMULATION EXAMPLES – MODERATE EARNINGS

| | Basis Points | | Basis Points | |
|----------------------|--------------|-------------|--------------|-------------|
| Loan Interest | 325 | | 325 | |
| Investment interest | 40 | | 40 | |
| Cost of funds | 35 | 10% decline | 35 | 20% decline |
| NII | 330 | 297 | 330 | 264 |
| Fee and other income | 90 | 90 | 90 | 90 |
| Operating expenses | 375 | 375 | 375 | 375 |
| Net Income | 45 | 12 | 45 | -21 |

-10% policy limit works

| | Dollars | | Dollars | |
|----------------------|--------------------|--------------------|--------------------|--------------------|
| Loan Interest | \$2,437,500 | | \$2,437,500 | |
| Investment interest | \$300,000 | | \$300,000 | |
| Cost of funds | \$262,500 | 10% decline | \$262,500 | 20% decline |
| NII | \$2,475,000 | \$2,227,500 | \$2,475,000 | \$1,980,000 |
| Fee and other income | \$675,000 | \$675,000 | \$675,000 | \$675,000 |
| Operating expenses | \$2,812,500 | \$2,812,500 | \$2,812,500 | \$2,812,500 |
| Net Income | \$337,500 | \$90,000 | \$337,500 | -\$157,500 |
| NW ratio | 10.0% | 10.1% | 10% | 9.79% |
| Net Worth | \$7,500,000 | \$7,590,000 | \$7,500,000 | \$7,342,500 |
| Total assets | \$75,000,000 | \$75,000,000 | \$75,000,000 | \$75,000,000 |

*-20% policy limit allows
for negative earnings*

*Are the limits reasonable
considering other factors:*

- *Net Worth*
- *Current earnings*
- *Business strategies*

INCOME SIMULATION EXAMPLES – REDUCED FEE AND OTHER INCOME – LOWER NW RATIO

| | Basis Points | | Basis Points | |
|----------------------|--------------|-------------|--------------|-------------|
| Loan Interest | 325 | | 325 | |
| Investment interest | 40 | | 40 | |
| Cost of funds | 35 | 10% decline | 35 | 20% decline |
| NII | 330 | 297 | 330 | 264 |
| Fee and other income | 60 | 60 | 60 | 60 |
| Operating expenses | 375 | 375 | 375 | 375 |
| Net Income | 15 | -15 | 15 | -51 |

-10% policy limit tolerates negative earnings

| | Dollars | | Dollars | |
|----------------------|--------------------|--------------------|--------------------|--------------------|
| Loan Interest | \$2,437,500 | | \$2,437,500 | |
| Investment interest | \$300,000 | | \$300,000 | |
| Cost of funds | \$262,500 | 10% decline | \$262,500 | 20% decline |
| NII | \$2,475,000 | \$2,227,500 | \$2,475,000 | \$1,980,000 |
| Fee and other income | \$450,000 | \$450,000 | \$450,000 | \$450,000 |
| Operating expenses | \$2,812,500 | \$2,812,500 | \$2,812,500 | \$2,812,500 |
| Net Income | \$112,500 | -\$135,000 | \$112,500 | -\$385,500 |

-20% policy limit tolerates significant negative earnings

| | | | | |
|--------------|--------------|--------------|--------------|--------------|
| NW ratio | 8.0% | 7.8% | 8.0% | 7.5% |
| Net Worth | \$6,000,000 | \$5,865,000 | \$6,000,000 | \$5,617,500 |
| Total assets | \$75,000,000 | \$75,000,000 | \$75,000,000 | \$75,000,000 |

POLL QUESTION #3

INCOME SIMULATION POLICY LIMITS

AS of September 30, 2020

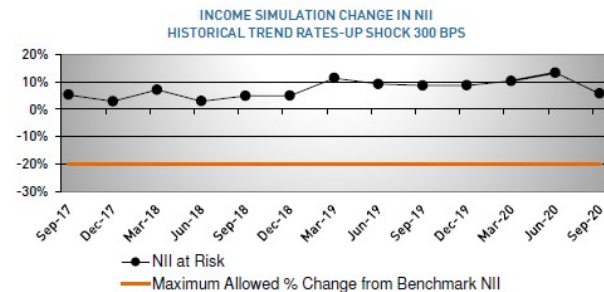
PANEL 1 INCOME SIMULATION

| 3-Year Cumulative (\$000) | SHOCK DOWN -100 BP | Benchmark | SHOCK UP 300 BP |
|---|-----------------------|-----------|--------------------|
| Net Interest Income (NII) | \$4,128 | \$4,416 | \$4,667 |
| \$ Change from benchmark NII | (289) | | 251 |
| % Change from benchmark NII | -6.5% | | 5.7% |
| Maximum Allowed % Change from Benchmark NII | -20.0% | | -20.0% |
| Net income: | \$1,065 | \$1,353 | \$1,604 |
| ROA: | 0.54% | 0.68% | 0.81% |

