



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

Income Simulation Training for Credit Union Leaders, Boards and ALCO

Presented by: Cynthia R. Walker, CEO

(Webinar will begin on the hour)

AGENDA

Basic credit
union financial
concepts

Definitions

Interest rate risk

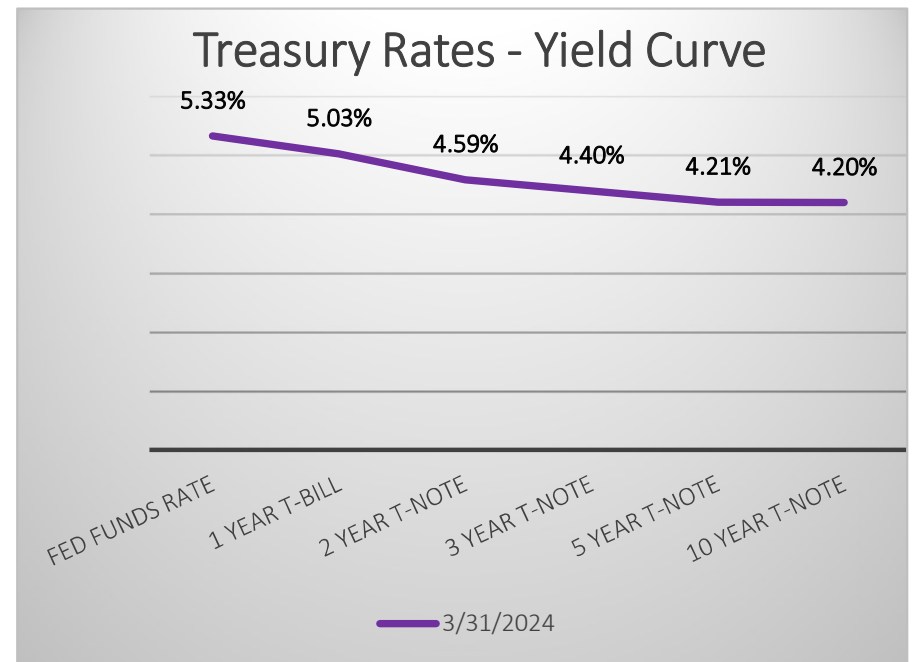
Balance sheet
behaviors

Income
simulation

Board
responsibility
and policy limits

DEFINITIONS

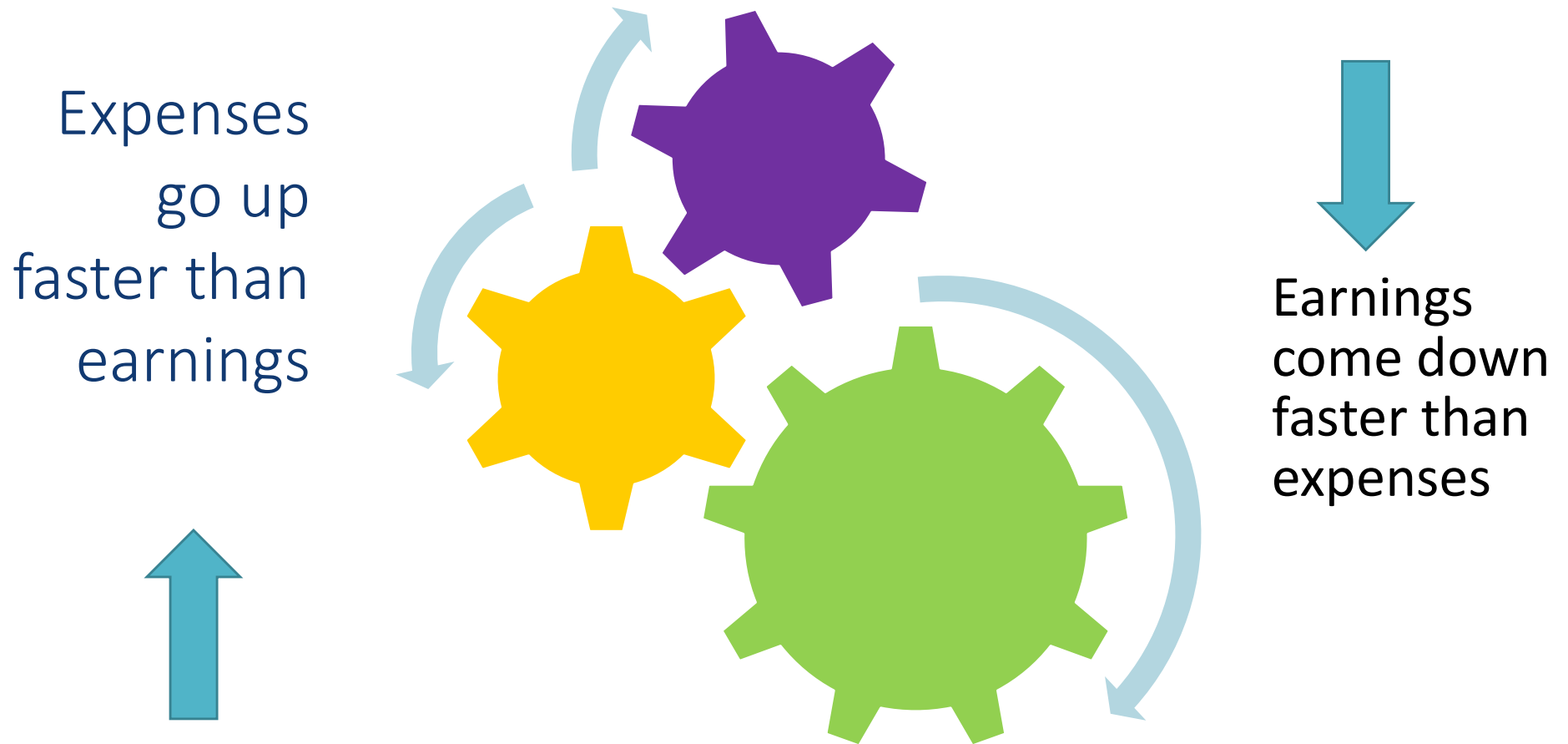
- Basis point – 1/100 of 1%, 3% = 300 basis points
- Net interest margin (NII) – interest income from loans and investments less cost of funds
- Non-maturity deposits – all deposits that are not certificates
- Prepayment/repayment speeds – loan payment speeds faster than contractual
- Repricing mismatch – interest earnings and expenses do not change at the same time
- Yield Curve – the difference between short and long-term rates



Example of a yield curve

INTEREST RATE RISK

Caused by repricing mismatch when interest rates change –
Fixed-rate and variable-rate loans, investments and deposits all play a part



BALANCE SHEET BEHAVIORS

Member optionality – Assume they will act in their best interest

Loans

Prepayment risk

- Borrower pay off loans sooner than loan terms

Extension risk

- Borrower chooses not to prepay

Deposits

Non-maturity (NMD)

- Rate sensitivity - beta
- Lag – response time

~~• Decay - time~~

Member CD's

- Maturity schedule
- Early withdrawal

DEPOSITS BEHAVIORS

Industry data



Regular shares have low interest rate sensitivities (beta)



