STARTING THE YEAR RIGHT: STRATEGIES FOR SUCCESS IN 2021

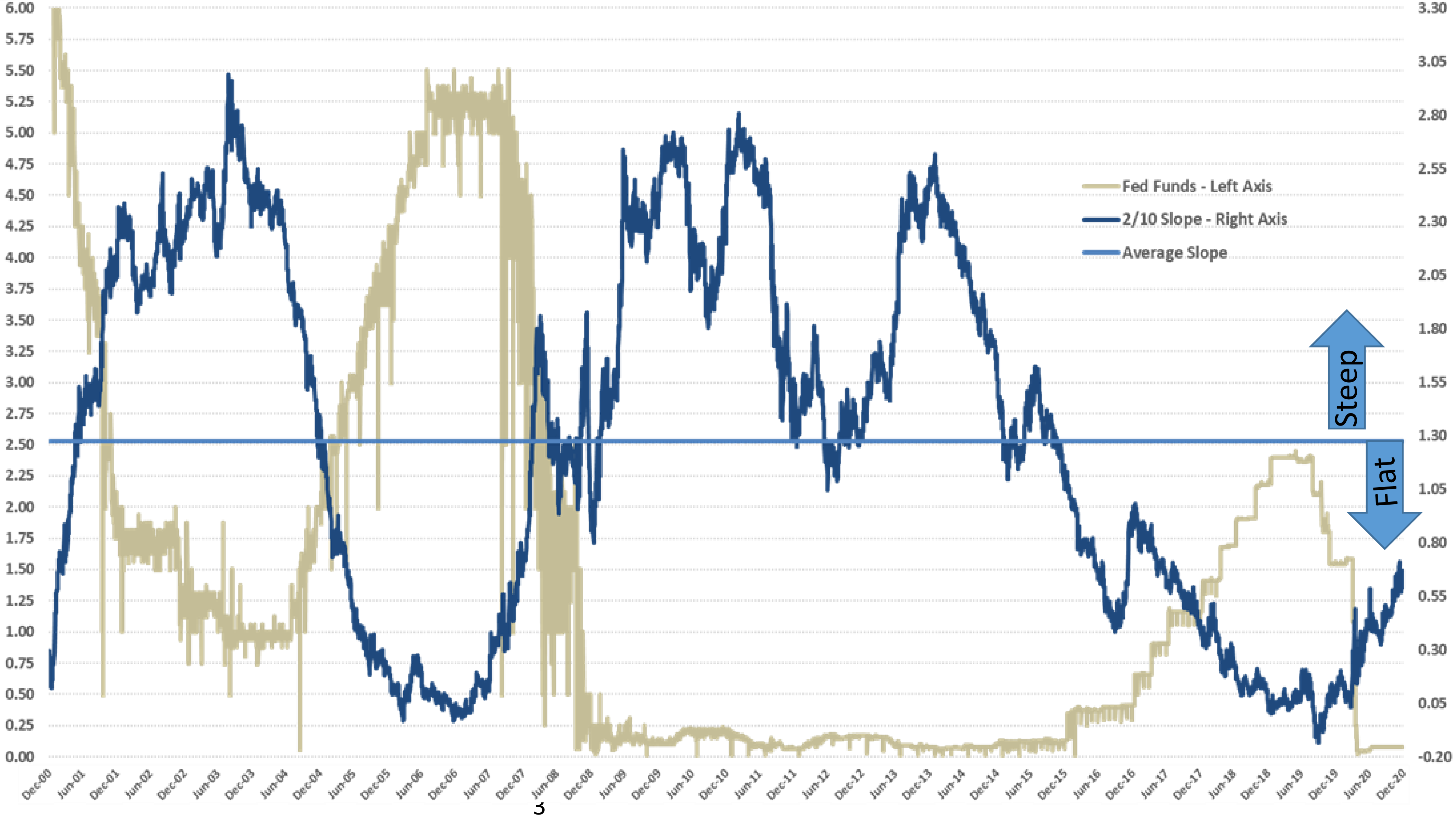
VINING SPARKS
INTEREST RATE PRODUCTS, LLC

CONTENTS

NEW NORMAL? NEW SOLUTIONS?

Slope

- *Last 20-years: 128bps*
- *Last 5-years: 41bps*
- *Last 3-years: 33bps*
- *Last 2-years: 20bps*
- *Current: 60bps*



COMMON ISSUES

Issues Being Faced by Institutions

- Deposits have surged as interest rates have declined. Record cash levels earning very little.
- Loans have increased from PPP but those loans may be repaid or forgiven soon, further increasing the liquidity problem.
- New lending opportunities are diminishing.
- Interest rate volatility has increased.

