Hedging Strategies for Financial Institutions in the Current Market Environment

FHLBank Chicago

May 25, 2023

Chatham FINANCIAL

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Contact Information

Mike Bilello

Director, Business Development
Financial Institutions

(720) 249-2099
mbilello@chathamfinancial.com

Kennett Square
Headquarters
235 Whitehorse Lane
Kennett Square, PA 19348

Denver
7926 S Platte Canyon Rd.
Littleton, CO 80128

Toronto
TD Canada Trust Tower
161 Bay Street, 27th Floor
Toronto, ON M5J 2S1
Canada

London
12 St. James's Square
London S #02-16/17 W1Y 4LB
United Kingdom

Krakow
ul. Katlarska 11,
31-539 Kraków
Poland

Melbourne
Level 50, 120 Collins Street
Melbourne 3000
Australia

Singapore
20 Cross Street
#02-16/17 China Square Central
Singapore 048422

Today's agenda

- Who is Chatham Financial?
- Market update and hedging themes
- Hedging strategies
  - Understanding and accessing the benefits of hedging
  - Hedging rising rates
  - Hedging falling rates
  - Loan level hedging
- Understanding the risks of hedging
- How to get started with derivatives
- Questions

Financial risk management solutions that take your company further

Chatham FINANCIAL

3,500+
clients

$1 trillion
annual notional

700+
global employees

30,000+
annual transactions

Chatham is the largest, independent financial risk management firm serving clients across industries, sizes, and capital markets needs

Financial Institutions

Optimize your balance sheet, compete for loans, and grow your business.

Your industry, inside and out

Whether we're helping facilitate a borrower-facing swap program, offering strategic advice on balance sheet risk management, or helping you deal with Dodd-Frank and other regulatory obligations — we've got the knowledge and the know-how to help you make the right move.

With you, today and tomorrow

We work with all types of institutions, from community banks and credit unions to larger regional banks. This wide range of experience means that we not only know how to meet your needs right now —but we can also continue to support your organization as it evolves.

Flexing to fit your needs

At Chatham, we don't offer one-size-fits-all answers. Instead, we implement integrated solutions, tailoring our focus on advisory and technology in order to meet the needs and goals of your financial institution now and into the future.

Solutions:

Balance sheet hedging

Loan level hedging

Hedge accounting

Derivatives compliance

ISDA advisory

Commodities

FX advisory and reporting

ChathamDirect technology

Market update and hedging background

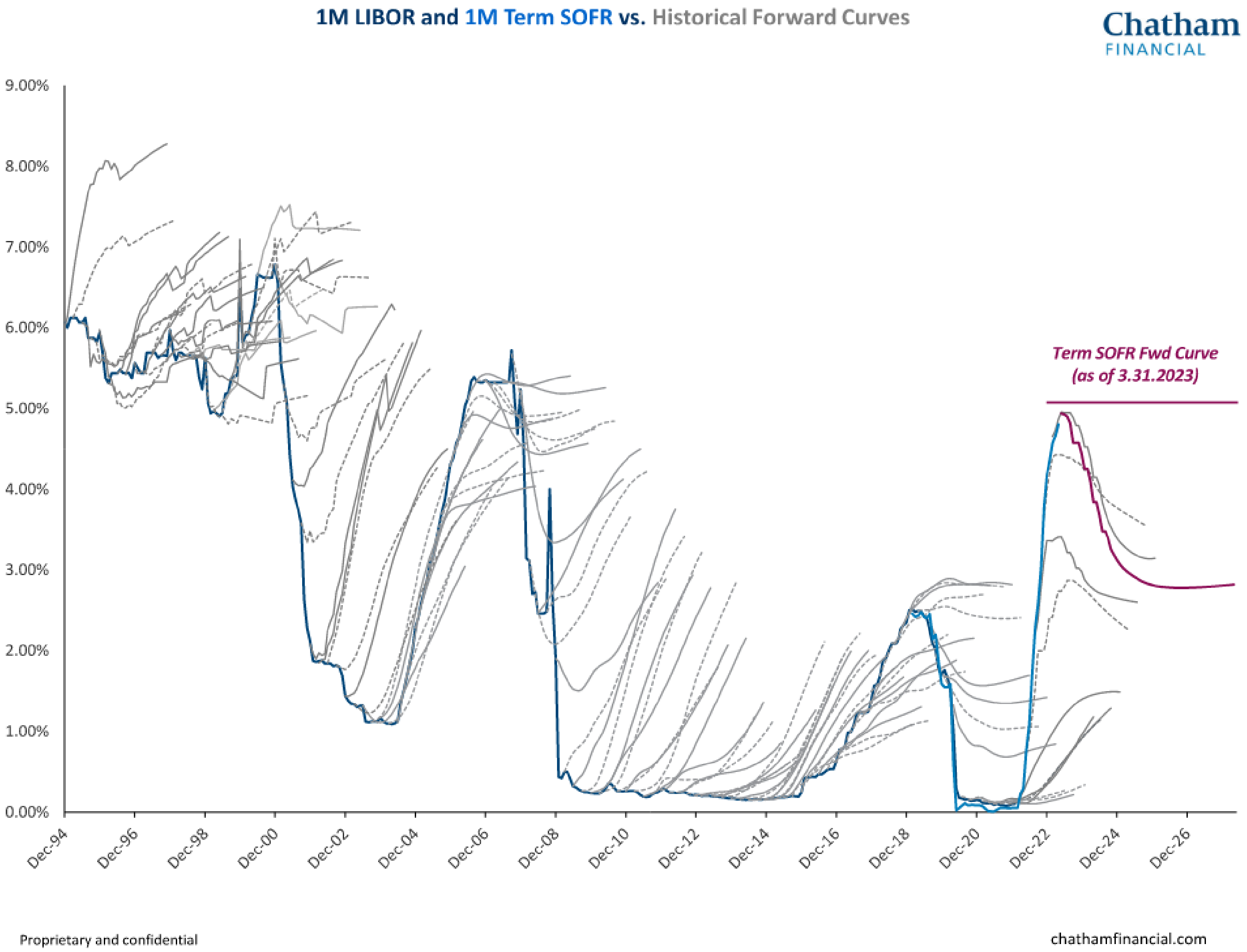
Industry themes 12 Months ago…

- **Liquidity**
  - Dominant force…for now…
- **Inflation**
  - Hottest of hot topics…is it real?
- **Yield curve**
  - Steep and starting to invert
- **Loan demand**
  - Signs of life…or did it ever go away?
- **LIBOR transition**
  - It’s really happening…what’s next?

