Peer Analysis and Balance Sheet Strategies Update

FHLBank Boston

Strategic partnerships. Reliable funding.

August 16, 2023

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Overview

- Markets & Economy Update
- Peer Analysis & Call Report Trends
- Balance Sheet Strategies

What a Difference Two Years Makes

It'd be an understatement to say that current conditions are slightly different than how things were just a short time ago.

How it felt trying to bring in core deposits in 2021

How it feels trying to bring in core deposits in 2023

Markets & Economy Update

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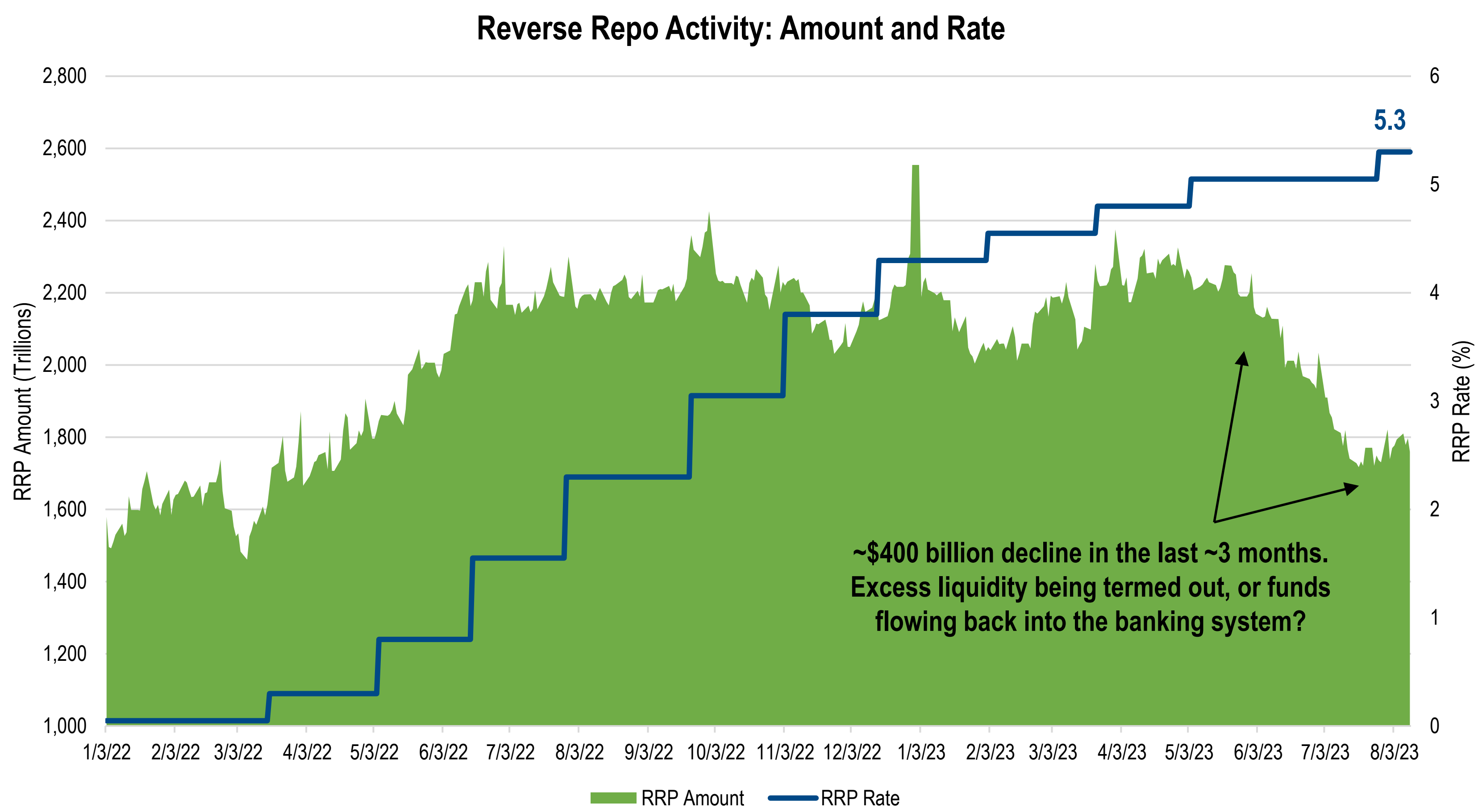
Markets & Economy Update

- Yield Curve Gyrations
- Watching Inflation
- Housing Market Trends

Liquidity in the System

Wholesale short-term rates comfortably above 5% significantly impact the "plumbing" of the financial system.

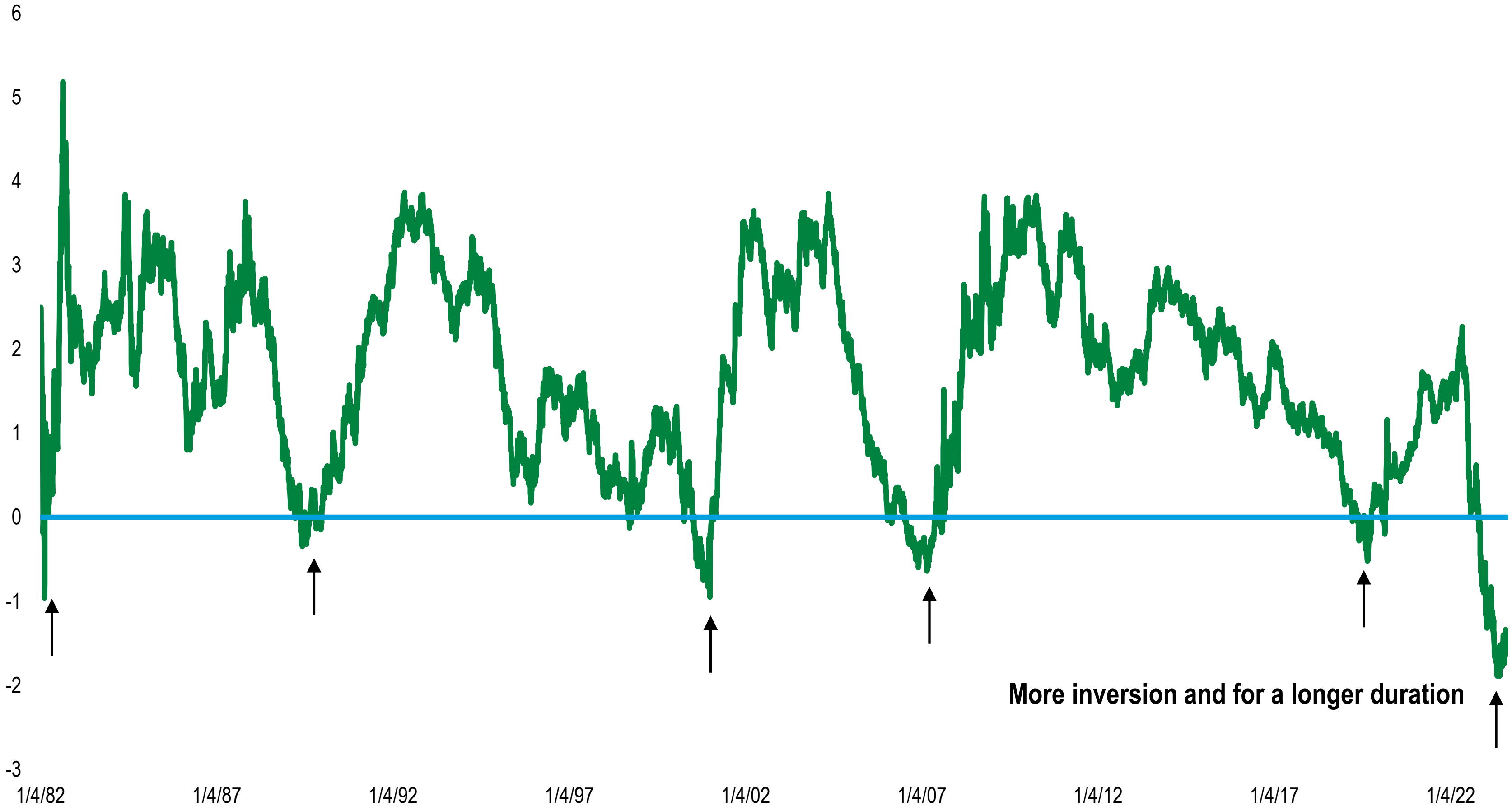


Source: Federal Reserve Bank of St. Louis, FHLBank Boston

Yield Curve Dynamics

Market expectations have been calling for a pivot that has not come yet, pushing the shape and level of the yield curve into uncharted waters.

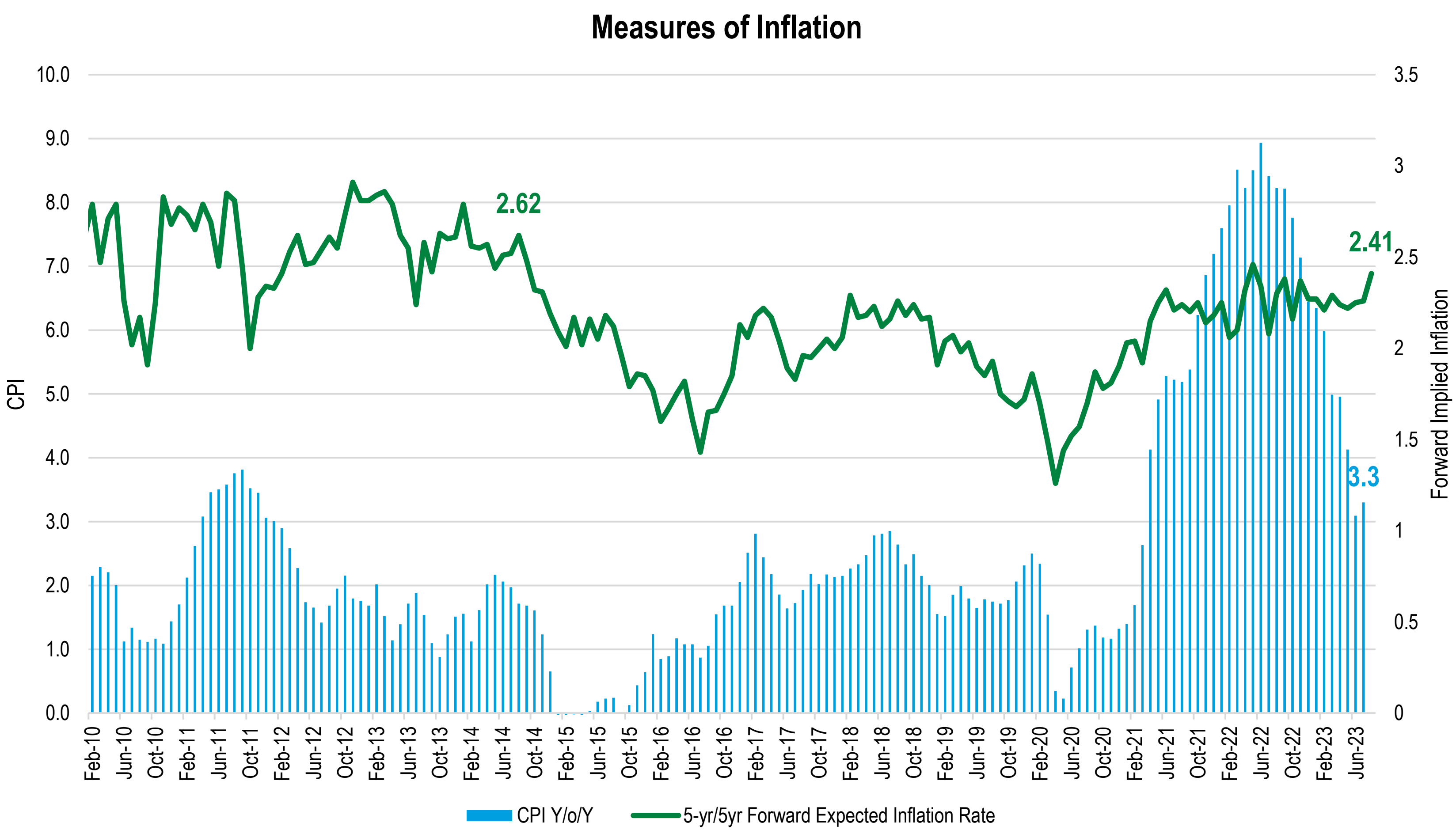
3-Month vs. 10-Year Treasury Curve Steepness



Source: Federal Reserve Bank of St. Louis, FHLBank Boston

Inflation

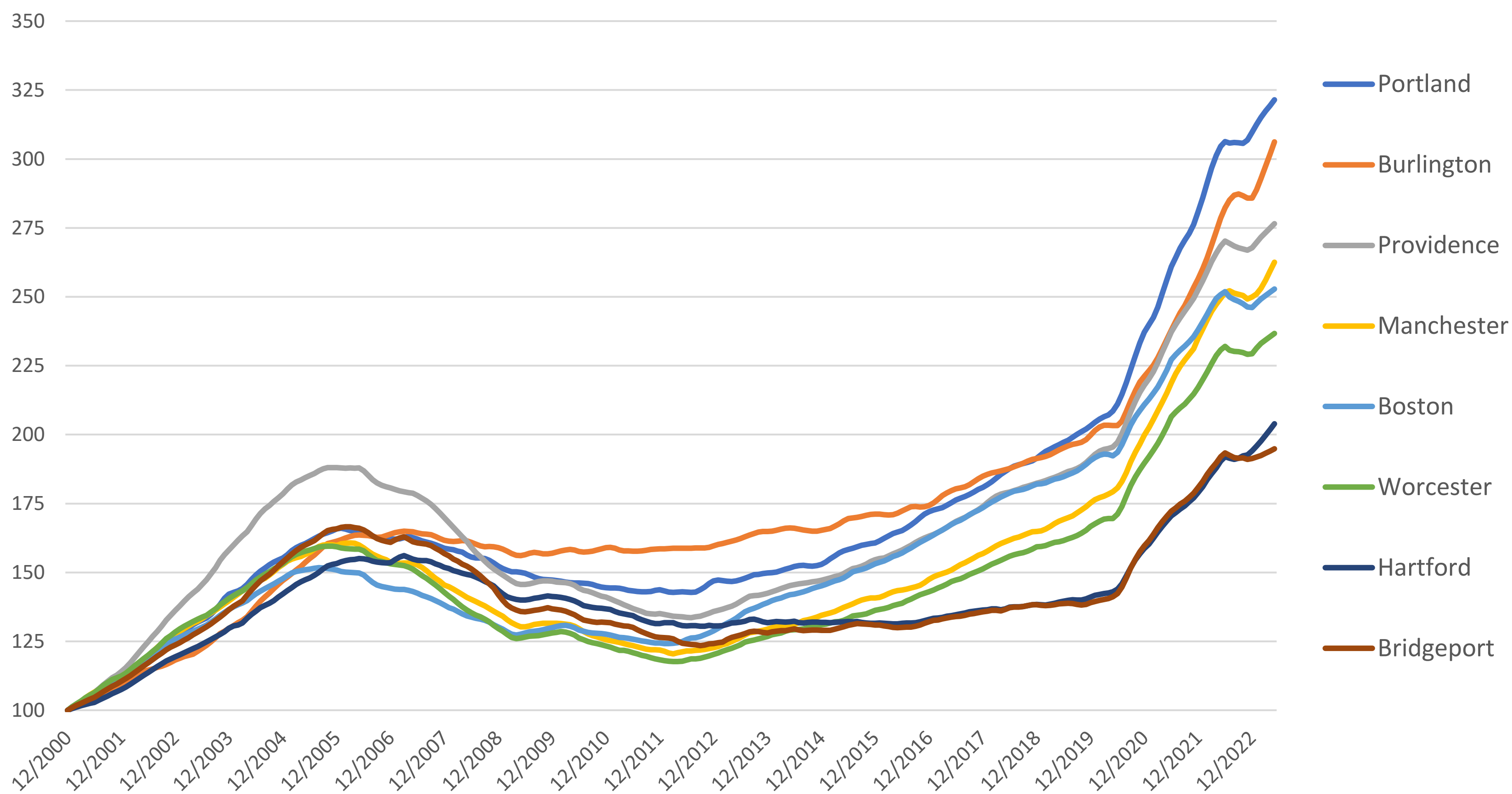
CPI has cooled from historic highs, but forward expectations have ticked back toward the highest levels since 2014.



