Economic & Credit Union Update

Steven Houle, CFA, FRM

Economic Area of Discussion

- Unemployment
- GDP
- Inflation
- Housing
- Auto Market
- The Fed
- Yield Curve

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Economic

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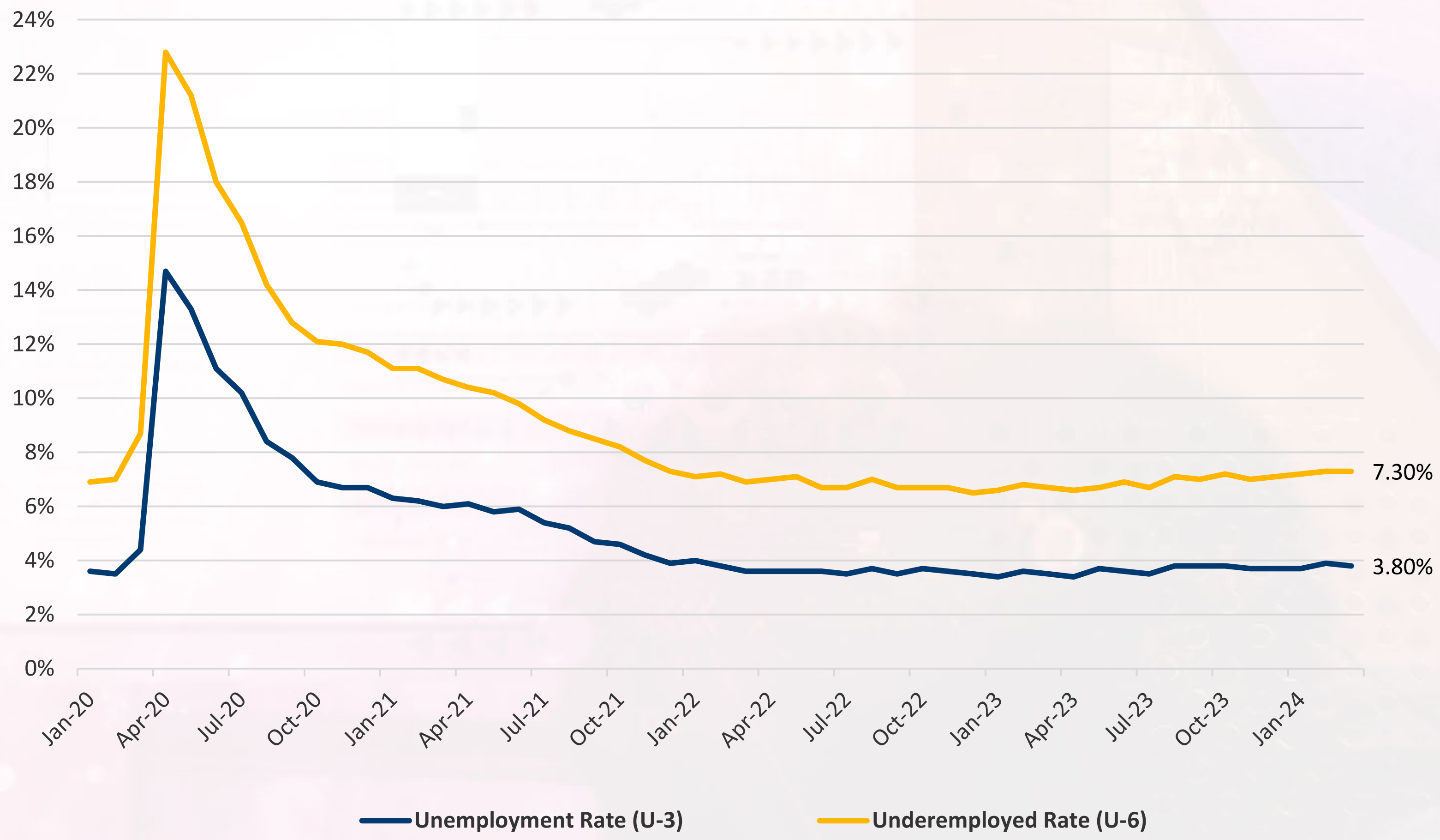
U.S. Unemployment Rate



Source: Bloomberg

- Jobs gains were higher than expected in March with the total coming in at 303,000. The Bloomberg median estimate was for 246,000 new jobs.
- The unemployment rate decreased to 3.8% as the labor participation rate increased slightly from February to March (62.5% vs 62.7%).
- The labor market remains resilient with continued job growth and below 4% unemployment.

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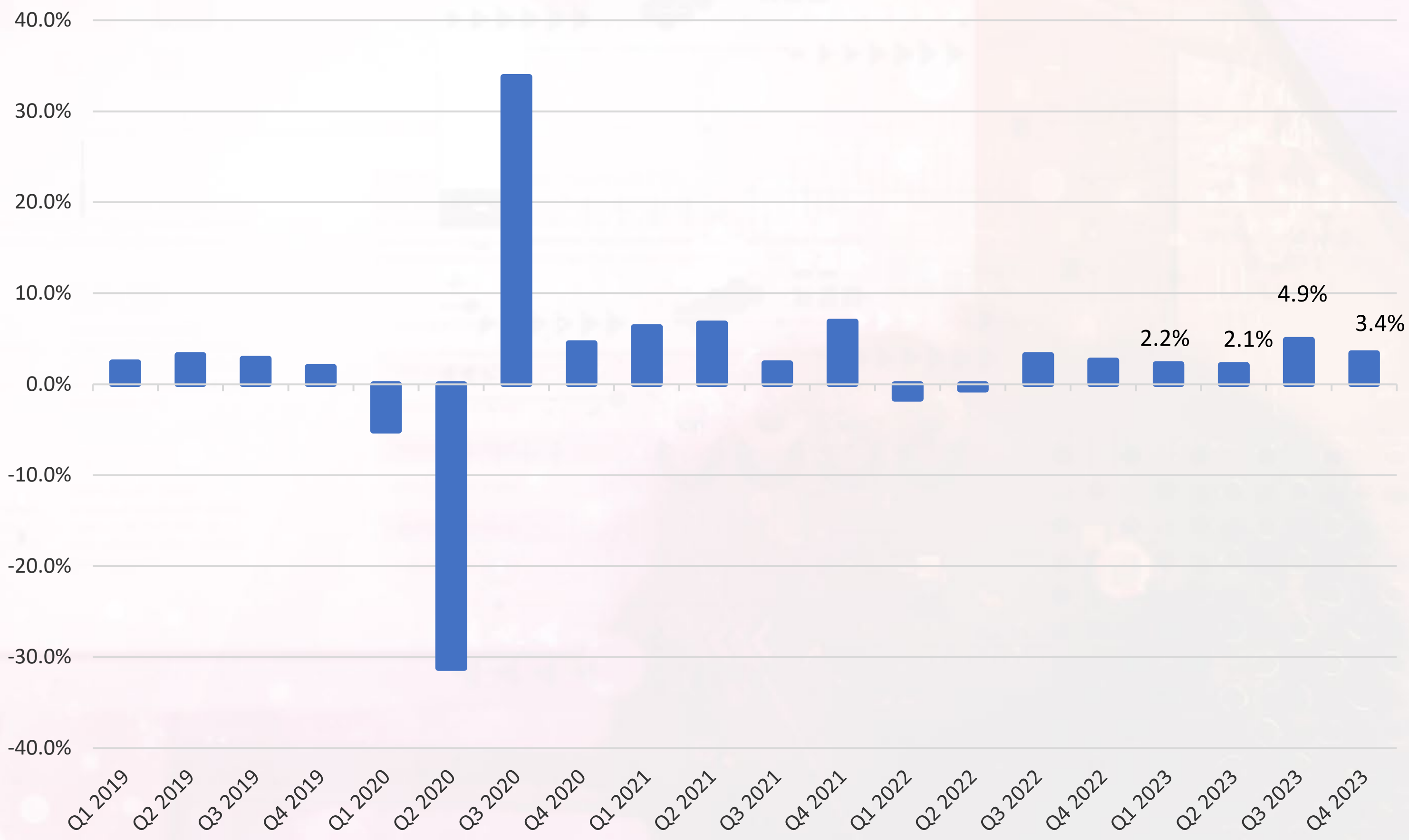
U.S. GDP



Bureau of Economic Analysis

- The U.S. economy grew at a 3.4% annualized pace in the fourth quarter, according to the “third” estimate published by the Bureau of Economic.
- This is slightly below Q3 but remains strong.
- As of April 24th, the Atlanta Federal Reserve’s GDPNow tracker estimates real GDP to increase 2.7% for the first quarter of 2024.