Current industry themes

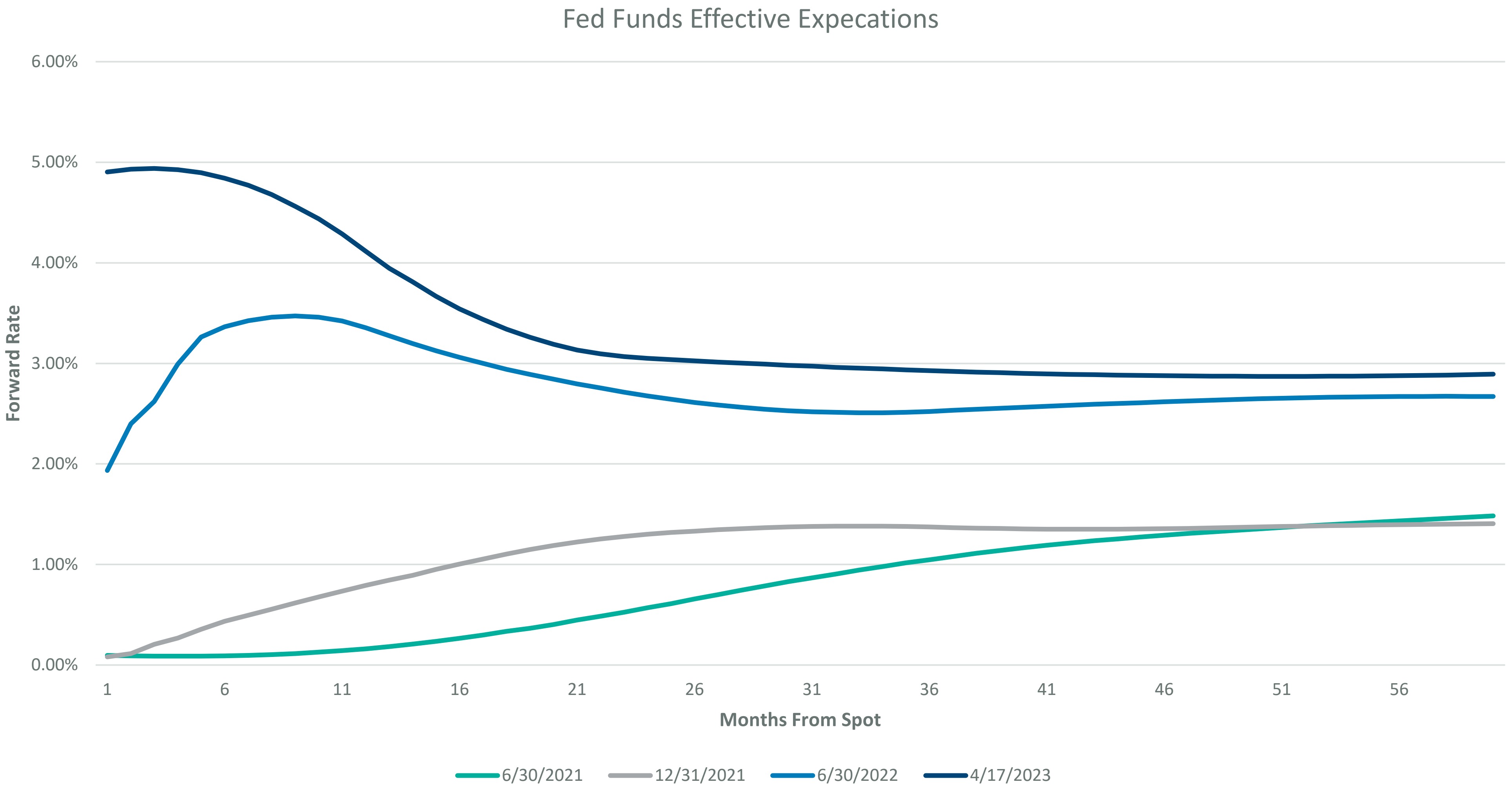
- **Liquidity**
  - Showing signs of weakness, will it get weaker?
- **Inflation**
  - Very real and *still* the hottest of hot topics…
- **Yield curve**
  - Inverted, but too inverted?
- **Loan demand**
  - Tighter credit, weakening demand
- **LIBOR transition**
  - A little over a month away… is your institution prepared?

What is The Forward Yield Curve?