Source: Federal Reserve Bank of St. Louis, FHLBank Boston

New England Home Prices

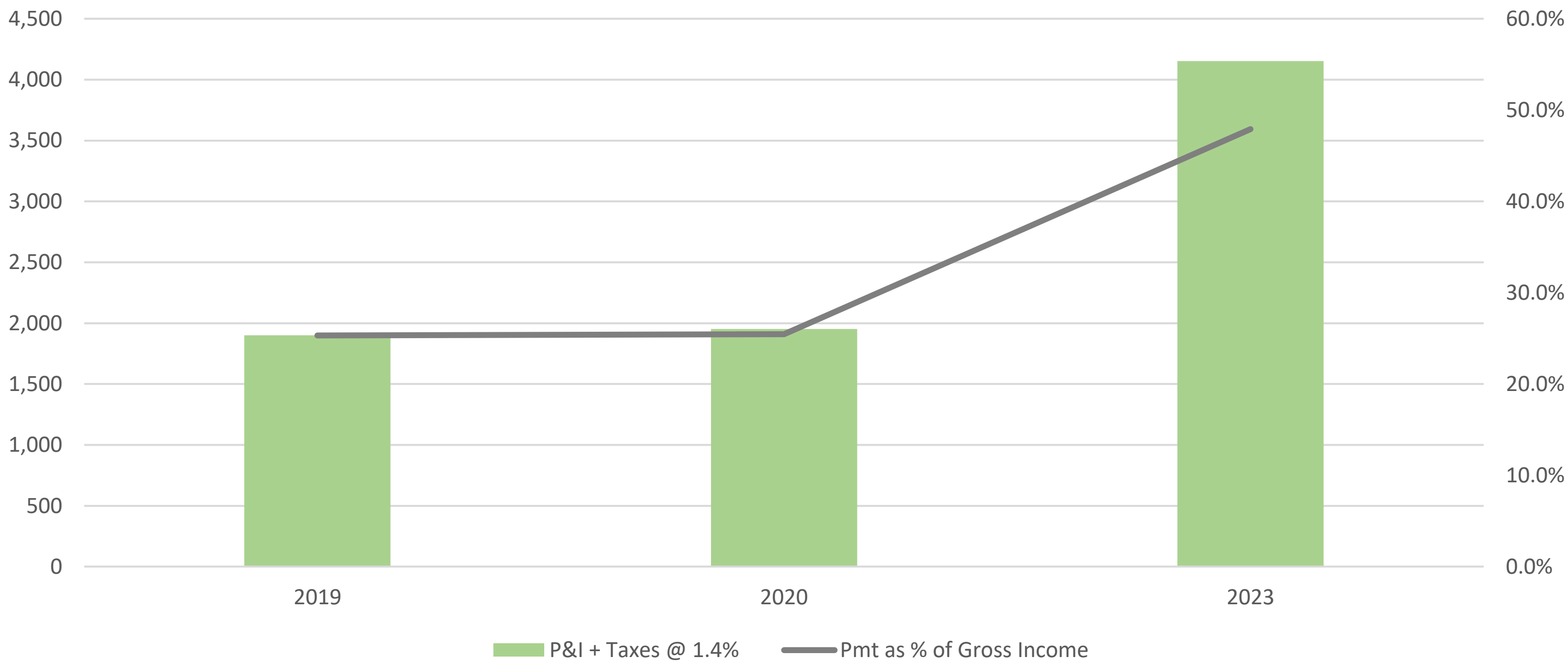
Home prices across the country took off in the spring of 2020. The best-performing metros in New England since 2000 are Portland, ME and Burlington, VT – home prices are up > 50% just in the past 3+ years and > 200% this century.



Source: Freddie Mac, FHLBank Boston

Housing Affordability

Affordability has declined dramatically, quickly. For many, a potential housing payment has almost doubled as a percentage of gross income.

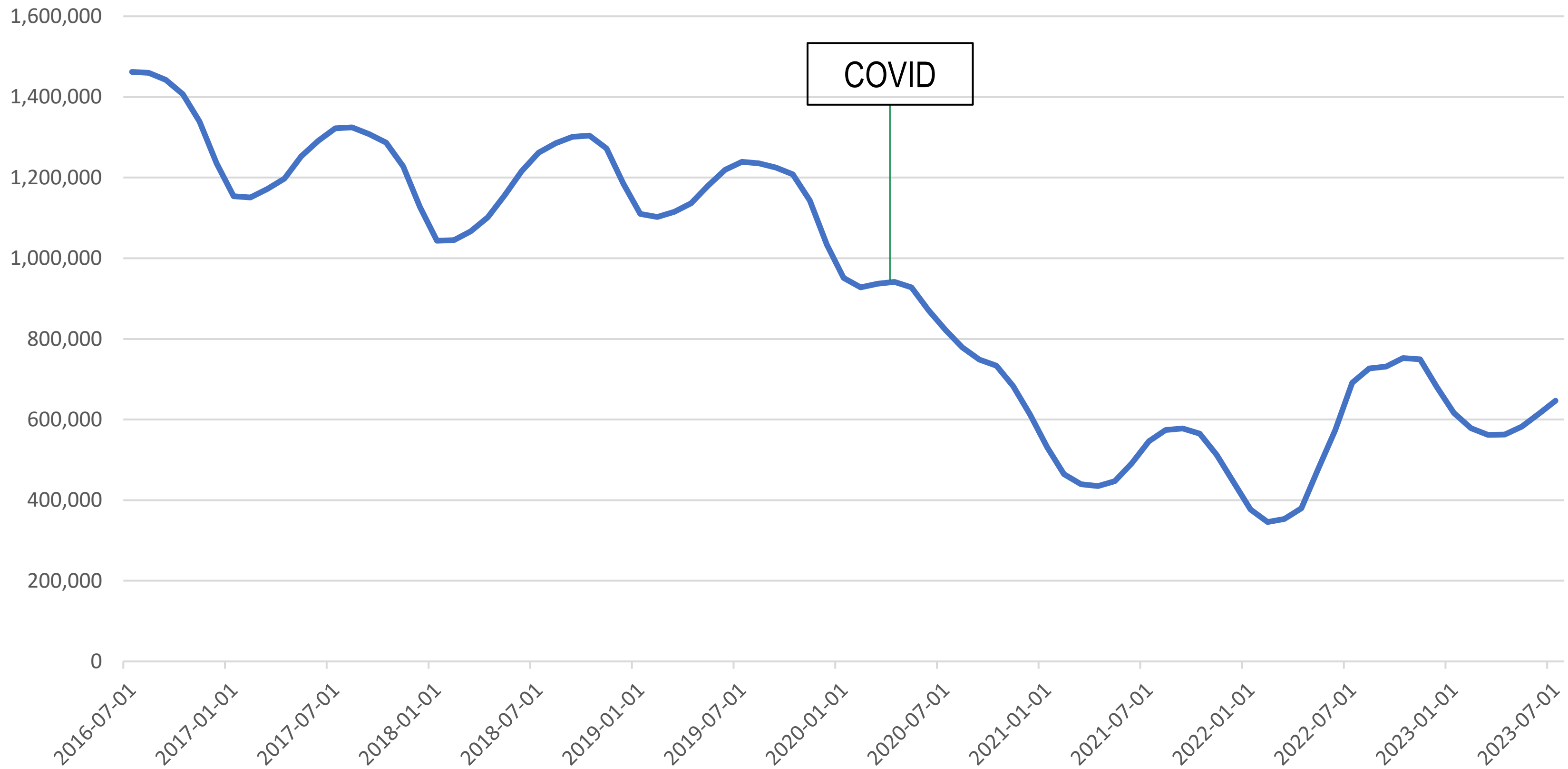


	Home Price	Income	20% Down Payment	Loan Amount	Mortgage Rate	P&I + Taxes @ 1.4%	% of Gross Income
2019	390,000	90,000	78,000	312,000	3.75%	1,900	25.3%
2020	430,000	92,000	86,000	344,000	3.00%	1,952	25.5%
2023	640,000	104,000	128,000	512,000	7.00%	4,153	47.9%

Source: Federal Reserve Bank of St. Louis, FHLBank Boston

Housing Inventory

Housing inventory is highly seasonal; prior to 2020, the typical number of listings in the summer peaked around 1.3 million nationally. Today, that number is roughly half that at 647K, possibly allowing home prices to remain elevated.



Source: Federal Reserve Bank of St. Louis, FHLBank Boston

Peer Analysis & Call Report Trends

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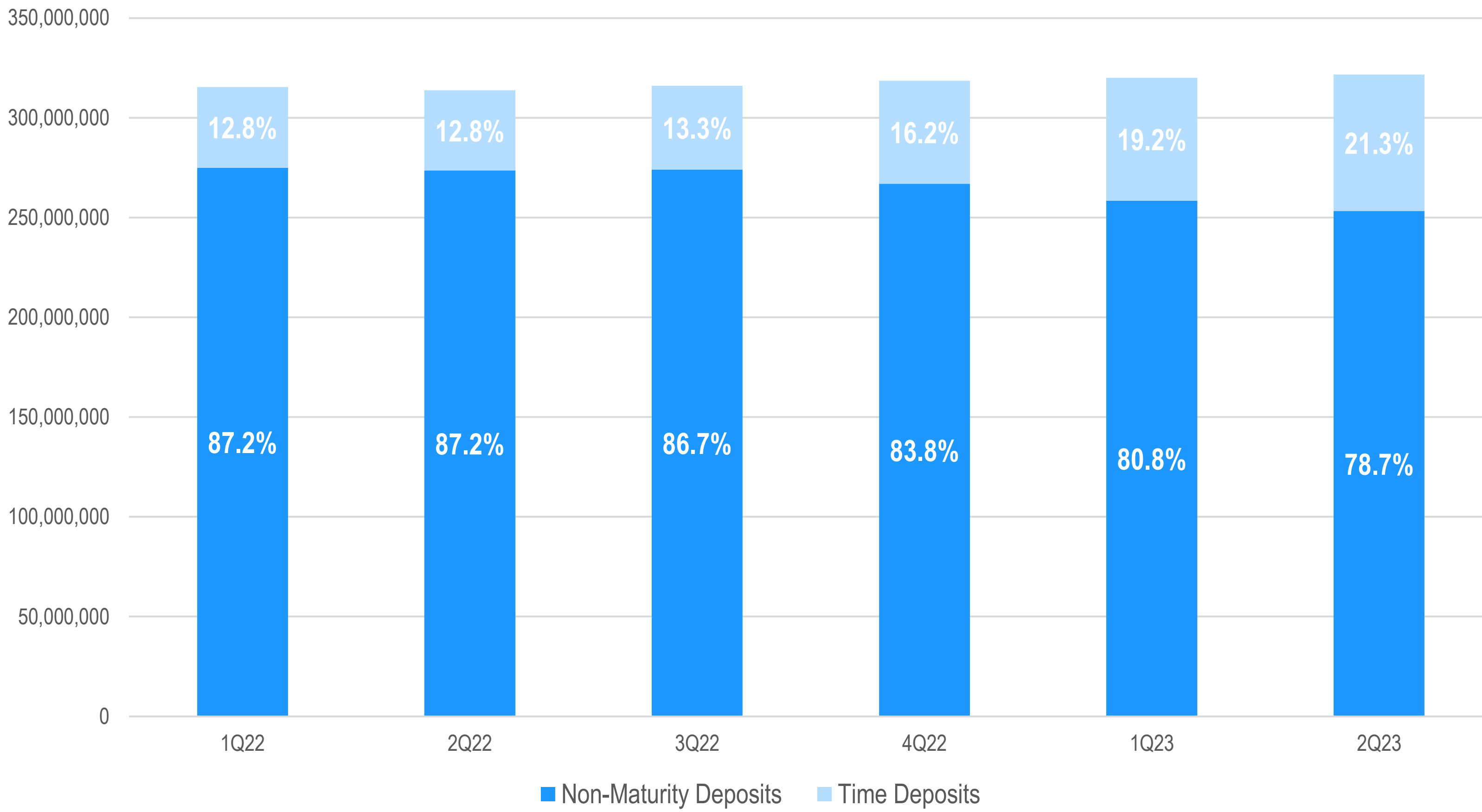
Peer Analysis & Call Report Trends

- Pressure on Funding Mix and Cost
- Margins, Profitability and Interest-Rate Risk
- Loan Growth Trends
- Investments and Credit

An Evolving Deposit Mix at Banks…

CDs are growing as a percentage of the member bank deposit book with balance growth of 69% since the rising rate cycle started in 1Q22.

All bank information in this deck is for members < $100 billion in assets unless otherwise noted.

