PRESENTS

EXECUTIVE BALANCE SHEET FORUM 2023

Part 1 - Portfolio Management

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BALANCE SHEET MANAGEMENT – INVESTMENTS

- Liquidity Risk
- Price Risk
- Credit Risk
- Impairment
- Risk Adjusted Returns
- ALM Considerations

STUDY THE PAST ASSET MIX TREND

Source: *S&P Global Market Intelligence,*
Data for all banks Nationally <$10B as of 12/31/22

What is the PRIMARY objective of your investment portfolio?

Liquidity

Earnings

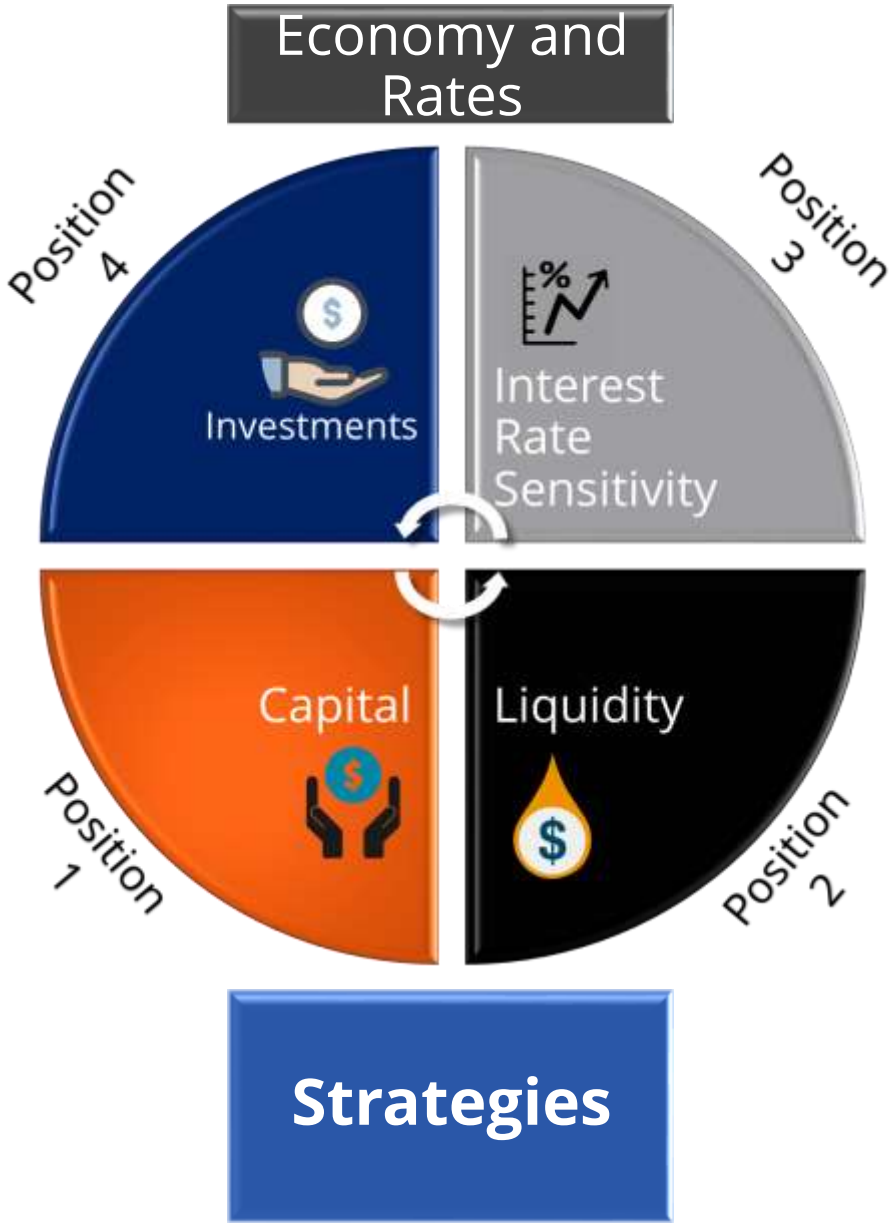
Interest Rate Risk Management

INVESTMENT MANAGEMENT BEST PRACTICES

Strategy

- Independent expert advice on portfolio strategies with regular review
- Whole-Bank perspective approach to portfolio positioning

INVESTMENT BEST PRACTICES



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- Diversification among investment sectors, risk/reward & relative value analysis
- Expanded range of bank-permissible investment products

SAMPLE PORTFOLIO – DATA VS. INFORMATION

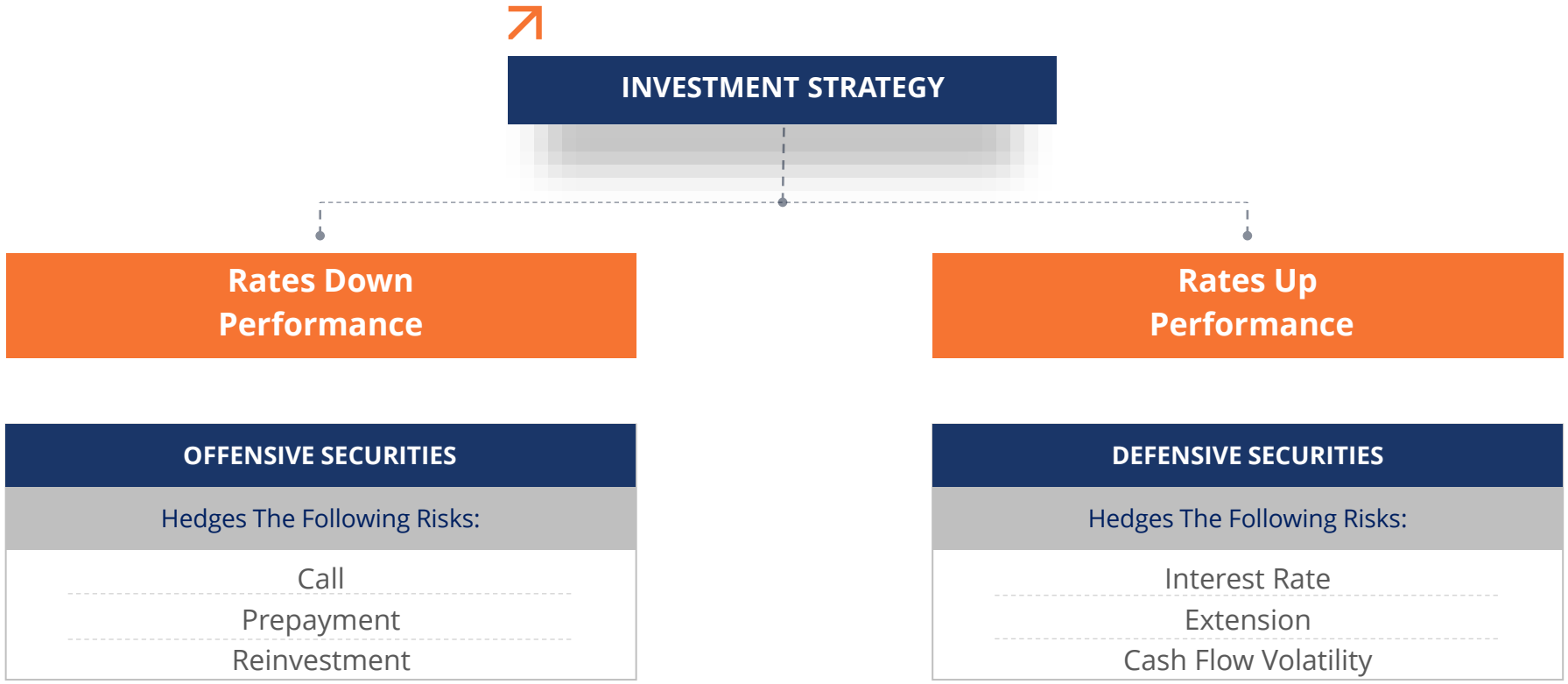
RATES ARE DOWN!

Matured	~~1 Yr Treasury Note~~
Called	~~2 Yr Agency NC 3 Mo~~
Fast Prepayments Yield Drops	~~3 Yr WAL Premium Agency CMO (Jumbo Collateral)~~
Coupon Resets Lower	~~4 Yr Floating Rate SBA Pool~~
Called	~~5 Yr Agency Step Up NC 6 Mo Bermuda~~

HOW ARE FINANCIAL INSTITUTIONS DIFFERENT?

	Institution 1	Institution 2	Institution 3
Balance Sheet Mix			
Cash	10%	5%	0%
Investments	30%	50%	20%
Loans	60%	45%	80%
Loan Mix			
1-4 Family	80%	20%	35%
Commercial	10%	40%	45%
Consumer	10%	40%	20%
Fixed	90%	20%	50%
Float	10%	80%	50%
Loan Marketplace	Flat	Flat	Strong Growth
Liquidity Position			
FHLB Borrowing Capacity	High	Moderate	None
Core Deposit Stability	Stable	Stable	Volatile
Pledging Requirements	High	None	None
Interest Rate Risk Position			
Asset/Liability Sensitivity	Liability	Asset	Neutral

INVESTMENT STRATEGY FORMATION



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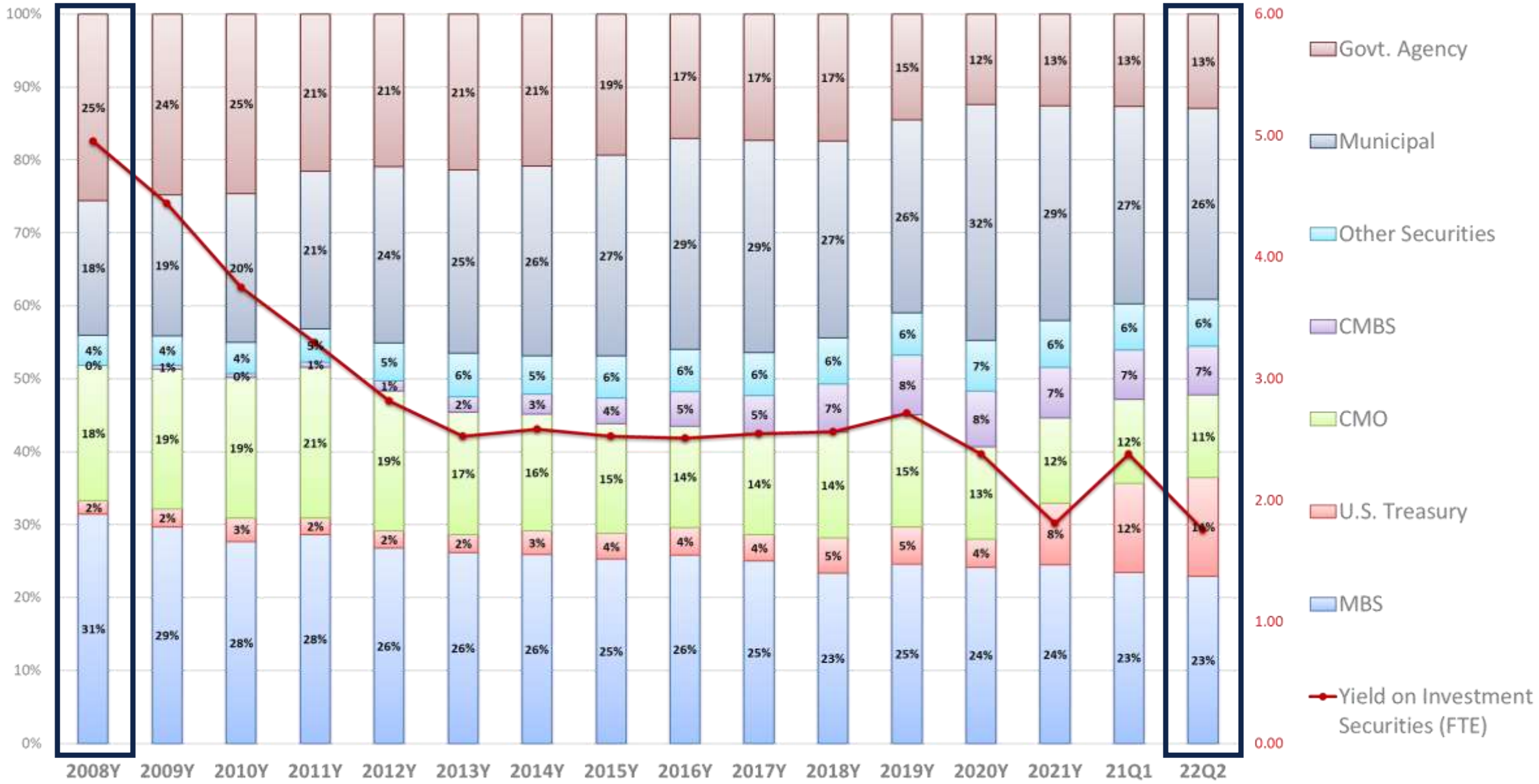
Security Selection

- Market knowledge and expertise helps optimal security selection
- Monitor policy compliance with security purchases

STUDY THE PAST SECURITY MIX TREND



Source: S&P Global Market Intelligence, Data for all U.S. Commercial Banks <$10B as of 6/30/22

