



NIM Faces Pressures Ahead

- NIM's have been trending lower since 2000
- During periods of rising rates, the industry saw little in margin gains
- More recent falling rate cycles have eroded margin very quickly



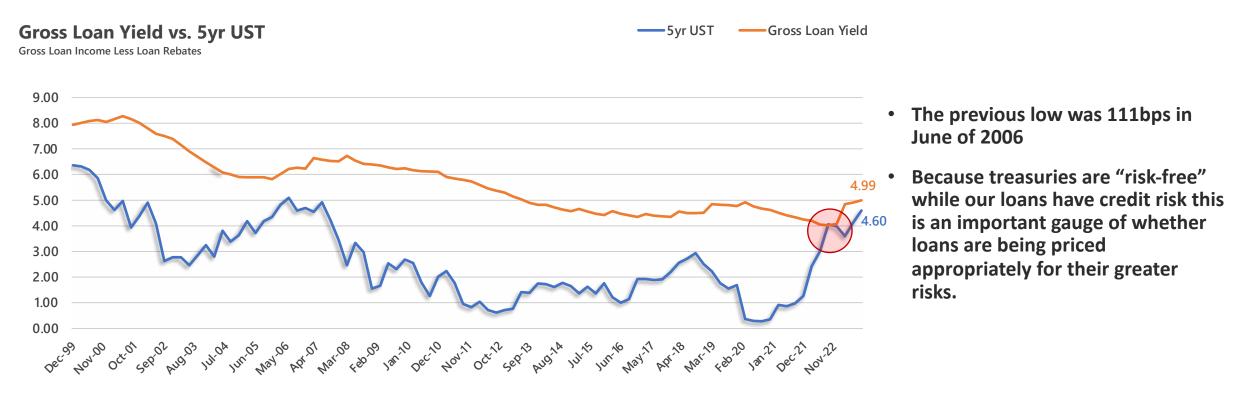
- Most margin gains have come from reduction of funding costs
- Loan yields have started to see an increase from higher rates
- Investment yields look good mostly due to cash levels repricing higher, but not enough new purchases have been made due to liquidity pressure
- Margins have already started to decline due to pressures from cost of funds

We can still protect against the potential margin compression but need to be steadfast in our approach.



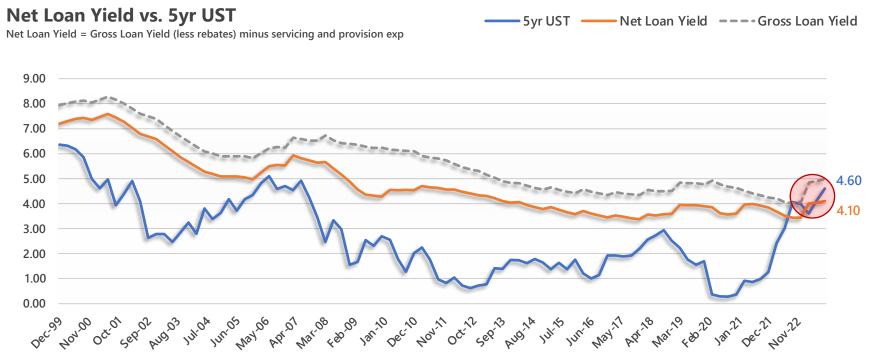
Spreads between loans and risk-free treasuries at historic low spreads

- Since 2000 spreads between gross loan yield and the 5yr UST averaged 300bps
- In September of 2022 that spread became negative for the first time, and as of the most recent quarter sits at 39bps



Net loan yield shows a more troubling trend

- Net loan yields have been lower than gross levels by an average of 92bps since 2000, due to servicing costs and provision expense
- Using Net Loan Yield the industries loan yield is 50bps below 5yr UST

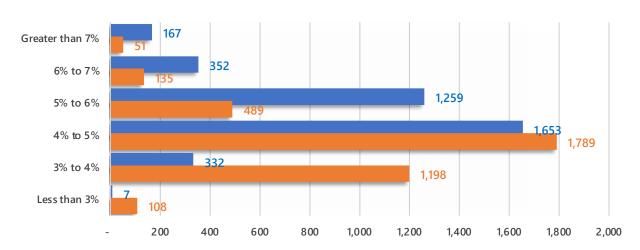


- The gap between gross and net loan yield was at its largest in December of 2009 where we saw a gap of 196bps
- This was due to the rising loan provisions stemming from the Great Recession
- Should loan performance worsen it can significantly impact CU's abilities to maintain margins

