



PERFORMANCE TRUST
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Carolinas Credit Union League LAUNCH 2024

Clarity in the Midst of the Chaos, Part II

Dave Richter, Vice President
Balance Sheet Strategy

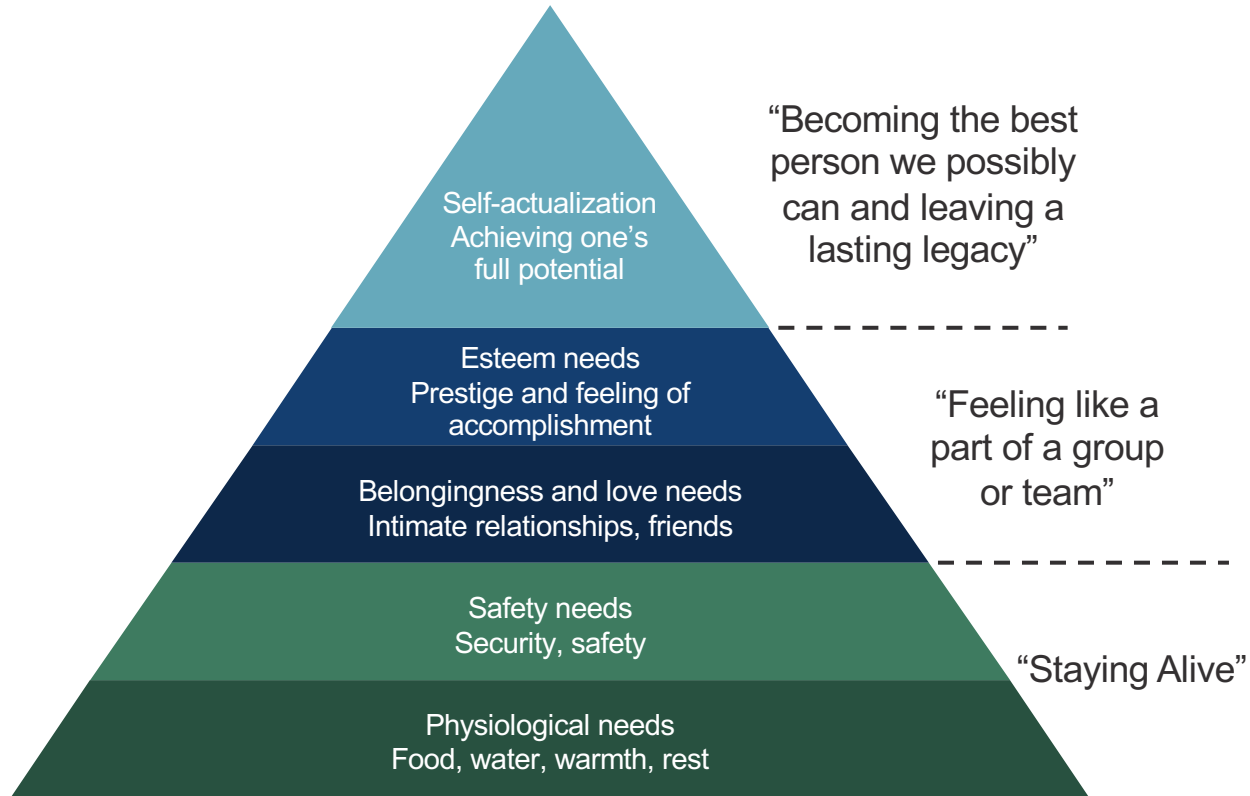
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Important Information:

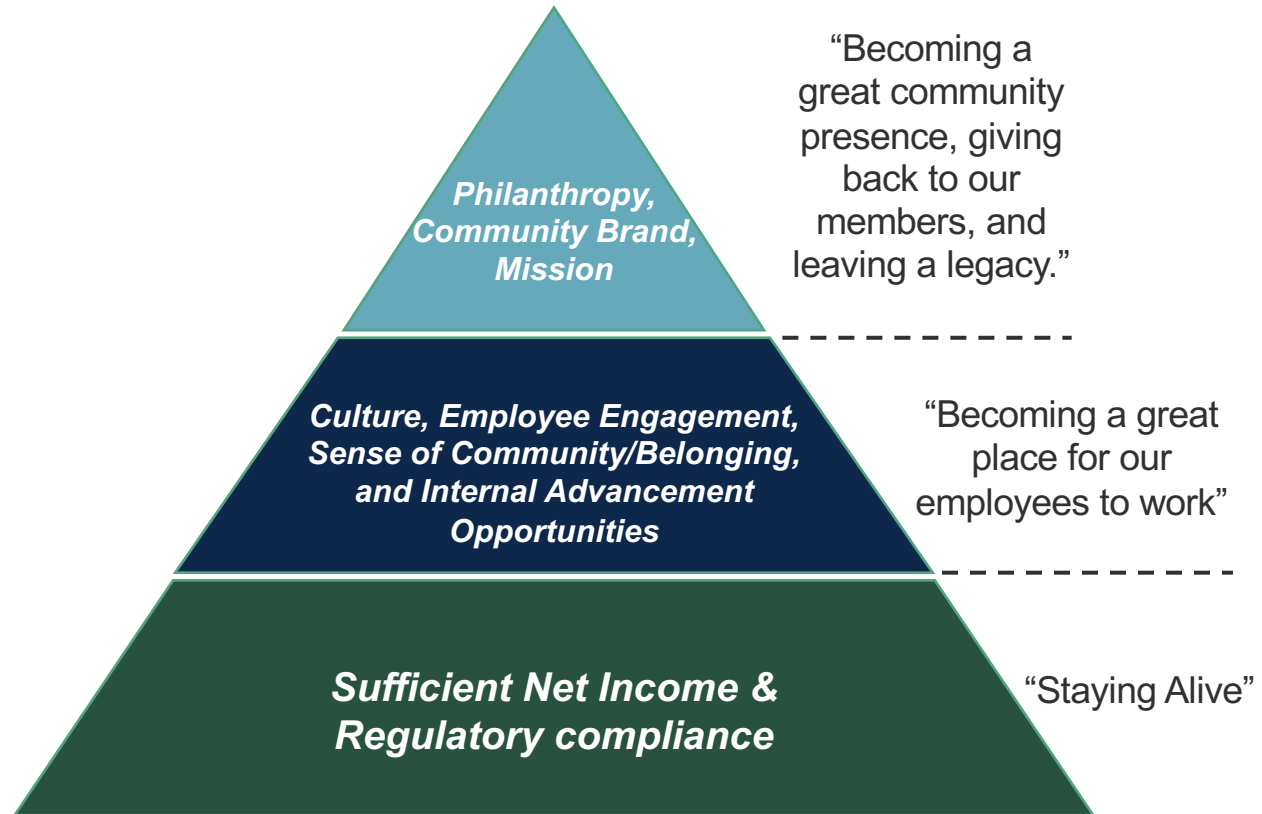
All charts/graphs are for illustrative purposes only. Past performance does not guarantee any results or that any trend will continue.

Certain assumptions have been made in connection with analysis presented and changes in market conditions or assumptions may have had material impact on results. There is no guarantee any strategy will be successful.

Maslow told us people have hierarchies of needs. If we don't fulfill our bottom tier needs, we can't grow, and we can't flourish.



Credit Unions also have hierarchies of needs. If we don't fulfill our basic needs we cannot do the mission-based work we love to do.