SECURITIES / SECTORS IN THE MARKETPLACE

FNMA Fully Indexed ARM

Index Amortizing Notes

COFI Floaters (CMO & AGY)

Covered Bonds

LIBOR Floaters (CMO & AGY)

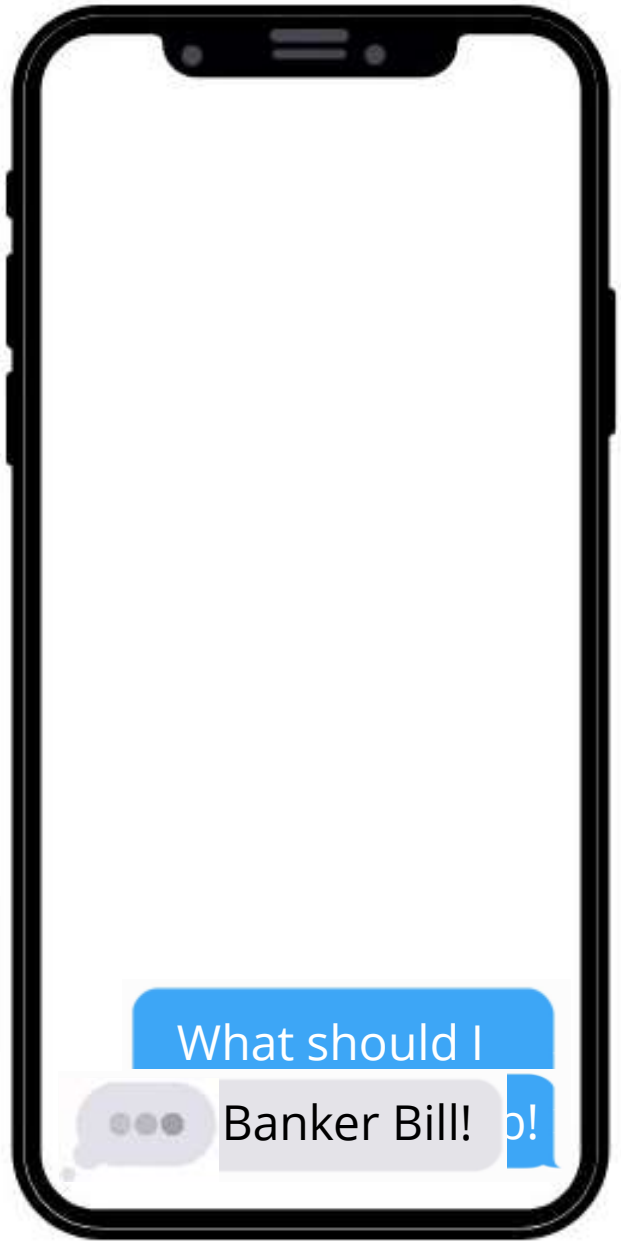
GNMA ARM (Different CPNs)

Fed Funds

Corporate Bonds

GNMA ARM (Different Caps)

FNMA Teaser ARM



1-10 Yr Treasury

Index Amortized Notes

Taxable Munis

AGY Step Ups

AGY Structured Notes

MBS (Different Maturities)

AGY Callable

CMO

5-30 Yr Munis

MBS (Different Coupons)

Asset-backed Securities

MBS (New vs. Seasoned)

COMPARATIVE PEER INVESTMENT MIX ANALYSIS

	Bank 1	Bank 2	Bank 3	Bank 4	Bank 5	Bank 6	Bank 7	Bank 8	Bank 9	Bank 10
Yield on Securities TEY (%)	3.74	1.94	2.06	1.92	1.50	1.85	2.21	2.16	1.98	2.10
Ranking	1	7	5	8	10	9	2	3	6	4
Yield on Securities (%)	3.12	1.65	1.82	1.75	1.27	1.54	2.12	2.05	1.68	1.67
Ranking	1	8	4	5	10	9	2	3	6	7
MBS ($000)										
% of Portfolio	9%	1%	24%	0%	2%	2%	8%	0%	4%	5%
CMBS ($000)										
% of Portfolio	5%	0%	0%	0%	1%	0%	4%	0%	0%	3%
CMO										
% of Portfolio	1%	0%	5%	0%	0%	14%	1%	0%	14%	3%
Municipal ($000)										
% of Portfolio	75%	68%	64%	78%	72%	71%	74%	74%	77%	81%
Govt. Agency($000)										
% of Portfolio	0%	16%	5%	20%	0%	4%	10%	26%	0%	8%
U.S. Treasury ($000)										
% of Portfolio	10%	0%	0%	2%	25%	7%	1%	0%	0%	0%
Other Securities ($000)										
% of Portfolio	10%	14%	1%	2%	25%	10%	2%	0%	6%	0%
Pledged Securities (%)	0%	10%	13%	29%	18%	36%	7%	0%	8%	2%
BV Municipals as % Equity Capital	110%	140%	750%	337%	75%	525%	248%	28%	34%	333%

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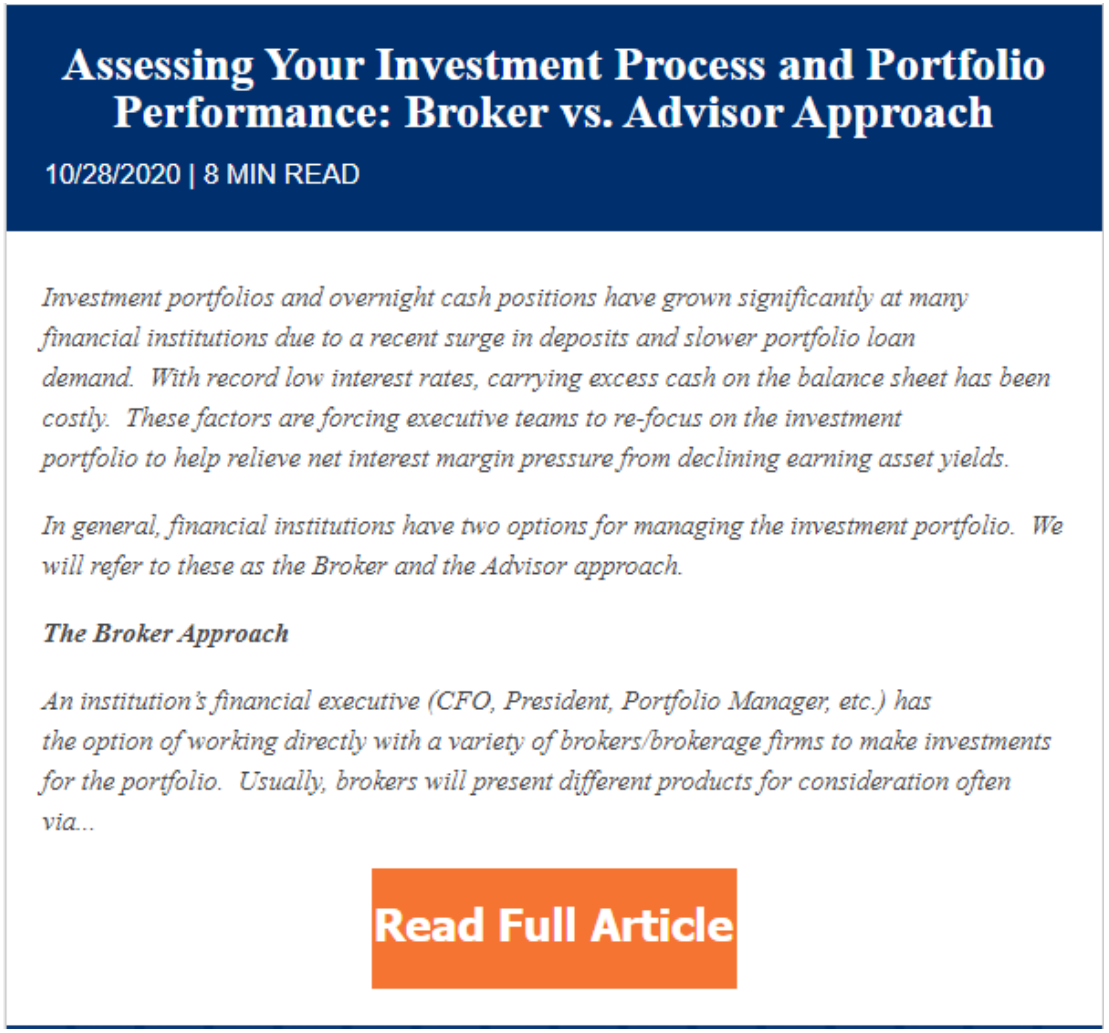
Trade Execution

- Poor trade execution can impact investment returns
- Fiduciary vs. Broker

TAYLOR ADVISORS EBRIEF – ASSESSING YOUR INVESTMENT PROCESS



Assessing Your Investment Process and Portfolio Performance: Broker vs. Advisor Approach

10/28/2020 | 8 MIN READ

Investment portfolios and overnight cash positions have grown significantly at many financial institutions due to a recent surge in deposits and slower portfolio loan demand. With record low interest rates, carrying excess cash on the balance sheet has been costly. These factors are forcing executive teams to re-focus on the investment portfolio to help relieve net interest margin pressure from declining earning asset yields.

In general, financial institutions have two options for managing the investment portfolio. We will refer to these as the Broker and the Advisor approach.

The Broker Approach

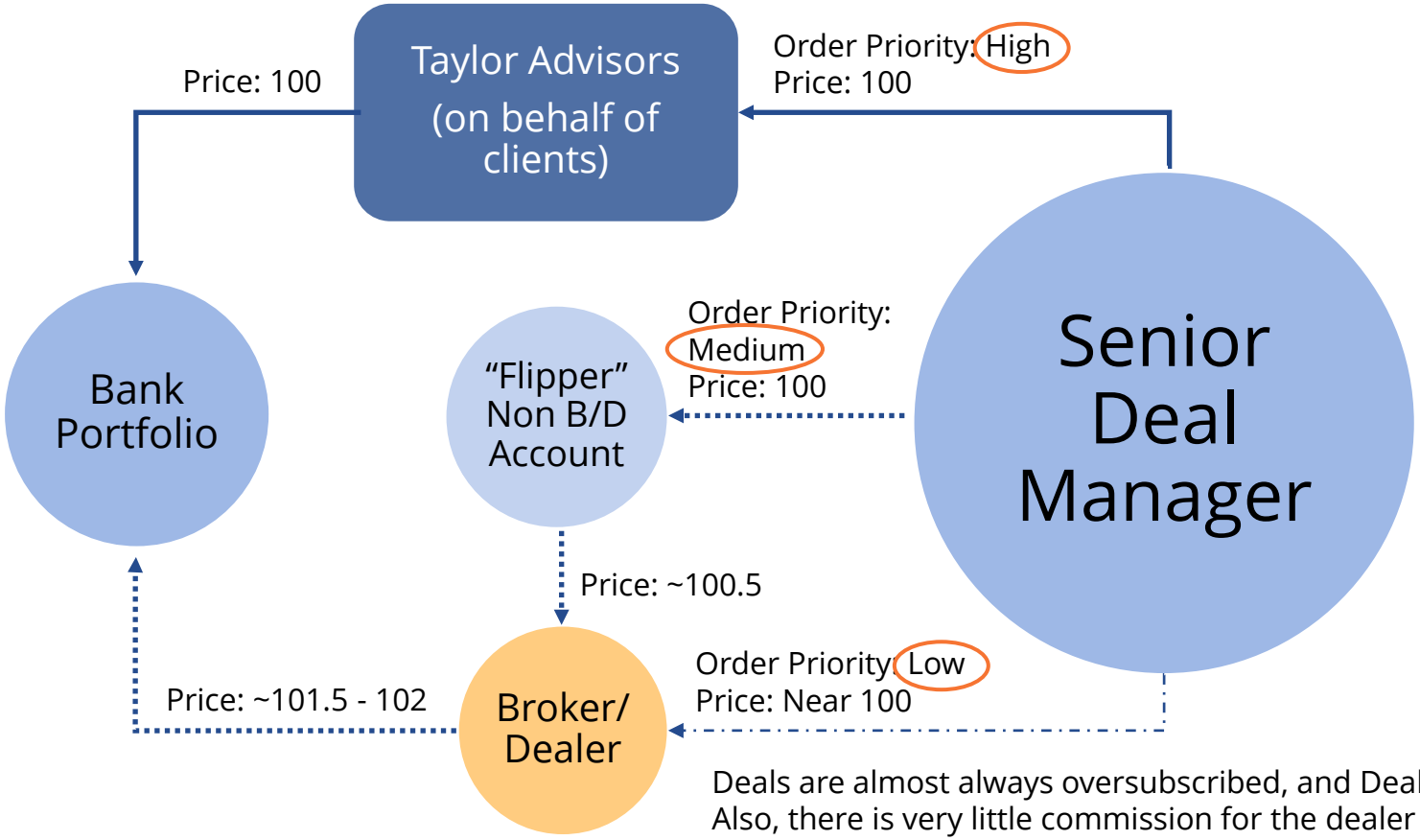
An institution's financial executive (CFO, President, Portfolio Manager, etc.) has the option of working directly with a variety of brokers/brokerage firms to make investments for the portfolio. Usually, brokers will present different products for consideration often via...

