

# Hedging the Loan Portfolio

*With Rising Rates, Lenders Need to Look at Mitigating Risk*

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**H**edging the portfolio has become an increasingly important topic of conversation for mortgage lenders. These discussions have become more prominent as profitability in today’s residential lending market has become exceedingly challenging.

According to the Mortgage Bankers Association, with the cost to originate a mortgage rising to \$8,174, net production income reached its lowest third-quarter level since the inception of the analysis by the MBA in 2008. Lenders made only \$480 per loan in the third quarter, causing a focus to shift heavily on the profitability of programs.

Historically, depository clients have originated loans and either immediately sold them or strategically held them in portfolio. For the last decade we’ve enjoyed a period of gradually falling rates: Any loan you originated yesterday was worth more tomorrow.

However, the last 18 months have been a period of rapidly rising rates, and few of our credit union clients elected to hedge their portfolio. A chart (Figure 1) shows the 10-year Treasury dating to July 2016.

This situation has caused portfolios to sink underwater and often be valued below PAR today. This can harm liquidity in the portfolio when sellers are resistant to letting go of loans at a loss.

Enter the conversation of hedging the portfolio. Under NCUA rules (12

CFR Section 703, Subpart B), credit unions are permitted to engage in limited interest rate derivative activity. Federal credit unions must apply for and obtain approval from the NCUA. A federally insured state-chartered credit union’s authority to

use derivatives is determined by their relevant state.

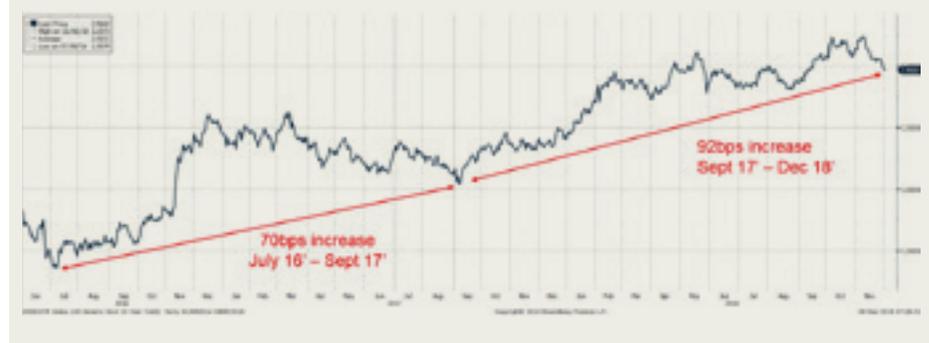
The NCUA derivatives regulations (Figure 2 and Figure 3) outline requirements in the general areas related to the usage of derivatives.

In addition, the Federal Accounting Standards Board (FASB) has recently relaxed its existing hedge accounting rules; they now allow an entity such as a credit union to hedge a portfolio of pre-payable loans (such as residential mortgages or member business loans).

While hindsight is 20/20, a credit union that chose to portfolio 30-year fixed-rate residential mortgages back in July 2016 is subject to substantial interest rate risk. That credit union can now take advantage of this FASB update to help mitigate future interest rate risk on the portfolio.

The CU can do this by choosing to

**FIGURE 1: TEN-YEAR TREASURY**



**FIGURE 2: ELIGIBILITY/PERMITTED DERIVATIVES**



**FIGURE 3: PERMISSIBLE DERIVATIVE STRUCTURES /CHARACTERISTICS**

**Permissible Derivative Structures**

- Interest Rate Swaps
- Purchased Interest Rate Caps
- Purchased Interest Rate Floors
- Basis Swaps
- Treasury Futures

**Permissible Derivative Characteristics**

- Amortizing notional amounts
- Forward Starts (90 days maximum)
- 15 years maximum maturity
- USD denominated
- Not leveraged
- No embedded optionality

hedge, using a single-pay fixed-interest rate swap (a permissible product under NCUA derivative rules) for a partial term, rather than up to the final maturity of the portfolio.

This approach simplifies how credit unions can manage interest rate risk in an accounting friendly way and offer competitive loans to their borrowers. This approach offers several features, including:

- (1) Loans can be structured to meet a member's needs rather than accounting needs.
- (2) Loans can be funded with core deposits rather than needing to

match fund with higher-cost wholesale funding.

(3) It can be more convenient for the member with no need for the member to engage in a swap or for the credit union to embed "swap-like" terms such as make whole penalties in the loan agreement.

As an example, the credit union would identify a loan portfolio of pre-payable, fixed-rate assets that it wants to hedge. The swap would be sized with an eye toward those loans not expected to pre-pay (hedged portion) and the remaining portion would be unhedged (Figure 4).

**FIGURE 4: TOTAL PORTFOLIO**

Total Portfolio	Unhedged Portion	Hedged Portion
\$50 million	\$25 million (50%)	\$25 million (50%)
4.50% Yield	4.50% Yield	Converted to 1m LIBOR +1.64%
30Y (8Y WAL)	30Y (8Y WAL)	8Y amortizing swap

The value of derivatives are generally derived from the performance of an asset, index, interest rate, commodity or currency. Derivatives are investment instruments that consist of a contract between parties whose value derives from and depends on the value of an underlying financial asset. Interest-rate swaps usually involve the exchange of a fixed interest rate for a floating rate, or vice versa, to reduce or increase exposure to fluctuations in interest rates or to obtain a marginally lower interest rate than would have been possible without the swap. If the holder of the floating rate is unable to make payments under the swap agreement, the holder of the fixed rate has credit exposure to changes in the interest rate agreement. U.S. Treasury securities are guaranteed by the U.S. government and, if held to maturity, offer a fixed rate of return and guaranteed principal value.

Hedging is a risk management technique used to reduce any substantial losses or gains suffered by an individual or an organization. Hedging against investment risk means strategically using instruments in the market to offset the risk of any adverse price movements.

The swap can be structured with considerable flexibility to meet targeted maturity and amortization (Figure 5). The chart and related example (Figure 6) show how a credit union could triangulate the expected term and amortization of the swap.

**FIGURE 5: INDICATIVE SWAP PRICING**

Swap Tenor	Interest Only	10y Amort	20y Amort	30y Amort
2 years	2.81%	2.81%	2.81%	2.81%
3 years	2.83%	2.83%	2.83%	2.83%
4 years	2.83%	2.83%	2.83%	2.83%
5 years	2.83%	2.83%	2.83%	2.83%
6 years	2.83%	2.83%	2.83%	2.83%
7 years	2.86%	2.85%	2.86%	2.86%
8 years	2.87%	2.86%	2.86%	2.86%
9 years	2.88%	2.86%	2.88%	2.88%
10 years	2.90%	2.87%	2.89%	2.89%

Assumes monthly pay vs. 1-month LIBOR. Amortization based on 5.00% rate, mortgage style.

**FIGURE 6: EXPECTED 8Y SWAP RETURN**

*Example assuming a 8Y swap with 30Y amortization:*

Assumed Average Loan Coupon	4.50%
Hedged Swap Rate	2.86%
Net Spread	1.64%
<b>Hedged Portfolio earns LIBOR + 1.64%</b>	

This is still a very new process for most of our credit union customers. We hope that this information helps them form their policy and comfort level with the product.

Content sources include Bloomberg and HousingWire.

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