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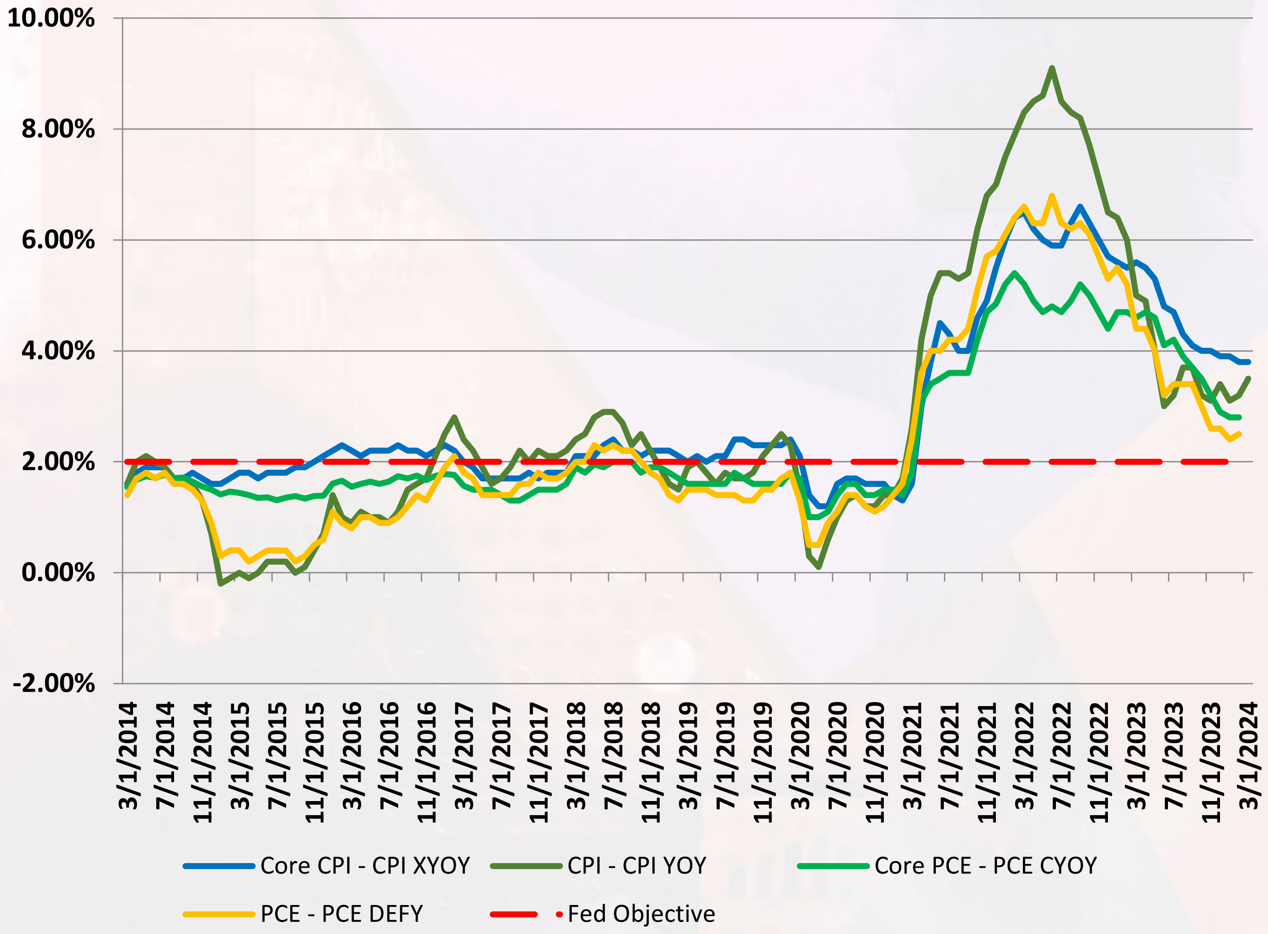
U.S. Inflation – Current Month

Core* Personal Consumption Expenditures	Feb	Fed Target
Month over Month	0.3%	
Year over Year	2.8%	2.0%

Core* Consumer Price Index	Mar
Month over Month	0.4%
Year over Year	3.8%



*Excludes food and energy

Source: Bloomberg – PCE CMOM; PCE CYOY; CPI CHNG; CPI XYOY

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U.S. Housing & Mortgage Market

Sales
- Median sales price: $420,357, +4.8% YoY.
- Number of homes sold: 406,120, -9.8% YoY.

Supply
- Number of homes for sale: 1,510,113, +3.8% YoY.
- Number of newly listed homes: 545,897 -0.4% YoY.
- Median days on the market: 40, -4 days YoY.
- Months of supply: 2.0, 0 months YoY.

Demand
- Homes sold above list price: 30.0%, +1.6% YoY.
- Sales-to-list Price: 99.2%, +0.4% YoY.

Financing Cost
- Avg 30-year fixed rate mortgage: 6.8%, +0.3% YoY.

*All stats through March 2024

Data provided by Redfin, a national real estate brokerage

Forecast (April 18, 2024)	2023	2024	2025	2026
Total 1-to-4 Family (000s loans)	4,333	4,576	5,217	5,531
Purchase	3,350	3,329	3,550	3,752
Refinance	983	1,247	1,667	1,779
Refinance %	23%	27%	32%	32%
30-yr Fixed Rate Mortgage	7.3%	6.4%	5.9%	5.5%

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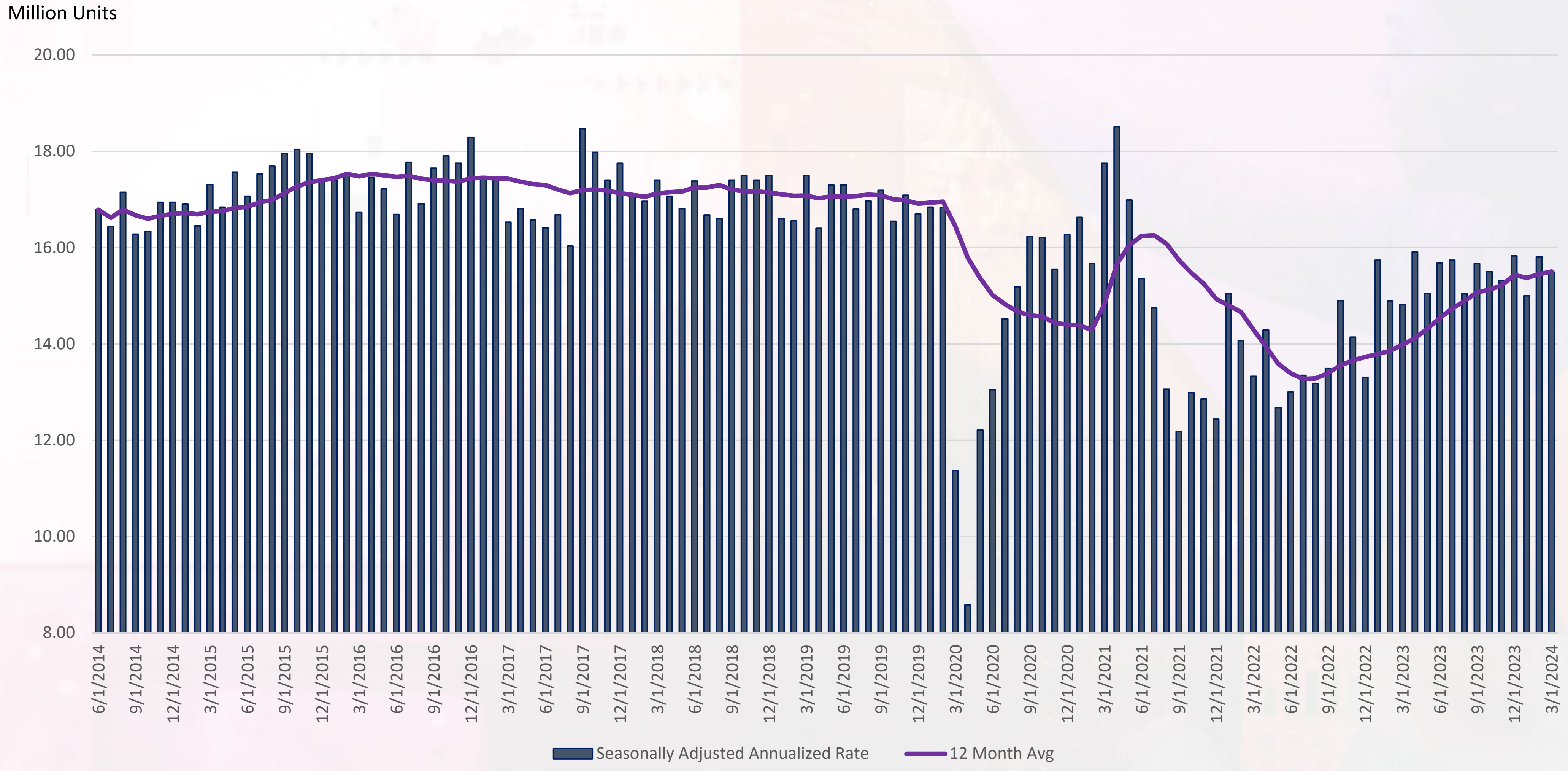
U.S. Auto Sales