Traditional Balance Sheet View



Core Relationship (All In) > Target ROA

A Different Lens



Core Relationship (All In) > Target ROA

Agenda

The current dilemma...define the problem

What not to do

What to do

The Current Dilemma...

DI

Disciplined Insights

vol.
23.4

A Significant Earnings Problem, Hidden in Plain Sight

April 20, 2023

Many banks in the United States could be facing a significant earnings problem. Our analysis suggests more than 1,000 U.S. banks could become unprofitable and they might not be aware of it.

percentage of the prevailing 5.00% Fed Funds Target Rate (FFT), which is a useful relationship to consider.

As we will examine shortly, compelling economic logic and historical evidence suggests that if the FFT remains at 5.00%, the majority of industry participants' COF will likely land between 50% to 70% of the FFT, which is a COF between 2.50% and 3.50%.

The Asset Yield in the highlighted row is projected using the contractual repricing and maturity schedules from the Bank's Call Report. For the example bank, this results in a 4.50% yield, up from 4.00% in 2022.

Disintermediation and Geology

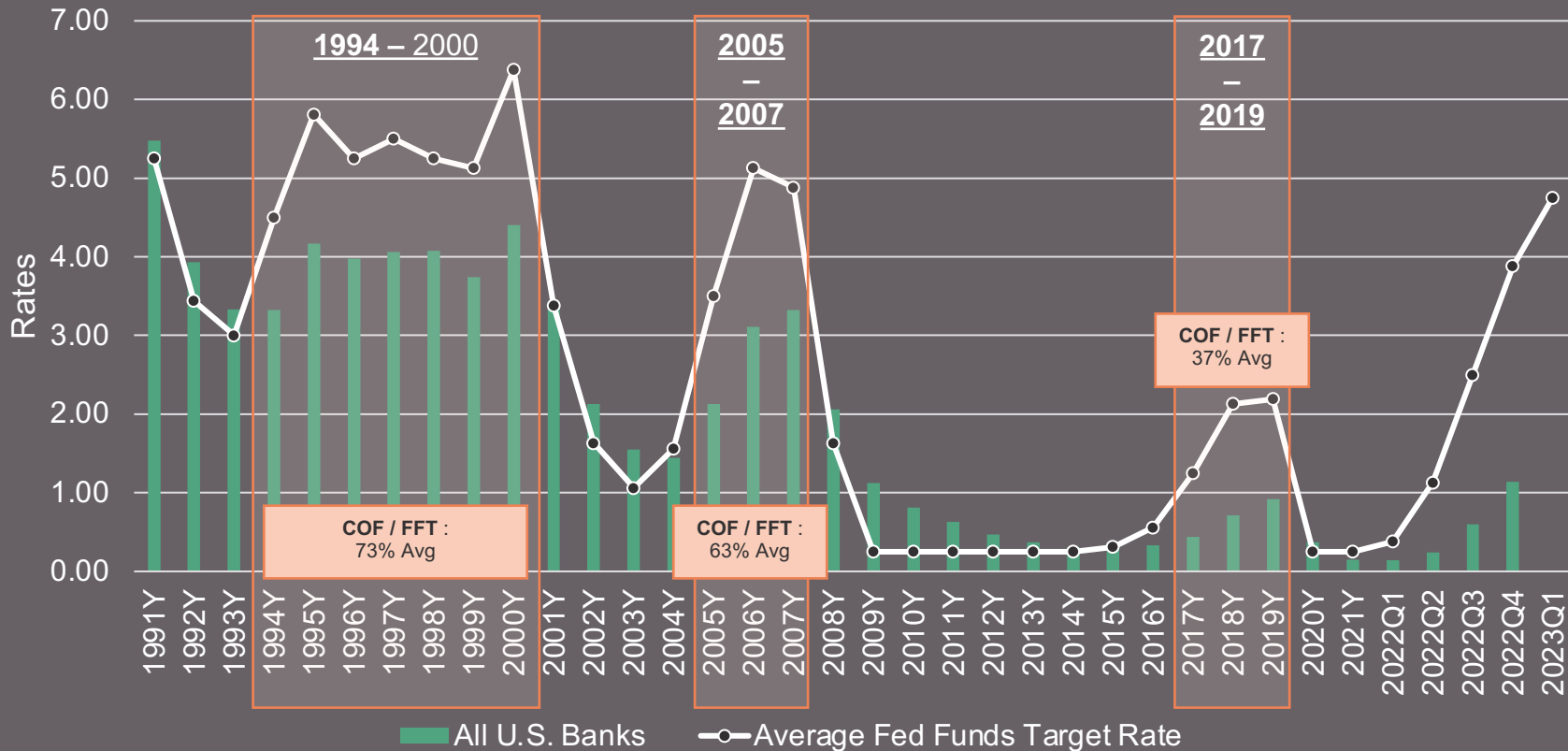
Both are the study of two things and how they work together to bring about a change.

1. Pressure

2. TIME



Avg Cost of Funds vs Avg Fed Fund Target Rate



Source: S&P Global Data

Enter: Local Competition



First Horizon Bank
Promoted



Open a Money Market Account at First Horizon and benefit from an interest rate that turns tomorrow into another opportunity.

It's time to earn

5.38%

Annual Percentage Yield



With a Money Market Savings Account when new First Horizon clients open a checking account.



Enter: New Competition

Apple Card's new high-yield Savings account is now available, offering a 4.15 percent APY



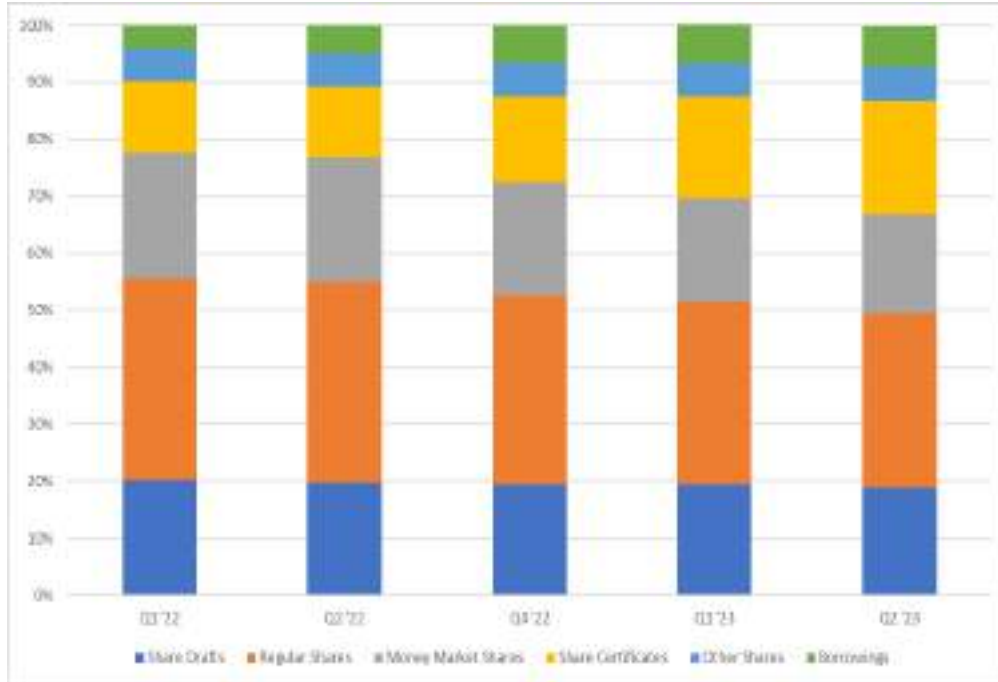
Savings rate battle heats up: Walmart-backed provider pays more than 12 TIMES the average bank - after Apple launched similar high-yield deal

