



# Economic Backdrop & Loan Pricing

Tom Evans, CFA

## FIRST 15 DERBY WINNERS

- 1889: Spokane
- 1888: Macbeth II
- 1887: Montrose
- 1886: Ben Ali
- 1885: Joe Cotton
- 1884: Buchanan
- 1883: Leonatus
- 1882: Apollo
- 1881: Hindoo
- 1880: Fonso
- 1879: Lord Murphy
- 1878: Day Star
- 1877: Baden-Baden
- 1876: Vagrant
- 1875: Aristides

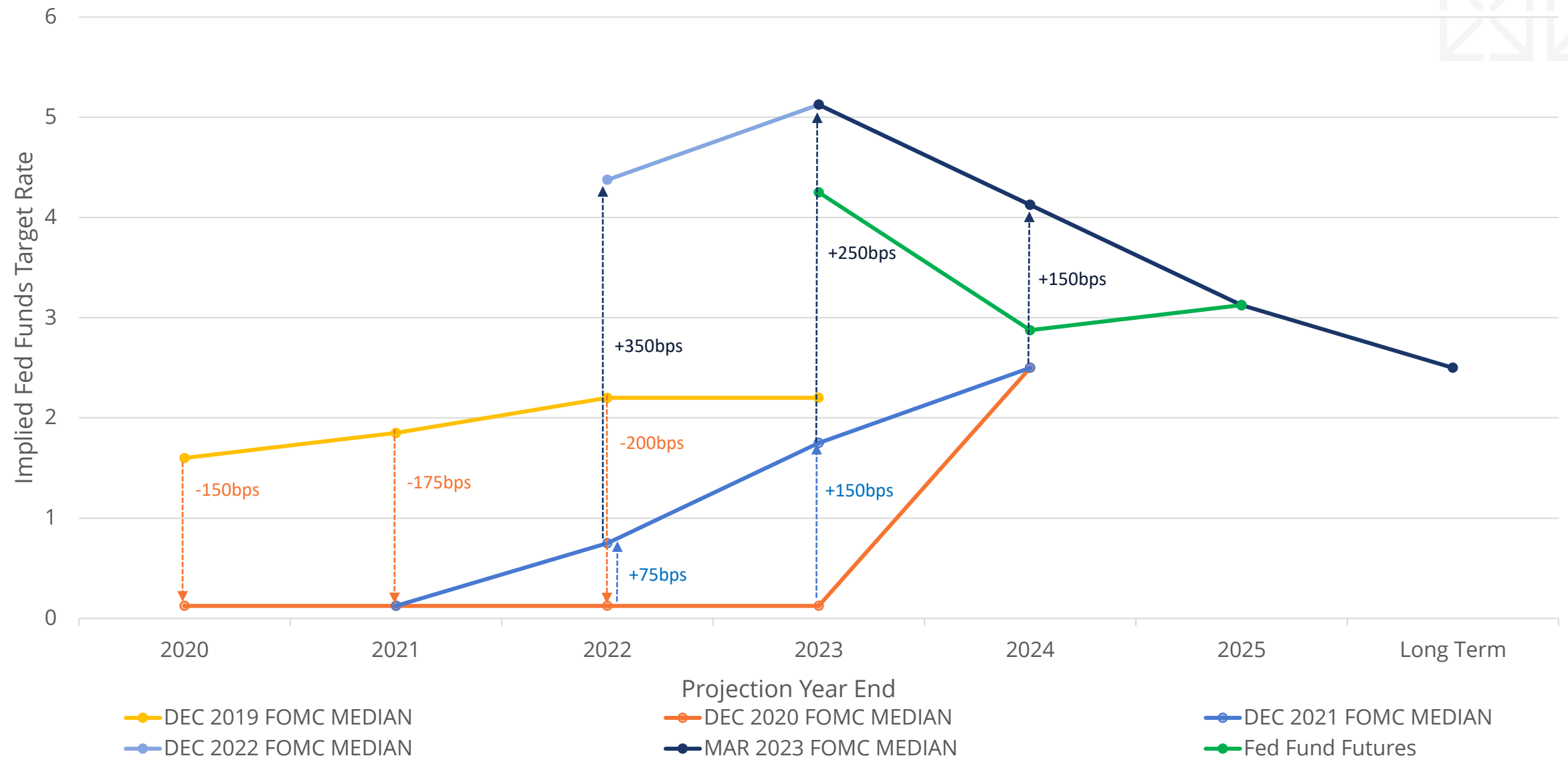
## LAST 15 DERBY WINNERS

- 2022: Rich Strike
- 2021: Mandaloun
- 2020: Authentic
- 2019: Country House
- 2018: Justify \*
- 2017: Always Dreaming
- 2016: Nyquist
- 2015: American Pharoah \*
- 2014: California Chrome
- 2013: Orb
- 2012: I'll Have Another
- 2011: Animal Kingdom
- 2010: Super Saver
- 2009: Mine That Bird
- 2008: Big Brown

## WINNERS IN THIS PRESENTATION

- 2018: Justify \*
- 2017: Always Dreaming
- 2002: War Emblem
- 1999: Charismatic
- 1998: Real Quiet
- 1997: Silver Charm
- 1996: Grindstone
- 1950: Middleground
- 1949: Ponder
- 1926: Bubbling Over
- 1915: Regret
- 1893: Lookout