Source: Bloomberg (SAARTOTL)

U.S. Auto Market

Originating LTVs Among Used Autos Have Marched Upwards in Recent Years

	Q1 2020	Q1 2021	Q1 2022	Q1 2023
New	101	102	105	104
Used	112	104	110	125

Higher Prices Led to Record High Monthly Payments for Borrowers

	Q4 2021	Q3 2022	Q4 2022	Q1 2023
New	$653	$707	$729	$736
Used	$493	$529	$527	$523

Source: AutoCreditInsight by S&P Global Mobility, TransUnion

The FOMC

- Since the last FOMC meeting, continued positive performance in the economy combats the market's desire for rate cuts. The Fed minutes did not reveal any additional information to what Powell's statement had included. Factors affecting the FOMC's decisions include:
  - New employment jobs are being added at strong to above average pace;
  - Inflation is increased slightly this past month;
  - The unemployment rate remains low, falling slightly to 3.8%;
  - CPI YoY was above the expected figure and came in at 3.5%
  - The Fed's next meeting is May 1st, where no rate cut is expected.
  - The likeliest upcoming rate cut is expected to be in July or September, however this will continue to be data dependent.

Sources: Federal Reserve, FHN

Summary of Economic Projections

March 20, 2024	Median FOMC Participant Projection 2024	2025	2026	Longer Run
Change in real GDP	**2.1%**	**2.0%**	**2.0%**	**1.8%**
December projection	1.4%	1.8%	1.9%	1.8%
Unemployment rate	**4.0%**	**4.1%**	**4.0%**	**4.1%**
December projection	4.1%	4.1%	4.1%	4.1%
PCE inflation	**2.4%**	**2.2%**	**2.0%**	**2.0%**
December projection	2.4%	2.1%	2.0%	2.0%
Core PCE inflation	**2.6%**	**2.2%**	**2.0%**	
December projection	2.4%	2.2%	2.0%	
Federal funds rate	**4.6%**	**3.9%**	**3.1%**	**2.6%**
December projection	4.6%	3.6%	2.9%	2.5%

Source: The Federal Reserve

Source: Federal Reserve

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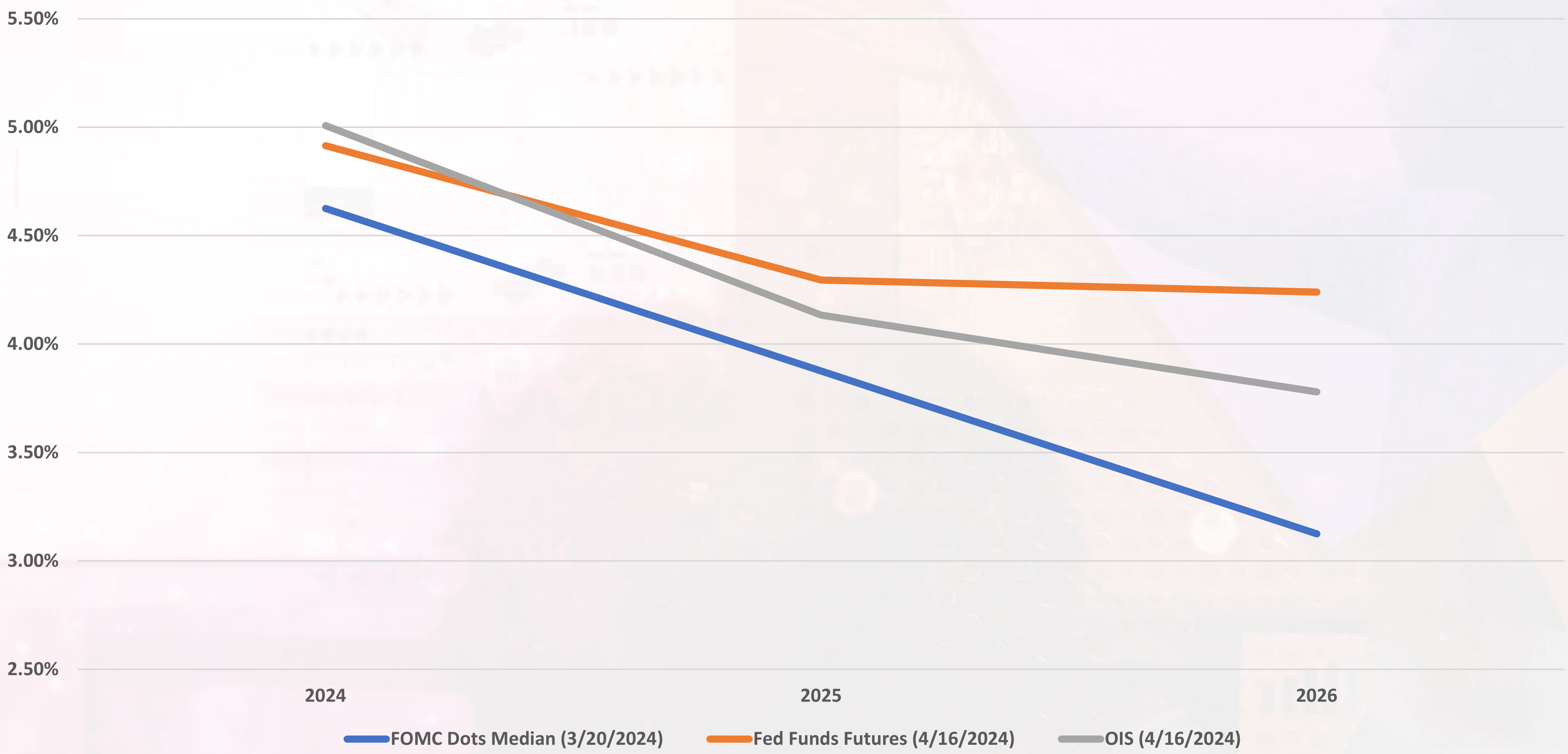
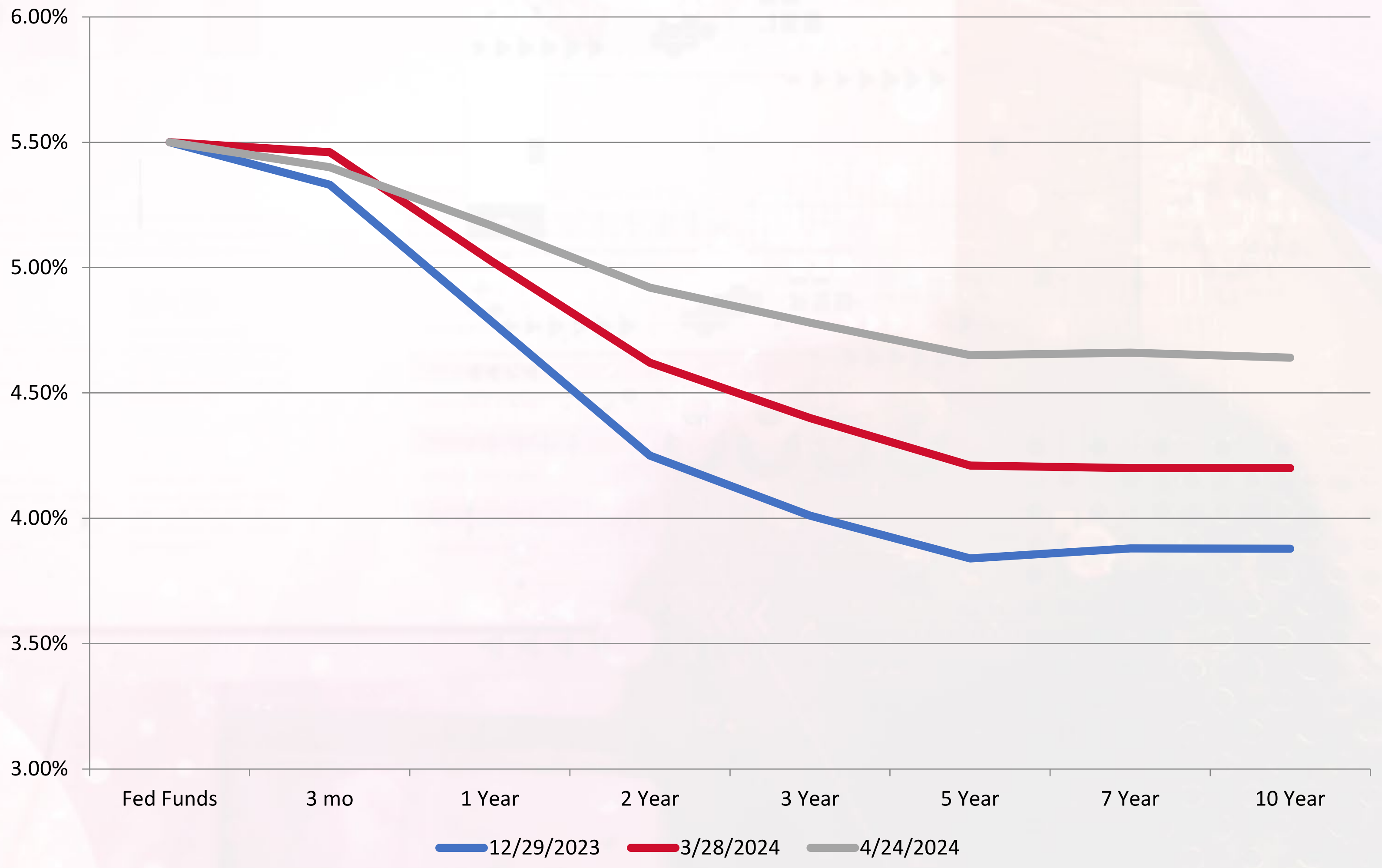
Fed Funds Target Rate – Mar 2024