- Fintech One is offering a 5% yield on its savings account
- The rate is 12 times the yield offered by mainstream banks on average
- It comes after Apple launched a similarly competitive 4.15% savings account



Impact of Time + Pressure

Industry Funding Mix



	Q1 '22	Q2 '22	Q3 '22	Q4 '22	Q1 '23	Q2 '23
Share Drafts	20%	20%	20%	19%	19%	19%
Regular Shares	35%	35%	34%	33%	32%	31%
Money Market Shares	22%	22%	21%	20%	18%	17%
Share Certificates	13%	12%	13%	15%	18%	20%
Other Shares	6%	6%	6%	6%	6%	6%
Borrowings	4%	5%	6%	6%	7%	7%

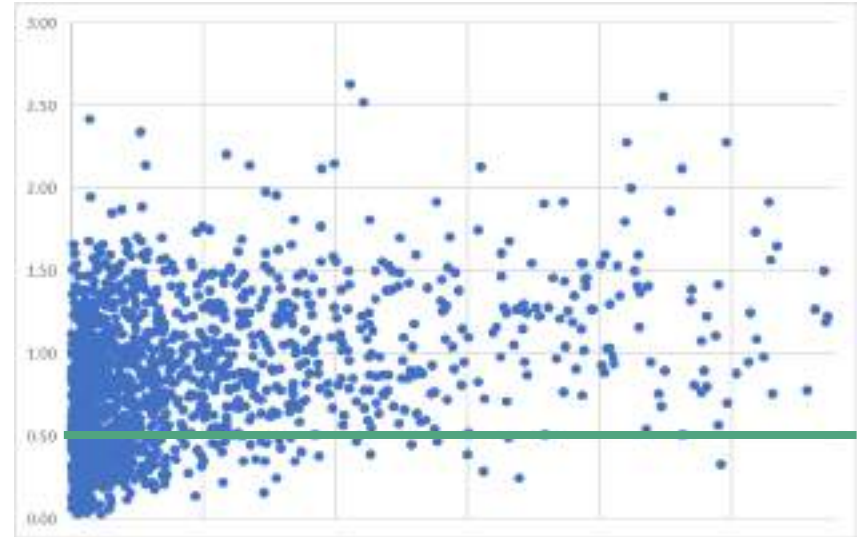
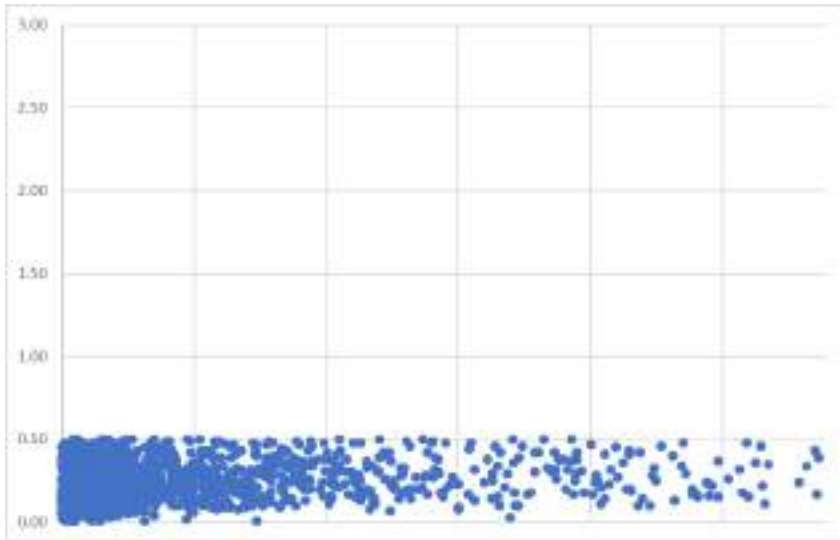
COF is Headed 100-150 bps Higher....If Rates Don't Change

Q4 2022
Credit Unions w/ COF \leq 0.50%

Same Population



Q2 2023



Credit Unions over \$100mm in assets

Important Information – July 2022



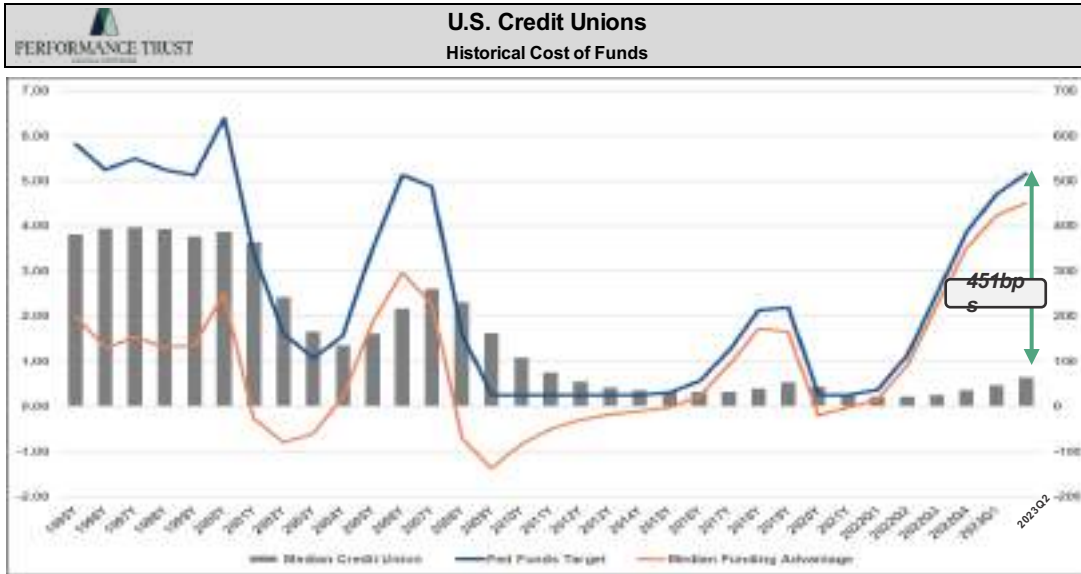
Your COF will likely land between 30% and 60% of the future prevailing FF rate.

Historical industry data helps explain why this is likely.

If you believe 30% to be your future, **be aware of what it means to be near 60%.**

Historical Funding Advantage: All Credit Unions

	'95-'00	2006	2007	2018	2019	2023Q2
Cost of Funds	3.88	2.17	2.61	0.40	0.53	0.65
Fed Funds Target	5.55	5.13	4.89	2.13	2.19	5.10
COF / FFT	70%	42%	54%	19%	24%	13%
Funding Advantage (bps)	167	296	227	173	166	451