# FED DOT PLOT & IMPLIED FED FUNDS TARGET RATE



Source: Bloomberg

# FED FUNDS RATE PROBABILITY

Set Default | Export | World Interest Rate Probability

Show Models >>

Enable Overrides

Region: United States >>

Instrument: Fed Funds Futures >>

Target Rate 5.00

Pricing Date

04/12/2023

Effective Rate 4.83

Cur. Imp. O/N Rate

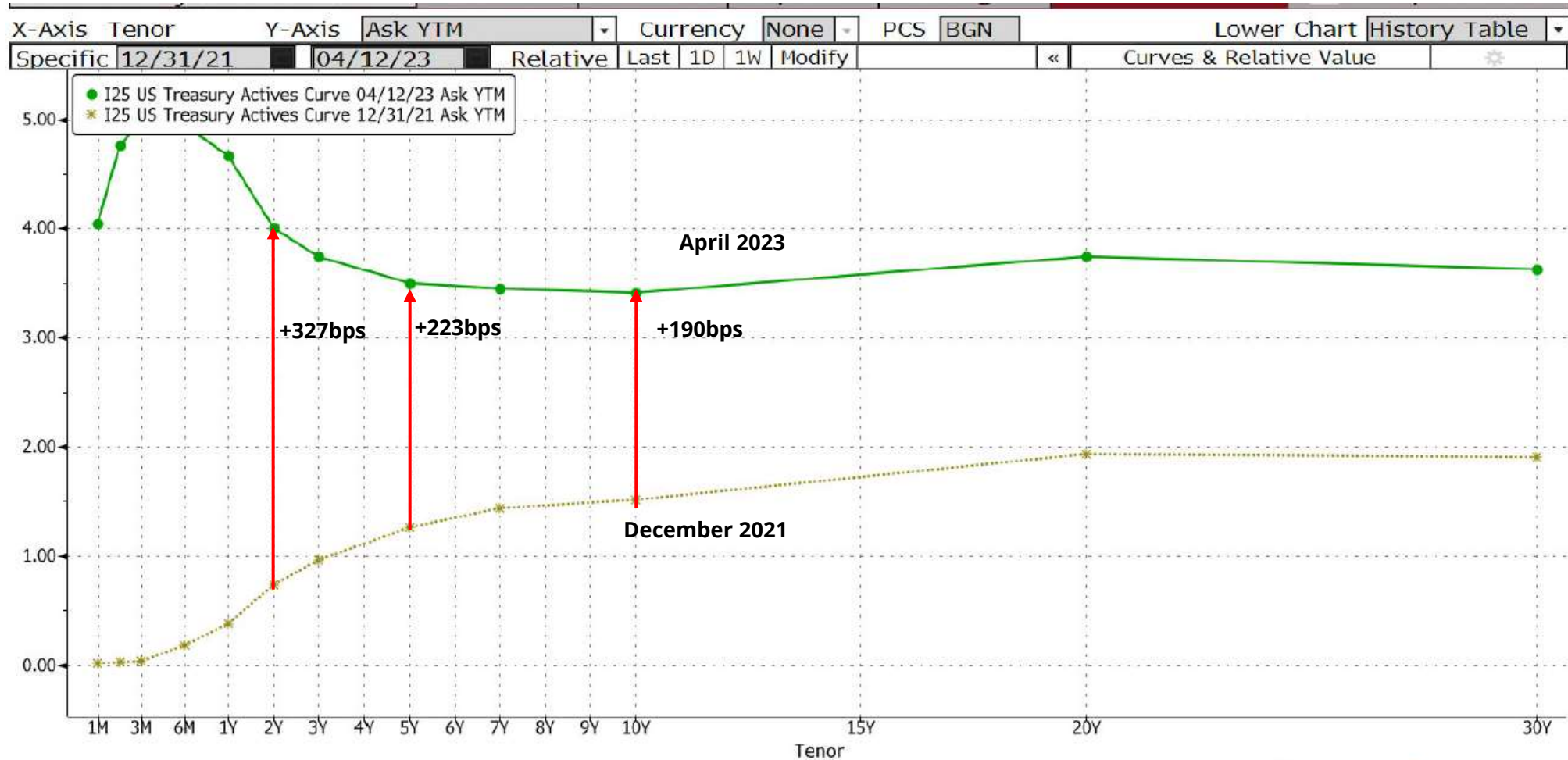
4.826

Meeting	#Hikes/Cuts	%Hike/Cut	Imp. Rate Δ	Implied Rate	A.R.M.
05/03/2023	+0.758	+75.8%	+0.190	5.016	0.250
06/14/2023	+0.817	+5.9%	+0.204	5.031	0.250
07/26/2023	+0.325	-49.2%	+0.081	4.908	0.250
09/20/2023	-0.345	-67.0%	-0.086	4.740	0.250
11/01/2023	-1.058	-71.3%	-0.265	4.562	0.250
12/13/2023	-1.785	-72.7%	-0.446	4.380	0.250
01/31/2024	-2.595	-81.0%	-0.649	4.177	0.250

**#Hikes/Cuts** – cumulative number of 25 bps rate hikes/cuts  
**%Hike/Cut** – probability of a 25 bps rate hike/cut  
**Imp. Rate** – cumulative implied rate change in bps  
**Implied Rate** – implied effective rate after hikes/cuts  
**A.R.M.** - expected size of the rate hike/cut

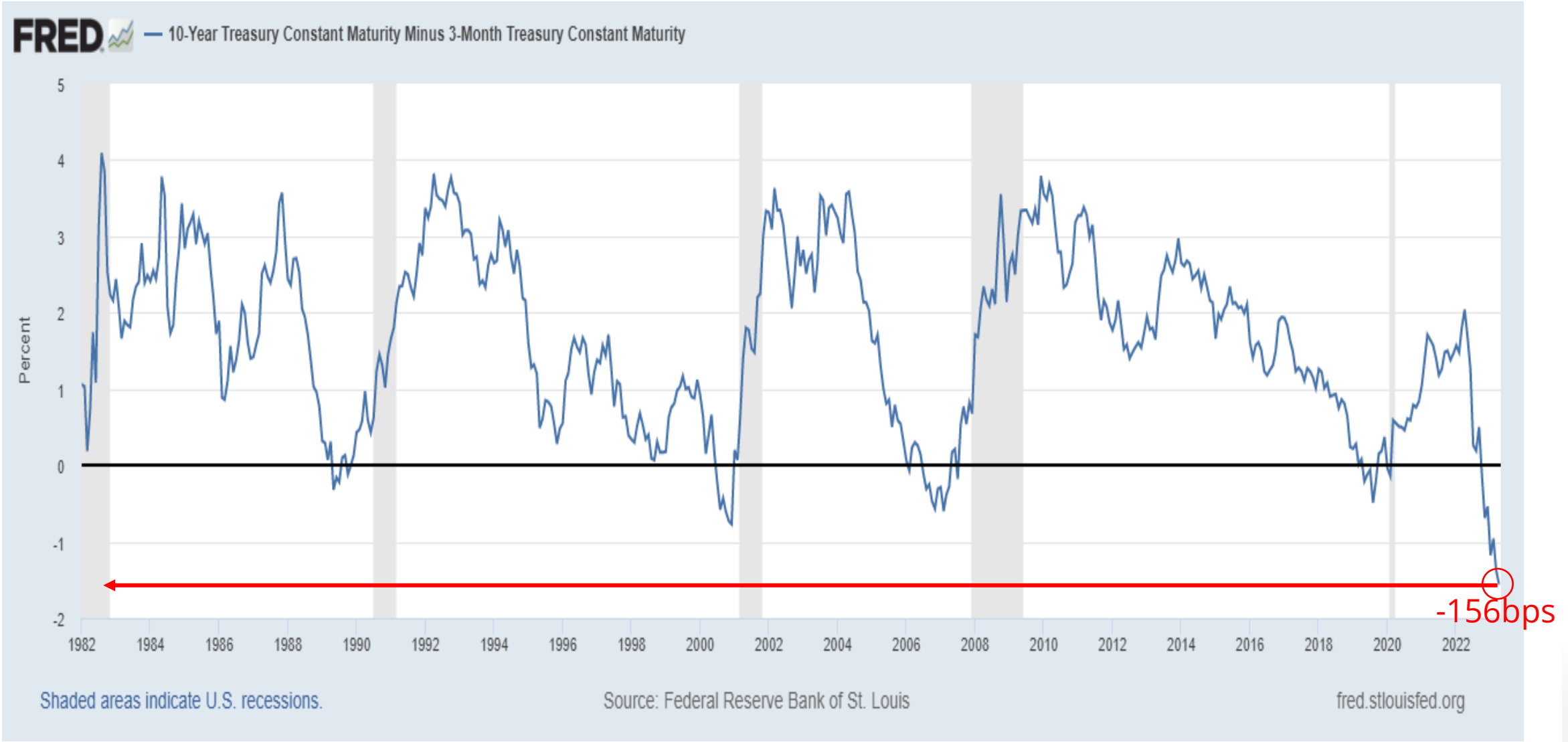


# TREASURY RATES



Curve Id	1M	3M	2Y	5Y	10Y	20Y	30Y
1) I25 04/12/23	4.044	4.976	4.004	3.493	3.407	3.739	3.627
12) I25 12/31/21	0.015	0.030	0.732	1.263	1.510	1.933	1.903
13) I25 (04/12/23-12/31/21)	402.9	494.5	327.2	223.1	189.7	180.6	172.4