Source: Bloomberg

U.S. Treasury Curve



- The yield curve has increased month-over-month with the bulk of the repricing happening at the back-end.
- The increase will keep pressure and loan and deposit rates.

Credit Union Industry Trends

- Assets and Capital Growth
- Loan Growth
- Loan Allocations
- Loan Quality
- Shares and Deposits
- Liquidity
- Earnings

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Credit Unions

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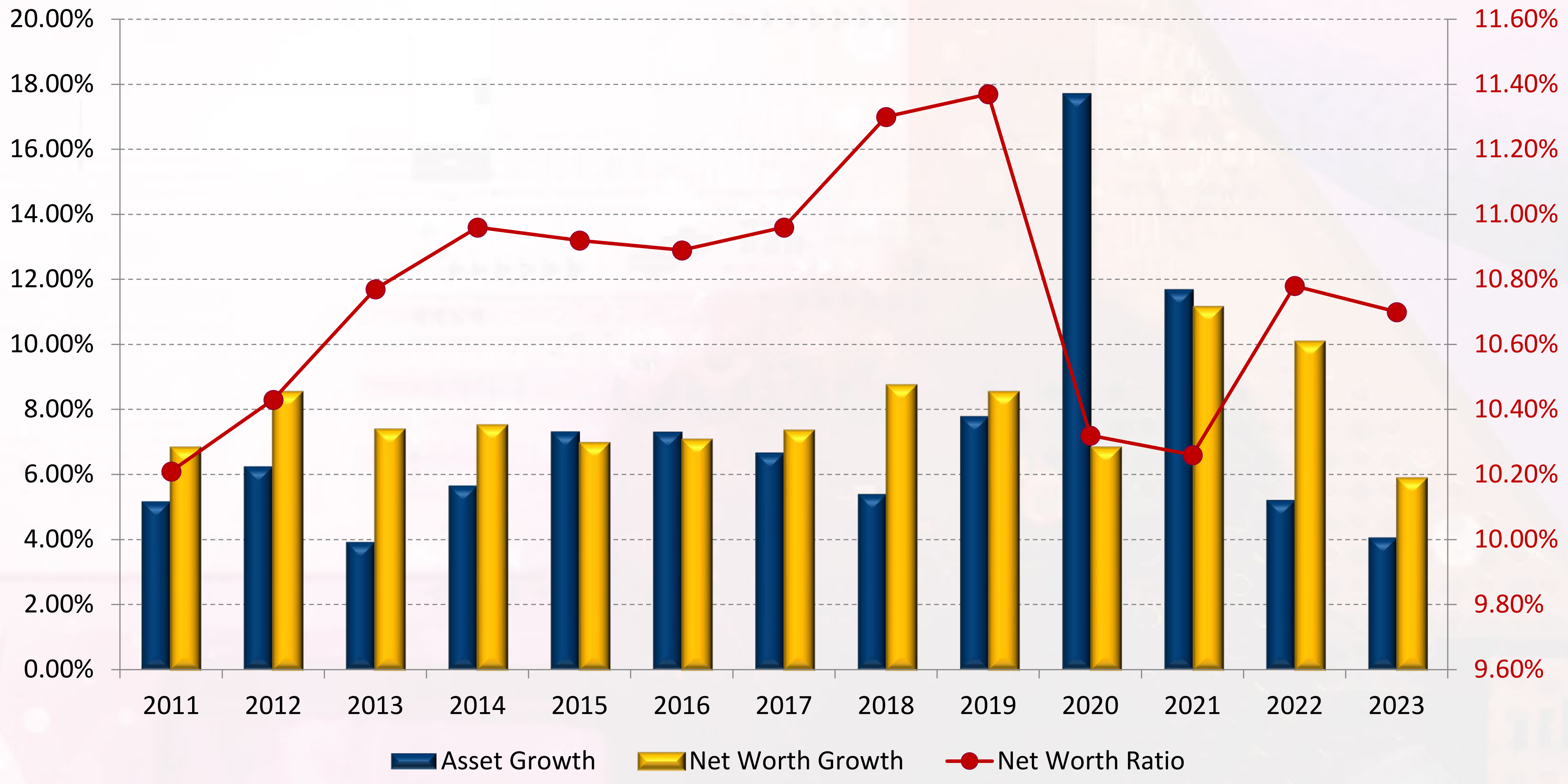
Assets & Net Worth



- 2023 asset and net worth growth rates are slightly below historical the averages.
- Net worth ratio remains strong at 10.70% and risk-based capital is 15.3%.