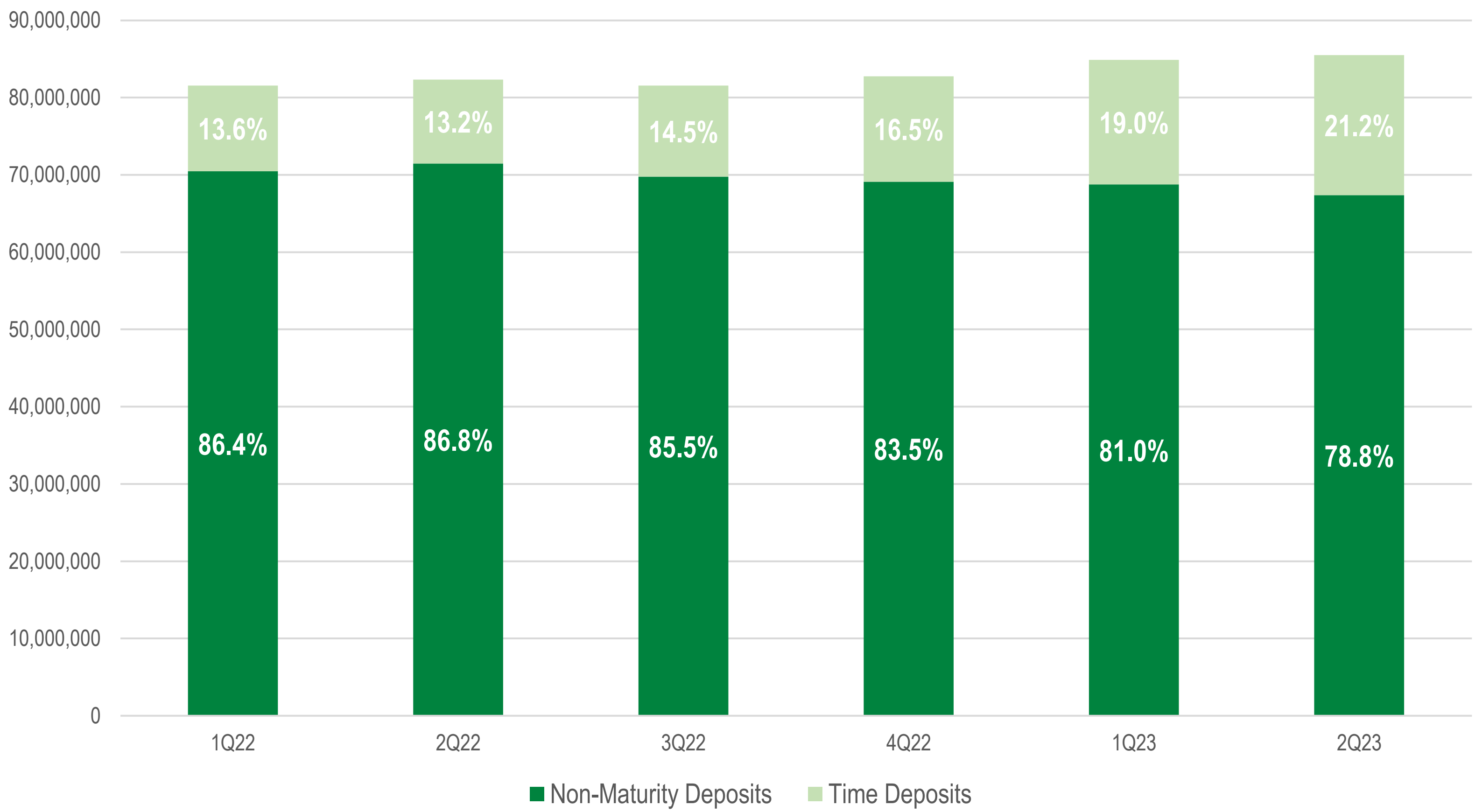


Source: S&P Global, FHLBank Boston

…And at Credit Unions, Too

Share certificates make up an almost identical 21.2% of the total book of shares + deposits.

Credit unions started the cycle with a slightly higher certificate mix. Balances have grown 63% in that time.

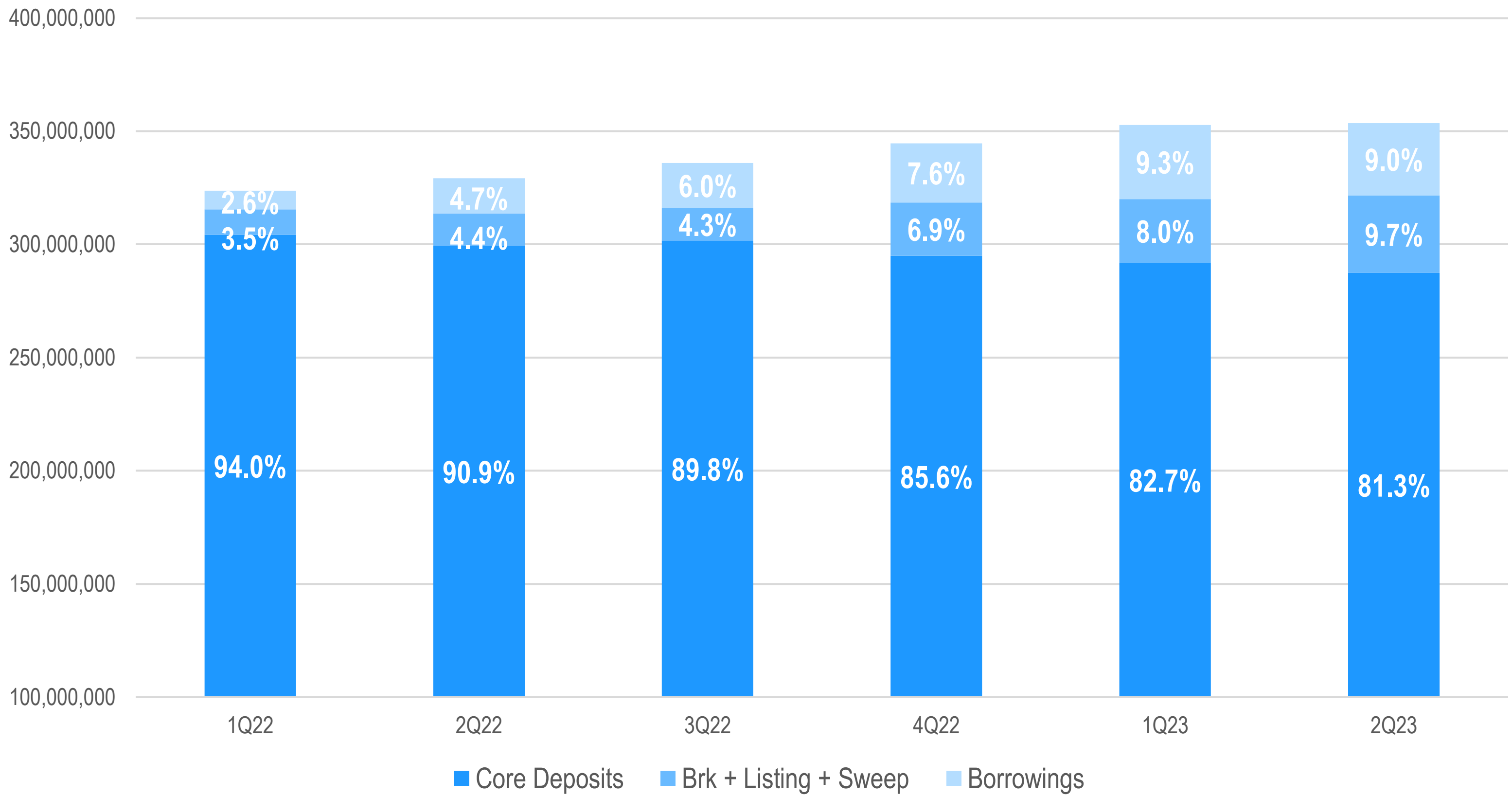


Source: S&P Global, FHLBank Boston

An Evolving Overall Funding Mix at Banks…

Core deposits continue to outright decline and banks continue to grow other sources of funding.

Core deposits (all deposits less brokered, listing, and sweeps) were $304 billion at 1Q22; as of 2Q23, they have dropped to $287 billion, which is a total decline of 5.5%.

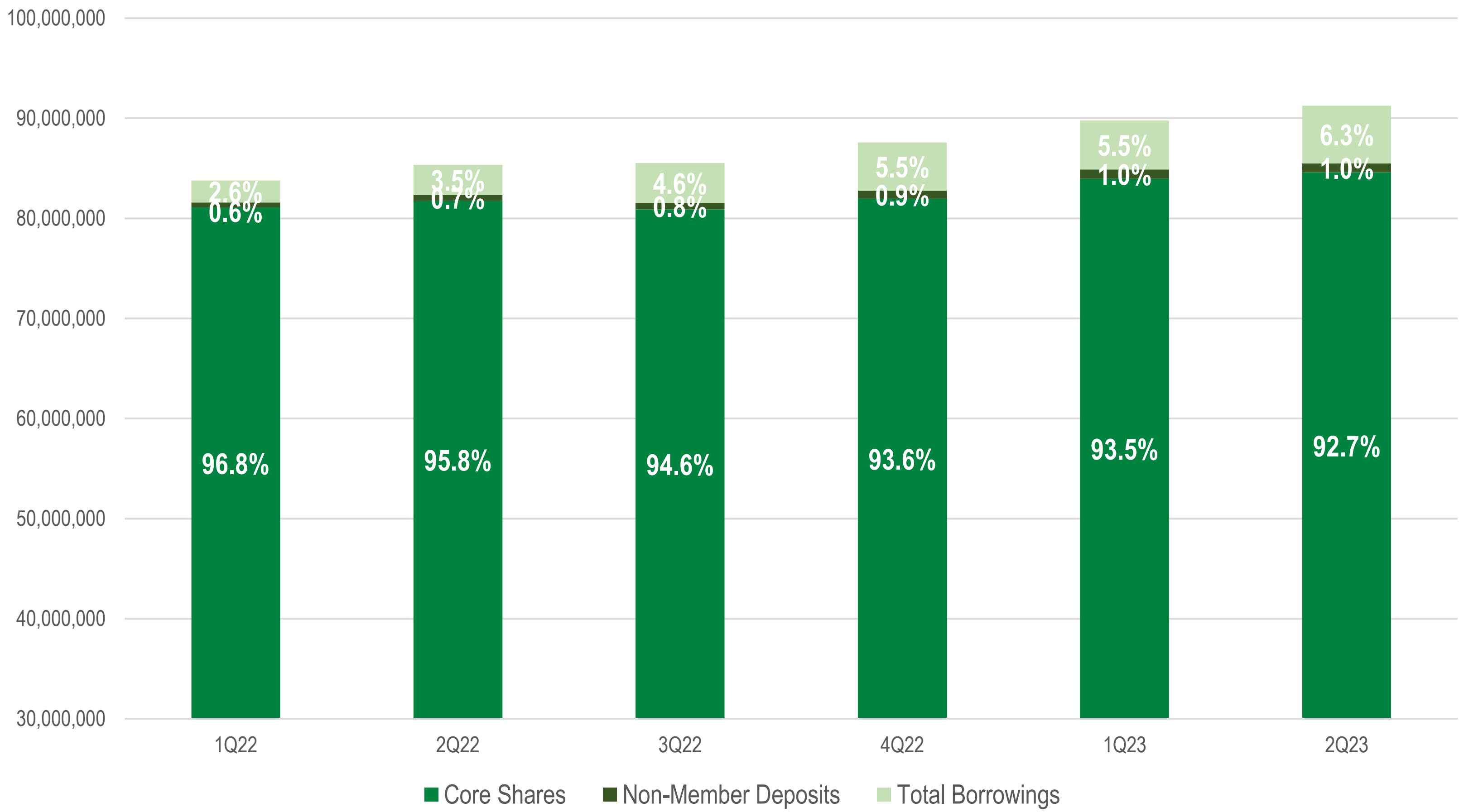


Source: S&P Global, FHLBank Boston

…But Much Less So at Credit Unions

Core member shares continue to grow. From 1Q22 to 2Q23, member shares are actually up 4.3%.

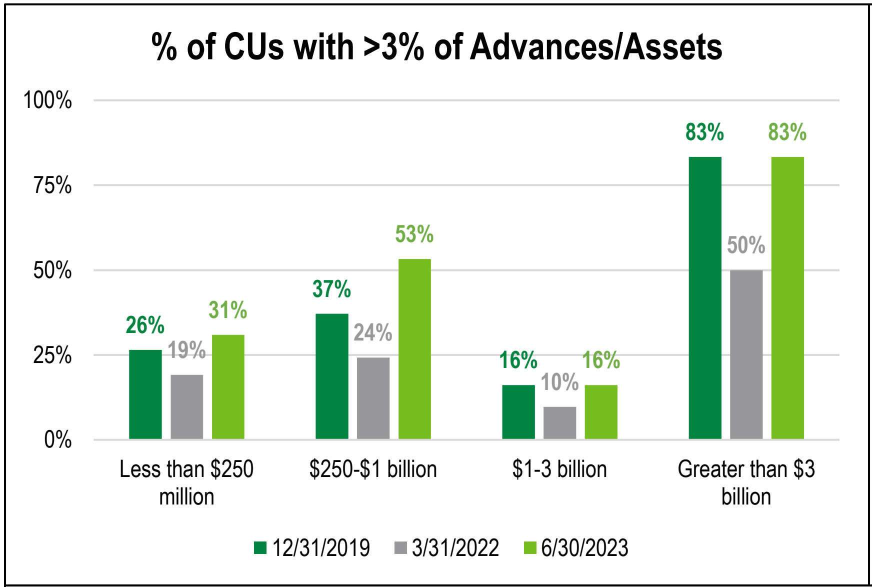
As a result, credit unions have turned less to wholesale sources.

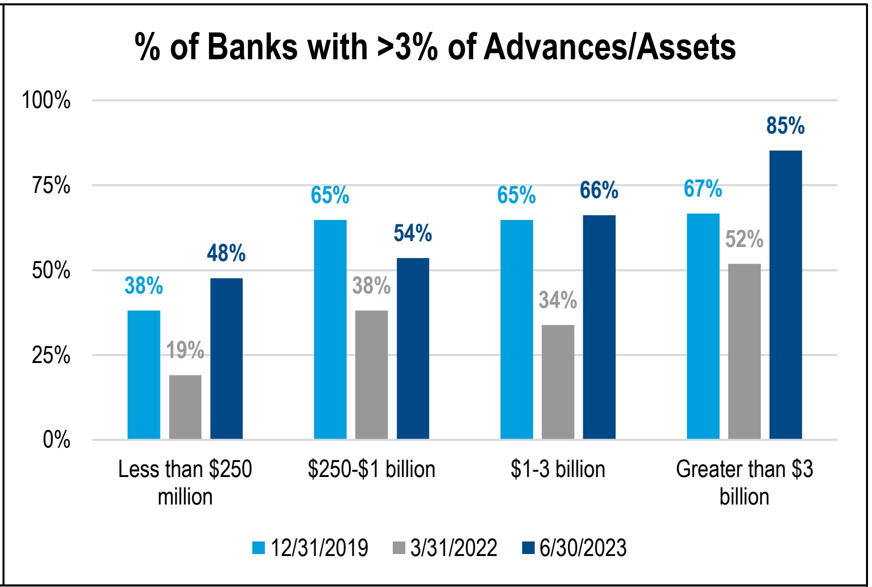


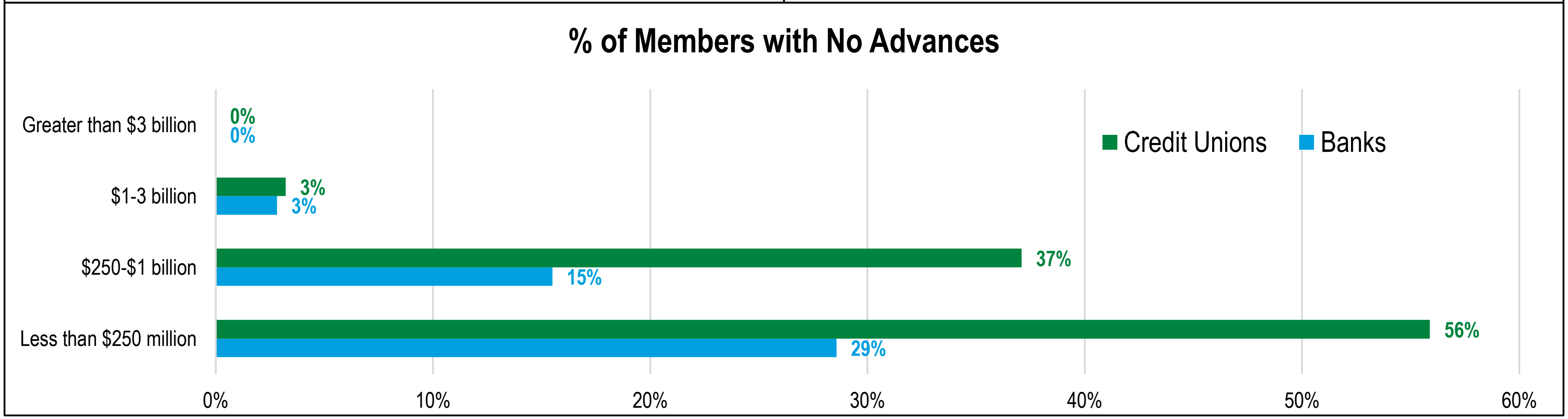
Source: S&P Global, FHLBank Boston

Reliance on Advances

Use of advances has returned to 2019 levels, with smaller institutions generally having less need for wholesale funding.