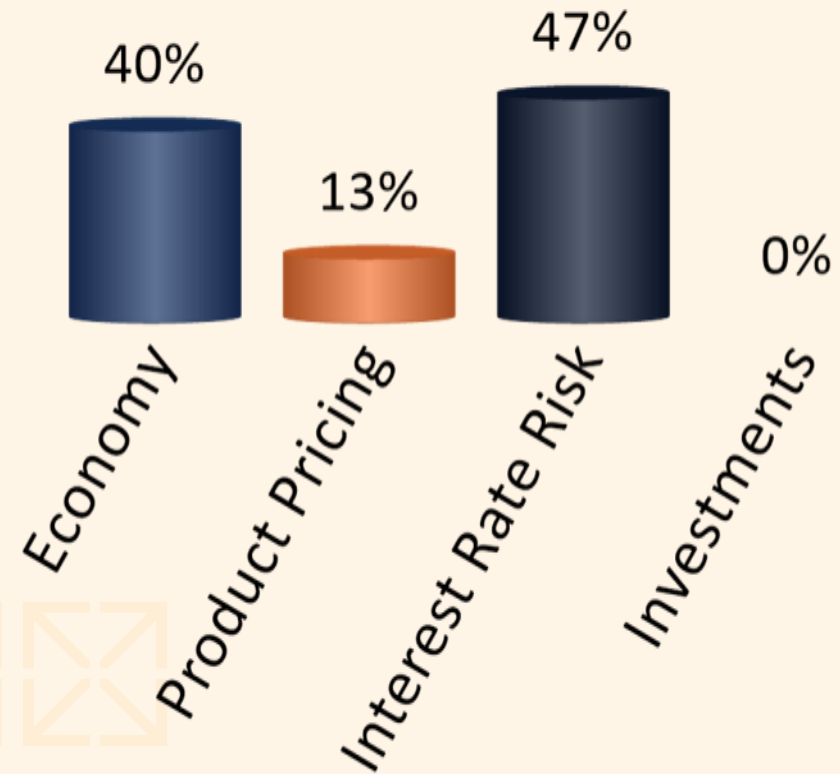
# YIELD CURVE INVERSION – 3 MONTH vs 10 YEAR



# APRIL 2022 RESPONSES:

## WHICH AREA IN YOUR ALCO MEETINGS DO YOU OVERWEIGHT?

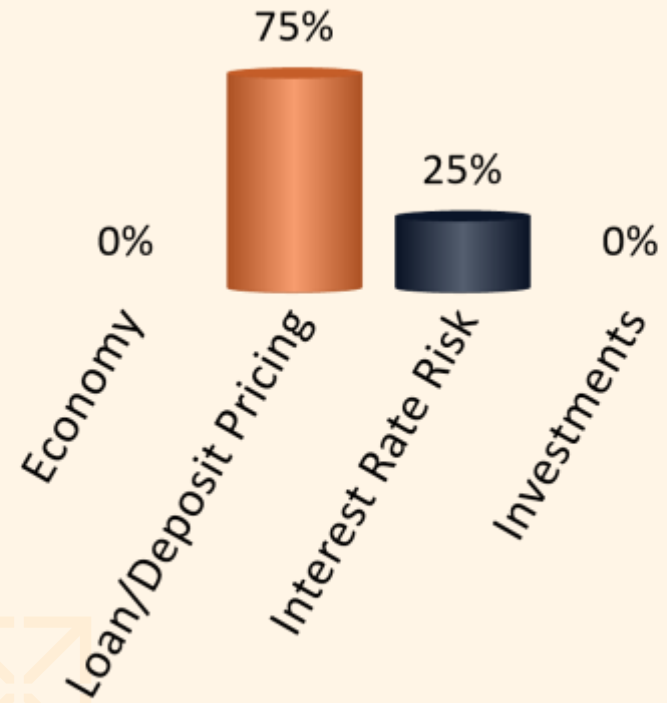
- A. Economy
- B. Loan/Deposit Pricing
- C. Interest Rate Risk
- D. Investments



# MARCH 2023 RESPONSES:

## WHICH AREA IN YOUR ALCO MEETINGS DO YOU OVERWEIGHT?

- A. Economy
- B. Loan/Deposit Pricing
- C. Interest Rate Risk
- D. Investments





# STUDY THE PAST

# ASSET MIX TREND



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



## Margin Management: Earning Asset Yields - Mix, Selection, Pricing

3/06/18 | 4 MIN READ

### Margin Depression

From the end of 1992 to the beginning of 2018, net interest margins in the Banking industry have declined about 100 basis points, with earning asset yields declining from 8.1% to 4.2%, and funding costs falling from 3.8% to 0.5%. This margin compression has been offset by either lower credit losses and/or lower net non-interest expense. So the question remains, where do margins go from here?

With funding costs either bottoming out last quarter for most institutions (or close to it) and the Federal Reserve telegraphing several increases in the Fed Funds...

[Read Full Article](#)

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With funding costs either bottoming out last quarter for most institutions (or close to it) and the Federal Reserve telegraphing several increases in the Fed Funds Target Rate, funding costs are likely to increase over the remainder of the tightening cycle as customers begin their secular migration back into higher yielding deposit products.

The focus shifts to earning asset yields and whether institutions will be able to pass along increases in the Prime Rate and other rates along the Treasury yield curve by raising loan rates. We will examine factors impacting earning asset yields and suggest strategies to stabilize risk-adjusted earning asset yields.