As of September 2023, over 60% of CU's have a net loan yield below 4.60%

Gross vs. Net Loan Yield for CU's as of September 2023

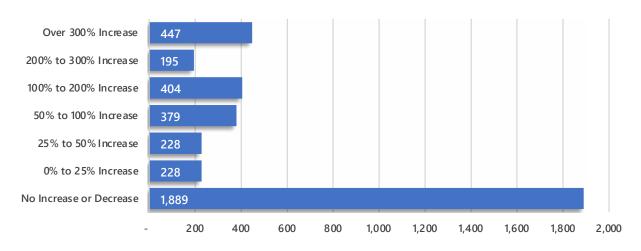
For CU's over \$10mm in Assets



- 32% of CU's have a Gross loan yield below 4.60%
- 68% of CU's had a Net loan yield below 4.60%
- When factoring in servicing and provision the number of CU's with under 4% loan yields jumped by 285%

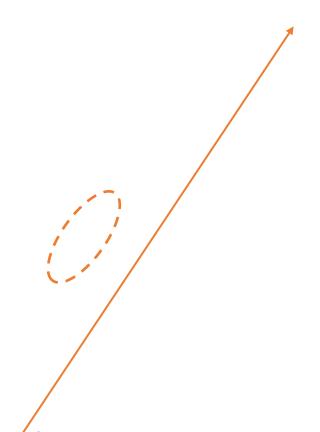
Number of CU's with YoY Increased Provision Expense

For CU's over \$10mm in Assets



- Servicing exp remained stable at 0.21% of total loans while provision expense jumped by 125% year over year (0.46% of total loans)
- 50% of CU's saw no increase or a decrease in their provision expense
- 25% of CU's saw their provision double or more from September 2022

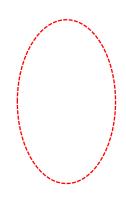
Consumer Delinquencies Were Rising Even Before Student Loan Payments Resumed



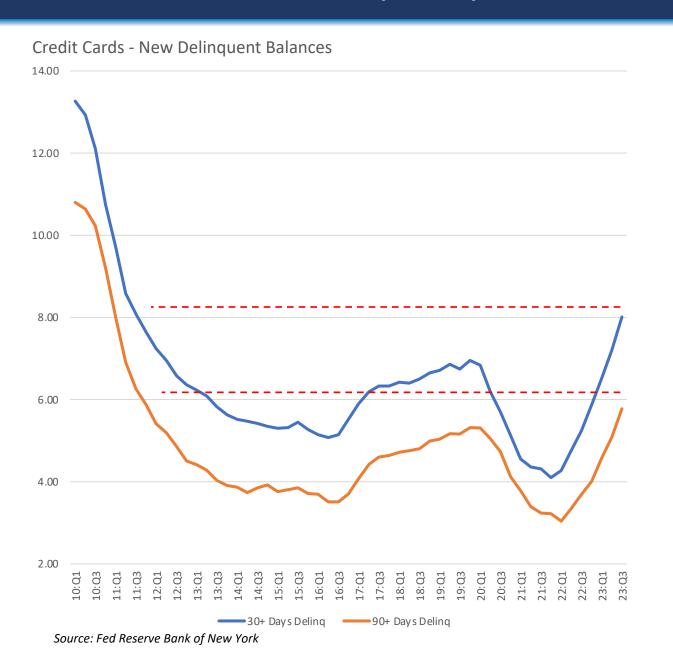
- Student loan payments were paused in March 2020
- 44 million Americans with Federal Student Loans totaling \$1.6 Trillion
- Average student loan monthly payment estimated at \$393 a month
- Payments resumed in October 2023

Will Increasing Charge-off Rates Stop at "Normal"

