

Is Your CU Ready for **Volatile/ Rising Interest Rates?**



2019 Strategies for Continued Rising Rates:

*How to Add Floating Rate
Investments and Floating
Rate Loan Participations*

Presented By:

Mark B. Wickard - Managing Director
*Credit Union Investment Strategy Group of
Oppenheimer & Co. Inc.*



Mark B. Wickard

About Me...

- 30 Years of Credit Union Investment Consulting Experience and currently the Managing Director of the Credit Union Investment Strategy Group located in East Lansing, Michigan.
 - Continues to work with credit unions nationwide with assets ranging from \$20MYN to over \$8BYN
 - In 1986, assisted Dr. John R. Brick, a professor of Finance, as well as a leading and long-standing authority on Asset Liability Management for credit unions, in the Beta Site testing of his ALM software known as *CU/ALM-ware*.
 - In 1993, founded the PaineWebber Credit Union Investment School.
 - In 1997, co-authored the book Credit Union Investment Management, along with Dr. Frank Fabozzi.
 - In December 2004, Mark provided training to the NCUA in the area of investments.
 - In 2014, Mark was named to Barron's List of America's Top 1,200 Brokers in Michigan.
 - In August 2015, Mark presented at the *CUNA Economics and Investments Conference* in San Diego, CA
 - In November 2016, Mark presented at the REACH 2016 CA/ NV Conference in Las Vegas, NV.
 - In August 2017, Mark presented at the *CUNA Economics and Investments Conference* in Las Vegas, NV
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- Most Recently in 2018, Mark was a regular contributor to CU Business Magazine on Investments & CU Profitability

The Credit Union Investment Strategy Group

Credit Union Team w/ over 100 years Combined Experience

- Fixed Income Professionals (9 person Team) – Offering full service regulatory reporting and 3rd party bond accounting service
- Team works with credit unions across the country - Providing on-site visits with management and the Board regarding their investment portfolio / Provides ongoing investment education to management and the Board

Investment Yield

- Focusing on Investment Yield can make a critical difference in the portfolio
- Innovative Investment Strategies – We act as a strategic partner with our clients, who commit to a once per month strategy call. No constant solicitations via email/phone.
- Addressing Investment Portfolio Yield has put some CU's in the top tier for their respective state, as captured by NCUA.gov. (public data)

Credit Union Investment Strategy Group

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Today's Agenda

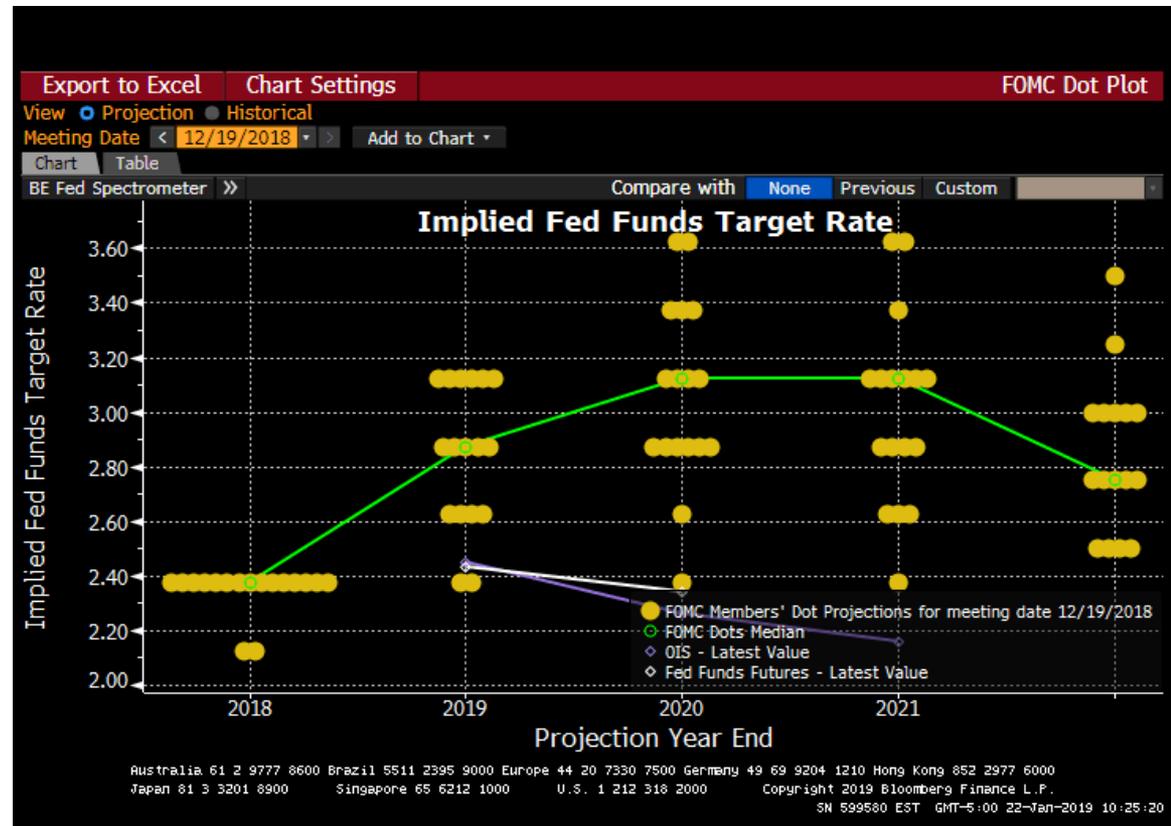
- **Interest Rate Perspective 2019** – Is Your CU ready for Rising/ Volatile Rates? Inverted Yield Curve?
- **Differentiating between Floating & Adjustable Rate**
- **What Are the Best Floating Rate Choices?**
- **Why SBA's?**
- **Too Much of a Good Thing...?**