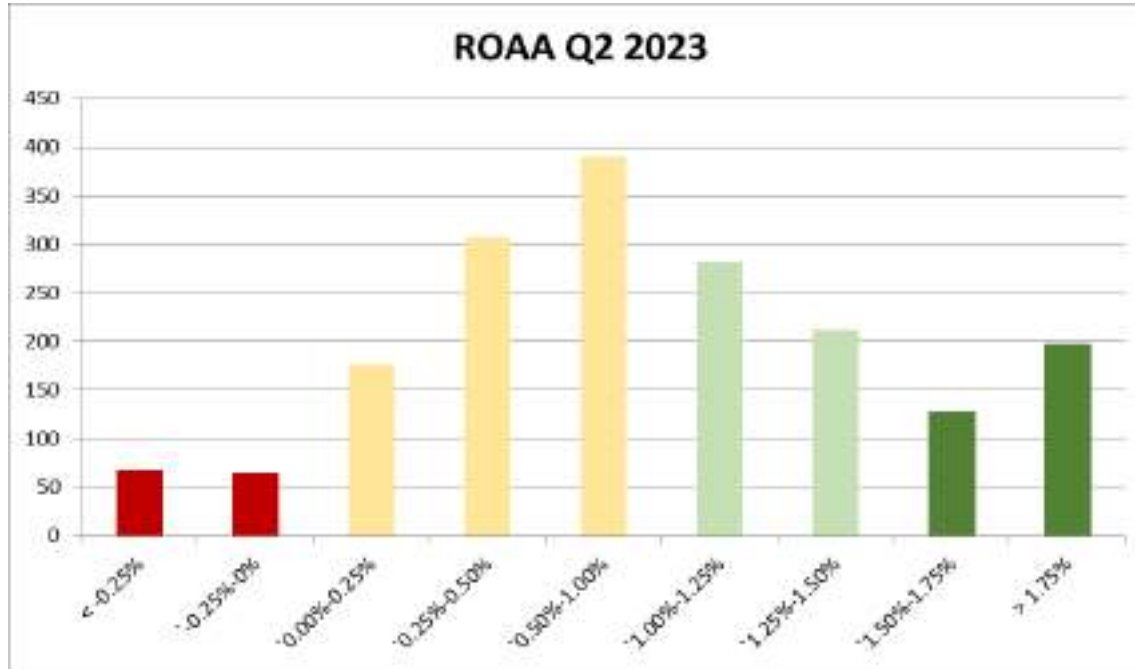
2007Q2, Credit Unions (Fed Funds @ 5.25%)		
Percentile Rank	Cost of Funds (%)	Funding Advantage
90th	1.43	382
80th	1.83	342
75th	1.97	328
60th	2.34	291
50th	2.56	269
40th	2.76	249
25th	3.08	217
20th	3.21	204
10th	3.58	167

Source: S&P Global Data, Performance Trust

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Credit Unions – Return on Average Assets

Q2 2023, Histogram



Credit Unions over \$100mm in assets

- 34% of Credit Unions produced ROAA of 0.50% or lower in Q2 2023, up from 30% in Q4 2022
- Median COF in Q2 2023 was 0.87%, up 59bps from Q2 2022

Capital Allocated to Longer Assets in 2020, 2021, and 2022.



Longer Fixed
Rate Assets

The Current Dilemma

Credit Unions added longer Loans and Investments when rates were lower. Resulting in record margins in 2022 as funding increases lagged rate increases.

Flaws in risk management frameworks hid where COF and NIM was heading.

The unfolding consequence : Complacency and Confusion

...if Funding Advantages continue their retreat towards historical norms...

...our margins will compress. Potentially by enough to wipe out ROA for a large percentage of the industry

**How Do We Solve
This Dilemma?**

Solving the Dilemma:

What Not Do

Asset Liability for Strategy?

EVE: Static Shock for Risk

Income Simulation: Only counts 2-3 years of cash flow

ALM is great for regulators but misleading for strategy



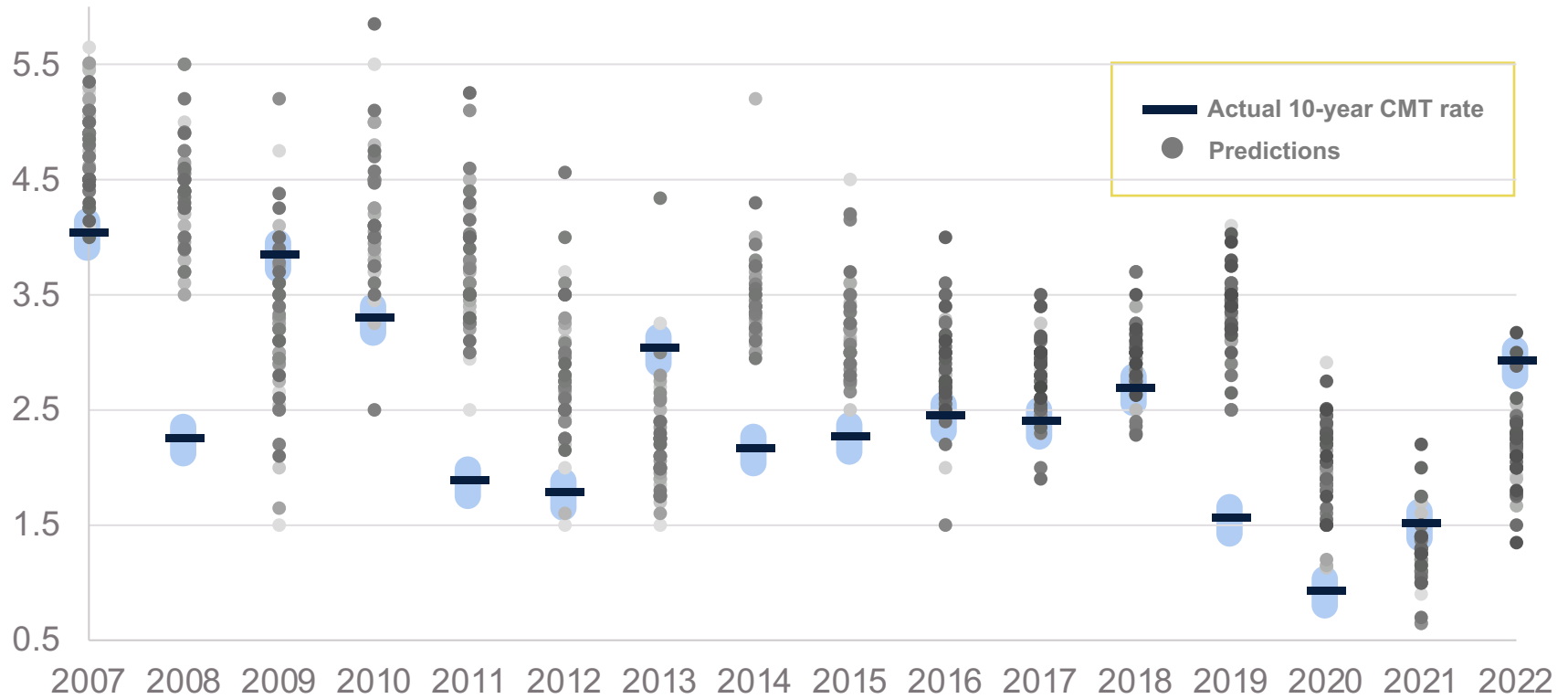
Why are tides such a good example?



“Only when the tide goes out do you learn who has been swimming naked.”

ECONOMIST PREDICTIONS 1 YEAR IN ADVANCE

What percentage of the economists came within 50 (+/-25) bps?