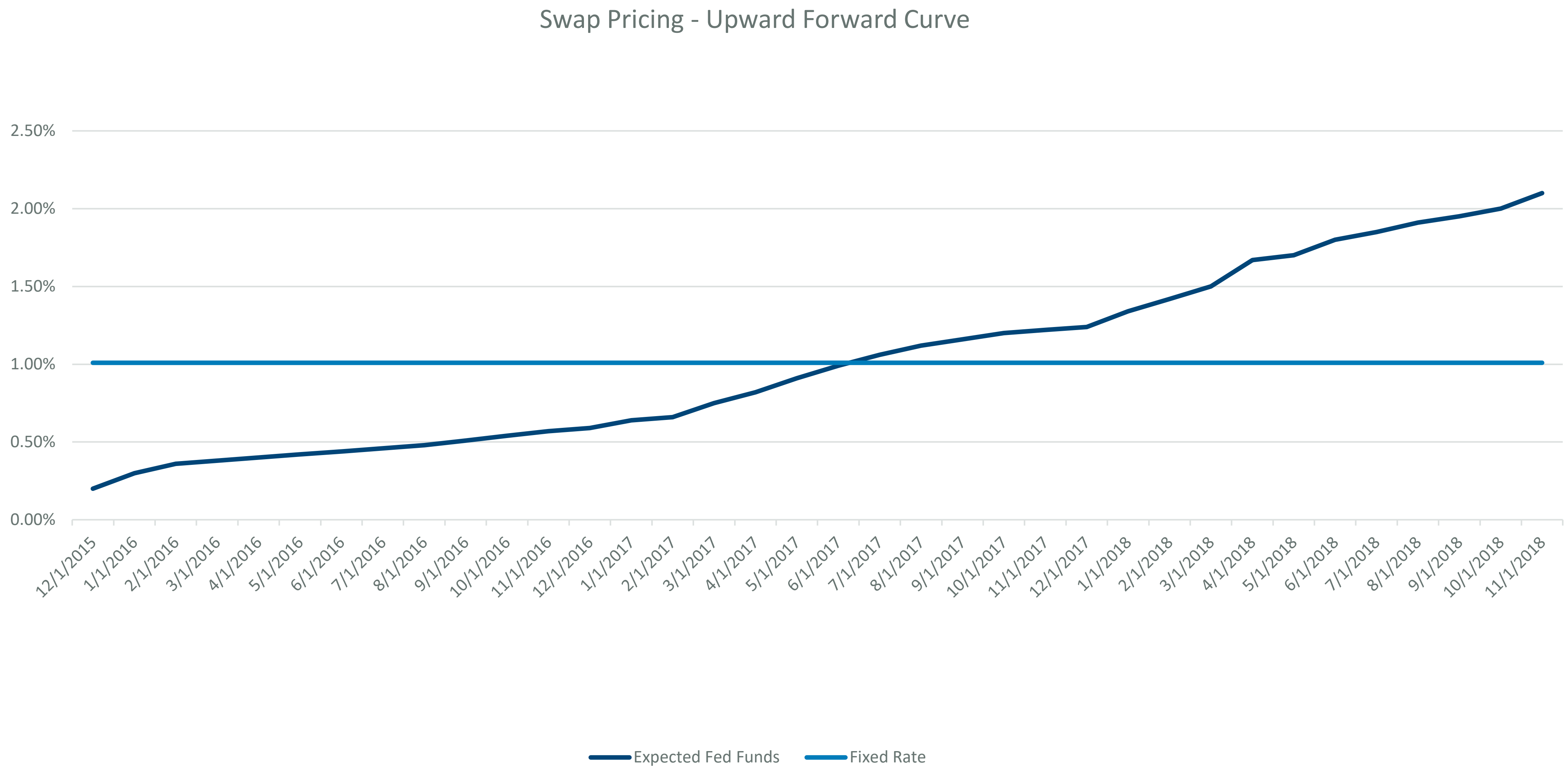


Source: Chathamrates.com

Dramatic change in forward rate expectations



The Forward Curve – The Key to Swap Pricing



Source: Chatham Financial, YTD 2023 as of 3/20/2023

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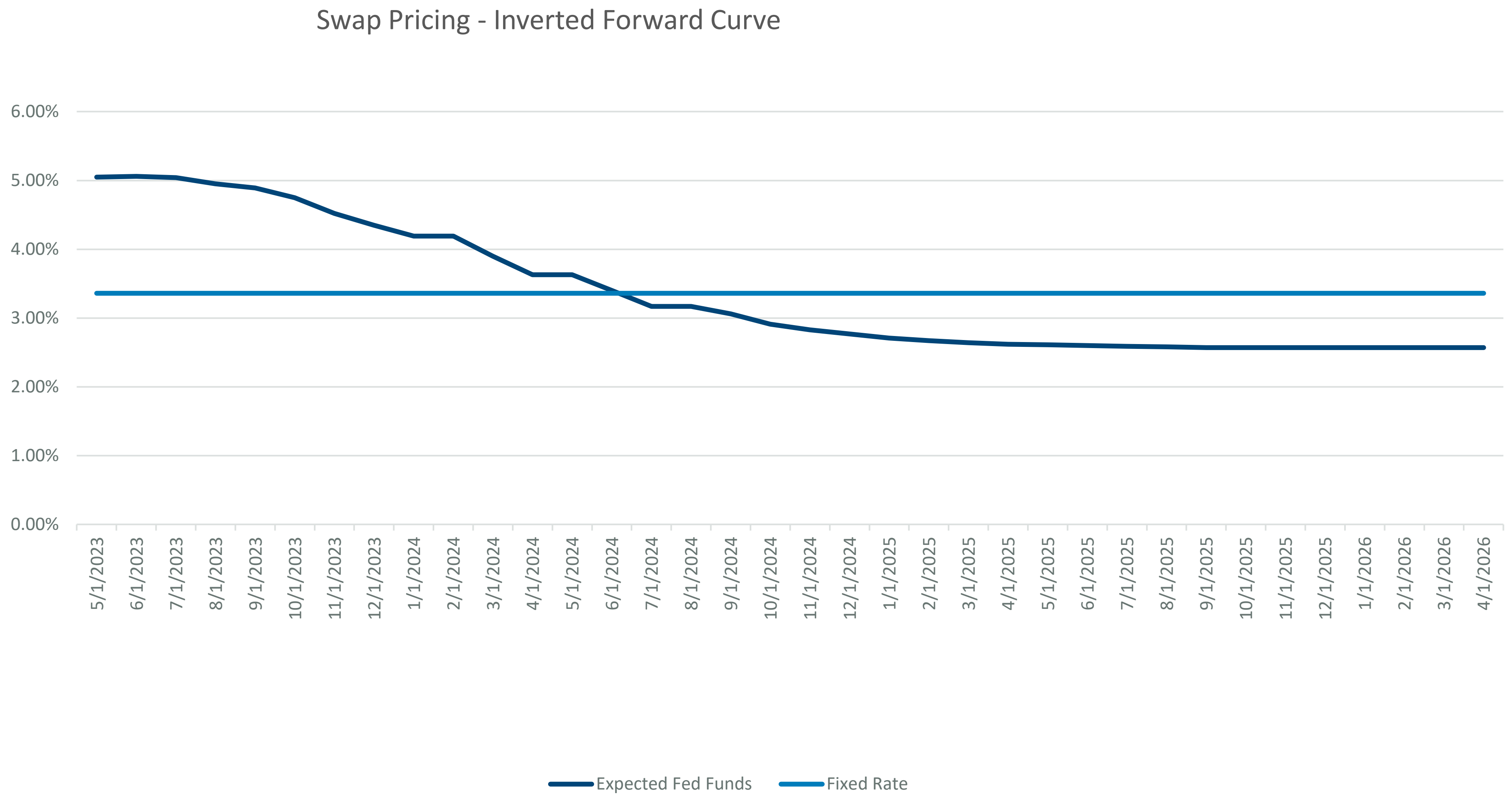