Appendix: Background on How We Arrived at This Critical Juncture for CU's in 2019

What Are Interest-Rate Expectations for 2019-2020 & Beyond...

The **DOT PLOT** indicates that the FED expect the “Fed Funds Rate” to rise –

This does **NOT** mean all rates across the curve will rise.



The 10YR TSY Historical Interplay Between FOMC Activity and the Yield Curve Can be A Predictive Tool for Recessions.

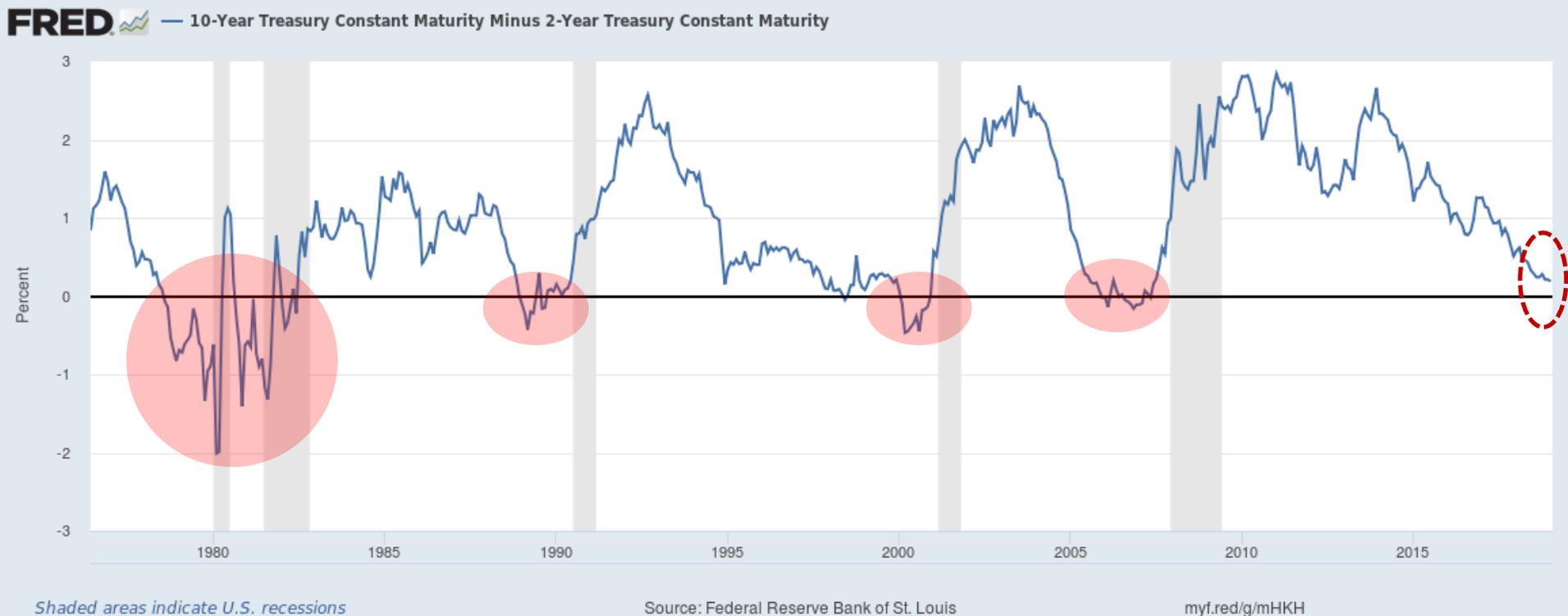
10 YR TSY =
Yellow Line

FED FUNDS
Target =
White Line



What Can the Spread Between the 2YR/ 10YR Treasury Tell Us About the Economy?