Checking accounts have little to no rate sensitivity



Money Market rate sensitivity increases as balances increase

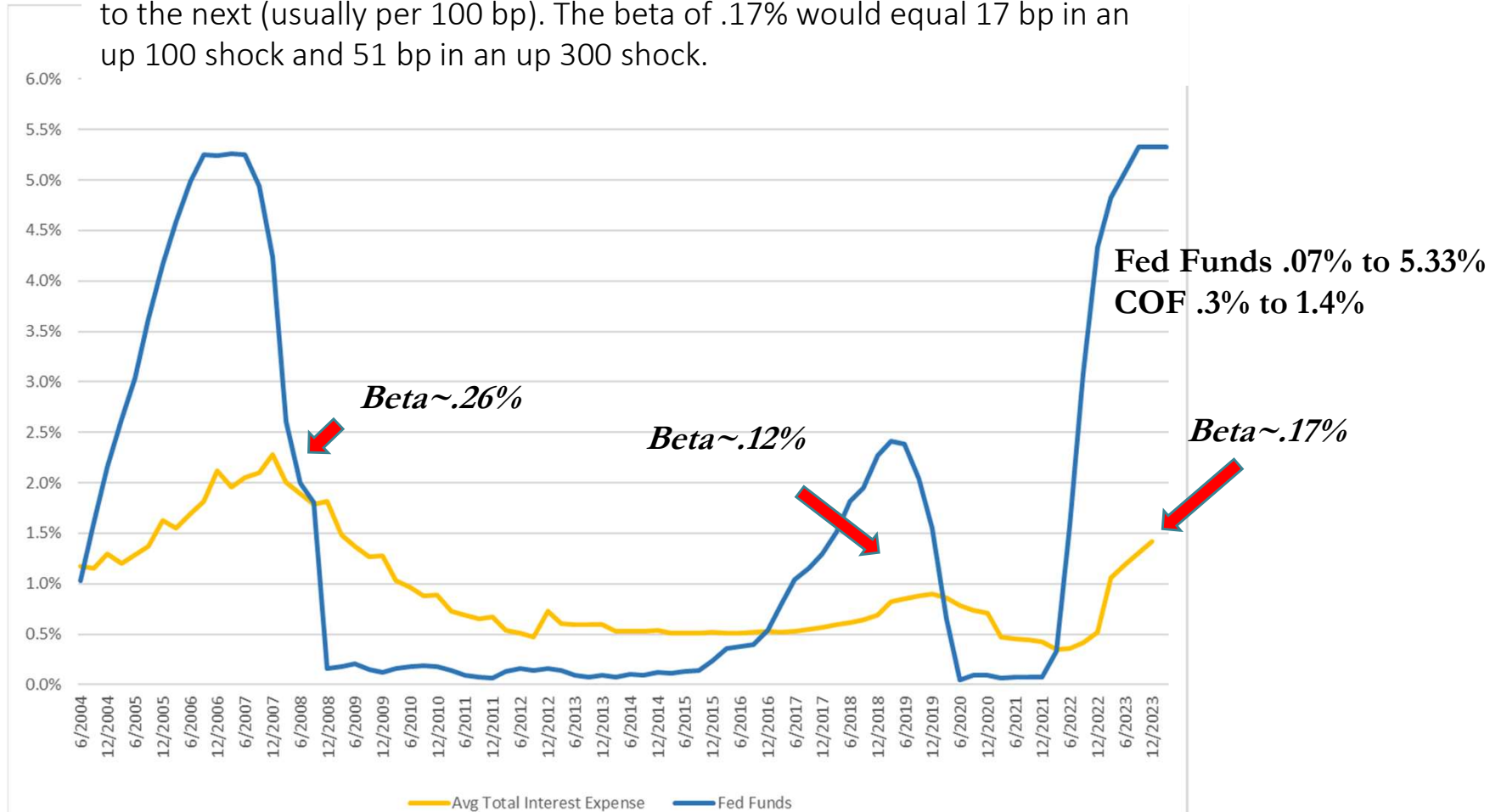


Certificate balances increase when interest rates go up and decrease when rates come down

Increasing interest rates may be positive for net income if cost of funds can be controlled

TREASURY RATES TO COST OF FUNDS

* Beta is defined as the change in rate paid from one interest rate scenario to the next (usually per 100 bp). The beta of .17% would equal 17 bp in an up 100 shock and 51 bp in an up 300 shock.



Poll question #1

INCOME SIMULATION



Estimates future net interest income (NII) and net income



Simple in concept



Uses familiar terms



Member behavior for loans and deposits difficult to predict

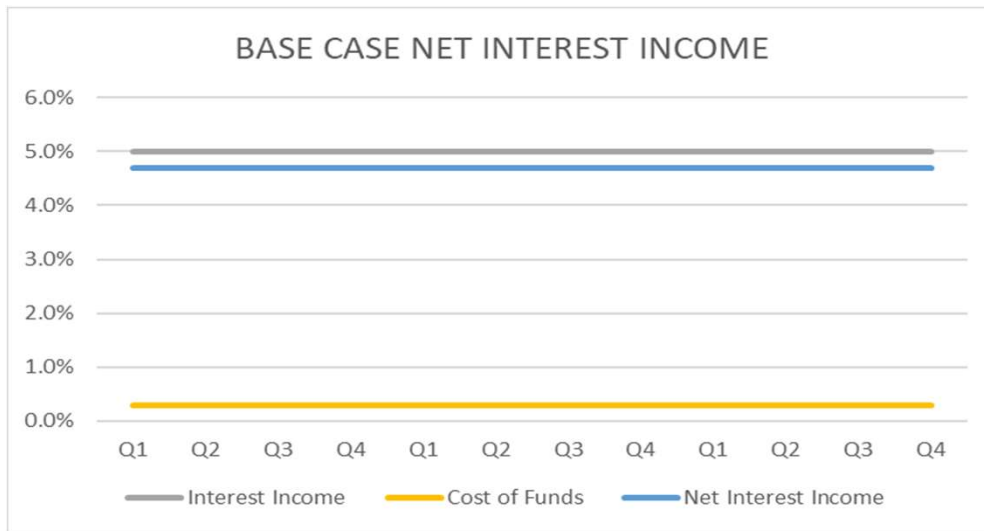
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Short-term (1 to 3 years) and will miss risk of longer-term assets