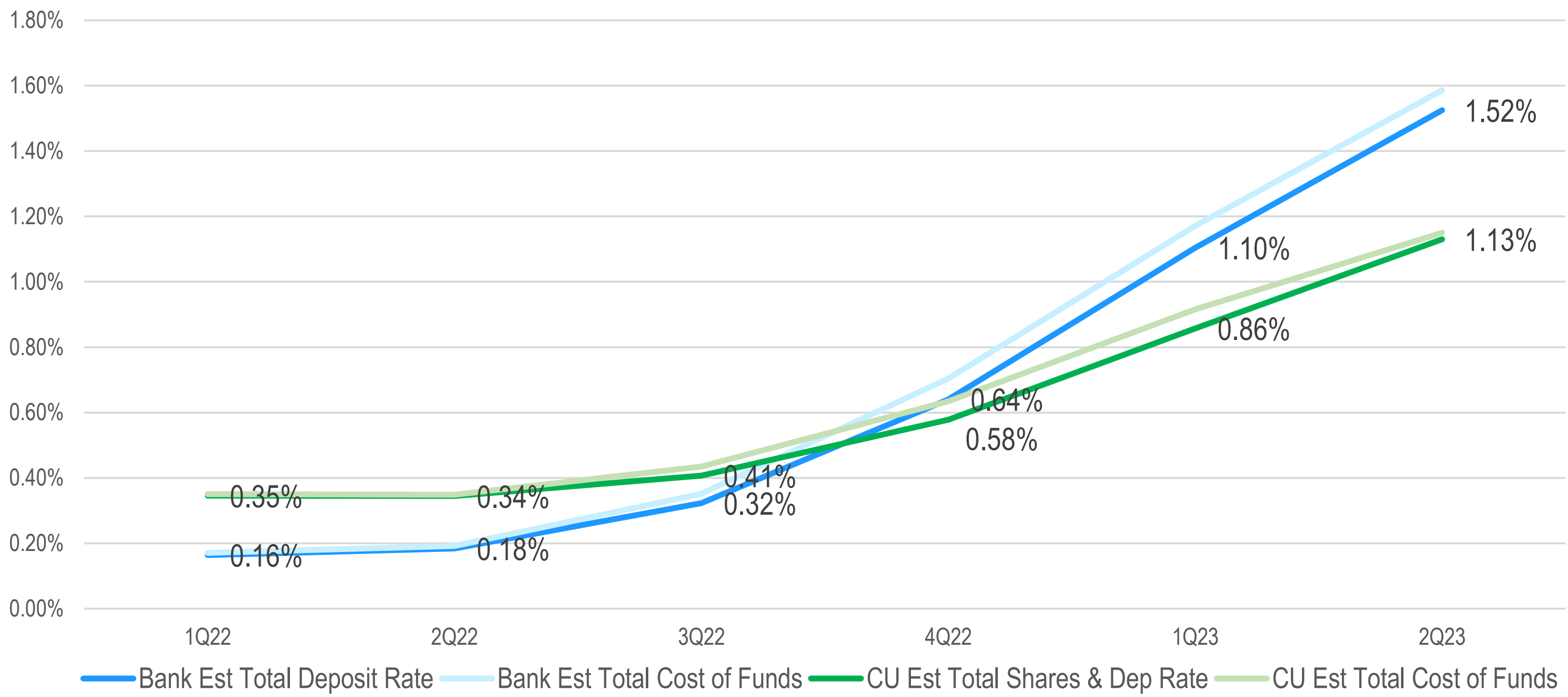




Source: S&P Global, FHLBank Boston

Funding Costs

Funding costs continue to accelerate higher; credit unions are increasing pricing at a slower pace.

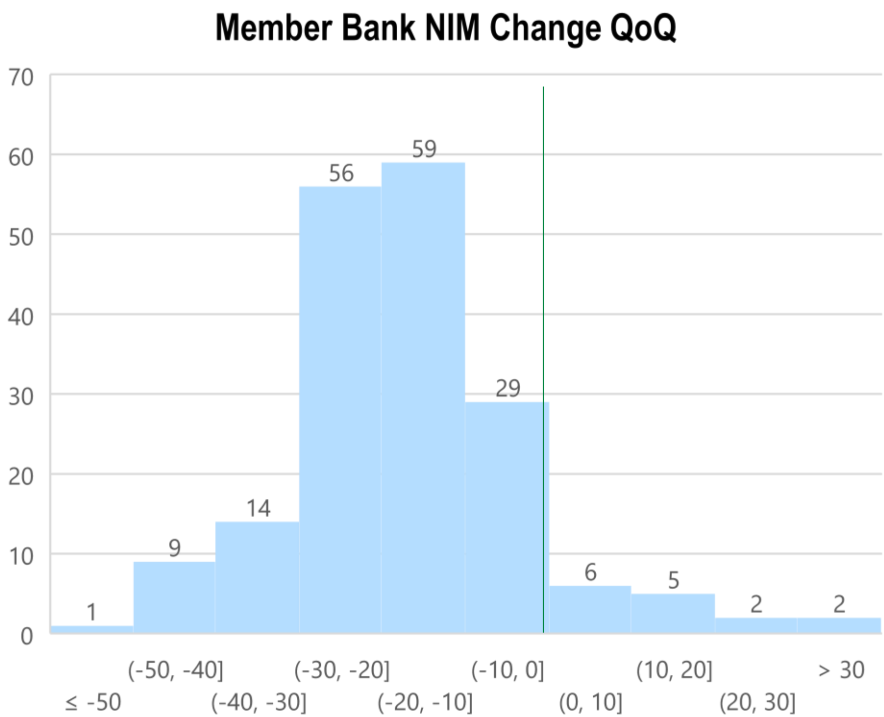


	1Q22	2Q22	3Q22	4Q22	1Q23	2Q23
Avg SOFR	0.09%	0.69%	2.12%	3.62%	4.51%	4.99%
Bank Deposit Beta Cycle-to-Date	n/a	3.3%	7.8%	13.5%	21.3%	27.8%
CU Shares & Dep Beta Cycle-to-Date	n/a	-0.2%	3.0%	6.6%	11.6%	16.0%

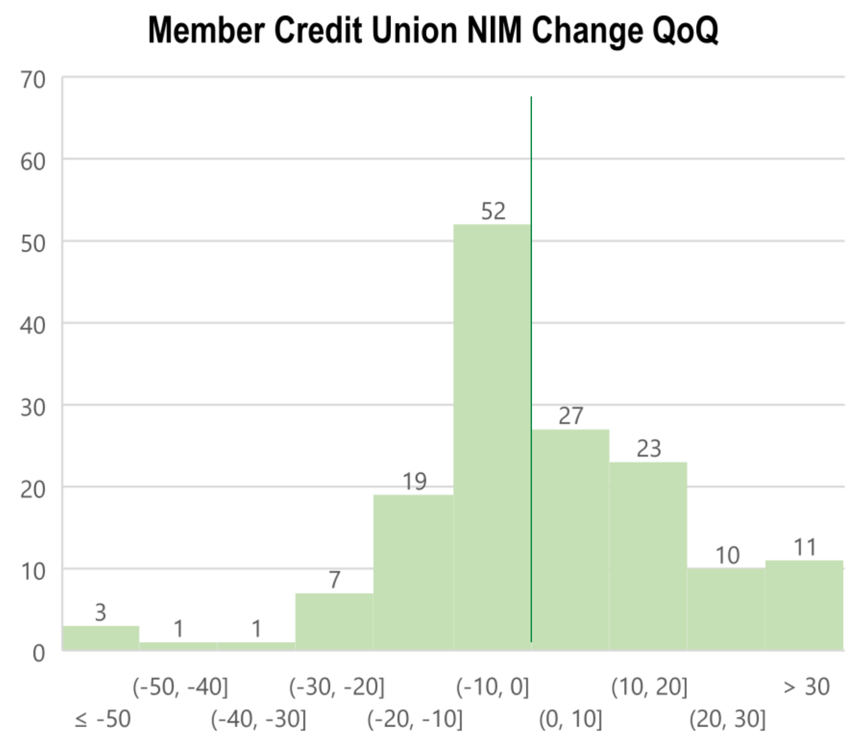
Source: S&P Global, FHLBank Boston

Declining NIM

Banks overwhelmingly saw NIM contraction this quarter. Credit Unions were split and fared significantly better.



Highest (bps)	139	# of Increases	15	8%
Lowest (bps)	-55	# of Decreases	168	92%
Median (bps)	-18	# of Unchanged	0	0%
		Total	183	100%



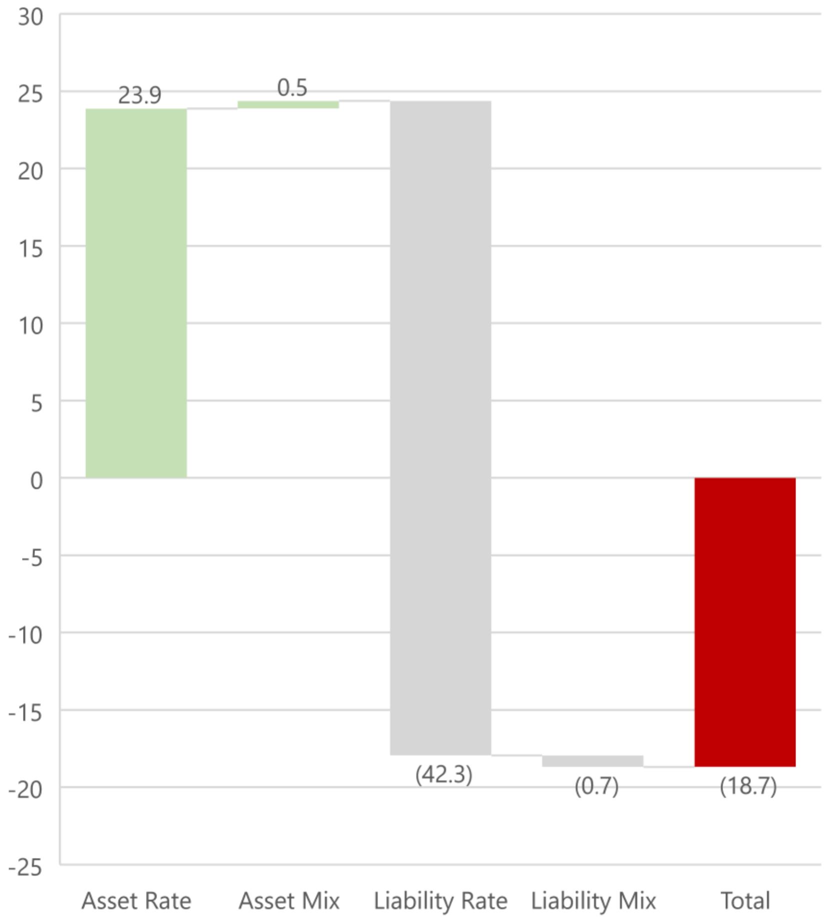
Highest (bps)	79	# of Increases	71	46%
Lowest (bps)	-71	# of Decreases	79	51%
Median (bps)	-1	# of Unchanged	4	3%
		Total	154	100%

Source: S&P Global, FHLBank Boston

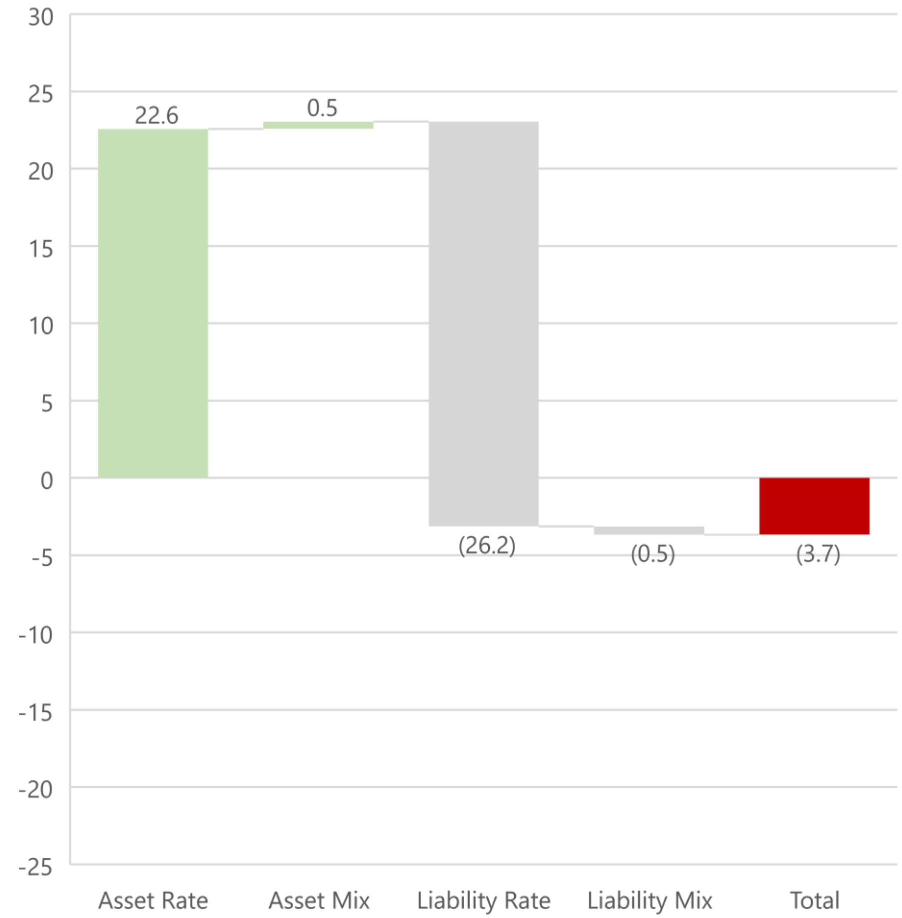
Deposit Pricing Pushing NIM

Liability rates were overwhelmingly the driver of lower NIMs. Banks are paying up on deposits significantly more than credit unions.