# How is Loan Demand at your Institution, Net New Loan Demand:

**Real Quiet (1998)**, we expect loans to be flat to down

**Middleground (1950)**, we expect incremental growth

**Bubbling Over (1926)**, high single digit to double digit growth

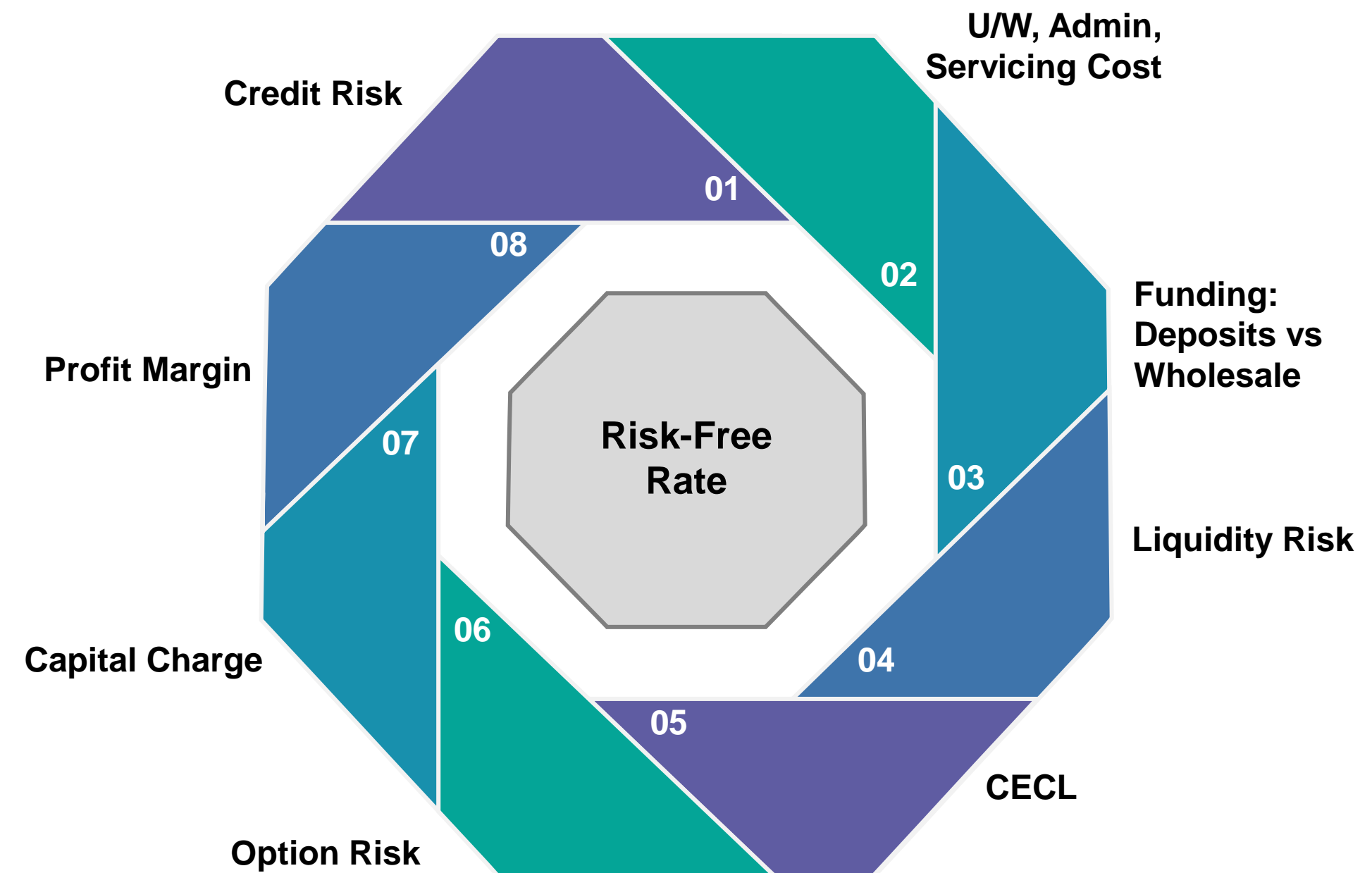
A A

B B

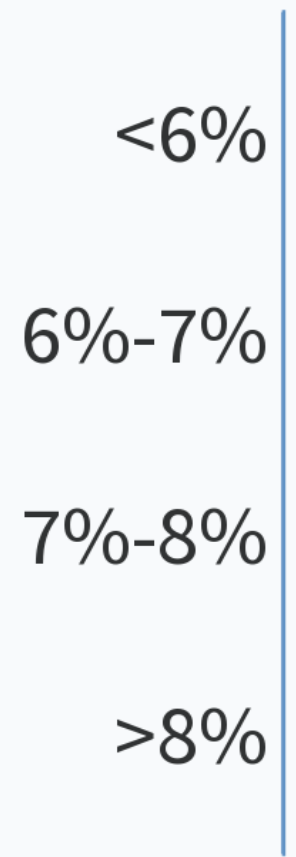
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# WHAT GOES IN TO PRICING A LOAN!



# What is your current pricing for a new strong credit?



# LOAN PRICING BASICS... WHAT CAN WE CONTROL BEST?

- Credit Spread/Risk Premium
- Call Protection
- Deposit Relationships



# CREDIT RISK

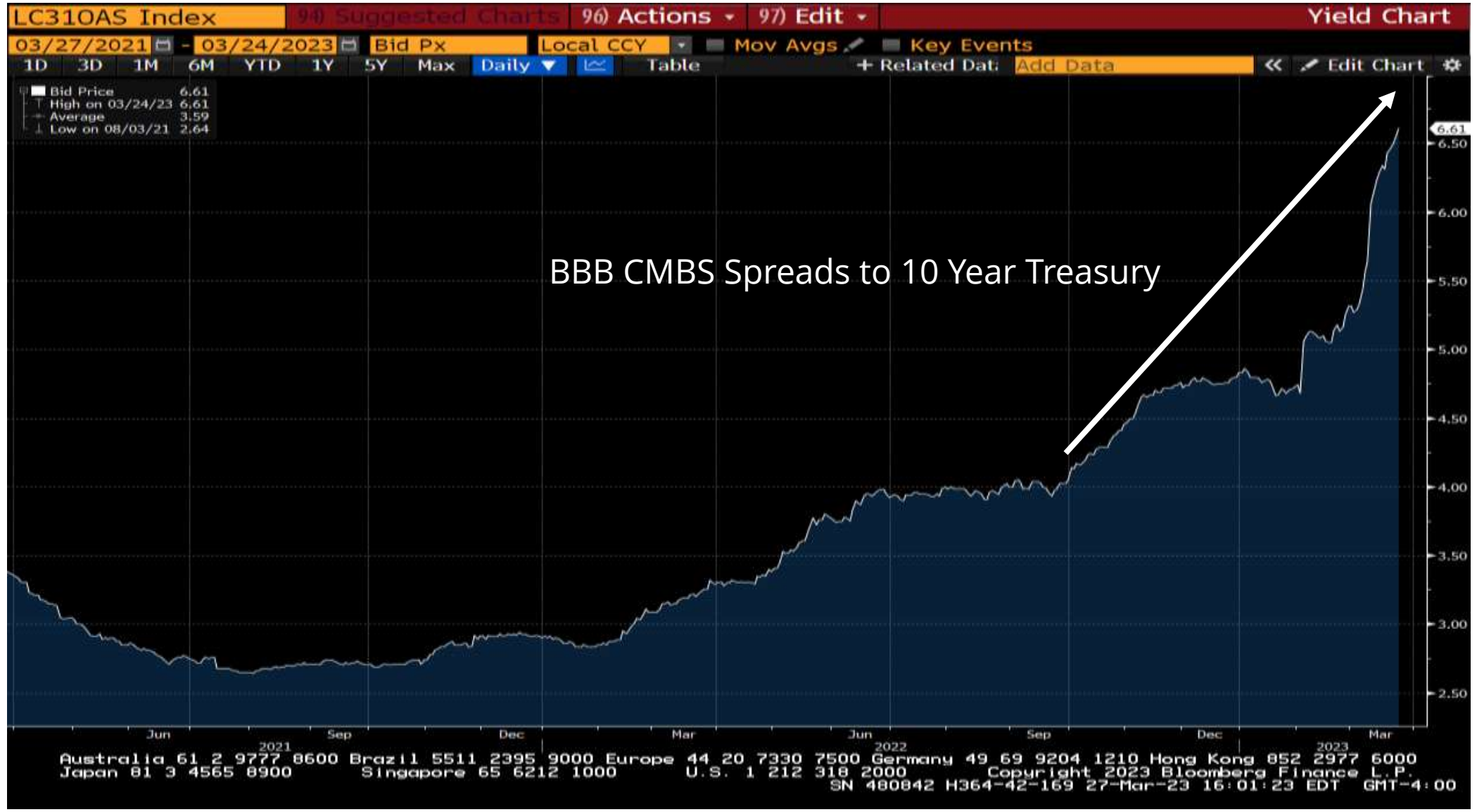
- Risk of Default and Loss Given Default are the Biggest Unknowns in Pricing
- Not All Credits are Created Equally
- Credit Spreads are Widening
- What is the Market Telling Us Today?