Yield Curve Flattening to Continue? **Signal for Pending Recession?**

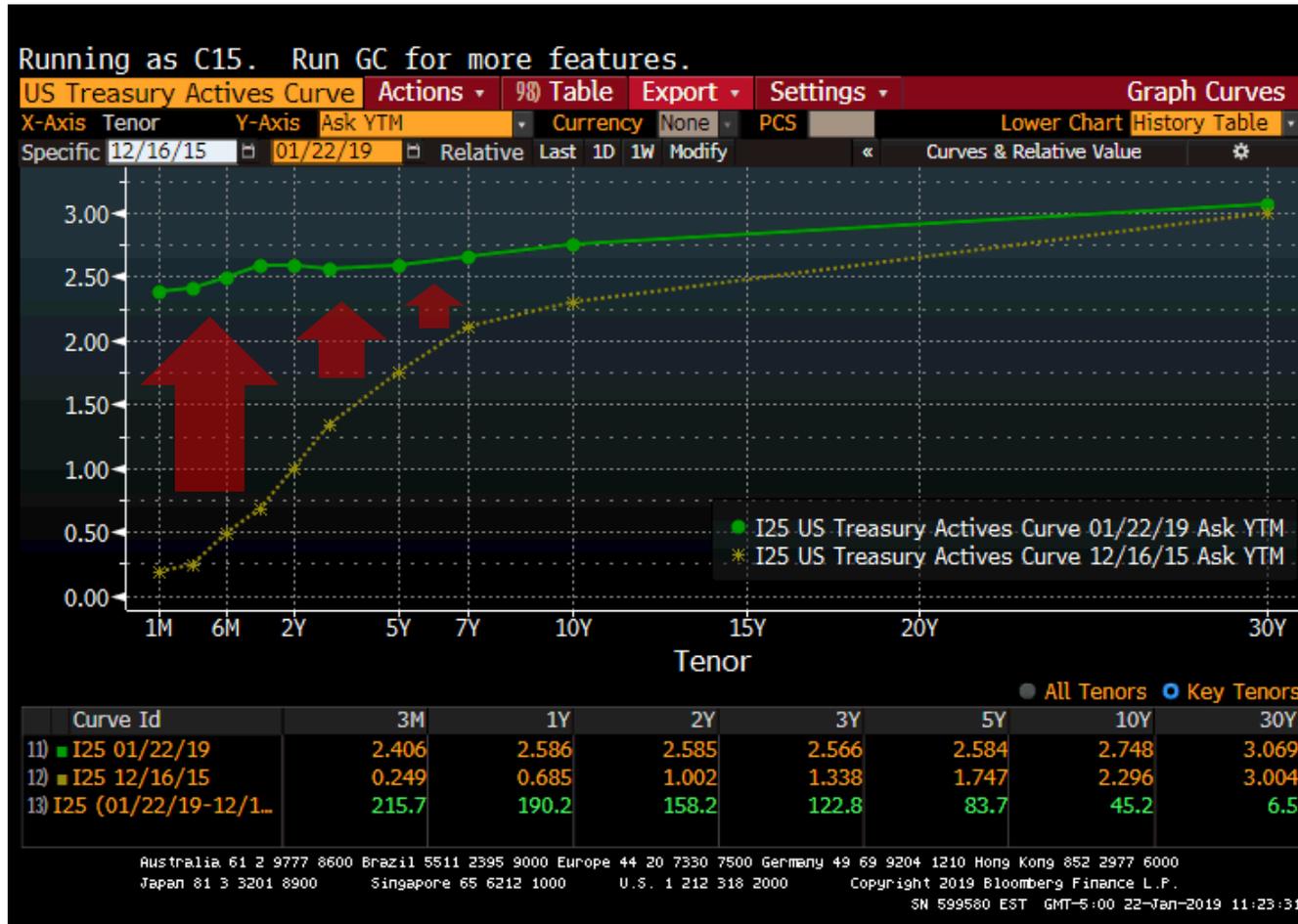


Conclusion: A Flattening Yield Curve Can Signal a Pending Recession



US Treasury Yield Curve | DEC 2015 & JAN 2019

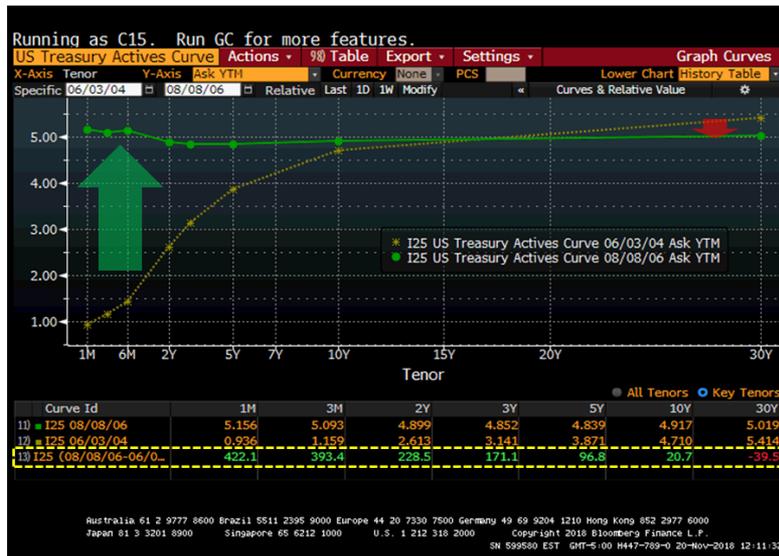
A new tightening cycle began on 12/16/2015. The Yield Curve is showing clear signs of **flattening**.



What If We Experience An Inverted Yield Curve?

US Treasury Yield Curve | JUN 2004 & AUG 2006

The FED began Tightening on 06/03/2004 and finished on 08/08/2006. Signs of curve inversion started to show.



Source: Bloomberg

US Treasury Yield Curve | AUG 2006 & MAR 2007

By March 2007, the Yield Curve was clearly inverted.



Source: Bloomberg

Flat/ Inverted Yield Curve

The Problem?

- Pressure on Deposit Pricing (currently increasing for many CU's)
- Almost NO Yield Upside for **NON**-Floating Rate Loans

Conclusion: 2 more rate hikes could invert the yield curve in 2019 =
Most difficult for CU's to operate profitably.

Take-aways from the Interest Rate Expectation Section

- THE FOMC (FED) expects to raise Fed Funds 2 more times (50 bps) in 2019 & once (25 bps) in 2020. This would drive up short-term rates and put pressure on deposit pricing.
- The Fed Funds rate and the short-end of the curve could equal or exceed the 10 YR Treasury by YE 2019 = flat or inverted curve.
- If the spread between the 2YR & 10YR Treasuries goes to zero or lower, this would signal a recession = Increased potential credit losses in CU loan portfolios.
- If a Recession begins, the FED usually lags the market. The DEC 2018 DOT PLOT indicated no lowering of the monetary policy (Fed Funds Rate) until possibly 2021.

Conclusion: NIM (Net Interest Margin) could come under pressure in 2019.

So What Are My Options?

How Can I Protect My Margin (NIM) in 2019?