Read Full Article

If you are considering a change from a broker approach to an advisor approach or switching advisors, below we discuss seven benefits and/or best practices of working with an investment advisor to improve portfolio and balance sheet performance:

1. Investment Management from a Whole Balance Sheet Perspective
2. Accountability & Transparency
3. Strategy and Relative Value Analysis
4. **Exclusive Product Access**
5. Staying in Control
6. **Reducing Transaction Costs and Improving Execution**
7. Redirected Productivity

COMPARISON OF INVESTMENT ADVISOR VS. BROKER/DEALER



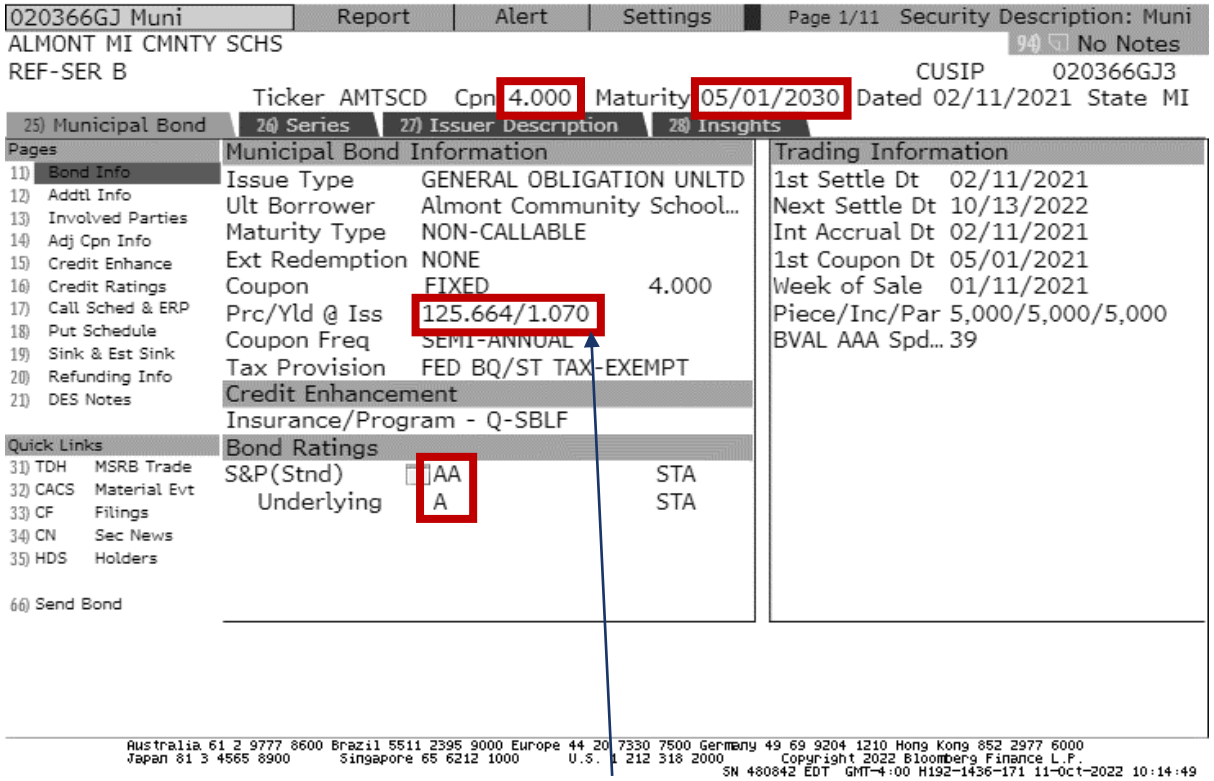
Deals are almost always oversubscribed, and Dealer orders do not get filled.
Also, there is very little commission for the dealer to split on new issue deals.

MISSING OUT ON EXCLUSIVE OPPORTUNITIES

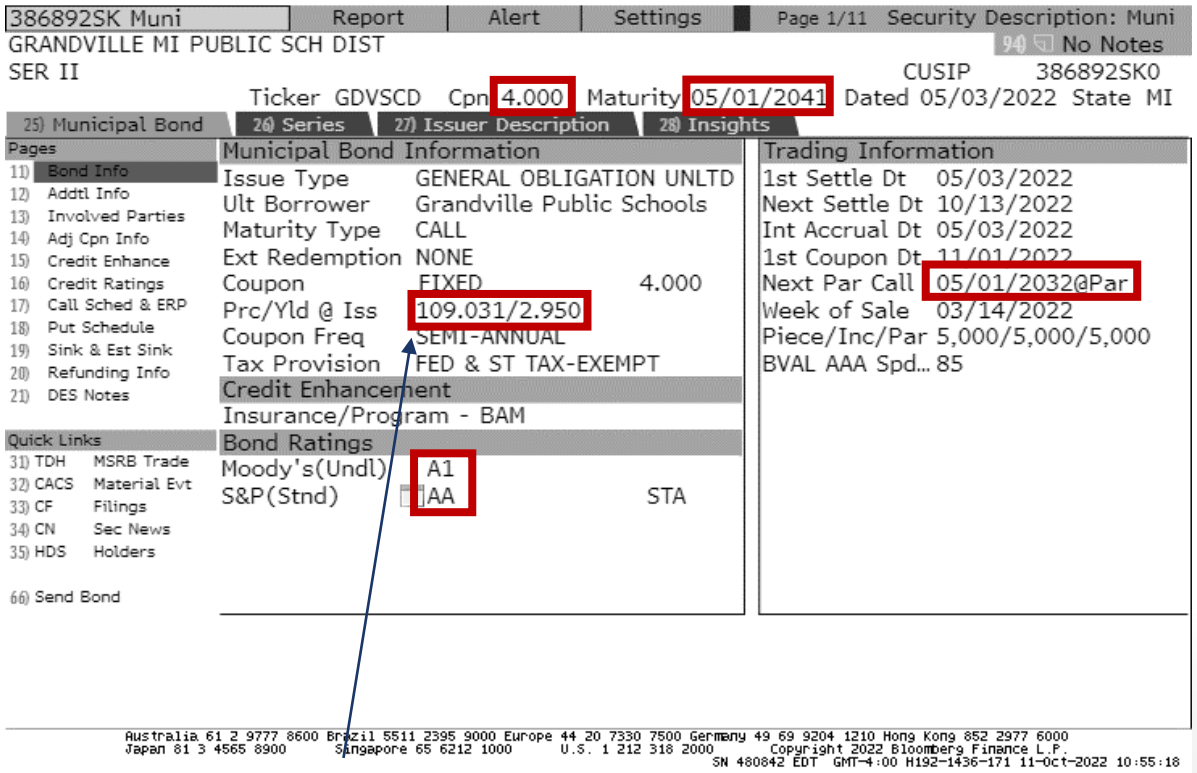
Bank Purchase
Trade Date 3/16/2022
Almont Schools, MI
YTW = 2.25%
TEY = 2.85%

Difference
YTW = 70 bps
TEY = 88 bps

Taylor Advisors Purchase
Trade Date 3/17/2022
Grandville Schools, MI
YTW = 2.95%
TEY = 3.73%



Secondary Purchase @ 2.25% YTW



Bought at New Issue

Q: WHAT DO BOND MARK-UPS **REALLY** COST COMMUNITY FINANCIAL INSTITUTIONS?

WRITTEN BY

Dr. Edmond J. Seifried

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Dean of the West Virginia Banking School and the Virginia School of Banking
Executive Director of the Sheshunoff Affiliation Program

The ANSWER is a very well-kept secret. Institutional investors do not know how much they are being charged to buy and sell bonds.

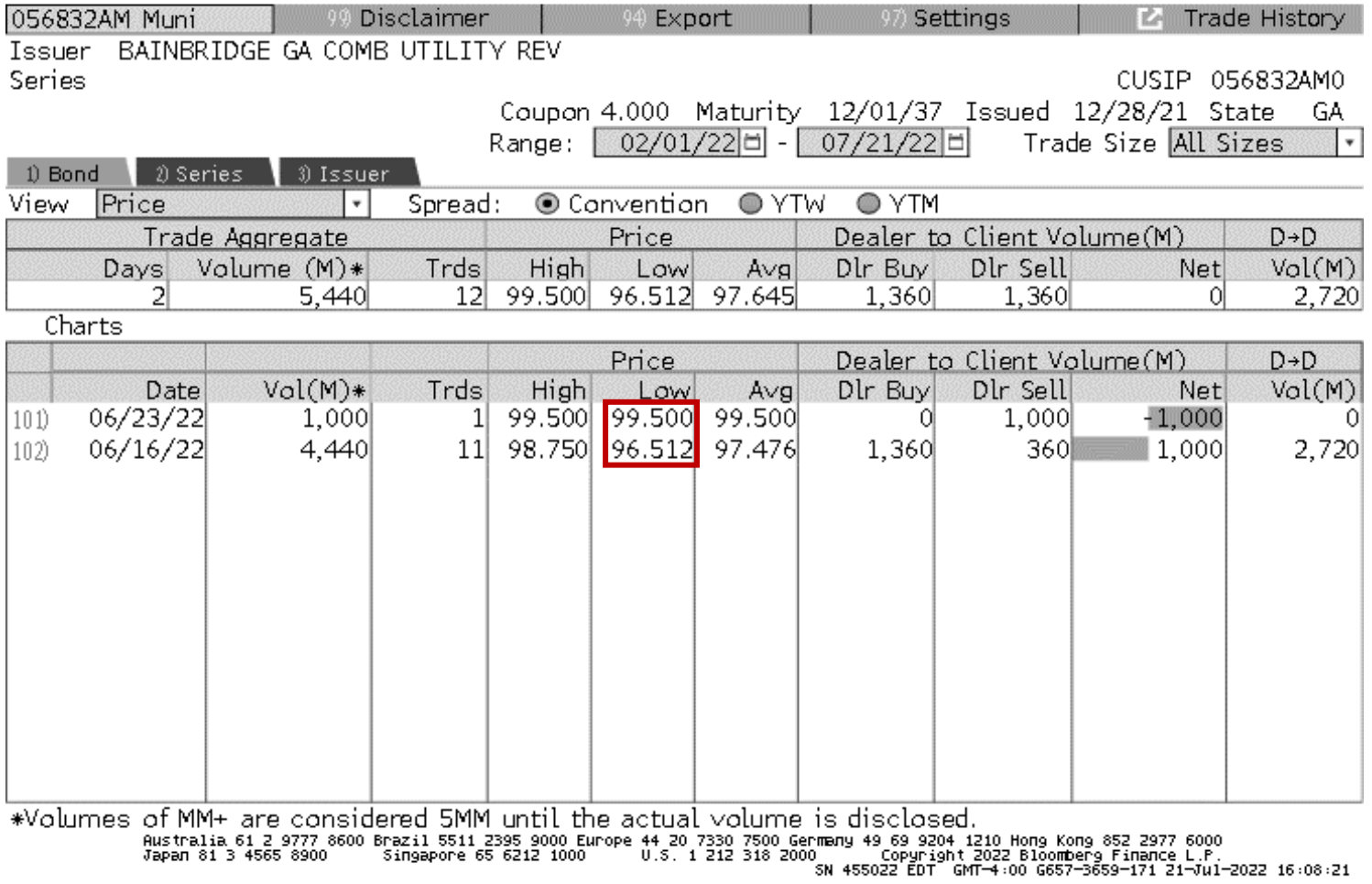
Industry Analysis: Hidden Mark-Ups

- "We estimate that investors were charged $10.58 Billion in municipal bond markups between 2005 and 2013 in our sample - $6.38 Billion in trades on which excessive markups appear to have been charged"
  - The Securities Litigation & Consulting Group
- "The clients never saw the actual transaction costs and assumed, inappropriately, that they were getting that service fee for free."

Conclusion

- "Our Analysis finds that community financial institutions are financially impacted by significant hidden mark-ups in their investment portfolios; mark-ups that reduce ROI, ROA and financial institution capital"

Poor Trade Execution: Lower Liquidity



056832AM Muni | 99) Disclaimer | 94) Export | 97) Settings | Trade History

Issuer BAINBRIDGE GA COMB UTILITY REV
Series
CUSIP 056832AM0
Coupon 4.000 Maturity 12/01/37 Issued 12/28/21 State GA
Range: 02/01/22 - 07/21/22 Trade Size All Sizes

1) Bond | 2) Series | 3) Issuer

View Price Spread: Convention YTW YTM

Trade Aggregate			Price			Dealer to Client Volume(M)			D→D
Days	Volume (M)*	Trds	High	Low	Avg	Dlr Buy	Dlr Sell	Net	Vol(M)
2	5,440	12	99.500	96.512	97.645	1,360	1,360	0	2,720

Charts

	Price					Dealer to Client Volume(M)			D→D
	Date	Vol(M)*	Trds	High	Low	Avg	Dlr Buy	Dlr Sell	Net	Vol(M)
101)	06/23/22	1,000	1	99.500	99.500	99.500	0	1,000	-1,000	0
102)	06/16/22	4,440	11	98.750	96.512	97.476	1,360	360	1,000	2,720

*Volumes of MM+ are considered 5MM until the actual volume is disclosed.