# BORROWER STRENGTH AND PROPERTY TYPE ARE IMPORTANT DETERMINANTS OF CREDIT RISK PREMIUM

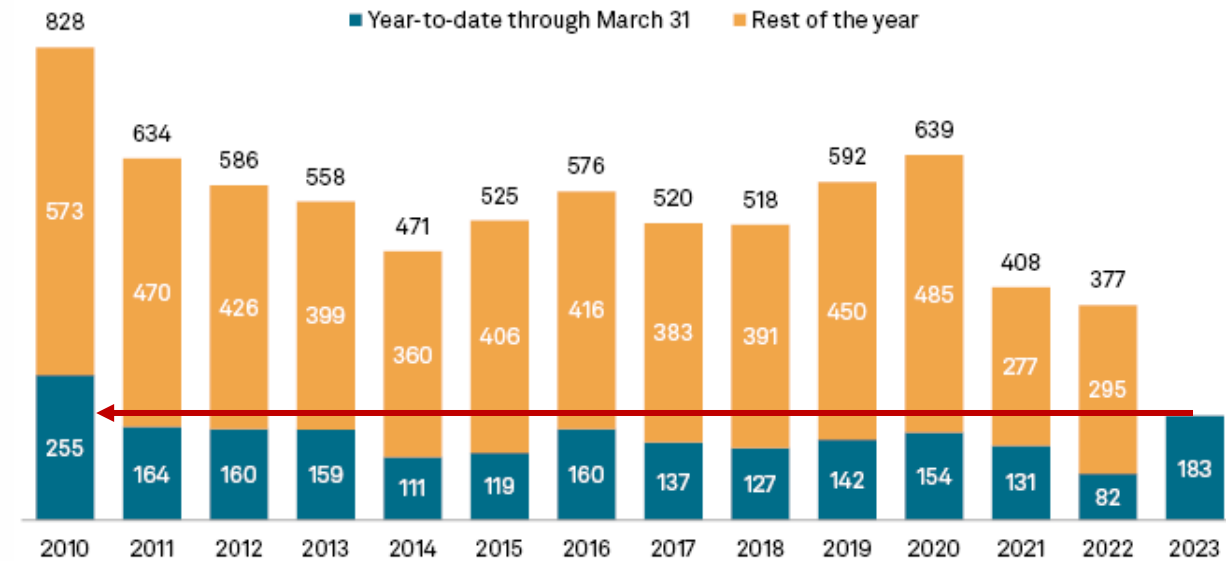
1) Contact		2) Export		CWSG
		Cushman & Wakefield 1290 Avenue of the Americas New York, NY 10104		<b>Contact Information</b> Chris Moyer (212-841-9220) Chris.Moyer@cushwake.com
Show data as of <b>Most Recent</b>				
1) Mortgage Financing		2) Recent Deals / Closings / Quotes		
Senior Mortgage Matrix				
Property Type	3-5 Yr Floating Rate Mortgages (1,2,3,4)		5/10 Yr Fxd Rate Mortgages (5,6,7)	
	LTV < 60%	LTV > 60%	LTV < 60%	LTV > 60%
Multifamily - Agency	190 - 225	220 - 260	145 / 140	165 / 160
Multifamily - Non-Agency	175 - 220	195 - 245	160 / 160	180 / 180
Retail - Malls	275 - 335	295 - 390	285 / 280	320 / 310
Retail - Grocery Anchored	245 - 320	285 - 400	210 / 200	235 / 225
Retail - Strip & Power Center	260 - 320	290 - 405	270 / 260	305 / 295
Industrial - Multitenant	175 - 220	195 - 245	180 / 170	205 / 195
Office - CBD	200 - 245	225 - 285	235 / 225	270 / 245
Office - Suburban	210 - 260	240 - 300	255 / 245	285 / 265
Lodging - Full Service	330 - 400	360 - 520	405 / 390	455 / 440
Lodging - Limited Service	370 - 460	400 - 540	435 / 420	485 / 470
(1) Assumes interest only; (2) - indicates range; (3) Index rate is 30-day LIBOR; (4) LIBOR floor of 0.0 - 2.0%; (5) Assumes no lender fee; (6) / indicates 5-Yr vs. 10-Yr rates; (7) Index rate is corresponding Treasury rate				