Very effective estimate of risk to NII

EXAMPLE 3% INSTANTENOUS AND PARALLEL up shock 36 MONTH REPRICING OF ASSETS

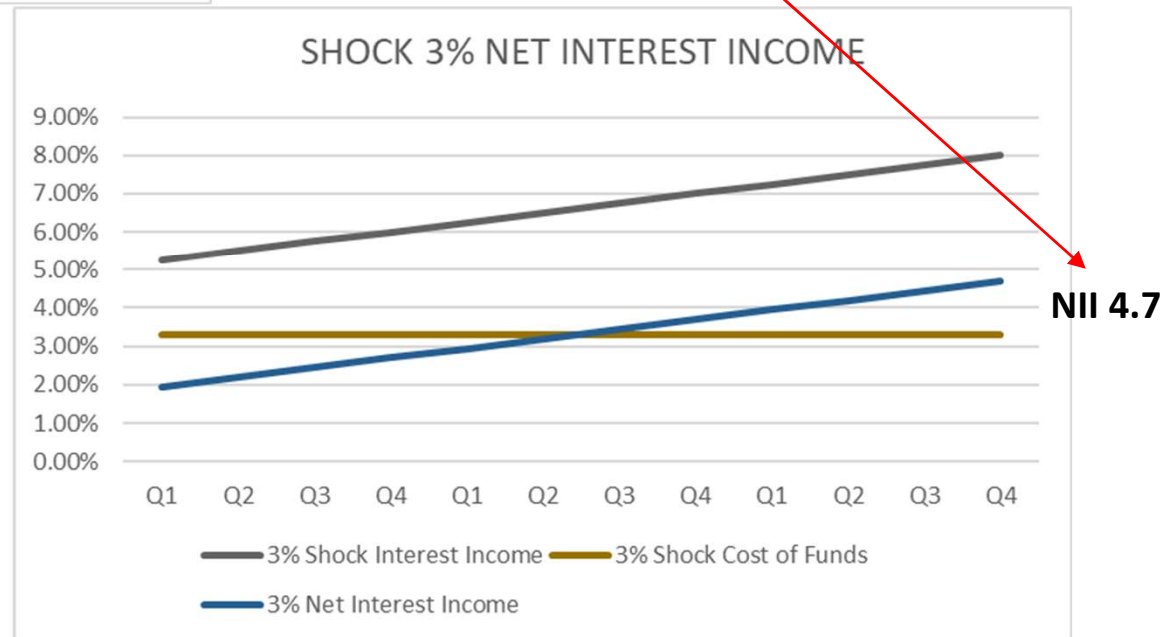


Loan yield 5%
Cost of funds .30%
NII 4.7%

NII 4.7

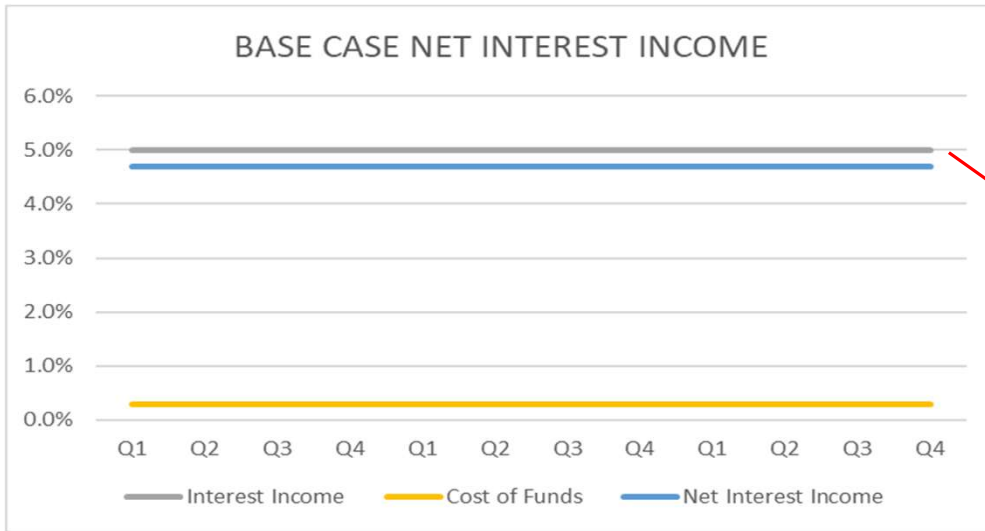
**LOAN YIELDS AND INVESTMENT YIELDS TAKE
36 MONTHS TO REPRICE**

COST OF FUNDS GO UP IMMEDIATELY



NII 4.7

EXAMPLE 3% INSTANTENOUS AND PARALLEL up shock 60 MONTH REPRICING OF ASSETS



NII 4.7%

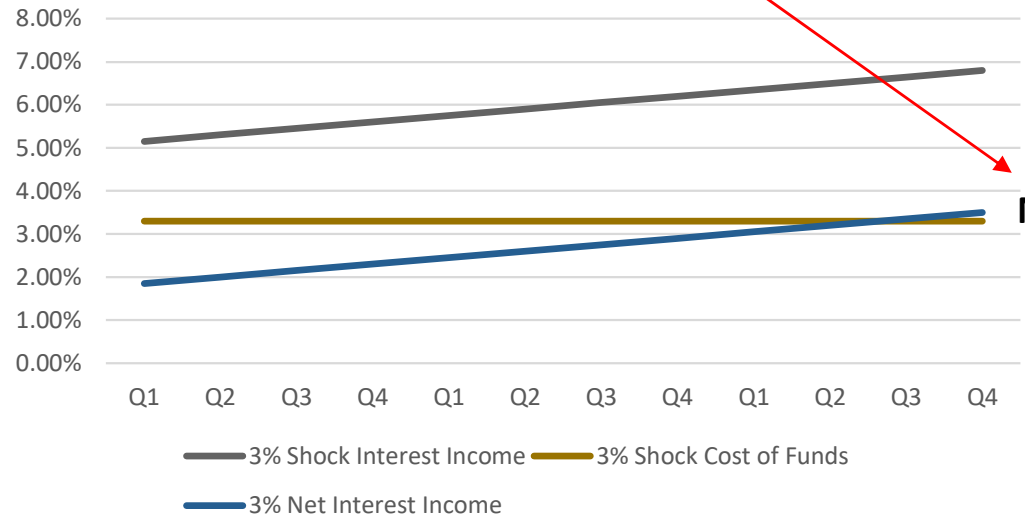
Loan yield 5%
Cost of funds .30%
NII 4.7%

LOAN YIELDS AND INVESTMENT YIELDS TAKE 60 MONTHS TO REPRICE

COST OF FUNDS GO UP IMMEDIATELY

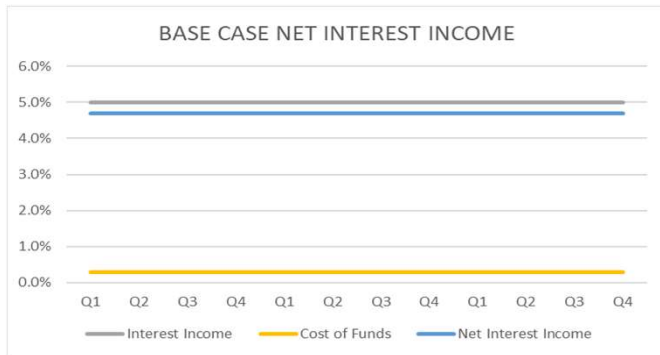
NII OF 4.7% NOT REALIZED

SHOCK 3% NET INTEREST INCOME



NII 3.5%

3% shock 84 MONTH REPRICING OF ASSETS – .25% beta on deposits



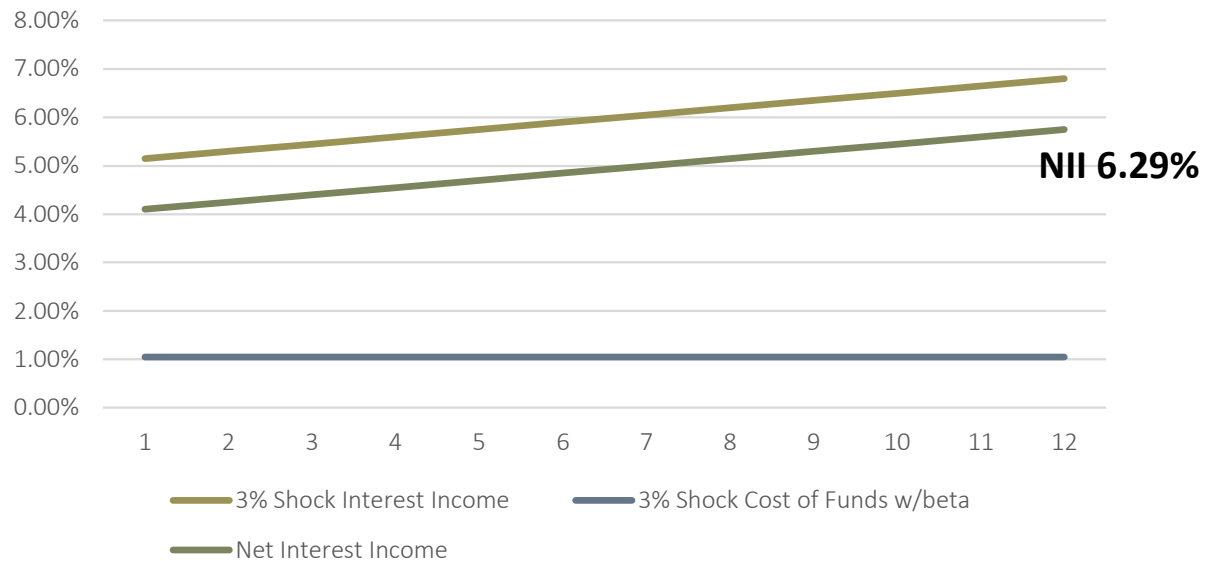
NII 4.7%

LOANS AND INVESTMENT YIELDS TAKE 84 MONTHS TO REPRICE

COST OF FUNDS GO UP IMMEDIATELY WITH A BETA OF .25%

NII EXCEEDS BASE CASE ~1.5%

SHOCK 3% NII WITH BETA ON COST OF FUNDS



NII 6.29%

INCOME SIMULATION

Key loan assumptions



Understand which loan types have the largest balances



Estimated repayment speeds for consumer loans are 24-36 months and do not change much as rates go up or down



Repayment speeds extend as rates increase for mortgages



As loan pay down new loans will be added at current rates



Focus on long term fixed rate loans like mortgages – Identify the % of total assets

INCOME SIMULATION

Key loan assumptions – CU1

	Balance in Thousands	% of Total Assets	Current Yield	Market Yield for NEV*	Repricing Term In Months for Income Simulation and NEV			Maturity Term In Months for NEV			Repricing Criteria
					Shock Down -300 BP	Bench mark	Shock Up 300 BP	Shock Down -300 BP	Bench mark	Shock Up 300 BP	
New auto loans direct	2,094	2.6%	5.19%		27	27	27	27	27	27	Fixed-rate consumer collateral
Used auto loans direct	15,195	18.7%	6.22%		24	24	24	24	24	24	Fixed-rate consumer collateral
New auto loans indirect	172	0.2%	5.14%		24	24	24	24	24	24	Fixed-rate consumer collateral
Used auto loans indirect	441	0.5%	6.76%		17	17	17	17	17	17	Fixed-rate consumer collateral
RV and other secured loans	747	0.9%	7.80%		36	36	36	36	36	36	Fixed-rate consumer collateral
Share/CD secured loans	295	0.4%	5.64%		18	18	18	18	18	18	Fixed-rate share secured
Unsecured loans	3,205	3.9%	12.45%		15	15	15	15	15	15	Fixed-rate consumer unsecured
Lines of credit	66	0.1%	2.38%		12	12	12	12	12	12	Revolving credit
First mortgages greater than 15 years fixed rate	16,634	20.5%	3.97%		42	84	126	42	84	126	Fixed rate greater than 15 years
First mortgages 15 years or less fixed rate	7,086	8.7%	3.14%		15	42	69	15	42	69	Fixed rate 15 years or less
First mortgages ARMs	4,671	5.8%	3.13%		69	69	69	69	69	69	ARMs greater than 5 years
Second mortgages fixed rate	21	0.0%	2.49%		44	50	56	44	50	56	15 years fixed rate; mature portfolio
Credit card loans	2,869	3.5%	12.67%		3	3	3	36	36	36	Variable rate revolving credit
Participation loans RE	1,459	1.8%	3.70%		42	84	126	42	84	126	Fixed rate greater than 15 years
	0	0.0%	0.00%		0	0	0	0	0	0	
	0	0.0%	0.00%		0	0	0	0	0	0	
	0	0.0%	0.00%		0	0	0	0	0	0	
	0	0.0%	0.00%		0	0	0	0	0	0	
	0	0.0%	0.00%		0	0	0	0	0	0	
Allowance for loan losses	(375)	-0.5%	0.00%		0	0	0	0	0	0	
Net Loans	54,580	67.2%	5.48%		31	49	66	33	51	68	Weighted Average