Bank NIM Change Estimate, QoQ (bps)



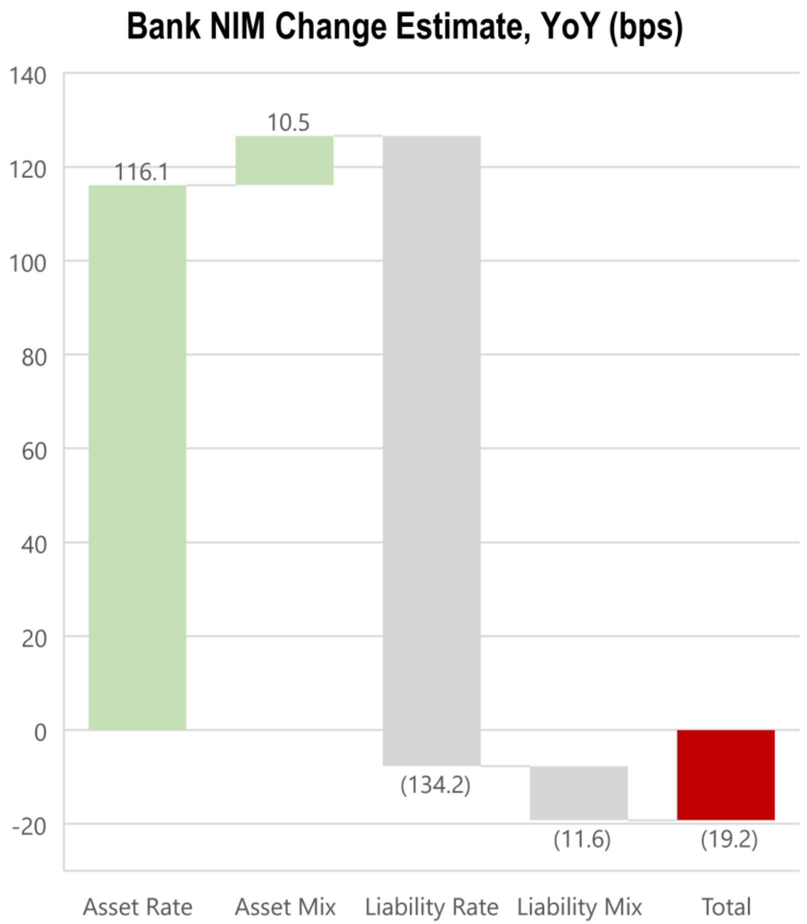
Credit Union NIM Change Estimate, QoQ (bps)

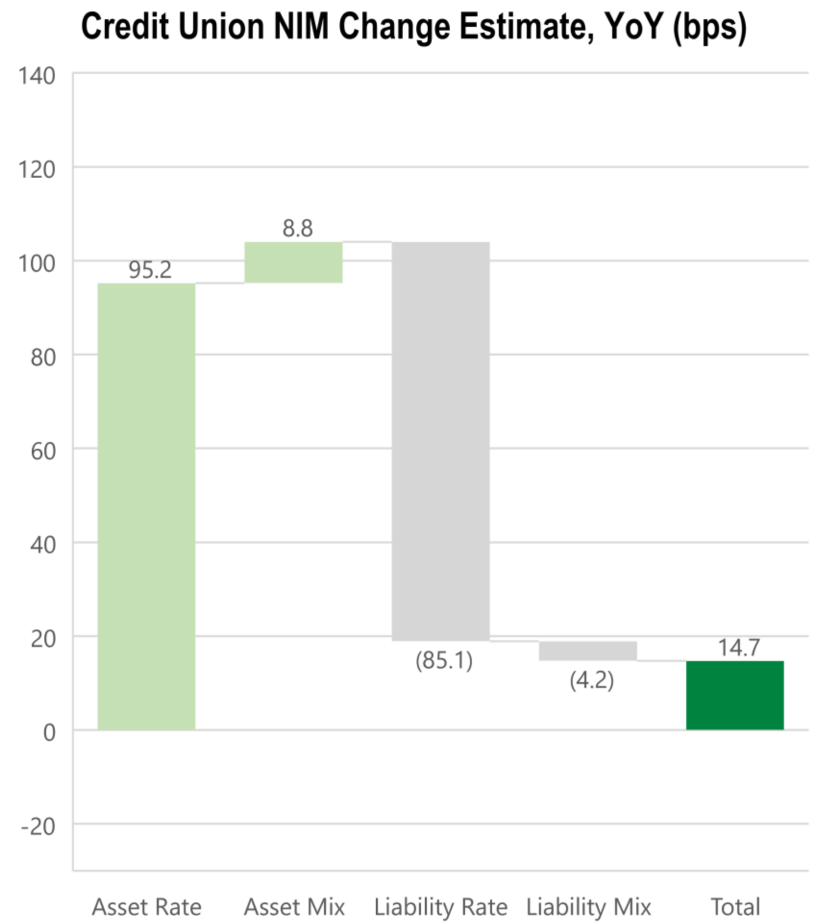


Source: S&P Global, FHLBank Boston

Weren't Higher Rates Supposed to Help Profitability?

Bank NIM is actually down YoY, while credit union NIM is up over the same horizon despite having less asset repricing. Credit unions have repriced liabilities by 49 bps less than banks.

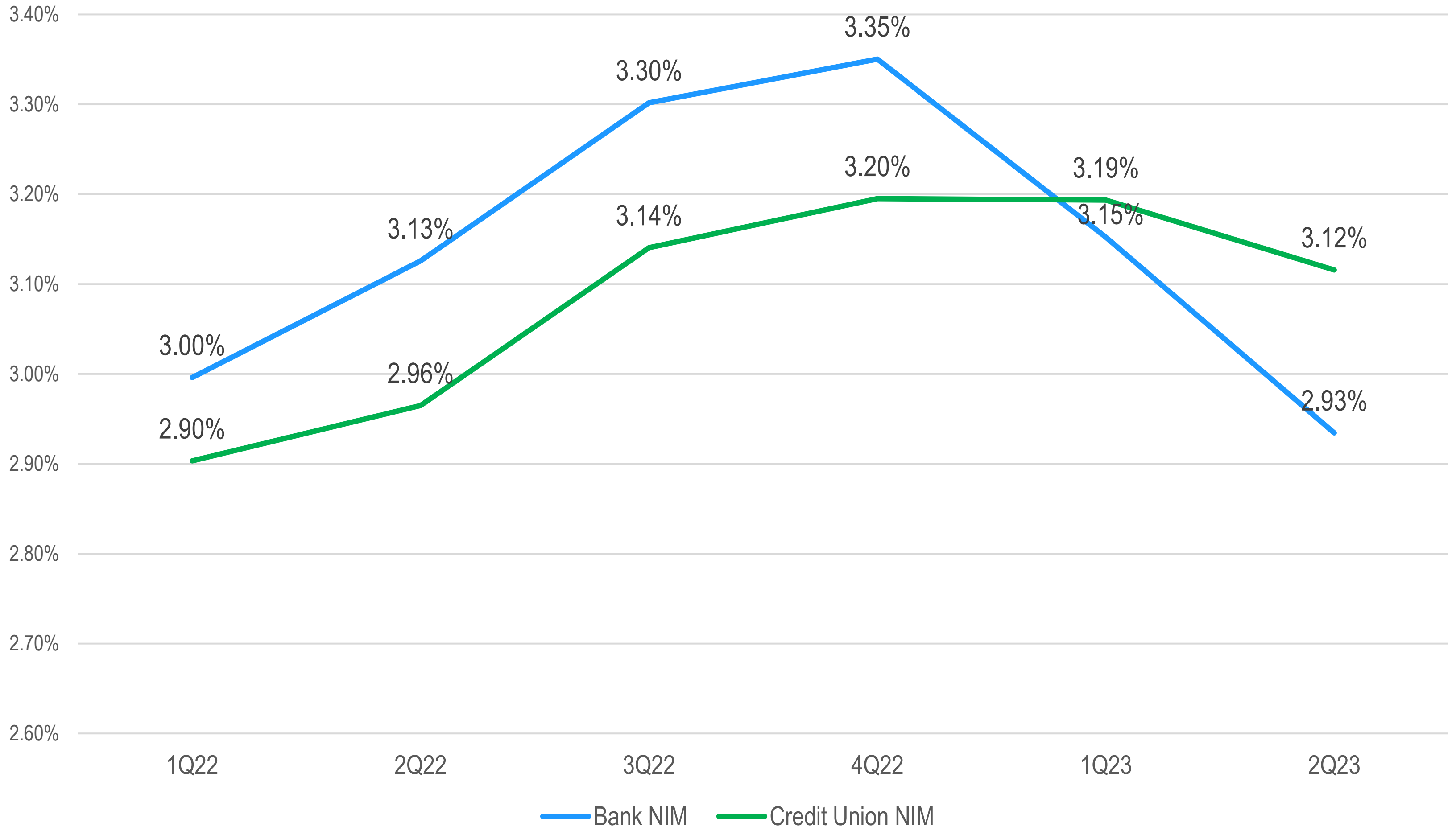




Source: S&P Global, FHLBank Boston

NIM Cycle-to-Date History

Outperformance on pricing and volume is resulting in better NIMs for credit unions than banks.

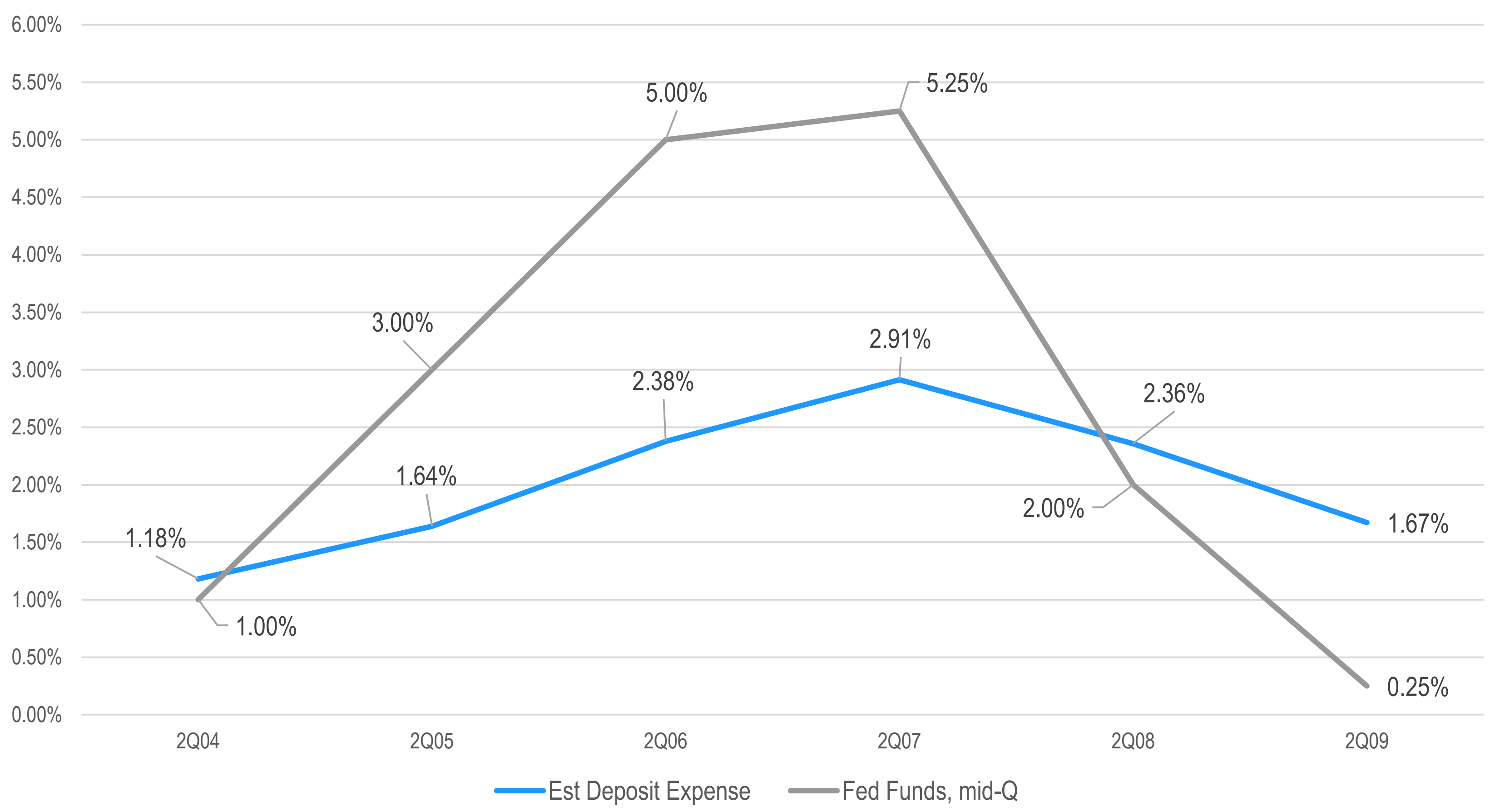


Source: S&P Global, FHLBank Boston

Is the Past Prologue?

The last time the Fed Funds rate was at these levels, member bank deposit expense was approaching 3%.

In 2Q23, estimated member bank deposit expense was 1.52% and rising.