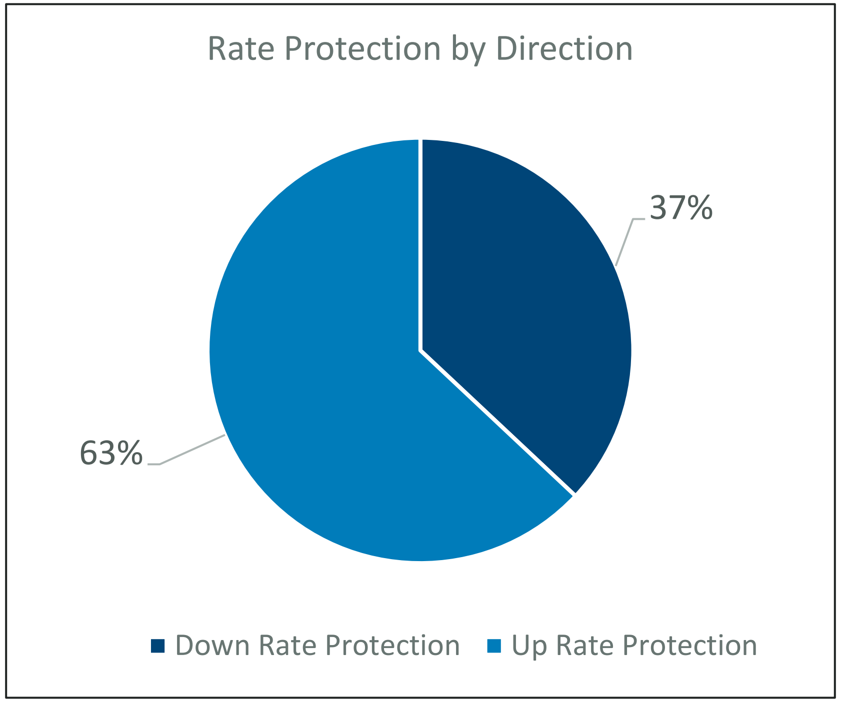
Source: Chatham Financial, YTD 2023 as of 3/20/2023

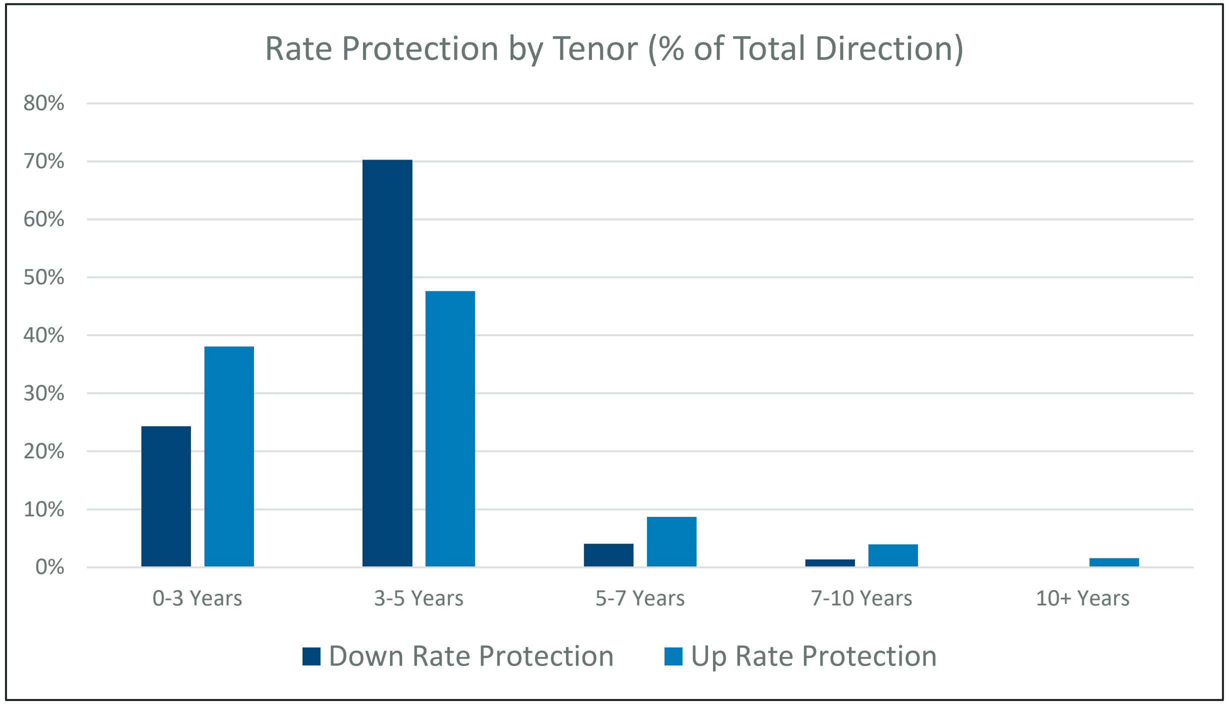
Hedging strategies:

Understanding and accessing the benefits of hedging

What are we seeing on the balance sheet hedging desk?

Rate protection strategies by direction and tenor





Source: Chatham Financial, YTD 2023 as of 3/20/2023

What is your interest rate risk position?

Critical to determining the appropriate hedge solution is lining up the Bank's interest rate view and interest rate risk position.