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Credit Union 12 Month Historical Average

*This calculation is an average of the last 12 months of the data presented on page 12 and page 37

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Extension Risk

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REPRICE RATES – LOANS CU1

INTEREST RATE ASSUMPTIONS—RATES-BENCHMARK

	Rate Change 0.00%		Reprice Rate	Beta	Effective Rate											
	Balance 03/31/24	Current Yield			Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 5	Qtr 6	Qtr 7	Qtr 8	Qtr 9	Qtr 10	Qtr 11	Qtr 12
New auto loans direct	2,094	5.19%	6.21%	1.00%	5.30%	5.41%	5.53%	5.64%	5.76%	5.87%	5.99%	6.10%	6.21%	6.21%	6.21%	6.21%
Used auto loans direct	15,195	6.22%	7.02%	1.00%	6.32%	6.42%	6.52%	6.62%	6.72%	6.82%	6.92%	7.02%	7.02%	7.02%	7.02%	7.02%
New auto loans indirect	172	5.14%	5.14%	1.00%	5.14%	5.14%	5.14%	5.14%	5.14%	5.14%	5.14%	5.14%	5.14%	5.14%	5.14%	5.14%
Used auto loans indirect	441	6.76%	6.76%	1.00%	6.76%	6.76%	6.76%	6.76%	6.76%	6.76%	6.76%	6.76%	6.76%	6.76%	6.76%	6.76%
RV and other secured loans	747	7.80%	9.43%	1.00%	7.94%	8.07%	8.21%	8.34%	8.48%	8.62%	8.75%	8.89%	9.02%	9.16%	9.29%	9.43%
Share/CD secured loans	295	5.64%	5.68%	1.00%	5.65%	5.65%	5.66%	5.66%	5.67%	5.68%	5.68%	5.68%	5.68%	5.68%	5.68%	5.68%
Unsecured loans	3,205	12.45%	13.04%	1.00%	12.57%	12.69%	12.81%	12.93%	13.04%	13.04%	13.04%	13.04%	13.04%	13.04%	13.04%	13.04%
Lines of credit	66	2.38%	2.38%	1.00%	2.38%	2.38%	2.38%	2.38%	2.38%	2.38%	2.38%	2.38%	2.38%	2.38%	2.38%	2.38%
First mortgages greater than 15 years fixed rate	16,634	3.97%	5.89%	1.00%	4.04%	4.11%	4.18%	4.25%	4.31%	4.38%	4.45%	4.52%	4.59%	4.66%	4.73%	4.80%
First mortgages 15 years or less fixed rate	7,086	3.14%	3.14%	1.00%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%
First mortgages ARMs	4,671	3.13%	3.13%	1.00%	3.13%	3.13%	3.13%	3.13%	3.13%	3.13%	3.13%	3.13%	3.13%	3.13%	3.13%	3.13%
Second mortgages fixed rate	21	2.49%	2.49%	1.00%	2.49%	2.49%	2.49%	2.49%	2.49%	2.49%	2.49%	2.49%	2.49%	2.49%	2.49%	2.49%
Credit card loans	2,869	12.67%	12.67%	1.00%	12.67%	12.67%	12.67%	12.67%	12.67%	12.67%	12.67%	12.67%	12.67%	12.67%	12.67%	12.67%
Participation loans RE	1,459	3.70%	3.70%	1.00%	3.70%	3.70%	3.70%	3.70%	3.70%	3.70%	3.70%	3.70%	3.70%	3.70%	3.70%	3.70%
	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowance for loan losses	-375	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Yield on Loans *	54,580	5.48%			5.55%	5.61%	5.67%	5.73%	5.79%	5.85%	5.90%	5.96%	5.99%	6.01%	6.03%	6.05%

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INCOME SIMULATION

Key loan assumptions CU2

	Balance in Thousands	% of Total Assets	Current Yield	Market Yield for NEV*	Repricing Term In Months for Income			Maturity Term In Months for NEV			Repricing Criteria
					Shock Down -300 BP	Bench mark	Shock Up 300 BP	Shock Down -300 BP	Bench mark	Shock Up 300 BP	
New auto loans	7,462	4.9%	5.97%		27	27	27	27	27	27	Fixed-rate consumer collateral
Used auto loans	56,269	36.8%	7.73%		24	24	24	24	24	24	Fixed-rate consumer collateral
RV and misc secured loans	9,566	6.3%	7.09%		36	36	36	36	36	36	Fixed-rate consumer collateral
Share secured loans	86	0.1%	4.27%		18	18	18	18	18	18	Fixed-rate share secured
Signature loans	11,599	7.6%	13.68%		15	15	15	15	15	15	Fixed-rate consumer unsecured
Lines of credit fixed rate	437	0.3%	11.11%		12	12	12	12	12	12	Revolving credit
Lines of credit variable rate	1,296	0.8%	14.90%		3	3	3	12	12	12	Revolving credit
First mortgages fixed rate	242	0.2%	4.74%		30	66	102	30	66	102	10-20 years fixed rate
First mortgages ARMs	4,101	2.7%	10.51%		1	1	1	49	49	49	Reset monthly; 16% ceiling
Second mortgages fixed rate	54	0.0%	10.15%		39	45	51	39	45	51	Up to 15 years fixed rate
HELOC adjustable rate	4,201	2.8%	9.78%		3	3	3	38	38	38	Variable rate; 4% annual cap; 1.99% floor; 16% ceiling
HELOC fixed rate	4,308	2.8%	8.76%		54	60	66	54	60	66	15 year fixed rate; open end
Credit card loans	5,651	3.7%	17.25%		2	2	2	36	36	36	Variable rate revolving credit; no cap
Serviced RE	297	0.2%	4.04%		48	90	132	48	90	132	15-30 years fixed rate
	0	0.0%	0.00%		0	0	0	0	0	0	
	0	0.0%	0.00%		0	0	0	0	0	0	
	0	0.0%	0.00%		0	0	0	0	0	0	
	0	0.0%	0.00%		0	0	0	0	0	0	
	0	0.0%	0.00%		0	0	0	0	0	0	
Allowance for loan losses	(1,448)	-0.9%	0.00%		0	0	0	0	0	0	
Net Loans	104,118	68.2%	9.03%		23	23	24	28	28	29	Weighted Average

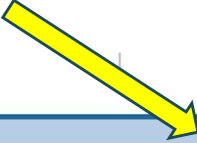
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REPRICE RATES – LOANS CU1