We must protect/maintain (increase?) NIM - And there are 3 primary ways to do that as pressures mount:

- 1) **Lower my cost of funds (COF)** – clearly not an option when rates are rising, plus most CU's already have their structure of rates (shares/share drafts/MMA's/CD's) in the "zero interest rate" framework; i.e., set as low as possible
- 2) **Change my asset mix**
 - a. **Lengthen assets/learn higher yield** – not a great alternative for all CU's depending on liquidity, IRR/NEV and certainly capital dependent (strong/weak?)
 - b. **Change to floating rate assets** (investments and loans or loan participations). I would submit that this is – most likely – one of the best options a CU can consider in 2019
- 3) **Grow the Balance Sheet**
 - a. **Decrease reliance on non-core funding** dependency – shift from chasing retail deposits ("CD specials")/ tend to cannibalize your own deposits
 - b. **Wholesale funding/FHLB Funding or issue CD's** through broker or CD Network
 - c. **Wholesale funding results in cheaper COF** for more rate sensitive or volatile liabilities

NOTE: We suggest discussing alternatives in detail on a monthly strategy call, as we do with all clients of our group.

Revisiting the CU Balance Sheet

ASSETS	LIABILITES
LOANS: FR MTG's FR AUTO	SHARES SHARE DRAFTS MMA's
INVESTMENTS	CD's

So, doesn't it make sense to create *some* balance?

Why We Should Rethink Our Acquisition Strategy on Investments & Loans or Loan Participations?

Answer: Because our members prefer fixed-rate Loans = Concentration Risk in Fixed-Rate Assets

Which Includes:

- Excessive IRR Exposure to Rising Rates
- Dangerous and Prolonged Damage to Profitability when rates rise/curve flattens
- No/ Few Alternatives when Holding Onto Underwater Assets (e.g. sell at a loss?)

What If We Could De-Risk AND Increase Income?