Transaction Details

99.500 Client Px
- 96.512 Broker Px
= **2.988** Excessively High Mark-Up

x 1,000,000 PAR
$29,880 Broker Commission

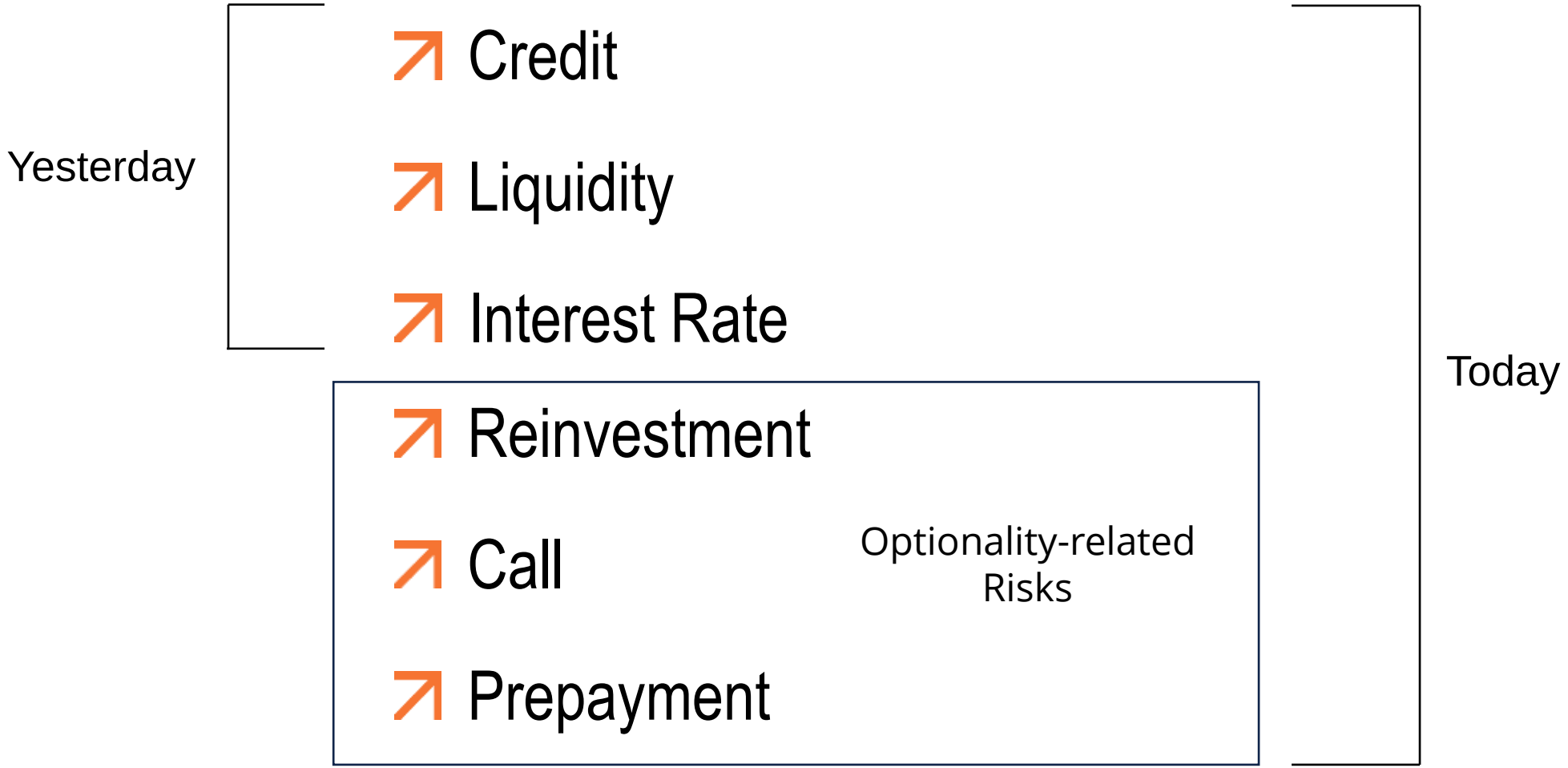
x 10 million PAR
$298,800 Broker Commission

AUDIT RISK VS. ECONOMIC RISK

AUDIT RISK ASSOCIATED WITH FIXED INCOME INVESTMENTS

- Existence and Classification
- Valuation and Realized Gains or Losses
- Income Accruals
- Test of Controls and Others (investment policies)

ECONOMIC RISKS ASSOCIATED WITH FIXED INCOME INVESTING



CREDIT RISK

CREDIT RISK

- Default Risk
- Downgrade Risk
  - Credit Ratings
- Credit Spread Risk
  - Tightening/Widening Spreads

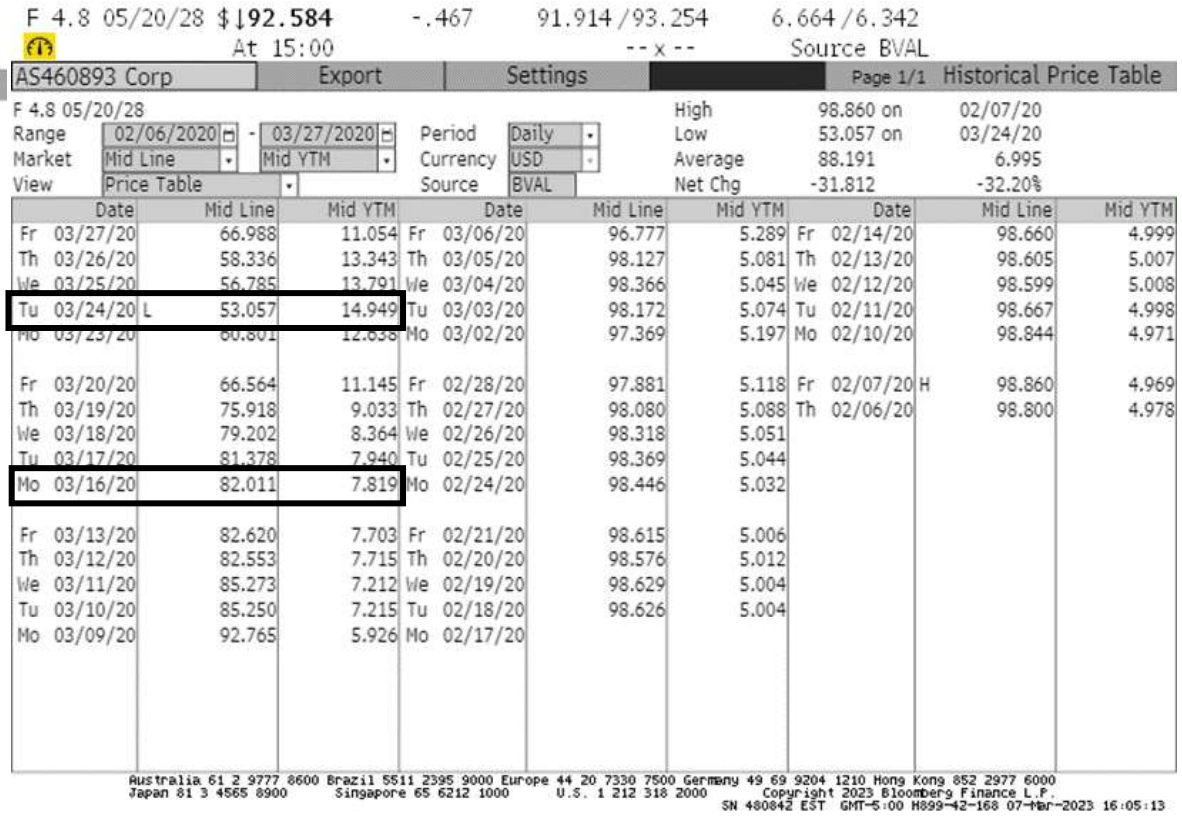
CREDIT RATING AGENCIES

Moody	S&P	Fitch	Brief Definition
		Investment Grade - High Creditworthiness	
Aaa	AAA	AAA	Ultra high grade, maximum safety
Aa1	AA+	AA+	
Aa2	AA	AA	Very high grade, high quality
Aa3	AA-	AA-	
A1	A+	A+	
A2	A	A	Upper medium grade
A3	A-	A-	
Baa1	BBB+	BBB+	
Baa2	BBB	BBB	Lower medium grade
Baa3	BBB-	BBB-	
		Distinctly Speculative - Low Creditworthiness	
Ba1	BB+	BB+	
Ba2	BB+	BB+	Low grade, speculative
Ba3	BB-	BB-	
B1	B+	B+	
B2	B	B	Highly speculative
B3	B-	B-	

QUESTION

- What is a “Fallen Angel”
  - Name of a Horse
  - Name of a Movie
  - Name of a Song
  - Bond downgraded from BBB or above to BB or below (junk)
  - All of the Above

IMPACT OF A DOWNGRADE ON PRICE



Ford was downgraded to **BB+** from BBB+ in March 2020

The magnitude of a credit rating downgrade:

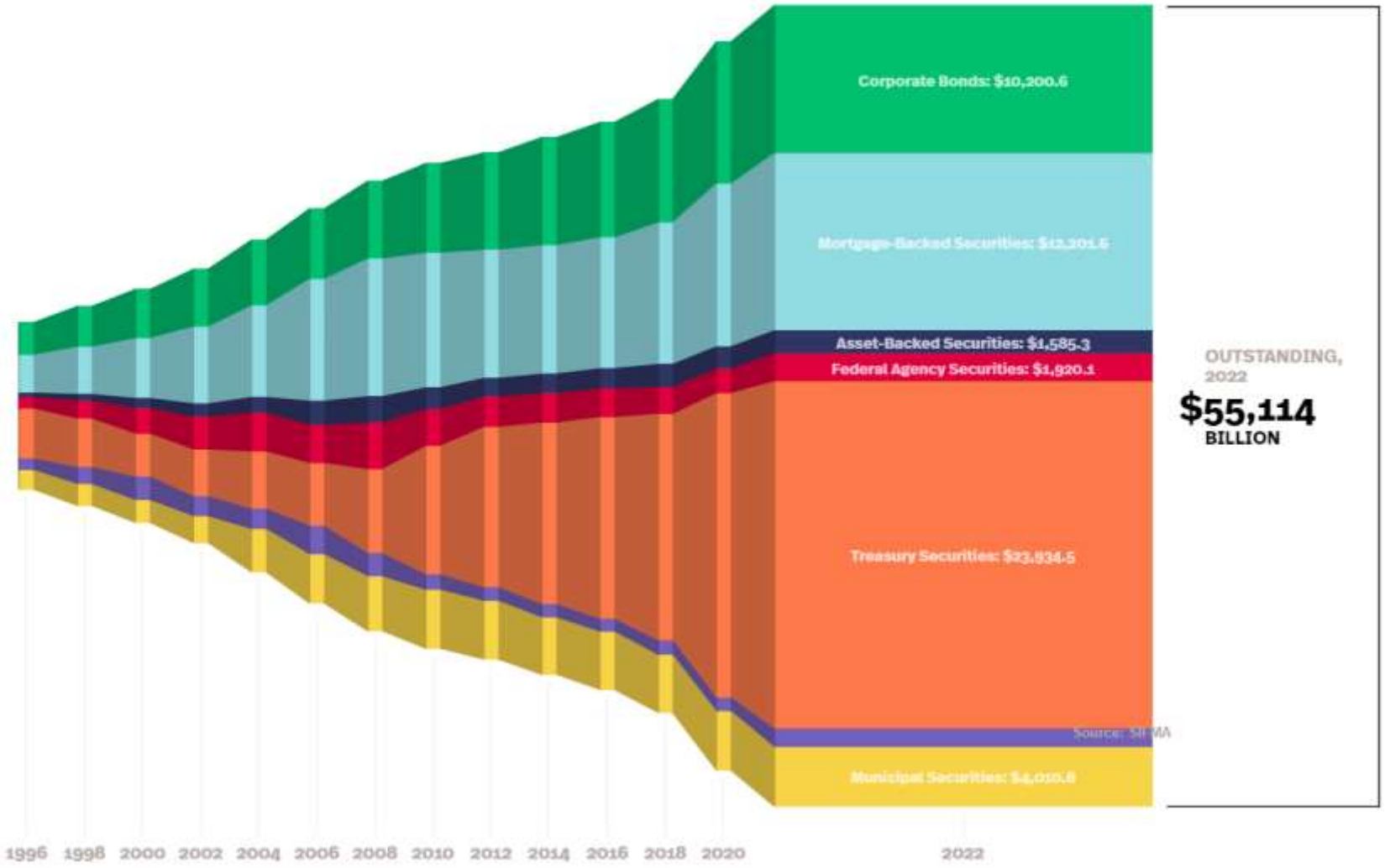
	before	after
Price	**82**	**53**

CREDIT RISK – BANK SUBORDINATED DEBT

Bond Price

LIQUIDITY RISK

LIQUIDITY RISK: SIZE OF BOND MARKET



Source: SIFMA.ORG

LIQUIDITY RISK

Marketplace is a collection of buyers and sellers with supply/demand forces

- Unable to sell quickly and at fair price
  - Specific audience securities: unique, non-rated, odd lots
  - During market volatility, flight to quality (TSY)
- Bid-ask spread
  - High spread signals less liquid market