# CRE CREDIT SPREADS: A LOOK AT THE CMBS MARKET



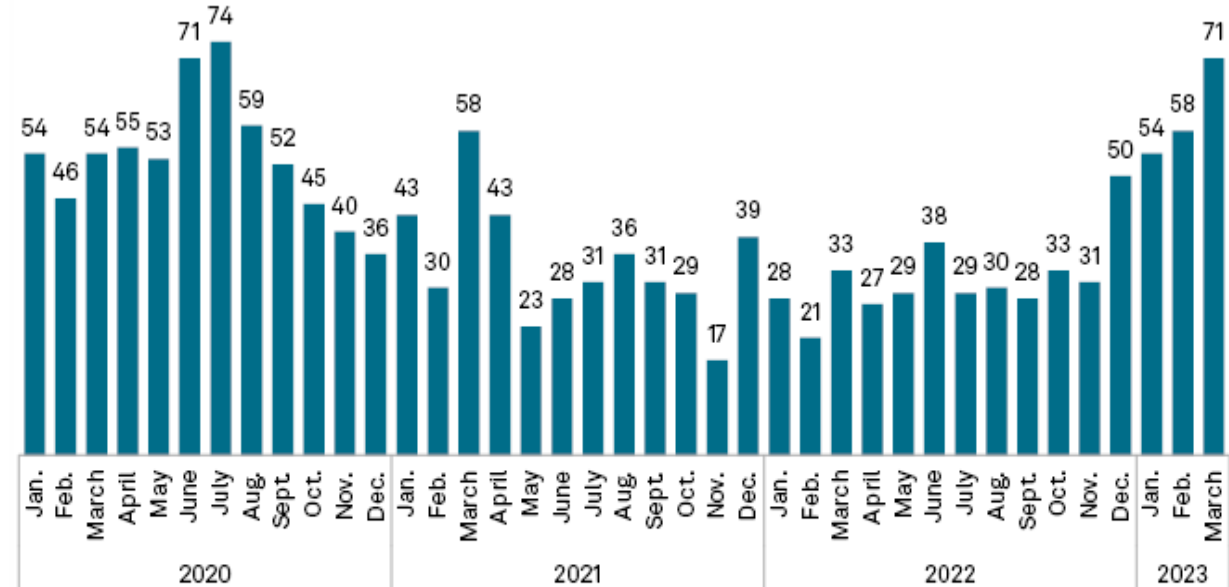
# BANKRUPTCIES ON THE RISE...

### US bankruptcy filings by year



Includes S&P Global Market Intelligence-covered US companies that announced a bankruptcy between Jan. 1, 2010, and March 31, 2023.

### US bankruptcy filings by month



Data compiled April 4, 2023.

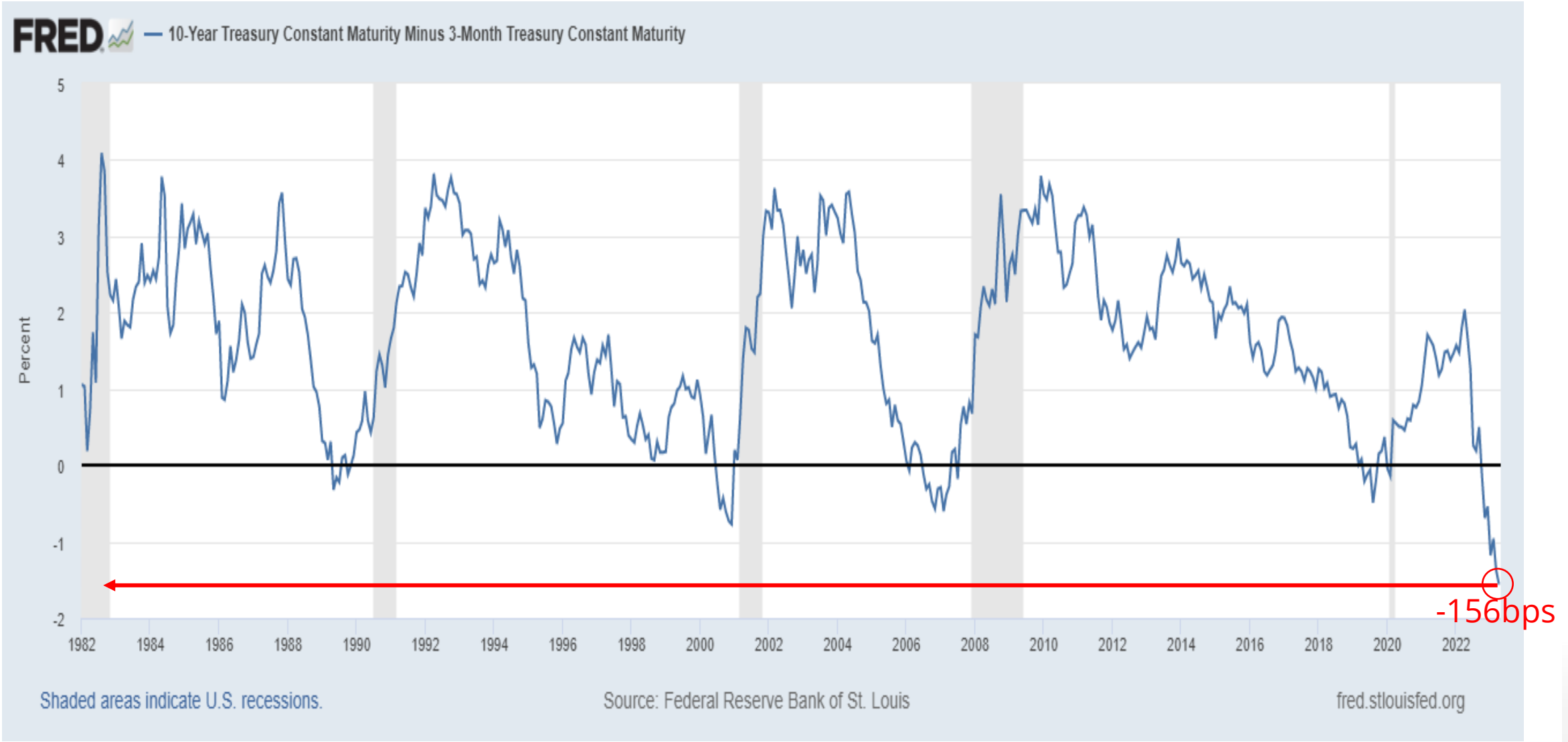
Includes S&P Global Market Intelligence-covered US companies that announced a bankruptcy between Jan. 1, 2020, and March 31, 2023.

S&P Global Market Intelligence's bankruptcy coverage is limited to public companies or private companies with public debt where either assets or liabilities at the time of the bankruptcy filing are greater than or equal to \$2 million, or private companies where either assets or liabilities at the time of the bankruptcy filing are greater than or equal to \$10 million.

Source: S&P Global Market Intelligence.

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# WHAT IS THE YIELD CURVE TELLING US?