(HINT: Acquire Floating Rate Assets)

Let's Get to Some Clarity

1. Why differentiate between floating rate and adjustable rate assets? (Investments/ Loans/ Loan Participations)
2. Most of my assets are **fixed-rate** – What are the best **floating rate** choices?
3. Too much of a “good thing”? : Why large volume indirect auto lending & a pending recession are problematic

NEV Supervisory Test Asset Sensitivity Estimates

FIGURE 7. ASSET AND LIABILITY SENSITIVITY ASSUMPTIONS

Balance Sheet Account	Estimated Sensitivity Assumptions (+300bps)
Loans (First Mortgages)	
Fixed Rate > 15 years	-15.8%
Fixed Rate < 15 years	-9.8%
Balloon/Hybrid > 5 years	-9.5%
Balloon/Hybrid < 5 years	-6.6%
Other Fixed Rate	-4.5%
Adjustable Rate < 1 year	-1.0%
Adjustable Rate > 1 year	-9.7%
Loans (Other Real Estate)	
Closed-End Fixed Rate	-12.3%
Closed-End Adjustable Rate	-6.4%
Open-End Adjustable Rate	-2.3%
Open-End Fixed Rate	-22.1%
Credit Cards	-5.3%
New Autos	-5.1%
Used Autos	-2.9%
Other Loans*	-4.5%

Balance Sheet Account	Estimated Sensitivity Assumptions (+300bps)
Investments	
< 1 Year	-1.5%
1-3 Years	-5.2%
3-5 Years	-10.8%
5-10 Years	-17.6%
>10 Years	-26.8%
Other Assets	0.0%
Cash	0.0%
Deposits and Other Liabilities	
Non-Maturity Shares	-4.0%
Maturity Shares and Borrowings	
< 1 Year	-1.5%
1-3 Years	-6.0%
3-5 Years	-12.0%
Other Liabilities	0.0%
* Other loans includes: 1) all other unsecured loans/lines of credit, 2) payday alternative loans, 3) leases receivable, and 4) total all other loans/lines of credit.	



247% Less Sensitive than 1-3 Years
 620% Less Sensitive than 3-5 Years
 1073% Less Sensitive than 5-10 Years
 1687% Less Sensitive than >10 Years

Less Risk & Potentially More \$'s in Floating Rate Investments & Loans or Loan Participations

1. Why Differentiate Between Floating Rate & Adjustable Rate Assets?

Floating Rate Bonds/ Loans:

- Frequent resetting coupon rate under 1-year (preferably 1-3 months)
- Will react positively/ quickly to rising rates and benefit your CU from an income and earnings perspective.
- Frequent (1-3 months) reset = ALM (low IRR risk) friendly

1. Why Differentiate Between Floating Rate & Adjustable Rate Assets?

Adjustable Rate Bonds/ Loans

- Infrequent and/ or Irregular Resetting Coupon Rate – Typically one year or much longer (3-5 years)
- Inferior during rising rates because they are slow/ late to react to a rising rate environment (0-1 adjustment during 4 Fed Fund increases in 2018)
- Thus, not as ALM or income friendly as a floating rate

2. Most of my assets are fixed-rate – What are the best floating rate choices?

Best floating rate investment examples:

- Floating Rate SBA Pools (quarterly repricable)
- Floating Rate GNMA HECM (monthly repricable)

Best floating rate loan participation examples:

- Floating Rate SBA Loans (100% Full Faith & Credit of the US Government)
- Floating Rate HELOC's (Credit Risk/ Recession)

Conclusion: A Floating Rate Asset May Be Superior to an Adjustable Rate Asset

FLOATING RATE	Projected Yield	IRR	Reset Frequency	CAP's
Floating Rate SBA Pool (25YR - HIGH MARGIN/ PREM)	~4.00% BASE	0.40% - 0.90% (INDX DUR)	3 Month	NO CAP
	~4.50% +50 Bps			
Floating Rate SBA Pool (25YR - LOW MARGIN/ PAR)	~3.00% @ BASE	0.40% - 0.90% (INDX DUR)	3 Month	NO CAP
	~3.50% @ +50 Bps			
ADJUSTABLE RATE	Projected Yield	IRR	Reset Frequency	CAP's
MBS ARM Pool AGCY (7/1)	~3.15% @ BASE	-4.60% (FMED +100)	84 Month Initial	5.00% Initial
	~3.15% @ +50 BP		12 Month Periodic	2.00% Periodic
MBS ARM Pool GNMA (5/1)	~3.00% @ BASE	-3.80% (FMED +100)	60 Month Initial	1.00% Initial
	~3.00% @ +50 BP		12 month Periodic	1.00% Periodic

IF FED +50BP
 = FLT RT SBA
 ↑ +50BP =
 4.50%.
 = ARM Pools =
 0BP
 Thus, SBA >
 ARM by
 +135/+150 Bps

Loan Participation Example

MBL Vs. SBA Vs. ARM

Selecting the Best Components for Rising Short-term Rates plus Pending Recession.