Bond Accounting Pricing is only an estimate of market pricing

INTEREST RATE RISK

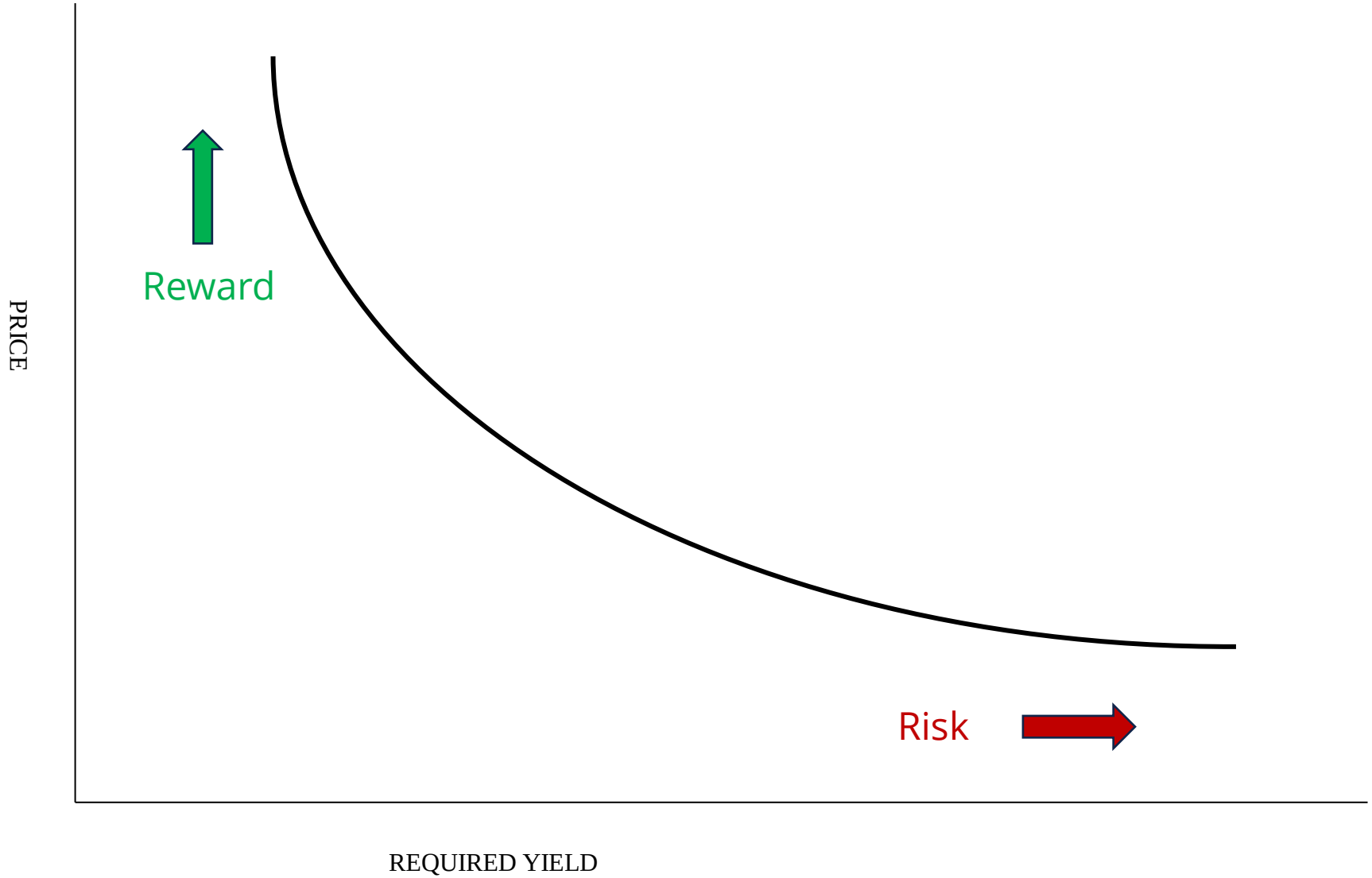
INTEREST RATE RISK

- Interest Rate Risk
  - Price Risk

    Yields ↑ Price ↓; Yields ↓ Price ↑
  - Reinvestment Risk

    At what rate the cash flow is reinvested?

BOND PRICE AND **MARKET** YIELD RELATIONSHIP



KEY MEASURES OF INTEREST RATE RISK

Weighted Average Life

- Measures the timing of principal cash flows
- Often used for mortgage-related investments

Modified Duration

- Expected change in value of the bond given 100 bp change in yield, static measure
- Expressed in %

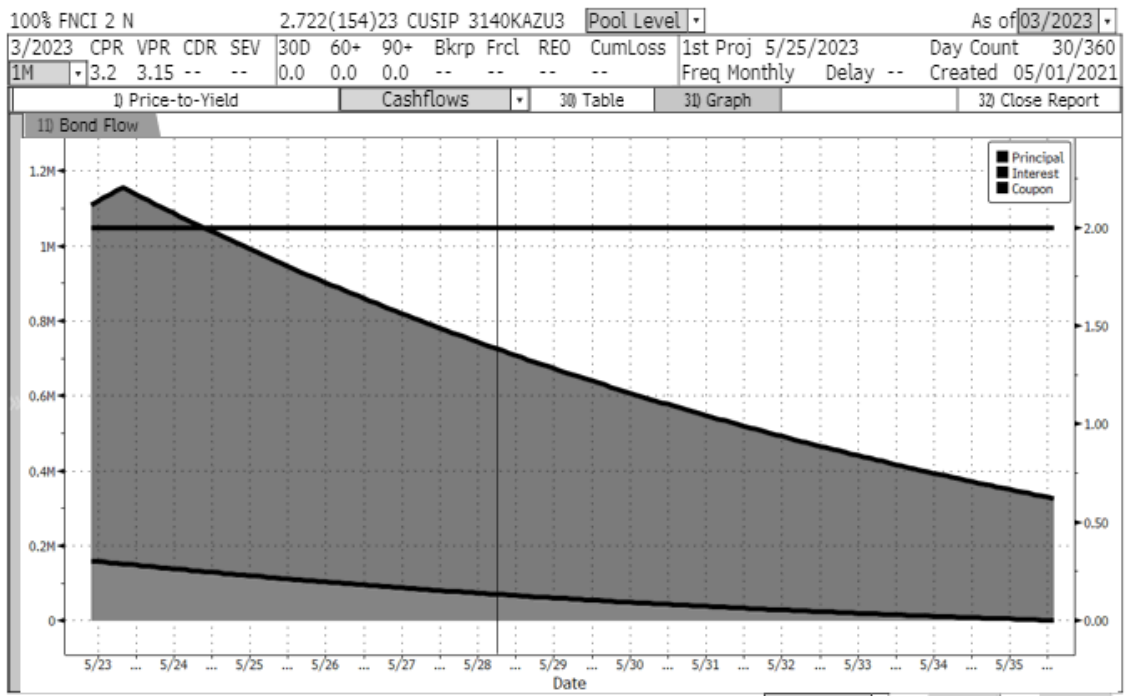
Effective Duration

- Measures actual price sensitivity given +/-100 bp change in yield
- Expressed in %

WEIGHTED AVERAGE LIFE (WAL) EXAMPLE

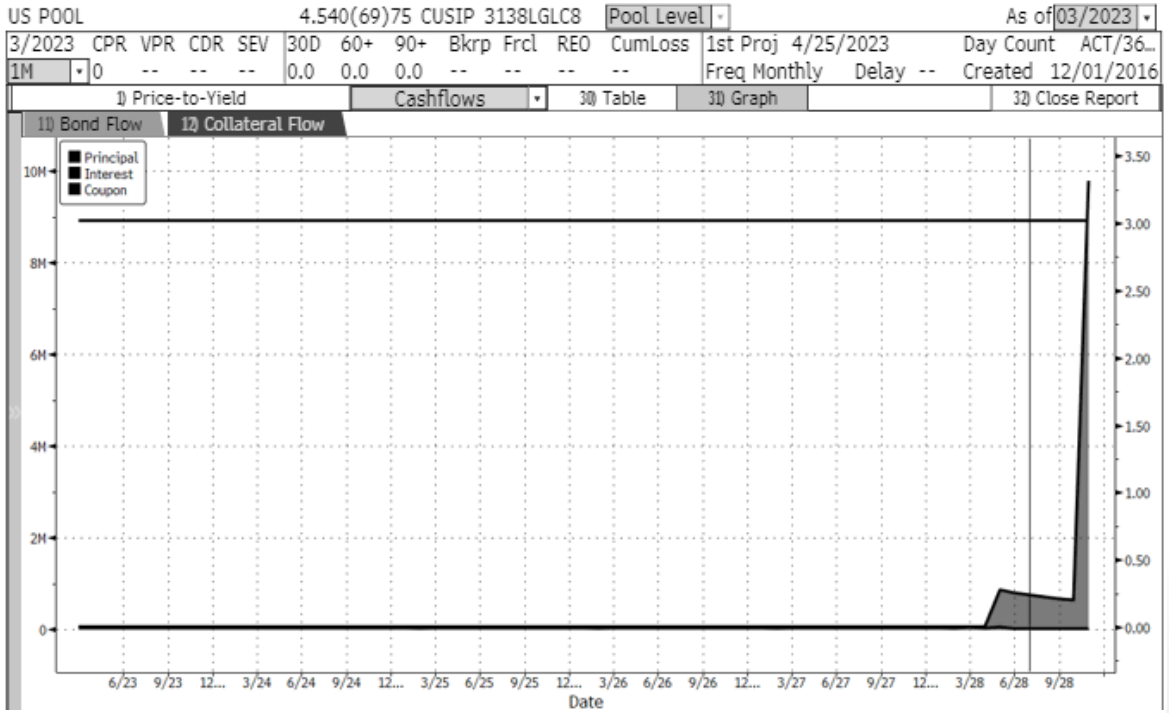
- Average Life is the length of time the principal of a debt issue expected to be outstanding.

15 Yr MBS, 5.3yr WAL



5.3 Years

5.3 Yr ACMBS, 5.3yr WAL



5.3 Years

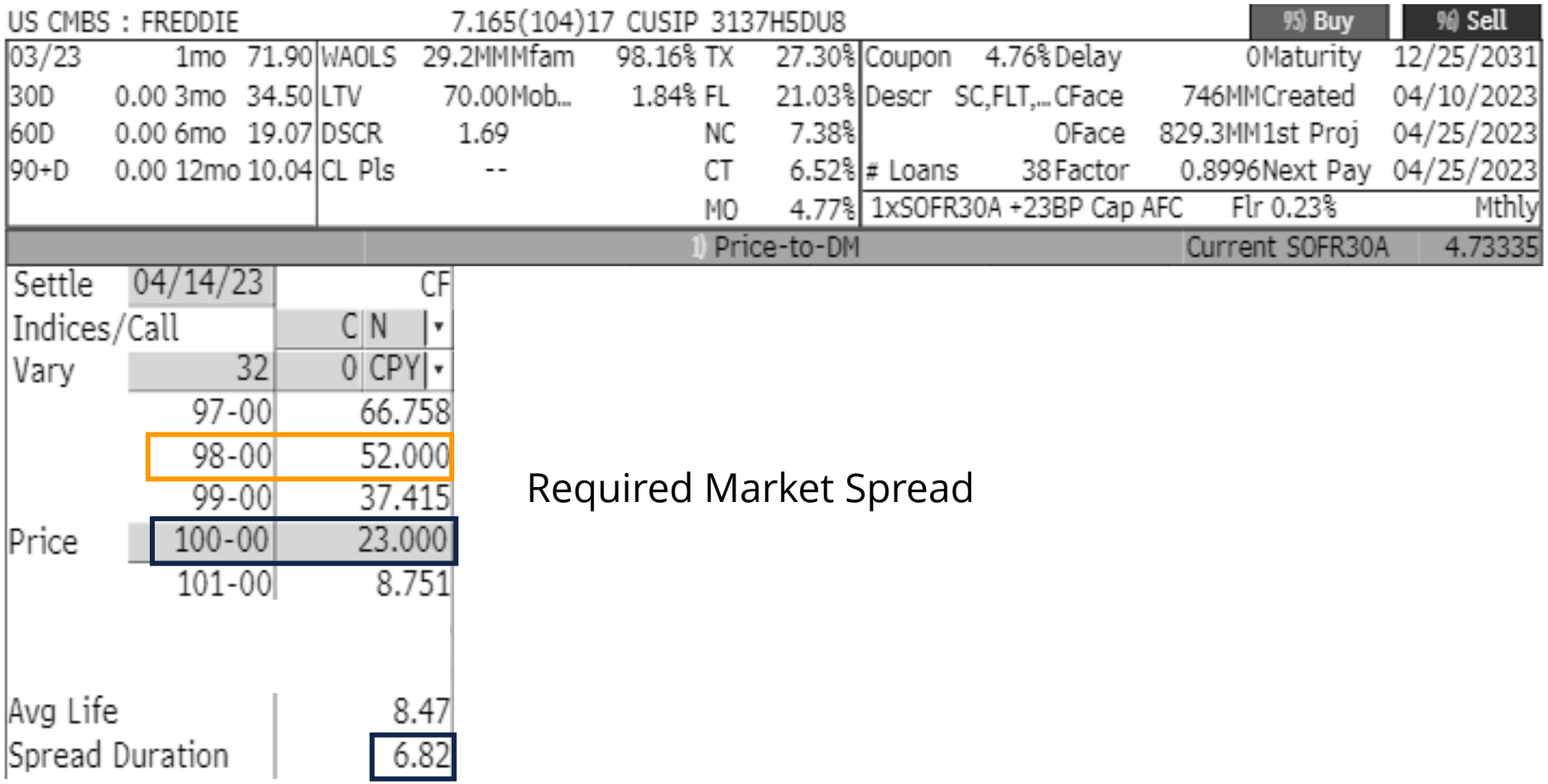
TRUE OR FALSE: VARIABLE RATE SECURITIES HAVE NO INTEREST RATE RISK

FALSE

changes in spread will cause price to change

Example: 5 Year bond with SOFR **+23 bps** coupon will price at a discount if market requires SOFR **+52 bps**