TACTICAL ASSET CONSIDERATIONS

Initial Steps and Issues to Address

- Consider the cost of retaining excess liquidity.
- Model investment strategies to determine impact on earnings and risk. Invest in the steepest yield curve.
- Understand risk to small interest rate (100 to 200 bps) changes and changes in curve slope. All strategies should be evaluated against existing balance sheet.
- Understand risk at different points of the yield curve: securities, loans, and funding are driven by different points of the curve.
- Monitor and control commercial loan interest rate locks. Volatility always works against the lender.

TACTICAL FUNDING CONSIDERATIONS

Efficient Funding is Critical

- How much has PPP inflated your deposits? How sticky are they?
- Can you lower your retail cost of funds more:
  - Marginal cost of funds considerations
  - Reevaluate tiers and rates
  - Review one product customer rates
- A combination of cheapest available wholesale funds and aggressive analysis of retail deposits may reduce cost of funds.
- Cost of funds efficiency allows you to successfully compete in all areas.
- Look forward, not backwards. We may have seen the low in rates.

STRATEGIES FOR SUCCESS IN TODAY'S ENVIRONMENT

Provide Products Demanded by Customers

- **You get more at a better price when you provide what is demanded**
- **Using your customer base to manage interest rate risk causes sub optimal results**

1. **Loan Hedging** – win/win for lender and borrowers
   - Increase profitability with individual loan hedges –added an average of 1.74% to new business profitability via fees paid in 2019
   - Increase commercial and consumer volume while controlling interest rate risk
   - Surprise borrowers by using forward starting swaps
2. **Investment Opportunities** – dealing with the treasurer's dilemma
   - Invest in assets with the most spread and eliminate/reduce duration mismatch
   - Better spreads than natural floaters
3. **Core Funding** – focus on lowering costs
   - Consider opportunities to lower retail cost of funds
   - Evaluate "stickiness" of new deposits
4. **Wholesale Funding/Hedges** – obtain cheapest funding to add assets
   - Replace disintermediated retail funds
   - Using swaps results in significantly lower funding costs versus traditional fixed rate sources
   - Lock in today's levels with forward starting swaps

LOAN HEDGING OPPORTUNITIES

WHY LOAN HEDGING IN 2021?

Current Market Is Ideal for Loan Hedging

- Largest banks and corporations worked through the pain and adverse consequences years ago.
- The flat yield curve limits the up-front cost of converting a long-term fixed rate asset to a short-term floater.
- Prepayment language concerns are reduced when initial interest rates are low. We can document the risks/rewards for borrowers.
- Liquidity is generally plentiful and adding these assets does not increase interest rate risk.
- Accounting rules have changed and are no longer to be feared.

BENEFITS OF COMMERCIAL LOAN HEDGING

Commercial loan hedging provides *win/win* for lender and borrower

- Provides borrowers with products that meet *their* needs
- Improves profitability by increasing average life of loans
- Decreases credit risk by reducing rising rate/balloon risk
- Gives the community institution tools to compete with larger institutions
- Provides real time market pricing and prepayment discipline
- Minimal cost to add floating rate assets versus fixed rate assets in today’s market

COMMERCIAL LOAN HEDGING

Borrower wants a 10-year fixed rate loan with 25-year amortization. The competition is offering a 3.50% fixed rate. Will you match it?