Source: NCUA

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Loan Growth

	Growth (%)	
Loan Type	**2022**	**2023**
Unsecured	18.9%	8.9%
Vehicle	20.0%	2.6%
Real Estate	19.6%	7.3%
Commercial	24.4%	13.1%

	Growth ($)	
Loan Type	**2022**	**2023**
Unsecured	$21.9B	$13.1B
Vehicle	$81.0B	$12.7B
Real Estate	$108.4B	$48.5B
Commercial	$27.3B	$18.7B

Source: NCUA, Q2 figures are annualized

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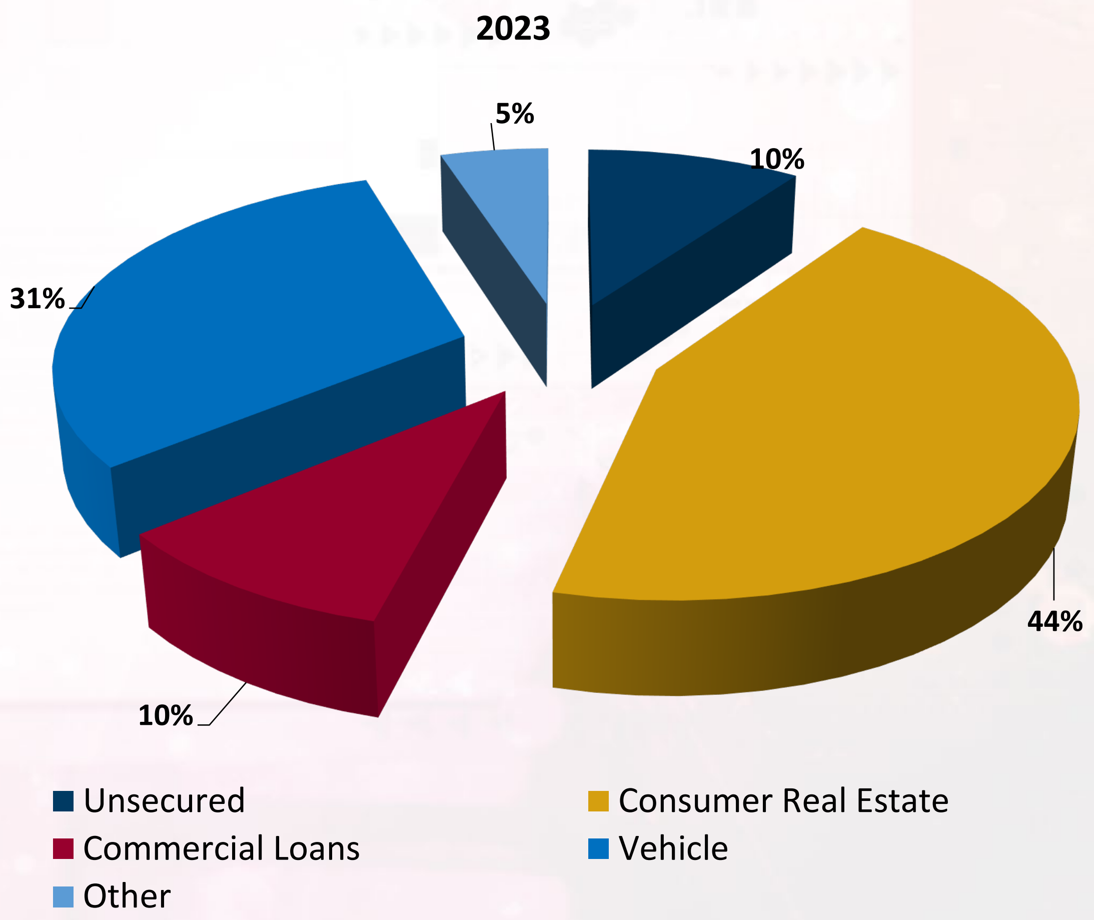
Loan Allocations



- New and used vehicle loans increased 1.2% and 3.4%. This compared to 22.2% and 18.9% in 2022.
- 1st mortgage loan increased $22.5 billion or 4.1% for the year. 1st mortgage loans are 81% of total real estate loans.
- Commercial loans increased $18.2 billion to $157.2 billion and are 10% of the loan portfolio.

Source: NCUA

Loan Quality

- Delinquencies and net charge-offs have increased slightly since 2021:
  - Delinquencies: 0.83% (0.49%)
  - Net charge-offs: 0.61% (0.26%)
- The ALLL was $20.3 billion as of December 2022, compared to $10.9 billion at December 2021.
- The PLLL was $11.2 billion as of December 2023, compared to $1.2 billion at December 2021.

Source: NCUA

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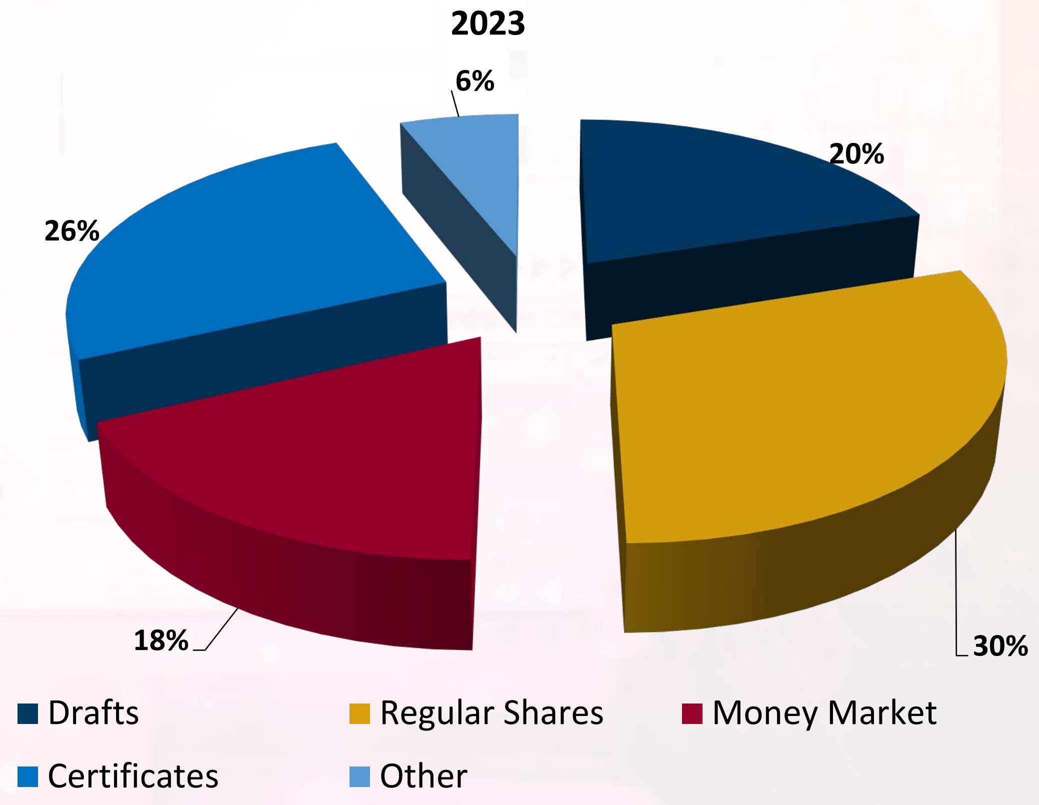
Shares and Deposits



- Since 2020, certificates have increased from 17% to 26% of total shares and deposits.
- For 2023, certificates increased 63% and non-member deposits increased 28%.
- Even with the growth in certificates, the maturity distribution of shares remains consistent from 2020.

Maturity Distribution	2020	2023
< 1 year	91%	93%
1 to 3 years	7%	6%
> 3 years	1%	2%