Goal:	Instrument:	Hedged item:	OCI Impact:	Portfolio Layer Method:
Protect against rising interest rates	Pay fixed interest rate swap	AFS Securities	☑	☑
	Pay fixed interest rate swap	Fixed-Rate Loan Portfolios	☒	☑
	Pay fixed interest rate swap or cap	Short-term Liabilities (deposits, FHLB advances, Brokered CD)	☑	☒
Protect against falling interest rates, increase current income	Receive fixed interest rate swap or floor	Floating rate Loans, Long-term fixed-rate liabilities	☑	☒

Hedging strategies:
Hedging <u>rising</u> rates

Protecting against rising rates – Portfolio Layer Method

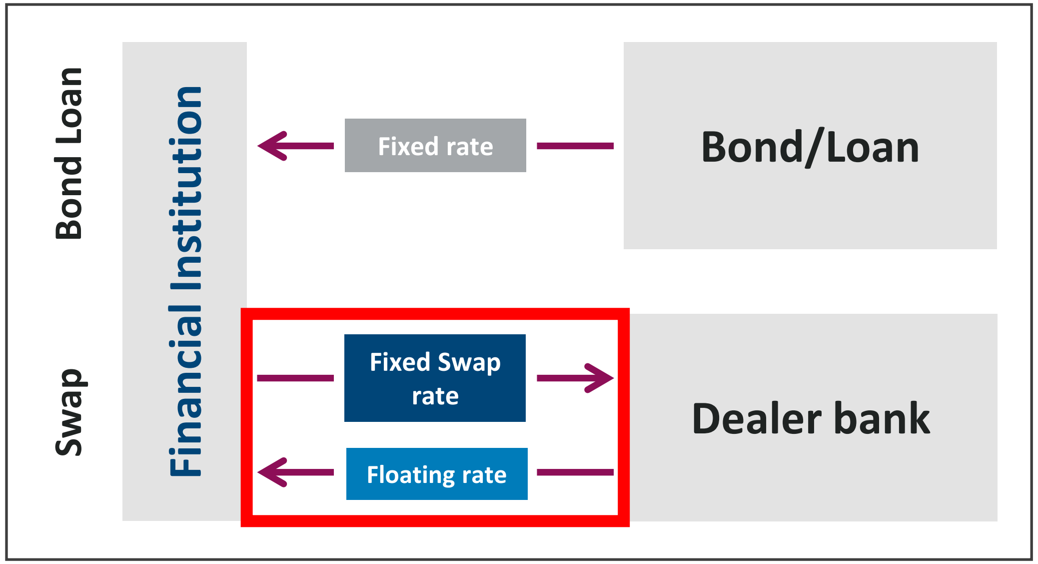
Hedging bonds or loans

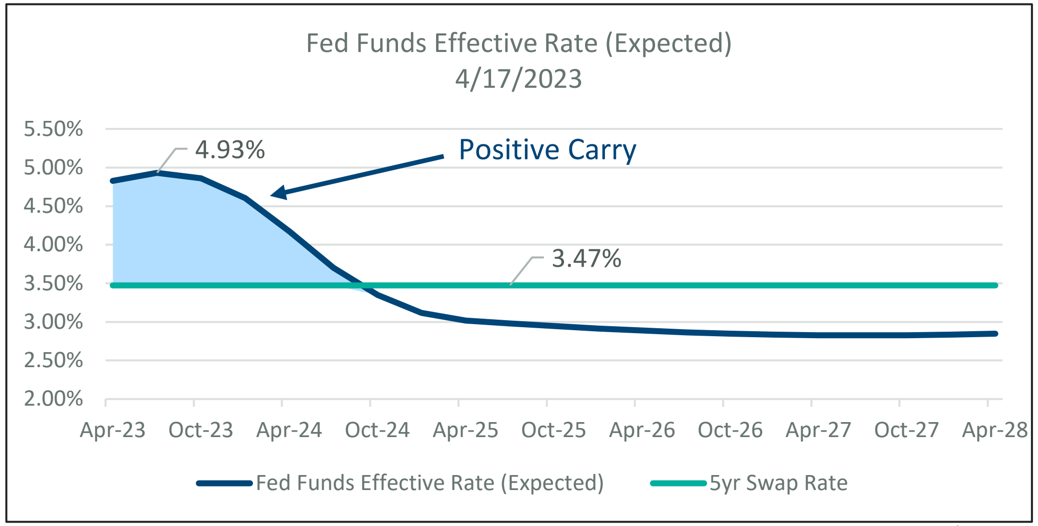
Strategy

- Manage the balance between current income and future price sensitivity
- Fair value hedge strategy
- Helps offset the impact of AFS portfolio rising rate risk on TBV
- Convert Fixed-rate loans to floating rate

Considerations

- Assets with stable and predictable cash flows are the easiest to work with
  - Agency CMBS
  - Long duration municipals with long call lock out or bullet maturities
  - Treasuries
  - Residential Mortgages / Commercial Real Estate Loans
- Managing a portfolio vs managing the exposure of single purchases (flexibility vs efficiency)
- Assets can still be pledged as collateral for liquidity purposes



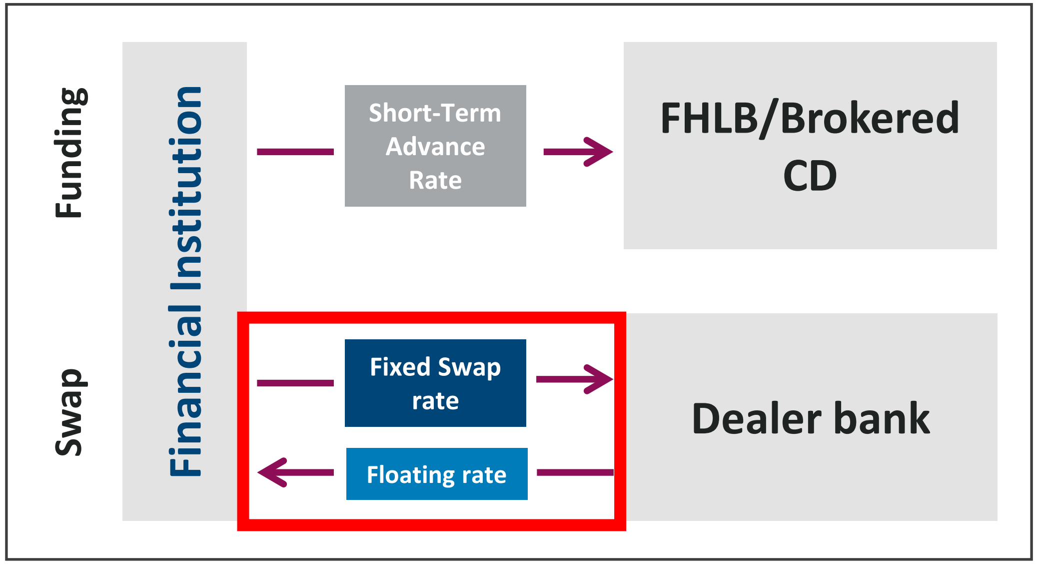


Protecting against rising rates – cash flow hedge

Hedging wholesale funding

Strategy

- Concerned with rates going up, or the forward curve drifting higher
- Reduce liability sensitivity to protect margin tomorrow
- Cash flow hedge strategy
- Helps offset the impact of AFS portfolio rising rate risk on TBV