All US Credit Unions



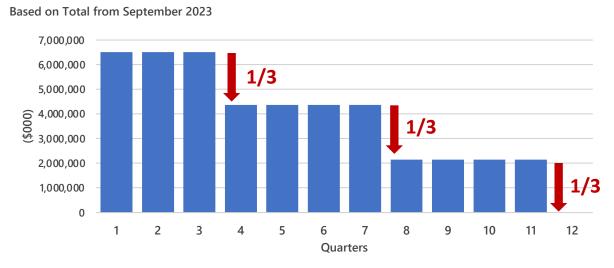
Credit Card & Auto Delinquency Trends



Impact of CECL on future loan yields/income

- As of September 2023, the industry has \$6.5bln Regulatory Net Worth from the CECL transition provision.
- This transition is set to phase out over the next 12 quarters
- That \$6.5bln represents 29bps of net worth

CECL Transition Provision Phase Out



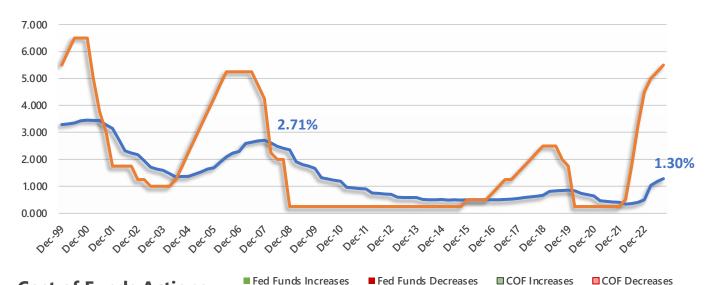
- The challenged posed by CELC will be two fold
- First CU's will need to ensure higher income moving forward in order to minimize the phase out of the transition provision
- Potentially worsening credit conditions will potentially erode margins on loans further unless we make changes to our pricing methodology.

We should resist the urge to lower loan rates in the face of potential fed cuts in order to minimize further margin erosion

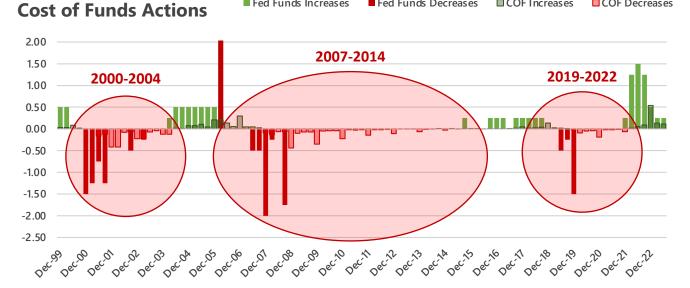


Cost of Funds vs. Fed Funds

Cost of Funds vs. Fed Fund

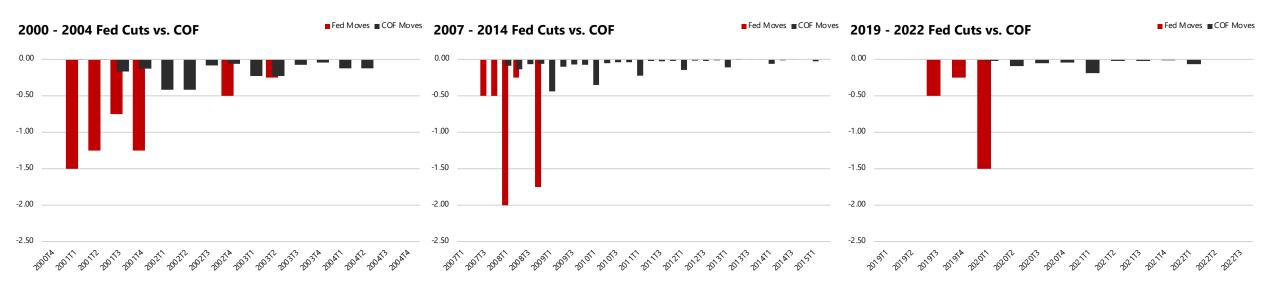


- In the face of rising rates cost of funds has been slower to move than the fed
- In 2004 to 2006 the Fed raised rates a total of 425bps
- It took 6 quarters from the last increase in June of 2006 to hit the high in cost of funds in Q4 of 2007



- Relief from cost of funds does come in the face of a falling rate environment, but follow a similar lag to rising rates
- In this case we can look deeper into the last 3 falling rate environments

Last 3 Fed easing cycles vs the change in Cost of Funds



- 2000-2004 saw the Fed cut rates a total of 550bps over 10 quarters
- CU's COF saw a total of 211bps decrease over 12 quarters with a two-quarter lag from the first fed move
- Beta: 38.30%