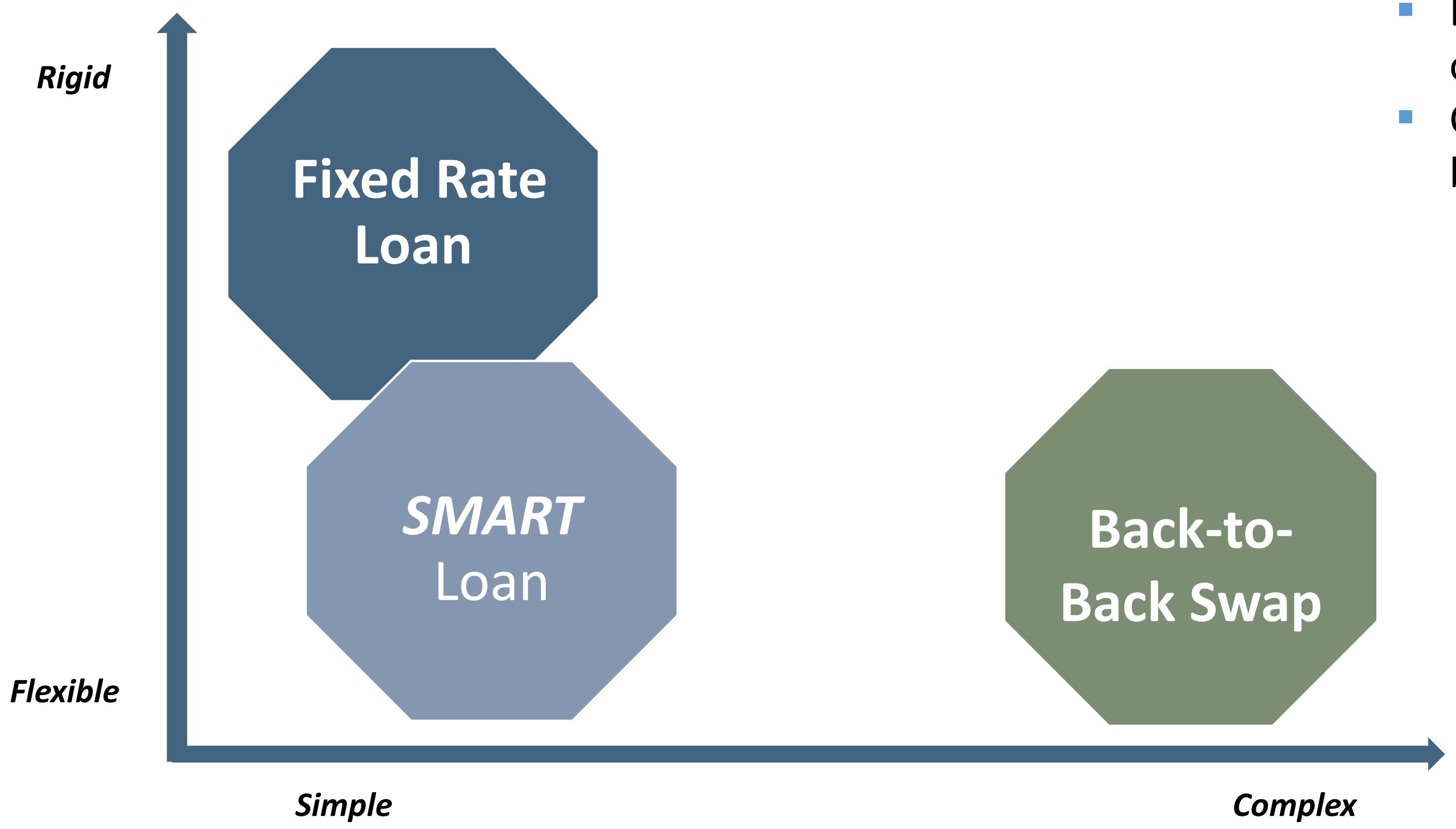
Using a loan hedging program, you can convert that fixed rate to floating rate of effective fed funds (EFF) plus 260bps or Prime minus 45bps. Includes 20bps upfront fee income that goes into current noninterest income.

A few details about our *SMART* loan product:

- Borrower does not have a swap: no ISDA, no Dodd-Frank eligibility requirements
- Borrower deals only with the lender, making one fixed payment
- Borrower has a market unwind in the event of prepayment
- Fee income can be material = $20mm of 10/25 loans with typical fee income is over $400,000 or 2.00% of initial loan balance

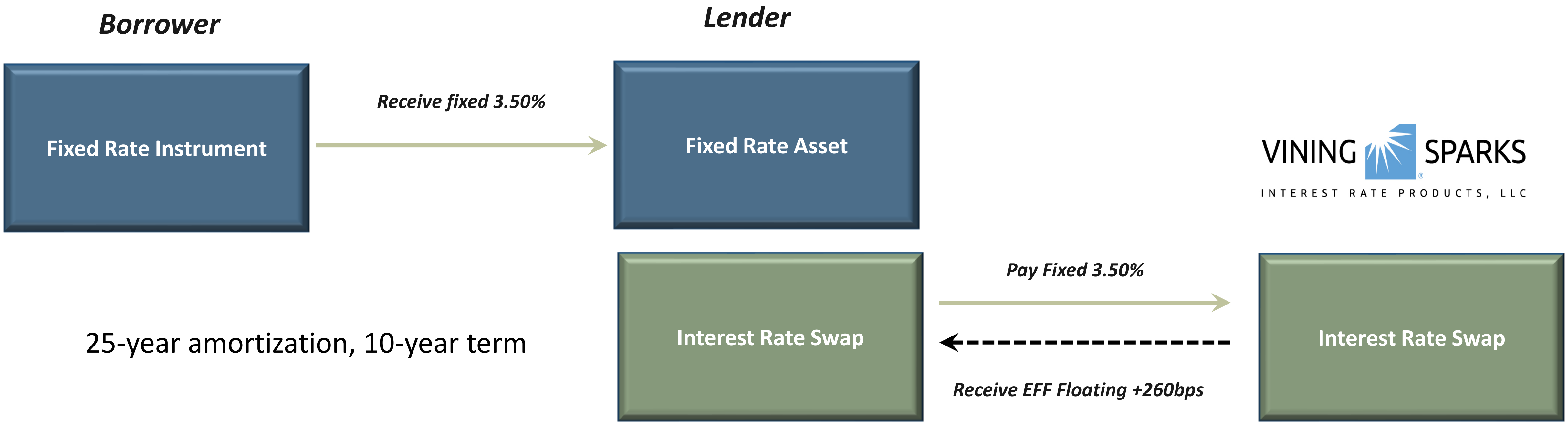
HOW DO YOU WANT TO FACE YOUR BORROWER?