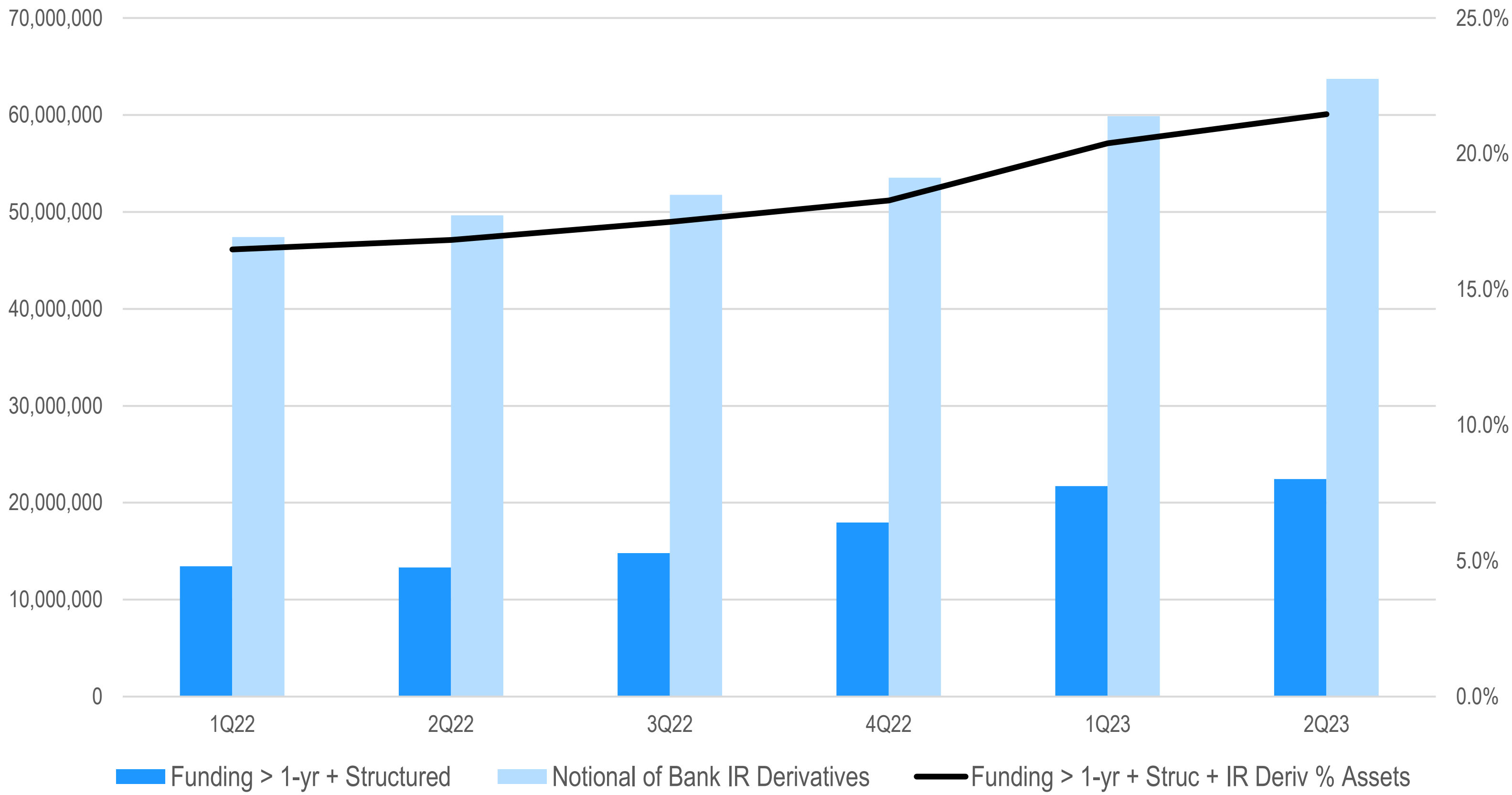
Source: S&P Global, FHLBank Boston

Bank Hedging Cycle-to-Date History

Banks have been terming out borrowings and taking down more structured advances like the HLB-Option Advance.

Banks have also increased interest rate derivatives use every quarter since the new cycle began.

Presently, 90 member banks (49% of total members) < $250 billion in assets report using IR derivatives; only five CUs do the same.

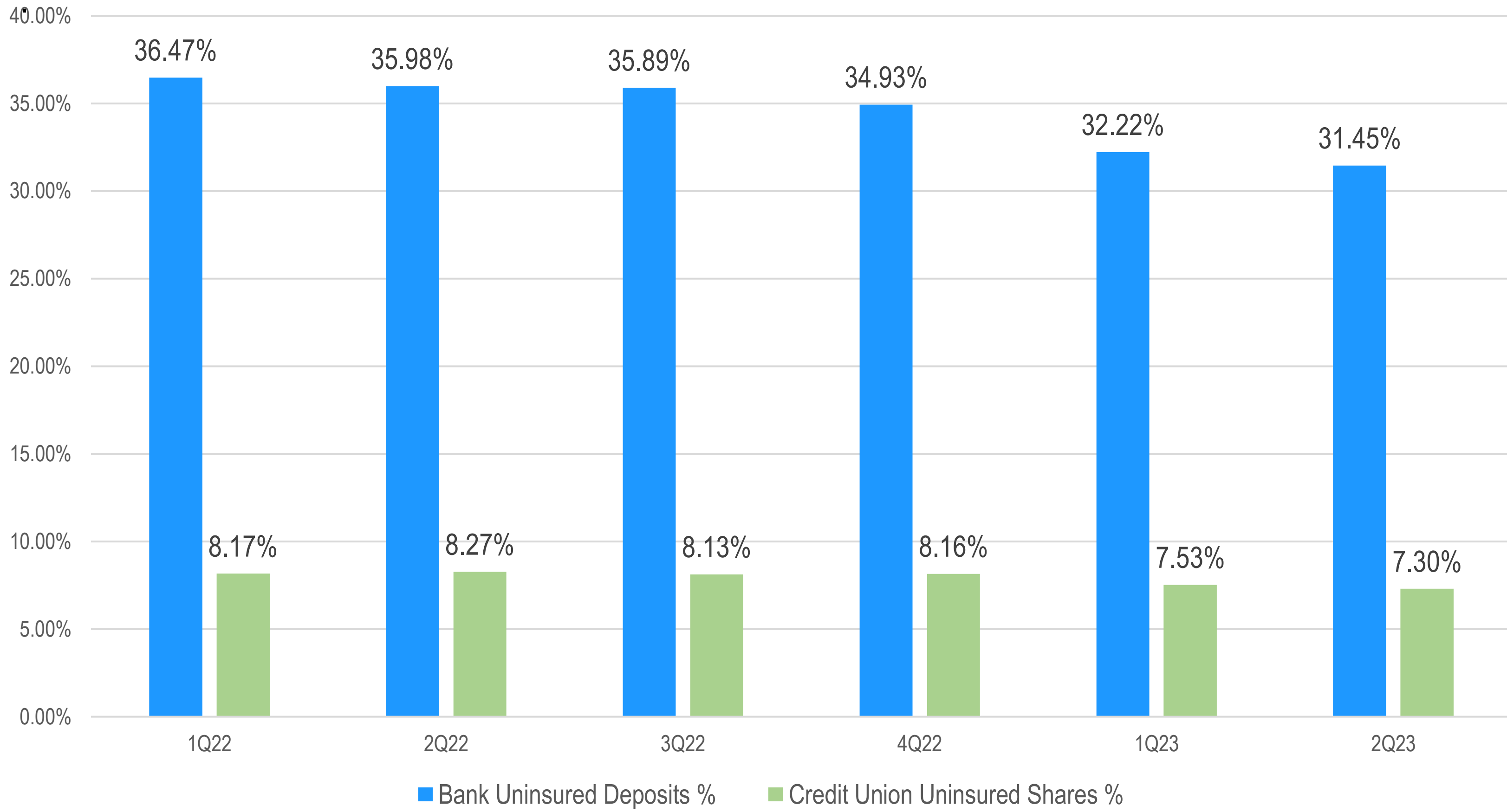


Source: S&P Global, FHLBank Boston

Uninsured Deposits

Dollars of uninsured deposits have dropped from $96.7 billion in 1Q22 to $85.7 billion in 2Q23 at member banks that report their estimated totals.

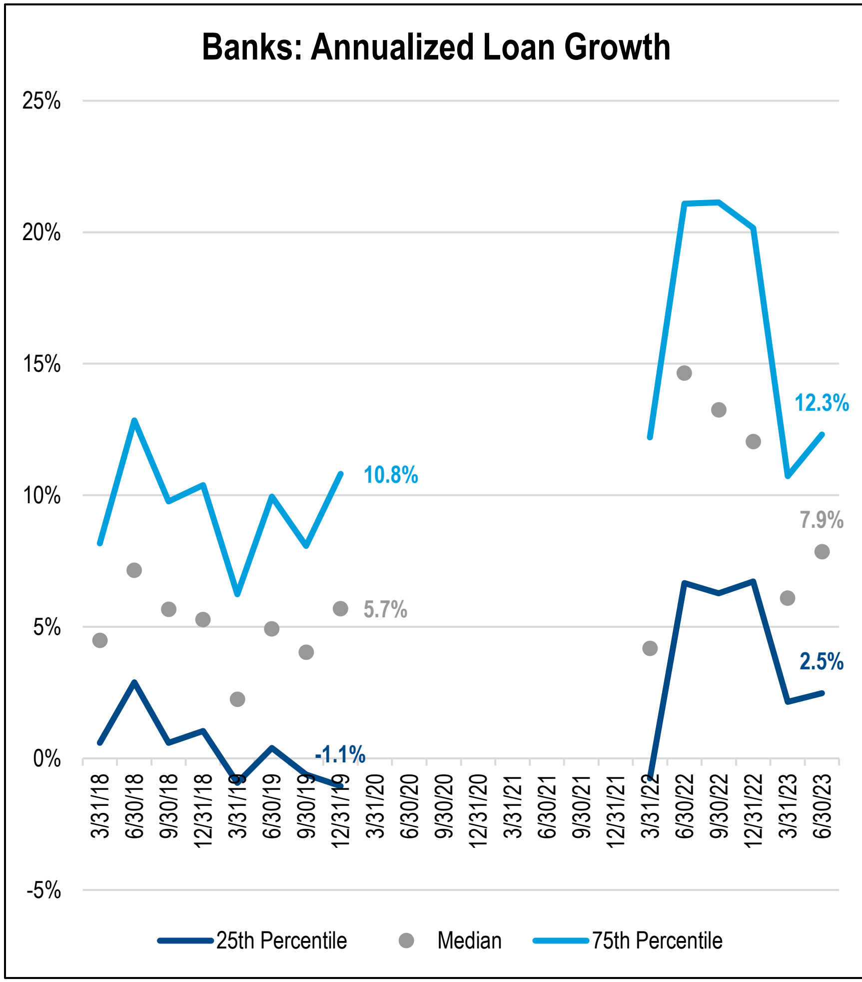
However, this drop seems more modest as a percentage of the overall deposit book.

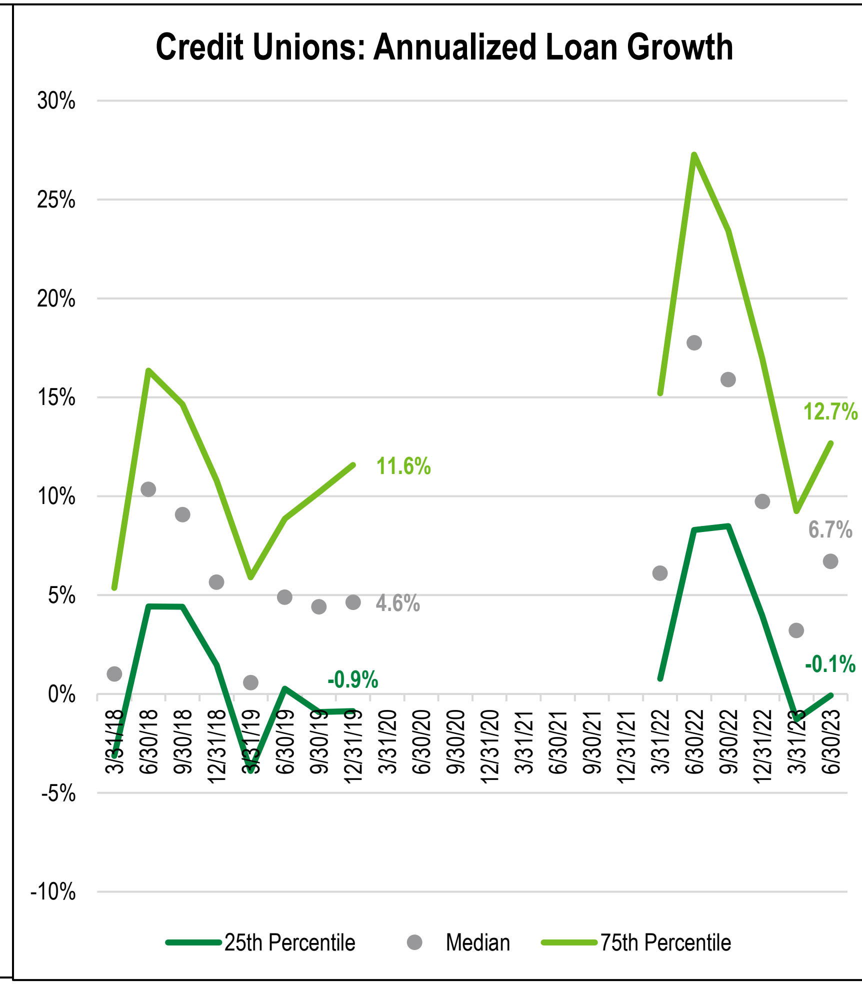


Source: S&P Global, FHLBank Boston

Loan Growth Remains Hot

Growth was generally stronger than 2018-19, when the yield curve was inverted and rates were rising/pausing. It's even more impressive, given higher nominal yields and the elevated baseline set by 2022's exceptional expansion.