- 2007-2014 saw the Fed cut rates a total of 500bps over 6 quarters
- CU's COF saw a total of 223bps decrease over 29 quarters with a two-quarter lag from the first fed move
- Beta: 44.56%

- 2019-2022 saw the Fed cut rates a total of 225bps over 3 quarters
- CU's COF saw a total of 52bps decrease over 9 quarters with a two-quarter lag from the first fed move
- Beta: 23%

Two things remained consistent with every cycle: Typically, there is a 2-quarter lag between the first fed cut and the first COF decrease, the cutting cycle for COF is more drawn out

Why this time could be different: Record amount of leverage

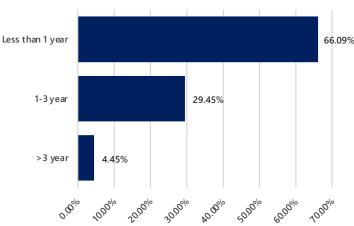
Wholesale funds as a % of Total Shares and Deposits

Wholesale funds = Non-Member Deposits + Borrowings

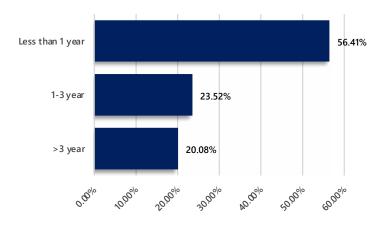


- CU's have a record amount of leverage with Wholesale funds making up 8.26% of Total Shares and Deposits
- The previous high was in March of 2009 at 5.95% (After the fed finished rate cuts)
- It was 4.08% just before the first rate cut
- The average since 2000 has been 3.91%

Whole Sale Funds Distribution – June 2007



Wholesale Funds Distribution - Sept 2023



- Although the majority of borrowings are less than 1yr there are some longer term borrowings that could limit how much interest savings we could see
- Significantly more borrowings are being reported >3yrs vs 2007

What about Member Certificates?

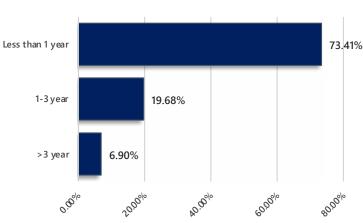
Member Term Deposits as % of Total Shares and Deposits



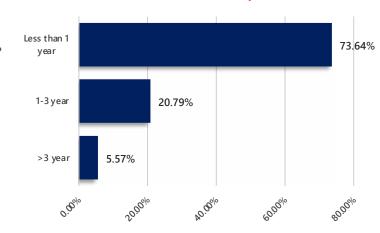


- % of Term Deposits is at its highest level since 2014
- The previous high was 27.82% in December 2019 (first Fed cut 2019 Q3 {August 1st 2019})
- The highest ever recorded was 43.22% in December 2007 (first Fed cut 2007 Q3 {September 18th})

Member Certificate Distribution – June 2007



Member Certificate Distribution - Sept 2023



- Member certificates show very similar distribution to 2007
- This cycle could potentially be longer due to the increased leverage at longer duration
- Cost of funds will potentially remain at elevated levels for longer

History doesn't repeat itself, but it rhymes

- The deposit side of the balance sheet is showing similar trends to 2007
- The wholesale side of the balance sheet is longer than what we saw in 2007 with a larger amount of leverage being taken on.
- 2007 to 2014 saw the longest cut cycle for CU cost of funds (223bps over 29 quarters)
- It took 9 quarters to see 50% of the total drop in COF, with the first big drop occurring 7 quarters after the first fed hike
- This cycle could potentially be longer due to the increased leverage at longer durations
- Cost of funds will not only potentially continue to increase, but could remain at elevated levels for longer

Are You Prepared for the End? Bank Term Funding Program (BTFP)