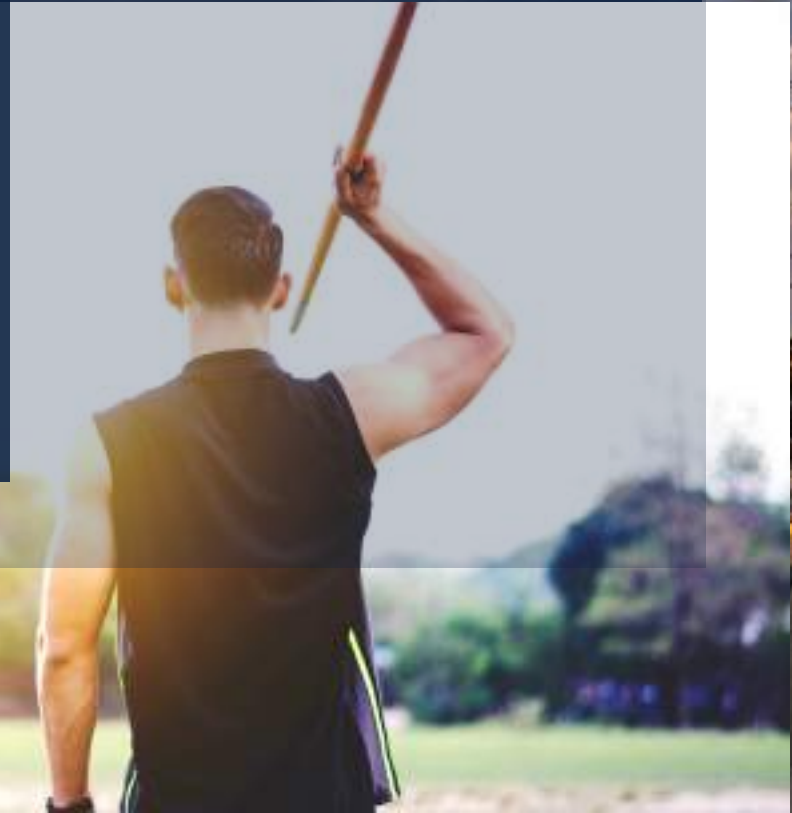


WITHIN 50 BPS 8% 0% 24% 6% 0% 4% 6% 0% 2% 30% 33% 44% 0% 4% 45% 5%

Economist Predictions

“An economic forecaster is like a cross-eyed javelin thrower; they do not win many accuracy contests, but they keep the crowd’s attention.”

– Anonymous



Solving the Dilemma:

What To Do

DI

Disciplined Insights

VOL
21.6

Hitting the Slopes with US Treasuries

April 20, 2021

Recently, I have noticed a surprising trend among community financial institutions flush with excess cash, battling diminishing margins, and on the hunt for yield or current income. Par-ish new-issue mortgage pools are showing up in portfolios and being offered more broadly at a time when they are the least advantageous cashflow for any balance sheet. Why is this happening? Yield,

Figure 1 | USVC2Y50 INDEX (Market Matrix US Sell 2-Year and Buy 10-Year Bond Yield Spread)

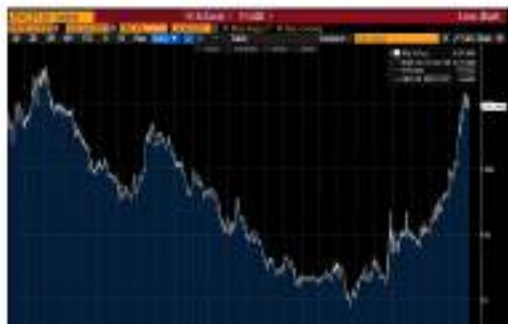
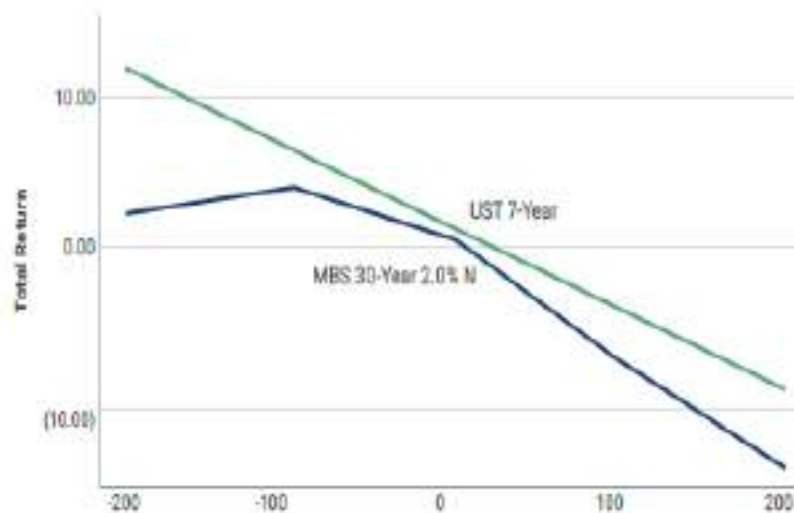


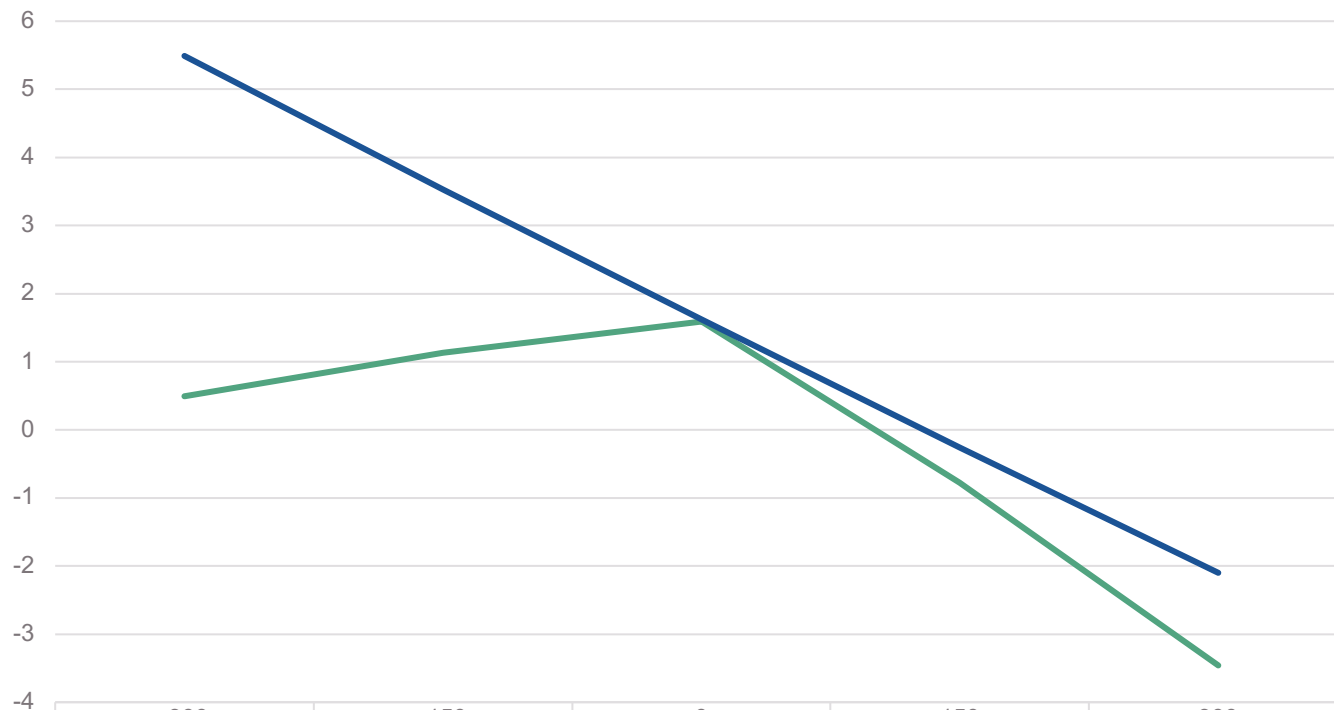
Figure 6 | 1-YEAR HORIZON



	-200	-100	0	100	200
● MBS 30-Year 2.0% N	4.10	5.92	1.93	(6.62)	(14.43)
● UST 7-Year	14.43	8.38	2.53	(3.11)	(8.65)