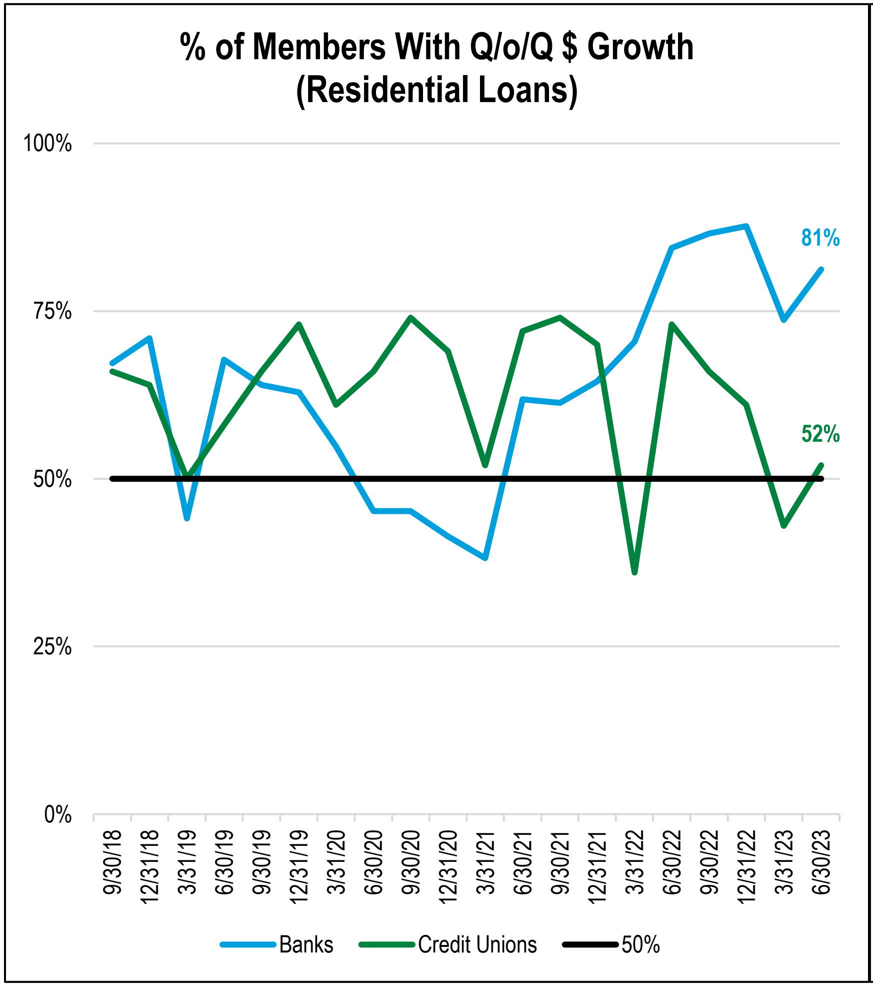


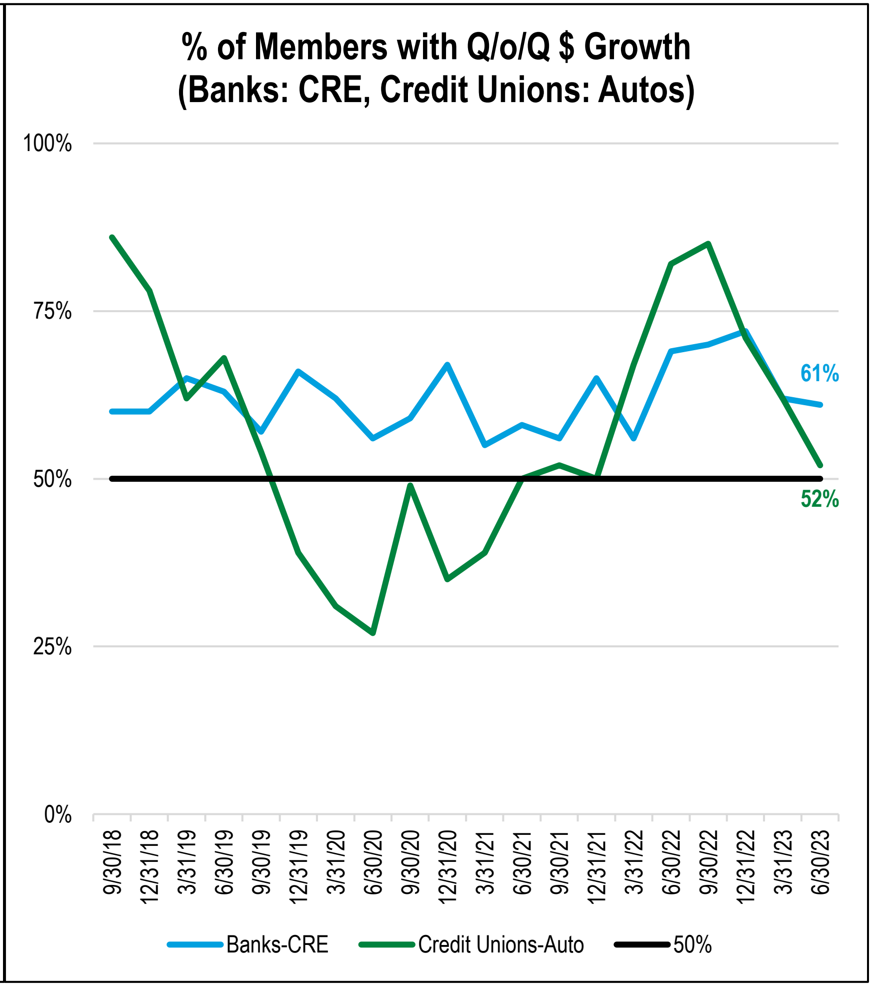


Source: S&P Global, FHLBank Boston

What Areas are Driving the Loan Growth?

Retention of residential loans continues to be above average for banks. Autos for credit unions are cooling off after a huge 2022, and commercial real estate activity continues to be steady.

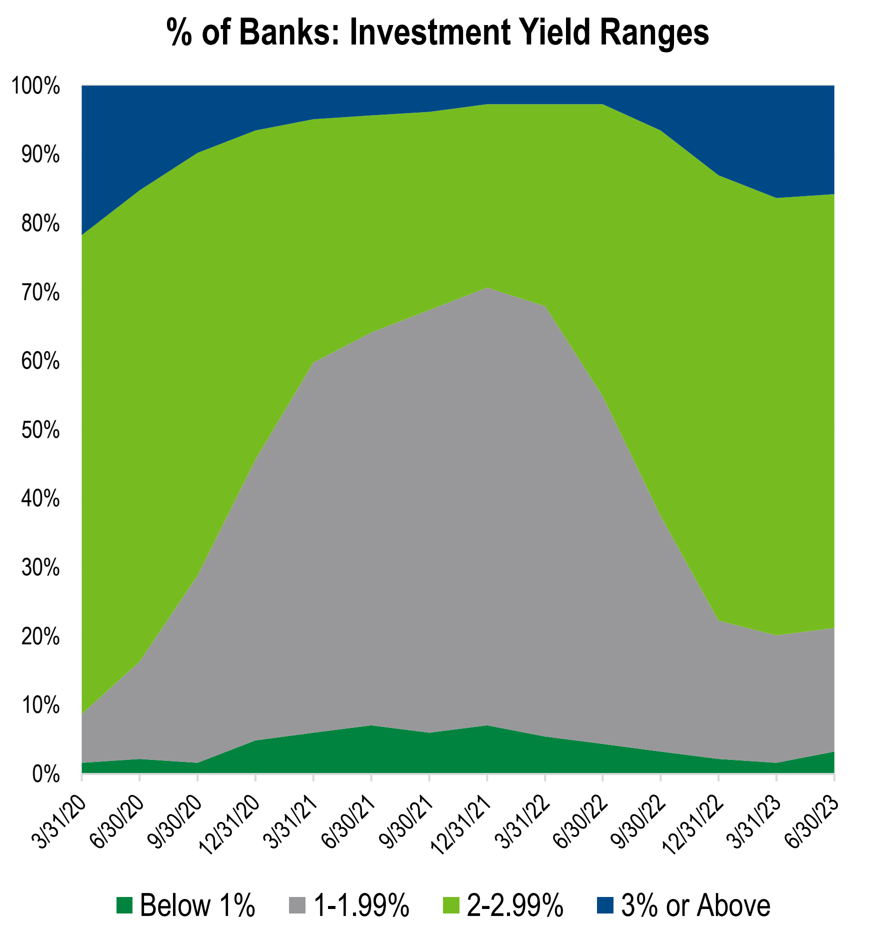


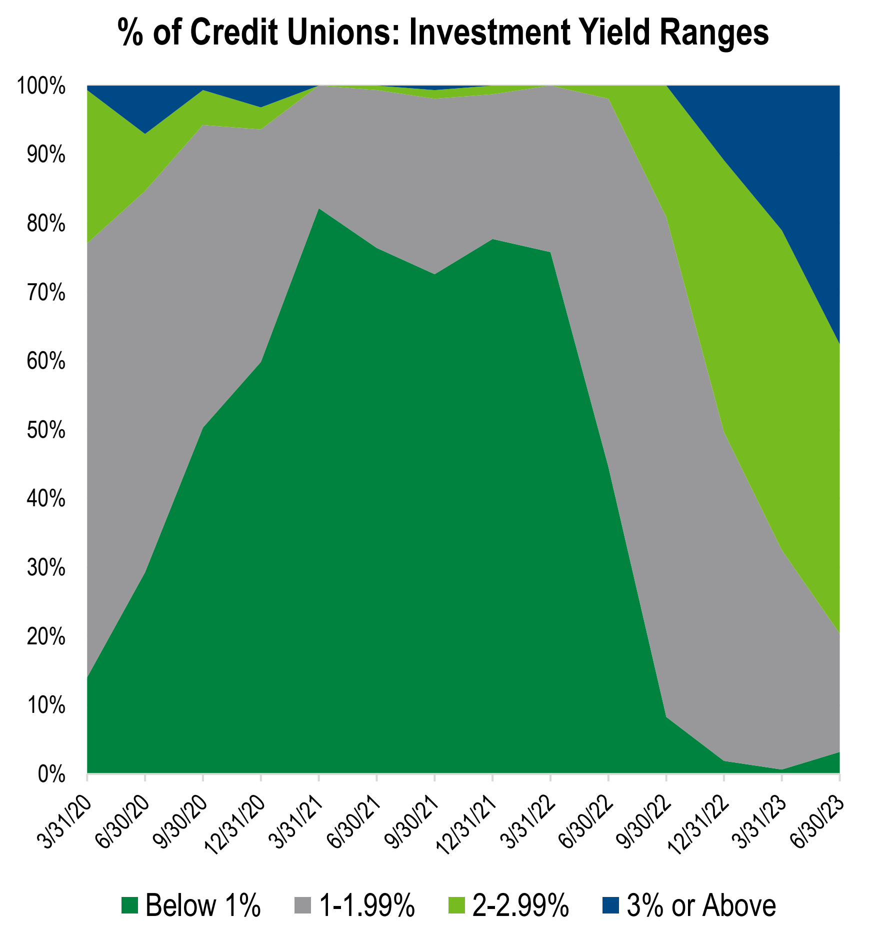


Source: S&P Global, FHLBank Boston

Rising Investment Yields

Despite minimal paydowns or growth, the higher rate environment has allowed for yields to recover rapidly. Credit unions have seen a significant lift, as their durations were markedly lower as rates began to increase. Banks, however, have seen yield improvements stall, with the median yield going up by just one basis point.

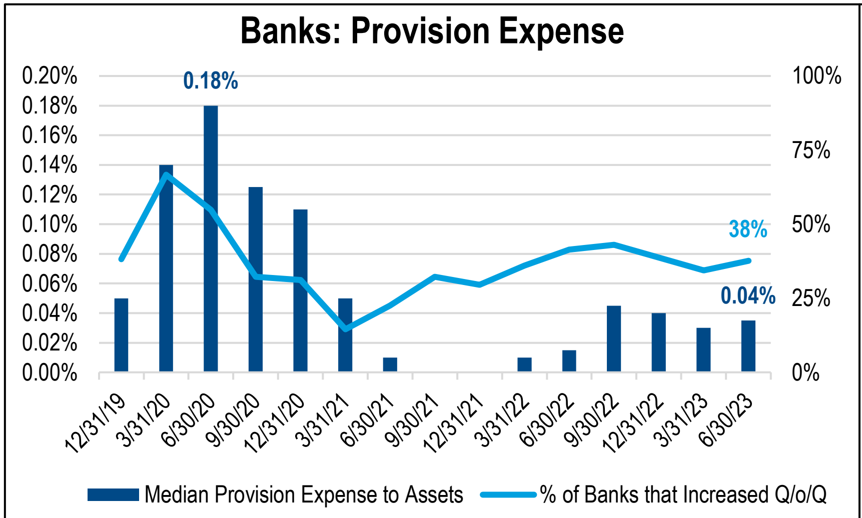


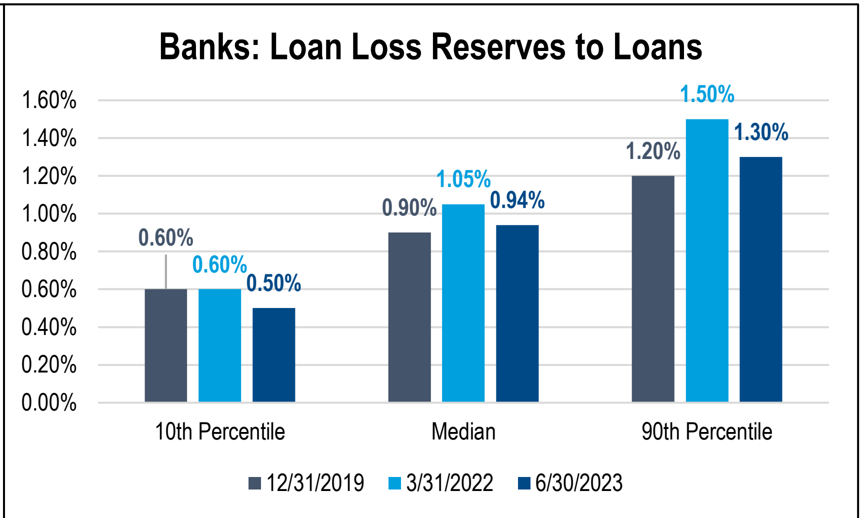


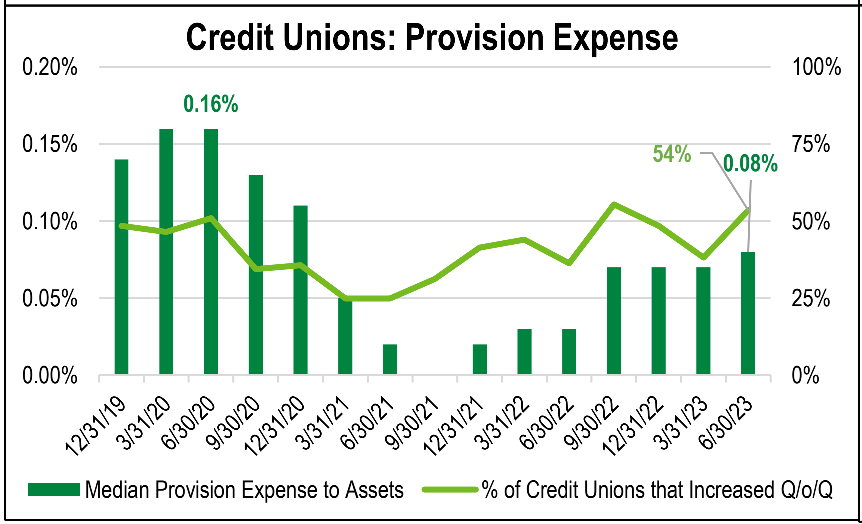
Source: S&P Global, FHLBank Boston

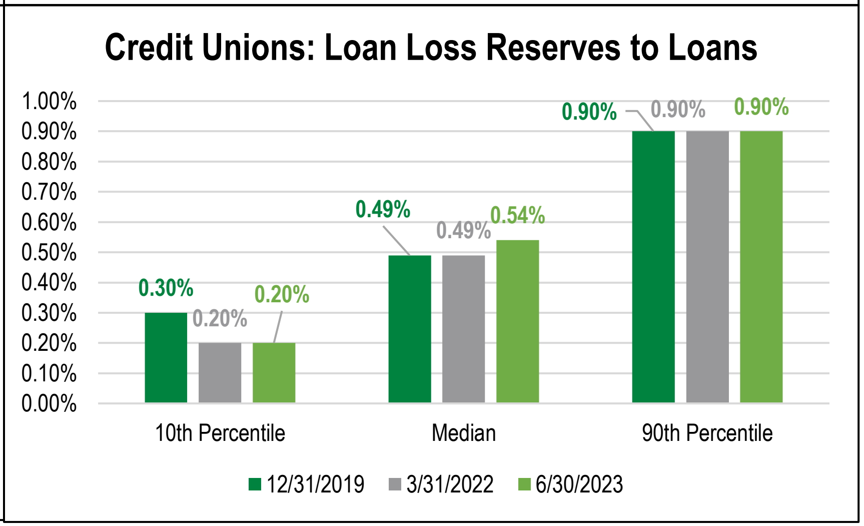
Keeping an Eye on Credit

More so for credit unions, provisioning is ticking up slightly again after bottoming out in 2021 and 2022.