Fed's Barr Signals Emergency Loan Program Won't Be Extended

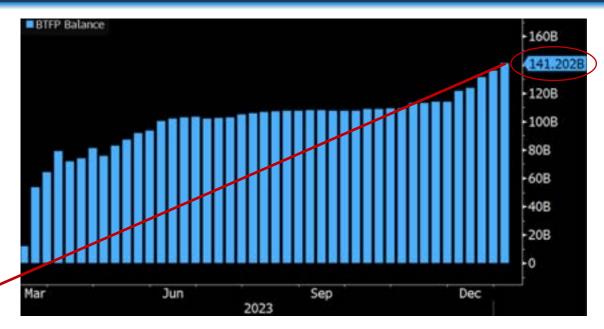
- Program "ends" March 11th, 2024
- CU's can still borrow for up to 1 year (03/11/25 maturity)
- Great way to lock in 1yr liquidity with capped rate and downside refi potential (no penalty or fee)
- ➤ 12-14 month window to reallocate into other wholesale liquidity options (with varying terms as needed for IRR)
 - Borrowings from FHLB / Corporate
 - Non-Member / Brokered Deposits
 - Loan Participation Sales

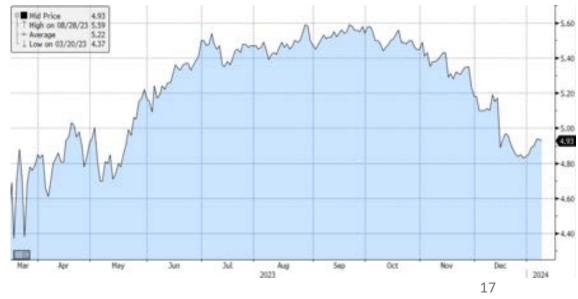
FHLB Des Moines

Term		
rem	Regular	
1 Year	4.98%	
1.5 Years	4.71%	
2 Years	4.47%	
3 Years	4.26%	
4 Years	4.19%	
5 Years	4.12%	

Non-Member Deposits

Term	All-In Rate	
12 Mo	5.15%	
18 Mo	5.00%	
2 Yr	4.80%	
3 Yr	4.55%	
4 Yr	4.45%	
5 Yr	4.45%	





Liquidity Equilibrium

Current Loan Growth:

- 9.10%
- \$143bln in projected growth over the next 12 months

Current Share Growth:

- 0.90%
- \$17bln in projected growth over the next 12 months

Net Liquidity Need of: \$126bln

In Order to Maintain Current Loan Growth:

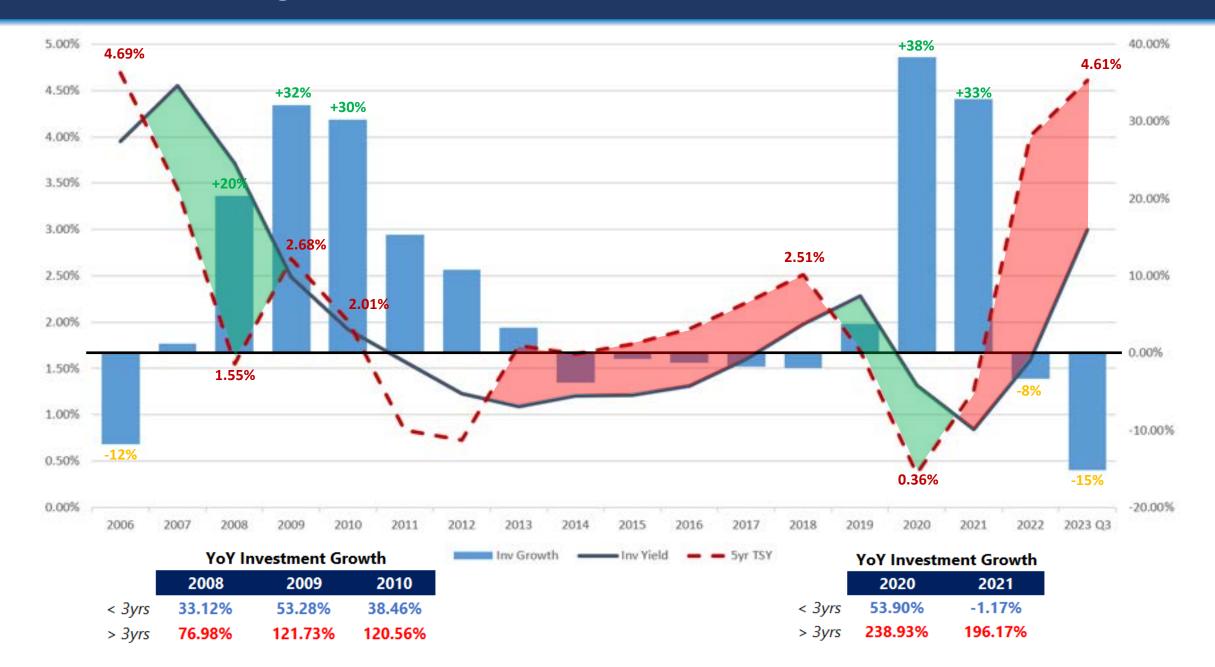
Share growth would need to hit
 7.66%

In Order to Match Current Share Growth:

 Loan growth would need to slow to 1.07%



Investment & Margin Considerations



Balance Sheet Strategies Through the Cycles

The end of the tightening cycle is either here or almost here so there is a window of opportunity to add higher yielding assets to the balance sheet, but that window is closing as the peak in rates approaches.





Trough	Rising	Peak	Falling
Asset Sensitive	Transition from Asset Sensitive to Liability Sensitive	Liability Sensitive	Transition from Liability Sensitive to Asset Sensitive
Assets Shorter term loans, more floating than fixed, shorter resets, shorter duration bond portfolio	Transition from shorter to longer term assets	Assets Longer term/reset loans, more fixed than floating, add floors & prepayment penalties, longer duration bond portfolio	Transition from longer to shorter term assets
Liabilities Longer term CD specials, longer more fixed rate borrowings	Transition from longer to shorter term liabilities	<u>Liabilities</u> Shorter term CD specials, short or floating rate borrowings	Transition from shorter to longer term liabilities

Hallmarks of a Recession

Historically, 3 things happen during a recession

- 1. Institutions experience loan losses
- 2. Fed aggressively cuts rates and yields fall
- 3. Bond portfolios swing to unrealized gains which allows institutions the option to offset loan losses with bond gains to stabilize earnings

If a recession occurs and rates fall 100-200bp, nearly all investment portfolios will still be at an unrealized loss. The only bonds that will be at a gain are those purchased today or in the last 12-18 months.

Because institutions have not purchased many bonds recently, this could be the first recession in history that institutions will not have the ability to use gains from the bond portfolio to offset loan losses.

In a falling rate environment, the *gains* in the bond portfolio will come from purchases made today or in the last 12-18 months. Portfolio managers need to be <u>actively</u> participating in this market ASAP.

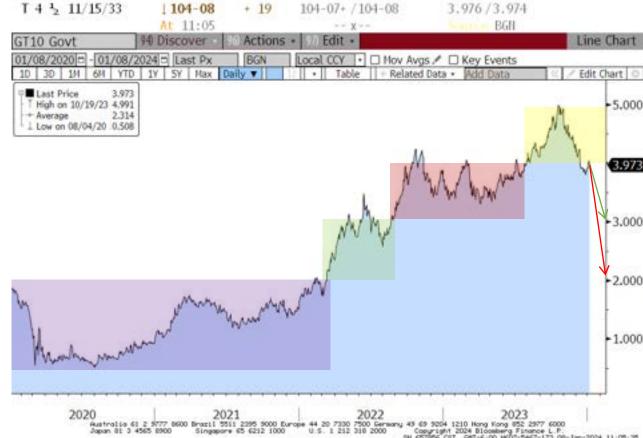
Bond Yields Remain Near 15 Year Highs – Will Your Portfolio Have Gains If Rates Fall?

10yr Yield Last 20 Years

10yr Yield Last 4 Years



Despite the drop in yields since October, bond yields remain higher than 174 out of the last 180 months.



Today, most bonds purchased in last 4mos are at a gain (yellow area)

If rates fall 100bp, bonds purchased in last 18mos will be at a gain (red area)

If rates fall 200bp, bonds purchased in last 24mos will be at a gain (green area)

If rates fall 200bp, bonds purchased in 2020-21 will still be at a loss (purple area)

The Investment Portfolio Is Your Best IRR Tool – Use It!

"The investment portfolio is the vehicle or tool with which we can most easily correct & improve asset / liability exposures."