Three flexible options for offering fixed rate financing to your borrowers



- Each provides identical economic characteristics
- Each uses an identical pay fixed swap to create
- Choose the one most appropriate for your borrower
  - **Fixed Rate Loan** – the traditional fixed rate loan…plus a prepayment penalty
  - ***SMART* Loan** – VSIRP's proprietary product. As simple as the fixed rate loan with additional fee income and accounting benefits
  - **Back-to-Back Swap** – The traditional method employed by the big banks. Provides greater flexibility, but with added complexity, compliance and reporting requirements

USING SWAPS TO CREATE FLOATING RATE ASSETS



<u>Institution's Cash Flows</u>

Receives Fixed on an Asset	3.50%
Institution Pays Fixed (Vining Swap)	(3.50%)
Institution Receives Floating (Vining Swap)	<u>Floating (EFF+260bps)</u>
Net Floating Rate Received	**EFF +260bps**

COMMERCIAL LOAN HEDGING BENEFITS

Fee Income:

- Fees are paid from the swap counterparty, not from the borrower, and are immediately recognized in income statement
- Fee income can offset the impact of compressing margins and generally eliminates the first two years of lost margin between fixed and variable rate

Flexibility:

- Lender/customer determines the pricing and structure: choose index, amortization structure, payment frequency
- It’s your credit – we do not get involved with your customers

Forward Starts:

- Lock in customers now on new loans, modifications, or construction loans
- Use forward starts – Minimal cost to borrower. HELP THEM DO IT!