Total Return Scenarios: MBS 30y 2.0% N vs 7y UST

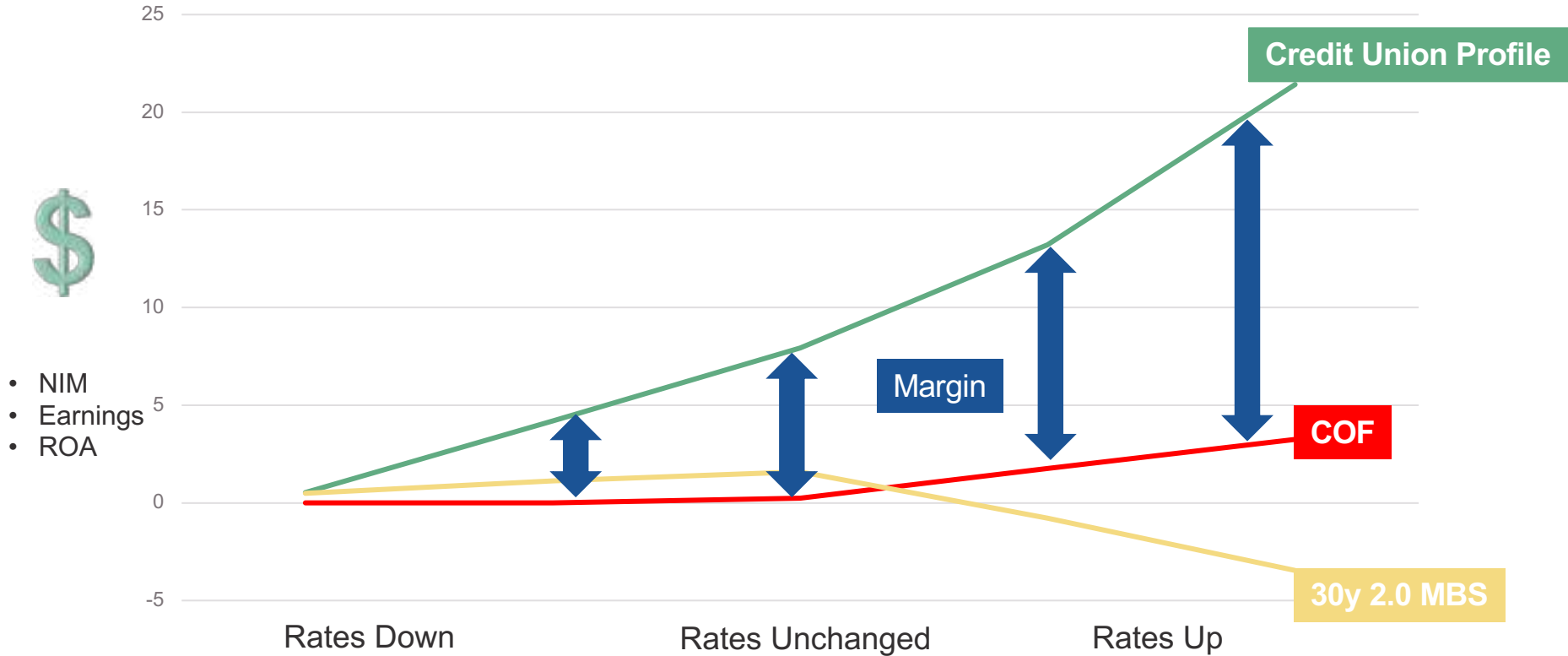
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	-300	-150	0	150	300
30y 2.0% N MBS	0.49	1.13	1.59	-0.78	-3.46
7y UST	5.49	3.53	1.62	-0.26	-2.1

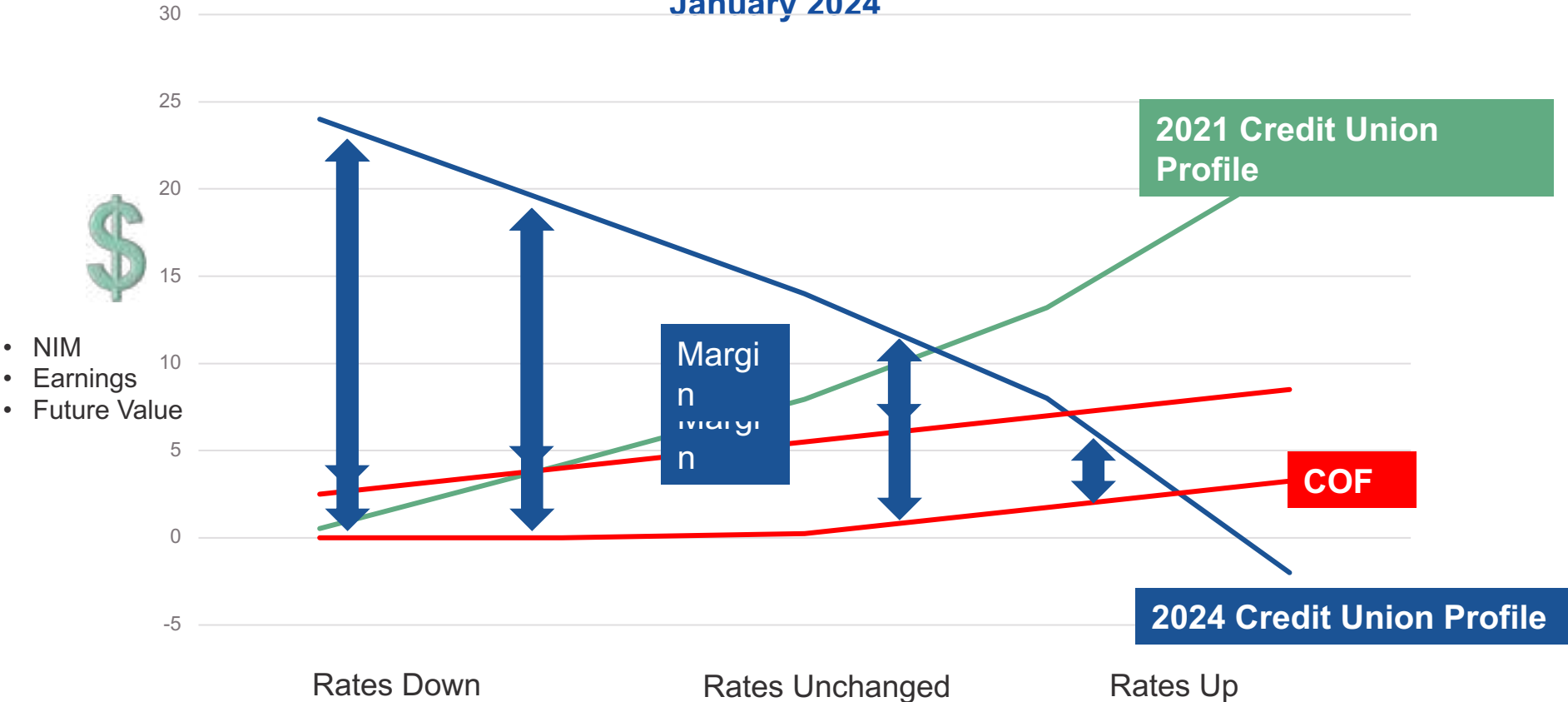
Profile of the Credit Union over the next year

Credit Union Shape/Profile 2021



Profile of the Credit Union over the next year

Credit Union Shape/Profile January 2024



- NIM
- Earnings
- Future Value



A Return to Historical Funding Advantage → Margin Compression ¹

	'95-'00	2006	2007	2018	2019	2023Q2
Cost of Funds	3.09	1.63	1.84	0.43	0.74	1.04
Fed Funds Target	5.55	5.13	4.88	2.13	2.19	5.16
COF / FFT	56%	32%	38%	20%	34%	20%
Funding Advantage (bps)	246	350	304	170	145	412

As we experience a lag on legacy assets repricing, our margins will compress in rates unchanged and rates up.