..."Asset/Liability Management" - Dr. James V. Baker (1981)

Low Rate (Trough) Strategies	Transition	High Rate (Peak) Strategies
Minimum duration	───	Maximum duration
Premiums	\longrightarrow	Discounts
High coupon	$\xrightarrow{\hspace*{1cm}}$	Low coupon
Negative convexity OK	\longrightarrow	Reduce negative convexity
High cashflow bonds	$\xrightarrow{\hspace*{1cm}}$	Lockouts
Buy ARMs & floaters	\longrightarrow	Sell ARMs & floaters
Current pay CMBS	──	Lockout CMBS
Prepay protection less important	──	Prepay protection more important
1X Callable Agencies	\longrightarrow	Bullet agencies or call protection
Cushion callables		Discount callables

Investment strategies have been focused on <u>protecting the value (price)</u> of the portfolio (i.e. shorter duration, more cash flow) as rates were low and rising. Now that the tightening cycle may be getting closer to an end, strategies need to shift to <u>increasing/protecting the earnings (yield)</u> of the portfolio (i.e. longer duration, less cash flow).

5yr Treasury Yields Over the Past 20yrs – We Didn't Miss It!



Margin Protection Will Likely Separate Top & Bottom Performers in 2024

Current Fed Funds Futures

	Cost of Waiting					
			Overnight Balance:			\$10,000,000
			Effective Overnight Rate:			5.33
			Alternative Asset Yield:			4.75
			Horizon Term in Months:			36
Period (Months)	Period (Months)	Overnight Rate	Interest Income	Alternative Yield	Interest Income	"Foregone" Income
4/30/2024	3	5.25	\$131,167	4.75	\$118,750	-\$12,417
7/31/2024	6	4.81	\$120,167	4.75	\$118,750	-\$1,417
10/31/2024	9	4.38	\$109,583	4.75	\$118,750	\$9,167
1/31/2025	12	4.03	\$100,750	4.75	\$118,750	\$18,000
4/30/2025	15	3.70	\$92,583	4.75	\$118,750	\$26,167
7/31/2025	18	3.45	\$86,167	4.75	\$118,750	\$32,583
10/31/2025	21	3.33	\$83,333	4.75	\$118,750	\$35,417
1/31/2026	24	3.20	\$80,000	4.75	\$118,750	\$38,750
4/30/2026	27	3.06	\$76,500	4.75	\$118,750	\$42,250
7/31/2026	30	3.06	\$76,500	4.75	\$118,750	\$42,250
10/31/2026	33	3.06	\$76,500	4.75	\$118,750	\$42,250
1/31/2027	36	3.06	\$76,500	4.75	\$118,750	\$42,250
			\$1,109,750	- - -	\$1,425,000	\$315,250

Your loan portfolio cannot offer the same falling rate margin protection due to refinancing and potential charge-offs

*Disclaimer: this simple Cost of Waiting table that does not incorporate amortization/accretion adjustments, potential asset paydowns or any considerations for reinvestment. Overnight Rate uses Fed Funds Futures

The figures and user inputs are estimates only and should NOT be used solely for making investment decisions. A thorough bond swap or ALM analysis should be conducted in order to understand the overall risks involved.

Key Takeaways

- The Fed is likely finished hiking rates and has pivoted to an easing bias for 2024. The Fed says they plan to cut rates 75bp this year and another 225bp over the next 3yrs+ to get to 2.5% FF.
- The market is pricing in 125-150bp in rate cuts this year. If there is a recession, it could be 200-300bp.
- Loan portfolios could face increased pressure from increased delinquencies/charge-offs and the potential for refi's as rates fall. Its important to ensure loan pricing accounts for this increased risk premium.
- Deposits will continue to pressure margins via increased cost of funds, its important for credit unions to balance liquidity by not just chasing deposits, but actively growing members
- Portfolio managers should be **positioning the portfolio for lowers rates**. This means **focusing on longer durations and increasing call/prepayment protection**. Use any yield retracements to add high quality bonds and reposition the portfolio.
- Stay fully invested the cost of waiting in cash is high if rates follow the path outlined by the Fed or forecasted by the
 market. If you don't have excess liquidity, look for opportunities to do swaps or consider borrowing from
 BTFP/FHLB/Brokered CDs to pre-refund future cashflow that would otherwise mature in the next year
- To be clear, we aren't suggesting one asset class is the answer. The right mix of retail lending and loan participations should also be a part of your 2024 plan. However, we very much feel that the lack of investment activity over the past 12 months has become a liability to margin stability. There is no substitute for proper balance sheet and IRR management!

We are here to help!



Greg Tomaszewicz - gregt@gobaker.com
AP, Financial Strategist – 405-415-7342