RATES UP SHOCK

INTEREST RATE ASSUMPTIONS – RATES-UP SHOCK



	Rate Change 3.00%		Effective Rate													
	Balance 03/31/24	Current Yield	Reprice Rate	Beta	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 5	Qtr 6	Qtr 7	Qtr 8	Qtr 9	Qtr 10	Qtr 11	Qtr 12
New auto loans direct	2,094	5.19%	9.21%	1.00%	5.63%	6.08%	6.53%	6.98%	7.42%	7.87%	8.32%	8.77%	9.21%	9.21%	9.21%	9.21%
Used auto loans direct	15,195	6.22%	10.02%	1.00%	6.69%	7.17%	7.64%	8.12%	8.60%	9.07%	9.55%	10.02%	10.02%	10.02%	10.02%	10.02%
New auto loans indirect	172	5.14%	8.14%	1.00%	5.52%	5.89%	6.27%	6.64%	7.02%	7.39%	7.77%	8.14%	8.14%	8.14%	8.14%	8.14%
Used auto loans indirect	441	6.76%	9.76%	1.00%	7.29%	7.82%	8.35%	8.88%	9.41%	9.76%	9.76%	9.76%	9.76%	9.76%	9.76%	9.76%
RV and other secured loans	747	7.80%	12.43%	1.00%	8.19%	8.57%	8.96%	9.34%	9.73%	10.12%	10.50%	10.89%	11.27%	11.66%	12.04%	12.43%
Share/CD secured loans	295	5.64%	8.68%	1.00%	6.15%	6.65%	7.16%	7.66%	8.17%	8.68%	8.68%	8.68%	8.68%	8.68%	8.68%	8.68%
Unsecured loans	3,205	12.45%	16.04%	1.00%	13.17%	13.89%	14.61%	15.33%	16.04%	16.04%	16.04%	16.04%	16.04%	16.04%	16.04%	16.04%
Lines of credit	66	2.38%	5.38%	1.00%	3.13%	3.88%	4.63%	5.38%	5.38%	5.38%	5.38%	5.38%	5.38%	5.38%	5.38%	5.38%
First mortgages greater than 15 years fixed rate	16,634	3.97%	8.89%	1.00%	4.09%	4.21%	4.32%	4.44%	4.56%	4.67%	4.79%	4.91%	5.03%	5.14%	5.26%	5.38%
First mortgages 15 years or less fixed rate	7,086	3.14%	6.14%	1.00%	3.27%	3.40%	3.53%	3.66%	3.79%	3.92%	4.05%	4.18%	4.31%	4.44%	4.57%	4.70%
First mortgages ARMs	4,671	3.13%	6.13%	1.00%	3.26%	3.39%	3.52%	3.65%	3.78%	3.91%	4.04%	4.17%	4.30%	4.43%	4.56%	4.69%
Second mortgages fixed rate	21	2.49%	5.49%	1.00%	2.65%	2.81%	2.97%	3.13%	3.29%	3.45%	3.62%	3.78%	3.94%	4.10%	4.26%	4.42%
Credit card loans	2,849	12.67%	15.67%	1.00%	15.67%	15.67%	15.67%	15.67%	15.67%	15.67%	15.67%	15.67%	15.67%	15.67%	15.67%	15.67%
Participation loans RE	1,459	3.70%	6.70%	1.00%	3.77%	3.84%	3.92%	3.99%	4.06%	4.13%	4.20%	4.27%	4.34%	4.42%	4.49%	4.56%
	0	0.00%	3.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	0	0.00%	3.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	0	0.00%	3.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	0	0.00%	3.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	0	0.00%	3.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowance for loan losses	-375	0.00%		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Yield on Loans *	54,580	5.48%			5.91%	6.18%	6.45%	6.72%	6.99%	7.22%	7.44%	7.66%	7.75%	7.82%	7.89%	7.96%

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INCOME SIMULATION

Investment assumptions

More \$ in overnight accounts = less interest rate risk but lower earnings

Mortgage-backed investments should be weighted with mortgage loans

Understand the average maturities of the investment portfolio

Identify steps or calls and how cash flows change as interest rates change

INCOME SIMULATION

Investment assumptions CU1

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	Balance in Thousands	% of Total Assets	Current Yield	Market Yield for NEV*	Repricing Term In Months for Income Simulation and NEV			Maturity Term In Months for NEV			Repricing Criteria
					Shock Down -300 BP	Bench mark	Shock Up 300 BP	Shock Down -300 BP	Bench mark	Shock Up 300 BP	
Daily accounts	8,380	10.3%	3.76%		1	1	1	1	1	1	Adjusts daily
	0	0.0%	0.00%		0	0	0	0	0	0	
Investment CDs non-callable	6,602	8.1%	2.18%		10	10	10	10	10	10	Defined by maturity date
Investment CDs callable	250	0.3%	0.45%		0	1	1	0	1	1	Defined by maturity date
Investment CDs step/callable	250	0.3%	1.00%		15	15	15	15	15	15	Defined by maturity date
Securities non-callable	0	0.0%	0.00%		0	0	0	0	0	0	
Securities callable	0	0.0%	0.00%		0	0	0	0	0	0	
Securities step/callable	0	0.0%	0.00%		0	0	0	0	0	0	
	0	0.0%	0.00%		0	0	0	0	0	0	
FHLB	56	0.1%	3.00%		0	0	0	0	0	0	Exclude from shock analysis; not available for liquidity
Membership shares	342	0.4%	4.75%		1	1	1	1	1	1	Adjusts monthly

	Rate Change 0.00%		Reprice Rate	Beta	Effective Rate											
	Balance 03/31/24	Current Yield			Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 5	Qtr 6	Qtr 7	Qtr 8	Qtr 9	Qtr 10	Qtr 11	Qtr 12
Daily accounts	8,380	3.76%	3.76%	1.00%	3.76%	3.76%	3.76%	3.76%	3.76%	3.76%	3.76%	3.76%	3.76%	3.76%	3.76%	3.76%
	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Investment CDs non-callable	6,602	2.18%	5.30%	1.00%	2.86%	3.33%	3.92%	4.51%	4.60%	4.95%	5.18%	5.18%	5.18%	5.18%	5.18%	5.18%
Investment CDs callable	250	0.45%	5.30%	1.00%	5.30%	5.30%	5.30%	5.30%	5.30%	5.30%	5.30%	5.30%	5.30%	5.30%	5.30%	5.30%
Investment CDs step/callable	250	1.00%	5.10%	1.00%	1.50%	1.50%	1.50%	1.50%	5.10%	5.10%	5.10%	5.10%	5.10%	5.10%	5.10%	5.10%
Securities non-callable	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Securities callable	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Securities step/callable	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
FHLB	56	3.00%	3.00%	0.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Membership shares	342	4.75%	4.75%	1.00%	4.75%	4.75%	4.75%	4.75%	4.75%	4.75%	4.75%	4.75%	4.75%	4.75%	4.75%	4.75%
Yield on Investments *	15,879	3.03%			3.40%	3.59%	3.84%	4.08%	4.17%	4.31%	4.41%	4.40%	4.40%	4.40%	4.40%	4.40%

INCOME SIMULATION

Investment assumptions CU2

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	Balance in Thousands	% of Total Assets	Current Yield	Market Yield for NEV*	Repricing Term In Months for Income			Maturity Term In Months for NEV			Repricing Criteria
					Shock Down -300 BP	Bench mark	Shock Up 300 BP	Shock Down -300 BP	Bench mark	Shock Up 300 BP	
Daily accounts	13,222	8.7%	4.36%	4.36%	1	1	1	1	1	1	Adjusts daily
Settlement and clearing	(3,953)	-2.6%	0.00%	0.00%	0	0	0	0	0	0	Not rate sensitive
REMICs variable rate	1,161	0.8%	0.56%	0.59%	12	12	12	41	41	41	Average life
REMICs fixed rate	4,928	3.2%	1.95%	5.45%	33	42	51	33	42	51	Average life
Bonds	4,616	3.0%	2.47%	4.11%	43	43	43	43	43	43	Defined by maturity date
GSE securities	3,619	2.4%	2.08%	5.73%	62	62	62	62	62	62	Defined by maturity date
MBS	9,953	6.5%	0.91%	4.72%	29	38	47	29	38	47	Average life
US Treasuries	6,596	4.3%	1.59%	4.56%	50	50	50	50	50	50	Defined by maturity date
	0	0.0%	0.00%	0.00%	0	0	0	0	0	0	
	0	0.0%	0.00%	0.00%	0	0	0	0	0	0	
Federal Home Loan Bank	142	0.1%	3.55%	3.55%	3	3	3	3	3	3	Adjusts quarterly; not available for liquidity
Membership shares	107	0.1%	2.25%	2.25%	1	1	1	1	1	1	Adjusts monthly; not available for liquidity
Total Investments	40,390	26.4%	2.65%								

INTEREST RATE ASSUMPTIONS—RATES-BENCHMARK

	Rate Change 0.00%		Reprice Rate	Beta	Effective Rate												
	Balance 03/31/24	Current Yield			Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 5	Qtr 6	Qtr 7	Qtr 8	Qtr 9	Qtr 10	Qtr 11	Qtr 12	
Daily accounts	13,222	4.36%	4.36%	1.00%	4.36%	4.36%	4.36%	4.36%	4.36%	4.36%	4.36%	4.36%	4.36%	4.36%	4.36%	4.36%	4.36%
Settlement and clearing	(3,953)	0.00%	0.00%	1.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
REMICs variable rate	1,161	0.56%	0.59%	1.00%	0.56%	0.57%	0.58%	0.59%	0.59%	0.59%	0.59%	0.59%	0.59%	0.59%	0.59%	0.59%	0.59%
REMICs fixed rate	4,928	1.95%	5.45%	1.00%	2.20%	2.44%	2.69%	2.94%	3.19%	3.44%	3.69%	3.93%	4.18%	4.43%	4.68%	4.93%	
Bonds	4,616	2.47%	4.10%	1.00%	2.47%	2.47%	2.64%	2.64%	2.95%	2.95%	3.11%	3.11%	3.11%	3.11%	3.11%	3.11%	3.18%
GSE securities	3,619	2.08%	4.27%	1.00%	2.08%	2.08%	2.08%	2.08%	2.08%	2.08%	2.08%	2.08%	2.08%	2.08%	2.08%	2.19%	2.19%
MBS	9,953	0.91%	4.72%	1.00%	1.21%	1.51%	1.82%	2.12%	2.42%	2.72%	3.03%	3.33%	3.63%	3.94%	4.24%	4.54%	
US Treasuries	6,596	1.59%	4.31%	1.00%	1.63%	2.08%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%
	0	0.00%	0.00%	1.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	0	0.00%	0.00%	1.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Federal Home Loan Bank	142	3.55%	3.55%	1.00%	3.55%	3.55%	3.55%	3.55%	3.55%	3.55%	3.55%	3.55%	3.55%	3.55%	3.55%	3.55%	3.55%
Membership shares	107	2.25%	2.25%	1.00%	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%
Yield on Investments *	40,390	2.65%			2.74%	2.94%	3.15%	3.27%	3.42%	3.53%	3.66%	3.76%	3.86%	3.96%	4.06%	4.16%	