Source: S&P Global, FHLBank Boston

Balance Sheet Strategies

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Balance Sheet Strategies

- Convexity 101
- Mortgages: Keep or Sell?
- Deposit Specials
- Advances Strategies for the Current Environment

Convexity: a Key Driver of Value at the Pivot

Positive Convexity

- When rates decline, asset value will increase significantly because cash flows are worth substantially more

- Example: Bullet bonds

Negative Convexity

- When rates decline, asset value will not increase as significantly because of prepayment/option risk

-Example: recent vintage, high coupon mortgages

30 Years of 30-Year Mortgage Rates

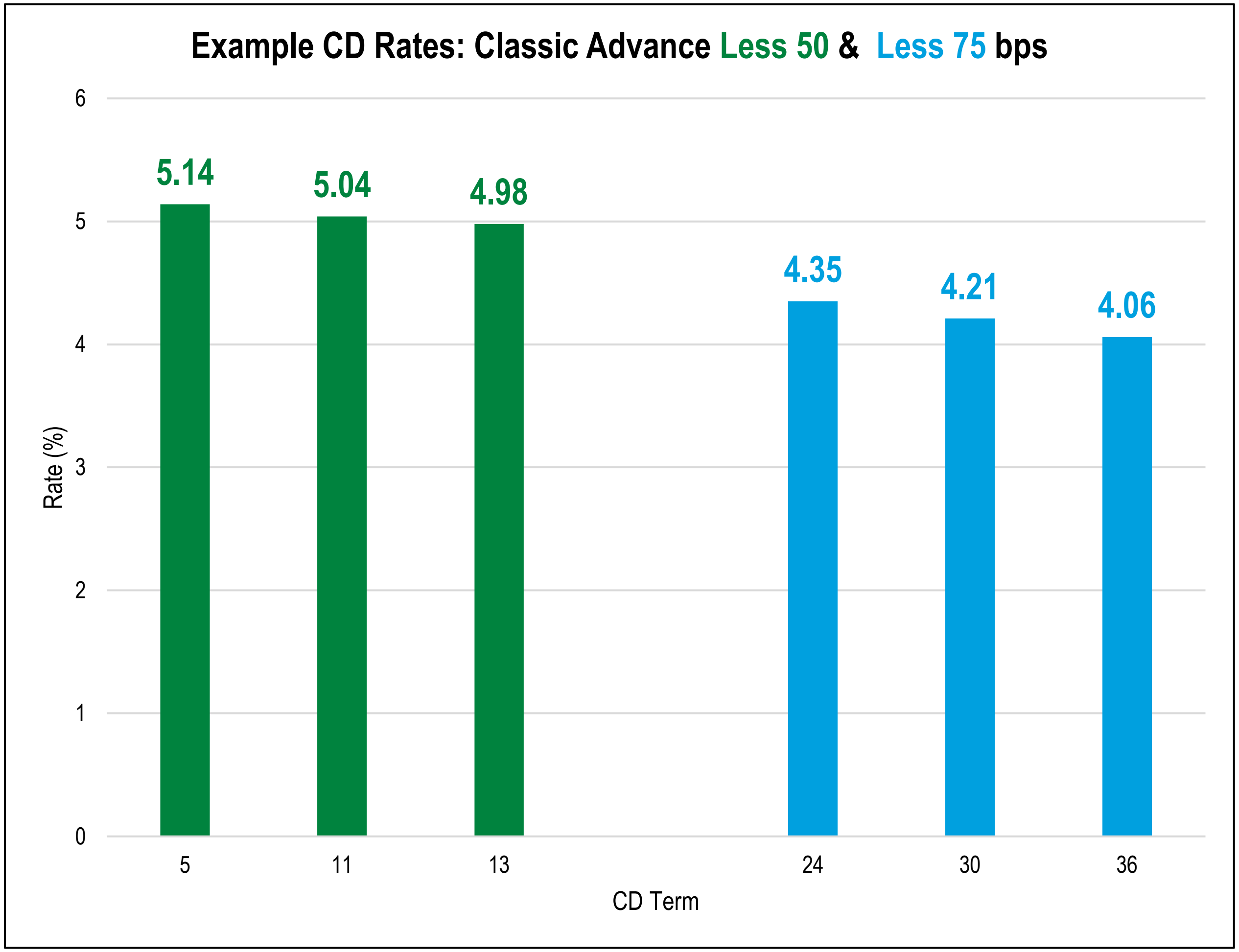
Mortgage rates haven't touched 7% since the turn of the century and haven't been in this range since pre-GFC.

If/when the term structure of interest rates declines, recent vintage loans are much more likely to refinance quickly; if your balance sheet is straining for liquidity, selling more production to MPF or limiting the duration of borrowings funding these types of assets could optimize the trade-off between risk and return.

Source: Federal Reserve Bank of St. Louis, FHLBank Boston

Using Advances to Efficiently Price CDs

Where is customer demand and preference in terms of maturity and rate? Many are focusing marketing efforts short-term, but is there potential to move the needle with longer-term offerings?



Test the Waters with Longer Term CD Specials?

An inverted curve can be tough for retail to process, but 4% is achievable at favorable spreads to advances

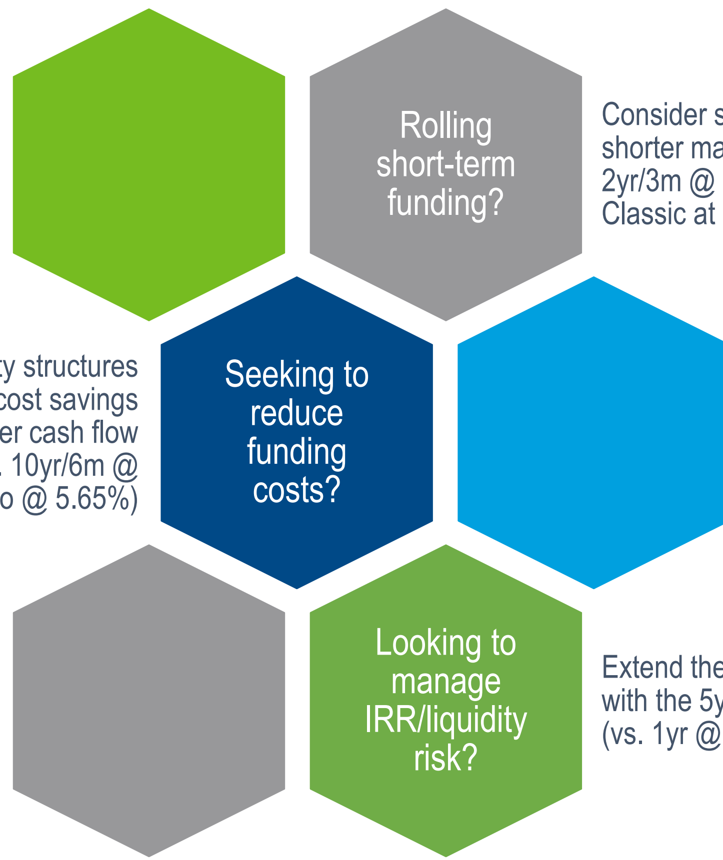
More duration on the funding can a) reign liability sensitivity back in or b) allow for more asset duration/convexity ahead of potentially falling short-term rates

5% for five months doesn't help much with margin, IRR or liquidity risk- extending provides added benefits for all three metrics.

Source: FHLBank Boston

Putable Advances

An inverted yield curve and high levels of interest-rate volatility continue to allow for cost savings vs. the Classic curve. Different structures can provide varying levels of margin relief, liquidity and interest-rate protection, depending on balance sheet needs.



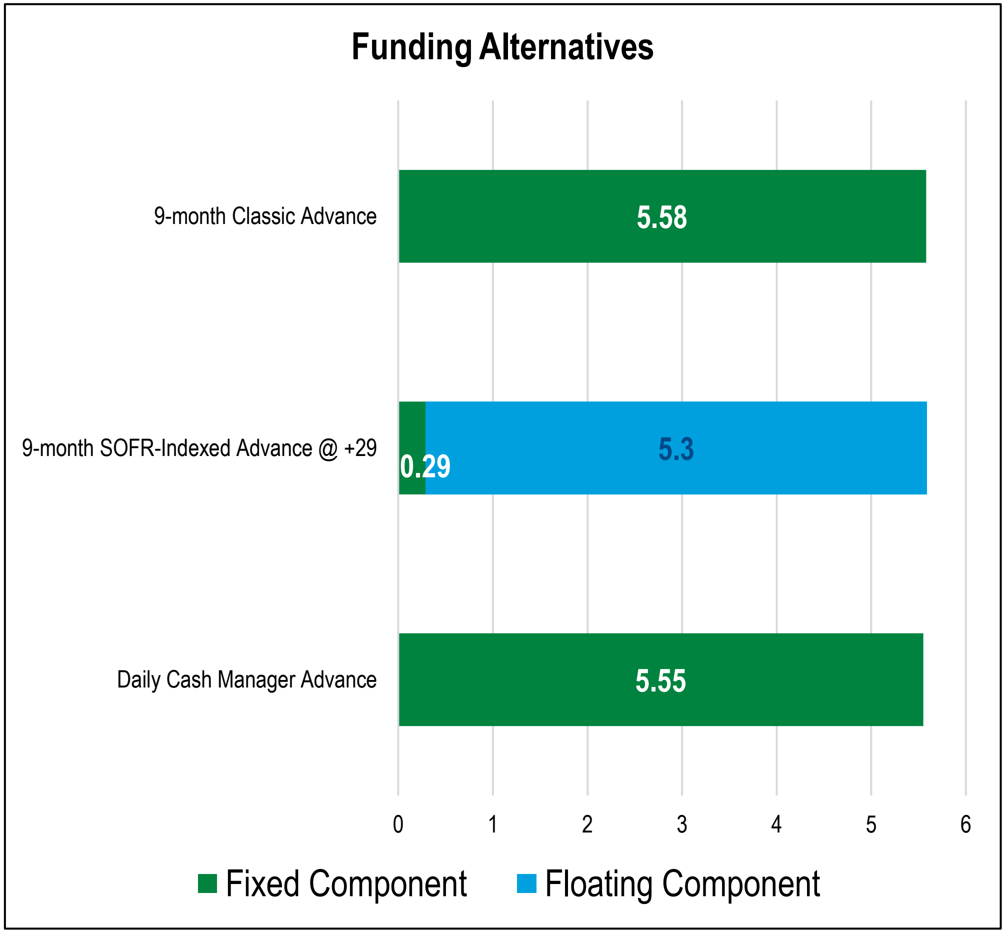
Consider structures with shorter maturities, like the 2yr/3m @ 4.73% (vs. 3m Classic at 5.60%)

Longer maturity structures provide more cost savings due to greater cash flow variability. 10yr/6m @ 3.51% (vs. 6mo @ 5.65%)

Extend the lockout term like with the 5yr/1yr @ 4.03% (vs. 1yr @ 5.52%)

Floating-Rate Advances

There's no crystal ball for what rates will do, but if we see a hard pivot from the current hiking cycle, then funding that reprices quickly (down-rate beta) but can also provide the liquidity benefits of term borrowings may be structures to favor.



Discount Note Auction-Floater Advance

Short-Term Rate

- Resets every 4- or 13-weeks

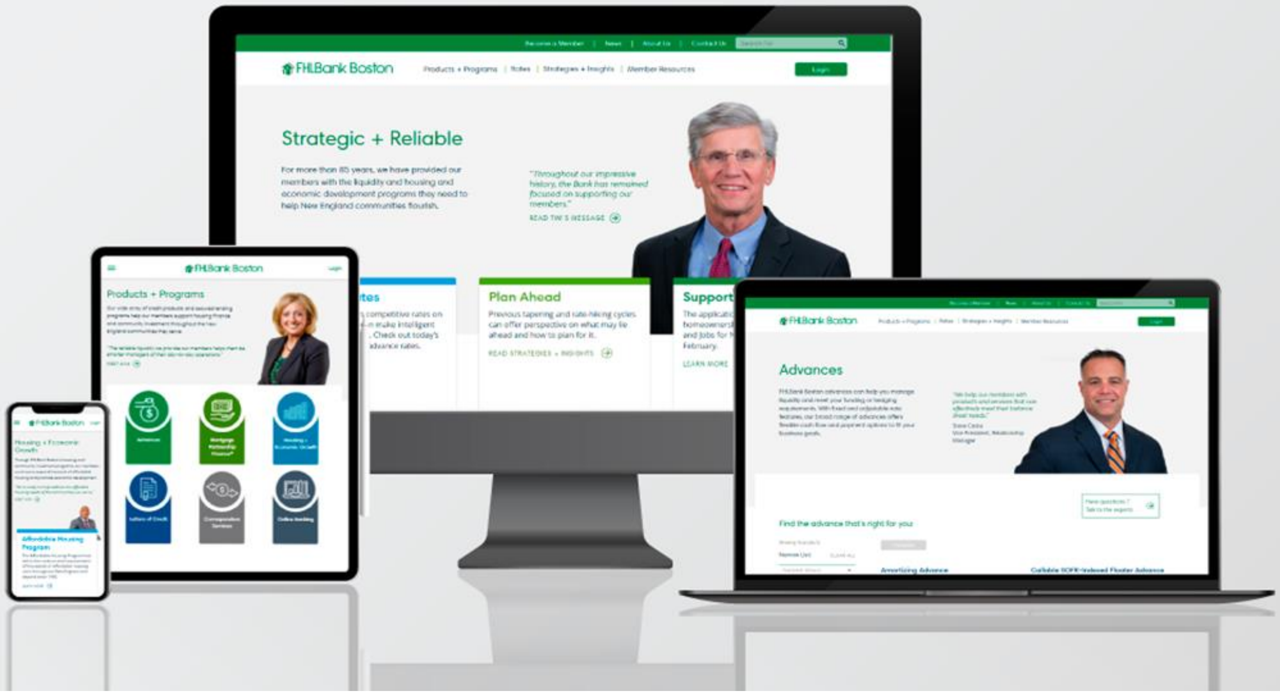
Long-Term Liquidity

- Final maturities such as 1-, 2- and 5-years

Prepayment Flexibility

- No penalty to prepay at reset dates

Source: Federal Reserve Bank of New York, FHLBank Boston



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