Source: NCUA

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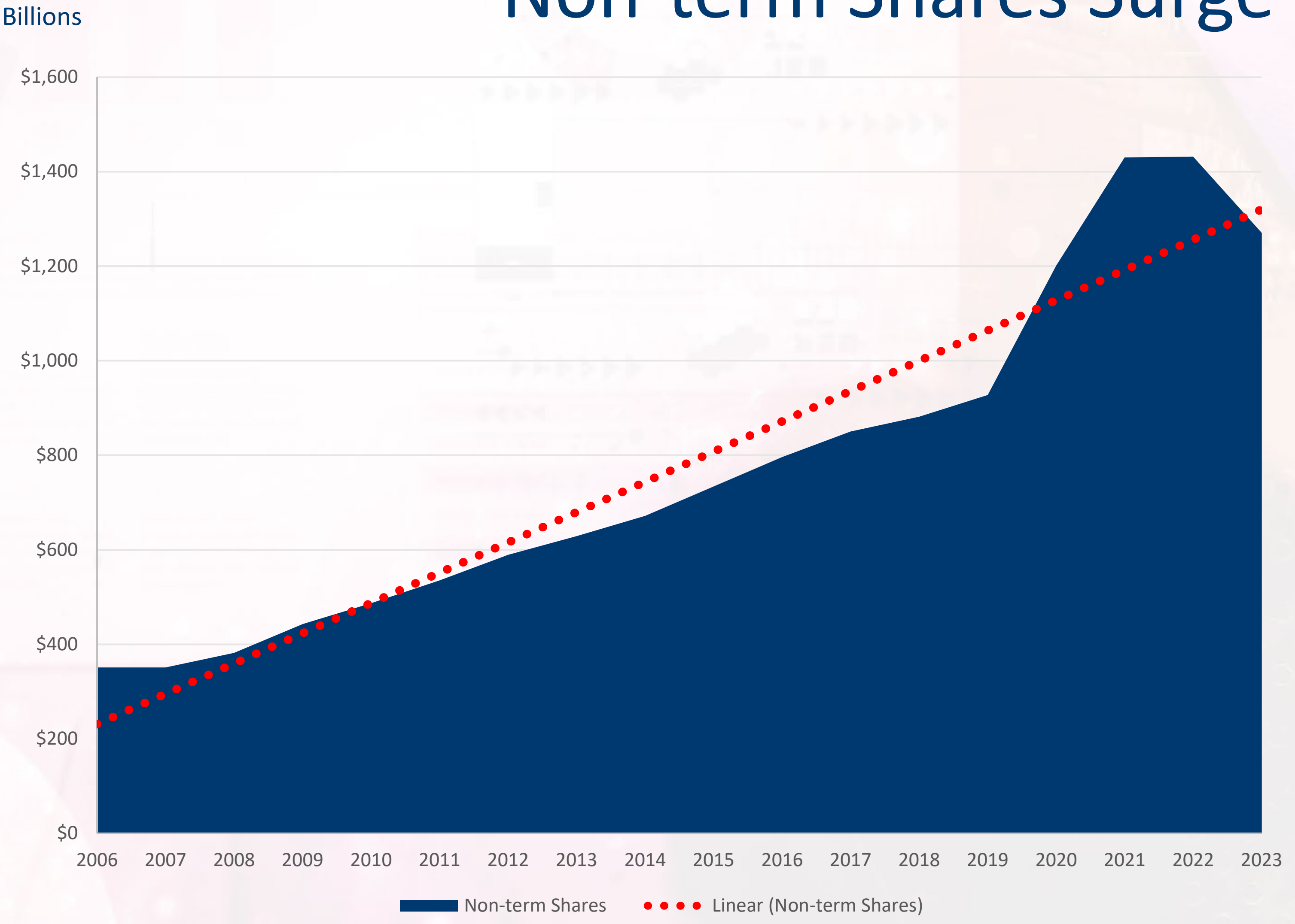
Non-term Shares Surge Growth



Non-term shares decreased $162 billion in 2023.

Year	Growth
2006	5%
2007	0%
2008	9%
2009	16%
2010	10%
2011	10%
2012	10%
2013	7%
2014	7%
2015	9%
2016	8%
2017	7%
2018	4%
2019	5%
2020	30%
2021	19%
2022	0%
2023	-11%

Source: NCUA

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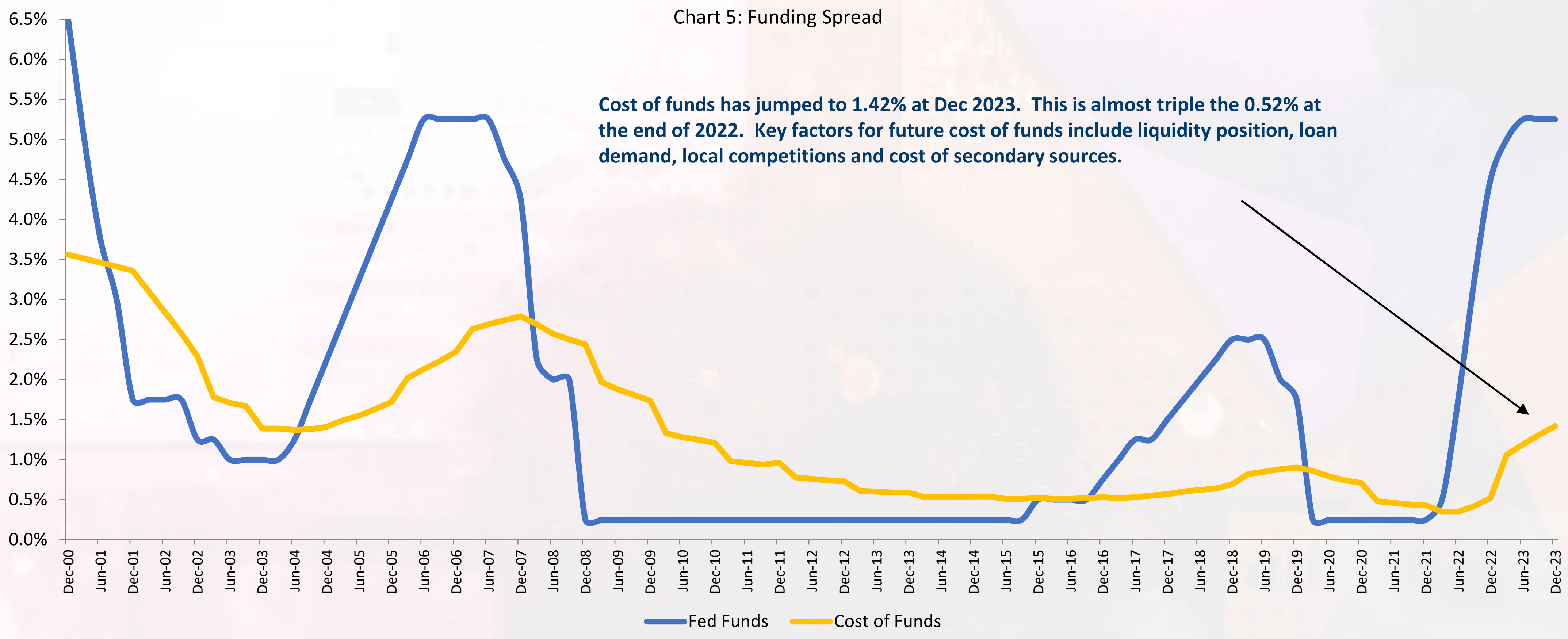
Cost of Funds