TRUE OR **FALSE**: VARIABLE RATE SECURITIES HAVE NO INTEREST RATE RISK



Required Market Spread

MODIFIED DURATION

- Approx. expected change in price for a 100bps change in rates
- A duration of 3.0 means price is expected to change by ~3% for every 100bps change in yield
- Modified Duration is a **static** measure and assumes cash flows do not change

Investors need to mindful of this limitation for securities with optionality:

For example, 20yr MBS base case duration is 5.3

+200bps duration is 7.5

EFFECTIVE DURATION

- Measure of price change given +/- 100 bps shock
  - Average of the two scenarios
- Expressed in % of price change not years

- Pro: encompasses rate shocks
- Con: can give misleading information regarding risk if used in isolation

EFFECTIVE DURATION EXAMPLE

- 3.5yr Treasury
- 7yr non-call 3mo Agency

} **3.4% Eff Duration**

- 7yr non-call 3mo -100bps duration is 0.2%

  +100bps duration is 6.7%

  average is 3.4%

Averaging of two outcomes produces misleading results

LONGER DURATION: THE "GOOD" AND THE "BAD"

- Longer duration is sometimes perceived as "bad" as investors focus on price depreciation when rates rise

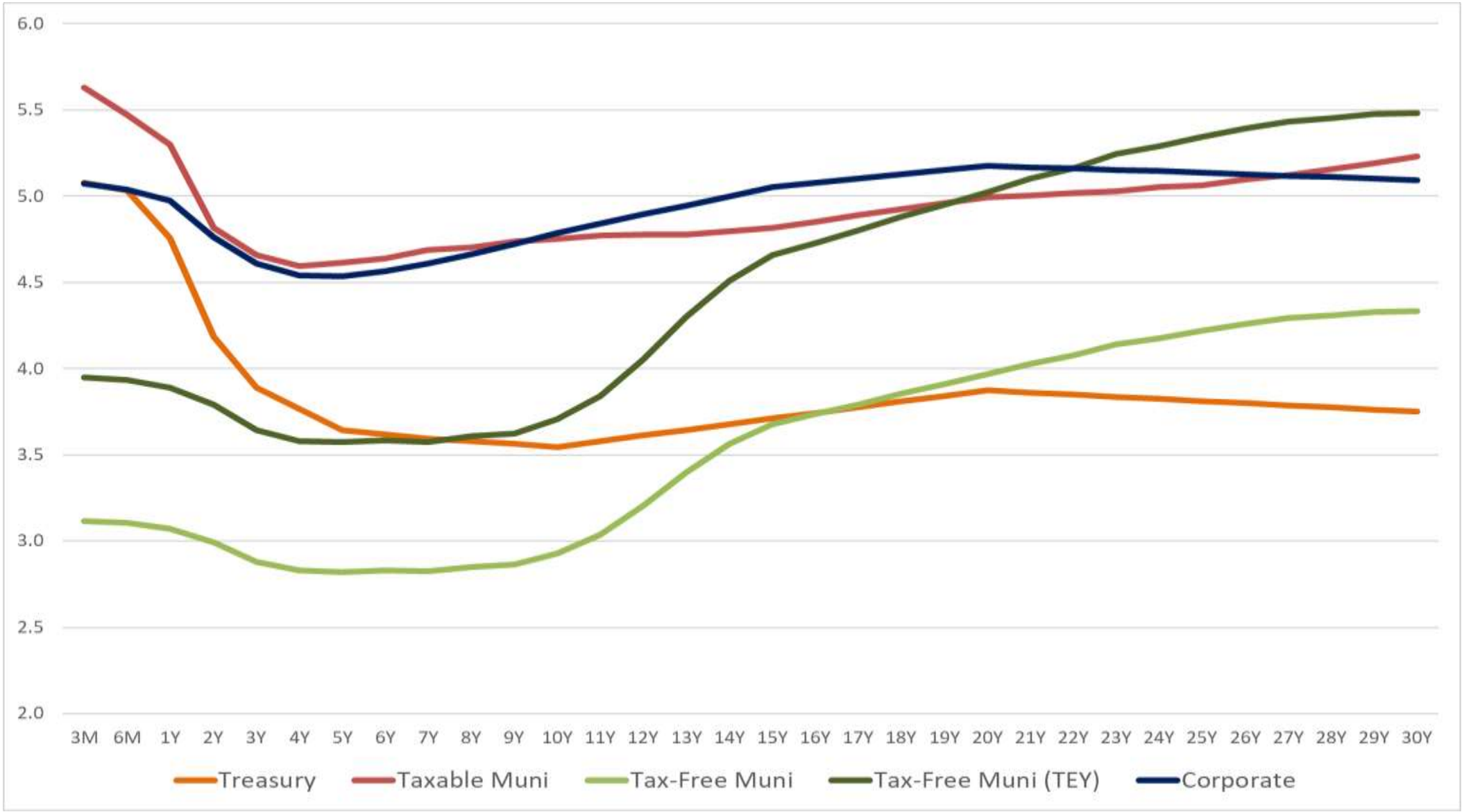
- In rates down scenarios, longer duration is "good" as it helps portfolios:
  - maintain higher income
  - provide price appreciation due to call protection
  - reduce reinvestment risk - diversification

- **Longer duration is "bad" if it does not provide a benefit in rates "down" scenarios**

YIELD CURVES

- Shows relationship between short- and long-term interest rates
- “Pure Expectation Theory” – shape of the Treasury yield curve is function of investors’ outlook for future short-term interest rates
- Yield curves are generally upward-sloping
- Each non-Treasury investment has its own distinct Yield Curve that differs in shape and level from the Treasury yield curve

YIELD CURVE EXAMPLES



REINVESTMENT RISK

REINVESTMENT RISK

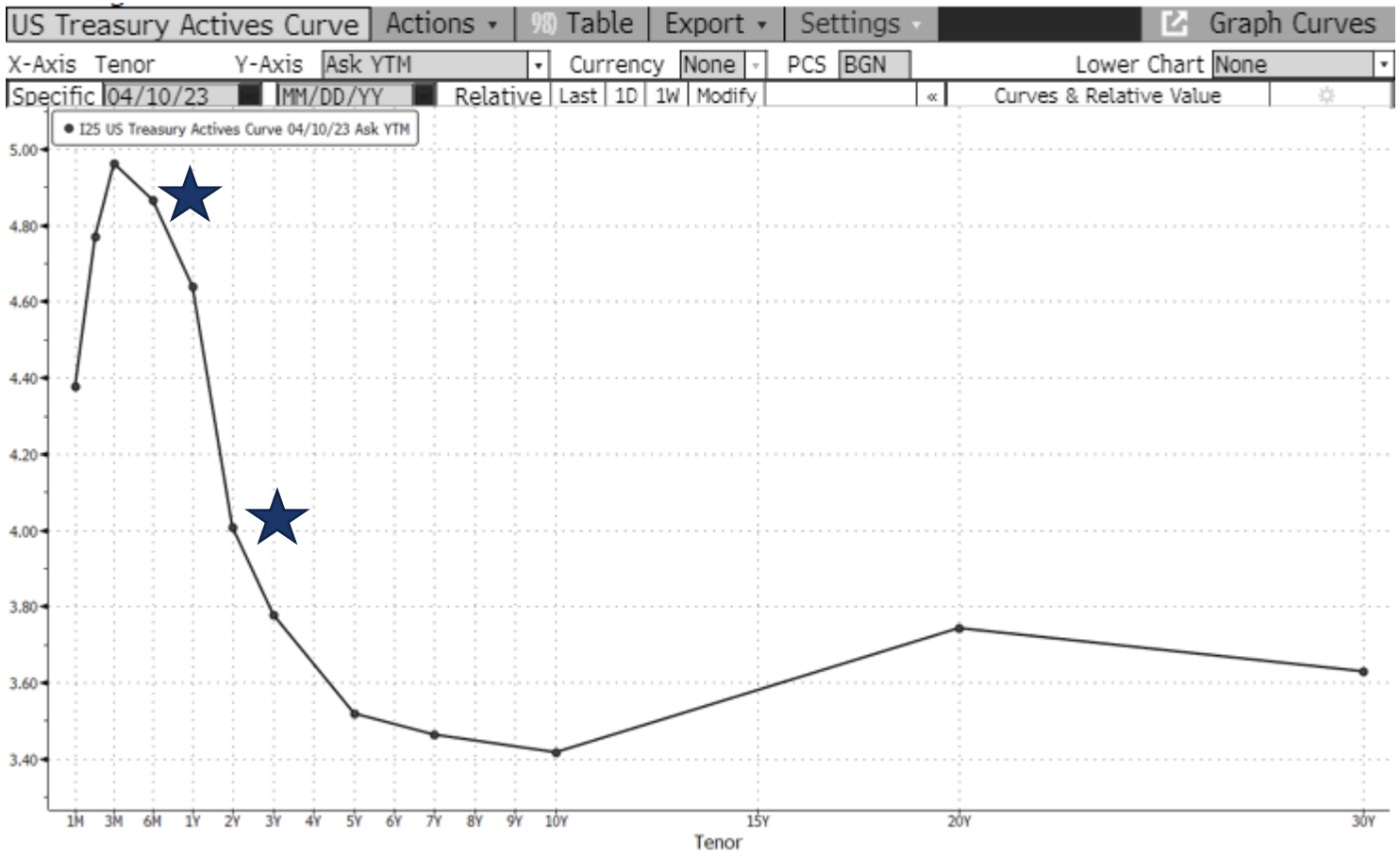
The uncertainty of future yields upon re-investment of cash flows

- Affects bonds differently (Bullets vs. Mortgages)
  - Size and frequency of P&I payments impact reinvestment risk
  - Investment horizon impacts reinvestment risk

Optionality can exaggerate reinvestment risk

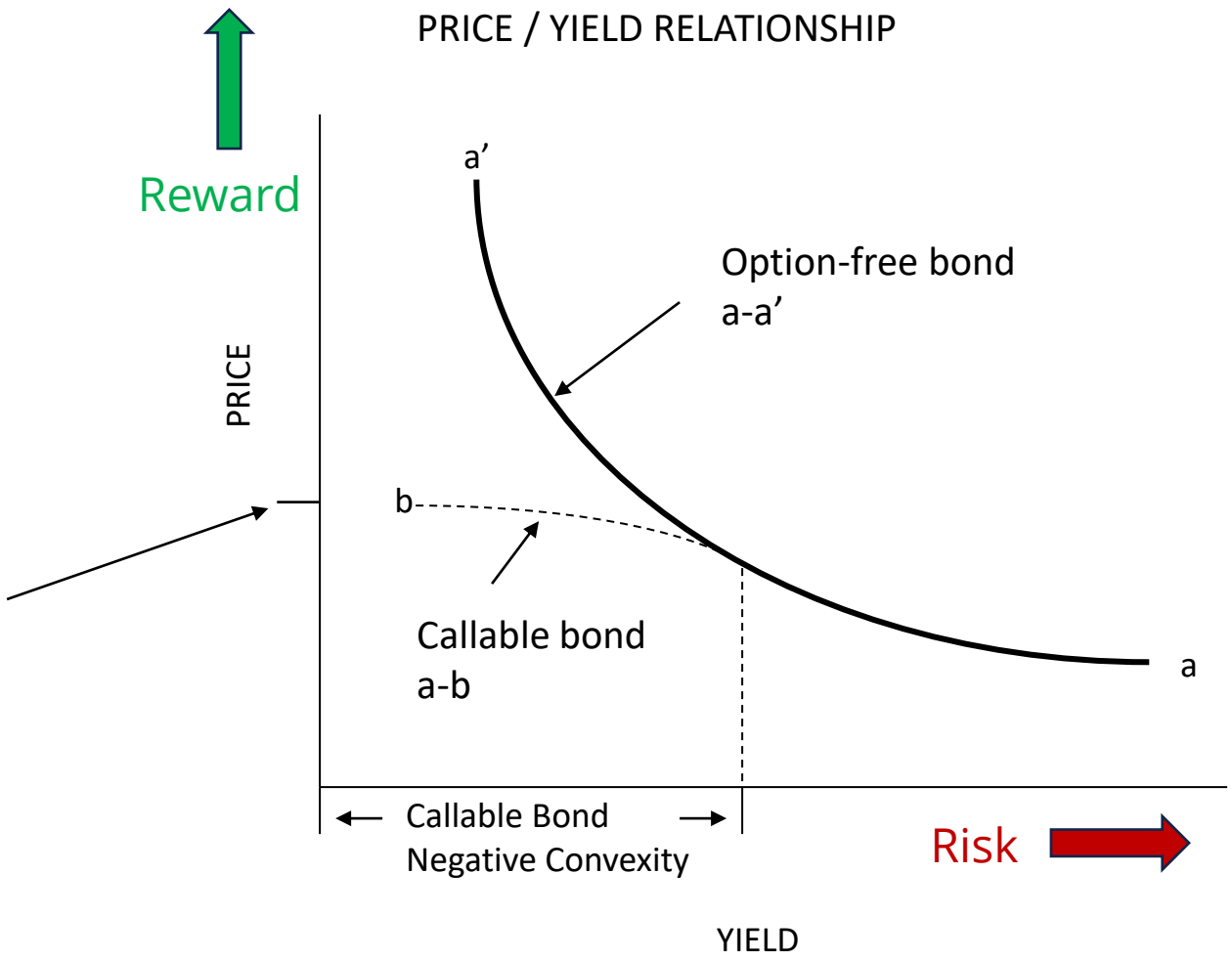
YIELD CURVE IS A GAUGE OF REINVESTMENT RISK

Why would a 1-Yr T-Bill have a higher yield than a 2-year Treasury?