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INCOME SIMULATION

Investment yield comparison – Up-Rate

Credit Union 1

	Rate Change 3.00%		Effective Rate													
	Balance 03/31/24	Current Yield	Reprice Rate	Beta	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 5	Qtr 6	Qtr 7	Qtr 8	Qtr 9	Qtr 10	Qtr 11	Qtr 12
Daily accounts	8,380	3.76%	6.76%	1.00%	6.76%	6.76%	6.76%	6.76%	6.76%	6.76%	6.76%	6.76%	6.76%	6.76%	6.76%	6.76%
Investment CDs non-callable	6,602	2.18%	8.30%	1.00%	3.52%	4.44%	5.60%	6.74%	6.93%	7.61%	8.07%	8.07%	8.07%	8.07%	8.07%	8.07%
Investment CDs callable	250	0.45%	8.30%	1.00%	8.30%	8.30%	8.30%	8.30%	8.30%	8.30%	8.30%	8.30%	8.30%	8.30%	8.30%	8.30%
Investment CDs step/callable	250	1.00%	8.10%	1.00%	1.50%	1.50%	1.50%	1.50%	1.50%	8.10%	8.10%	8.10%	8.10%	8.10%	8.10%	8.10%
Securities non-callable	0	0.00%	3.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Securities callable	0	0.00%	3.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Securities step/callable	0	0.00%	3.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
FHLB	56	3.00%	6.00%	0.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Membership shares	342	4.75%	7.75%	1.00%	7.75%	7.75%	7.75%	7.75%	7.75%	7.75%	7.75%	7.75%	7.75%	7.75%	7.75%	7.75%
Yield on Investments *	15,879	3.03%			5.36%	5.74%	6.21%	6.68%	6.85%	7.11%	7.28%	7.27%	7.26%	7.25%	7.24%	7.23%

Credit Union 2

	Rate Change 3.00%		Effective Rate													
	Balance 03/31/24	Current Yield	Reprice Rate	Beta	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 5	Qtr 6	Qtr 7	Qtr 8	Qtr 9	Qtr 10	Qtr 11	Qtr 12
Daily accounts	13,222	4.36%	7.36%	1.00%	7.36%	7.36%	7.36%	7.36%	7.36%	7.36%	7.36%	7.36%	7.36%	7.36%	7.36%	7.36%
Settlement and clearing	-3,953	0.00%	3.00%	1.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
REMICs variable rate	1,161	0.56%	3.59%	1.00%	1.31%	2.07%	2.83%	3.59%	3.59%	3.59%	3.59%	3.59%	3.59%	3.59%	3.59%	3.59%
REMICs fixed rate	4,928	1.95%	8.45%	1.00%	2.33%	2.71%	3.09%	3.47%	3.85%	4.23%	4.61%	4.99%	5.37%	5.75%	6.13%	6.51%
Bonds	4,616	2.47%	7.10%	1.00%	2.47%	2.47%	2.96%	2.96%	3.83%	3.83%	4.28%	4.28%	4.28%	4.28%	4.28%	4.49%
GSE securities	3,619	2.08%	7.27%	1.00%	2.08%	2.08%	2.08%	2.08%	2.08%	2.08%	2.08%	2.08%	2.08%	2.08%	2.34%	2.34%
MBS	9,953	0.91%	7.72%	1.00%	1.35%	1.78%	2.22%	2.66%	3.09%	3.53%	3.97%	4.40%	4.84%	5.28%	5.71%	6.15%
US Treasuries	6,596	1.59%	7.31%	1.00%	1.68%	2.62%	3.57%	3.57%	3.57%	3.57%	3.57%	3.57%	3.57%	3.57%	3.57%	3.57%
	0	0.00%	3.00%	1.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	0	0.00%	3.00%	1.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Federal Home Loan Bank	142	3.55%	6.55%	1.00%	6.55%	6.55%	6.55%	6.55%	6.55%	6.55%	6.55%	6.55%	6.55%	6.55%	6.55%	6.55%
Membership shares	107	2.25%	5.25%	1.00%	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%
Yield on Investments *	40,390	2.65%			3.80%	4.19%	4.62%	4.84%	5.13%	5.32%	5.55%	5.72%	5.89%	6.05%	6.22%	6.38%

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Poll question #2

INCOME SIMULATION

Deposit assumptions

Limit balance sheet growth to focus on interest rate changes

Certificate renewal rate 2.42%-5.0% depending on term

Assume early redemption of CDs in up rate scenarios

INCOME SIMULATION – Deposit assumptions CU1

Liability & Share Classification	Balance in Thousands	% to Total Assets	Current Yield
Notes payable	0	0.0%	0.00%
Liabilities	6,212	7.6%	
Primary/secondary/youth shares	34,055	41.9%	0.01%
Share drafts non-interest bearing	0	0.0%	0.00%
Share drafts interest bearing	16,673	20.5%	0.17%
IRA shares	1,677	2.1%	0.01%
Club and escrow accounts	374	0.5%	0.00%
Member certificates	12,460	15.3%	3.05%
Money market shares	1,500	1.8%	0.06%
Horizon account	603	0.7%	0.01%
	0	0.0%	0.00%
	0	0.0%	0.00%
	0	0.0%	0.00%
	0	0.0%	0.00%
	0	0.0%	0.00%
Total Shares & Deposits	67,341	82.9%	0.61%

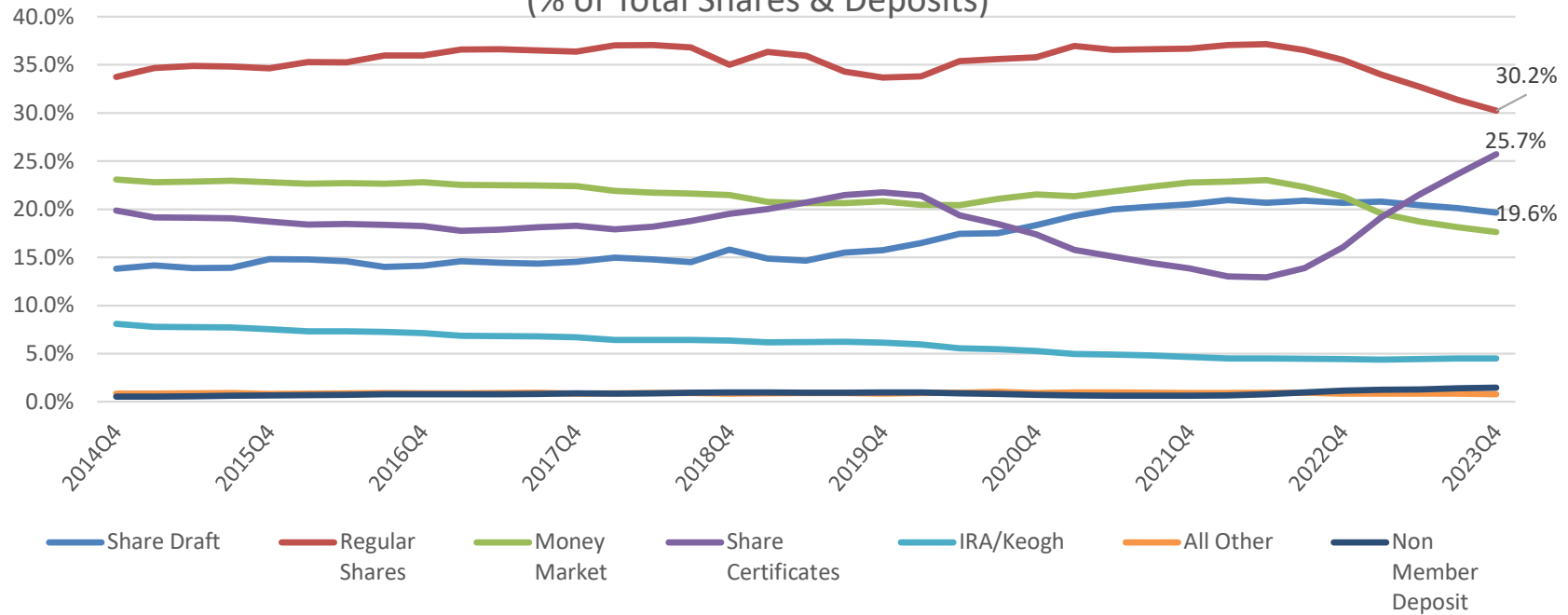
Income Simulation Beta (rate sensitivity) and Lag for NMS							
Shock Down -300 BP		Benchmark		Shock Up 300 BP		Rate Sensitivity	
Beta	Lag	Beta	Lag	Beta	Lag		
1.00%	1	1.00%	1	1.00%	1	Adjusts daily	
0.15%	1	0.15%	1	0.15%	1	Core shares-low by definition	
0.00%	1	0.00%	1	0.00%	1	Not rate sensitive	
0.07%	1	0.07%	1	0.07%	1	Low by definition	
0.25%	1	0.25%	1	0.25%	1	Moderate by definition	
0.15%	1	0.15%	1	0.15%	1	Low by definition	
1.00%	1	1.00%	1	1.00%	1	Defined by maturity date	
0.45%	1	0.45%	1	0.45%	1	High by definition	
0.34%	1	0.34%	1	0.34%	1	Moderate by definition	
0.00%	0	0.00%	0	0.00%	0		
0.00%	0	0.00%	0	0.00%	0		
0.00%	0	0.00%	0	0.00%	0		
0.00%	0	0.00%	0	0.00%	0		
0.00%	0	0.00%	0	0.00%	0		