Source: NCUA, Bloomberg

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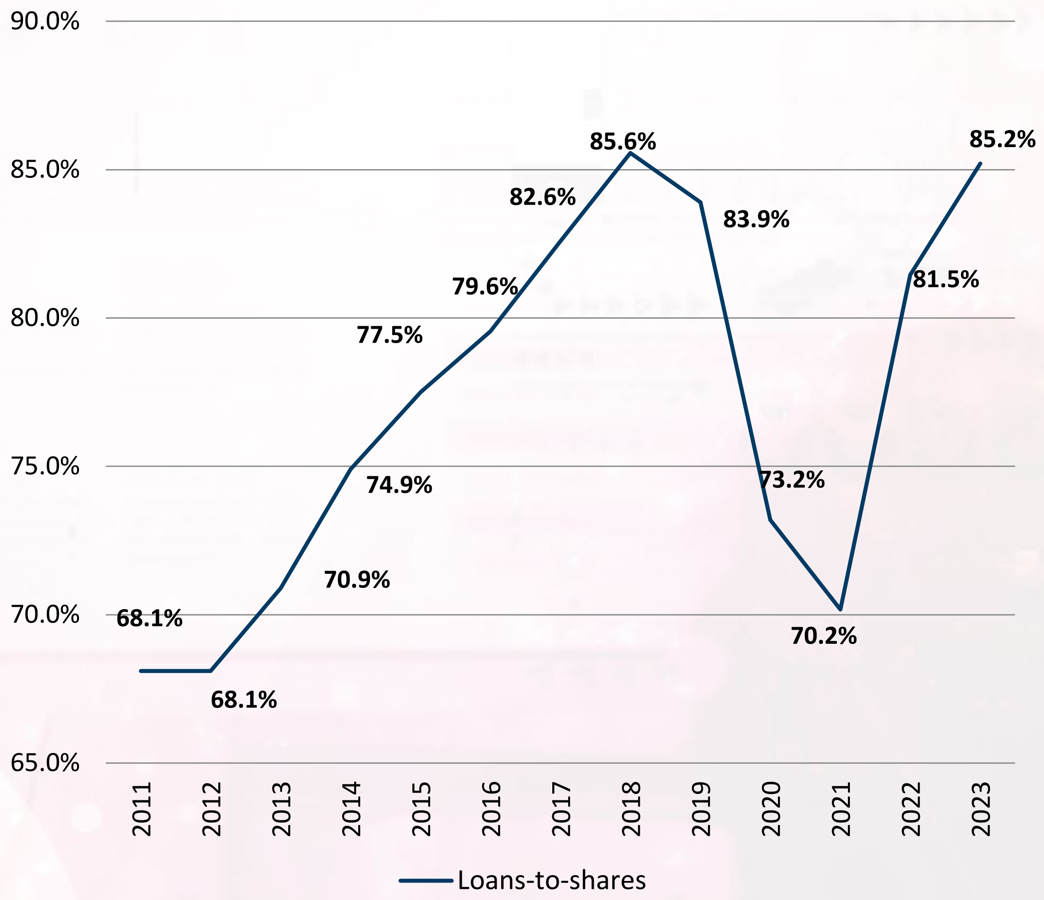
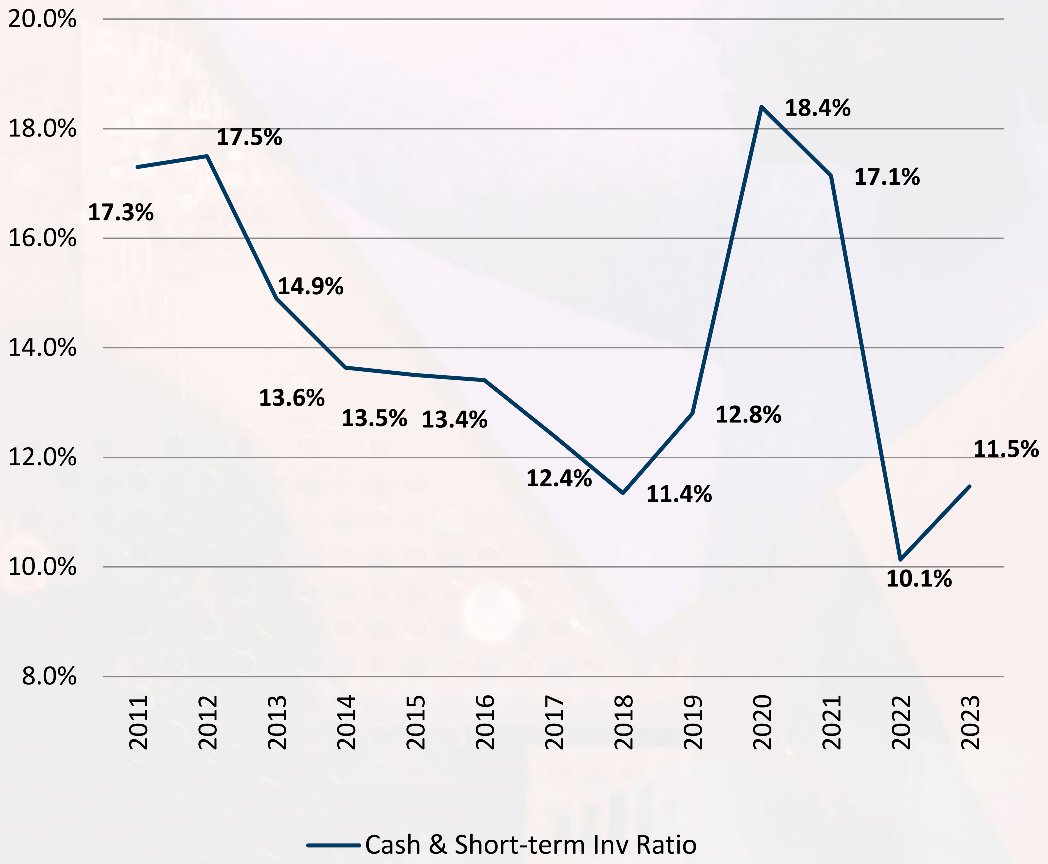
Liquidity Trends





Source: NCUA

Additional Funding

	2021	2022	2023
Non-member Deposits	$11B	$21B	$28B
Corporate Credit Union	$407M	$2.2B	$1.1B
Federal Home Loan Bank	$25B	$92B	$84B
Central Liquidity Facility	$500K	$20M	$0.5M
Federal Reserve Bank	$15M	$1.6B	$45.8B
Loan Participations Sold (YTD)	$22B	$21B	$9B

Credit Union have reallocated their borrowings from the FHLB to Fed's Bank Term Funding Program.

Maintain diversified mix of secondary sources of funds.

Proactively forecast liquidity trends and identify shortfalls.

Source: NCUA

Earnings

Earnings Ratios	2022	2023	Outlook
Loan Yield	4.43%	5.24%	Will continue to increase through 2024
Investment Yield	1.62%	3.05%	Increasing, cash is earning >5.25%, term inv >5.00%
Cost-of-Funds	0.52%	1.42%	Will continue to increase in 2024?
Net Interest Margin-to-Avg Assets	2.86%	3.01%	Should continue to increase in 2024
Provision Expense	0.25%	0.51%	Will increase slightly
Net Income-to-Avg Assets (ROAA)	0.89%	0.68%	Stable and should increase slightly in 2024

Source: NCUA (ratios only)

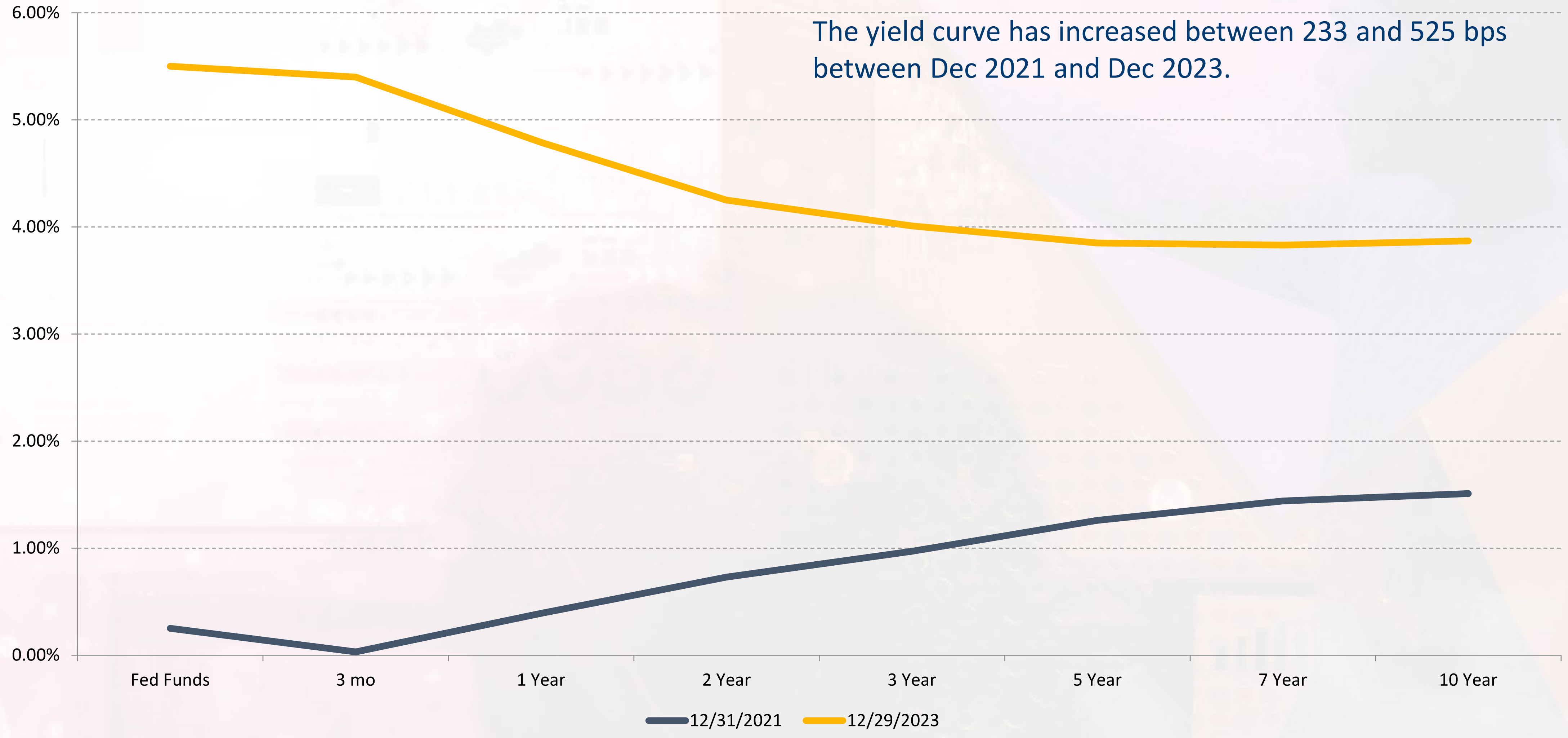
Strategic Considerations

- Loan Pricing
- Credit Losses
- Vehicle Portfolio Management
- Real Estate Lending Considerations
- Shares and Deposits
- Liquidity Management
- NCUA 2024 Supervisory Priorities

Strategy

Treasury Curve

The yield curve has increased between 233 and 525 bps between Dec 2021 and Dec 2023.