LOAN PORTFOLIO HEDGING

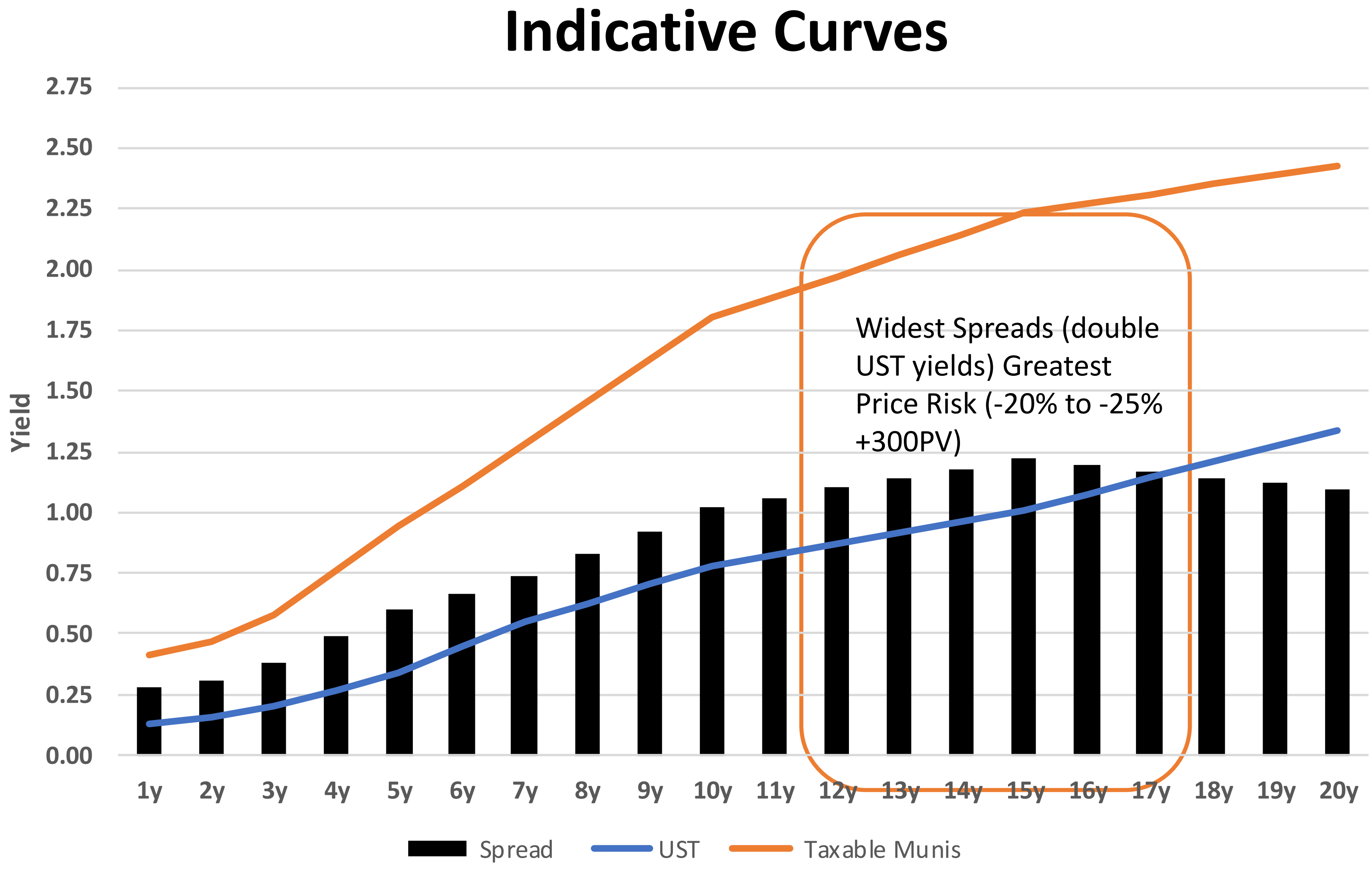
Hedge a New or Existing Loan Portfolio

- Consumers desire 15- or 30-year fixed rate mortgage loans at rates that create long term interest rate risk.
- Recent accounting changes allow hedging part of a portfolio to convert a portion from fixed to floating without involving the customer.
- The flat yield curve limits the upfront costs.
- Accounting rules allow the investor to adjust the hedge in the future at market without significant implications i.e. no restatements.
- Can be used for commercial loans, MBS, and CMBS.

INVESTMENT OPPORTUNITIES

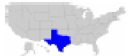
INVESTING FOR SPREAD

Taking Advantage of Relative Steepness in Muni Curve to Add to Core Earnings Portfolio



EXAMPLE BOND OFFERING

Current Municipal Offering


click for online map

Fixed & Floating Rate Muni - Prepurchase Analysis			
Issuer / State	Tomball ISD		TX
Addl Info / Type	MuniPOINTS link	Helpful Files	UTGO
CUSIP / Cpn / Tax	889855M58	4.000%	GMKT
Ratings / Ins / COF	Aaa	PSF	0.00%
Par / Price / Settle	1,750,000	$122.503	11/4/20
Call (9 years)	2/15/2030	Raw YTC Fixed	1.41%
Sink (n/a)		Raw YAC Fixed	4.000%
Maturity (9 years)	2/15/2030	Raw YTM Fixed	2.373%
Swap Rate	0.69%	PV +300 Fixed	-24.80%
Swapped	to call	PV +300 Floating	-2.43%

	C-Corp		S-Corp	
Tax Rate	21%	27.5%	29.6%	37%
Fixed YTC TEY (for 9 years)	1.78%	1.94%	2.00%	2.23%
Fixed YAC TEY (after 9 years)	5.06%	5.52%	5.68%	6.35%
Fixed YTM TEY (for 9 years)	3.00%	3.27%	3.37%	3.77%
Floating Rate (to call)	EFF +109	EFF +125	EFF +131	EFF +154
Current Floating YTC TEY	1.17%	1.33%	1.39%	1.62%
+300 Floating YTC TEY	4.17%	4.33%	4.39%	4.62%
+600 Floating YTC TEY	7.17%	7.33%	7.39%	7.62%

	C-Corp		S-Corp	
Tax Rate	21%	27.5%	29.6%	37%
Bond Details*				
Receive Fixed Coupon	4.00%	4.00%	4.00%	4.00%
Premium Amortization	-2.60%	-2.60%	-2.60%	-2.60%
Discount Accretion	0.00%	0.00%	0.00%	0.00%
Raw YTC Fixed	1.41%	1.41%	1.41%	1.41%
TEY Adjustment	0.37%	0.53%	0.59%	0.83%
Net Nominal Fixed TEY	1.78%	1.94%	2.00%	2.23%
Bond Price Volatility +300	-24.80%	-24.80%	-24.80%	-24.80%
Swap Details*				
Pay Fixed Rate/Coupon	-4.00%	-4.00%	-4.00%	-4.00%
Receive Floating EFF	0.08%	0.08%	0.08%	0.08%
Receive Spread	3.31%	3.31%	3.31%	3.31%
Net Swap Expense	-0.61%	-0.61%	-0.61%	-0.61%
Swap Price Volatility +300	22.37%	22.37%	22.37%	22.37%
Hedged Net Impacts*				
Net Floating TEY	1.17%	1.33%	1.39%	1.62%
Net Floating Price Volatility +300	-2.43%	-2.43%	-2.43%	-2.43%

EXAMPLE INVESTING OPPORTUNITY

Purchase Texas PSF 9-year general market muni with a 1.94% yield and up 300 price volatility of -24.8%

Using an interest rate swap, you convert the fixed rate to EFF plus 125bps (now 1.33%). The swap reduces price volatility from -24.8 to -2.4%.