* Beta is defined as the change in net asset value from a 100 basis point increase in the rate from 1.00% to 1.10%. Beta of 100%

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TRENDS

Share Distribution
(% of Total Shares & Deposits)



2004 to 2023

Average of Credit Unions Nationally							
	Share Drafts	Regular Shares	Money Market	Share Certs	IRA	Other	Non-Member
as of 12/31/23	15.64%	54.45%	8.12%	16.18%	3.32%	0.88%	1.40%
Historical High	15.99%	59.70%	10.99%	24.97%	7.11%	1.54%	1.40%
Historical Low	8.41%	49.53%	7.13%	9.93%	3.25%	0.88%	0.30%
Change (High-Low)	7.58%	10.17%	3.86%	15.04%	3.86%	0.66%	1.10%

Historical data goes back to 2nd quarter of 2004

This analysis shows historical changes in deposits from one category to another. When rates rise, credit unions typically see an increase in certificates and a decrease in non-maturity shares (primarily regular shares). This analysis aids credit unions in estimating potential changes in deposit allocation. Peer averages allow the credit union to compare their sensitivity to peers. The graphs can aid in understanding how quickly the changes happen.

INCOME SIMULATION summary

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PANEL 1 INCOME SIMULATION

3-Year Cumulative (\$000)	SHOCK DOWN -300 BP	Benchmark	SHOCK UP 300 BP
Net Interest Income (NII)	\$7,685	\$10,585	\$12,561
\$ Change from benchmark NII	(2,900)		1,975
% Change from benchmark NII	-27.4%		18.7%
Maximum Allowed % Change from Benchmark NII	-20.0%		-20.0%
Net income:	-\$2,496	\$404	\$2,379
ROA:	-1.02%	0.17%	0.97%

- Compare benchmark (base case) net interest income to shock rate net interest income.
- If NII declines there is risk.
- Presented as a % decrease from base case.
- Compare to policy limits
- Set limits to control risk
- Evaluate down shocks for reasonableness

INCOME SIMULATION year by year

In Thousands of Dollars

Shock Criteria: Instantaneous and Parallel Assumptions: See pages 10 and 11	BENCHMARK		UP RATE 3%			
	FORECASTED INCOME	FORECASTED INCOME	Change	% Change from Benchmark	Maximum Allowed % Change from Benchmark NII	Variance

YEAR 1

Loan Interest Income	3,099	3,471	372	12.0%		
Investment Interest Income	591	960	369	62.4%		
Total Interest Income	3,690	4,432	741	20.1%		
Dividends & Interest Paid	371	811	440	118.6%		
Net Interest Income	3,319	3,620	301	9.1%	-20.0%	29.1%
Total Fees & Misc. Income	2,188	2,188				
Operating Expenses	5,481	5,481				
Forecasted Net Income Year 1	26	328	301	1145.6%		

YEAR 2

Loan Interest Income	3,229	4,026	797	24.7%		
Investment Interest Income	691	1,184	493	71.2%		
Total Interest Income	3,921	5,210	1,289	32.9%		
Dividends & Interest Paid	339	932	593	175.2%		
Net Interest Income	3,582	4,278	696	19.4%	-20.0%	39.4%
Total Fees & Misc. Income	2,255	2,255				
Operating Expenses	5,647	5,647				
Forecasted Net Income Year 2	189	885	696	368.0%		

YEAR 3

Loan Interest Income	3,308	4,315	1,007	30.4%		
Investment Interest Income	712	1,280	567	79.6%		
Total Interest Income	4,020	5,595	1,574	39.2%		
Dividends & Interest Paid	336	932	596	177.4%		
Net Interest Income	3,684	4,662	978	26.5%	-20.0%	46.5%
Total Fees & Misc. Income	2,323	2,323				
Operating Expenses	5,819	5,819				
Forecasted Net Income Year 3	188	1,166	978	518.9%		

Why is the net interest income better?



The greatest risk is usually in the first year

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INCOME SIMULATION

Down rate and Cost of funds

PANEL 5

INTEREST MARGIN & NET INCOME ANALYSIS			
<i>Expanded Analysis Begins at Page 48</i>			
SPREAD ANALYSIS OF INCOME AND EXPENSES LAST 12 MONTHS			
<i>Divided by average assets</i>	Basis Points	Guideline	Variance
Interest income	661		
Cost of funds	75		
Net interest Income	586	*	*

Evaluate down shocks for reasonableness.
Consider cost of funds and if loans and investment yields have moved up today's rates.

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		Quarterly Ended						
		<i>Expressed in Basis Points*</i>						
Revenue & Cost of Funds:		6/30/23	CNG	9/30/23	CNG	12/31/23	CNG	3/31/24
1	Total loan interest	564	36	600	25	626	(3)	623
2	Total interest on investments	61	3	64	(5)	59	4	62
3	Total interest income	625	39	664	20	685	0	685
4	Total cost of funds	56	22	78	7	85	(3)	82
5	Net interest income (NII)	569	17	586	14	600	3	603

Poll question #3

BACK TEST CREDIT UNION 2

FORECASTED VS ACTUAL QUARTERLY INCOME STATEMENTS

The purpose of the backtest is to determine if the model forecasts are acceptable and reliable. The model projections are compared to the actual. The difference represent how much the model over or (under) forecasted future income and expenses. Most variances can be identified by model rates or balances differing from actual rates and balances.

Last 2 Reports

	ALMPro forecast compared to actual						ALMPro forecast compared to actual					
	Projected	Actual	Difference	Difference	Tolerance	Outside	Projected	Actual	Difference	Difference	Tolerance	Outside
	12/31/2023	12/31/23	\$	%	%	Tolerance	3/31/2024	3/31/24	\$	%	%	Tolerance
Total loan interest	2,305,980	2,327,060	(21,080)	-0.9%	5.0%	N/A	2,422,277	2,343,710	78,567	3.4%	5.0%	N/A
Total interest on investments	240,818	218,634	22,184	10.1%	5.0%	5.1%	227,931	235,160	(7,229)	-3.1%	5.0%	N/A
Total interest income	2,546,798	2,545,694	1,104	0.0%	5.0%	N/A	2,650,208	2,578,870	71,338	2.8%	5.0%	N/A
Total cost of funds	304,811	315,189	(10,378)	-3.3%	5.0%	N/A	308,989	307,818	1,171	0.4%	5.0%	N/A
Net Interest Income	2,241,987	2,230,505	11,482	0.5%	5.0%	N/A	2,341,218	2,271,052	70,166	3.1%	5.0%	N/A
Total other income	1,219,711	1,298,620	(78,909)	-6.1%			1,246,699	1,199,139	47,560	4.0%		
Total operating expenses	2,611,149	2,924,817	(313,668)	-10.7%			2,803,205	3,085,465	(282,260)	-9.1%		
Net income	850,549	3,332,307	(2,481,758)	-74.5%			784,712	381,520	403,192	105.7%		
Total assets	149,898,017	148,408,680	1,489,338	1.0%			149,193,393	152,711,595	(3,518,202)	-2.3%		