Additional Rate Shock Scenarios Available for Upgrade.
Includes:
Up 100 BPS and Up 200 BPS,
Down 200 BPS and Down 300 BPS

INCOME SIMULATION ANALYSIS - PANEL 1

The results are presented in a 3 year cumulative format. This analysis simulates interest income and interest expense (dividends) in benchmark and shock scenarios. It is designed as a stress test to evaluate sensitivity interest rate changes. In order to keep the impact of variables under control, many elements of the simulation remain static. Growth, asset and share mix, operating expenses, and fee income fall in this category. For this reason the benchmark simulation should not be considered a likely scenario; nor should it be used to forecast likely results for the coming year. **DETAIL OF ANALYSIS IN SECTION 1**



4416 Benchmark NII * .2 = 883
\$1,353 Benchmark ROA - 883 = 470

QUESTIONS TO CONSIDER

If we take on more interest rate risk and improve the CU's net interest margin, can we tolerate more risk?

Can increased fee and other income help buffer our interest rate risk exposure?

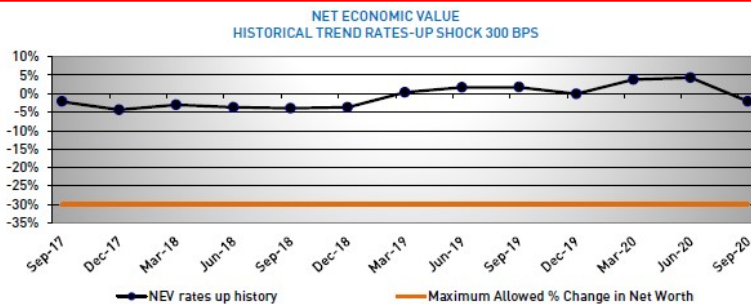
NET ECONOMIC VALUE - EXAMPLE

| | | | |
|--|--------------|--------------|--------------|
| Total assets | \$75,000,000 | \$75,000,000 | \$75,000,000 |
| Book Net Worth | \$9,000,000 | \$7,500,000 | \$6,000,000 |
| NW ratio | 12.0% | 10.0% | 8% |
| Current Economic Net Worth | \$9,270,000 | \$7,725,000 | \$6,180,000 |
| Policy limit - allowable % change | -40% | -40% | -40% |
| \$ change | (3,708,000) | (3,090,000) | (2,472,000) |
| Up Shock Economic Net Worth | \$5,562,000 | \$4,635,000 | \$3,708,000 |
| Post Shock Economic NW Ratio | 7.39% | 6.16% | 4.93% |

NET ECONOMIC VALUE POLICY LIMITS

PANEL 2 NET ECONOMIC VALUE

| | SHOCK DOWN -100 BP | CURRENT NET WORTH | SHOCK UP 300 BP |
|--|-----------------------|-------------------|--------------------|
| Book Net Worth (\$000) | | \$9,527 | |
| EV of Net Worth (\$000) - Benchmark | \$6,988 | \$8,154 | \$7,985 |
| \$ Change EV of Net Worth from Benchmark (\$000) | (\$1,166) | (\$1,373) | (\$170) |
| % Change in EV of Net Worth from Benchmark | -14.3% | | -2.1% |
| Maximum Allowed % Change in EV of Net Worth | -30.0% | | -30.0% |
| Book Net Worth Ratio | | 14.6% | |
| Post Shock Net Economic Value Ratio | 10.6% | 12.4% | 13.1% |
| Minimum Post Shock Net Economic Value Ratio | 7.0% | | 7.0% |