A few details:

- The hedge is only until the call date – after the call date, the bond is effectively fixed
- Only underlying market rates are hedged
  - If muni spreads change, that value is not hedged
- Applies to existing securities or new purchases
- You determine the underlying index – LIBOR, Effective Fed Funds or SOFR

EXAMPLE INVESTING OPPORTUNITY

Trade Idea:

- Institution buys 9nc/9 PSF muni
- Institution executes a 9-year pay fixed swap with VSIRP

Institution gives up $6,100 of interest income to protect $244,000 of MV in +300bps environment assuming a $1mm transaction

Details:

1. Institution receives fixed from muni: 1.94%
2. Institution pays fixed on interest rate swap: .69%
3. Institution receives effective fed funds: .08%

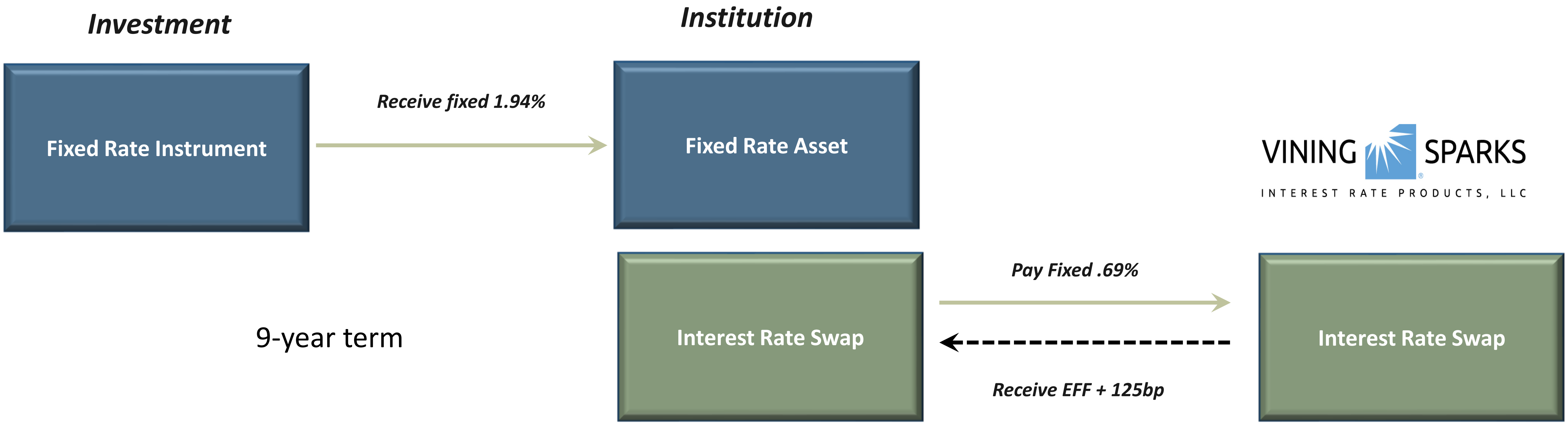
125bps

Current floating rate yield: 1.33%

Primary Risk

The floating yield over the life of the transaction will be the spread between the fixed rate on the swap and the fixed yield on the bond (125bps) plus effective fed funds

USING SWAPS TO CREATE FLOATING RATE ASSETS



<u>**Institution's Cash Flows**</u>

Receives Fixed on an Asset	1.94%
Institution Pays Fixed (Vining Swap)	(.69%)
Institution Receives Floating (Vining Swap)	<u>Floating (EFF)</u>
Net Floating Rate Received	**EFF + 125bps**