	ALMPro forecast compared to actual						ALMPro forecast compared to actual					
	Projected	Actual	Difference	Variance due	Variance due	Variance	Projected	Actual	Difference	Variance due	Variance due	variance
	12/31/2023	12/31/23		to balance	to yield	check	3/31/2024	3/31/24		to balance	to yield	check
Average Loan balance	103,788,798	104,997,121	(1,208,323)	(26,847)	5,767	-	106,205,451	105,885,747	319,704	7,292	71,275	-
Loan yield	8.89%	8.87%	0.02%				9.12%	8.85%	0.27%			
Average Investment balance	39,290,711	37,385,781	1,904,929	11,676	10,509	-	36,298,483	38,148,046	(1,849,563)	(11,614)	4,385	-
Investment yield	2.45%	2.34%	0.11%				2.51%	2.47%	0.05%			
Average Deposit & Borrowings balance	130,343,119	129,048,355	1,294,764		3,028	(13,405)	127,753,593	129,755,507	(2,001,914)	(4,842)	6,013	-
Deposit & Borrowings yield	0.94%	0.98%	-0.04%				0.97%	0.95%	0.02%			

BACK TEST CREDIT UNION 1

Last 2 Reports

	ALMPro forecast compared to actual						ALMPro forecast compared to actual					
	Projected	Actual	Difference	Difference	Tolerance	Outside	Projected	Actual	Difference	Difference	Tolerance	Outside
	12/31/2023	12/31/23	\$	%	%	Tolerance ?	3/31/2024	3/31/24	\$	%	%	Tolerance ?
Total loan interest	784,076	771,835	12,241	1.6%	5.0%	N/A	774,618	763,267	11,351	1.5%	5.0%	N/A
Total interest on investments	136,006	99,321	36,685	36.9%	5.0%	31.9%	96,841	122,911	(26,070)	-21.2%	5.0%	16.2%
Total interest income	920,081	871,156	48,925	5.6%	5.0%	0.6%	871,459	886,178	(14,719)	-1.7%	5.0%	N/A
Total cost of funds	84,783	89,385	(4,602)	-5.1%	5.0%	0.1%	96,347	101,961	(5,614)	-5.5%	5.0%	0.5%
Net Interest Income	835,298	781,771	53,527	6.8%	5.0%	1.8%	775,112	784,217	(9,105)	-1.2%	5.0%	N/A
Total other income	517,121	659,752	(142,631)	-21.6%			551,168	471,233	79,935	17.0%		
Total operating expenses	1,300,769	1,363,875	(63,106)	-4.6%			1,336,255	1,356,170	(19,915)	-1.5%		
Net income	51,651	77,648	(25,997)	-33.5%			-9,975	88,530	(98,505)	-111.3%		
Total assets	82,724,450	79,255,068	3,469,382	4.4%			79,245,100	81,241,607	(1,996,507)	-2.5%		

	ALMPro forecast compared to actual						ALMPro forecast compared to actual					
	Projected	Actual	Difference	Variance due	Variance due	Variance	Projected	Actual	Difference	Variance due	Variance due	variance
	12/31/2023	12/31/23		to balance	to yield	check	3/31/2024	3/31/24		to balance	to yield	check
Average Loan balance	56,778,074	56,111,601	666,473	9,204	3,037	-	55,445,138	55,199,714	245,424	3,429	7,922	-
Loan yield	5.52%	5.50%	0.02%				5.59%	5.53%	0.06%			
Average Investment balance	14,740,128	14,272,090	468,039	4,319	32,366	-	13,824,896	14,854,336	(1,029,439)	(7,211)	(18,858)	-
Investment yield	3.69%	2.78%	0.91%				2.80%	3.31%	-0.51%			
Average Deposit & Borrowings balance	68,817,816	67,146,961	1,670,856	2,058	(6,660)	-	65,476,119	66,408,623	(932,504)	(1,372)	(4,242)	-
Deposit & Borrowings yield	0.49%	0.53%	-0.04%				0.59%	0.61%	-0.03%			

Policy limits

PANEL 1 INCOME SIMULATION

3-Year Cumulative (\$000)	SHOCK DOWN -300 BP	SHOCK DOWN -200 BP	SHOCK DOWN -100 BP	Benchmark	SHOCK UP 100 BP	SHOCK UP 200 BP	SHOCK UP 300 BP
Net Interest Income (NII)	\$20,642	\$23,288	\$25,687	\$27,872	\$30,059	\$32,271	\$34,505
\$ Change from benchmark NII	(7,230)	(4,584)	(2,185)		2,187	4,399	6,632
% Change from benchmark NII	-25.9%	-16.4%	-7.8%		7.8%	15.8%	23.8%
Maximum Allowed % Change from Benchmark NII	-20.0%	-20.0%	-20.0%		-20.0%	-20.0%	-20.0%
Net income:	\$4,917	\$7,563	\$9,962	\$12,147	\$14,334	\$16,546	\$18,780
ROA:	1.09%	1.67%	2.20%	2.68%	3.17%	3.66%	4.15%

- How much can net interest income decrease before net income is reduced to unacceptable level?
- Current net interest income also a consideration
- In this example NII can decrease 43% before net income is 0
- Net worth is part of the discussion

PANEL 4

NET WORTH		
<i>Expanded Analysis Begins at Page 45</i>		
Beg. Net Worth Ratio	March 31, 2022	11.4%
12 Month Change in Net Worth Ratio		1.3%
Ending Net Worth Ratio	March 31, 2023	12.7%
Guideline		7.0%

What-if scenario

PANEL 1 INCOME SIMULATION

3-Year Cumulative (\$000)	SHOCK DOWN -300 BP	SHOCK DOWN -200 BP	SHOCK DOWN -100 BP	Benchmark	SHOCK UP 100 BP	SHOCK UP 200 BP	SHOCK UP 300 BP
Net Interest Income (NII)	\$20,642	\$23,288	\$25,833	\$27,872	\$29,279	\$30,688	\$32,096
\$ Change from benchmark NII	(7,230)	(4,584)	(2,039)		1,406	2,815	4,224
% Change from benchmark NII	-25.9%	-16.4%	-7.3%		5.0%	10.1%	15.2%
Maximum Allowed % Change from Benchmark NII	-20.0%	-20.0%	-20.0%		-20.0%	-20.0%	-20.0%
Net income:	\$4,917	\$7,563	\$10,108	\$12,147	\$13,554	\$14,963	\$16,371
ROA:	1.09%	1.67%	2.23%	2.68%	3.00%	3.31%	3.62%

- Increase beta on regular shares from .16% to .59%
- Original NII at risk 23.8% now 15.2%

PANEL 1 INCOME SIMULATION

3-Year Cumulative (\$000)	SHOCK DOWN -100 BP	Benchmark	SHOCK UP 100 BP	SHOCK UP 200 BP	SHOCK UP 300 BP
Net Interest Income (NII)	\$21,414	\$23,871	\$24,386	\$24,544	\$24,620
\$ Change from benchmark NII	(2,457)		515	673	749
% Change from benchmark NII	-10.3%		2.2%	2.8%	3.1%
Maximum Allowed % Change from Benchmark NII	-15.0%		-15.0%	-15.0%	-15.0%
Net income:	\$7,112	\$9,569	\$10,084	\$10,242	\$10,318
ROA:	1.01%	1.36%	1.44%	1.46%	1.47%

- Increase beta on regular shares from .16% to .59% and add \$30,000,000 in 30-year fixed rate mortgages

IRR and Related Policy

Does my IRR Policy have all the right elements?

- Establishes an effective IRR program
- Include limits and controls.
- Consistent with the credit union's business strategies.
- Reflects the credit union's current financial condition.
- Not too restrictive or too liberal.
- Adequately reflect board's risk tolerance.

SUMMARY OF INCOME SIMULATION

Positives

- **Simple, easy-to-understand concept**
- **Uses familiar terms to describe result; i.e., forecasted loan income**
- **Very effective estimate of risk to net interest income**
- **A good estimate for credit unions that don't have many long-term assets (over 3 years)**

SUMMARY OF INCOME SIMULATION

Negatives

- **Uses many complex assumptions**
- **Limited to 1-3 years**
- **Will miss risk for assets and liabilities with lives longer than 3 years**

MANAGEMENT and BOARD RESPONSIBILITIES

- ALM Policy
- Identify risk
- Quantify risk
- Control—Policy or Risk Limits
- Monitor risk

Outsource Benefits to you and your credit union

Easy

Save time

Delegate to the experts

Extensive experience

Regulator responses

Reliable

Reputable





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