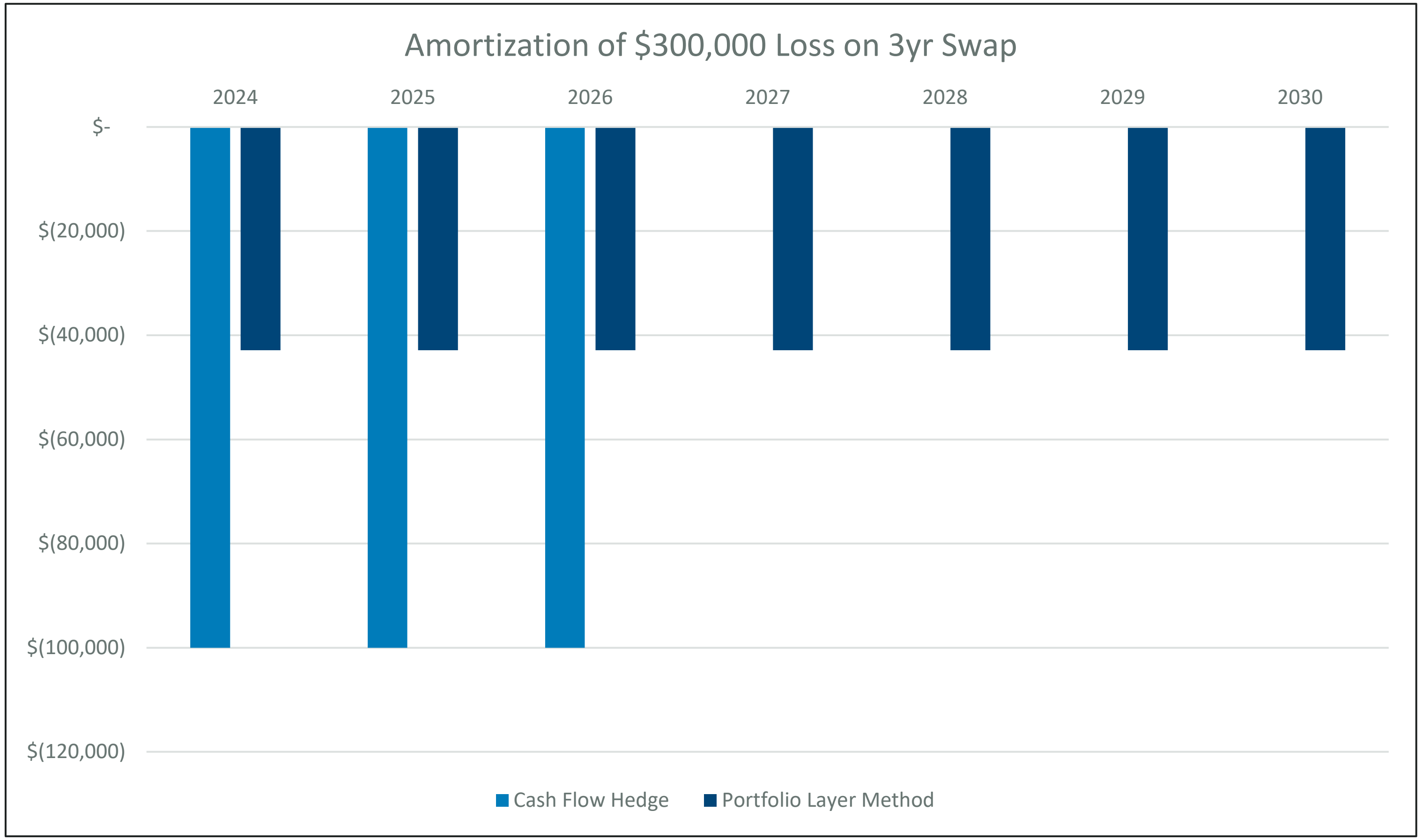
Execution / Accounting

- Meaningful interest cost savings may be achieved with this strategy relative to similar maturity guaranteed term-financing alternatives
- Unlike traditional FHLB term financing alternatives, realized gains on the swap may be monetized in a transparent and efficient process
- Start the hedge today (spot) or in the future (forward)
- Forward starting swaps delay interest payments until a future forward period. This strategy may be beneficial to institutions with short-term NII pressure and longer-run sensitivity to rising rates.

	FHLB Fixed Rate Advance*	Swapped SOFR Advance	Savings
2 year	4.40%	4.12%	0.28%
3 year	4.06%	3.77%	0.29%
5 year	3.88%	3.48%	0.40%

*FHLB Chicago as of 5/22/23

Amortization: Portfolio Layer Method compared to Cash Flow Hedge



Amortization Comparison

- Cash Flow and Portfolio Layer Method hedges can be terminated at any time

Amortization:

- Cash Flow Hedge: Amortize over the original life of the swap
- Portfolio Layer Method Hedge: Amortize over the life of the underlying asset
- When amortizing a loss, **Portfolio Layer Method may be beneficial** vs. Cash Flow

Hedging strategies:
Hedging falling rates

Receive fixed swap – floating rate asset hedge

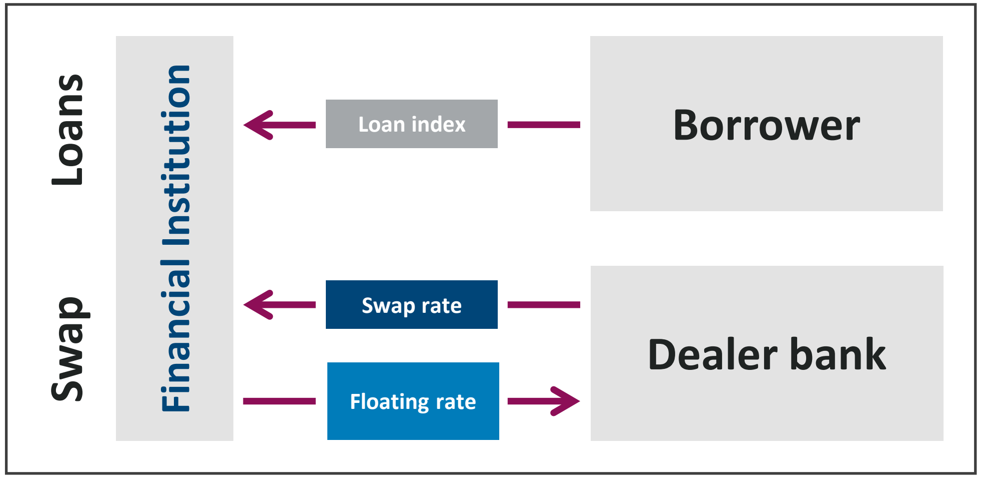
Reduce asset sensitivity, protect loan income from potential falling rates