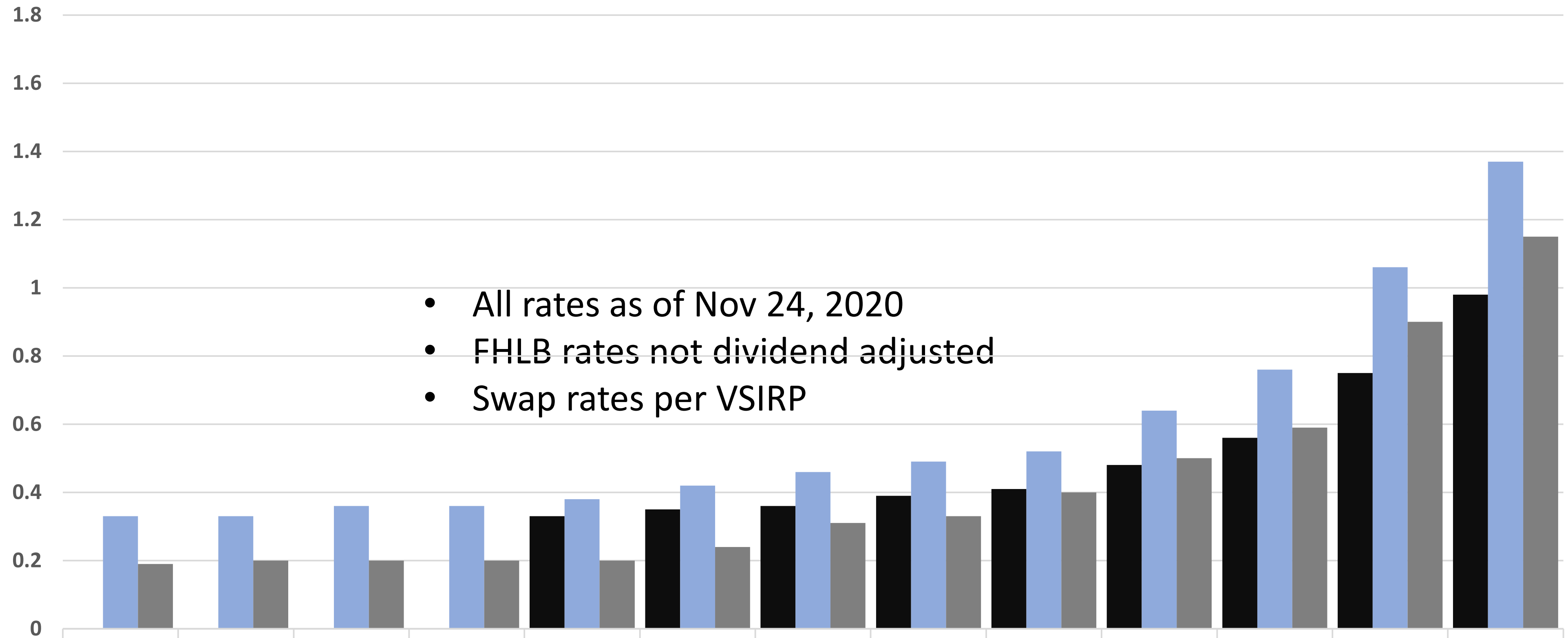
FUNDING OPPORTUNITIES

FUNDING

USE WHOLESALE FUNDING THAT WORKS BEST FOR YOUR BALANCE SHEET

- FHLB Advances
  - Primary source of liquidity for most community institutions
  - No impact on local market pricing
  - Requires stock ownership and collateral
  - Generally pay above market rates on stock ownership
- Brokered CDs
  - Provides unsecured liquidity
  - Does not disrupt local market pricing
- Wholesale money market accounts
  - Reciprocal
  - One-way buys or sells

FUNDING COST SPECTRUM



- All rates as of Nov 24, 2020
- FHLB rates not dividend adjusted
- Swap rates per VSIRP

	1M	3m	6m	9m	1Y	1.5Y	2Y	2.5Y	3Y	4Y	5Y	7Y	10Y
LIBOR swap rate					0.33	0.35	0.36	0.39	0.41	0.48	0.56	0.75	0.98
FHLB NY	0.33	0.33	0.36	0.36	0.38	0.42	0.46	0.49	0.52	0.64	0.76	1.06	1.37
Brokered CD	0.19	0.20	0.20	0.20	0.20	0.24	0.31	0.33	0.40	0.50	0.59	0.90	1.15

Note: FHLB NY dividends adjust rates approximately 20 bps

CURRENT FUNDING OPPORTUNITY

Trade Idea:

- Institution borrows 3-month FHLB advance, (rolls every 3 months)
- Institution executes a 5-year pay fixed swap with VSIRP

Details:

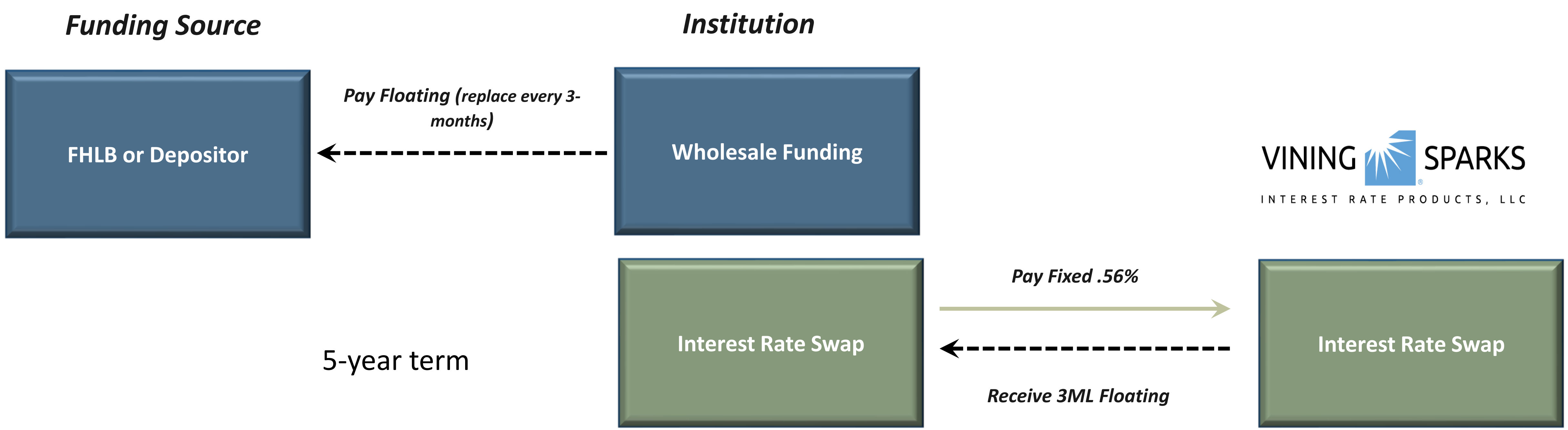
1. Institution pays on 3-month advance: .33% resets every 3 months
2. Institution pays fixed on interest rate s .56%
3. Institution receives floating on swap (3 ML): .21% resets every 3 months