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Loan Pricing Comparison

	Loan Yields			Treasury Yields			
Loan Product	June 2022	Mar 2024	Change	Dec 2021	Dec 2023	Change	Diff
Used car loan, 48 months - 2.0 yrs.	3.06%	6.46%	+3.40%	0.73%	4.25%	+3.52%	-0.12%
New car loan, 60 months - 3.0 yrs.	3.01%	6.40%	+3.39%	0.97%	4.01%	+3.04%	+0.35%
Home equity loan, 80% - 5.0 yrs.	4.48%	7.09%	+2.61%	1.26%	3.85%	+2.59%	+0.02%
30 year Fixed Rate Mortgage – 10 yrs.	5.44%	6.90%	+1.46%	1.51%	3.87%	+2.36%	-1.10%
Unsecured fixed rate loan – 2.0 yrs.	8.84%	10.83%	+1.99%	0.73%	4.25%	+3.52%	-1.53%
Source: Loans Yields - NCUA Rate Survey							

Have loan yields increased enough to cover future credit exposure?

Credit Loss Factors

- **Probability of Default (PD)** – the likelihood that the borrower will fail to make full and timely repayment of its financial obligation.
- **Exposure at Default (EAD)** – the expected value of the loan at the time of default.
- **Loss Given Default (LGD)** – the amount of the loss if there is a default, expressed as a percentage of the EAD.

Event	Loss	Probability
No Default	**0**	**1 - PD**
Default	**LGD X EAD**	**PD**

Credit Loss = (LGD X EAD) X PD

Have these factors changed since last year?

Used Vehicle Performance Forecast

Table 6: Default Rates - FICO by Vintage Comparison

Vintage	Low FICO (620)	Mid-FICO (720)	High FICO (800)
2018	3.58%	1.19%	0.32%
2019	5.19%	1.79%	0.49%
2020	6.71%	2.37%	0.66%
2021	7.79%	2.67%	0.74%
2022	13.38%	4.96%	1.42%

Source: Moody's Analytics

Table 7: Severity Rates - FICO by Vintage Comparison

Vintage	Low FICO (620)	Mid-FICO (720)	High FICO (800)
2018	23.16%	11.56%	1.47%
2019	22.86%	11.95%	2.19%
2020	21.79%	11.47%	2.37%
2021	24.32%	14.28%	5.26%
2022	31.05%	21.10%	12.50%

Source: Moody's Analytics

Source: Moody's Analytics – Used-Vehicle Prices and Expected Loss Rates August 2022

Auto Portfolio Management

- Actively track your portfolio characteristics:
  - New vs Used
  - Direct vs indirect
  - Yield & maturity
  - Loan-to-values
  - Credit distribution

- Review portfolio vs concentration limits.
- Manage indirect dealer reserves based on liquidity.
- Prepare for higher losses on the sale of repossessed vehicles.
- Embrace diversification of exposure across portfolio.

Real Estate Lending Considerations

- Hold new originations to increase portfolio yield.
- Maintain a robust product offering:
  - Conforming & non-conforming
  - Fixed and ARMs
  - Construction-only and construction-to-permanent
  - Second liens
  - HELOCs
  - Unique loans: e.g. 1 rate modification with no closing costs
- Understand your business model, costs and margins.
  - Reduced gain on sale is impacting business strategy
- Consider interest rate risk derivative to manage interest rate risk.

Staying on Top of Delinquencies

- Contact members sooner in the delinquency timeline.
- Send first attorney letter within 30 days of delinquency.
- Have the borrower be specific on their plan to resolve their delinquency.
- Look for lapsed insurance.
- Be on the lookout for high DTI and LTV loans for new originations.
- Increase staffing in the collections department.
- Follow-up, follow-up and follow-up some more.

Liquidity and Funding Assessment

What's causing the change in liquidity?

- If loans, is pricing appropriate for desired return?
- If deposits, what accounts and member profile?

Funding strategy should:

- Quantify short and intermediate needs.
- Evaluate the cost of each option.
- Evaluate the ALM impact of each option.
- Use the time to educate stakeholders.

Liquidity and Funding Options

- Member deposits (non-term and term)
- Non-Member Deposits
- Borrowings
  - Federal Home Loan Bank
  - Federal Reserve
  - Central Liquidity facility
- Selling Investments
- Selling Loan Participations

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Liquidity and Funding Options

Source	Pros	Cons
Member Deposits	Benefits members and the cost can be lower than non-member deposits.	Can be slow to achieved desired amount.
Non-member Deposits	Quick, easy and doesn't tie up collateral.	Higher cost than member deposits.
Overnight Advances	Quick, easy and can be repaid when excess liquidity becomes available.	Requires collateral to be pledged.
Term Borrowings	Quick, easy and can incorporate term and amortizing structures that match assets.	Requires collateral to be pledged.
Selling Investments	Relatively quick and easy. Liquidity amount will be a function of investment portfolio size.	Market prices vary based on market rates and investment type.
Selling Loan Participations	Lots of loan types that could be sold and generate liquidity. Prevents having to slow or turn off loan growth.	Will take longer generate liquidity and require more analysis as to which pool of loans to sell. Market prices will be a function of coupon and collateral characteristics.
Pros and Cons change as market conditions, interest rates and member behavior change		

NCUA 2024 Supervisory Priorities*

- Liquidity Risk – pressure in deposit pricing and the use of wholesale funding is accelerating as alternative funding options, while new lending, participation, and loan sale market may slow. Increased liquidity risk and uncertainty heightened the need for credit unions to prepare contingency funding needs. Examiners will assess liquidity management by evaluating:
  - The effects of changing interest rates on the market value of assets and borrowing capacity.
  - Scenario analysis for liquidity risk modeling, including possible member share migration.
  - Scenario analysis for changes in cash flow projections for an appropriate range of relevant factors.
  - The cost of various funding sources under normal and stressed conditions.
  - The diversity of funding sources under normal and stressed conditions.
  - The appropriateness of contingency funding plans top address any plausible unexpected liquidity shortfalls.

*Source: Letter to Credit Unions 24-CU-01 and only includes priorities relevant to ALM

NCUA 2024 Supervisory Priorities*

- Interest Rate Risk – higher interest rates continue to amplify market risk in asset and liability repricing mismatches and the overall management if IRR. With that, examiners will focus on:
  - Key assumptions and related data sets are reasonable and well documented.
  - Back testing and sensitivity testing of the assumption set.
  - The overall level of IRR exposure is properly measure and controlled.
  - Results are communicated to decision-makers and the board of directors.
  - Proactive action is taken to remain within safe and sound policy limits.

*Source: Letter to Credit Unions 24-CU-01 and only includes priorities relevant to ALM

NCUA 2024 Supervisory Priorities*

- Credit Risk – high interest rates and borrowing costs, declining savings levels, and the end of pandemic-era stimulus and relief programs have negatively impacted some members' ability to repay their debts. As such, examiners will review:
  - Soundness of existing lending programs.
  - Any adjustments made to loan underwriting standards and portfolio monitoring practices.
  - Loan workout strategies for borrowers facing financial hardships.
  - Efforts to provide relief for borrowers, including whether the efforts were reasonable and conducted with proper controls and management oversight.

*Source: Letter to Credit Unions 24-CU-01 and only includes priorities relevant to ALM

Questions

Steven Houle, CFA, FRM
houles@catalystcorp.org
214-703-7882