MBL (Commercial Credit) Loan Participation - Variable		Floating Rate SBA Loan Participation		ARM Loan Participation	
Credit Risk	YES	Credit Risk	NO (GOVT GTD)	Credit Risk	YES
Reset Frequency (Months)	Up to 60 Initial	Reset Frequency (Months)	3	Reset Freq. (Months) – Initial Reset Freq. (Months) - Periodic	36-120 12
Coupon CAP	Various	Coupon CAP	None	Coupon CAP – Initial Coupon CAP - Annual	1% or 5% 1% or 2%
Expected Return – Range*	3.50% - 3.80% (NO-RECOURSE)	Expected Return – Range*	3.85% - 4.90% (PRINCIPAL 100% GTD)	Expected Return – Range*	3.875% - 4.50% (NO-RECOURSE)
Short-Term Rates ↑	Poor / No Adjustment	Short-Term Rates ↑	Superior / Frequent Adj.	Short-Term Rates ↑	Poor / No Adjustment
Recession Performance	Large Downside = economic activity ↓	Recession Performance	Limited Downside/ Only Premium at risk	Recession Performance	Large Downside = RE Values ↓

**Actual returns can vary depending on market conditions and other factors such as charge-offs and early pay-downs*

Pooled SBA's (Security or Loan Participation):

General Advantages/ Disadvantages

Advantages	Disadvantages
• Full Faith and Credit Guarantee	• Riskier loans could be more prone to default leading to principal payback (Historically ~2%)
• Guaranteed timely payment of principal and interest	• Higher than market coupons (due to PRIME based loans) result in high premiums paid
• Coupon is uncapped in most cases	• Typically slower scheduled cash flow compared to current coupon MBS pools
• Not classified as MBS or MBL – helps alleviate mortgage and member business loan concentration	
• PRIME based index to diversify from LIBOR based index	
• Pools can be used as collateral with the FHLB for borrowing lines	
• Can Decrease Interest Rate Risk /	
• Lowers Long-Term Asset Ratio	

Specific Performance Advantages/ Disadvantages of Pooled SBAs' or Loan Participations:

Advantages	Disadvantages
<ul style="list-style-type: none"> An SBA pool is an effective way to diversify the credit union investment amongst multiple SBA loans. This will help mitigate excess amortization expense as the pool will help to mute the negative impact of a single loan payoff. 	<ul style="list-style-type: none"> Investors must be wary of pool issuers including older loans in a new security.
<ul style="list-style-type: none"> Floating Rate Coupon (typically quarterly reset / sometimes monthly) 	<ul style="list-style-type: none"> Seasoned pools will prepay faster resulting in excessive premium amortization and lower yields.
<ul style="list-style-type: none"> Quarterly repricing of coupon is preferred Vs. odd-adjust (coupon fixed for 1 – 5 years) on individual SBA loans. 	<p>NOTE: For individual SBA Loan Buyers, a single SBA loan presents a unique challenge in that the CU would be required to amortize ALL remaining premium in the event of a loan payoff. A SBA loan participation avoids single event effect.</p>
<ul style="list-style-type: none"> Adds a floating rate asset to a predominately fixed rate asset structure. 	

Why SBA's?

Controlling Interest Rate Risk

We are focusing on SBA 7(a) loans that:

- Are uncapped, floating rate (monthly or quarterly reset)/ indexed to PRIME.
- Real Estate backed, 25 year maturities.
- Are newly issued, not seasoned.
- Only the real estate backed SBA sector has the 5-3-1 prepayment penalty for the first 3 years to act as a refinancing disincentive.

Why SBA's?

The floating rate coupon offers two distinct advantages to a credit union investor whether booking the SBA's as loans or investments:

- The frequency of the coupon adjustment means that these assets perform well in an ALM context. This helps the credit union's performance during a regulatory examination which requires a 300bps to 400 bps rate shock scenario analysis.
- As securities, the credit union can classify them as "0 -1 YR" on the Call Report regardless of the final maturity or average life due to the monthly/quarterly reset.

Why SBA's?

Controlling Credit Risk

- Only the **guaranteed** portion of the SBA 7(a) loans can be sold to the secondary market. The originating lender is required to keep the unguaranteed portion. This results in a **0% risk weighting** for loans and securities sold to the secondary market. Thus, there is no credit risk per the full faith & credit guarantee (same guarantee as US Treasuries and GNMA's).
- SBA borrowers may **NOT** refinance with the SBA.

3. Too much of a “good thing”?: Why large volume indirect auto lending & a pending recession are problematic

NCUA LETTER TO CREDIT UNIONS

NATIONAL CREDIT UNION ADMINISTRATION
1775 Duke Street, Alexandria, VA 22314

DATE: January 2019

LETTER NO: 19-CU-01

TO: Federally Insured Credit Unions

SUBJ: Supervisory Priorities for 2019

Concentrations of Credit

Examiners will have a continued focus on large concentrations of loan products and concentrations of specific risk characteristics. Concentration risk is defined as any single exposure or group of highly correlated exposures that have the potential to produce losses large enough to threaten a credit union’s health or ability to maintain its core operations. Excessive credit concentrations are a common cause of financial losses. If excessive levels of credit concentration risk are identified, examiners will work with credit union management to identify strategies to mitigate the risk.