Net funding cost for first three months: .68%

Primary Risk

The actual cost over the life of the transaction will be the fixed rate on the swap, plus or minus the difference between 3-mo LIBOR and actual 3 month borrowing costs

USING SWAPS TO CREATE FIXED RATE FUNDING



<u>Institution's Cash Flows</u>

Pays Floating to FHLB or Depositor	(Floating)
Institution Pays Fixed (Vining Swap)	(.56%)
Institution Receives Floating (Vining Swap)	<u>Floating (3ML)</u>
Net Fixed Rate Paid	**(.56%) +/_ difference in floating rate funding and 3ML**

FORWARD FUNDING OPPORTUNITY

Trade Idea: (Actual Trade)

- Institution executes a 2-year forward starting pay fixed swap with VSIRP
- Locks-in current low fixed rates on future floating rate funding
- No impact on interest income/expense until swap starts
- Great for those with current excess liquidity

Details:

Notional Amount:	$10,000,000
Execution date:	11/20/2020
Swap Start date:	2-years forward (11/20/2022)
Swap Maturity:	7 years (locks in 5-year funding)
Institution pays fixed:	.675% (beginning in 2-years)
Institution receives floating:	Fed Funds Effective (beginning in 2-years)

FUNDING CONSIDERATIONS

Consider locking in funding costs on:

- Floating rate FHLB advances
- Insured money market deposits
- Floating rate holding company debt/Trust Preferred
- Short-term CDs
- Floating rate core deposits

Consider forward starting swaps to lock in future funding costs on:

- Floating rate FHLB advances
- Fixed rate FHLB advances maturing in the future
- Floating rate holding company debt

Consider extending funding maturities on:

- Maturing FHLB advances
- Maturing brokered CDs

INTEREST RATE PRIMER

WHY ARE SWAPS OF VALUE NOW

Most Efficient Balance Sheet Management Tool Available

- A valuable solution to the treasurer's dilemma:
  - When rates are high, have no funds to invest
  - When rates are low, liquidity is plentiful, but investments are unattractive
  - Don't need wholesale funds when long term, low rates are available

- The horror stories of the past are the result of big banks absorbing the learning curve. Community institutions can use the lessons taught.

- FASB changes have virtually eliminated the difficult accounting and financial statement risks

WHAT IS AN INTEREST RATE SWAP?

What is an interest rate swap? An interest rate swap is an agreement between two parties (referred to as counterparties) under which a series of fixed rate payments are exchanged for a series of floating rate payments for an agreed upon term.

What are the critical terms associated with swaps?

1. **Notional** – The amount to which interest rates are applied to compute periodic payments
2. **Floating index** – The specific underlying interest rate used for computing the floating rate payments (LIBOR and Prime are the most common)
3. **Reset frequency** – The frequency with which the floating index is adjusted (example: monthly, quarterly or semi-annually…)
4. **Payment frequency** – The frequency with which interest payments are made (example: monthly, quarterly or semi-annually…)
5. **Term** – the agreed upon maturity of the swap transaction

PRIMARY USES FOR SWAPS

Swaps are typically used to "hedge" or offset exposure to changing interest rates. Swaps are used to change the rate basis (i.e., fixed to floating or floating to fixed) on an underlying financial asset or liability or portfolio of financial assets or liabilities.

Typical Transactions:

Pay fixed swap hedges exposure to rising rates

- Converts fixed rate asset to floating rate
- Converts floating rate liability to fixed rate

Receive fixed swap hedges exposure to falling rates

- Converts floating rate asset to fixed rate
- Converts fixed rate liability to floating rate

RECAP

- Interest rate products are the most effective tools for interest rate risk mitigation
- Interest rate products can improve and protect margins
- They produce win/win situations by creating the rate basis preferred by both the customer and the institution
- They are readily available to community and mid-sized institutions
- Education and training are keys to proper use
- Specialized expertise is beneficial for strategy development, trade design, trade execution and post-trade accounting support

Thank You!

VSIRP

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