		Net Income						
		5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%
<i>Fed Funds</i>		5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%
Funding Advantage (bps)		+440	+385	+330	+275	+220	+165	+110
<i>Cost of Funds</i>		1.10%	1.65%	2.20%	2.75%	3.30%	3.85%	4.40%
COF / FFT		20%	30%	40%	50%	60%	70%	80%
	4.80%	8,742	5,794	2,846	(102)	(3,050)	(5,998)	(8,946)
	4.95%	9,636	6,688	3,740	792	(2,156)	(5,104)	(8,052)
Year 1 Asset Yield	5.09%	10,492	7,544	4,596	1,648	(1,300)	(4,248)	(7,196)
	5.30%	11,722	8,774	5,826	2,878	(70)	(3,018)	(5,966)
	5.55%	13,213	10,265	7,317	4,369	1,421	(1,527)	(4,475)
Year 3 Asset Yield	5.78%	14,562	11,614	8,666	5,718	2,770	(178)	(3,126)
	5.95%	15,598	12,649	9,701	6,753	3,805	857	(2,091)
	6.10%	16,492	13,544	10,596	7,648	4,700	1,752	(1,196)

Positive Change in Net Income	NI, MRQ \$	4,256
0-25% Reduction in Net Income	Asset Yield, MRQ	4.03%
25-50% Reduction	Cost of Funds, MRQ	1.04%
50-100% Reduction		
100%+ Reduction		

A Return to Historical Funding Advantage → Margin Compression ¹

Net Income

	Fed Funds	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%
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NI, MRQ \$	4,256
Asset Yield, MRQ	4.03%
Cost of Funds, MRQ	1.04%

A Return to Historical Funding Advantage → Margin Compression ¹

	'85-'00	2005	2007	2018	2019	2023Q2
Cost of Funds	3.93	2.24	2.63	0.45	0.09	1.13
Fed Funds Target	5.55	5.13	4.68	2.13	2.19	5.16
COF / FFT	71%	44%	54%	21%	32%	22%
Funding Advantage (bps)	162	289	225	168	150	403

As we experience a lag on legacy assets repricing, our margins will compress in rates unchanged and rates up.

		Net Income						
Fed Funds		5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%
Funding Advantage (bps)		+440	+385	+330	+275	+220	+165	+110
Cost of Funds		1.10%	1.65%	2.20%	2.75%	3.30%	3.85%	4.40%
COF / FFT		20%	30%	40%	50%	60%	70%	80%
	4.70%	3,315	1,878	440	(998)	(2,435)	(3,873)	(5,311)
	4.85%	3,768	2,330	892	(545)	(1,983)	(3,421)	(4,859)
Year 1 Asset Yield	4.99%	4,179	2,741	1,303	(135)	(1,572)	(3,010)	(4,448)
	5.05%	4,371	2,933	1,495	58	(1,380)	(2,818)	(4,256)
	5.15%	4,672	3,235	1,797	359	(1,079)	(2,516)	(3,954)
Year 3 Asset Yield	5.22%	4,870	3,433	1,995	557	(881)	(2,318)	(3,756)
	5.35%	5,276	3,838	2,400	962	(475)	(1,913)	(3,351)
	5.50%	5,728	4,290	2,852	1,415	(23)	(1,461)	(2,899)

Positive Change in Net Income
0-25% Reduction in Net Income
25-50% Reduction
50-100% Reduction
100%+ Reduction

NI, MRQ \$	2,176
Asset Yield, MRQ	4.30%
Cost of Funds, MRQ	1.13%

A Return to Historical Funding Advantage → Margin Compression ¹

		Net Income						
<i>Fed Funds</i>		5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%
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<i>Cost of Funds</i>		1.10%	1.65%	2.20%	2.75%	3.30%	3.85%	4.40%
COF / FFT		20%	30%	40%	50%	60%	70%	80%
	4.70%	3,315	1,878	440	(998)	(2,435)	(3,873)	(5,311)
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A Return to Historical Funding Advantage → Margin Compression ¹

	'85-'00	2005	2007	2018	2019	2023Q2
Cost of Funds	4.36	2.57	3.13	0.49	0.71	0.82
Fed Funds Target	5.55	5.13	4.88	2.13	2.19	5.16
COF / FFT	78%	50%	64%	23%	32%	16%
Funding Advantage (bps)	120	256	175	164	148	434

As we experience a lag on legacy assets repricing, our margins will compress in rates unchanged and rates up.

		Net Income						
Fed Funds		5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%
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COF / FFT		20%	30%	40%	50%	60%	70%	80%
	5.20%	3,089	609	(1,870)	(4,350)	(6,830)	(9,309)	(11,789)
	5.35%	3,827	1,347	(1,133)	(3,612)	(6,092)	(8,572)	(11,051)
Year 1 Asset Yield	5.52%	4,647	2,168	(312)	(2,792)	(5,271)	(7,751)	(10,231)
	5.60%	5,056	2,576	97	(2,383)	(4,863)	(7,342)	(9,822)
	5.70%	5,548	3,068	588	(1,891)	(4,371)	(6,851)	(9,330)
Year 3 Asset Yield	5.75%	5,775	3,296	816	(1,664)	(4,143)	(6,623)	(9,103)
	5.90%	6,531	4,052	1,572	(908)	(3,387)	(5,867)	(8,347)
	6.05%	7,269	4,789	2,309	(170)	(2,650)	(5,130)	(7,609)

Positive Change in Net Income	NI, MRQ \$	1,772
0-25% Reduction in Net Income	Asset Yield, MRQ	4.80%
25-50% Reduction	Cost of Funds, MRQ	0.82%
50-100% Reduction		
100%+ Reduction		

A Return to Historical Funding Advantage → Margin Compression ¹

		Net Income						
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5.90%		6,531	4,052	1,572	(908)	(3,387)	(5,867)	(8,347)
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Positive Change in Net Income
0-25% Reduction in Net Income
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NI, MRQ \$	1,772
Asset Yield, MRQ	4.80%
Cost of Funds, MRQ	0.82%

How do you Acquire Time..?