CALL RISK

CALL RISK



Reward Cap

Continuously callable bond will not appreciate above 100

CALL RISK IMPACT ON RETURNS

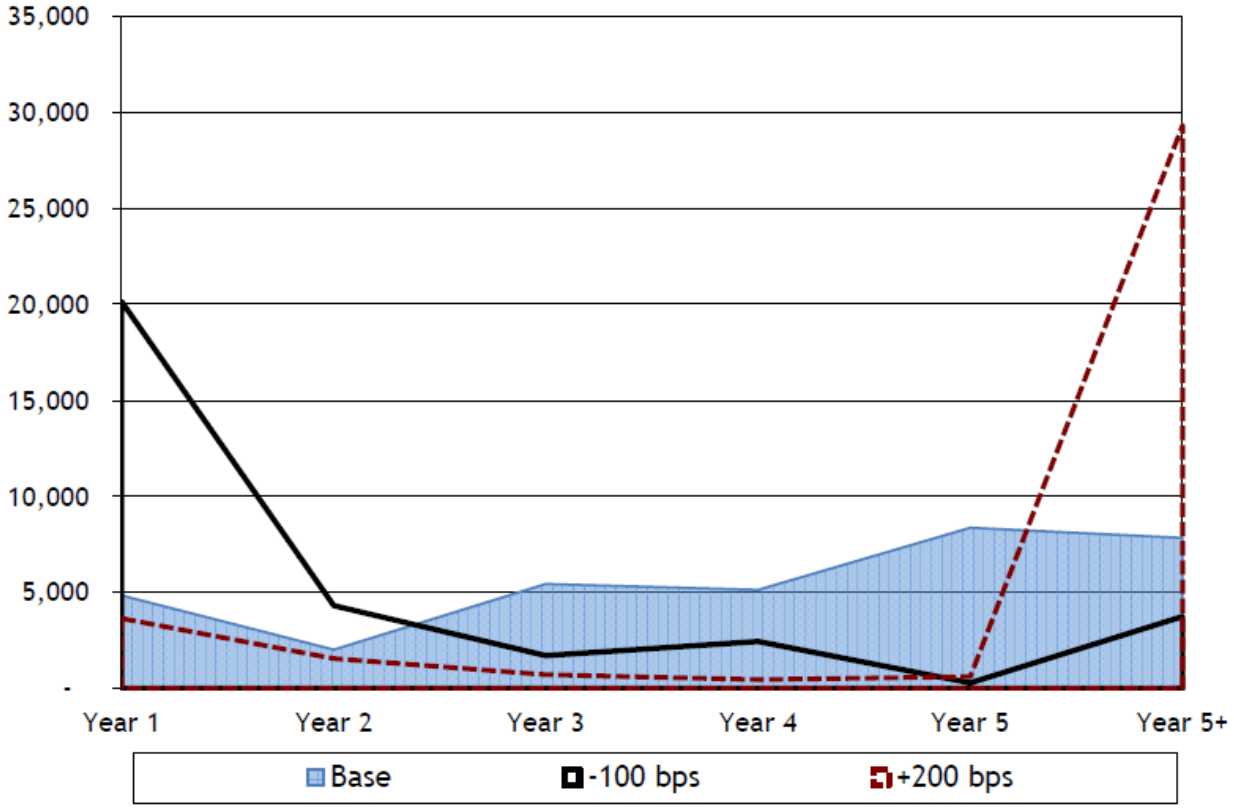
If a bond is called, returns likely suffer in three ways:

- Above market coupon is taken away
- Miss out on price appreciation
- Forced to reinvest at lower rates

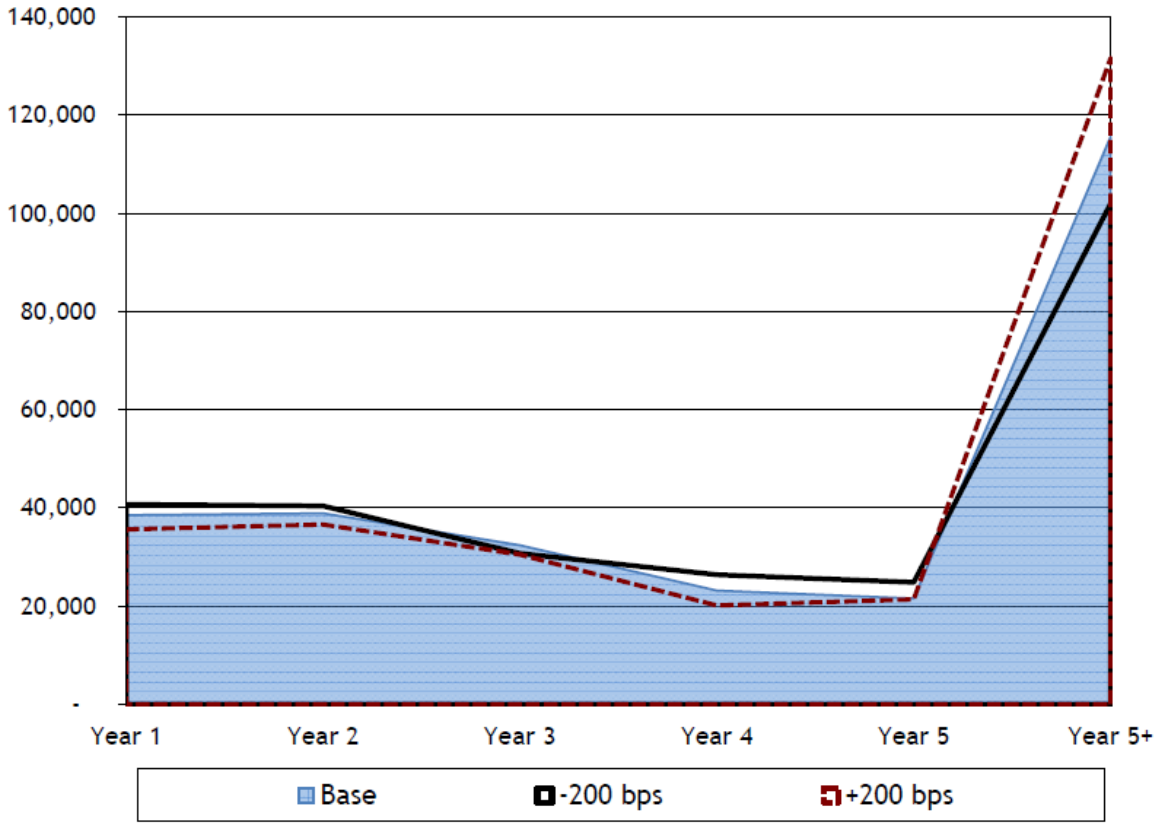
Avoid Callable Bond “Trap”

CALL RISK IN PORTFOLIOS – CASH FLOW

Lots of optionality = we get cash flow only when we do not want it, hurting returns



Stable profile = predictable cash flow means we can achieve better returns over time



DOES MORE YIELD MEAN MORE RETURN?

WHICH IS A "HIGHER RETURN" SECURITY?

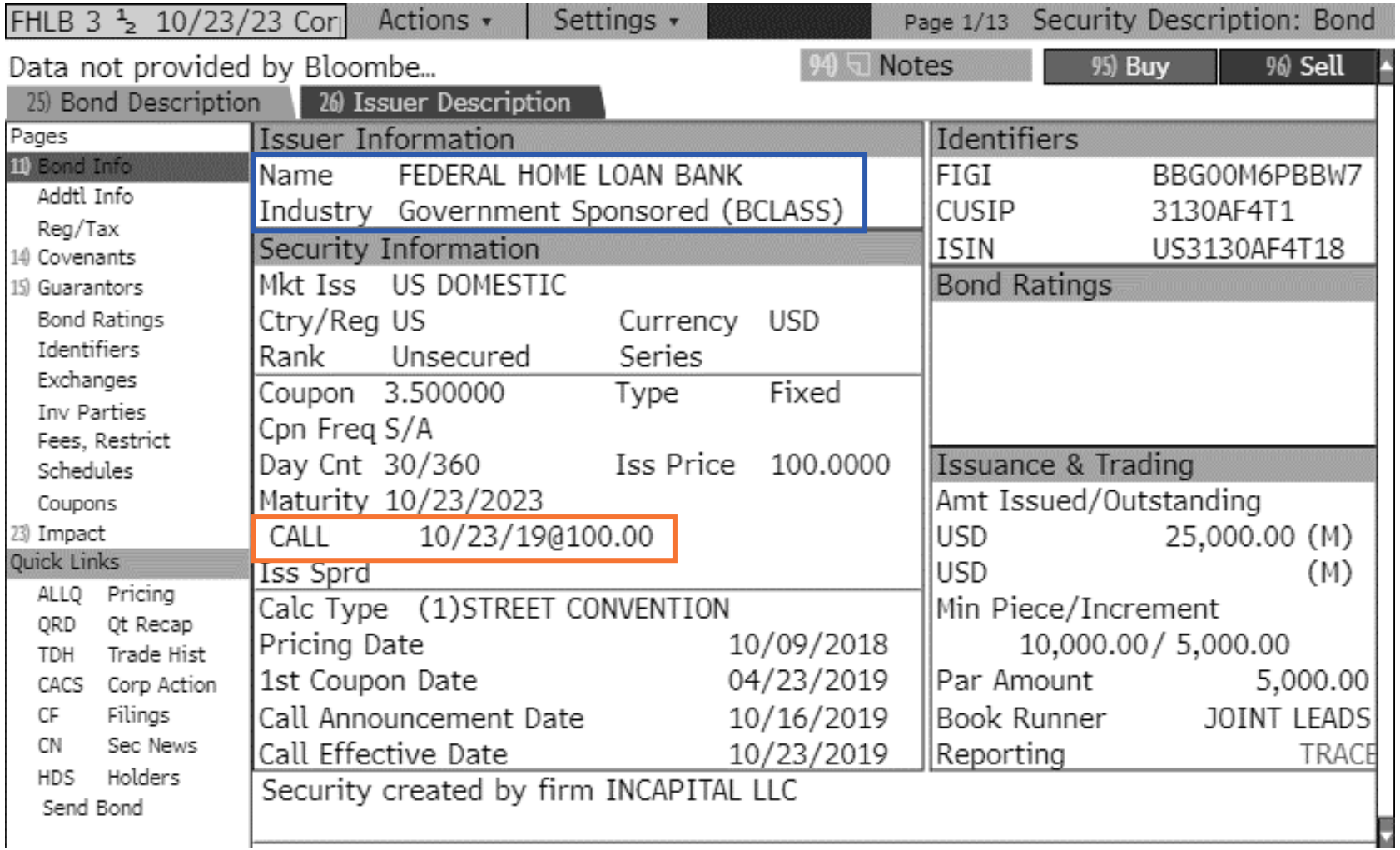
1) Both are 5 Year Risks
2) Both are Government Quality
3) 2018 – Top of Fed Cycle