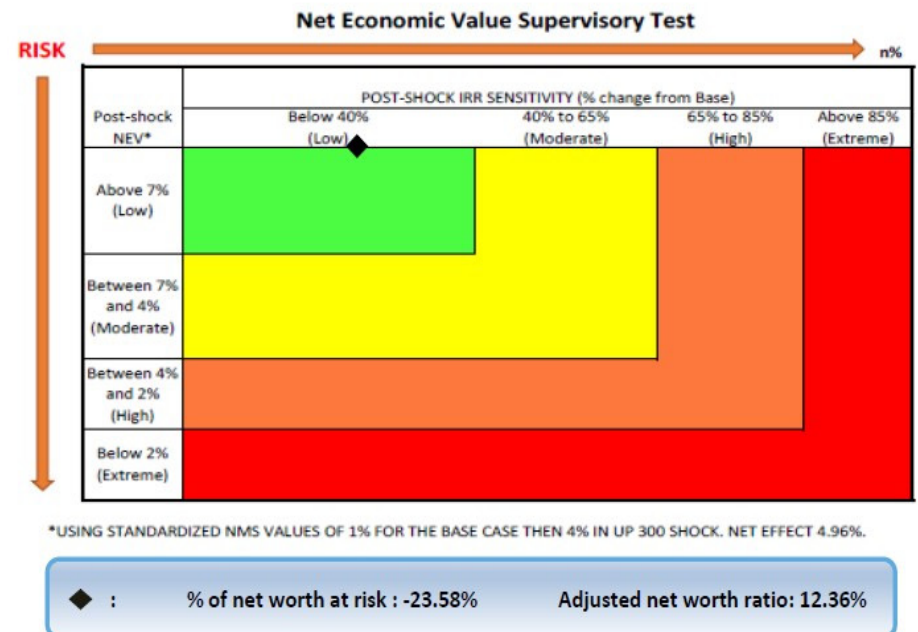
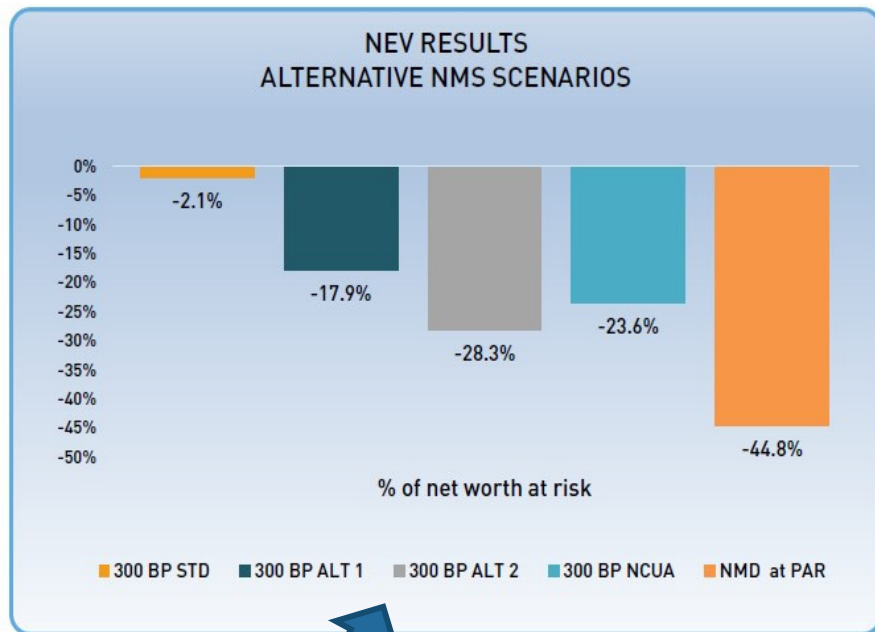


NET ECONOMIC VALUE - PANEL 2

This analysis estimates the impact of Market Risk on the Credit Unions Net Worth (capital)* as of the above date. The Net Worth remaining after the impact of Market Risk is applied is referred to as the CU's Net Economic Value (NEV) [DETAIL OF NEV ANALYSIS IN SECTION 2](#)

*Formerly Operational Guidelines

NCUA NEV SUPERVISORY TEST-2017



Non maturity share assumptions significantly change the outcome of the NEV analysis. It is important to understand the major assumptions and their impact on the NEV analysis results

THE BIGGEST FACTORS TO MANAGING INTEREST RATE RISK

Funding – Regular shares and share drafts

Short term investments

Consumer loans with repricing of 36 months or less

Set your policy for credit union risk tolerance, current business strategies and future operations.

Use regulatory guidance but keep in mind their business objectives may conflict with CU objectives

WATCH FOR ITEMS IN YOUR POLICY YOU ARE NOT TRACKING

GAP

GAP analysis is a simple IRR measurement method that reports the mismatch between rate sensitive assets and rate sensitive liabilities over a given time period. GAP analysis will assist Senior Management and the Board of Directors in identifying large mismatches in the terms between the credit unions sources of funds (shares, certificates) and its uses of funds (loans, investments).

The Credit Union will strive for a Cumulative GAP/Assets of +/-20% in the 6 month time bucket. From time to time, the credit union may be outside of target limits due to seasonality factors as well as local and national economic conditions. If at any time the +/-20% target is exceeded, Senior Management will determine the cause of the mismatch and immediately notify to the Board Chairman as to the necessary course of action, if any.

BRIEF CONCENTRATION LIMIT DISCUSSION

- Make sure your concentration limit does not conflict with your IRR policy
- More than interest rate risk control
- Concentration - think potential losses or exposure from
 - SEG groups
 - Geographical location
 - Dealers
 - Loan type
 - Credit scores
 - Vendors

MHSI SOLUTIONS INCLUDE:

EASY AND AFFORDABLE CECL SOLUTION

LOAN PRICING & HISTORICAL RATE TOOL

By using MHSI you

Save time

Delegate to the experts

Have access to extensive experience

Receive help with exams and responses

Have a reliable resource

From a friendly and reputable company





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