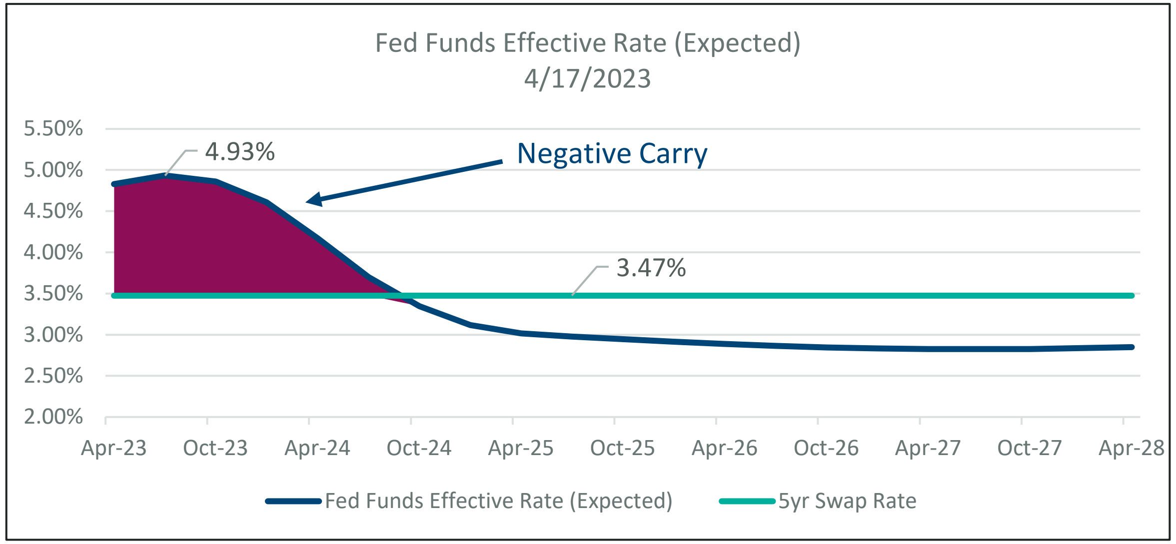
Strategy

- Concerned with rates coming down after expected increase
- Reduce asset sensitivity to protect future margin
- Cash flow hedge strategy

Execution / Accounting

- Identify a pool of floating-rate assets to hedge
- The swap can start today or in the future, allowing the financial institution to customize the risk mitigation to its risk profile
- Hedged exposure must remain outstanding and probable through the life of the hedge
- Loans with embedded caps/floors in loans should be evaluated and factored into the hedge accounting considerations





Hedging strategies:
Loan level hedging

Loan level hedging solutions

Loan level hedge

Hedging fixed-rate loans

- Borrower has a fixed-rate loan and is not a party to swap
- FI enters swap with dealer bank to convert loan to floating
- Loan spread income recognized over term of loan

Offering back-to-back swaps

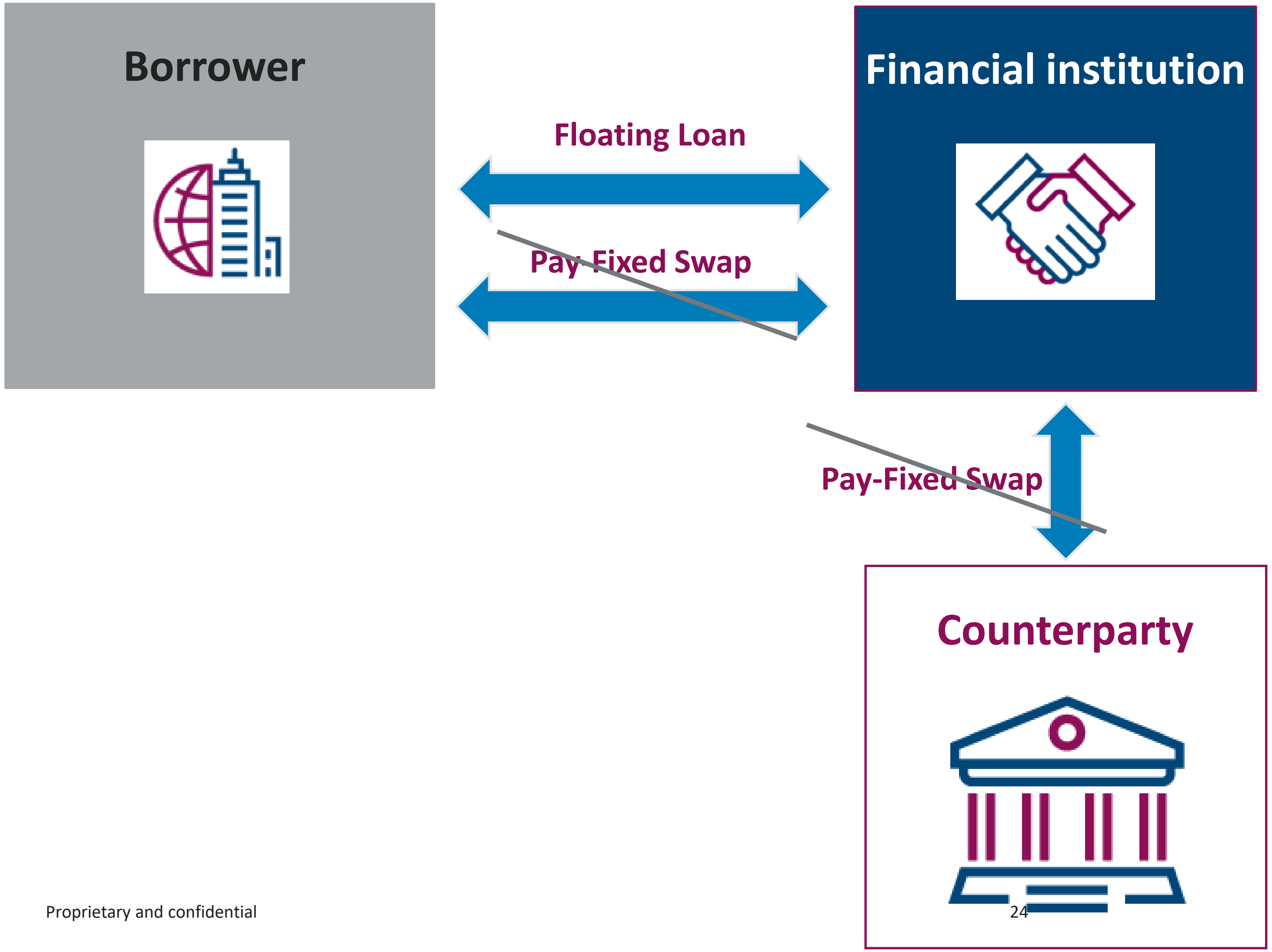
- Borrower has floating-rate loan and pay-fixed swap
- FI offsets Borrower-facing swap with Dealer-facing swap
- Recognize fee income upfront and loan spread over term