## Does your Institution use prepayment penalties?

Always, we're **Charismatic (1999)** about prepayment penalties

Sometimes, we'll **Ponder (1949)** prepayment penalties on a case-by-case basis

Never, we would **Regret (1915)** asking for that, they don't have any **Worth (1912)**

A A

B B

C C

# OPTIONALITY – CALL PROTECTION

- An effective tool designed to limit customers willingness and ability to externally refinance debt if/when rates are lower
- Remember: We take on risk if rates escalate meaningfully by lending fixed rate...so why not ask for the same for rates down from our relationships?
- Have to sell this to your customers and soften the blow – “External Refinancing Penalty” –  
**We’re relationship bankers, not transactional**
- Not meant to punish a customer who is a *Super Saver (2007)* and makes prudent principal curtailments
- Let’s look at some types of Prepayment Penalties

# PREPAYMENT PENALTIES AND EXAMPLES

## ➤ Defeasance, Yield Maintenance, Make Whole

- Very punitive for rates down
- Often seen in corporate bonds and syndicated loans or CMBS
- Also seen in back-to-back swap loans

## ➤ Static or Declining Points

- Most common in the community banking space
- % Current/Original Balance – 2% for 5 yrs, 3% for 5 yrs
- Declining Points – 5,4,3,2,1; 3,3,3,2,1

# HOW CAN WE ATTEMPT TO QUANTIFY VALUE OF PREPAYMENT PENALTY/CALL PROTECTION? Example 1:

EXAMPLE 1:

95) Actions ▾ 96) Alerts ▾ 97) Summary 98) Set Homepage 99) Export ▾ <a href="#">New Issue Monitor</a>									
Selection *U.S. Agencies (NIM 2) ▾ 1) Show Filters 2) Clear Filters Issues & News ▾									
<input checked="" type="radio"/> Real Time <input type="radio"/> Issue History          Date Range 01/10/23 - 02/10/23          6) Prelim Issues   PREL									
	Date ↓	Issuer/Headline	Coupon	Maturity	Spread	Curr	Outst	Book Mgr	Note
			Fixed ▾	All ▾	All ▾	All ▾	All ▾		5-
101)	2/9	FREDDIE MAC	5.500	02/28/28		USD	30	JOINT LEADS	5-NC6MO INC
102)	2/8	FED FARM CREDIT	3.875	02/14/28		USD	110	JOINT LEADS	5-NC
103)	2/8	FED HOME LN BANK	4.700	02/14/28		USD	50	CITI-sole	5-NC2 BERM
104)	2/8	FED HOME LN BANK	5.000	02/09/28		USD	40	FHN-sole	5-NC1.5 INC
105)	2/7	FARMER MAC	3.850	02/14/28		USD	25	MS-sole	5-NC INC
106)	2/7	FREDDIE MAC	5.100	02/28/28		USD	30	WFS-sole	5-NC1 1X INC
107)	2/7	FED HOME LN BANK	5.300	02/09/28		USD	25	FHN,MS	5-NC1 BERM
108)	2/6	FED HOME LN BANK	5.300	02/09/28		USD	75	STFL-sole	5-NC1 BERINC



# HOW CAN WE ATTEMPT TO QUANTIFY VALUE OF PREPAYMENT PENALTY/CALL PROTECTION? Example 2:

## 20 YEAR MBS no Call Protection

## FREDDIE K CMBS with Defeasance

FN MA4969 Mtge										Actions		Export		Settings		Yield Table	
100% FNCT 6 N										6.943(237)1		CUSIP 31418EQX1		Pool Level		As of 03/2023	
3/2023	171P	0.3C	0.0B	Traits	CT, 30/360	Coupon	6.0%	Maturity	2/1/43	CA	23%	2023	85%				
3Mo	--	--	--	02/01/2023	7,363,475	LTV/HLTV	63/63	Accrual	4/1-4/30	TX	23%	2022	15%				
6Mo	--	--	--	03/25/2023	7,346,918	MAXLS	525,000	Next Pay	5/25/23	FL	9%						
12Mo	--	--	--	Factor	0.9977515	WAOLS	303,113			NJ	6%						
Life	171	0.3	--	# Loans	31												
Price-to-Yield																	
Settle	04/13/23	13.6	6.0	8.1	10.2	18.2	20.3	21.9	CPR								
Indices		C+0	C+300	C+200	C+100	C-100	C-200	C-300									
Vary	0	100% BAM	100% BAM	100% BAM	100% BAM	100% BAM	100% BAM	100% BAM									
Price	102-21 <sup>5</sup> / <sub>8</sub>	5.33	5.56	5.51	5.44	5.16	5.08	5.02									
Avg Life		5.21	8.04	7.10	6.25	4.16	3.78	3.53									
Mod Duration		4.11	5.90	5.36	4.83	3.37	3.10	2.92									
Prin Win	Year	0.1-19.7	0.1-19.7	0.1-19.7	0.1-19.7	0.1-19.7	0.1-19.7	0.1-19.7									
I Spread		166	194	187	179	140	128	119									
Mar23	Feb	Jan	Dec	Nov	Oct	Sep	Aug	Jul	Jun	May	Apr	GOVT(I)	6M				
171P	--	--	--	--	--	--	--	--	--	--	--	13:25	4.82				
0.3C	--	--	--	--	--	--	--	--	--	--	--	Disc	30/360				
													5Y				
													99-24+				
													7Y				
													102-05				

FHMS K086 A2										Export		Sheets		Settings		Yield Table	
US CMBS : FREDDIE										4.427(68)53		CUSIP 3137FKSH0		% Buy		% Sell	
03/23	1mo	0.00	WAOLS	40MM	Mob...	1.60%	AK	0.41%	Coupon	3.86%	Delay	24	Maturity	11/25/2028			
30D	0.00	3mo	0.00	LTV	57.17	Mfam	92.56%	AZ	12.01%	Descr	SC,AFCC	Face	833MM	Created			
60D	0.00	6mo	0.00	DSCR	1.90			CA	8.89%	OFace	833MM	1st Proj	04/25/2023				
90+D	0.00	12mo	0.00	CL Pls	--			CO	2.54%	# Loans	54	Factor	1.0000				
								CT	2.95%	Next Pay	05/25/2023						
													Mthly				
Price-to-Yield																	
Settle	04/03/23		CF		CF		CF		CF		CF		CF				
Calls			N		N		N		N		N		N				
Vary	0	0	CPY		100	CPY		80	CPY		60	CPY					
Price	98-00	4.247	4.272	4.259	4.256	4.253	4.250	4.247									
Avg Life		5.59	5.19	5.39	5.44	5.49	5.54	5.59									
Modified Duration		4.94	4.61	4.77	4.82	4.86	4.90	4.94									
Prin Win	Year	4.7-5.7	2.6-5.4	2.8-5.7	2.9-5.7	3.1-5.7	3.6-5.7	4.7-5.7									
Spread	I	59.7	61.6	60.6	60.3	60.1	59.9	59.7									
GOVT(I)	12:57	6M	4.83	1Y	4.48	2Y	4.06	3Y	3.87	5Y	3.66	7Y	3.63				
													10Y				
													3.56				
													30Y				
													3.78				
													5Y				
													99.846				
													102.25				
													30/360				

## OPTION RISK CONCLUSION:

We should be getting compensated appropriately for our use or non-use of prepayment penalties...

➤ Acknowledge that we are taking on risk by not including and should be compensated more for this loan

➤ Give the customer a choice! Offer 2 rates, one with penalty and one without

OR...