Today

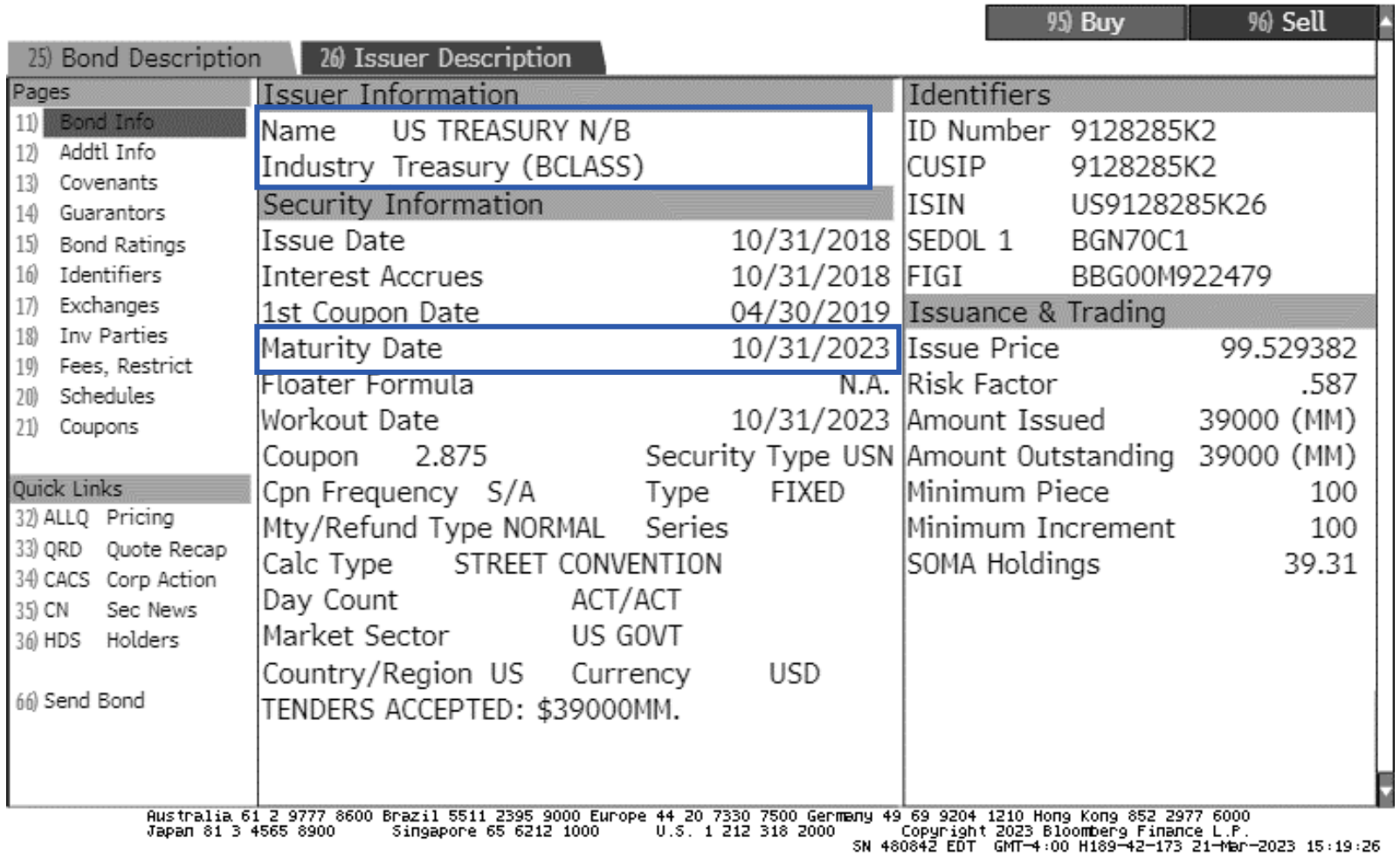
	A	B
Price	100.00	99.65
Yield	3.50	3.06

SECURITY A DESCRIPTION: 5 Yr Non-Call 1 Yr Agency

Callable in 1 Year



SECURITY B DESCRIPTION: 5 Year Treasury Note



Yield To Maturity: 3.06%

1 Year Horizon

In October 2018, you had a choice of purchasing a 5-year NC 1 or 5-Year Treasury. You got +44bps spread over a 5-Year Treasury by purchasing a 5-Year NC 1. On a $1,000,000 Investment, who won and by how much?

Agency by $4,400	A
Treasury by $14,400	B
Agency by $22,000	C
Treasury by $51,600	D

HISTORICAL YIELD CURVE (1 YEAR HORIZON)

US Treasury Actives Curve | Actions | Chart | Export | Settings | Graph Curves

X-Axis Tenor Y-Axis Ask YTM Currency None PCS BGN

Specific 10/23/19 10/09/18 Relative Last 1D 1W Modify « Curves & Relative Value

Values and Members Values Members Constituents

		I25 Ask YTM US Treasury Actives Curve	I25 Ask YTM US Treasury Actives Curve	I25 Ask YTM (Change)
	Tenor	10/23/19	10/09/18	10/23/19-10/09/18
11	1M	1.733	2.152	-41.9
12	2M	1.692		
13	3M	1.651	2.235	-58.3
14	6M	1.635	2.421	-78.6
15	1Y	1.576	2.617	-104.1
16	2Y	1.582	2.885	-130.3
17	3Y	1.580	2.979	-139.9
18	5Y	1.591	3.056	-146.5
19	7Y	1.678	3.148	-147.1
20	10Y	1.764	3.206	-144.2
21	30Y	2.254	3.369	-111.4

Where did rates go from purchase to horizon date?

WHAT HAPPENED TO OUR SECURITIES?

Security A – CALLED IN 1 YEAR

Security B – PRICE APPRECIATED:

Horizon	Date	Treasury Price
Original Purchase	10/9/18	99.65
1 Year from Purchase	10/23/19	105.25
Difference		5.60

Security B appreciated by 5.6 points from purchase

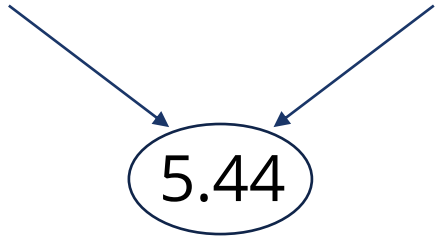
TOTAL RETURN COMPARISON

	Security A	Security B	Difference
Beginning $$	$1,000,000	$1,000,000	$ -
Income	35,000	30,600	(4,400)
Market Value Δ	-	56,000	56,000
Ending $$	$1,035,000	$1,086,600	$ 51,600
Purchase Yield	**3.50%**	**3.06%**	**0.44%**
Total Return	**3.50%**	**8.66%**	**-5.16%**

Answer: D. Treasury by $51,600

INCOME TO MATURITY ANALYSIS

Security A	Security B	Difference	Cumulative Difference
3.50	3.06	+44	44
1.59	3.06	-147	-103
1.59	3.06	-147	-250
1.59	3.06	-147	-397
1.59	3.06	-147	-544
9.86	**15.30**		



$1,000,000 x .0544 = $54,400

CONCLUSIONS

- Yield does not equal Return
- Call protection is an important component of performance
- Even if we do not sell, unrealized gain represents higher income
- The difference between Income-to-Maturity Analysis and Total Return is the Present Value of Future Cash Flows

PREPAYMENT RISK

MORTGAGE REFINANCING ACTIVITY

When Mortgage Rates are low, refinancing activity picks up.

Returned Principal in a low rate environment

↓

Lower future income

SECURITY EXAMPLE

In June of 2019, a bank purchased the following security:

G2 784658 Mtge | Export | Page 1/3 Security Description

100% G2SF 4.5 M 4.984(306)50 CUSIP 3622AAB37 Pool Level 99 Buy 96 Sell

Summary | Platinum | Comments

Pool	G2 784658	Seasoning	G2SF 4.5 M	As Of	03/2023
Type	(SP) Platinum 30 years Level pay	Vintage	G2SF 4.5 2018	Issue Date	02/01/2019
Traits	Platinum, 30/360			Maturity Date	02/20/2049
Seller	GNMA PLATINUM SEC…	Issuer	GNMA		

12 Pool Information | PDI

Coupon	4.500	WAC	4.984	Orig WAC*	4.977
		WARM	306	Orig WAM*	358
		WALA	50		

13 Collateral Information | CLC

WAOLTV	102				
WAOLTV-HPI*	71	WAOLS	225,888	Curr TPO	27.74
WAOCLTV	102	MAXLS	330,000		
WAOCS	733	WAOLT	360		
		WAODTI*	33		
# Loans	7	Delay	49 (19)		

TRACE Eligible

*Value calculated by Bloomberg

Balance

Factor	0.02631048
Orig Amt	51,847,000
Curr Amt	1,364,119

Prepay	CPR	PSA
1 Month	0.0	0
3 Month	0.1	2
6 Month	21.1	352
1 Year	37.4	624
Life	58.3	1336

18 States	%UPB
Texas	30.8
Virginia	22.2
Colorado	13.2

15 Paydown Info | PDI PERF

Prepay History	Mar23	Feb	Jan	Dec	Nov	Oct	Sep	Aug	Jul	Jun	May	Apr22
1 Month CPR	0.0	0.3	0.0	0.0	0.0	75.9	0.0	90.6	0.0	0.0	84.0	0.0
3 Month CPR	0.1	0.1	0.0	37.7	37.7	71.7	54.6	54.6	45.7	45.7	79.3	61.9
6 Month CPR	21.1	21.1	46.8	46.8	46.8	60.8	50.3	69.3	54.5	64.7	64.7	65.7
12 Month CPR	37.4	50.8	50.8	56.7	56.7	63.3	61.2	64.3	59.4	59.4	59.4	58.5

30 Yr GNMA MBS with 4.98 average loan rate

MORTGAGE POOL HISTORY

80% of the pool balance paid off (refi) in 1 year as mortgage rates dropped

G2 784658 **99-07¼** 99-05¾/99-08¾ Yield 4.676/4.655 Coupon 4.500% BVAL
As of 21 Mar Prepay 100 BAM Ginnie Mae II Pool BAM TOAS 18.2
G2 784658 Mtge | Export | Paydown Information
100% G2SF 4.5 M 4.984(306)50 CUSIP 3622AAB37 Pool Level

Summary | Paydown | Collateral | Performance

Date	Factor	Coupon	Balance	WAC	WAM	WALA	1M CPR	3M CPR	6M CPR	12M CPR
04/2021	0.104967780	4.50000	5,442,264.49	4.981	330	27	66.07	44.77	41.03	55.63
03/2021	0.115027430	4.50000	5,963,827.16	4.994	327	26	50.22	29.59	35.03	52.08
02/2021	0.122088080	4.50000	6,329,900.68	4.990	328	25	0.24	31.38	43.93	59.30
01/2021	0.122286410	4.50000	6,340,183.50	4.990	329	24	29.70	37.04	53.92	64.55
12/2020	0.126109090	4.50000	6,538,377.99	4.983	330	23	53.92	40.06	60.17	67.93
11/2020	0.134711240	4.50000	6,984,373.66	4.977	331	22	22.95	54.18	64.56	71.77
10/2020	0.137863300	4.50000	7,147,798.52	4.974	333	21	39.34	66.27	66.61	79.86
09/2020	0.143928320	4.50000	7,462,251.61	4.981	334	20	79.42	73.54	64.66	84.62
08/2020	0.164422240	4.50000	8,524,799.88	4.987	334	19	69.26	72.58	70.47	82.94
07/2020	0.181653420	4.50000	9,418,184.87	4.992	337	18	70.71	66.95	72.73	81.36
06/2020	0.201500320	4.50000	10,447,187.09	4.995	337	17	77.11	52.80	74.18	79.35
05/2020	0.228149330	4.50000	11,828,858.31	5.003	339	16	46.18	68.19	77.51	76.72
04/2020	0.240557520	4.50000	12,472,185.74	5.005	340	15	14.66	77.51	87.86	75.49
03/2020	0.244081220	4.50000	12,654,879.01	5.005	341	14	92.99	85.87	93.31	75.18
02/2020	0.304997620	4.50000	15,813,211.60	4.999	343	13	80.97	84.11	90.15	69.03
01/2020	0.350687240	4.50000	18,182,081.33	4.994	344	12	78.85	93.44	87.25	64.44
12/2019	0.399683110	4.50000	20,722,370.20	4.994	346	11	90.02	96.83	83.49	
11/2019	0.484943520	4.50000	25,142,866.68	4.990	348	10	98.66	93.90	75.90	
10/2019	0.695726210	4.50000	36,071,316.81	4.980	349	9	97.62	75.21	50.55	
09/2019	0.951092720	4.50000	49,311,304.25	4.975	349	8	28.56	13.90	7.90	
08/2019	0.979370740	4.50000	50,777,434.76	4.977	350	7	10.59	4.88	2.64	
07/2019	0.989793200	4.50000	51,317,808.04	4.977	352	6	0.08	1.33	0.81	
06/2019	0.991098920	4.50000	51,385,505.71	4.977	353	5	3.66	1.49		
05/2019	0.995424650	4.50000	51,609,781.83	4.977	354	4	0.21	0.36		
04/2019	0.996837900	4.50000	51,683,054.60	4.977	355	3	0.55	0.28		
03/2019	0.998522680	4.50000	51,770,405.39	4.977	357	2	0.30			
02/2019	1.000000000	4.50000	51,847,000.00	4.977	357	2				