NCUA LETTER TO CREDIT UNIONS

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1775 Duke Street, Alexandria, VA 22314

DATE: January 2019 **LETTER NO:** 19-CU-01
TO: Federally Insured Credit Unions
SUBJ: Supervisory Priorities for 2019

Liquidity and Interest Rate Risks

Examiner will assess liquidity and interest rate risk management, including the following:

- The potential effects of rising interest rates on the market value of assets that affect changes to net worth and borrowing capacity;
- Member preference shifts to shares with more market sensitivity; and
- Credit union management's ability to meet liquidity needs given the increased competitive pressures that affect share balances.

NCUA LETTER TO CREDIT UNIONS/ LETTER NO: 19-CU-01

When rates rise, it puts pressure on credit unions to raise deposit rates in order to maintain deposit account volume. Also, enhanced mobile and internet banking applications and non-bank financial technology may result in greater challenges to retain low cost core deposits compared to prior interest rate cycles.



Your View

Interest Rates



Examiner's Paranoia

Interest Rates

Want to Learn More?

For a full description or further details on these topics –

Please call or email...

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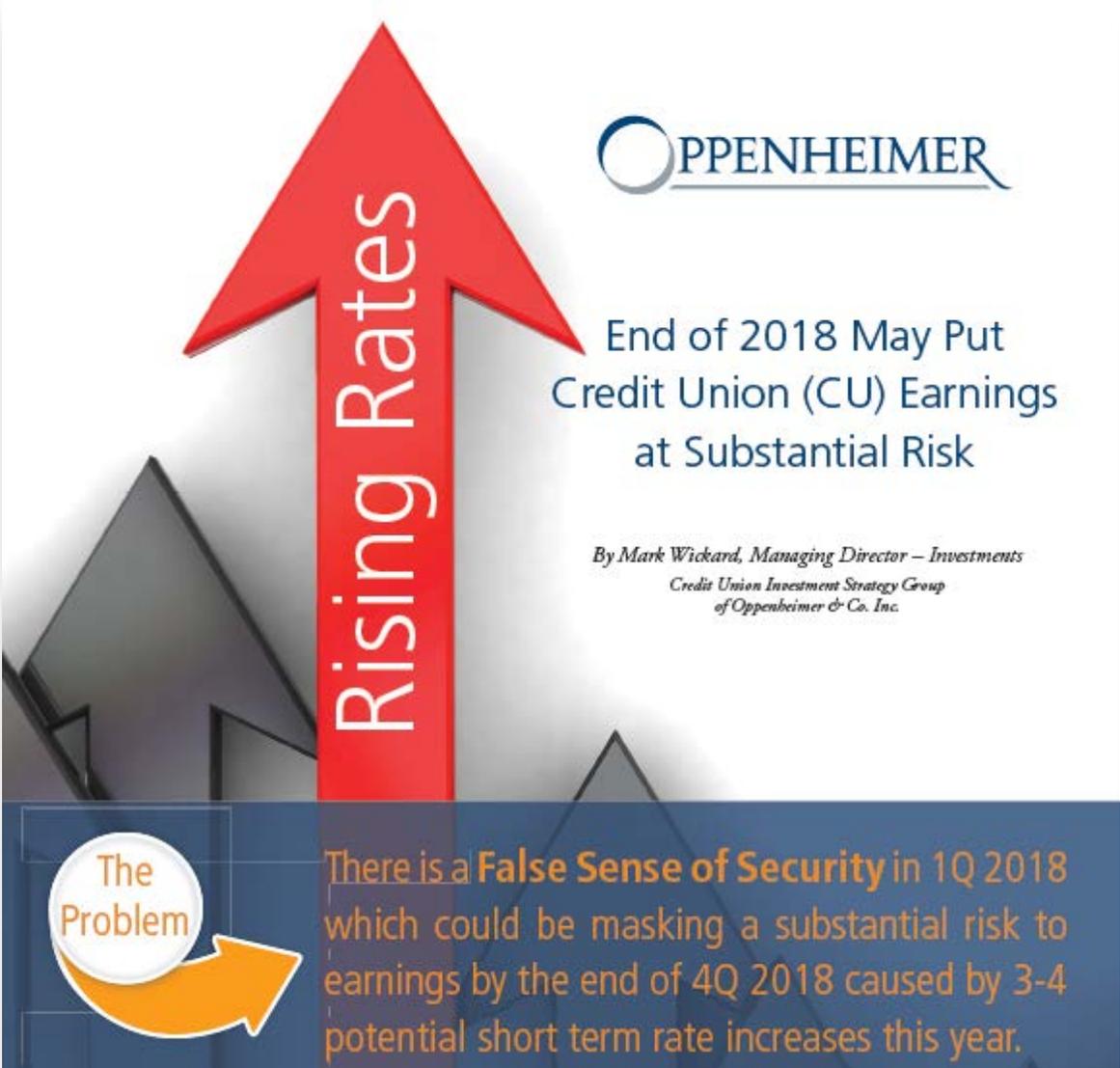
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APPENDIX