➤ Customer can *Spend a Buck (1985)* and buy off the prepay penalty upfront

## Are your loan officers incented to gather deposits?

Yes, they put their nose to the **Grindstone (1996)** and get paid more for deposits than loans

Yes, they are always on the **Lookout (1893)** but get paid less for deposits than loans

No, we're **Always Dreaming (2017)** they will, but their job is to just make loans

A

B

C

# RELATIONSHIPS: LOANS AND DEPOSITS

➤ Are Deposits More Valuable Than Loans?

➤ In the near-term...depending on price, the answer probably is YES!!!

➤ Current overnight borrowing rates ~5%

➤ If we make a loan at 7%, we earn an immediate spread of 2%

➤ If we can get deposits <3%, we earn a higher spread for **the immediate term!**

# DEPOSIT VALUE QUANTIFICATION... A SIMPLISTIC EXERCISE

## ➤ \$1,000,000 CRE Loan to Small Business

➤ Loan Rate is 7%

➤ Bank is in a Borrowed Position with Current Rate at 5%

➤ Net Spread and Annual Income: 2% and \$20,000

## ➤ Bank gets Business Operating Accounts and Owners Checking and MMDA Account at Blended Rate of 2.5%, total \$100,000 in deposits

➤ Blended Funding Rate 4.75%

➤ Net Spread and Annual Income: 2.25% and \$22,500

# DEPOSIT VALUE QUANTIFICATION... A SIMPLISTIC EXERCISE

Annual Value of Deposit Relationship Matrix					
		% Avg Deposit Bal to Loan Size			
		5.0%	10.0%	15.0%	20.0%
Deposit Spread Below Wholesale Rates	0.5%	0.03%	0.05%	0.08%	0.10%
	1.0%	0.05%	0.10%	0.15%	0.20%
	1.5%	0.08%	0.15%	0.23%	0.30%
	2.0%	0.10%	0.20%	0.30%	0.40%
	2.5%	0.13%	0.25%	0.38%	0.50%
	3.0%	0.15%	0.30%	0.45%	0.60%
	3.5%	0.18%	0.35%	0.53%	0.70%
	4.0%	0.20%	0.40%	0.60%	0.80%

# LENDER VS BANKER – THE DUAL MANDATE!

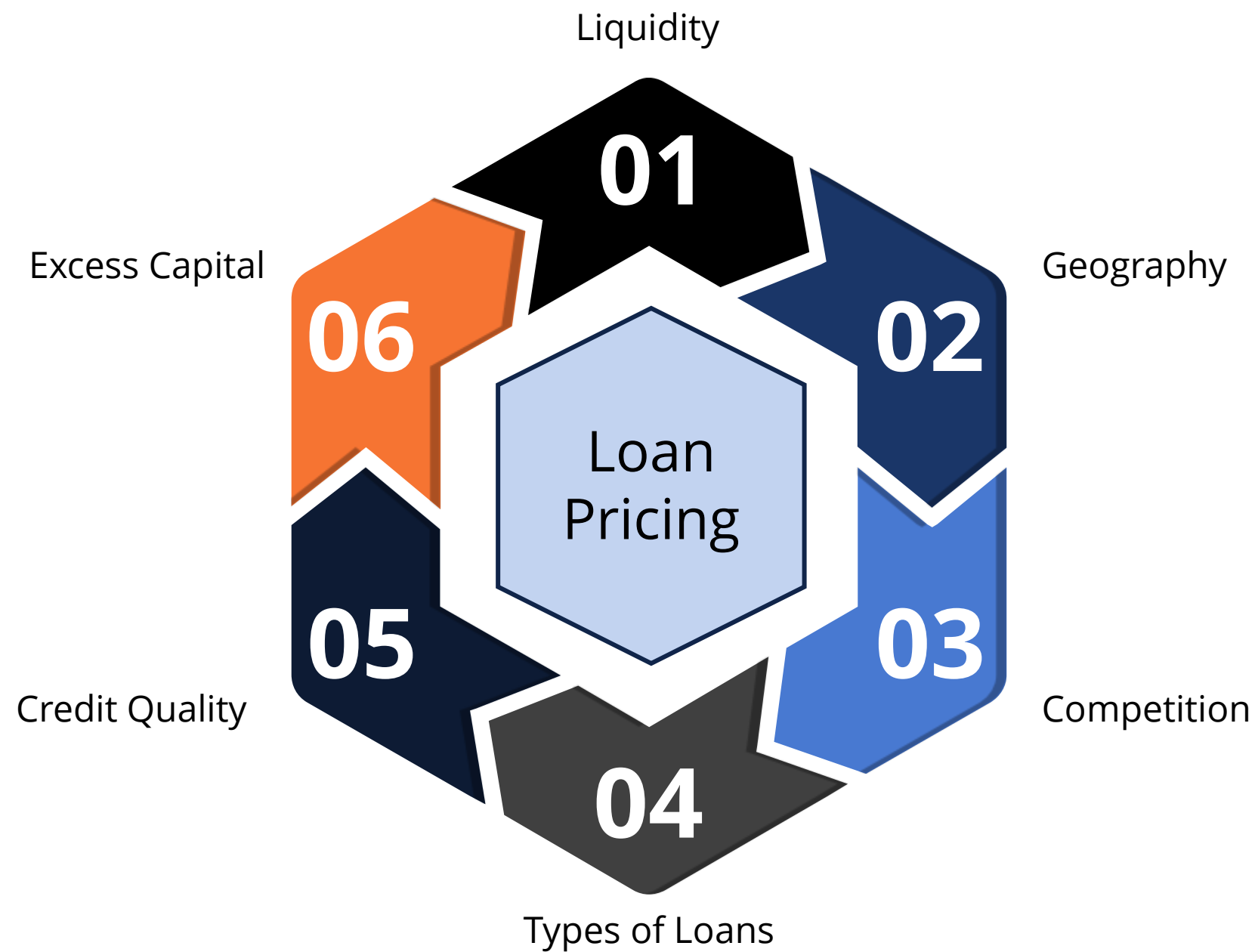
## ➤ How are Lenders Compensated?

➤ Loans – Rate vs Volume? Credit Performance?

➤ Deposits – Considered on Par with Loans in Today's Rate Climate

➤ If Loan Demand is Slow, Don't Let Your Lenders Forget the Dual Mandate!

➤ Consider Adjusting Compensation to Incentivize





# THINKING FORWARD

## ➤ Don't Ignore Rates Down Risk

➤ Is Now the Time to Think About Locking in 5/7 Year Loans with Stronger Prepayment Penalties?

## ➤ How are you Structuring Loan Floors for Floating Rate Loans or Resets?

➤ How Much Income Do You Want to Give Up?

## ➤ For Floating Rate Portfolio, Ways to Mitigate Risk:

➤ Derivates: Floors, Swaps, etc?

## ➤ Are you Monitoring your Further Rates Up Risk?

➤ Resets/Floating Rate and Credit Stress for Rates Up