To move a ½ point in Asset yield in 12mos

No Growth

25% of your assets have to reprice 200bps higher

What if Assets Have No Repricing

You need to grow your balance sheet by **25%** in total assets with an average yield of **250bps** higher than your current asset yield

What if No Repricing/No Growth

Off Balance Sheet instruments

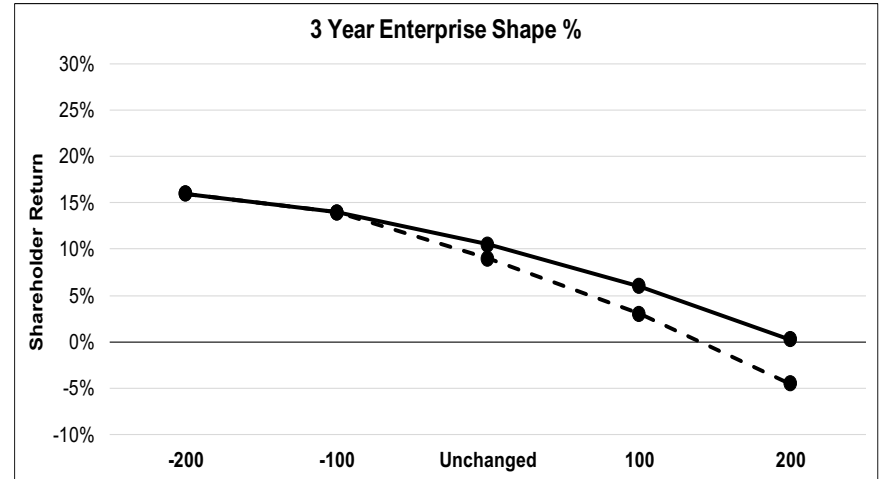
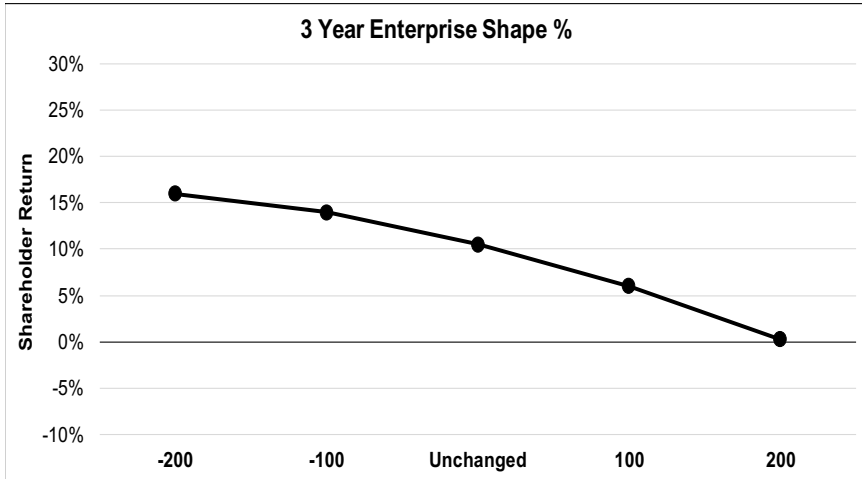
Raising Capital

Restricting/Forego Member Dividends

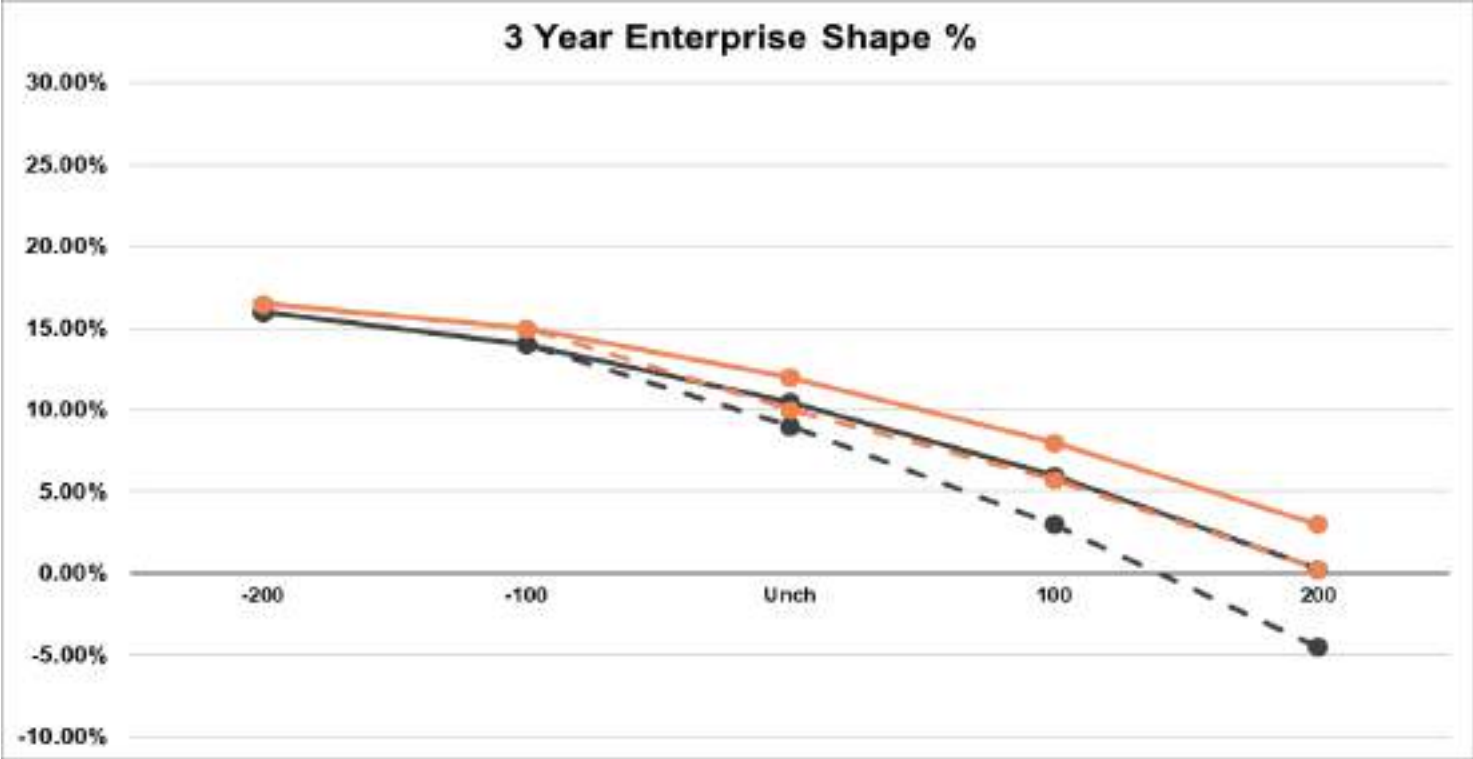
Important Information:

**This framework applies to ALL capital
allocation decisions!**

Two Possible Futures: 3 Year Enterprise Shape ¹



Mitigate the Magnitude of “Banded” Outcomes



Additional Information...



Dallas – The Adolphus
May 13 – 15, 2024

	COF / FFT	30%	40%	50%	60%	70%	80%
	COF	1.65%	2.20%	2.75%	3.30%	3.85%	4.40%
Fed Funds at 5.50%	Fund. Adv.	385	330	275	220	165	110
	4.20	12,595	5,677	(1,242)	(8,161)	(15,079)	(21,998)
	4.35	14,645	7,727	808	(6,110)	(13,029)	(19,947)
Year 1 Asset Yield	4.49	16,514	9,595	2,677	(4,242)	(11,161)	(18,079)
	4.61	18,165	11,246	4,328	(2,591)	(9,509)	(16,428)
	4.73	19,812	12,893	5,975	(944)	(7,862)	(14,781)
Year 3 Asset Yield	4.85	21,461	14,543	7,624	706	(6,213)	(13,131)
	5.00	23,530	16,611	9,693	2,774	(4,144)	(11,063)
	5.15	25,580	18,661	11,743	4,824	(2,094)	(9,013)
				Industry Historical Band			

Denver – Brown Palace
July 15 – 17, 2024



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