*Background on How We Arrived at
This Critical Juncture for CU's in 2019*

Background on How We Arrived at This Critical Juncture for CU's in 2019



OPPENHEIMER

End of 2018 May Put
Credit Union (CU) Earnings
at Substantial Risk

*By Mark Wickard, Managing Director – Investments
Credit Union Investment Strategy Group
of Oppenheimer & Co. Inc.*

The Problem

There is a **False Sense of Security** in 1Q 2018 which could be masking a substantial risk to earnings by the end of 4Q 2018 caused by 3-4 potential short term rate increases this year.

An Earnings Problem in 2019 Waiting to Happen?

In this piece, we will discuss...



1 Why a "false sense of security?" – Its background and why it's here now.



2 If profitability/NIM seems to be better short term, how can I protect my margin (NIM) in light of the FOMC raising rates 3-4 times potentially in 2018?



3 Why in 2018 as much as 80-90% of CU's investment portfolios could underperform, in this expected rising rate environment in 2018.

Why a False Sense of Security – Its Background and Why It's Here Now

- The Great Recession of 2007-08 = FOMC moves to a “Zero Interest Rate Policy” = Fed Funds between 0-0.25%
- CU's dropped deposit rates to “mimic” Fed's zero interest rate policy
- Dodd-Frank changes post recession = ↓ CU fee income.
- FOMC has raised steadily (200 bps) from December 2015 to December 2018

Why a False Sense of Security – Its Background and Why It's Here Now

Two Potential Problems:

- CU's cost of funds have barely moved above “Zero Rate” and are at risk because they have lagged too much behind Fed Funds.
- \uparrow Loan/share = \downarrow Liquidity (funded primarily by investment portfolio).

Thus, CU's with \downarrow liquidity have decreased margin or error to fund \uparrow cost of deposits Vs. competition or disintermediation (deposit outflow to more expensive/ attractive source).

The 3 Stages of An ALM/ Shocked Net Interest Income (NII) Problem:

2 If profitability/NIM seems to be better short term, how can I protect my margin (NIM) in light of the FOMC Raising rates 3-4 times potentially in 2018?

It is a classic ALM/Net Interest Income (NII) happenstance which provides a “false positive” (false sense of security earnings-wise)

Stage 1

As rates rise, short term assets reprice immediately, thereby driving Interest Income higher – these are **both market driven** (Investments) and **administered rates** (loans). This is temporary!

Stage 2

As this is occurring, a CU's deposit rates are left virtually untouched, except for CD rates. Deposits rates are administered – not market driven and have to be manually changed – usually by ALCO or its delegated authority.

Stage 3

As a result, NIM increases and profitability **temporarily** increases. But the aforementioned headwind of rising rates eventually must be addressed on the deposit side.

Conclusion: If the 80%/20% rule applies to your CU's deposit base, earning could come under substantial pressure in 2019 – Especially, if 2 more rate hikes occur.

3

Why in 2018, as much as 80-90% of CU's investment portfolios will underperform in this expected rising rate environment in 2018?

The reason for this statistic is very simple: Most CU portfolios contain 80-90% fixed rate investments. In a rising rate environment, not only do these assets not reprice but they become a drag on earnings as rates increase and they are stuck at increasingly unattractive lower rates. What could make this even worse? Fixed rate investments quickly fall away from their book value as rates rise and cannot be liquidated without a substantial loss.

Our clients have been re-allocating their investments towards floating rate coupons since 2013-14. We will continue to be proactive with these floating rate strategies throughout 2018 in light of 3-4 expected FOMC rate hikes. It is not too late to reallocate your investment mix from fixed to a meaningful floating rate percentage.

The results of this strategy which our clients have been reporting, has indeed been gratifying and will benefit by 75BPS-100BPS more this calendar year, as floating rate holdings reset. It still does not make financial sense to buy a fixed rate bond at this juncture, when the comparative yields are as good/better than what can be acquired on a floating basis. So if we are – on the date of purchase – as good/better than what can be acquired in a fixed rate MBS/CMO, we will be better off with further short term rate increases during 2018.

CAVEAT: Agency arm MBS which reprice as little as one year and as long as five years, will not get the job done in this rate environment.

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