The net result

Borrower has a “fixed-rate” obligation and FI has a “variable-rate” asset

Back-to-back swaps

Win-win for bank and borrower



- Fund a floating-rate loan
- Execute a pay-fixed swap with the borrower at loan closing and simultaneously execute an identical swap with a dealer
- **<u>Recognize fee income in the current period</u>**
- Win-win: Bank achieves floating rate exposure on their asset while the borrower has a fixed rate exposure on their loan.
- Creates access to swaps for balance sheet risk management
- Loan is Eligible Collateral for FHLB Borrowings

Understanding the risks of hedging

Understanding the risks to hedging

Risk Consideration	Description	Mitigation
Credit risk	Counterparty defaults or fails to meet obligations under swap contract	Exposure to FHLBC with a Aaa/AA+ Credit Rating or collateral agreements with other Brokers
Market risk	Swap valuations fluctuate and are collateralized with liquid assets	Potential volatility can be projected, and liquidity and collateral needs can be budgeted
	Prices, rates, market volatilities, and basis between rates can change without notice	Changes in market variables should be assessed pre-trade; hedge accounting should be utilized to minimize earnings volatility and mismatches
Operational risk	Problems with payments, collateral, accounting due to poor systems or controls	Educate stakeholders in their roles and responsibilities; utilize system to warehouse, track, and report on positions
Compliance risk	Violations or nonconformance with laws, rules, regulations, prescribed practices or ethical standards	Design-in compliance with regulation in systems, processes, and documentation
Reputational risk	Negative public opinion due to poorly conceived, misused, or mismanaged derivatives	Educate stakeholders in their roles and responsibilities; consider impact of derivatives not working as intended

How to get started

Adding the hedging tool to the interest rate risk management toolkit

Stakeholders

- Executive Management & Board
- Finance/Treasury
- Accounting
- Credit/Risk
- Legal/Regulatory

Action Items

Treasury/Finance

- Develop hedging policy
- Request Board approval
- Obtain GMEI
- Identify dealer counterparties
- Review online collateral management tool

Action Items

Accounting

- Establish G/L accounts
- Create procedures for hedge designation memo
- Record monthly journal entries
- Complete call reports and financial disclosures
- Review hedging strategies with Auditors
- Understand new hedge accounting guidelines

Risk

- Approve dealer counterparties
- Establish dealer exposure monitoring policy

Legal/Regulatory

- Understand Dodd-Frank requirements including central clearing and end-user exemption
- Approve dealer counterparty ISDA documentation

Takeaways

- Get ahead of the game - add the tool to your toolkit

- Take advantage of the unique and powerful opportunity provided by FHLBC

- Be prepared. Plan and document your strategies today, so that you are ready to execute when the market moves in your direction

- Know the risks involved - education is key

Chatham resources – Come meet us at www.chathamfig.com

Our solutions for financial institutions

Interest Rate Risk Management

Learn how we help optimize your balance sheet and meet your customers' need for fixed-rate loan solutions.

Balance Sheet Risk Management

Learn how this solution can help you optimize your balance sheet and compete more effectively.

Borrower Swap Solution

Explore our solution that helps you offer long-term, fixed-rate financing to your customers.

Fixed Rate Loan Hedging

Learn how you can hedge fixed-rate loans while managing your financial institution's interest rate risk.

Hedge Accounting

Get expert advice on structuring and monitoring hedges to achieve optimal financial statement impact.

Regulatory Compliance Advisory

Learn how we help financial institutions address compliance issues related to using derivatives.

Commodity Risk Management

Learn how we work with financial institutions to help their customers manage commodity risk.

Insights / **Current themes to manage your financial institution's interest rate risk**

MARKET UPDATE

Current themes to manage your financial institution's interest rate risk

Interest rate risk is back in the headlines and on the minds of many executive teams and boards of directors. Just a few weeks ago, financial institutions (FIs) were focused on deposit flows and thinking about the impact of an economic decline on credit quality. But the events surrounding the recent bank failures have brought interest rate risk management back to the forefront.

As a result, we've experienced a significant increase in hedging conversations and seen a record level of hedging activity with our FI clients. Banks and credit unions of all sizes throughout the country are placing tighter guardrails around their tolerance for financial risk. From our recent conversations, we wanted to share the following themes for consideration:

1. FIs have realized that low-probability scenarios (like +/- 400 bps shocks) are no longer theoretical and are looking at how they can manage those outlier scenarios with hedging strategies.
2. Hedging has coalesced around two concerns: OCI (and its resulting impact on TCE) and the cost of liquidity.
3. Nearly two-thirds of our clients' hedging activity YTD is to protect against rising rates, typically via a pay-fixed swap.
4. FIs are not hedging all their risk to rising rates or even most.

With so much uncertainty in the markets, many FI's are looking for efficient ways to harness the volatility and manage potential risks so they can continue to grow the business as conditions change.

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